MSOPGP1680-00075

Southern ENERGY

June 26, 2021

Mr. Jeffrey Bland, P.E.
Air 1 Branch Chief
Environmental Permits Division
Office of Pollution Control
P.O. Box 2261
Jackson, MS 39225-2261

ORIGINAL

Re: Southern Energy Operating, Holliman 7-13
AI No. 67002
Caledonia, Lowndes County, Mississippi

Dear Mr. Bland:

Southern Energy Operating (SEO), is respectfully submitting two (2) signed copies of the referenced Notice of Intent (NOI) for Coverage under the Oil Production General Permit to Construct/Operate Air Emissions Equipment at a Synthetic Minor Source for the referenced facility. The NOI package also contains emissions calculations, figures, and pertinent backup documentation, as detailed within the NOI forms, for the facility. SEO also respectfully requests rescission of the previously submitted air synthetic minor operating permit (SMOP) renewal application, and upon issuance of coverage, requests termination of the current Air SMOP No. 1680-00075.

Uncontrolled emissions of Volatile Organic Compounds (VOC) exceed the Title V Major Source threshold, consequently, operation of the site's flare is required for purposes of restricting emissions below Major Source thresholds.

Should you have any questions regarding the attached material, please contact Mr. Chad Winter of FC&E Engineering, LLC, at (601) 540-3966, or myself at (587) 287-5406.

Sincerely,

Jim McFadyen
VP Operations
Southern Energy Corp.

Attachments

RECEIVED
JUL 0 _ REC'D
Dept. of Environmental Quality

Lowndes Co.
AI#67002

ORIGINAL

OIL PRODUCTION GENERAL PERMIT
NOTICE OF INTENT

SOUTHERN ENERGY CORPORATION,
HOLLIMAN 7-13

MSOPGP1680-00075

RECEIVED
JUL 1 2021
MDEQ

Caledonia, Mississippi
Lowndes County

June 2021

PREPARED BY:

FC&E ENGINEERING, LLC
BRANDON-STARKVILLE-MONROE
WWW.FCE-ENGINEERING.COM
(601) 824-1860

FC&E Engineering, LLC
Water ▪ Soils ▪ Air ▪ Compliance

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EXECUTIVE SUMMARY

Southern Energy Operating (SEO) operates the Holliman 7-13 site near Caledonia, Mississippi, under the authority of Air Synthetic Minor Operating Permit (SMOP) No. 1680-00075. A copy of the permit is include in Appendix B. The site includes conventional oil wells, storage tanks, flare, and other associated well pad activities.

The site consists of three (3) operating oil wells (Holliman 7-12-1, Holliman 7-13-1, and Holliman 7-13-2). Each well routes its oil/gas mix to a separator. Due to the remote location of the wells, no pipeline outlet exists for the gas. Therefore, from the separator, gas is routed to the flare for incineration, and the oily mixture is sent to an individual heater treater for each well. From the three (3) heater treaters, oil is routed to oil storage tanks, and water is routed to one (1) shared water storage tank. From the oil tanks, oil is loaded out by trucks, and water from the water storage tank is loaded out by trucks. Emissions from the oil storage tanks, water tank, and from truck loading activities are vented to the atmosphere. SEO may also operate various small chemical storage vessels, including totes and drums, which are typically associated with well pad activities.

Consequently, SEO is submitting the attached Notice of Intent (NOI) and associated information for issuance of coverage under the Oil Production General Permit. Based on the facility's potential to emit, the facility's uncontrolled potential emissions of Volatile Organic Compounds (VOC) exceed the threshold limits to be classified as a True Minor Source. Therefore, SEO will continue to restrict facility operations such that the flare is operated at all times during gas venting. Combustion of produced gas from the well will ensure VOC emissions from the facility do not exceed the Air Title V Major Source threshold of 100 tons per year.

SEO will continue to monitor the volume of gas produced by the wells and will calculate the amount of gas emitted from the tanks. SEO will continue to calculate corresponding monthly VOC emissions flared from the flared gas and from the process gas. A meter measures monthly flow of produced gas to the flare. Monthly oil production records, gas metering, and/or E&P TANKS software are utilized to calculate emissions from the storage tanks. Emissions calculations are maintained on a monthly and rolling, consecutive 12-month basis to ensure compliance with permitted emissions thresholds.

Also included with the NOI are associated maps and figures. Detailed air emissions calculations are provided in Appendix A, and pertinent backup documentation is provided in Appendix B.

Further, is has been determined the facility is not subject to any of the following federal regulations.

<u>40 CFR 60, Subpart Kb</u>
The oil and water storage tanks each qualify under 40 CFR 60.110b(d)(4) as a vessel with a design capacity less than or equal to 1,589.874 m3 (420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer. Therefore, the tanks are not subject to NSPS Kb.

<u>40 CFR 60, Subpart OOOO</u>

The facility's oil storage tanks have uncontrolled VOC emissions below the applicability threshold cited in 40 CFR 60.5365. Therefore, the oil storage tanks are not affected sources under NSPS OOOO.

40 CFR 60, Subpart OOOOa

The facility commenced operations prior to the effective date of the rule is August 2, 2016, and is therefore not subject to any provisions of NSPS OOOOa.

Non-Applicability of All Other NSPS

NSPS standards are developed for particular industrial source categories. Other than the NSPS addressed above, the applicability of a particular NSPS to a facility can be readily ascertained based on the industrial source category covered. All other NSPS are categorically not applicable to the facility.

40 CFR 63, Subpart HH

There are no TEG dehydration units at the facility; therefore, the facility is not subject to NESHAP HH.

40 CFR 63, Subpart HHH

The facility is an area source; therefore, NESHAP HHH is not applicable to the facility.

40 CFR 63, Subpart ZZZZ

There are no RICE at the facility; therefore, the facility is not subject to NESHAP ZZZZ.

Non-Applicability of All Other NESHAP

As with the NSPS standards, NESHAP are primarily developed for particular industrial source categories. Therefore, the applicability of a particular NESHAP to a facility can be readily ascertained based on the industrial source category covered. All NESHAP regulations, both in 40 CFR 61 and 40 CFR 63, besides those specifically discussed above, are not applicable.

NOTICE OF INTENT (NOI) FORMS

ORIGINAL

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Facility (Agency Interest) Information | **Section OPGP - A**

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MDEQ

1. Name, Address, and Location of Facility

A. Owner/Company Name: Southern Energy Corporation

B. Facility Name(*if different than A. above*): Holliman 7-13

C. Physical Address

1. Street Address: 4525 Kolola Road
2. City: Caledonia
3. State: MS
4. County: Lowndes
5. Zip Code: 39740
6. Telephone No.: N/A
7. Fax No.: N/A
8. Are facility records kept at this location? ☐ Yes ☑ No. Please complete Item 10 of this form.

D. Mailing Address

1. Street Address or P.O. Box: Suite #2400, 333 – 7th Avenue SW
2. City: Calgary
3. State: Alberta
4. Zip Code: T2P 2Z1

E. Latitude/Longitude Data

1. Collection Point (*check one*):
   ☐ Site Entrance ☑ Other: Site location
2. Method of Collection (*check one*):
   ☐ GPS Specify coordinate system (NAD 83, etc.)
   ☑ Map Interpolation (Google Earth, etc.) ☐ Other:
3. Latitude (*degrees/minutes/seconds*): 33 / 41 / 04 North
4. Longitude (*degrees/minutes/seconds*): 88 / 21 / 58 West
5. Elevation (*feet*): 225

2. Name and Address of Facility Contact

A. Name: Jim McFadyen
Title: VP of Operations

B. Mailing Address

1. Street Address or P.O. Box: Suite #2400, 333 – 7th Avenue SW
2. City: Calgary
3. State: Alberta
4. Zip Code: T2P 2Z1
5. Email: jimm@southernenergyc
6. Telephone No.: 587.287.5406
7. Fax No.: N/A

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Facility (Agency Interest) Information | **Section OPGP - A**

3. Name and Address of Air Contact (*if different from Facility Contact*)

A. Name: _____ Title: _____

B. Mailing Address

1. Street Address or P.O. Box: _____
2. City: _____ 3. State: _____
4. Zip Code: _____ 5. Email: _____
6. Telephone No.: _____ 7. Fax No.: _____

4. Name and Address of Responsible Official for the Facility

The Form must be signed by a Responsible Official as defined in 11 Miss. Admin. Code Pt.2, R. 2.1.C(24).

A. Name: Jim McFadyen Title: VP of Operations

B. Mailing Address

1. Street Address or P.O. Box: Suite #2400, 333 – 7th Avenue SW
2. City: Calgary 3. State: Alberta
4. Zip Code: T2P 2Z1 5. Email: jimm@southernenergyc
6. Telephone No.: 587.287.5406 7. Fax No.: _____

C. Is the person above a duly authorized representative and not a corporate officer?

☐ Yes ☑ No

If yes, has written notification of such authorization been submitted to MDEQ?

☐ Yes ☐ No ☐ Request for authorization is attached

5. Type of Oil Production Notice of Intent (*Check all that apply*)

☑ Initial Coverage ☐ Re-Coverage for existing Coverage

☐ Modification with Public Notice ☐ Modification without Public Notice

☐ Update Compliance Plan

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Facility (Agency Interest) Information | **Section OPGP - A**

6. Equipment List (*Check all that apply*)

Complete supporting emission calculations must be included for each potential emission unit selected below.

- ☑ Heater Treater. Include a completed Section OPGP-C Form for each unit.
- ☑ Condensation Storage Vessel. Include a completed Section OPGP-E Form for each unit.
- ☑ Water Storage Vessel. Include a completed Section OPGP-E Form for each unit.
- ☐ Internal Combustion Engine. Include a completed Section OPGP-D Form for each unit.
- ☑ Flare. Include a completed Section OPGP-F Form for each unit.
- ☑ Oil Truck Loading (Section OPGP-B Form)
- ☑ Component Fugitive Emissions (Section OPGP-B Form)
- ☐ Other: _____

7. Process/Product Details

Maximum Anticipated Well(s) Production for Facilitiy:

Produced Material	Throughput	Units
Gas	<0.25	MMCF/day
Oil	<50	barrels/day
Water	<175	barrels/day
Other (Specify)		

Maximum Anticipated Throughput for Principal Product(s) (*as applicable*):

Produced Material	Throughput	Units
Flared Gas	<0.25	MMCF/day
Oil	<50	barrels/day
Water	<175	barrels/day
Other (Specify)		

8. Zoning

A. Is the facility (either existing or proposed) located in accordance with any applicable city and/or county zoning ordinances? If no, please explain
Yes.

B. Is the facility (either existing or proposed) required to obtain any zoning variance to locate/expand the facility at this site? If yes, please explain.
No.

C. Is the required USGS quadrangle map or equivalent attached? ☑ Yes ☐ No

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Facility (Agency Interest) Information | **Section OPGP - A**

9. MS Secretary of State Registration / Certificate of Good Standing

No permit will be issued to a company that is not authorized to conduct business in Mississippi. If the company applying for the permit is a corporation, limited liability company, a partnership or a business trust, the application package should include proof of registration with the Mississippi Secretary of State and/or a copy of the company's Certificate of Good Standing. The name listed on the permit will include the company name as it is registered with the Mississippi Secretary of State.

It should be noted that for an application submitted in accordance with 11 Miss. Admin. Code Pt. 2, R. 2.8.B. to renew a State Permit to Operate or in accordance with 11 Miss. Admin. Code Pt. 2, R. 6.2.A(1)(c). to renew a Title V Permit to be considered timely and complete, the applicant shall be registered and in good standing with the Mississippi Secretary of State to conduct business in Mississippi.

10. Address and Location of Facility Records

Physical Address

1. Street Address: Suite #2400, 333 – 7th Avenue SW
2. City: Calgary
3. State: Alberta
4. County: N/A
5. Zip Code: T2P 2Z1
6. Telephone No.: 587.287.5406
7. Fax No.: N/A

Records must be readily accessible in accordance with OPGP Condition 5.1.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Facility (Agency Interest) Information	Section OPGP - A

11. Certification

The Form must be signed by a Responsible Official as defined in 11 Miss. Admin. Code Pt. 2, R. 2.1.C.(24).

I certify that to the best of my knowledge and belief formed after reasonable inquiry, the statements and information in this application are true, complete, and accurate, and that as a responsible official, my signature shall constitute an agreement that the applicant assumes the responsibility for any alteration, additions, or changes in operation that may be necessary to achieve and maintain compliance with all applicable Rules and Regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature of Responsible Official/DAR

June 26, 2021

Date

Jim McFadyen

Printed Name

Date

Section OPGP-B.1: Maximum Uncontrolled Emissions (under normal operating conditions)

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Maximum Uncontrolled Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) in Section OGP-B.3 and GHGs in Section OGP-B.4. Emission Point numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Emissions > 0.01 TPY must be included. Please do not change the column widths on this table.

Emission	TSP[1] (PM)		PM-10[1]		PM-2.5[1]		SO_2		NOx		CO		VOC		TRS[2]		Lead		Total HAPs	
Point ID	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
E1	---	---	---	---	---	---	---	---	---	---	---	---	65.41	286.50	0.00	0.00	0.00	0.00	8.18	35.81
E2	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.15	0.00	0.00	0.00	0.00	0.02	0.10
E3	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
E4	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
E5	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
E6-E10	---	---	---	---	---	---	---	---	---	---	---	---	0.96	4.23	0.00	0.00	0.00	0.00	0.08	0.33
E11	---	---	---	---	---	---	---	---	---	---	---	---	0.60	2.62	0.00	0.00	0.00	0.00	0.06	0.26
Totals	0.00	0.01	0.01	0.05	0.01	0.05	0.00	0.00	0.15	0.64	0.12	0.54	67.02	293.54	0.00	0.00	0.00	0.00	8.34	36.51

[1] **Condensables:** Include condensable particulate matter emissions in particulate matter calculations for PM-10 and PM-2.5, but not for TSP (PM).

[2] **TRS:** Total reduced sulfur (TRS) is the sum of the sulfur compounds hydrogen sulfide (H_2S), methyl mercaptan (CH_4S), dimethyl sulfide (C_2H_6S), and dimethyl disulfide ($C_2H_6S_2$).

Section OPGP-B.2: Proposed Allowable Emissions

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Proposed Allowable Emissions (Potential to Emit) are those emissions the facility is currently permitted to emit as limited by a specific permit requirement or federal/state standard (e.g., a MACT standard); or the emission rate at which the facility proposes to emit considering emissions control devices, restrictions to operating rates/hours, or other requested permit limits that reduce the maximum emission rates. Emission Point numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Additional columns may be added if there are regulated pollutants (other than HAPs and GHGs) emitted at the facility.

Emission Point ID	TSP[1]		PM10[1]		PM2.5[1]		SO_2		NOx		CO		VOC		TRS		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
E1	0.06	0.25	0.06	0.25	0.06	0.25	0.00	0.00	0.51	2.25	2.34	10.27	1.31	5.73	0.00	0.00	0.00	0.00
E2	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.15	0.00	0.00	0.00	0.00
E3	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00
E4	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00
E5	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00	0.00	0.00
E6-E10	---	---	---	---	---	---	---	---	---	---	---	---	0.96	4.23	0.00	0.00	0.00	0.00
E11	---	---	---	---	---	---	---	---	---	---	---	---	0.60	2.62	0.00	0.00	0.00	0.00
Totals	0.06	0.26	0.07	0.30	0.07	0.30	0.00	0.00	0.66	2.90	2.47	10.81	2.91	12.77	0.00	0.00	0.00	0.00

[1] **Condensables:** Include condensable particulate matter emissions in particulate matter calculations for PM-10 and PM-2.5, but not for TSP (PM).

[2] **TRS:** Total reduced sulfur (TRS) is the sum of the sulfur compounds hydrogen sulfide (H_2S), methyl mercaptan (CH_4S), dimethyl sulfide (C_2H_6S), and dimethyl disulfide ($C_2H_6S_2$).

Section OPGP-B.3: Proposed Allowable Hazardous Air Pollutants (HAPs)

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

In the table below, report the Proposed Allowable Emissions (Potential to Emit) for each HAP from each regulated emission unit if the HAP > 0.01 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources. Use the HAP nomenclature as it appears in the Instructions. Emission Point numbering must be consistent throughout the application package. For each HAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above. Additional columns may be added as necessary to address each HAP.

Emission Point ID	Total HAPs		n-Hexane															
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
E1	0.1635	0.7163	0.1635	0.7163														
E2	0.0232	0.1016	0.0232	0.1016														
E3	0.0009	0.0041	0.0009	0.0041														
E4	0.0009	0.0041	0.0009	0.0041														
E5	0.0009	0.0041	0.0009	0.0041														
E6-E10	0.0750	0.3286	0.0750	0.3286														
E11	0.0589	0.2579	0.0589	0.2579														
Totals:	0.3234	1.4164	0.3234	1.4164														

Section OPGP-B.4: Greenhouse Gas Emissions

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Applicants must report potential emission rates in SHORT TONS per year, as opposed to metric tons required by Part 98. Emission Point numbering must be consistent throughout the application package and, for existing emission points, should match any MDEQ ID's in the current permit.

		CO_2 (non-biogenic) ton/yr	CO_2 (biogenic)[2] ton/yr	N_2O ton/yr	CH_4 ton/yr	SF_6 ton/yr	PFC/HFC[3] ton/yr					Total GHG Mass Basis ton/yr[5]	Total CO_2e ton/yr[6]
Emission Point ID	**GWPs [1]**	**1**	**1**	**298**	**25**	**22,800**	**footnote 4**						
E1	**mass GHG**	4087.30	0	0.01	20.21	0	0					4107.52	N/A
	CO_2e	4087.30	0	2.18	505.25	0	0					N/A	4594.72
E2	**mass GHG**	0.00	0	0.00	0.68	0	0					0.68	N/A
	CO_2e	0.00	0	0.00	17.08	0	0					N/A	17.08
E3	**mass GHG**	768.32	0	0.00	0.01	0	0					768.34	N/A
	CO_2e	768.32	0	0.43	0.36	0	0					N/A	769.12
E4	**mass GHG**	768.32	0	0.00	0.01	0	0					768.34	N/A
	CO_2e	768.32	0	0.43	0.36	0	0					N/A	769.12
E5	**mass GHG**	768.32	0	0.00	0.01	0	0					768.34	N/A
	CO_2e	768.32	0	0.43	0.36	0	0					N/A	769.12
E6-E10	**mass GHG**	0.00	0	0.00	0.00	0	0					0.00	N/A
	CO_2e	0.00	0	0.00	0.00	0	0					N/A	0.00
E11	**mass GHG**	0.00	0	0.00	0.00	0	0					0.00	N/A
	CO_2e	0.00	0	0.00	0.00	0	0					N/A	0.00
FACILITY TOTAL	**mass GHG**	6392.27	0	0.01	20.94	0	0					6413.22	N/A
	CO_2e	6392.27	0	3.47	523.42	0	0					N/A	6,919

[1] **GWP** (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP values.

[2] Biogenic CO2 is defined as carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms.

[3] For **HFCs** or **PFCs** describe the specific HFC or PFC compound and use a separate column for each individual compound.

[4] For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

[5] Greenhouse gas emissions on a **mass basis** is the ton per year greenhouse gas emission before adjustment with its GWP. Do not include biogenic CO_2 in this total.

[6] **CO_2e** means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the greenhouse gas by its GWP. Do not include biogenic CO_2e in this total.

Section OPGP-B.5: Stack Parameters and Exit Conditions

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Emission Point numbering must be consistent throughout the application package.

Emission Point ID	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Base Elevation (ft)	Exit Temp. (°F)	Inside Diameter or Dimensions (ft)	Velocity (ft/sec)	Moisture by Volume (%)	Geographic Position (degrees/minutes/seconds)	
									Latitude	Longitude
E1	V	No	30	225	1600	0.3	236	<1	33/41/03.70	88/21/56.84
E2	Fugitive Equipment Leaks - No dedicated stack									
E3	V	No	30	225	800	0.5	6	<1	33/41/03	88/21/56
E4	V	No	30	225	800	0.5	6	<1	33/41/03	88/21/56
E5	V	No	30	225	800	0.5	6	<1	33/41/03	88/21/56
E6-E10	Oil and Water Storage Tanks - No dedicated stacks									
E11	Truck Loading Activities - No dedicated stack									

[1] A WAAS-capable GPS receiver should be used and in the WGS84 or NAD83 coordinate system.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Fuel Burning Equipment – External Combustion Sources

Section OPGP-C

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E1

B. Equipment Description: One (1) flare for flaring gas, including a 0.05 MMBTUH Field-Gas Fired Pilot.

C. Manufacturer: Custom D. Date of Manufacture and No.: 2014

E. Maximum Heat Input (higher heating value): 0.05 MMBtu/hr F. Nominal Heat Input Capacity: 0.05 MMBtu/hr

G. Use: ☐ Line Heater ☐ Heater Treater ☐ TEG Burner

☐ Space Heat ☐ Process Heat ☒ Other (describe): Flare Pilot

H. Heat Mechanism: ☒ Direct ☐ Indirect

I. Burner Type (e.g., forced draft, natural draft, etc.): Forced Draft

J. Additional Design Controls (e.g., FGR, etc.): N/A

K. Status: ☒ Operating ☐ Proposed ☐ Under Construction

2014

2. Fuel Type

Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	MAXIMUM YEARLY USAGE
~Field Gas	1,000 BTU/CF	< 0.001	< 0.001	varies	varies

Please list any fuel components that are hazardous air pollutants and the percentage in the fuel:
HAP constituency of the well's produced gas is included in the attached gas analysis.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Fuel Burning Equipment – External Combustion Sources

Section OPGP-C

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E3

B. Equipment Description: One (1) Heater Treater, with a 0.5 MMBTUH burner.

C. Manufacturer: Custom D. Date of Manufacture and No.: 2014

E. Maximum Heat Input (higher heating value): 0.5 MMBtu/hr F. Nominal Heat Input Capacity: 0.5 MMBtu/hr

G. Use: ☐ Line Heater ☒ Heater Treater ☐ TEG Burner

☐ Space Heat ☐ Process Heat ☐ Other (describe): _____

H. Heat Mechanism: ☐ Direct ☒ Indirect

I. Burner Type (e.g., forced draft, natural draft, etc.): Natural Draft

J. Additional Design Controls (e.g., FGR, etc.): N/A

K. Status: ☒ Operating ☐ Proposed ☐ Under Construction

2014

2. Fuel Type

Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	MAXIMUM YEARLY USAGE
Field Gas	~1,000 BTU/CF	< 0.001	< 0.001	490	4.3 MMCF

Please list any fuel components that are hazardous air pollutants and the percentage in the fuel:
HAP constituency of the well's produced gas is included in the attached gas analysis.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Fuel Burning Equipment – External Combustion Sources

Section OPGP-C

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E4

B. Equipment Description: One (1) Heater Treater, with a 0.5 MMBTUH burner.

C. Manufacturer: Custom D. Date of Manufacture and No.: 2014

E. Maximum Heat Input (higher heating value): 0.5 MMBtu/hr F. Nominal Heat Input Capacity: 0.5 MMBtu/hr

G. Use: ☐ Line Heater ☒ Heater Treater ☐ TEG Burner

☐ Space Heat ☐ Process Heat ☐ Other (describe): _____

H. Heat Mechanism: ☐ Direct ☒ Indirect

I. Burner Type (e.g., forced draft, natural draft, etc.): Natural Draft

J. Additional Design Controls (e.g., FGR, etc.): N/A

K. Status: ☒ Operating ☐ Proposed ☐ Under Construction

2014

2. Fuel Type

Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	MAXIMUM YEARLY USAGE
Field Gas	~1,000 BTU/CF	< 0.001	< 0.001	490	4.3 MMCF

Please list any fuel components that are hazardous air pollutants and the percentage in the fuel:
HAP constituency of the well's produced gas is included in the attached gas analysis.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Fuel Burning Equipment – External Combustion Sources

Section OPGP-C

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E5

B. Equipment Description: One (1) Heater Treater, with a 0.5 MMBTUH burner.

C. Manufacturer: Custom D. Date of Manufacture and No.: 2014

E. Maximum Heat Input (higher heating value): 0.5 MMBtu/hr F. Nominal Heat Input Capacity: 0.5 MMBtu/hr

G. Use: ☐ Line Heater ☒ Heater Treater ☐ TEG Burner

☐ Space Heat ☐ Process Heat ☐ Other (describe): _____

H. Heat Mechanism: ☐ Direct ☒ Indirect

I. Burner Type (e.g., forced draft, natural draft, etc.): Natural Draft

J. Additional Design Controls (e.g., FGR, etc.): N/A

K. Status: ☒ Operating ☐ Proposed ☐ Under Construction

2014

2. Fuel Type

Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	MAXIMUM YEARLY USAGE
Field Gas	~1,000 BTU/CF	< 0.001	< 0.001	490	4.3 MMCF

Please list any fuel components that are hazardous air pollutants and the percentage in the fuel:
HAP constituency of the well's produced gas is included in the attached gas analysis.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E6 (Oil Storage Tank)

B. Product(s) Stored: Produced Oil from Well 7-13-1

C. Status: ☒ Operating ☐ Proposed ☐ Under Construction

D. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: 2014

2. Tank Data

A. Tank Specifications:

1.	Design capacity	16,800	gallons	
2.	True vapor pressure at storage temperature:	11.55	psia @	ambient °F
3.	Maximum true vapor pressure (as defined in §60.111b)	11.55	psia @	ambient °F
4.	Reid vapor pressure at storage temperature:	11.55	psia @	ambient °F
5.	Density of product at storage temperature:	7.2	lb/gal	
6.	Molecular weight of product vapor at storage temp.	48	lb/lbmol	

B. Tank Orientation: ☒ Vertical ☐ Horizontal

C. Type of Tank:

☒ Fixed Roof ☐ External Floating Roof ☐ Internal Floating Roof

☐ Pressure ☐ Variable Vapor Space ☐ Other: _____

D. Is the tank equipped with a Vapor Recovery System and/or flare? ☐ Yes ☒ No
If yes, describe below and include the efficiency of each.

E. Closest City:

☐ Jackson, MS ☐ Meridian, MS ☒ Tupelo, MS ☐ Mobile, AL

☐ New Orleans, LA ☐ Memphis, TN ☐ Baton Rouge, LA

F. Is an E&P or similar report described in Condition 5.4(5) of the General Permit included for this tank in the Notice of Intent? ☐ Yes ☒ No
*An actual gas analysis was utilized.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary — Section OPGP-E

3. Horizontal Fixed Roof Tank

A. Shell Length: _____ feet
B. Shell Diameter: _____ feet
C. Working Volume: _____ gal
D. Maximum Throughput: _____ gal/yr
E. Is the tank heated? ☐ Yes ☐ No
F. Is the tank underground? ☐ Yes ☐ No
G. Shell Color/Shade:
☐ ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
H. Shell Condition: ☐ Good ☐ Poor

4. Vertical Fixed Roof Tank

A. Dimensions:
1. Shell Height: 20 feet
2. Shell Diameter: 12 feet
3. Maximum Liquid Height: 19 feet
4. Average Liquid Height: ~10 feet
5. Working Volume: 16,800 gal
6. Turnovers per year: ~2
7. Maximum throughput: 770 bbl/yr (Half of 2020 production of Well 7-13-1)
8. Is the tank heated? ☐ Yes ☒ No

B. Shell Characteristics:
1. Shell Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Shell Condition: ☒ Good ☐ Poor

C. Roof Characteristics:
1. Roof Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Roof Condition: ☒ Good ☐ Poor
3. Type: ☐ Cone ☒ Dome
4. Height: 1 feet

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

5. Internal Floating Roof Tank

A. Tank Characteristics:

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Number of Columns: _____
6. Self-Supporting Roof? ☐ Yes ☐ No
7. Effective Column Diameter:
   ☐ 9"x7" Built-up Column ☐ 8" Diameter Pipe ☐ Unknown
8. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining
9. External Shell Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
10. External Shell Condition: ☐ Good ☐ Poor
11. Roof Color/Shade:
    ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
    ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
12. Roof Condition: ☐ Good ☐ Poor

B. Rim Seal System:

1. Primary Seal: ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted
2. Secondary Seal: ☐ Shoe-mounted ☐ Rim-mounted ☐ None

C. Deck Characteristics:

1. Deck Type: ☐ Bolted ☐ Welded
2. Deck Fitting Category: ☐ Typical ☐ Detail

6. External Floating Roof Tank

A. Tank Characteristics

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining

Tank Summary — Section OPGP-E

6. External Floating Roof Tank (continued)

A. Tank Characteristics (continued):

6. Paint Color/Shade:
☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer

7. Paint Condition: ☐ Good ☐ Poor

B. Roof Characteristics

1. Roof Type: ☐ Pontoon ☐ Double Deck

2. Roof Fitting Category: ☐ Typical ☐ Detail

C. Tank Construction and Rim-Seal System:

1. Tank Construction: ☐ Welded ☐ Riveted

2. Primary Seal:
☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted

3. Secondary Seal
☐ None ☐ Shoe-mounted ☐ Rim-mounted ☐ Weather shield

7. Pollutant Emissions

A. Fixed Roof Emissions:

Pollutant[1]	Working Loss (tons/yr)	Breathing Loss (tons/yr)	Total Emissions (tons/yr)
VOC			
HAP			

B. Floating Roof Emissions:

Pollutant[1]	Rim Seal Loss (tons/yr)	Withdrawal Loss (tons/yr)	Deck Fitting Loss (tons/yr)	Deck Seam Loss (tons/yr)	Landing Loss[2] (tons/yr)	Total Emissions (tons/yr)

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed in accordance with the OGP Application Instructions. A list of regulated air pollutants and a link to EPA's list of hazardous air pollutants is provided in the OGP Application Instructions.
2. Landing losses should be determined according to the procedures in *Organic Liquid Storage Tanks* chapter of EPA's AP-42 emission factors. If the roof is not landed at least once/yr, enter "NA".

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E7 (Oil Storage Tank)

B. Product(s) Stored: Produced Oil from any of the wells; Serves as an overflow tank for any of the wells

C. Status: ☒ Operating ☐ Proposed ☐ Under Construction

D. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: 2014

2. Tank Data

A. Tank Specifications:

1.	Design capacity	16,800	gallons	
2.	True vapor pressure at storage temperature:	11.55	psia @	ambient °F
3.	Maximum true vapor pressure (as defined in §60.111b)	11.55	psia @	ambient °F
4.	Reid vapor pressure at storage temperature:	11.55	psia @	ambient °F
5.	Density of product at storage temperature:	7.2	lb/gal	
6.	Molecular weight of product vapor at storage temp.	48	lb/lbmol	

B. Tank Orientation: ☒ Vertical ☐ Horizontal

C. Type of Tank:

☒ Fixed Roof ☐ External Floating Roof ☐ Internal Floating Roof

☐ Pressure ☐ Variable Vapor Space ☐ Other: _____

D. Is the tank equipped with a Vapor Recovery System and/or flare? ☐ Yes ☒ No

If yes, describe below and include the efficiency of each.

E. Closest City:

☐ Jackson, MS ☐ Meridian, MS ☒ Tupelo, MS ☐ Mobile, AL

☐ New Orleans, LA ☐ Memphis, TN ☐ Baton Rouge, LA

F. Is an E&P or similar report described in Condition 5.4(5) of the General Permit included for this tank in the Notice of Intent? ☐ Yes ☒ No

*An actual gas analysis was utilized.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

3. Horizontal Fixed Roof Tank

A. Shell Length: _____ feet
B. Shell Diameter: _____ feet
C. Working Volume: _____ gal
D. Maximum Throughput: _____ gal/yr
E. Is the tank heated? ☐ Yes ☐ No
F. Is the tank underground? ☐ Yes ☐ No
G. Shell Color/Shade:
☐ ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
H. Shell Condition: ☐ Good ☐ Poor

4. Vertical Fixed Roof Tank

A. Dimensions:
1. Shell Height: 20 feet
2. Shell Diameter: 12 feet
3. Maximum Liquid Height: 19 feet
4. Average Liquid Height: ~10 feet
5. Working Volume: 16,800 gal
6. Turnovers per year: ~2
7. Maximum throughput: 770 bbl/yr (Half of 2020 production of Well 7-13-1)
8. Is the tank heated? ☐ Yes ☒ No

B. Shell Characteristics:
1. Shell Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Shell Condition: ☒ Good ☐ Poor

C. Roof Characteristics:
1. Roof Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Roof Condition: ☒ Good ☐ Poor
3. Type: ☐ Cone ☒ Dome
4. Height: 1 feet

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

5. Internal Floating Roof Tank

A. Tank Characteristics:

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Number of Columns: _____
6. Self-Supporting Roof? ☐ Yes ☐ No
7. Effective Column Diameter:
   ☐ 9"x7" Built-up Column ☐ 8" Diameter Pipe ☐ Unknown
8. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining
9. External Shell Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
10. External Shell Condition: ☐ Good ☐ Poor
11. Roof Color/Shade:
    ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
    ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
12. Roof Condition: ☐ Good ☐ Poor

B. Rim Seal System:

1. Primary Seal: ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted
2. Secondary Seal: ☐ Shoe-mounted ☐ Rim-mounted ☐ None

C. Deck Characteristics:

1. Deck Type: ☐ Bolted ☐ Welded
2. Deck Fitting Category: ☐ Typical ☐ Detail

6. External Floating Roof Tank

A. Tank Characteristics

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining

Tank Summary — Section OPGP-E

6. External Floating Roof Tank (continued)

A. Tank Characteristics (continued):

6. Paint Color/Shade:
☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer

7. Paint Condition: ☐ Good ☐ Poor

B. Roof Characteristics

1. Roof Type: ☐ Pontoon ☐ Double Deck

2. Roof Fitting Category: ☐ Typical ☐ Detail

C. Tank Construction and Rim-Seal System:

1. Tank Construction: ☐ Welded ☐ Riveted

2. Primary Seal:
☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted

3. Secondary Seal
☐ None ☐ Shoe-mounted ☐ Rim-mounted ☐ Weather shield

7. Pollutant Emissions

A. Fixed Roof Emissions:

Pollutant[1]	Working Loss (tons/yr)	Breathing Loss (tons/yr)	Total Emissions (tons/yr)
VOC			
HAP			

B. Floating Roof Emissions:

Pollutant[1]	Rim Seal Loss (tons/yr)	Withdrawal Loss (tons/yr)	Deck Fitting Loss (tons/yr)	Deck Seam Loss (tons/yr)	Landing Loss[2] (tons/yr)	Total Emissions (tons/yr)

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed in accordance with the OGP Application Instructions. A list of regulated air pollutants and a link to EPA's list of hazardous air pollutants is provided in the OGP Application Instructions.
2. Landing losses should be determined according to the procedures in *Organic Liquid Storage Tanks* chapter of EPA's AP-42 emission factors. If the roof is not landed at least once/yr, enter "NA".

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E8 (Oil Storage Tank)

B. Product(s) Stored: Produced Oil from Well 7-13-2

C. Status: ☒ Operating ☐ Proposed ☐ Under Construction

D. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: 2014

2. Tank Data

A. Tank Specifications:

1.	Design capacity	16,800	gallons		
2.	True vapor pressure at storage temperature:	11.55	psia @	ambient	°F
3.	Maximum true vapor pressure (as defined in §60.111b)	11.55	psia @	ambient	°F
4.	Reid vapor pressure at storage temperature:	11.55	psia @	ambient	°F
5.	Density of product at storage temperature:	7.2	lb/gal		
6.	Molecular weight of product vapor at storage temp.	48	lb/lbmol		

B. Tank Orientation: ☒ Vertical ☐ Horizontal

C. Type of Tank:

☒ Fixed Roof ☐ External Floating Roof ☐ Internal Floating Roof

☐ Pressure ☐ Variable Vapor Space ☐ Other: _____

D. Is the tank equipped with a Vapor Recovery System and/or flare? ☐ Yes ☒ No

If yes, describe below and include the efficiency of each.

E. Closest City:

☐ Jackson, MS ☐ Meridian, MS ☒ Tupelo, MS ☐ Mobile, AL

☐ New Orleans, LA ☐ Memphis, TN ☐ Baton Rouge, LA

F. Is an E&P or similar report described in Condition 5.4(5) of the General Permit included for this tank in the Notice of Intent? ☐ Yes ☒ No

*An actual gas analysis was utilized.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

3. Horizontal Fixed Roof Tank

A. Shell Length: _____ feet
B. Shell Diameter: _____ feet
C. Working Volume: _____ gal
D. Maximum Throughput: _____ gal/yr
E. Is the tank heated? ☐ Yes ☐ No
F. Is the tank underground? ☐ Yes ☐ No
G. Shell Color/Shade:
☐ ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
H. Shell Condition: ☐ Good ☐ Poor

4. Vertical Fixed Roof Tank

A. Dimensions:
1. Shell Height: 20 feet
2. Shell Diameter: 12 feet
3. Maximum Liquid Height: 19 feet
4. Average Liquid Height: ~10 feet
5. Working Volume: 16,800 gal
6. Turnovers per year: ~5
7. Maximum throughput: 2,162 bbl/yr (2020 annual production)
8. Is the tank heated? ☐ Yes ☒ No

B. Shell Characteristics:
1. Shell Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Shell Condition: ☒ Good ☐ Poor

C. Roof Characteristics:
1. Roof Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Roof Condition: ☒ Good ☐ Poor
3. Type: ☐ Cone ☒ Dome
4. Height: 1 feet

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

5. Internal Floating Roof Tank

A. Tank Characteristics:

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Number of Columns: _____
6. Self-Supporting Roof? ☐ Yes ☐ No
7. Effective Column Diameter:
   ☐ 9"x7" Built-up Column ☐ 8" Diameter Pipe ☐ Unknown
8. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining
9. External Shell Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
10. External Shell Condition: ☐ Good ☐ Poor
11. Roof Color/Shade:
    ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
    ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
12. Roof Condition: ☐ Good ☐ Poor

B. Rim Seal System:

1. Primary Seal: ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted
2. Secondary Seal: ☐ Shoe-mounted ☐ Rim-mounted ☐ None

C. Deck Characteristics:

1. Deck Type: ☐ Bolted ☐ Welded
2. Deck Fitting Category: ☐ Typical ☐ Detail

6. External Floating Roof Tank

A. Tank Characteristics

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining

6. External Floating Roof Tank (continued)

A. Tank Characteristics (continued):

6. Paint Color/Shade:

☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse

☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer

7. Paint Condition: ☐ Good ☐ Poor

B. Roof Characteristics

1. Roof Type: ☐ Pontoon ☐ Double Deck

2. Roof Fitting Category: ☐ Typical ☐ Detail

C. Tank Construction and Rim-Seal System:

1. Tank Construction: ☐ Welded ☐ Riveted

2. Primary Seal:

☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted

3. Secondary Seal

☐ None ☐ Shoe-mounted ☐ Rim-mounted ☐ Weather shield

7. Pollutant Emissions

A. Fixed Roof Emissions:

Pollutant[1]	Working Loss (tons/yr)	Breathing Loss (tons/yr)	Total Emissions (tons/yr)
VOC			
HAP			

B. Floating Roof Emissions:

Pollutant[1]	Rim Seal Loss (tons/yr)	Withdrawal Loss (tons/yr)	Deck Fitting Loss (tons/yr)	Deck Seam Loss (tons/yr)	Landing Loss[2] (tons/yr)	Total Emissions (tons/yr)

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed in accordance with the OGP Application Instructions. A list of regulated air pollutants and a link to EPA's list of hazardous air pollutants is provided in the OGP Application Instructions.
2. Landing losses should be determined according to the procedures in *Organic Liquid Storage Tanks* chapter of EPA's AP-42 emission factors. If the roof is not landed at least once/yr, enter "NA".

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E9 (Oil Storage Tank)

B. Product(s) Stored: Produced Oil from Well 7-12-1

C. Status: ☒ Operating ☐ Proposed ☐ Under Construction

D. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: 2014

2. Tank Data

A. Tank Specifications:

1.	Design capacity	16,800	gallons	
2.	True vapor pressure at storage temperature:	11.55	psia @	ambient °F
3.	Maximum true vapor pressure (as defined in §60.111b)	11.55	psia @	ambient °F
4.	Reid vapor pressure at storage temperature:	11.55	psia @	ambient °F
5.	Density of product at storage temperature:	7.2	lb/gal	
6.	Molecular weight of product vapor at storage temp.	48	lb/lbmol	

B. Tank Orientation: ☒ Vertical ☐ Horizontal

C. Type of Tank:

☒ Fixed Roof ☐ External Floating Roof ☐ Internal Floating Roof

☐ Pressure ☐ Variable Vapor Space ☐ Other: _____

D. Is the tank equipped with a Vapor Recovery System and/or flare? ☐ Yes ☒ No

If yes, describe below and include the efficiency of each.

E. Closest City:

☐ Jackson, MS ☐ Meridian, MS ☒ Tupelo, MS ☐ Mobile, AL

☐ New Orleans, LA ☐ Memphis, TN ☐ Baton Rouge, LA

F. Is an E&P or similar report described in Condition 5.4(5) of the General Permit included for this tank in the Notice of Intent? ☐ Yes ☒ No

*An actual gas analysis was utilized.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

3. Horizontal Fixed Roof Tank

A. Shell Length: _____ feet
B. Shell Diameter: _____ feet
C. Working Volume: _____ gal
D. Maximum Throughput: _____ gal/yr
E. Is the tank heated? ☐ Yes ☐ No
F. Is the tank underground? ☐ Yes ☐ No
G. Shell Color/Shade:
☐ ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
H. Shell Condition: ☐ Good ☐ Poor

4. Vertical Fixed Roof Tank

A. Dimensions:
1. Shell Height: 20 feet
2. Shell Diameter: 12 feet
3. Maximum Liquid Height: 19 feet
4. Average Liquid Height: ~10 feet
5. Working Volume: 16,800 gal
6. Turnovers per year: ~9
7. Maximum throughput: 3,365 bbl/yr (2020 annual production)
8. Is the tank heated? ☐ Yes ☒ No

B. Shell Characteristics:
1. Shell Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Shell Condition: ☒ Good ☐ Poor

C. Roof Characteristics:
1. Roof Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Roof Condition: ☒ Good ☐ Poor
3. Type: ☐ Cone ☒ Dome
4. Height: 1 feet

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

5. Internal Floating Roof Tank

A. Tank Characteristics:

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Number of Columns: _____
6. Self-Supporting Roof? ☐ Yes ☐ No
7. Effective Column Diameter:
   ☐ 9"x7" Built-up Column ☐ 8" Diameter Pipe ☐ Unknown
8. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining
9. External Shell Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
10. External Shell Condition: ☐ Good ☐ Poor
11. Roof Color/Shade:
    ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
    ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
12. Roof Condition: ☐ Good ☐ Poor

B. Rim Seal System:

1. Primary Seal: ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted
2. Secondary Seal: ☐ Shoe-mounted ☐ Rim-mounted ☐ None

C. Deck Characteristics:

1. Deck Type: ☐ Bolted ☐ Welded
2. Deck Fitting Category: ☐ Typical ☐ Detail

6. External Floating Roof Tank

A. Tank Characteristics

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

6. External Floating Roof Tank (continued)

A. Tank Characteristics (continued):

6. Paint Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer

7. Paint Condition: ☐ Good ☐ Poor

B. Roof Characteristics

1. Roof Type: ☐ Pontoon ☐ Double Deck

2. Roof Fitting Category: ☐ Typical ☐ Detail

C. Tank Construction and Rim-Seal System:

1. Tank Construction: ☐ Welded ☐ Riveted

2. Primary Seal:
   ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted

3. Secondary Seal
   ☐ None ☐ Shoe-mounted ☐ Rim-mounted ☐ Weather shield

7. Pollutant Emissions

A. Fixed Roof Emissions:

Pollutant[1]	Working Loss (tons/yr)	Breathing Loss (tons/yr)	Total Emissions (tons/yr)
VOC			
HAP			

B. Floating Roof Emissions:

Pollutant[1]	Rim Seal Loss (tons/yr)	Withdrawal Loss (tons/yr)	Deck Fitting Loss (tons/yr)	Deck Seam Loss (tons/yr)	Landing Loss[2] (tons/yr)	Total Emissions (tons/yr)

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed in accordance with the OGP Application Instructions. A list of regulated air pollutants and a link to EPA's list of hazardous air pollutants is provided in the OGP Application Instructions.
2. Landing losses should be determined according to the procedures in *Organic Liquid Storage Tanks* chapter of EPA's AP-42 emission factors. If the roof is not landed at least once/yr, enter "NA".

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

1. Emission Point Description

A. Emission Point Designation (Ref. No.): E10 (Water Storage Tank)

B. Product(s) Stored: Produced Water

C. Status: ☒ Operating ☐ Proposed ☐ Under Construction

D. Date of construction, reconstruction, or most recent modification (for existing sources) or date of anticipated construction: 2014

2. Tank Data

A. Tank Specifications:

1.	Design capacity	16,800	gallons	
2.	True vapor pressure at storage temperature:	1.15	psia @	ambient °F
3.	Maximum true vapor pressure (as defined in §60.111b)	1.15	psia @	ambient °F
4.	Reid vapor pressure at storage temperature:	1.15	psia @	ambient °F
5.	Density of product at storage temperature:	7.2	lb/gal	
6.	Molecular weight of product vapor at storage temp.	48	lb/lbmol	

B. Tank Orientation: ☒ Vertical ☐ Horizontal

C. Type of Tank:

☒ Fixed Roof ☐ External Floating Roof ☐ Internal Floating Roof

☐ Pressure ☐ Variable Vapor Space ☐ Other: _____

D. Is the tank equipped with a Vapor Recovery System and/or flare? ☐ Yes ☒ No

If yes, describe below and include the efficiency of each.

E. Closest City:

☐ Jackson, MS ☐ Meridian, MS ☒ Tupelo, MS ☐ Mobile, AL

☐ New Orleans, LA ☐ Memphis, TN ☐ Baton Rouge, LA

F. Is an E&P or similar report described in Condition 5.4(5) of the General Permit included for this tank in the Notice of Intent? ☐ Yes ☒ No

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

3. Horizontal Fixed Roof Tank

A. Shell Length: _____ feet
B. Shell Diameter: _____ feet
C. Working Volume: _____ gal
D. Maximum Throughput: _____ gal/yr
E. Is the tank heated? ☐ Yes ☐ No
F. Is the tank underground? ☐ Yes ☐ No
G. Shell Color/Shade:
☐ ☐ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
H. Shell Condition: ☐ Good ☐ Poor

4. Vertical Fixed Roof Tank

A. Dimensions:
1. Shell Height: 20 feet
2. Shell Diameter: 12 feet
3. Maximum Liquid Height: 19 feet
4. Average Liquid Height: ~10 feet
5. Working Volume: 16,800 gal
6. Turnovers per year: ~2
7. Maximum throughput: 615 bbl/yr (2020 Water Production)
8. Is the tank heated? ☐ Yes ☒ No

B. Shell Characteristics:
1. Shell Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Shell Condition: ☒ Good ☐ Poor

C. Roof Characteristics:
1. Roof Color/Shade:
☐ White/White ☒ Aluminum/Specular ☐ Aluminum/Diffuse
☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
2. Roof Condition: ☒ Good ☐ Poor
3. Type: ☐ Cone ☒ Dome
4. Height: 1 feet

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Tank Summary | Section OPGP-E

5. Internal Floating Roof Tank

A. Tank Characteristics:

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Number of Columns: _____
6. Self-Supporting Roof? ☐ Yes ☐ No
7. Effective Column Diameter:
   ☐ 9"x7" Built-up Column ☐ 8" Diameter Pipe ☐ Unknown
8. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining
9. External Shell Color/Shade:
   ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
   ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
10. External Shell Condition: ☐ Good ☐ Poor
11. Roof Color/Shade:
    ☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse
    ☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer
12. Roof Condition: ☐ Good ☐ Poor

B. Rim Seal System:

1. Primary Seal: ☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted
2. Secondary Seal: ☐ Shoe-mounted ☐ Rim-mounted ☐ None

C. Deck Characteristics:

1. Deck Type: ☐ Bolted ☐ Welded
2. Deck Fitting Category: ☐ Typical ☐ Detail

6. External Floating Roof Tank

A. Tank Characteristics

1. Diameter: _____ feet
2. Tank Volume: _____ gal
3. Turnovers per year: _____
4. Maximum Throughput: _____ gal/yr
5. Internal Shell Condition:
   ☐ Light Rust ☐ Dense Rust ☐ Gunite Lining

Tank Summary — Section OPGP-E

6. External Floating Roof Tank (continued)

A. Tank Characteristics (continued):

6. Paint Color/Shade:

☐ White/White ☐ Aluminum/Specular ☐ Aluminum/Diffuse

☐ Gray/Light ☐ Gray/Medium ☐ Red/Primer

7. Paint Condition: ☐ Good ☐ Poor

B. Roof Characteristics

1. Roof Type: ☐ Pontoon ☐ Double Deck

2. Roof Fitting Category: ☐ Typical ☐ Detail

C. Tank Construction and Rim-Seal System:

1. Tank Construction: ☐ Welded ☐ Riveted

2. Primary Seal:

☐ Mechanical Shoe ☐ Liquid-mounted ☐ Vapor-mounted

3. Secondary Seal

☐ None ☐ Shoe-mounted ☐ Rim-mounted ☐ Weather shield

7. Pollutant Emissions

A. Fixed Roof Emissions:

Pollutant[1]	Working Loss (tons/yr)	Breathing Loss (tons/yr)	Total Emissions (tons/yr)
VOC			
HAP			

B. Floating Roof Emissions:

Pollutant[1]	Rim Seal Loss (tons/yr)	Withdrawal Loss (tons/yr)	Deck Fitting Loss (tons/yr)	Deck Seam Loss (tons/yr)	Landing Loss[2] (tons/yr)	Total Emissions (tons/yr)

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed in accordance with the OGP Application Instructions. A list of regulated air pollutants and a link to EPA's list of hazardous air pollutants is provided in the OGP Application Instructions.
2. Landing losses should be determined according to the procedures in *Organic Liquid Storage Tanks* chapter of EPA's AP-42 emission factors. If the roof is not landed at least once/yr, enter "NA".

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Flare | Section OPGP-F

1. Equipment Description

A. Emission Point Designation (Ref. No.): E1

B. Equipment Description (include the process(es) that the flare controls emissions from): The flare is utilized to combust all produced gas from the wells.

C. Manufacturer: Custom D. Model: Custom

E. Status: ☒ Operating ☐ Proposed ☐ Under Construction

F. ☐ Requesting a federally enforceable condition to route tank emissions to the flare.
*uncontrolled tank emissions are below the NSPS OOOO threshold

2. System Data

A. Efficiency: 98 % Controlling the following pollutant(s): VOC
Efficiency: 98 % Controlling the following pollutant(s): HAP
Reason for different efficiency: _____

B. Flare Data (if applicable):

1. Flare type: ☐ Non-assisted ☐ Steam-assisted ☒ Air-assisted ☐ Other: _____
2. Net heating value of combusted gas: > 1,000 Btu/scf
3. Design exit velocity: N/A ft/sec
4. System: ☒ Auto-ignitor ☐ Continuous Flame
5. Is the presence of a flare pilot flame monitored? ☒ Yes ☐ No
   If yes, please describe the monitoring: Thermocouple
6. Is the auto-ignitor system monitored? ☒ Yes ☐ No
   If yes, please describe the monitoring: Daily visual inspections

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE	
Compliance Plan	**Section OPGP-G**

Part 1. Equipment List

List all equipment and the corresponding federal and/or state regulation that is applicable. Clearly identify federal regulations from state requirements. Provide the expected or actual construction date, startup date and removal date if the equipment is no longer on site.

EMISSION UNIT (Ref No.)	FEDERAL or STATE REGULATION Ex. 40 CFR Part _____, Subpart _____ Ex. 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	CONSTRUCTION DATE	STARTUP DATE	REMOVAL DATE
Example: Engines	40 CFR 63, Subpart ZZZZ	10/01/2002	11/15/2019	N/A
Example: Fugitive Emissions	40 CFR 60, Subpart OOOOa	10/01/2019	11/15/2019	N/A
Example: Flare	11 Miss. Admin. Code Pt. 2, R.1.4.B(2).	12/01/2019	12/02/2019	N/A
This list of examples is not intended to be conclusive for each type of emission source. This list only provides examples of how the table should be completed.				
Flare (Produced Gas only)	11 Miss. Admin. Code Pt. 2, R.1.4.B(2). and OPGP conditions	2014	2014	N/A
Tanks	40 CFR 60, Subpart OOOO (Applicability only-no requirements)	2014	2014	N/A

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
Example: Compressor	Item 8 of Table 2d of 40 CFR 63, Subpart ZZZZ	HAPs	Change oil and filter every 2,160 hours of operation or annually, whichever comes first; Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	Monitoring of compressor hours of operation
Example: Tanks	40 CFR 60.5395(a)(2)	VOC and Methane	Must reduce VOC emissions by 95.0 percent within 60 days after startup of production.	Tank emissions are routed to the flare for destruction at all times of operations.
Example: Flare	11 Miss. Admin. Code Pt. 2, R.1.4.B(2).	H_2S	1 grain H_2S per 100 standard cubic feet (1 gr/100 scf)	Recordkeeping of H2S composition of gas by gas analysis; Maintenance of continuous flame for gas combustion.
This list of examples is not intended to be conclusive for each type of emission source. This list only provides examples of how the table should be completed.				
Flare	11 Miss. Admin. Code Pt. 2, R.1.4.B(2). and OPGP Condition 3.7	H_2S	1 grain H_2S per 100 standard cubic feet (1 gr/100 scf)	Recordkeeping of H2S composition of gas by gas analysis; Maintenance of continuous flame for gas combustion while emissions are routed to the flare via auto igniter.
Flare	OPGP Condition 3.10	VOC	Shall route all produced gas to the flare for control of emissions.	Monitoring of Operations
Flare	OPGP Condition 3.11.a.	VOC	The flare shall be operated at all times when emissions may be vented to it.	Monitoring of Operations

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
Flare	OPGP Condition 3.11.b.	VOC	The flare shall be operated and maintained according to the manufacturer's recommendations	Monitoring of Operations
Flare	OPGP Condition 3.11.c.	VOC	The flare shall be operated with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.	VEEs
Flare	OPGP Condition 3.11.d.	VOC	The permittee shall maintain a flare pilot flame or auto-igniter system at all times when emissions may be vented to the flare.	Monitoring of Operations
Flare	OPGP Condition 3.11.e.	VOC	The flare shall only be used with a combustion gas mixture whose net heating value is 300 BTU/scf or greater if the flare is air or steam-assisted. If the flare is non-assisted, the flare shall only be used with a combustion gas mixture whose net heating value is 200 BTU/scf or greater.	Gas Analyses
Flare	OPGP Condition 5.3	VOC	An annual gas analysis of the produced gas routed to the flare shall be taken.	Annual Gas Analysis Sampling
Flare	OPGP Condition 5.6.a-b	VOC	Shall continuously monitor and record the presence of the flare pilot flame by use of a thermocouple or any other equivalent device to detect the presence of a flame, or shall continuously maintain and operate an auto-igniter system on the flare to ensure a flame is immediately restored when emissions are being sent to the flare	Autoignitiion device is installed.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
Flare	OPGP Condition 5.6.c	VOC	Shall demonstrate initial compliance with the visible emissions limit in Condition 3.11.c. within ninety (90) days of initial issuance of coverage by conducting an EPA Method 22 test for a period of two (2) consecutive hours. Gas flow rate to the flare shall be monitored and records kept of the gas flow rate to the flare during the test. Corrective action shall be taken immediately if the VE limit in Condition 3.11.c. is not met during the Method 22 test. Immediately following completion of the corrective action(s), a follow-up two-hour EPA Method 22 test must be conducted.	2-hour Method 22 VEE will be completed within ninety (90) days of initial issuance of coverage.
Flare	OPGP Condition 5.6.d	VOC	Shall perform monthly VE tests for a minimum of fifteen (15) minutes using EPA Method 22. If VE are observed for a period greater than one (1) minute, corrective action shall be taken immediately. Immediately following the corrective action(s), a follow-up two-hour EPA Method 22 test must be conducted. The monthly VE tests shall be separated by at least fifteen (15) days between each test.	15-minute Method 22 VEE will be completed monthly
Flare	OPGP Condition 5.7.a	VOC	Shall maintain a copy of the flare manufacturer operating and maintenance recommendations and detailed records	Records will be kept.

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
			of all maintenance performed on the flare.	
Flare	OPGP Condition 5.7.b	VOC	Shall maintain continuous records of the thermocouple or equivalent device output demonstrating the presence of a flame in the control flare whenever the facility is in operation.	N/A
Flare	OPGP Condition 5.7.c	VOC	Shall maintain records of all EPA Method 22 tests, and details of any corrective/preventative action(s) taken.	Records will be kept.
Flare	OPGP Condition 5.7.d	VOC	Shall maintain records of all gas analyses performed to determine the net heating value of the gas being combusted in the flare.	Records will be kept.
Flare	OPGP Condition 5.7.e	VOC	Shall maintain records of any instances in which the auto-igniter system did not function, the date and times of the occurrence, the corrective actions taken, preventative measures adopted to prevent reoccurrence, all instances of alarm activation, including the date and cause of alarm activation, actions taken to bring the flare into normal operating conditions, and any maintenance activities conducted on the auto-igniter system.	Records will be kept.
Flare	OPGP Condition 6.2.b	VOC	Shall include all produced gas analyses performed during the reporting period in the certified annual synthetic minor monitoring report	Data shall be included in the annual compliance report

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
Flare	OPGP Condition 6.2.c	VOC	Shall include details of any periods where the pilot flame was not present or the auto-igniter system was not operational, including date, start and end times, duration, cause, corrective and preventative actions taken, and whether or not any gases were being vented to the flare, in the certified annual synthetic minor monitoring report	Data shall be included in the annual compliance report
Flare	OPGP Condition 6.2.d	VOC	Shall include copies of data sheets for all EPA Method 22 tests performed during the reporting period, including data on gas flow rate to the flare where required by Conditions 5.7.c. & d., and details of any accompanying corrective and preventative actions taken, in the certified annual synthetic minor monitoring report	Data shall be included in the annual compliance report
Flare	OPGP Condition 6.2.e	VOC	Shall include continuous pilot flame monitor downtime data: monitor downtime event date, start and end times, duration, cause, corrective and preventive actions taken, and total duration monitor downtime for the reporting period, in the certified annual synthetic minor monitoring report	N/A
Flare	OPGP Condition 6.2.f	VOC	Shall include Auto-igniter system data: report of any instances in which the auto-igniter system did not function, the date and times of the occurrence, the corrective actions taken, preventative measures adopted to prevent	Data shall be included in the annual compliance report

MDEQ NOTICE OF INTENT FOR COVERAGE UNDER THE OIL PRODUCTION GENERAL PERMIT TO CONSTRUCT/OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

Compliance Plan — Section OPGP-G

Part 2. Applicable Requirements

List all applicable state and federal requirements, including emission limits, operating restrictions, etc., and the applicable test methods or monitoring used to demonstrate compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

EMISSION UNIT (Ref No.)	APPLICABLE REQUIREMENT (Specific Regulatory citation)	POLLUTANT	LIMITS/ REQUIREMENTS	TEST METHOD/ COMPLIANCE MONITORING
			reoccurrence, all instances of alarm activation, including the date and cause of alarm activation, actions taken to bring the flare into normal operating conditions, and any maintenance activities conducted on the auto-igniter system, in the certified annual synthetic minor monitoring report	
Tanks	40 CFR 60.5395(d)(2)	VOC and Methane	Must maintain emissions below 4 tpy.	Uncontrolled annual tank emissions are below 4 tpy

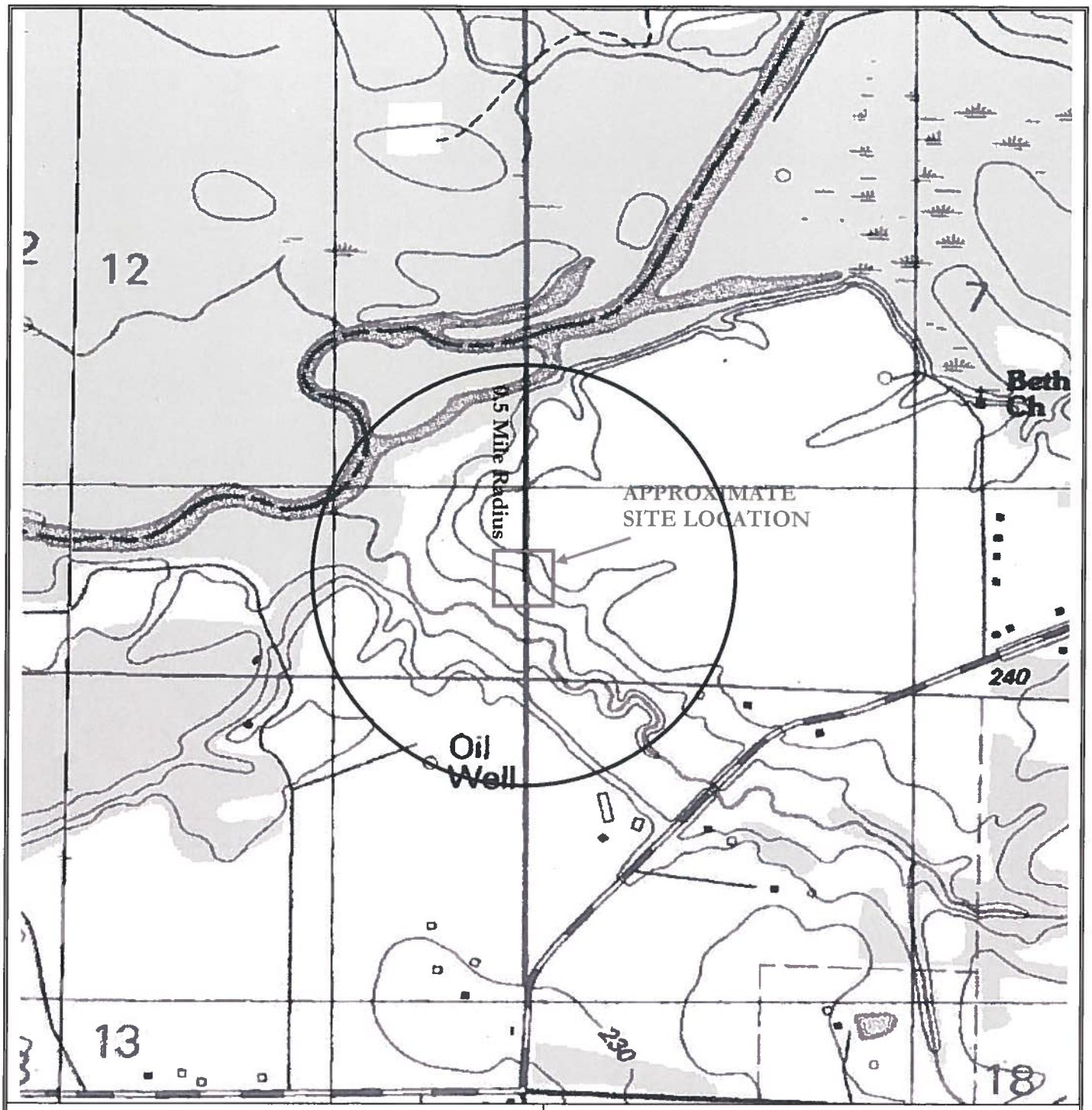
LIST OF FIGURES

ORIGINAL

FIGURE 1:

SITE TOPOGRAPHICAL MAP

ORIGINAL



Holliman 7-13
4525 Kal Colola Road
Caledonia, MS 39740

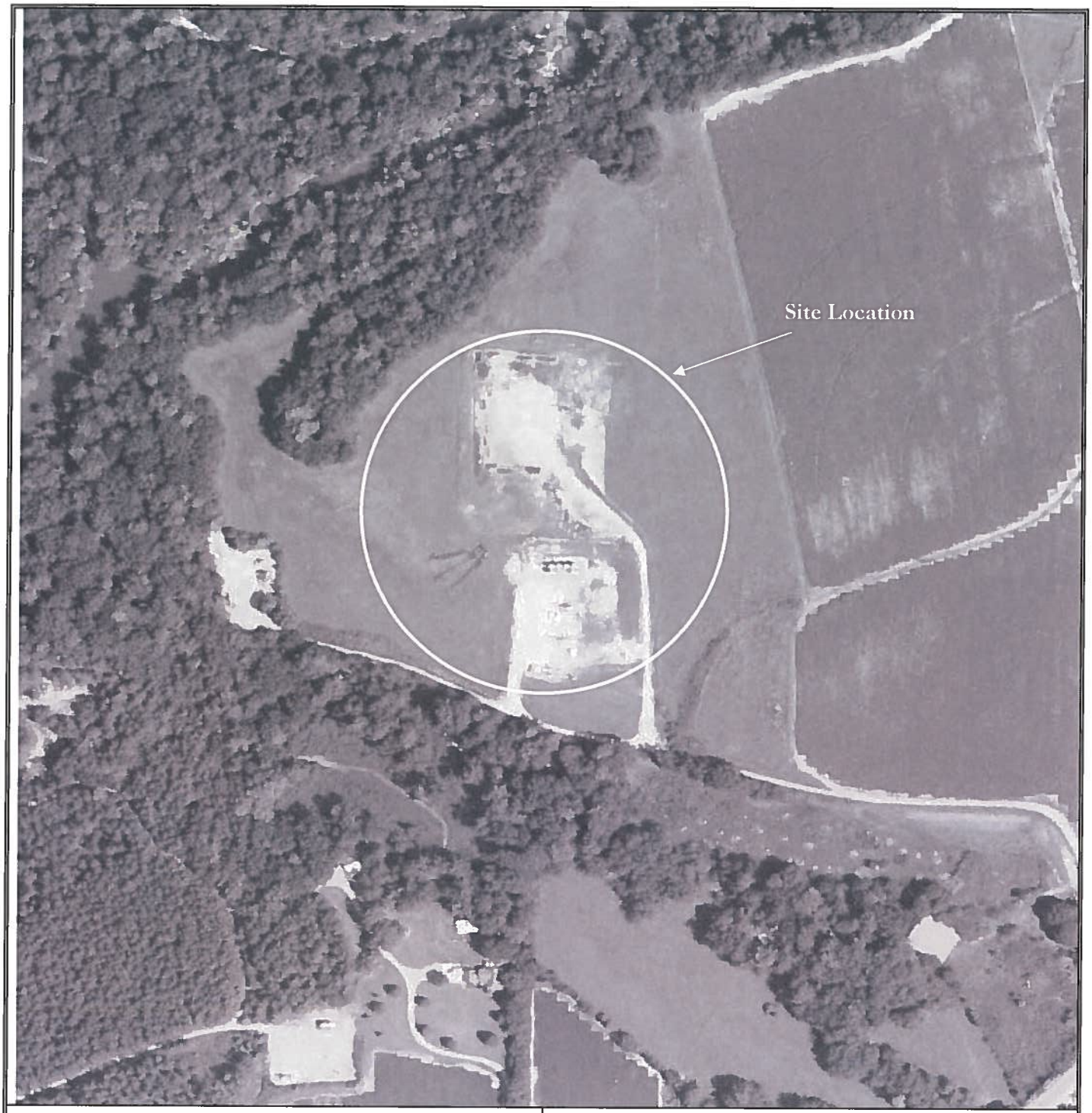
FC&E ENGINEERING, LLC
BRANDON-STARKVILLE-MONROE
WWW.FCE-ENGINEERING.COM
(601) 824-1860

FIGURE 1 - USGS Quad Map
SITE LOCATION
Caledonia, Mississippi
Lowndes County
Scale 1" = 1,740 feet
N
Map Info: Meadville, MS, 2000

ORIGINAL

FIGURE 2:

SITE AERIAL VIEW



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BRANDON-STARKVILLE-MONROE
WWW.FCE-ENGINEERING.COM
(601) 824-1860

N

FIGURE 2 - Aerial Map
SITE LOCATION
Caledonia, Mississippi
Lowndes County
Scale 1" = 785 feet
Map Info: June 8, 2016

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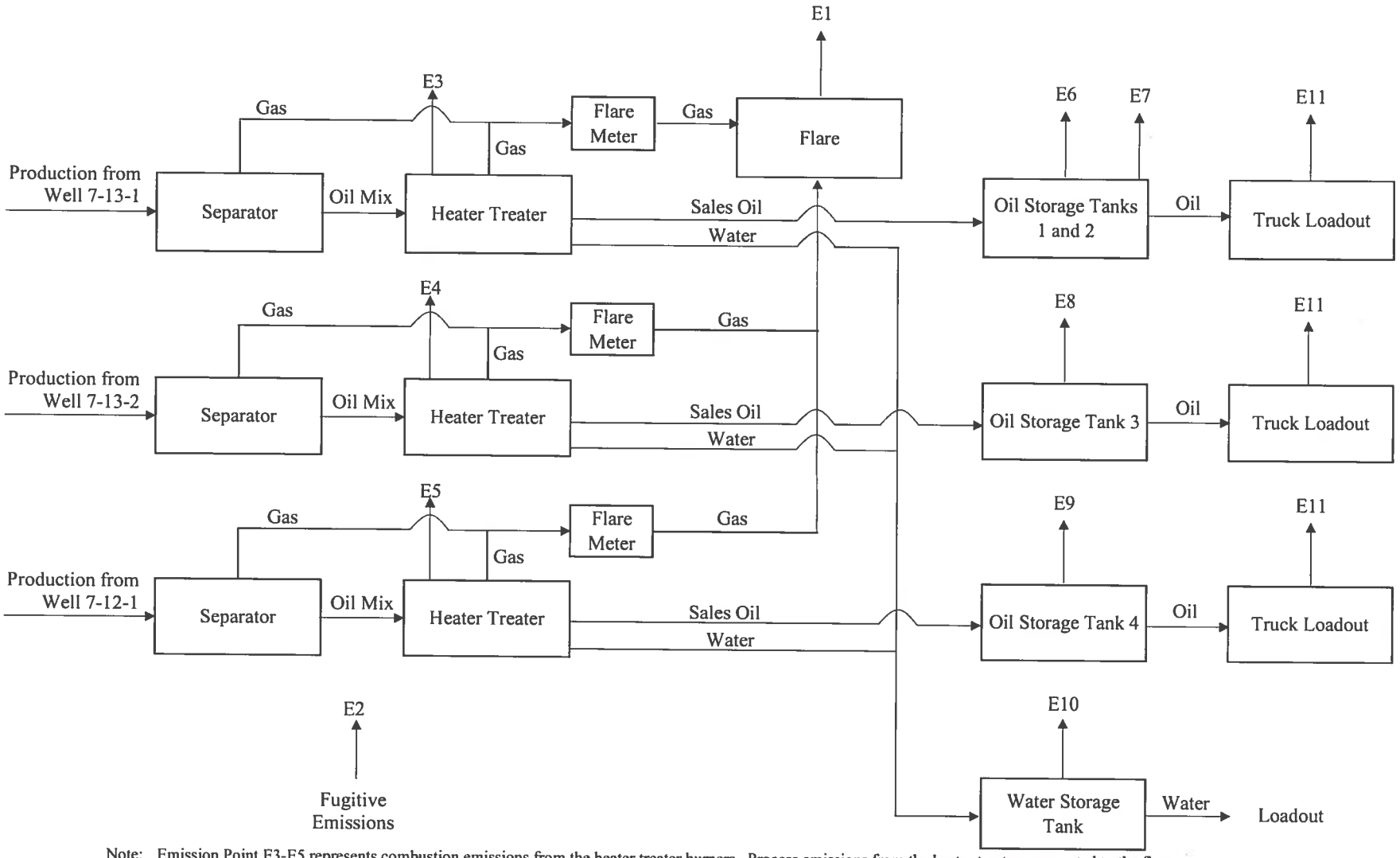
FIGURE 3:

PROCESS FLOW DIAGRAM

ORIGINAL

Southern Energy Corporation
Holliman 7-13
Process Flow Diagram



Note: Emission Point E3-E5 represents combustion emissions from the heater treater burners. Process emissions from the heater treaters are routed to the flare.

Southern Energy Operating
Holliman 7-13 Production Facility

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APPENDIX A:

EMISSIONS CACULATIONS

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MDEQ

Emission Unit ID	Emission Unit Description	Facility-Wide Uncontrolled Potential Annual Criteria Pollutant Emissions (U.S. short tons)															
		PM		PM10		PM2.5		SO2		NOx		CO		VOC		HAPs	
		pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
E1	Well Gas	---	---	---	---	---	---	---	---	---	---	---	---	65.41	286.50	8.18	35.81
E2	Fugitives	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.15	0.02	0.10
E3	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E4	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E5	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E6-E10	Tanks	---	---	---	---	---	---	---	---	---	---	---	---	0.96	4.23	0.08	0.33
E11	Truck L/O	---	---	---	---	---	---	---	---	---	---	---	---	0.60	2.62	0.06	0.26
Totals	**Totals**	**0.00**	**0.01**	**0.01**	**0.05**	**0.01**	**0.05**	**0.00**	**0.00**	**0.15**	**0.64**	**0.12**	**0.54**	**66.42**	**290.92**	**8.28**	**36.25**

Emission Unit ID	Emission Unit Description	Facility-Wide Controlled Annual Criteria Pollutant Emissions (U.S. short tons)															
		PM		PM10		PM2.5		SO2		NOx		CO		VOC		HAPs	
		pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
E1	Well Gas	0.06	0.25	0.06	0.25	0.06	0.25	0.00	0.00	0.51	2.25	2.34	10.27	1.31	5.73	0.16	0.72
E2	Fugitives	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.15	0.02	0.10
E3	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E4	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E5	Heater Treater	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.05	0.21	0.04	0.18	0.00	0.01	0.00	0.00
E6-E10	Tanks	---	---	---	---	---	---	---	---	---	---	---	---	0.96	4.23	0.08	0.33
E11	Truck L/O	---	---	---	---	---	---	---	---	---	---	---	---	0.60	2.62	0.06	0.26
Totals	**Totals**	**0.06**	**0.26**	**0.07**	**0.30**	**0.07**	**0.30**	**0.00**	**0.00**	**0.66**	**2.90**	**2.47**	**10.81**	**2.32**	**10.15**	**0.26**	**1.16**

Emission Unit ID	Emission Unit ID	Facility-Wide Potential Greenhouse Gas Emissions (metric tons)								Facility-Wide Potential Greenhouse Gas Emissions (short tons)							
		CO2		CH4		N2O		CO2e		CO2		CH4		N2O		CO2e	
		pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
E1	Well Gas	846.80	3708.98	4.19	18.34	0.00	0.01	951.93	4169.44	933.17	4087.30	4.61	20.21	0.00	0.01	1049.02	4594.72
E2	Fugitives	0.00	0.00	0.14	0.62	0.00	0.00	3.54	15.50	0.00	0.00	0.16	0.68	0.00	0.00	3.90	17.08
E3	Heater Treater	159.18	697.21	0.00	0.01	0.00	0.00	159.34	697.93	175.42	768.32	0.00	0.01	0.00	0.00	175.60	769.12
E4	Heater Treater	159.18	697.21	0.00	0.01	0.00	0.00	159.34	697.93	175.42	768.32	0.00	0.01	0.00	0.00	175.60	769.12
E5	Heater Treater	159.18	697.21	0.00	0.01	0.00	0.00	159.34	697.93	175.42	768.32	0.00	0.01	0.00	0.00	175.60	769.12
E6-E10	Tanks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E11	Truck L/O	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	**Totals**	**1,324.34**	**5,800.61**	**4.34**	**19.00**	**0.00**	**0.01**	**1,433.50**	**6,278.73**	**1,459.42**	**6,392.27**	**4.78**	**20.94**	**0.00**	**0.01**	**1,579.72**	**6,919.16**

E1
Flare
The following calculations represent emissions from the flare.

Gas Production (Flow to Flare): 155 MCF/Day
56,575 MCF/Year

	Potential	Sample Calculations
Total Produced gas to flare =	1,507.2 tpy	56575 MCF/Yr x 1,000 CF/MCF x 1 mole/ 379.5 cf x 20.22 lb/mole / 2000 lb/ton
Produced Gas combustion heat =	66,245.9 MMBtu/yr	56575 MCF/Yr x 1,000 CF/MCF x 1170.94 BTU/CF / 1,000,000 BTU/MMBTU
Total flare combustion heat =	66,245.9 MMBtu/yr	
Total flare combustion heat =	7.56 MMBtu/hr	

		Potential Emissions		
Pollutant	Emission factor, lbs/MMBtu	lb/hr	tpy	Sample Calculations
NOx	0.068	0.51	2.25	66245.9 MMBTU/yr x 0.068 lb/MMBTU / 2,000 lb/ton
CO	0.31	2.34	10.27	66245.9 MMBTU/yr x 0.31 lb/MMBTU / 2,000 lb/ton
PM	0.00745	0.06	0.25	66245.9 MMBTU/yr x 0.00745 lb/MMBTU / 2,000 lb/ton
VOC	mass balance	1.31	5.73	
HAP	mass balance	0.1635	0.7163	
SO2	mass balance	0.00	0.00	
H2S	mass balance	0.00	0.00	

Notes:

1. Emission factors from AP-42, Table 13.5-1, are used to calculate NOx and CO emissions, and PM emission factor from AP-42, Table 1.4-2.
2. Mass balance calculations utilize a minimum flare destruction efficiency of 98%.

Sample Calculations:

VOC = 1507.2 tpy Produced Gas x 0.19 wt. fraction VOC x (1.0-0.98, combust. effic.) = 5.73 tpy

SO2 = 155 MCF/Day x 365 Days/Yr x 1,000 CF/MCF x 1 mole gas/379.5 CF gas x 0.001 mole % H2S x 64.08 lb/mole x 1 ton/2,000 lb x (1.0-0.98, combust. effic.) = 0.00 tpy

H2S = 155 MCF/Day x 365 Days/Yr x 1,000 CF/MCF x 1 mole gas/379.5 CF gas x 0.00 mole % H2S x 34.08 lb/mole x 1 ton/2,000 lb x 2 (combust. effic.)/100 = 0.00 tpy

HAPs = 5.73 TPY VOC x 0.125 = 0.7163 tpy

Flare

Produced Gas to flare, mmcf/yr	56.58
N2O emission factor, kg/mmBtu	0.0001
HHV, mmBtu/scf	0.0012
CO2 density, kg/ft3	0.0526
CH4 density, kg/ft3	0.0192
Flare efficiency	98%

carbon	CO2 (from combustion)		CO2 input	CH4, uncombusted		N2O	CO2e
atoms	cubic ft.	metric tpy	metric tpy	cubic ft.	metric tpy	metric tpy	metric tpy
			2.34E+00	9.55E+05	1.83E+01	6.62E-03	4.63E+02
1	4.68E+07	2.46E+03					2.46E+03
2	9.40E+06	4.94E+02					4.94E+02
3	7.01E+06	3.69E+02					3.69E+02
4	3.44E+06	1.81E+02					1.81E+02
5+	3.82E+06	2.01E+02					2.01E+02
Total	7.05E+07	3.71E+03	2.34E+00	9.55E+05	1.83E+01	6.62E-03	4.17E+03

E2

Equipment Component Fugitive Emissions

Components	Counts	Emission Factor[1]	Emissions	Wt. Fraction VOC	VOC Emissions		VOC% HAP[3]	HAP Emissions		GHG Emissions, ton/yr		
		scf/hr/component	lbs/hr		lb/hr	tpy		lb/hr	tpy	CO2	CH4	CO2e
Valves:	57											
gas/vapor	18	0.027	0.0259	0.19	0.005	0.02	12.55%	0.0032	0.0142	0.000	0.096	2.394
light oil[2]	39	0.05	0.1039	0.19	0.020	0.09	12.55%	0.0130	0.0571	0.000	0.384	9.604
heavy oil	0	0.0005	0.0000	0.19	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
Pumps:												
Light oil	0	0.01	0.0000	0.00	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
heavy oil	0	0	0.0000	0.00	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
Flanges:	102											
gas/vapor	36	0										
light oil	46	0.003	0.0074	0.19	0.001	0.01	12.55%	0.0009	0.0040	0.000	0.027	0.680
heavy oil	0	0.0009	0.0000	0.19	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
Relief Valve:												
gas/vapor	0	0.04	0.0000	0.00	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
Connectors:	102											
gas/vapor	30	0.003	0.0048	0.19	0.001	0.00	12.55%	0.0006	0.0026	0.000	0.018	0.443
light oil	72	0.007	0.0269	0.19	0.005	0.02	12.55%	0.0034	0.0148	0.000	0.099	2.482
heavy oil	0	0.0003	0.0000	0.19	0.000	0.00	12.55%	0.0000	0.0000	0.000	0.000	0.000
Other	1	0.3	0.0160	0.19	0.003	0.01	12.55%	0.0020	0.0088	0.000	0.059	1.478
Totals					**0.035**	**0.154**	**N/A**	**0.0232**	**0.1016**	**0.00**	**0.68**	**17.08**

Notes:

1. Emission factors and equipment counts taken from 40 CFR 98, subpart W.
2. Light oil is defined as having API gravity greater than or equal to 20 degrees API.
3. Vapors emitted from fugitive emission components are assumed to be same composition as produced gas.

Gas Analysis and Conversions

Component	VOC and/or HAP?	% Volume	Molecular Weight (lbs/lb-mole)	Weight (lb)	Gas Composition, % by Weight
H2S	None	0.000%	34.08	0.000	0.00%
O2	None	0.000%	16.00	0.000	0.00%
CO2	None	0.079%	44.10	0.035	0.17%
N2	None	0.955%	28.01	0.268	1.32%
Methane	None	84.417%	16.04	13.540	66.96%
Ethane	None	8.473%	30.07	2.548	12.60%
Propane	VOC	4.216%	44.10	1.859	9.19%
Isobutane	VOC	0.532%	58.12	0.309	1.53%
Butane	VOC	1.018%	58.12	0.591	2.92%
Isopentane	VOC	0.396%	72.15	0.286	1.41%
Pentane	VOC	0.425%	72.15	0.306	1.52%
Hexanes +	VOC and HAP	0.558%	86.18	0.481	2.38%
					100.00%

VOC Weight (lb)	3.833 lb
VOC, weight fraction	0.190
HAP weight % of Gas	2.38%
HAP Weight (lb)	0.481 lb
HAP to VOC Weight Ratio	0.1250
H2S to VOC Weight Ratio	0.0000
H2S to SO2 Conversion Factor	1.8809
SO2 Weight (lb)	0.000 lb
SO2 to VOC Weight Ratio	0.0000
HAP Percentage of VOCs	12.55%
VOC Percent Volume of Gas	7.144%
Heat of combustion, Btu/cf (Dry)	1171
Molecular weight	20.22

E3 through E5
Heater Treaters

Emission Unit ID	Combustion Source	Capacity	Criteria Emissions, tons/yr							
		MMBTUH	PM	PM10	PM2.5	NOx	CO	VOC	SO2	HAP
E3	Natural Gas Fired Heater Treater	0.50	0.00	0.02	0.02	0.21	0.18	0.01	0.00	0.00
E4	Natural Gas Fired Heater Treater	0.50	0.00	0.02	0.02	0.21	0.18	0.01	0.00	0.00
E5	Natural Gas Fired Heater Treater	0.50	0.00	0.02	0.02	0.21	0.18	0.01	0.00	0.00
Totals	**Totals**	**1.50**	0.01	0.05	0.05	0.64	0.54	0.04	0.00	0.01

Emission Unit ID	Combustion Source	Capacity	GHG Emissions, metric tons/yr				GHG Emissions, short tons/yr			
		MMBTUH	CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
E3	Natural Gas Fired Heater Treater	0.50	232.403	0.004	0.000	232.643	256.11	0.00	0.00	256.37
E4	Natural Gas Fired Heater Treater	0.50	232.403	0.004	0.000	232.643	256.11	0.00	0.00	256.37
E5	Natural Gas Fired Heater Treater	0.50	232.403	0.004	0.000	232.643	256.11	0.00	0.00	256.37
Totals	**Totals**	**1.50**	697.208	0.013	0.001	697.928	768.324	0.014	0.001	769.117

Gas combustion

Emission Factors, lbs/MMBtu	
PM	0.001863
PM10	0.007451
PM2.5	0.007451
NOx	0.098039
CO	0.082353
VOC	0.005392
SO2	0.000588
HAPs	0.001851

Emission Factors, kg/MMBtu	
CO2	53.06
CH4	0.001
N2O	0.0001

E6 through E10
Storage Tanks (4 crude oil tanks and 1 produced water tank, each with capacity of 16,800 gallons)

Uncontrolled Emissions Summary
Holliman 7-12-1 Tank: E9

Total flash gas	0.00 SCF/yr
Total flash gas	0.00 tpy VOC
Oil tank W&B Losses	2.96 SCF/bbl
Oil tank annual throughput	3,365 bbl/year
Oil tank daily throughput	9.2 bbl/day
Total tank W&B loss	9,952 SCF/yr
Total tank W&B VOC losses	0.70 tpy
Total tank VOC emissions	0.70 tpy
Total tank HAP emissions	0.07 tpy

Uncontrolled Emissions Summary
Holliman 7-13-2 Tank: E8

Total flash gas	0.00 SCF/yr
Total flash gas	0.00 tpy
Oil tank W&B Losses	2.96 SCF/bbl
Oil tank annual throughput	2,162 bbl/year
Oil tank daily throughput	5.9 bbl/day
Total tank W&B loss	6,392 SCF/yr
Total tank W&B VOC losses	0.45 tpy
Total tank VOC emissions	0.45 tpy
Total tank HAP emissions	0.04 tpy

Uncontrolled Emissions Summary
Holliman 7-13-1 Tanks: E6 & E7

Total flash gas	0.00177 ton VOC/bbl
Total flash gas	41.64 SCF/bbl
Total flash gas	2.72 VOC tpy
Oil tank W&B Losses	5.52 SCF/bbl
Oil tank W&B Losses	10.05 tpy
Oil tank W&B Losses	0.00023 ton VOC/bbl
Oil tank W&B Losses	5.52 SCF/bbl
Oil tank annual throughput	1,539 bbl/year
Oil tank daily throughput	4.2 bbl/day
Total tank W&B loss	8,501 SCF/yr
Total tank W&B VOC losses	0.35 VOC tpy
Total tank VOC emissions	3.08 tpy
Total tank HAP emissions	0.22 tpy

Notes: The Holliman 7-13 #2 and 7-12 #1 wells yield dead oil from the heater treater as indicated by the lack of flash gas in the sample and the quantitative field sample. Therefore, for purposes of worst case emissions purposes, an E&P Tanks simulation was run for a similar well with similar characteristics. The 30 bbl/day production rate in the simulation was prorated in the above calculations.

W&B Gas for Holliman 7-12-1 and 7-13-2 Wells

Component	VOC / HAP	Mol %	MW	Wt.	Wt. %
H2S	None	0.000%	34.08	0.000	0.00%
O2	None	0.000%	16.00	0.000	0.00%
CO2	None	0.018%	44.10	0.008	0.01%
N2	None	0.000%	28.01	0.000	0.00%
Methane	None	0.000%	16.04	0.000	0.00%
Ethane	None	12.984%	30.07	3.904	3.53%
Propane	VOC	32.796%	44.10	14.463	13.09%
Isobutane	VOC	8.953%	58.12	5.204	4.71%
Butane	VOC	19.192%	58.12	11.154	10.09%
Isopentane	VOC	6.386%	72.15	4.607	4.17%
Pentane	VOC	7.522%	72.15	5.427	4.91%
Hexanes +	VOC and HAP	12.167%	86.18	10.486	9.49%
Total VOC		87.016%		55.25	96.460%
Total HAP		12.167%			9.489%

Molecular weight 55.25

Note: W&B vapors and truck loading vapors assumed to have same composition gas analysis generated by E&P Tanks software.

Note: For the Holliman 7-13 #1 well from the Lewis formation, a Promax report completed based on that flash volume for a similar well of the formation is utilized.

Flash Gas for Holliman 7-13-1 Well

Component	VOC / HAP	Mol %	MW	Wt.	Wt. %
H2S	None	0.000%	34.08	0.000	0.00%
O2	None	0.000%	16.00	0.000	0.00%
CO2	None	0.194%	44.10	0.086	0.08%
N2	None	0.000%	28.01	0.000	0.00%
Methane	None	24.526%	16.04	3.934	3.56%
Ethane	None	25.150%	30.07	7.563	6.84%
Propane	VOC	21.417%	44.10	9.445	8.55%
Isobutane	VOC	4.691%	58.12	2.727	2.47%
Butane	VOC	9.813%	58.12	5.703	5.16%
Isopentane	VOC	3.232%	72.15	2.332	2.11%
Pentane	VOC	3.874%	72.15	2.795	2.53%
Hexanes +	VOC and HAP	7.102%	86.18	6.121	5.54%
Total VOC		75.280%		40.70	89.519%
Total HAP		7.102%			5.539%

Molecular weight 40.70

E11

Truck Loading Emissions Calculations

L_L = 12.46 *(SPM)/T (from EPA AP-42 Section 5.2.2.1)

Where:

L_L = Loading loss, lbs per 1,000 gal of liquid loaded
S = Saturation factor
P = True vapor pressure of liquid, psia
M = Molecular weight of vapors, lb/lb-mole
T = Temperature of bulk liquid loaded, degrees R

EPA "S" Factor	True VP of Liquid	Mol. Wt. Of Vapors	Temp. of Liquid	Sales Volume	Loading Rate	Uncontrolled Estimated Emissions, Total Hydrocarbons			Uncontrolled VOC Emissions	Uncontrolled HAP Emissions
	(psia)	(lb/lb-mole)	(R)	(10^3 gal/yr)	(gal/hr)	L_L	(lb/hr)	(tpy)	(tpy)	(tpy)
1.45	10.0	55.25	545	297	16,000	18.32	293.07	2.72	2.62	0.2579

ORIGINAL

APPENDIX B:

BACKUP DOCUMENTATION

RECEIVED
JUL 1 2021
MDEQ

Order Receipt

The Commercial Dispatch

PO Box 511
Columbus MS 39703

Phone: 662-328-2424
Fax: 662-329-1521
URL: www.cdispatch.com

SOUTHERN ENERGY OPERATING
ATTN: DONNA WILLIAMSON
8970 HIGHWAY 13 NORTH
NEW HEBRON, MS 39140

Acct #:
Phone: (601)792-9686
Date: 06/16/2021
Ad #: 00056959
Salesperson: 020 Ad Taker: 060

Class: 0010
Sort Line: Public Notice: Oil Production

Ad Notes: Ordered by Chad Winter
FC&E Engineering, LLC

Description	Start	Stop	Ins.	Cost/Day	Amount
prop Proof Of Publication					
10 Commercial Dispatch	06/18/2021	06/18/2021	1		
30 Internet	06/18/2021	06/18/2021	1		

Ad Text:

Oil Production General Permit Public Notice

Mississippi Environmental Quality Permit Board
P. O. Box 2261
Jackson, Mississippi 39225
Telephone No. (601) 961-5171

Public Notice Start Date: June 18, 2021

Southern Energy Corporation for the Holliman 7-13 Production Facility, located at 4525 Cal Kolola Road, in Caledonia, Lowndes

Oil Production General Permit Public Notice
Mississippi Environmental Quality Permit Board
P. O. Box 2261
Jackson, Mississippi 39225
Telephone No. (601) 961-5171

Public Notice Start Date: June 18, 2021

Southern Energy Corporation for the Holliman 7-13 Production Facility, located at 4525 Cal Kolola Road, in Caledonia, Lowndes County, MS, telephone No. (601) 792-9686, has applied to the Mississippi Department of Environmental Quality (MDEQ) for coverage and/or modification under MDEQ's Oil Production General Permit to construct and operate an oil production facility.

The Oil Production General Permit has been developed to ensure compliance with all State and Federal regulations. Facilities granted coverage under this permit and adhering to the conditions contained therein should operate within State and Federal environmental laws and standards concerning the operation of air emissions equipment.

The project consists of the operation of an oil and gas production site including well(s), separator(s), heater treater(s), storage tank(s), oil loading operations, and other associated equipment, including a flare for control of air emissions. The facility will operate control(s) such that criteria pollutant emissions will not exceed emission rates restricted in the Oil Production General Permit, nor will hazardous air pollutant (HAP) emissions exceed any HAP emission rates restricted in the Oil Production General Permit. This project will not result in new sources of potential emissions of regulated air pollutants, since this is an existing facility permitted under Air Synthetic Minor Operating Permit No. 1680-00075. Emissions will remain below the Prevention of Significant Deterioration significance levels as specified in the Mississippi Regulations for the Prevention of Significant Deterioration of Air Quality, 11 Miss. Admin. Code Pt. 2, Ch. 5., and in 40 CFR Part 52.21. Potential emissions will also be below the Air Title V Major Source thresholds as specified in 11 Miss. Admin. Code Pt. 2, Ch. 6. and in 40 CFR Part 70.

Persons wishing to comment upon or object to the proposed request are invited to submit comments in writing to the **Air 1 Branch Chief, Environmental Permits Division** at the Permit Board's address shown above no later than 30-days from the date of publication of this notice. All comments received or postmarked by this date will be considered in the determination regarding the coverage approval. After receipt of public comments and thorough consideration of all comments, MDEQ will formulate its recommendations regarding coverage approval.

Additional details about the proposed project are available by writing or calling the **Air 1 Branch Chief, Environmental Permits Division** at the above Permit Board address and telephone number and on the MDEQ's website at: https://www.mdeq.ms.gov/ensearch/recently-received-general-permit-noi/. This information is also available for review at the following location during normal business hours:

Mississippi Department of Environmental Quality
Office of Pollution Control
515 East Amite Street,
Jackson, MS 39201
(601) 961-5171

Please bring the foregoing to the attention of persons whom you know will be interested.

F0108
Fee: $ 250

Michael Watson
SECRETARY OF STATE

2021085095

Business ID: 1109226
Filed: 02/22/2021 03:23 PM
Michael Watson
Secretary of State

2021 LLC Annual Report

Business Information

Business ID: 1109226
Business Name: Southern Energy Operating, LLC
State of Incorporation: DE
Business Email: rread@southernenergy.ca
Phone: (***)***-****
FEIN: **-*******

Principal Address: 8970 Hwy 13 North
New Hebron, MS 39140

Registered Agent

Name: C. T. CORPORATION SYSTEM
Address: 645 LAKELAND EAST DRIVE STE 101
FLOWOOD, MS 39232

Managers and Members

Managers

Name:
Calvin Yau
Manager

Address:
Suite 2400, 333 - 7th Avenue SW
Calgary, AB T2P2Z1

RECEIVED
JUL 1 2021
MDEQ

Officers

Title/Name:	*Address:*	*Director:*
President: Ian Atkinson	Suite 2400, 333 - 7th Avenue SW Calgary, AB T2P2Z1	☐
Vice President:		☐
Secretary:		☐
Treasurer:		☐

☐ This LLC has a written Operating Agreement.

NAICS Code/Nature of Business

211111 - Crude Petroleum and Natural Gas Extraction

Signature

By entering my name in the space provided, I certify that I am authorized to file this document on behalf of this entity, have examined the document and, to the best of my knowledge and belief, it is true, correct and complete as of this day ***02/22/2021***.

Name:	*Address:*
Calvin Yau *Manager*	Suite 2400, 333 - 7th Avenue SW Calgary, AB T2P 2Z1

Officers List

Name:	*Address:*
Calvin Yau *Manager*	Suite 2400, 333 - 7th Avenue SW Calgary, AB T2P2Z1
Ian Atkinson *President*	Suite 2400, 333 - 7th Avenue SW Calgary, AB T2P2Z1

State of Mississippi

FEDERALLY ENFORCEABLE AIR POLLUTION CONTROL PERMIT

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

THIS CERTIFIES

Gulf Pine Energy LP, Holliman 7-13
4525 Cal Kolola Road
Caledonia, MS
Lowndes County

RECEIVED
JUL 1 2021
MDEQ

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. set., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified: MAY 2 9 2015
Expires: APR 3 0 2020

Permit No. 1680-00075
Agency Interest # 67002

Table of Contents

Other Relevant Documents:

The federal regulations referenced in this permit may be found on-line at http://ecfr.gpoaccess.gov/ and the State of Mississippi regulations may be found on-line at http://www. mdeq.ms.state.us/ or a copy of the regulations may be obtained by contacting the Mississippi Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, Mississippi 39255, phone (601) 961-5171. The following regulations were referenced in this permit:

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 1, Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2, Permit Regulations for the Construction and/or Operation of Air Emissions Equipment

40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Gulf Pine Energy LP, Holliman 7-13
Subject Item Inventory
Permit Number:1680-00075
Activity ID No.: PER20140002

Subject Item Inventory:

ID	Designation	Description
AI67002		Crude Oil Production Facility
CONT2	AA-001	Control Flare
EQPT5	AA-002	Truck Loading (crude oil loading into trucks)
AREA2	AA-003	Fugitive Equipment Leaks
EQPT6	AA-004	Storage Tanks (6 crude oil tanks, 1 produced water tank and 1 empty tank, each with capacity of 16,800 gallons)
EQPT4	AA-005	Three (0.5 MMBtu/hr each) Vertical Heater Treaters
EQPT7	AA-006	225 HP (1.9 MMBtu/hr) natural gas- fired, existing, spark ignition, four stroke, rich burn, stationary reciprocating internal combustion engine used as a compressor Engine

KEY

ACT = Activity
AREA = Area
CONT = Control Device
IA = Insignificant Activity
MAFO = Animal Feeding Operation
RPNT = Release Point
AI = Agency Interest
CAFO = Concentrated Animal Feeding Operation
EQPT = Equipment
IMPD = Impoundment
PCS = PCS
TRMT = Treatment

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Gulf Pine Energy LP, Holliman 7-13

Subject Item Inventory

Permit Number:1680-00075

Activity ID No.: PER20140002

KEY

WDPT = Withdrawal Point

AI0000067002 Crude Oil Production Facility:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		Produced well gas not compressed back into the wells shall be routed to the control flare (AA-001). [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-2		All equipment located at the facility shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-3		The permittee shall not permit the emissions of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet. Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than 1600° fahrenheit for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide. [11 Miss. Admin. Code Pt. 2, R. 1.4.B(2)]
L-4		Facility-Wide Emission Limitations The permittee shall limit hazardous air pollutant (HAP) emissions to no more than 9.9 tons/year (TPY) of any single HAP and to no more than 24.0 TPY of total combined HAPs on a 12 month rolling total period; The permittee shall limit volatile organic compounds (VOC) emissions to no more than 99.0 tons/year on a 12-month rolling total period. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall conduct an annual produced field gas analysis, including hydrogen sulfide concentration, sulfur content, methane concentration (volume), gross heating value, molecular weight and speciated VOC constituents. The first produced field gas analysis shall be conducted no later than 60 days after certifying construction. Additionally, an updated produced field gas analysis must be conducted within 90 days from startup of any well that starts up after the most recent analysis. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

AI0000067002 (continued):

Monitoring Requirements:

Condition No.	Parameter	Condition
M-2		The permittee shall calculate the gas to oil ratio (GOR) from the production of crude oil and gas, annually. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall keep the following records: (1) Monthly and rolling 12 month total for: produced crude oil (barrels), produced water (barrels), volume of gas flared (cubic feet/day), percentage of each VOC and HAP by weight, density of each VOC and HAP, volatile organic compound (VOC) emissions (lbs and/or tons) and total hazardous air pollutants (HAP) emissions (lbs and/or tons), and individual HAP emissions (lbs and/or tons) (2) Results of all field gas analysis performed during the reporting period (3) Gas to Oil Ratio (GOR) annual value . [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

AI0000067002 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	The permittee shall report annually by January 31st for the preceding calendar year: (1) Monthly and rolling 12 month total for: produced crude oil (barrels), produced water (barrels), produced field gas (MMSCF), volume of gas flared (cubic feet/day), percentage of each VOC and HAP by weight, density of each VOC and HAP, volatile organic compound (VOC) emissions (lbs and/or tons) and total hazardous air pollutants (HAP) emissions (lbs and/or tons), and individual HAP emissions (lbs and/or tons), including sample calculations; (2) Results of all field gas analysis performed during the reporting period (3) Gas to Oil Ratio (GOR) annual value . [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
S-2	General Condition: Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began. [11 Miss. Admin.Code Pt. 2, R.2.2.B(10).]
S-3	Except as otherwise specified herein, the permittee shall Submit a certified annual synthetic minor monitoring report: Due annually, by the 31st of January for preceding calendar year. This report shall address any required monitoring specified in the permit. [11 Miss. Admin.Code Pt. 2, R.2.2.B(11).]

Narrative Requirements:

Condition No.	Condition
T-1	General Condition: Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49-17-29 1.b]
T-2	General Condition: The permittee shall at all times maintain in good working order and operate as efficiently as possible all air pollution control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. [11 Miss. Admin. Code Pt. 2, R. 2.5.A.]

AI0000067002 (continued):

Narrative Requirements:

Condition No.	Condition
T-3	General Condition: Solids removed in the course of control of air emissions shall be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering state waters without the proper environmental permits. [Miss. Code Ann. 49-17-29 1.a(i and ii)]
T-4	General Condition: Any diversion from or bypass of collection and control facilities is prohibited except as provided for in 11 Miss. Admin. Code Pt.2, R. 1.10, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", [11 Miss. Admin.Code Pt. 2, R.1.10.]
T-5	General Condition: Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule. [11 Miss. Admin.Code Pt. 2, R.2.10.]
T-6	General Condition: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials: (a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and (b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission. [Miss. Code Ann. 49-17-21]
T-7	General Condition: After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to: (a) Violation of any terms or conditions of this permit (b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or (c) A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions. [11 Miss. Admin.Code Pt. 2, R. 2.2.C.]
T-8	General Condition: This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for this permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of the permit. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(b).]
T-9	General Condition: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control. [Miss. Code Ann. 49-17-39]

AI0000067002 (continued):

Narrative Requirements:

Condition No.	Condition
T-10	General Condition: The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations. [11 Miss. Admin.Code Pt. 2, R. 2.2.B(15)(c).]
T-11	General Condition: Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances. [11 Miss. Admin.Code Pt. 2, R. 2.2.B(7).]
T-12	General Condition: This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board. [11 Miss. Admin. Code Pt. 2, R. 2.16.B.]
T-13	General Condition: This permit is for air pollution control purposes only. [11 Miss. Admin.Code Pt. 2, R. 2.1.D(1).]
T-14	General Condition: This permit is a Federally-approved permit to operate a synthetic minor source as described in 11 Miss. Admin. Code Pt. 2, R. 2.4.D [11 Miss. Admin.Code Pt. 2, R. 2.4.D.]
T-15	General Condition: The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [11 Miss. Admin.Code Pt. 2, R. 2.1.D(7).]
T-16	General Condition: The permittee shall furnish to MDEQ within a reasonable time any information MDEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to MDEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to MDEQ along with a claim of confidentiality. [11 Miss. Admin.Code Pt. 2, R. 2.2.B(15)(d).]

AI0000067002 (continued):

Narrative Requirements:

Condition No.	Condition
T-17	General Condition: This permit does not authorize a modification as defined in 11 Miss. Admin. Code Pt. 2, Ch. 2 "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment". Modification is defined as "Any physical change in or change in the method of operation of a facility which increases actual emissions or potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include: (a) routine maintenance, repair, and replacement; (b) use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act; (c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act; (d) use of an alternative fuel or raw material by a stationary source which: (i) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or (ii) the source is approved to use under any permit issued under 40 CFR 52.51 or under regulations approved pursuant to 40 CFR 51.166; (e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.51, or under regulations approved pursuant to Subpart I or 40 CFR 51.166; or (f) any change in ownership of the stationary source" [11 Miss. Admin.Code Pt. 2, R. 2.1.D(2).]
T-18	General Condition: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(a).]
T-19	General Condition: The permittee shall retain all required records, monitoring data, supported information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit upon request. [11 Miss. Admin.Code Pt. 2, R.2.9.]
T-20	General Condition: The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for constructing or operating without a valid permit. [11 Miss. Admin.Code Pt. 2, R.2.2.B(5).]

AI0000067002 (continued):

Narrative Requirements:

Condition No.	Condition
T-21	General Condition: Emergencies (a) Except as otherwise specified herein, an emergency means any situation arising from sudden and reasonably unforseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met. (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence as follows: (i) an emergency occurred and that the permittee can identify the cause(s) of the emergency; (ii) the permitted facility was at the time being properly operated; (iii) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and (iv) the permittee submitted notice of the emergency to MDEQ within two (2) working days of the time when emission limitations were exceeded due to the emergency which contained a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of any emergency has the burden of proof. (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein [11 Miss. Admin.Code Pt. 2, R.2.2.B(10).]
T-22	General Condition: Upsets (a) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows: (i) an upset occurred and that the permittee can identify the cause(s) of the upset; (ii) the source was at the time being properly operated; (iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the upset to the DEQ within five (5) working days of the time the upset began which contained a description of the upset, any steps taken to mitigate emissions, and corrective actions taken. (b) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof. (c) This provision is in addition to any upset provision contained in any applicable requirement. [11 Miss. Admin.Code Pt. 2, R.1.10.]

AI0000067002 (continued):

Narrative Requirements:

Condition No.	Condition
T-23	General Condition: Startups and Shutdowns (a) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows: (i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above; (ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or (iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit. (b) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof. (c) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply. [11 Miss. Admin.Code Pt. 2, R.1.10.]
T-24	General Condition: Maintenance (a) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following: (i) the permittee can identify the need for the maintenance; (ii) the source was at the time being properly operated; (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the maintenance to MDEQ within five (5) working days of the time the maintenance began or such other times as allowed by MDEQ, which contained a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken. (b) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof. (c) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. [11 Miss. Admin.Code Pt. 2, R.1.10.]
T-25	General Condition: For renewal of this permit the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. [11 Miss. Admin.Code Pt. 2, R.2.8.]

CONT0000000002 (AA-001) Control Flare:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The maximum permissible emission of ash and /or particulate matter from fossil fuel burning installations equal to or greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship E = 0.8808 * I ^-0.1667 Where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)b]
L-2		Flares shall be operated at all times when emission may be vented to them. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-3		Flares shall be operated and maintained in conformance with their design and manufacturer's recommendations. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-4		Flares shall be designed and operated with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of 5 minutes during any consecutive two (2) hours. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-5		The permittee shall maintain a flare pilot flame, auto ignitor, or any other equivalent device at all times when emissions are routed to the flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-6		Flares shall only be used with the net heating value of the gas being combusted is 300 Btu/scf or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 200 Btu/scf or greater if the flare is non-assisted. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

CONT0000000002 (continued):

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall monitor the presence of the flare pilot flame or auto ignitor by one of the following methods: using a thermo-couple or any other equivalent device to detect the presence of a flame; or visually observe the presence of the flare flame, daily. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-2		The permittee shall visually observe the flare for a minimum of five (5) minutes during operation using EPA method 22, weekly. If smoking is observed, corrective actions must be taken. The permittee shall perform a follow-up visual observation for a period of two (2) hours using EPA Method 22 immediately after corrections are made to demonstrate compliance with the visible emissions limitation. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-3		The net heating value of the gas being combusted may be determined by the annual field gas analysis. Analysis must demonstrate that the heat content of the flare gas is 300 Btu/scf or greater if the flare is steam-assisted; or the net heating value of the gas being combusted is 200 Btu/scf or greater if the flare is non-assisted. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
M-4		The permittee shall measure the volume of gas combusted in the flare. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall keep records of all maintenance performed on the flare in order to operate the flare in a manner consistent with good air pollution control practices to minimize emissions and shall make said record available upon request. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
R-2	The permittee shall maintain a record and/or log documenting all visual observation/test, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, the date and time when visible observations were conducted and the date and time when corrective actions were taken. [11 Miss. Admin. Code Pt. 2, Ch. 8. 2.2.B(11)]

CONT0000000002 (continued):

Record-Keeping Requirements:

Condition No.	Condition
R-3	The permittee shall maintain a record and/or log documenting all visual observation/test, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, the date and time when visible observations were conducted and the date and time when corrective actions were taken. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]
R-4	The permittee shall keep a record of monitoring conducted to ensure the flare is operated and maintained in conformance with its design. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)]

EQPT0000000005 (AA-002) Truck Loading (crude oil loading into trucks):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The truck loading operation shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

AREA0000000002 (AA-003) Fugitive Equipment Leaks:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		Equipment shall be operated as efficiently as possible to minimize emissions from equipment leaks. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

EQPT0000000006 (AA-004) Storage Tanks (6 crude oil tanks, 1 produced water tank and 1 empty tank, each with capacity of 16,800 gallons):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The crude oil and produced water storage tanks shall be operated as efficiently as possible to provide the maximum reduction of air contaminants. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]

EQPT0000000004 (AA-005) Three (0.5 MMBtu/hr each) Vertical Heater Treaters :

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		For the heater treaters, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a]
L-2		Emissions of opacity shall be less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)]
L-3		The permittee shall not discharge sulfur oxides from any fuel burning installation in which fuel is burned primarily to produce heat or power by indirect heat transfer in excess of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. [11 Miss. Admin. Code Pt. 2, R. 1.4.A(1)]

EQPT0000000007 (AA-006) 225 HP (1.9 MMBtu/hr) natural gas- fired, existing, spark ignition, four stroke, rich burn, stationary reciprocating internal combustion engine used as a compressor Engine:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		For the stationary reciprocating internal combustion engine, the permittee shall combust only natural gas. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)]
L-2		For this stationary reciprocating internal combustion engine, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a]
L-3		Emissions of opacity shall be less than or equal to 40%, as determined by EPA Reference Method 9, 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)]
L-4		General Provisions The permittee is subject to and shall comply with all applicable requirements of the General Provisions, 40 CFR 63, Subpart A (except the permittee does not have to comply with the following: §63.7(b) and (c), §63.8 (e),(f)(4) & (f)(6) and §63.9 (b) through(e), (g) and (h)). [40 CFR 63.6645(a)(5), 40 CFR 63.6665, 40 CFR 63.Table 8]
L-5		40 CFR Part 63, Subpart ZZZZ applicability For the existing four stroke rich burn (4SRB) reciprocating internal combustion engine (RICE) with a site rating of less than 500 hp, located at an area source of hazardous air pollutants (HAPs), the permittee is subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6585, 40 CFR 63.6590(a)(1)iii]

EQPT0000000007 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-6		Emission Limitations/Management Practices The permittee shall comply with the following emission limitation and management practices: a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6603(Table 2d)]
L-7		The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d of 40 CFR 63, Subpart ZZZZ apply. [40 CFR 63.6625(h)]

EQPT0000000007 (continued):

Limitation Requirements:

Condition No.	Parameter	Condition
L-8		The permittee has the option of complying with the work, operation or management practices in this permit by utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d of 40 CFR 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d of 40 CFR 63, Subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: • total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new • viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or, •percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(j)]
L-9		The permittee shall comply with the continuous compliance requirements, as specified below (according to § 63.6605): (a) The permittee shall be in compliance with the applicable emission limitations and operating limitations in 40 CFR 63, subpart ZZZZ at all times. (b) At all times the permittee shall operate and maintain the affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.6605]

EQPT0000000007 (continued):

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall comply with monitoring, installation, collection, operation and maintenance requirements as specified below: The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions . [40 CFR 63.6625(e)]
M-2		The permittee shall comply with the continuous compliance requirements, as specified below: The permittee shall demonstrate compliance with the emission limitations and management practices by operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or by developing and following your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6605]

Record-Keeping Requirements:

Condition No.	Condition
R-1	Recordkeeping The permittee shall keep all applicable records as specified in §63.6655 The permittee shall keep an electronic log with an hour meter on the engine. [40 CFR 63.6655]

EQPT0000000007 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	The permittee shall report each instance in which the engine was not in compliance with the operating limitations listed above or any of the applicable requirements in Table 8 of Subpart ZZZZ . [40 CFR 63_Subpart ZZZZ.Table 8]

GENERAL INFORMATION

Gulf Pine Energy LP, Holliman 7-13
4525 Cal Kolola Road
Caledonia, MS
Lowndes County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
67002	Gulf Pine Energy, LP	Official Site Name	1/13/2015	
168000075	Dixie Energy (US), Inc.., Holliman 7-13	Air-Title V Fee Customer	3/1/2013	5/29/2015
67002	Dixie Energy (US), Inc.	Historic Site Name	11/19/2014	1/13/2015
2808700075	Gulf Pine Energy, LP, Holliman 7-13	Air-AIRS AFS	1/16/2015	
168000075	Gulf Pine Energy LP, Holliman 7-13	Air-Construction	5/29/2015	
168000075	Gulf Pine Energy LP, Holliman 7-13	Air-Synthetic Minor Operating	5/29/2015	4/30/2020

Basin: Tombigbee River Basin

Location Description:

GENERAL INFORMATION

General Facility Description: This facility is an oil and gas production facility with Standard Industrial Classification Code of 1311

Relevant Documents: The federal regulations referenced in this permit may be found on-line at http://ecfr.gpoaccess.gov/ and the State of Mississippi regulations may be found on-line at http://www. mdeq.ms.state.us/ or a copy of the regulations may be obtained by contacting the Mississippi Department of Environmental Quality, Environmental Permitting Division, Post Office Box 2261, Jackson, Mississippi 39255, phone (601) 961-5171. The following regulations were referenced in this permit:

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 1, Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants

Mississippi Air Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2, Permit Regulations for the Construction and/or Operation of Air Emissions Equipment

40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines