

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 320220

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address Moran-Lavaca, LLC 7330 Fern Ave. Shreveport, LA 71134		2. OGRID Number 329413
		3. API Number 30-009-20028
4. Property Code 333057	5. Property Name ELMER WHITE	6. Well No. 001

7. Surface Location

UL - Lot A	Section 2	Township 06N	Range 34E	Lot Idn 1	Feet From 654	N/S Line N	Feet From 660	E/W Line E	County Curry
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8. Proposed Bottom Hole Location

UL - Lot A	Section 2	Township 06N	Range 34E	Lot Idn 1	Feet From 654	N/S Line N	Feet From 660	E/W Line E	County Curry
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9. Pool Information

WC-09 G-06 N063402D;PRECAMBRIAN	98374
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 4590
16. Multiple N	17. Proposed Depth 10000	18. Formation PreCambrian	19. Contractor	20. Spud Date 7/15/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	700	100	0
Int1	12.25	9.625	40	4500	200	0
Prod	8.5	5.5	17.5	10000	300	3500

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Scott M Payn	Approved By: Paul F Kautz	
Title: Regulatory Manager	Title: Geologist	
Email Address: smpayn1@gmail.com	Approved Date: 8/17/2022	Expiration Date: 8/17/2024
Date: 6/28/2022	Phone: 318-272-6376	Conditions of Approval Attached

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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102
August 1, 2011

Permit 320220

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-009-20028	2. Pool Code 98374	3. Pool Name WC-09 G-06 N063402D;PRECAMBRIAN
4. Property Code 333057	5. Property Name ELMER WHITE	6. Well No. 001
7. OGRID No. 329413	8. Operator Name Moran-Lavaca, LLC	9. Elevation 4590

10. Surface Location

UL - Lot A	Section 2	Township 06N	Range 34E	Lot Idn 1	Feet From 654	N/S Line N	Feet From 660	E/W Line E	County Curry
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11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 39.86	13. Joint or Infill			14. Consolidation Code			15. Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION	
	<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>	
	E-Signed By: Scott M Payn Title: Regulatory Manager Date: 6/28/2022	
	SURVEYOR CERTIFICATION	
<i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>		
Surveyed By: Robert Lydick Date of Survey: 6/17/2022 Certificate Number: 5955		

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Form APD Conditions

Permit 320220

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: Moran-Lavaca, LLC [329413] 7330 Fern Ave. Shreveport, LA 71134	API Number: 30-009-20028
	Well: ELMER WHITE #001

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	MUST SUBMIT DEVIATION SURVEY WITH c-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Moran-Lavaca llc **OGRID:** 329413 **Date:** 07/14 /2022

II. Type: ☐ Original ☒ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☒ Other.

If Other, please describe: incomplete original

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Elmer White #1						

IV. Central Delivery Point Name: _____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
<u>Elmer White #1</u>		<u>8-15-22</u>				

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☒ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☐ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☒ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☒ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

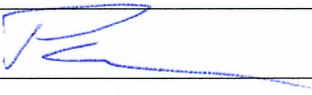
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Scott Payn
Title: VP
E-mail Address: smpayn1@gmail.com
Date: 07/14/22
Phone: 318-272-6376
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Separation Equipment

Moran Lavaca llc will test each well to determine the amount of gas anticipated in each stage of the process and utilized this information with a safety factor to size the equipment listed below:

- Separation equipment will be set as follows:
 - o Individual 3 Phase separators will be set for each individual well.
 - The separators will be sized based on the anticipated volume of the well and the pressure of the lines utilized for oil, gas, and water takeaway.
 - o Individual Heater treaters will be set for each individual well.
 - The heater treaters are sized based on the anticipated combined volume of oil and water predicted to come from the initial 3 phase separator.
 - Oil will be separated from the water and water will be sent to its respective tanks
 - The combined oil and natural gas stream is routed to the Vapor Recovery Tower.
 - o The oil and water tanks utilize a closed vent capture system to ensure all breathing, working and flashing losses are routed to the Vapor Recovery Tower (VRT) and Vapor Recovery Unit (VRU)
 - o The Vapor Recovery Tower has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks. A VRU is then utilized to push the recovered gas into the sales pipeline.
 - The VRU will be sized based on the anticipated gas volume and the gas pressure for the line utilized for takeaway.

All equipment has been sized based on the modeled projected need and a safety factor of at least 10%. This is ensuring that the capture of methane gas and VOC will minimize flaring below 50mcf/d per facility.

Operational Practices

19.15.27.8 (A) Venting and Flaring of Natural Gas

Moran Lavaca llc. understands the requirements of NMAC

19.15.27.8 which states that the venting and flaring of natural gas during drilling, completion or production that constitutes waste as defined in 19.15.2 are prohibited.

19.15.27.8 (B) Venting and flaring during drilling operations

1. Operator shall capture or combust natural gas if technically feasible during drilling operations using best industry practices.
2. A flare stack with a 100 percent capacity for expected volumes will be set on location of the CTB at least 100 feet from the nearest surface hole location, well heads, and storage tanks.
3. In the event of an emergency, we will vent natural gas in order to avoid substantial impact. we shall report the vented or flared gas to the NMOCD.

19.15.27.8 (C) Venting and flaring during completion or recompletion

During completion operations, Novo utilizes the following:

1. test facilities will be arranged for flowback
2. Individual well test separators will be set to properly separate gas and liquids. Temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline. See Appendix A for details on Separation Equipment used by Novo.
3. The storage tanks will be set that are tied into gas busters or a temporary flare to manage all natural gas. This flare would meet the following requirements:
 - a) An appropriately sized flare stack with an automatic igniter
 - b) We will analyze the natural gas samples often

- c) we will route the natural gas into a gathering pipeline as soon as the pipeline specifications are met
- d) we will provide the NMOCD with pipeline specifications and natural gas data.

19.15.27.8 (D) Venting and flaring during production operations.

We will not vent or flare natural gas except under the following circumstances:

1. During an emergency or malfunction
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided
 - a) we will not vent after the well achieves a stabilized rate and pressure
 - b) We will remain present on-site during liquids unloaded by manual purging and takes all reasonable actions to achieve a stabilized rate and pressure at the earliest practical time
 - c) We will optimize the system to minimize natural gas venting on any well equipped with a plunger lift or auto control system
 - d) Best management practices will be used during downhole well maintenance.
3. During the first year of production from an exploratory well provided
 - a) WE receive approval from the NMOCD
 - b) We remain in compliance with NM gas capture requirements
 - c) We submit an updated C-129 from to the NMOCD.
4. During the following activities unless prohibited
 - a) Gauging or sampling a storage tank or low-pressure production vessel
 - b) Loading out liquids from a storage tank
 - c) Repair and maintenance
 - d) Normal operation of a gas-activated pneumatic controller or pump
 - e) Normal operation of a storage tank but not including venting from a thief hatch
 - f) Normal operation of dehydration units
 - g) Normal operations of compressors, compressor engines, turbines, valves, flanges, and connectors

- h) During a bradenhead, packer leakage test, or production test lasting less than 24 hours
- i) When natural gas does not meet the gathering pipeline specifications
- j) Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities.

In order to comply with these laws, see Appendix B for details on Venting and Flaring.

19.15.27.8 (E) Performance standards

1. The equipment is routed to a vapor recovery system and utilizes as a flare as back up for periods of startup, shutdown, maintenance or malfunction of the VRU system.
2. we will install a flare that designed to handle the full volume of vapors from the facility in case of VRU failure and it is designed with an auto-ignition system.
3. Flare stacks will be appropriately sized and designed to ensure proper combustion efficiency
 - a) Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot
 - b) Previously installed flare stacks will be retrofitted with an automatic ignitor, continuous
 - c) Flare stacks will be equipped with an automatic ignitor or continuous pilot if located at a well or facility with an average daily production of 60,000 cubic feet of natural gas or less.
 - d) Flare stacks will be located at least 100 feet from well and storage tanks and securely anchored
4. We will conduct an AVO inspection on all components for leaks and defects at least weekly.
5. We will make and keep records of AVO inspections available to the NMOCD for at least 5 years.
6. We may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. We will resolve emergencies as promptly as possible.

19.15.27.8 (F) Measurement or estimation of vented and flared natural gas

1. will have meters on the flares
 2. We will install equipment to measure the volume of flared natural gas that has an average daily production of 60,000 cubic feet or greater of natural gas.
 3. Our measuring equipment will conform to an industry standards.
 4. The measurement system is designed such that it cannot be bypassed except for inspections and servicing the meters.
 5. We will estimate the volume of vented or flared natural gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
-
6. We will estimate the volume of vented and flared natural gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on form C-116.
 7. We will install measuring equipment whenever the NMOCD determines that metering is necessary.

APPENDIX A

Separation Equipment

- Separation equipment will be set as follows:
 - o Individual 3 Phase separators will be set for each individual well.
 - The separators will be sized based on the anticipated volume of the well and the pressure of the lines utilized for oil, gas, and water takeaway.
 - o Individual Heater treaters will be set for each individual well.
 - The heater treaters are sized based on the anticipated combined volume of oil and water predicted to come from the initial 3 phase separator.
 - Oil will be separated from the water and water will be sent to its respective tanks
 - The combined oil and natural gas stream is routed to the Vapor Recovery Tower.
 - o The oil and water tanks utilize a closed vent capture system to ensure all breathing, working and flashing losses are routed to the Vapor Recovery Tower (VRT) and Vapor Recovery Unit (VRU)
 - o The Vapor Recovery Tower has been sized, based on the anticipated volume of gas from the heater treater and oil and water tanks. A VRU is then utilized to push the recovered gas into the sales pipeline.
 - The VRU will be sized based on the anticipated gas volume and the gas pressure for the line utilized for takeaway.

All equipment has been sized based on the modeled projected need and a safety factor of at least 10%. This is ensuring that the capture of methane gas and VOC will minimize flaring below 50mcf/d per facility.

APPENDIX B

Venting and Flaring

We will utilize the following from list A-I of Section 3 for its operations to minimize flaring:

- a) We will utilize Natural Gas (NG) powered generators to power its leases where grid power isn't available.
- b) When electrical grid power is unavailable, NG generators will be used for major equipment onsite.
- c) our compression in service will be NG powered.
- d) Should liquids removal – such as dehydration – be required, units will be powered by NG.

Additionally, we will only flare gas during the following times:

- o Scheduled maintenance for gas capturing equipment including:
 - VRT
 - VRU
 - Storage tanks
 - Pipelines
- o Emergency flaring

Best Management Practices

Moran Lavaca LLC will utilize the following best management practices to minimize venting during active and planned maintenance.

WE will a closed vent capture system to route emissions from the heater treater, tanks and vapor recovery to the VRU with a flare for backup. The system is designed such that if the VRU is taken out of service for any reason, the vapors will be routed to the flare for combustion.

WE will isolate and attempt to route all vapors to the VRU or flare prior to opening any lines for maintenance to minimize venting from the equipment.