

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised July 18, 2013

Energy Minerals and Natural Resources

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

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

¹ Operator Name and Address FAE II Operating LLC 11757 Katy Freeway, Suite 725 Houston, TX 77079		² OGRID Number 329326
		³ API Number 30-025-32958
⁴ Property Code 331165	⁵ Property Name VACUUM 31	⁶ Well No. #001

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	31	16S	35E		660	S	1980	E	LEA

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	31	16S	35E		660	S	1980	E	LEA

⁹ Pool Information

Pool Name VACUUM; ABO, NORTH	Pool Code 61760
---------------------------------	--------------------

Additional Well Information

¹¹ Work Type P	¹² Well Type O	¹³ Cable/Rotary R	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 4052'
¹⁶ Multiple NO	¹⁷ Proposed Depth 12,750'	¹⁸ Formation ABO	¹⁹ Contractor TBD	²⁰ Spud Date 2/22/2022
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 pits²¹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.50"	13.375"	48#	495'	540 sxs	Surface
Intermediate	12.25"	9.625"	40#	4585'	1630 sxs	Surface
Production	7.875"	5.5"	17#	12750'	800 sxs	12030' (log)

Casing/Cement Program: Additional Comments

--

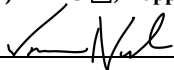
²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3,000#	3,000#	Unknown

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature:



Printed name: VANESSA NEAL

Title: SR RESERVOIR ENGINEER

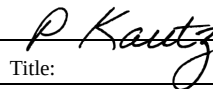
E-mail Address: vanessa@faenergyus.com

Date: 16 FEB 2022

Phone: 832-219-0990

OIL CONSERVATION DIVISION

Approved By:



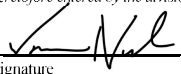
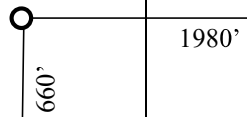
Title:

Approved Date: 02/17/2022

Expiration Date: 02/17/2024

Conditions of Approval Attached

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

16				17 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 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>  02/16/2022 Signature Date VANESSA NEAL Printed Name vanessa@faenergyus.com E-mail Address
	S/2 SE/4 Sec 31 (80 acres)			18 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> Date of Survey Signature and Seal of Professional Surveyor: Certificate Number
				

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: FAE II Operating, LLC **OGRID:** 329326 **Date:** 2/16/2022

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: Recomplete the Vacuum 31 #001 to Abo

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
VACUUM 31 #001	30-025-32958	O-31-16S-35E	660' FSL & 1980' FEL	7	7	1

IV. Central Delivery Point Name: VACUUM 31 BATTERY [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
VACUUM 31 #001	30-025-32958	2/22/2022	2/22/2022	2/22/2022	3/1/2022	3/2/2022

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: Vanessa Neal
Title: Sr. Reservoir Engineer
E-mail Address: vanessa@faenergyus.com
Date: 16 FEB 2022
Phone: 832-219-0990

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:
Title:
Approval Date:
Conditions of Approval:

FAE II Operating, LLC (“FAE”) Natural Gas Management Plan

VI. Separation Equipment

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- Valves and meters are designed to service without flow interruption or venting of gas.
- Gas from treater and wellhead will be tied into the sales line.

VII. Operational Practices

19.15.27.8 (A)

FAE’s field operations are designed with the goal of minimizing venting of natural gas. Wellhead and existing production equipment are tied into the gas sales line.

19.15.27.8 (B) Venting and Flaring during drilling operations

- Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.
- Daily vented volumes during drilling operations will be estimated on the daily report.
- All equipment will be available to process wellhead production upon completion of the well.

19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines.
- The CTB will have properly sized separation equipment for maximum anticipated flowrates.
- All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from well is <60 MCFPD.

19.15.27.8 (D) Venting and Flaring during production operations.

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from well is <60 MCFPD.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas sales volumes are recorded and monitored via EFMS.

19.15.27.8 (E) Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas/H₂S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

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

- All gas from wellhead and treater will be routed to a sales outlet.
- When metering is not practical due to low pressure/low rate (<60 MCFPD), the vented volume will be estimated based on annual GOR.

VIII. Best Management Practices

- FAE will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance.
- All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from well is <60 MCFPD. All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All equipment will be maintained to provide highest run-time possible.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas sales volumes are recorded and monitored via EFMS.
- All procedures are drafted to keep venting to the absolute minimum.

Well Name: **Vacuum 31 #001** Lease No: **A-1320 / V-3836** Lease Type: **State**
 Township: **16-S** Range: **35-E** Sec: **31-O** Location: **660' FSL & 1980' FEL**
 County: **Lea** State: **NM** API: **30-025-32958** Formation: **[61760] VACUUM; ABO, NORTH**

Surface Csg

Size: **13-3/8"**
 Wt.&Thrd: **48#**
 Grade: **H-40 ST&C**
 Set @: **495'**
 Sxs cmt: **540 sxs**
 Circ: **132 sxs**
 TOC: **Surface**
 Hole Size: **17-1/2"**

KB: **4069'**
 DF: **4068'**
 GL: **4052'**
 Spud Date: **5/18/1995**
 Compl. Date: **7/28/1995**

Intermediate Csg

Size: **9-5/8"**
 Wt.&Thrd: **40#**
 Grade: **J-55/N-80 ST&C**
 Set @: **4585'**
 Sxs cmt: **1630 sxs**
 Circ:
 TOC:
 Hole Size: **12-1/4"**

History - Highlights

2017-09: Well TA
2022-02: DO CIBP & attempt to fish stuck pipe. Unsuccessful. Left 4-1/2" overshoot w/ 3' bowl extension w/ 3-1/2" fish neck attached to top of fish at 10,656'.

Proposed: Set CIBP above fish to isolate MORROW. Run CBL to see if cement exists behind pipe across ABO. If no cmt exists, perf csq and sqz cmt behind pipe. Add perfs & acidize ABO. RTP

YATES (Top @ 3040')**SAN ANDRES (Top @ 4620')****GLORIETA (Top @ 6205')****TUBB (Top @ 7528')****ABO (Top @ 8042')**

SN **8948'**
 EOT **8985'**

Cmt on top **10,625'**
 CIBP **10,635'**

Fish **10,656'**
 Stuck 2-7/8" tbg (4-1/2" overshoot w/ 3' bowl extension w/ 3-1/2" fish neck looking up)

8926-8932', 8934-8942', 8950-8960', 8966-8976', 8979-8982', 8985-8991' - Proposed
 Acidize w/ 5000 gals 15% NEFE HCL acid, 1500# rock salt & flush w/ 500 bbls 2% KCL wtr

Production Csg

Size: **5-1/2"**
 Wt.&Thrd: **17#**
 Grade: **N-80/S-95**
 Set @: **12,750'**
 Sxs Cmt: **800 sxs**
 Circ:
 TOC: **12,030' (log)**
 Hole Size: **7-7/8"**

CISCO (Top @ 10,885')
CANYON (Top @ 11,068')

STRAWN (Top @ 11,750')
ATOKA (Top @ 11,975')

MORROW (Top @ 12,309') [ISOLATED]

12,328-12,342' (4 SPF) (56 holes) - Jul 1995
 Frac w/ 14,400 gals foam & 12,200# 20/40 sand
 12,610-12,617', 12,640-12,652' (6 SPF) - Feb 2010
 Frac w/ 117 tons CO2 & 26,800# 20/40 bauxite sand

PBTD 10,628'
TD 12,750'

Tubulars - Capacities and Performance

2-7/8" 6.4# J-55 EUE 8rd Tubing (277 jts 2-7/8" tbg, SN, 4' perf sub, MA w/ bull plug)

Well Name: **Vacuum 31 #001** Lease No: **A-1320 / V-3836** Lease Type: _____ State _____
 Township: **16-S** Range: **35-E** Sec: **31-O** Location: **660' FSL & 1980' FEL**
 County: **Lea** State: **NM** API: **30-025-32958** Formation: **[86800] Vacuum; ATOKA-MORROW, No**

CURRENTSurface Csg

Size: **13-3/8"**
 Wt.&Thrd: **48#**
 Grade: **H-40 ST&C**
 Set @: **495'**
 Sxs cmt: **540 sxs**
 Circ: **132 sxs**
 TOC: **Surface**
 Hole Size: **17-1/2"**

Intermediate Csg

Size: **9-5/8"**
 Wt.&Thrd: **40#**
 Grade: **J-55/N-80 ST&C**
 Set @: **4585'**
 Sxs cmt: **1630 sxs**
 Circ: _____
 TOC: _____
 Hole Size: **12-1/4"**

KB: **4069'**
 DF: **4068'**
 GL: **4052'**
 Spud Date: **5/18/1995**
 Compl. Date: **7/28/1995**

History - Highlights

2017-09: Well TA
2022-02: DO CIBP & attempt to fish stuck pipe. Unsuccessful. Left 4-1/2" overshot w/ 3' bowl extension w/ 3-1/2" fish neck attached to top of fish at 10,656'.

YATES (Top @ 3040')SAN ANDRES (Top @ 4620')GLORIETA (Top @ 6205')TUBB (Top @ 7528')ABO (Top @ 8042')CISCO (Top @ 10,885')CANYON (Top @ 11,068')STRAWN (Top @ 11,750')ATOKA (Top @ 11,975')MORROW (Top @ 12,309') [ISOLATED]

12,328-12,342' (4 SPF) (56 holes) - Jul 1995
 Frac w/ 14,400 gals foam & 12,200# 20/40 sand
 12,610-12,617', 12,640-12,652' (6 SPF) - Feb 2010
 Frac w/ 117 tons CO2 & 26,800# 20/40 bauxite sand

Fish **10,656'**
 Stuck 2-7/8" tbg (4-1/2" overshot w/ 3' bowl extension w/ 3-1/2" fish neck looking up)

Production Csg

Size: **5-1/2"**
 Wt.&Thrd: **17#**
 Grade: **N-80/S-95**
 Set @: **12,750'**
 Sxs Cmt: **800 sxs**
 Circ: _____
 TOC: **12,030' (log)**
 Hole Size: **7-7/8"**

PBTD 10,628'
TD 12,750'

Tubulars - Capacities and Performance

1105 BTU/cf
 0.649 specific gravity

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

COMMENTS

Action 82144

COMMENTS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 1000 Houston, TX 77079	OGRID: 329326
	Action Number: 82144
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

COMMENTS

Created By	Comment	Comment Date
pkautz	HOLDING FOR C-102 INDICATING WHICH 80 ACRES IS DEDICATED TO WELL. IF UNABLE TO DEDICATE 80 ACRES MUST APPLY FOR NSP PRIOR TO APD APPROVAL.	2/16/2022

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

CONDITIONS

Action 82144

CONDITIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 1000 Houston, TX 77079	OGRID: 329326
	Action Number: 82144
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	2/17/2022