

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

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

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

<sup>1</sup> Operator Name and Address		<sup>2</sup> OGRID Number
		<sup>3</sup> API Number
<sup>4</sup> Property Code	<sup>5</sup> Property Name	<sup>6</sup> Well No.

**<sup>7</sup> Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
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**<sup>8</sup> Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
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**<sup>9</sup> Pool Information**

Pool Name	Pool Code
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**Additional Well Information**

<sup>11</sup> Work Type	<sup>12</sup> Well Type	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type	<sup>15</sup> Ground Level Elevation
<sup>16</sup> Multiple	<sup>17</sup> Proposed Depth	<sup>18</sup> Formation	<sup>19</sup> Contractor	<sup>20</sup> Spud Date
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

**<sup>21</sup> Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC

**Casing/Cement Program: Additional Comments**

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**<sup>22</sup> Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. <b>I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable.</b> Signature: <i>Connie Blaylock</i> Printed name: Title: E-mail Address: Date:		<p align="center"><b>OIL CONSERVATION DIVISION</b></p> Approved By: <i>P Kautz</i> Title: Approved Date: <b>01/18/2023</b> Expiration Date: <b>01/18/2025</b> Conditions of Approval Attached	
Phone:			

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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☒ AMENDED REPORT

Well to be plugged back above horiz track;  
BHL will be the same as the SHL.

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-31131	<sup>2</sup> Pool Code 62180	<sup>3</sup> Pool Name VACUUM; GRAYBURG-SAN ANDRES
<sup>4</sup> Property Code 331886	<sup>5</sup> Property Name VACUUM GLORIETA WEST UNIT	<sup>6</sup> Well Number 115
<sup>7</sup> OGRID No. 330132	<sup>8</sup> Operator Name MORNINGSTAR OPERATING LLC	<sup>9</sup> Elevation 3986 GL

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	01	18S	34E	1	604	N	856	E	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

<sup>16</sup> 	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> 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. Signature: <u>Connie Blaylock</u> Date: <u>01/16/2023</u> Printed Name: <u>Connie Blaylock</u> E-mail Address: <u>cblaylock@mspartner.com</u>	
	<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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. 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:** MORNINGSTAR OPERATING LLC **OGRID:** 330132 **Date:** 01 / 16 / 23

**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: \_\_\_\_\_

**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
VAC GLORIETA	30-025-31131	A, 01, 18S, 34E	604 FNL	50	300	525
W UNIT			856 FEL			

**IV. Central Delivery Point Name:** VGSAU Battery (well to be plugged back and recompleted in the G-SA [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
				02/05/2023	02/08/2023	02/10/2023

**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:	<i>Connie Blaylock</i>
Printed Name:	CONNIE BLALOCK
Title:	REGULATORY ANALYST
E-mail Address:	CBLAYLOCK@MSPARTNERS.COM
Date:	01/16/2023
Phone:	817-334-7882
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

*VGWU 115H, MorningStar Operating LLC*

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

Surface facilities for the well are located at a central site. Process equipment includes a 3-phase separator tester, a 2-phase free water knockout, gun barrel, oil tanks, vapor recovery unit, and a flare stack. Vessels are sized based on historical and predicted well performance and provide adequate time for separation. Natural gas will be sold to the sales pipeline and vented/flared during emergency/non-scheduled issues.

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

- **Drilling Operations:** Any natural gas produced during drilling operations will be combusted with a flare line. A properly sized flare stack will be located a minimum of 100 feet from the nearest surface hole location. If flaring isn't possible or poses a risk, Operator will vent natural gas to avoid any safety or environmental risks and report natural gas.
- **Completion Operations:** Hydrocarbon production will be minimized during completion and flowback operations. No flowback will occur until the well is connected to a properly sized system. When feasible, natural gas will be flared rather than vented. When sustained producible volumes are obtained, operations will turn to separation facilities and gathering pipeline.
- **Production Operations:** Efforts will be made to minimize waste. Process equipment (separator and tanks) is designed for efficient separation and routing produced gas to the sales pipeline. Flaring rather than venting will be the preferred method to handle emergencies and malfunctions. Equipment will be properly maintained with routine inspections and preventative maintenance. Weekly AVOs will be performed at facilities.

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

- Best management practices are used to minimize venting and flaring during downhole operations.
- Flaring will be used in lieu of venting when feasible.
- Adequate well control during completion operations will be employed to minimize oil and gas production.
- Tanks and vessels are isolated from their respective facilities prior to inspection, maintenance, and repairs.
- The preventive maintenance program includes weekly AVO inspections, identification of failures or malfunctions, and repairs as needed.
- Coordinate with third-party gathering and sales operators to minimize downtime and the need for venting/flaring during downstream pipeline and gas plant events.



**PROPOSED  
WELLBORE DIAGRAM**

**Created:** 3/23/2005 **By:** \_\_\_\_\_  
**Updated:** 9/6/2022 **By:** JFR  
**Lease:** VGSAU VGWU  
**Surface Location:** 604' FNL & 856' FEL  
**Bottomhole Location:** 46' FSL & 443' FWL  
**County:** Lea **St:** NM  
**Current Status:** Active Oil Producer  
**Directions to Wellsite:** Buckeye, New Mexico

**Well No.:** 358 115H  
**Unit Ltr:** A  
**Unit Ltr:** M  
**St Lease:** B-1733-1  
**Elevation:** 3986' GR

**Field:** Vacuum Glorieta  
**Sec:** 1 **TSHP/Range:** 18S-34E  
**Sec:** 31 **TSHP/Range:** 17S-35E  
**API:** 30-025-31131

**Surface csg**

**Size:** 11-3/4"  
**Wt.:** 42#, H40 14-3/4" hole  
**Set @:** 1550'  
**Circ:** 1400 sx, Circ 300 sx

**Intermediate Casing**

**Size:** 8-5/8"  
**Wt.:** 32  
**Set @:** 3000  
**Sxs cmt:** 1050 (DV @ 1565')  
**Circ:** 315 sx  
**TOC:** Surface  
**Hole Size:** 11"

**Production Casing**

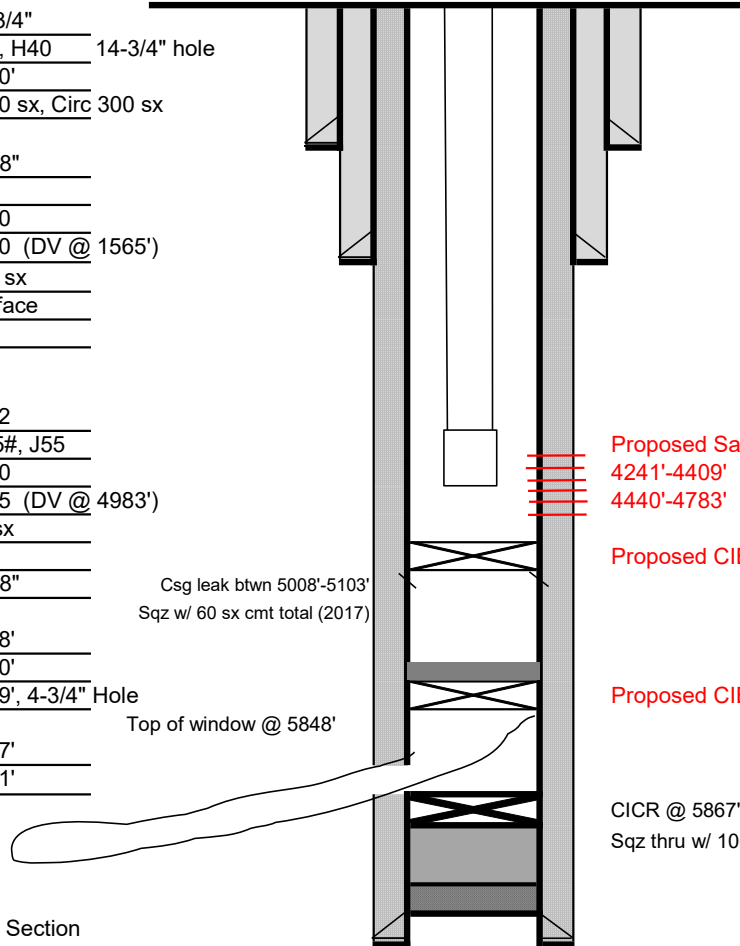
**Size:** 5 1/2  
**Wt.:** 15.5#, J55  
**Set @:** 6300  
**Sxs Cmt:** 1375 (DV @ 4983')  
**Circ:** 90 sx  
**TOC:** surf  
**Hole Size:** 7-7/8"

**Top of Horizontal Window:** 5848'  
**Bot of Horizontal Window:** 5860'  
**Horizontal TD:** 7459', 4-3/4" Hole

**PBTD (Cement Retainer):** 5867'  
**PBTD (cement plug):** 5861'

**Perforations**

Open Hole Completion in Horizontal Section  
 (abandoned/sqzd) 5956' - 6092'  
 (abandoned/sqzd) 6145' - 6192'



**KB:** 4001'  
**DF:** \_\_\_\_\_  
**GL:** 3986'  
**Original Spud Date:** 3/28/1991  
**Original Compl. Date:** 6/11/1991  
**Horizontal Spud Date:** 12/6/1997  
**Horizontal Compl. Date:** 12/24/1997

**Proposed San Andres Perfs:**  
 4241'-4409'  
 4440'-4783'

**Proposed CIBP ~ 5000'**

**Proposed CIBP @ 5800'**

**CICR @ 5867'**  
 Sqz thru w/ 100 sx

**TD: 6250'**



**CURRENT  
WELLBORE DIAGRAM**

Created: 3/23/2005 By: \_\_\_\_\_  
 Updated: 9/6/2022 By: JFR  
 Lease: Vacuum Glorieta West Unit  
 Surface Location: 604' FNL & 856' FEL  
 Bottomhole Location: 46' FSL & 443' FWL  
 County: Lea St: NM  
 Current Status: Active Oil Producer  
 Directions to Wellsite: Buckeye, New Mexico

Well No.: 115H  
 Unit Ltr: A  
 Unit Ltr: M  
 St Lease: B-1733-1  
 Elevation: 3986' GR

Field: Vacuum Glorieta  
 Sec: 1 TSHP/Range: 18S-34E  
 Sec: 31 TSHP/Range: 17S-35E  
 API: 30-025-31131

**Surface csg**

Size: 11-3/4"  
 Wt.: 42#, H40 14-3/4" hole  
 Set @: 1550'  
 Circ: 1400 sx, Circ 300 sx

**Intermediate Casing**

Size: 8-5/8"  
 Wt.: 32  
 Set @: 3000  
 Sxs cmt: 1050 (DV @ 1565')  
 Circ: 315 sx  
 TOC: Surface  
 Hole Size: 11"

**Production Casing**

Size: 5 1/2"  
 Wt.: 15.5#, J55  
 Set @: 6300  
 Sxs Cmt: 1375 (DV @ 4983')  
 Circ: 90 sx  
 TOC: surf  
 Hole Size: 7-7/8"

Top of Horizontal Window: 5848'  
 Bot of Horizontal Window: 5860'  
 Horizontal TD: 7459', 4-3/4" Hole

PBTD (Cement Retainer): 5867'  
 PBTD (cement plug): 5861'

**Perforations**

Open Hole Completion in Horizontal Section  
 (abandoned/sqzd) 5956' - 6092'  
 (abandoned/sqzd) 6145' - 6192'

TD: 6250'

KB: 4001'  
 DF: \_\_\_\_\_  
 GL: 3986'  
 Original Spud Date: 3/28/1991  
 Original Compl. Date: 6/11/1991  
 Horizontal Spud Date: 12/6/1997  
 Horizontal Compl. Date: 12/24/1997

Tubing									
Tubing Description					Set Depth (ftKB)		Run Date		Pull Date
Tubing - Production					5899		1/14/2020		
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Len (ft)	Top (ftKB)	Btm (ftKB)
1	Tubing	2 7/8	2.44	6.50	J-55		4.1	15	19
175	Tubing	2 7/8	2.44	6.50	J-55		5771.4	19	5791
1	Tubing Drain	2 7/8					0.6	5791	5791
1	Seal Nipple	2 7/8					1.1	5791	5792
1	Tubing	2 7/8	2.44	6.50	J-55		4.1	5792	5796
2	ESP - Pump	2 7/8					24.1	5796	5820
1	ESP - Pump	2 7/8					19.1	5820	5839
1	ESP - Pump	2 7/8					10	5839	5850
2	ESP - Pump with intake	2 7/8					14.3	5850	5864
1	Seal	2 7/8					6.1	5864	5870
1	Seal	2 7/8					6.1	5870	5876
1	ESP - Motor	2 7/8					21.4	5876	5897
1	Pressure / Temperature Sensor	2 7/8					2	5897	5899

CICR @ 5867'  
 Sqz thru w/ 100 sx

Csg leak btwn 5008'-5103'  
 Sqz w/ 60 sx cmt total (2017)

Top of window @ 5848'

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

CONDITIONS  
  
Action 176686

CONDITIONS

Operator:  MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID:  330132
	Action Number:  176686
	Action Type:  [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/18/2023