

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

¹ Operator Name and Address Shinnery Oil Company, Inc. 606 W. Tennessee Ave., Ste.107, Midland, TX 97701-4260		² OGRID Number 20713
		³ API Number 30-025-23905
⁴ Property Code 300990	⁵ Property Name New Mexico 'D' State (NCT-1)	⁶ Well No. 15

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	27	17 S	34 E		660'	North	660'	West	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name Vacuum; Grayburg-San Andres	Pool Code 62180
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Additional Well Information

¹¹ Work Type E	¹² Well Type O	¹³ Cable/Rotary R	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 4049'
¹⁶ Multiple N	¹⁷ Proposed Depth ~ 5020' PBTD	¹⁸ Formation GRBG/SA	¹⁹ Contractor TBD	²⁰ Spud Date 7/01/2023
Depth to Ground water 120'-200'		Distance from nearest fresh water well ~ 0.35 miles		Distance to nearest surface water n/a

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
Surface	16.0"	13.375"	48.0#	40'	20 sx 'C'	Circ. to Surf.
Intermediate	11.0"	8.625"	24.0#	1650'	750 sx 'C'	Circ. to Surf.
Production	7.875"	5.5"	17.0#	8830'	2450 'TLW'+ 'C'	Circ. to Surf.*

Casing/Cement Program: Additional Comments

*5.5" Csg cmt calc'd to surf, n/r. During P&A, Chevron perf'd @ 1701' and 300'; held pressure @ 500 psi. Well diagram shows cement to surface.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Hydraulic or Man./ Dbl. Blind Ram	3000 psi	5000 psi	Shaffer/ Hydril or equivalent

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: **Ben Stone**



Title: **Agent for Shinnery Oil Company, Inc.**

E-mail Address: **ben@sosconsulting.us**

Date: **5/02/2023**

Phone: **936-377-5696**

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
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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 LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-23905		² Pool Code 62180		³ Pool Name Vacuum; Grayburg-San Andres	
⁴ Property Code 300990		⁵ Property Name New Mexico 'D' State NCT-1			⁶ Well Number 15
⁷ OGRID No. 20713		⁸ Operator Name Shinnery Oil Company, Inc.			⁹ Elevation 4049'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	27	17S	34E		660'	FNL	660'	FWL	Lea

¹¹ 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
same									

¹² Dedicated Acres 40	¹³ Joint or Infill I	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.

¹⁶				¹⁷ OPERATOR CERTIFICATION 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 4/29/2023 Date Ben Stone Printed Name ben@sosconsulting.us E-mail Address
				¹⁸ SURVEYOR CERTIFICATION 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. October 13, 1971 Date of Survey Signature and Seal of Professional Surveyor:
				J.J. Velton 8174 Certificate Number

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:	Jack Hood
Title:	President
E-mail Address:	jwhood@sbcglobal.net
Date:	May 4, 2023
Phone:	432-868-8846

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

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

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: Shinnery Oil Company, Inc. **OGRID:** 20713 **Date:** 4 / 21 / 2023

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
NM 'D' State NCT 1 #15	30-025-23905	D-27-17S-34E	660'N/660'W	10	<100	~30 BBL/D

IV. Central Delivery Point Name: NM 'D' State Lease TB - TARGA Meter #830062 [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
NM 'D' State NCT 1 #15	30-025-23905	~6/25/2023	~6/27/2023	~6/29/2023	~6/30/2023	~7/02/2023

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:	
Printed Name:	Jack Hood
Title:	President
E-mail Address:	jwhood@sbcglobal.net
Date:	May 4, 2023
Phone:	432-868-8846

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

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

Shinnery Oil Company

NM 'D' State NCT-1 Lease Project 27-17S-34E, Lea County, NM

NATURAL GAS MANAGEMENT PLAN NARRATIVE ITEMS

VI: Description of how Shinnery Oil Company will size separation equipment to optimize gas capture.

Separation equipment will be sized by Shinnery Oil Company's engineering staff, based on anticipated volumes to allow adequate retention time of the produced fluids within the vessel.

VII: Descriptions of the actions Shinnery Oil Company will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC

- A. Shinnery Oil Company will maximize the recovery of natural gas by minimizing waste of natural gas through venting and flaring. Shinnery Oil will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport 100% of the produced natural gas. Should a natural gas gathering system be unfeasible, an alternative beneficial use will be found for the gas.
- B. All drilling operations will be equipped with a properly sized flare stack located at least 100 feet from the surface hole location. The flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency or malfunction, any flared volumes will be reported appropriately.
- C. During completion operations any natural gas produced by the well will be flared. Following completion and flowback operations, the production stream will flow to portable separation equipment until well facility is completed, at which point fluids will be directed to permanent separation equipment. The separated natural gas will be sent to a gas gathering line. If the natural gas does not meet gathering pipeline specifications, gas will be flared for 60 days or until the gas meets pipeline specifications. The flare stack will be properly sized and equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.
- D. During production operations natural gas will not be flared unless an exception as listed in 19.15.27.8 (D)(1-4) is met. If there is no adequate takeaway for the produced natural gas, the well will be shut-in until a gas gathering system or alternative beneficial use is available, with exception of emergency or malfunction situations.
- E. Shinnery Oil Company will comply with performance standards as listed in 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressure in order to minimize waste. Storage tanks that are routed to a flare or other control device will be equipped with automatic gauging systems to reduce venting of natural gas. Flare stacks will be equipped with an automatic ignitor or continuous pilot. Shinnery Oil conducts AVO inspections as described in 19.15.27.8(E)(5)(a) at frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.
- F. The volume of natural gas that is vented, flared, or beneficially used during drilling, completion, or production operations, will be measured or estimated and reported accordingly. Shinnery Oil will install equipment to measure the volume of natural gas flared from a facility associated with a well authorized by an APD [after May 25, 2021] that has an average daily production greater than 60,000 cubic feet of natural gas. If metering is not practicable due to circumstances such as low flow rate or low pressure venting or

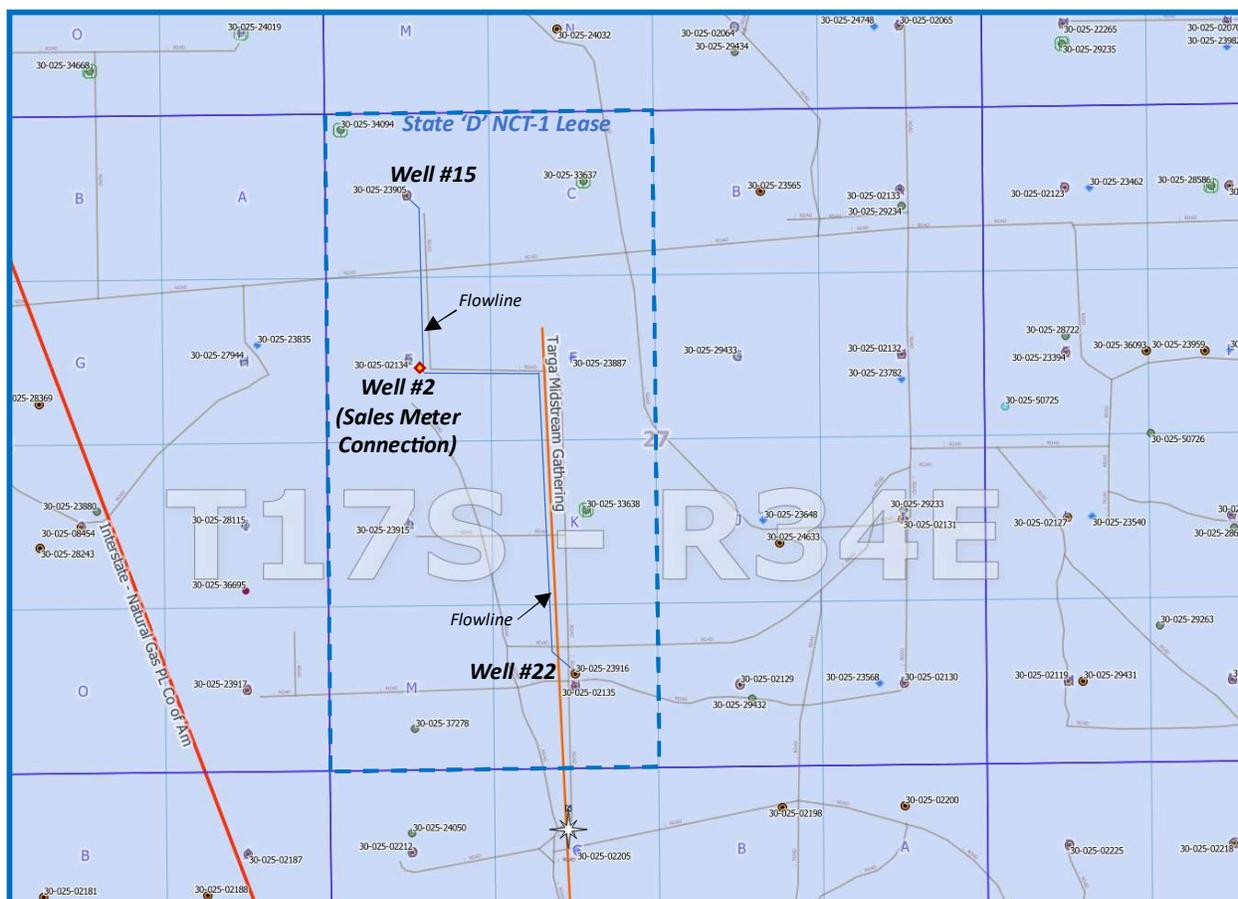
flaring, Shinnery Oil will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a bypass around the metering element except for the sole purpose of inspecting and servicing the metering equipment.

VIII: Description of Shinnery Oil Company's best management practices to minimize venting during active and planned maintenance.

For active and planned maintenance activities, venting will be limited to the pressure bleed-off of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the producing well associated with the equipment will be shut-in to prevent venting.

XI: Map

Map shown below displays the location of the the metered gas connection (meter #830062) located on the NM 'D' State #2 well pad located in NW/NW/4 of Section 27. As a result of previous production here, the gas connection and the associated pipeline have been in place since the late 1990's and will be reactivated. The existing pipeline and connection have adequate capacity for the additional estimated gas production, as the other previously connected wells in the area have produced similar or higher daily gas rates than we anticipate for the re-entered wells. The existing buried flowline exits the location and travels generally along lease roads to Targa Midstream's CDP located in section 27, T17S R34E, Lea County, NM.



Shinnery Oil Company, Inc.
NM 'D' State NCT-1 Lease Project
NVAWU Well #15 (NM 'D' State NCT-1 #15)
Section 27, Twp 17-S, Rng 34-E
Lea County, New Mexico

Well Re-entry Program

Objective: Re-enter the existing wellbore by drilling out plugs, clean out to new PBTD of 5020', perforate, acidize and run tubulars to return well to active production as GB-SA producer.

I. Geologic Information - The Grayburg formation consists of interbedded sandstones, siltstones, and dolomitic carbonates (Handford et al., 1996; Modica and Dorobek, 1996). The sandstones are the main Grayburg reservoirs and were deposited in coastal sabka, sandflat, and eolian environments. (Broadhead et al., 2004) The Grayburg is overlain by the Queen formation.

The San Andres formation consists of limestone and subtidal porous dolostones characterized by an upward-shallowing succession of outer- to inner-ramp carbonate lithofacies which is up to several hundred feet thick and grades upward and away from the reef into crystalline dolomite. The texture of the dolomites becomes finer on the Northwestern shelf as the proportion of chemically precipitated dolomite increases, and anhydrite becomes present in the section, first as small blobs, then as beds (Jones, 1953). The trapping mechanism results mainly from porosity pinch-outs defined by an increase in the anhydrite content or in the degree of the dolomitization. The San Andres is underlain by the Glorieta formation.

The Grayburg and main San Andres have been the major producing intervals in the Vacuum GB/SA field since its discovery in 1929. The subject pool is designated as the Vacuum; Graybury-San Andres (Oil), Pool ID: 62180 w/ 40-acre spacing, on state lease B0-0143-0008 held by Shinnery Oil Company.

Based on the offsetting wells (Casa #1 and #2, NM 'D' State #2) estimated production potential ranges from ~40,000 to over 100,000 barrels of oil per well.

Fresh water in the area is generally available from the High Plains aquifer and deeper from the Santa Rosa and Dewy Lake formations. State Engineer's records show depth to water in this area of Lea County is 120 to 200 feet.

Formation Tops

T/Anhy	1580'
T/Salt	1720'
Yates	2860'
Queen	3834'
Grayburg	4200'
San Andres	4625'
Glorieta	6195'
Abo	8185'

2. Completion Procedure

- a) MIRU WSU, reverse unit and associated equipment. Install BOP. RIH with bit and collars to drill out plugs.
- b) D/O & C/O plugs to apprx. 5040'. Set CIBP @ 5040' dump bail cap w/ 20' cement (2 runs).
- c) Perforate selected intervals - Top: ~4200'; Bottom: ~4930'. (Final perms reported on C-105.)
- d) Acidize w/ ~5000 to 15,000 gallons of 15% HCl. Swab and/or circulate hole clean.
- e) RIH with 2.375" tubing, rods & pump @ ~4870'+/- (TBD) w/ tailpipe ~4900',
- f) Install horsehead and plumb; return to production.

Well Re-entry Program (cont.)

3. **Tubular program** - The well casing is set as described below. (See attached Proposed Well Schematic)

4. **Cementing Program** - Existing Surface and Intermediate casing strings were circulated to surface during the original well drilling and completion; production string sheath was remediated w/ squeeze during P&A operations as follows:

String	Size	Weight	Hole Size	Depth	Cement	Result
Surface	13.375"	48.0#	16.0" hole	40'	20 sx 'C'	Circ to Surf
Intermediate	8.625"	24.0#	11.0" hole	1650'	750 sx 'C'+4% gel+2%	Circ to Surf
Production	5.5"	17.0#	7.875" hole	8830'	2450 sx TLW+'C' slt/sk	Circ to Surf*
*5.5" Csg cmt calc'd to surf, n/r. During P&A, Chevron perf'd @ 1701' and 300'; held pressure @ 500 psi. WBD shows cement to surface.						
Proposed: Set 5.5" CIBP @ 5040' w/ 20' cement cap for estimated 5020' PBTB						

5. **Pressure Control** - BOP diagram is attached to this application. All BOP and related equipment shall comply with well control requirements as described NMOC rules and regulations. Minimum working pressure of the BOP and related equipment required for the drillout shall be 3000 psi. OCD will be notified a minimum of 4 hours prior to BOP pressure tests. The test shall be performed by an independent service company utilizing a test plug (no cup or J-packer). The results of the test shall be recorded on a calibrated test chart submitted to the OCD Hobbs district office. The BOP test(s) will be conducted at:

- a) Installation;
- b) after equipment or configuration changes;
- c) at 30 days from any previous test, and;
- d) anytime operations warrant, such as well conditions

6. **Mud Circulation System** - the plugs will be drilled with 8.4 lb/gal fresh water looped through the reverse unit with all cutting recovered for disposal. Visual inspection will be made by personnel while reverse unit is in operation so cement plug cuttings and potential losses are witnessed and acted upon.

7. **Auxiliary Well Control and Monitoring** - Not Applicable

8. **H₂S Safety** - There is a low risk of H₂S in this area. The operator will comply with the provisions of company H₂S contingency plan as applicable. All personnel will wear monitoring devices and a wind direction sock will be placed on location.

9. **Logging, Coring and Testing** – Shinnery Oil is anticipating running GR/N & CCL for perforation depth control and increased resolution of porosity. No corings or drill tests will be conducted.

10. **Potential Hazards** - No abnormal pressures or temperatures are expected. No loss of circulation is expected to occur. All personnel will be familiar with the safe operation of the equipment being used to drillout and reenter this well. The maximum anticipated bottom hole pressure is 2150 psi and the maximum anticipated bottom hole temperature is ~104° F.

11. **Waste Management** – Cement cutting will be dried and distributed with the caliche pad; other RCRA exempt drill cuttings or wastes associated with the re-entry and drill out operations will be transported to the nearest commercial surface waste disposal facility permitted by the Environmental Bureau of the New Mexico Oil Conservation Division.

12. **Anticipated Start Date** – Ready now – MIRU 7/01/2023. Completion of the well operations, installation of the tanks, berms, flowlines, plumbing and other and associated equipment would occur during the same interval and take 2 or 3 weeks.

Well Re-entry Program (cont.)

In any event, it is not expected for the re-entry and configuration of the project wells to last more than 60 days, depending on availability of service companies and equipment. At the time of this submittal, the anticipated start date is:

July 1, 2023; Return to Production late July/ early August 2023.

13. Return to Production and Daily Operations – Prior to commencing any work, an NOI sundry(ies) will be submitted to configure the well and will detail the following tasks: drillout and workover including all work otherwise described above, any change to the procedure noted herein per OCD requirements. OCD will be notified a minimum of 4 hours prior to a BOP pressure test. A C-105 Well Completion Report will be filed within 20 days. The C-104 will be filed as practicable and monthly production C-115 reporting will commence.

The Natural Gas Management Plan (NGMP) is included with this C-101 filing.

CURRENT WELLBORE DIAGRAM (P&A'd)

NVAWU #15

LOCATION

State	New Mexico
County	Lea
Surface Location	860 FNL, 860 FWL Sec 27, T-17S, R-34E

WELL ID INFORMATION

Lease Name	North Vacuum Abo West Unit
Field	Vacuum North
Reservoir	Abo
Ref #	FG9155
API #	30-025-23905

KB: _____
 DF: _____
 GL: 4049'
 Original Spud Date: 10/21/1971
 Original Compl. Date: 11/25/1971

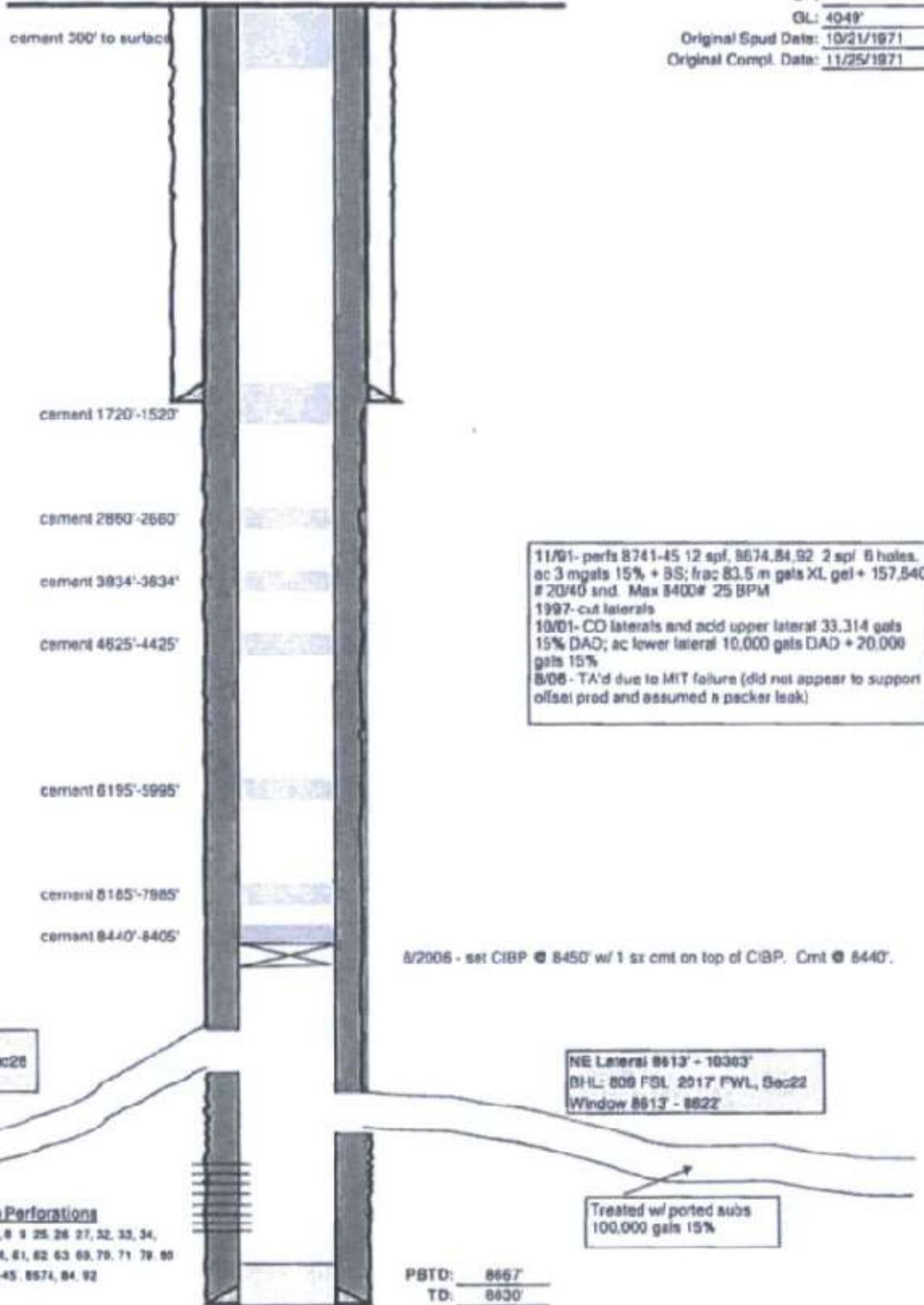
Surface Csg.

Size:	8 5/8"
Wt.	24#
Set @:	1650'
Sec cmt:	750px
TOC:	Surface
Hole Size:	11"

- T. Anky _____ 1580
- T. Natr _____ 1720
- T. Salt _____
- T. Yates _____ 2660
- T. 7 Rivers _____
- T. Queen _____ 3834
- T. Grayburg _____
- T. San Andres _____ 4625
- T. Citizena _____ 6195
- T. Padlock _____
- T. Blinbery _____
- T. Tubb _____
- T. Divided _____
- T. Abo _____ 8185
- T. Wolfcamp _____
- T. Perm _____
- T. Clovis (Dough C) _____

Production Csg.

Size:	5 1/2"
Wt. (top to bottom):	17#
Set @:	8630'
Sec Cmt:	2450px
TOC:	surface
Hole Size:	7 7/8"



UPDATED BY: SMR
 DATE: 8/23/2010



WELL SCHEMATIC - PROPOSED

New Mexico 'D' State #15

(Formerly North Vacuum Abo West Unit #15)

API 30-025-23905

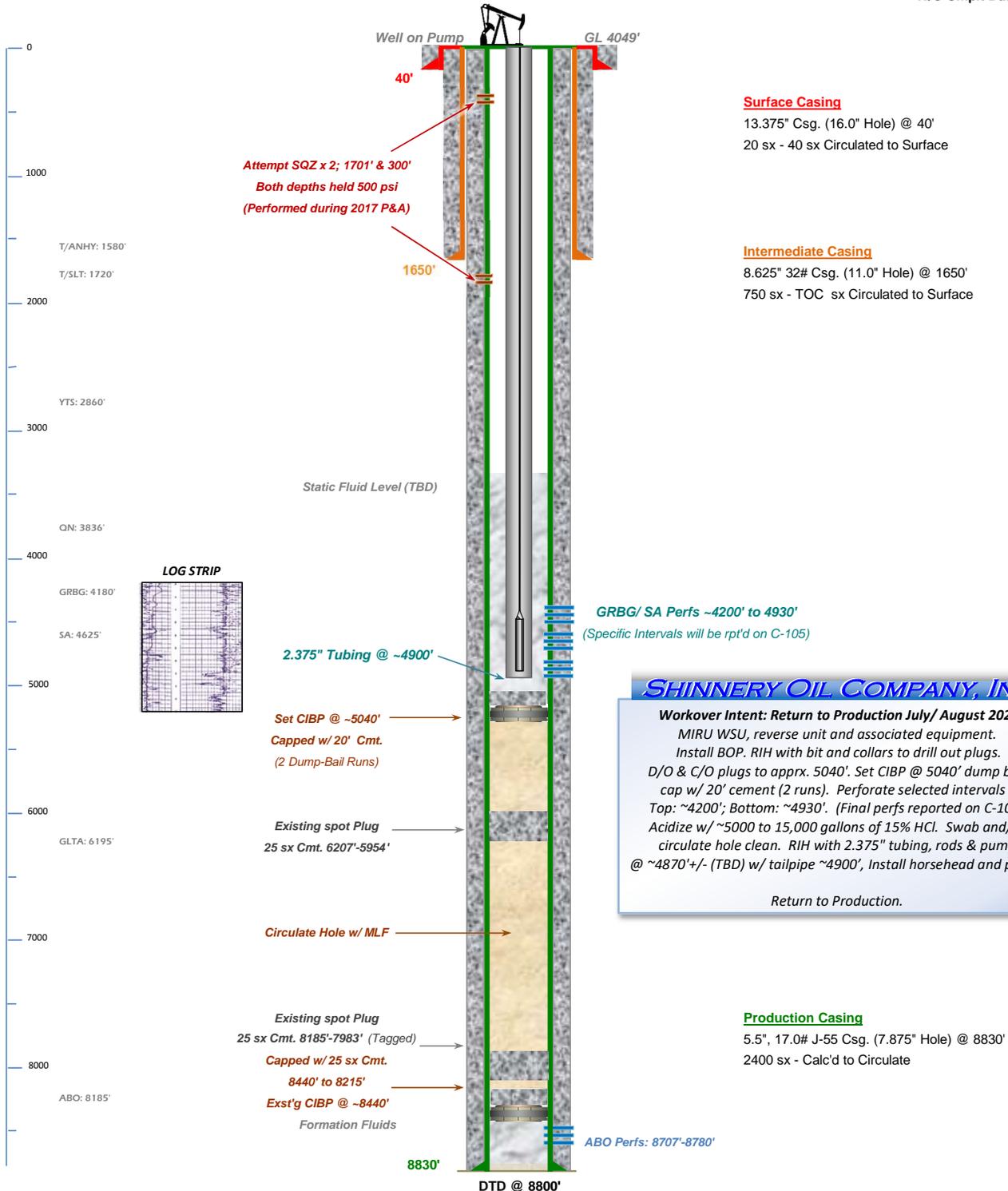
660' FNL & 660' FWL, 'D' SEC. 27-T17S-R34E
LEA COUNTY, NEW MEXICO

Vacuum; Grayburg-San Andres (62180)

Spud Date: 10/22/1971

P&A Date: 10/02/2017

W/O Cmplt Date: -7/15/2023



SHINNERY OIL COMPANY, INC.

Workover Intent: Return to Production July/ August 2023
MIRU WSU, reverse unit and associated equipment.
Install BOP. RIH with bit and collars to drill out plugs.
D/O & C/O plugs to approx. 5040'. Set CIBP @ 5040' dump bail cap w/ 20' cement (2 runs). Perforate selected intervals - Top: ~4200'; Bottom: ~4930'. (Final perfs reported on C-105.)
Acidize w/ ~5000 to 15,000 gallons of 15% HCl. Swab and/or circulate hole clean. RIH with 2.375" tubing, rods & pump @ ~4870'+/- (TBD) w/ tailpipe ~4900', Install horsehead and plumb.
Return to Production.

Drawn by Ben Stone, 4/29/2023



9122 9878 2216
7018 1130 0000 0000 0000 0000 0000 0000 0000 0000

U.S. Postal Service™	
CERTIFIED MAIL® RECEIPT	
Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
Fort Worth, TX 76102	
OFFICIAL USE	
Certified Mail Fee \$4.15	0360
\$	02
Extra Services & Fees (check box, add fee as appropriate)	Postmark Here
<input type="checkbox"/> Return Receipt (hardcopy) \$ 3.75	05/08/2023
<input type="checkbox"/> Return Receipt (electronic) \$ 0.00	
<input type="checkbox"/> Certified Mail Restricted Delivery \$ 0.00	
<input type="checkbox"/> Adult Signature Required \$ 0.00	
<input type="checkbox"/> Adult Signature Restricted Delivery \$ 0.00	
Postage \$0.87	
\$	
Total Postage and Fees \$8.37	
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Sent To <i>MORNINGSTAR OPERATING, LLC</i>	
Street and Apt. No., or PO Box No. <i>400 W. 7th St.</i>	
City, State, ZIP+4® <i>FORT WORTH, TX 76102</i>	
PS Form 3800, April 2015 PSN 7530-02-000-9047	See Reverse for Instructions

Tracking #: 70181130000087382216
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 Approval #: 07301G
 Transaction #: 869
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May 8, 2023

NOTIFICATION TO INTERESTED PARTIES
via U.S. Certified Mail – Return Receipt Requested

Morningstar Operating, LLC
400 W 7th St
Fort Worth, TX 76102

To Whom It May Concern:

Shinnery Oil Company, Inc., Midland, Texas, is making application to the New Mexico Oil Conservation Division with the filing of from C-101 for reentry into a currently P&A'd well named the NVAWU #15 for completion as an oil well the Vacuum; Grayburg-San Andres pool. Upon completion, the well will be renamed the New Mexico D State NCT-1 #15. The well is located in Section 27 Township 17 South, Range 34 East in Lea County, New Mexico and is within State Lease B0-0143-0008 encompassing the W/2 of section 27 and held by Shinnery Oil. The lease currently has two other active wells producing from the Grayburg/ San Andres intervals.

New Mexico OCD rules and regulations require that any operator of an active well within the same quarter/quarter section be notified of any drilling, reentry or recompletion of a well. A copy of the application is contained herein. Please contact us if you need additional information.

Your well of record in the same quarter/quarter section is the **North Vacuum Abo West Unit #032H, API number 30-025-34094**

Shinnery Oil does not believe the reentry and completion of its well as a Grayburg/ San Andres producer will have any impact or your well or area operations.

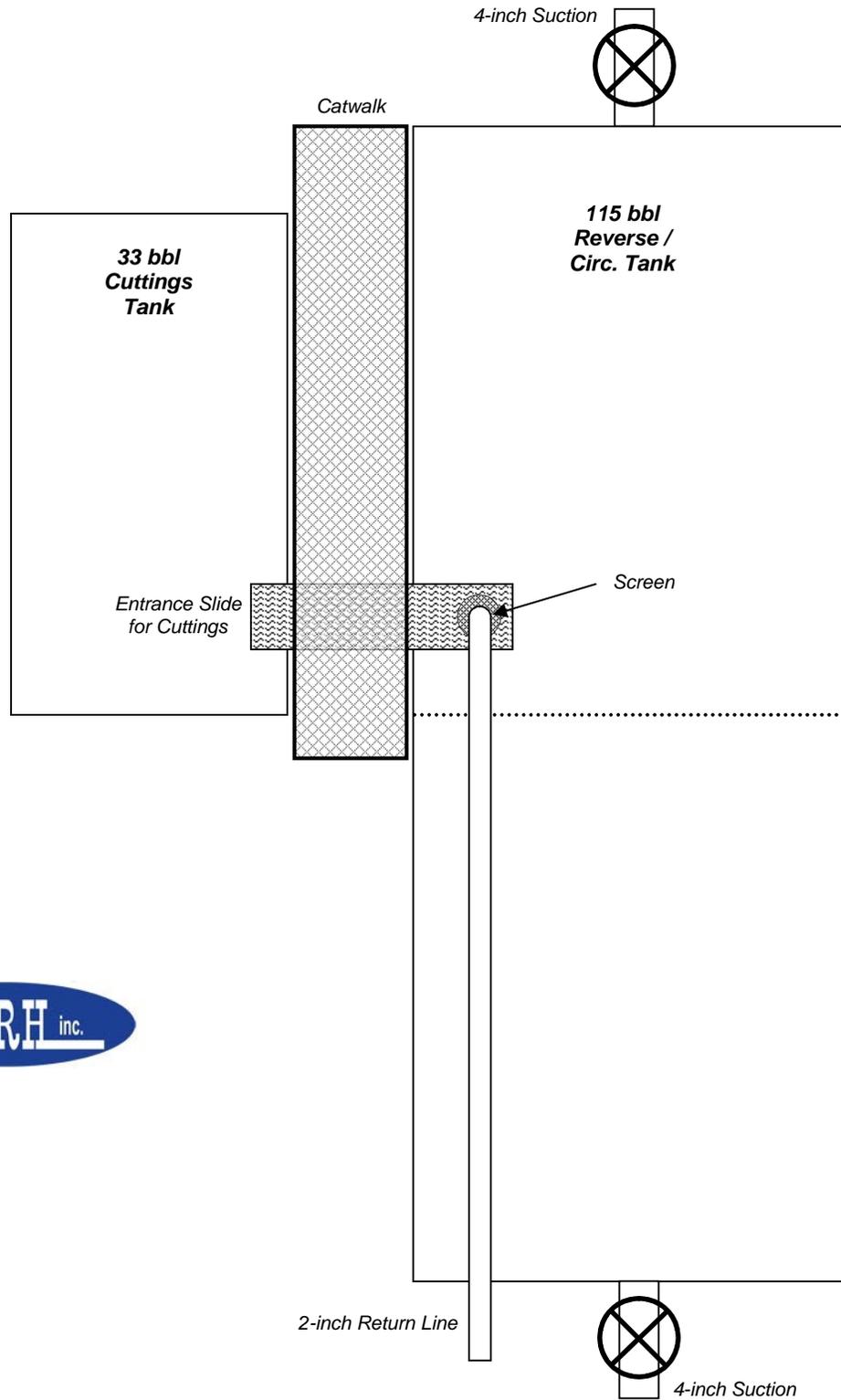
Best regards,

A handwritten signature in blue ink that reads 'Ben Stone'.

Ben Stone, SOS Consulting, LLC
Agent for Shinnery Oil Company, Inc.

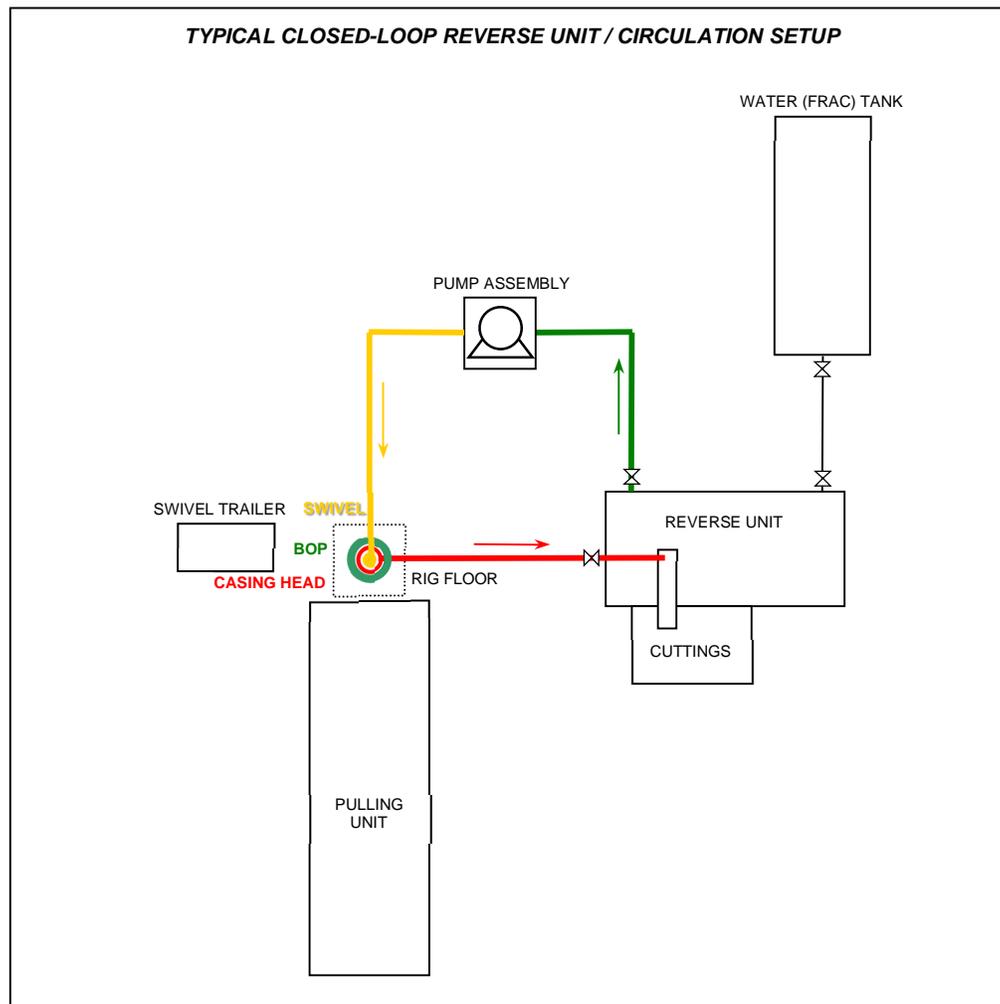
Cc: Application File

Reverse / Circulation Tank for Workovers & Drillouts



Standard Operating Procedure - Re-entry Closed-Loop Reverse Unit Diagram

1. Blow Out Preventer tested prior to any operations. Notify BLM at least 4 hours prior.
2. Visual maintained on returns. Proceed with drillout operations accordingly.
3. Cuttings; cement plug – dried and mixed w/ location caliche. Other applicable wastes hauled to specified facility. (Owl, CRI, Sundance, Lea County)
4. Spills contained & cleaned up immediately. Repair or otherwise correct the situation within 48 hours before resuming operations. Notify OCD and BLM within 24 hours. Remediation started ASAP if required. Operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.
5. Subsequent sundry / forms filed as needed - well returned to service.



Shinnery Oil Company, Inc.
NM 'D' State NCT-1 Lease Project
NVAWU Well #15 (NM 'D' State NCT-1 #15)
Section 27, Twp 17-S, Rng 34-E
Lea County, New Mexico

Well Re-entry Program

Objective: Re-enter the existing wellbore by drilling out plugs, clean out to new PBTD of 5020', perforate, acidize and run tubulars to return well to active production as GB-SA producer.

1. Geologic Information - The Grayburg formation consists of interbedded sandstones, siltstones, and dolomitic carbonates (Handford et al., 1996; Modica and Dorobek, 1996). The sandstones are the main Grayburg reservoirs and were deposited in coastal sabka, sandflat, and eolian environments. (Broadhead et al., 2004) The Grayburg is overlain by the Queen formation.

The San Andres formation consists of limestone and subtidal porous dolostones characterized by an upward-shallowing succession of outer- to inner-ramp carbonate lithofacies which is up to several hundred feet thick and grades upward and away from the reef into crystalline dolomite. The texture of the dolomites becomes finer on the Northwestern shelf as the proportion of chemically precipitated dolomite increases, and anhydrite becomes present in the section, first as small blobs, then as beds (Jones, 1953). The trapping mechanism results mainly from porosity pinch-outs defined by an increase in the anhydrite content or in the degree of the dolomitization. The San Andres is underlain by the Glorieta formation.

The Grayburg and main San Andres have been the major producing intervals in the Vacuum GB/SA field since its discovery in 1929. The subject pool is designated as the Vacuum; Graybury-San Andres (Oil), Pool ID: 62180 w/ 40-acre spacing, on state lease B0-0143-0008 held by Shinnery Oil Company.

Based on the offsetting wells (Casa #1 and #2, NM 'D' State #2) estimated production potential ranges from ~40,000 to over 100,000 barrels of oil per well.

Fresh water in the area is generally available from the High Plains aquifer and deeper from the Santa Rosa and Dewy Lake formations. State Engineer's records show depth to water in this area of Lea County is 120 to 200 feet.

Formation Tops

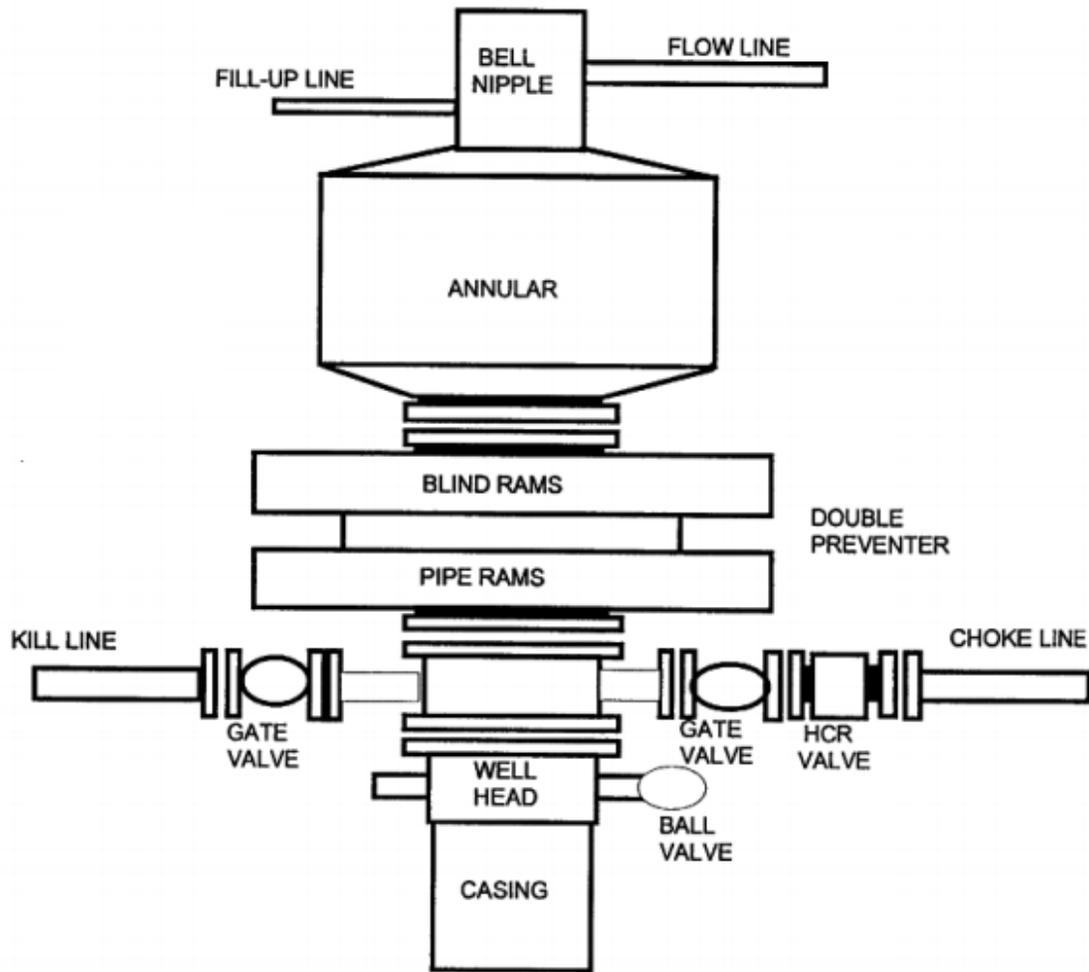
T/Anhy	1580'
T/Salt	1720'
Yates	2860'
Queen	3834'
Grayburg	4200'
San Andres	4625'
Glorieta	6195'
Abo	8185'

2. Completion Procedure

- a) MIRU WSU, reverse unit and associated equipment. Install BOP. RIH with bit and collars to drill out plugs.
- b) D/O & C/O plugs to apprx. 5040'. Set CIBP @ 5040' dump bail cap w/ 20' cement (2 runs).
- c) Perforate selected intervals - Top: ~4200'; Bottom: ~4930'. (Final perms reported on C-105.)
- d) Acidize w/ ~5000 to 15,000 gallons of 15% HCl. Swab and/or circulate hole clean.
- e) RIH with 2.375" tubing, rods & pump @ ~4870'+/- (TBD) w/ tailpipe ~4900',
- f) Install horsehead and plumb; return to production.

BLOWOUT PREVENTER DIAGRAM

3000 PSI WORKING PRESSURE



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 215104

CONDITIONS

Operator: SHINNERY OIL COMPANY, INC 606 W Tennessee Ave Suite 107 Midland, TX 797014260	OGRID: 20713
	Action Number: 215104
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	5/17/2023