Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-025-53932

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/04/2024

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☑ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-53932	97895	WC-025 G-08 S213304D;BONE SPRING

Property Code	Property Name	Well Number
336504	EILEEN 25 FED COM	601H

OGRID No.	Operator Name	Ground Level Elevation
372165	PERMIAN RESOURCES OPERATING. LLC	3,668.00'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	25	20S	33E		260' FSL	630' FWL	32.537575°	-103.623299°	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	24	20S	33E		100' FNL	715' FWL	32.565617°	-103.623024°	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640.00	INFILL		N	

Order Numbers. | Well setbacks are under Common Ownership: ☒Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	25	20S	33E		260' FSL	630' FWL	32.537575°	-103.623299°	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	25	20S	33E		100' FSL	715' FWL	32.537134°	-103.623025°	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	24	20S	33E		100' FNL	715' FWL	32.565617°	-103.623024°	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Signature 11/5/2024 Date

JENNIFER ELROD

Printed Name

JENNIFER.ELROD@PERMIANRES.COM

Email Address

SURVEYOR CERTIFICATIONS

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.

MARK S. MURRAY NEW MEXICO 12177 REGISTERED PROFESSIONAL SURVEYOR

Date: 10/25/2024

Signature and Seal of Professional Surveyor

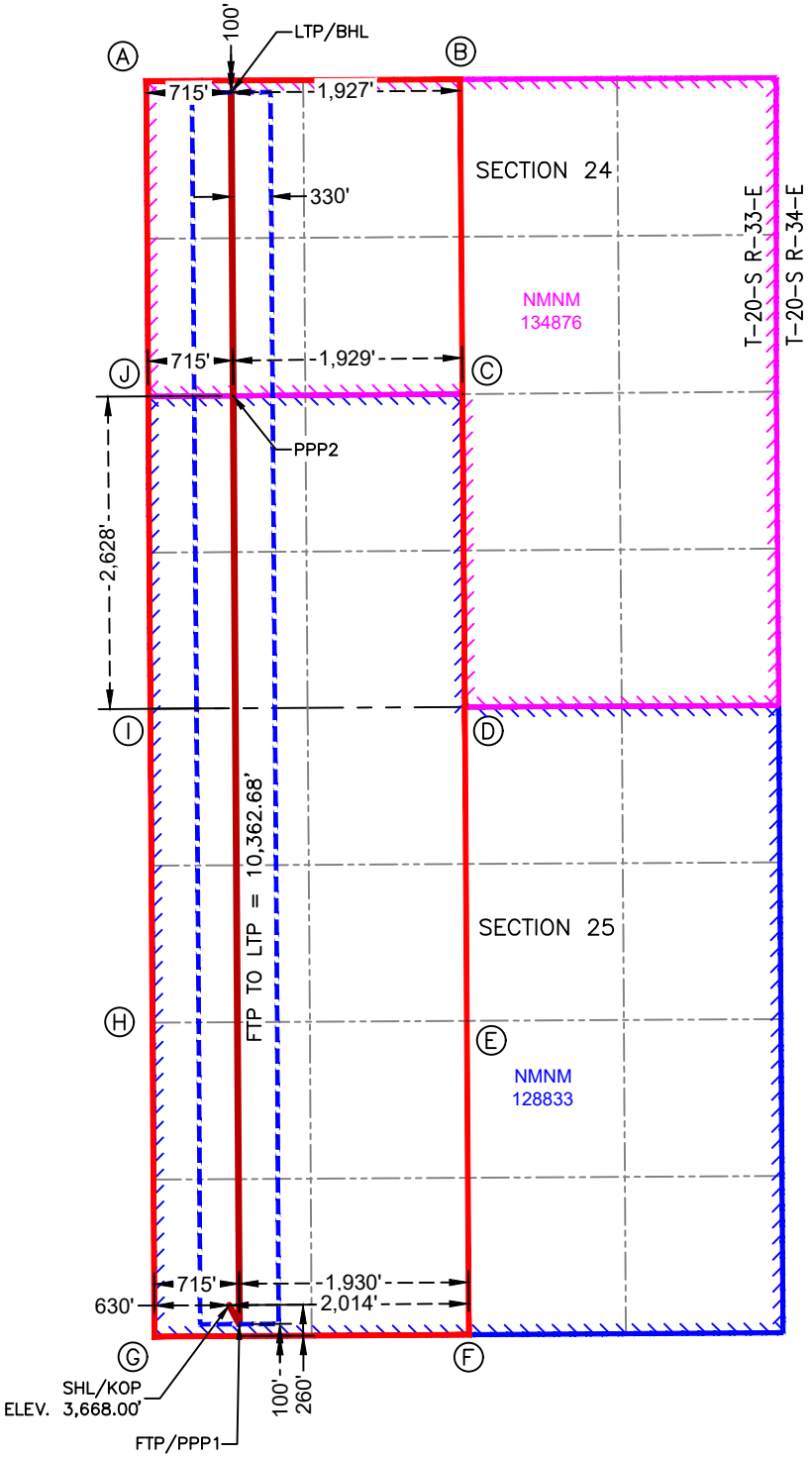
Certificate Number	Date of Survey
12177	10/25/2024

Note: 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.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



SURFACE HOLE LOCATION
& KICK-OFF POINT
260' FSL & 630' FWL
ELEV. = 3,668.00'

NAD 83 X = 760,148.12'
NAD 83 Y = 560,029.53'
NAD 83 LAT = 32.537575°
NAD 83 LONG = -103.623299°
NAD 27 X = 718,967.01'
NAD 27 Y = 559,967.47'
NAD 27 LAT = 32.537452°
NAD 27 LONG = -103.622808°

FIRST TAKE POINT &
PENETRATION POINT 1
100' FSL & 715' FWL

NAD 83 X = 760,233.69'
NAD 83 Y = 559,869.87'
NAD 83 LAT = 32.537134°
NAD 83 LONG = -103.623025°
NAD 27 X = 719,052.57'
NAD 27 Y = 559,807.81'
NAD 27 LAT = 32.537011°
NAD 27 LONG = -103.622534°

PENETRATION POINT 2
2,628' FSL & 715' FWL

NAD 83 X = 760,181.91'
NAD 83 Y = 567,679.53'
NAD 83 LAT = 32.558600°
NAD 83 LONG = -103.623024°
NAD 27 X = 719,001.01'
NAD 27 Y = 567,617.24'
NAD 27 LAT = 32.558478°
NAD 27 LONG = -103.622532°

LAST TAKE POINT &
BOTTOM HOLE LOCATION
100' FNL & 715' FWL

NAD 83 X = 760,164.96'
NAD 83 Y = 570,232.32'
NAD 83 LAT = 32.565617°
NAD 83 LONG = -103.623024°
NAD 27 X = 718,984.14'
NAD 27 Y = 570,169.96'
NAD 27 LAT = 32.565494°
NAD 27 LONG = -103.622532°

HSU CORNER COORDINATES NEW MEXICO EAST - NAD 83	
A	N:570,328.89' E:759,449.30'
B	N:570,341.60' E:762,091.55'
C	N:567,694.41' E:762,111.22'
D	N:565,061.91' E:762,130.78'
E	N:562,421.18' E:762,147.47'
F	N:559,781.23' E:762,164.16'
G	N:559,765.69' E:759,519.38'
H	N:562,406.29' E:759,507.19'
I	N:565,047.38' E:759,484.59'
J	N:567,674.02' E:759,466.48'

HSU CORNER COORDINATES NEW MEXICO EAST - NAD 27	
A	N:570,266.53' E:718,268.48'
B	N:570,279.22' E:720,910.71'
C	N:567,632.11' E:720,930.30'
D	N:564,999.69' E:720,949.79'
E	N:562,359.04' E:720,966.41'
F	N:559,719.17' E:720,983.02'
G	N:559,703.64' E:718,338.27'
H	N:562,344.16' E:718,326.15'
I	N:564,985.17' E:718,303.63'
J	N:567,611.74' E:718,285.59'

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Permian Resources
WELL NAME & NO.:	Eileen 25 Fed Com 601H
LOCATION:	Sec. 36-20S-22E-NMP
COUNTY:	Lea County, New Mexico

COA

H_2S	○ No		○ Yes	
Potash / WIPP	○ None	○ Secretary	◉ R-111-Q	☐ Open Annulus
	4-String Design: Open 1st Int x 2nd Annulus (ICP 2 below Relief Zone)			☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☑ Capitan Reef	☐ Water Disposal	☑ COM	☐ Unit
Waste Prev.	○ Self-Certification	○ Waste Min. Plan	◉ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☑ Break Testing
	☑ Four-String	☑ Offline Cementing	☐ Fluid-Filled	

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1660** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500**

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pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

❖ **Special Capitan Reef requirements:** Ensure FW based mud used across the Capitan interval

3. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

- Cement should tie-back **500 feet or 50 feet on top of the Capitan Reef, whichever is closer to surface** into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back **500 feet or 50 feet on top of the Capitan Reef, whichever is closer to surface** into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 2nd intermediate casing shoe shall be **10,000 (10M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

Contact Lea County Petroleum Engineering Inspection Staff:
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following

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conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
    iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

v. The results of the test shall be reported to the appropriate BLM office.

vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

10/22/2024

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: **Signed on:** 08/08/2024

Title:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data
10/22/2024

APD ID: 10400081598
Submission Date: 11/11/2021
Operator Name: EOG RESOURCES INCORPORATED
Well Name: EILEEN 25 FED COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400081598
Tie to previous NOS?
Submission Date: 11/11/2021
BLM Office: Carlsbad
User: CRAIG RICHARDSON
Title: Regulatory Specialist
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM128833
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? N
Permitting Agent? NO
APD Operator: EOG RESOURCES INCORPORATED
Operator letter of

Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED
Operator Address: 600 17TH STREET, SUITE 1000 N
Zip: 80202
Operator PO Box:
Operator City: DENVER
State: CO
Operator Phone: (303)262-9894
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: EILEEN 25 FED COM
Well Number: 601H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: LEA
Pool Name: BONE SPRING, SOUTH

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** EILEEN 25 FED COM **Number:** 501H/502H/601H/602H/701H/702H/201H/202H/301H/302H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 15 FT **Distance to lease line:** 100 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: LO_EILEEN_25_FED_COM_601H_C_102_S_20211110113106.pdf

Well work start Date: 09/30/2022 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** KELLY BUSHING

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	260	FSL	630	FWL	20S	33E	25	Tract M	32.5375745	-103.6232992	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 128833	3668	0	0	Y
KOP Leg #1	50	FSL	715	FWL	20S	33E	25	Tract M	32.536997	-103.6230251	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 128833	-7316	10997	10984	Y

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	100	FSL	715	FWL	20S	33E	25	Tract M	32.5371341	-103.623025	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 128833	-7316	10997	10984	Y
EXIT Leg #1	100	FNL	715	FWL	20S	33E	24	Tract D	32.5656171	-103.6230237	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 134876	-7581	21461	11249	Y
BHL Leg #1	100	FNL	715	FWL	20S	33E	24	Tract D	32.5656171	-103.6230237	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 134876	-7581	21461	11249	Y

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
10/22/2024

APD ID: 10400081598
Submission Date: 11/11/2021

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM
Well Number: 601H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14264535	PERMIAN	3668	0	0	ALLUVIUM	NONE	N
14264536	RUSTLER	2130	1538	1538	ANHYDRITE	NONE	N
14264537	TOP SALT	1828	1840	1840	SALT	NONE	N
14264538	BASE OF SALT	444	3224	3224	SALT	NONE	N
14264539	CAPITAN REEF	58	3610	3610	SANDSTONE	NONE	N
14264541	DELAWARE SAND	-2069	5737	5737	SANDSTONE	NATURAL GAS, OIL	N
14264542	BRUSHY CANYON	-2837	6505	6505	SANDSTONE	NATURAL GAS, OIL	N
14264543	BONE SPRING LIME	-4965	8633	8633	LIMESTONE, SHALE	NATURAL GAS, OIL	N
14264544	BONE SPRING 1ST	-5994	9662	9662	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
14264545	BONE SPRING 2ND	-6509	10177	10177	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y
14264546	BONE SPRING 3RD	-7332	11000	11000	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
14264549	WOLFCAMP	-7607	11275	11275	SHALE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M
Rating Depth: 10601

Equipment: BOPE will meet all requirements for above listed system per 43 CFR 3172. BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional, tested, and will meet all requirements per 43 CFR 3172. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing of the surface x intermediate annulus without breaking the connection between the BOP & wellhead. A variance is requested to utilize a flexible choke line (flexhose)

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

from the BOP to choke manifold.

Requesting Variance? YES

Variance request: Break testing, flex hose, and offline cement variances, see attachments in section 8.

Testing Procedure: Operator requests to ONLY test broken pressure seals per API Standard 53 and the attachments in Section 8. The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed, b. whenever any seal subject to test pressure is broken, c. following related repairs, d. at 21-day intervals. Testing of the ram type preventer(s) and annual type preventer(s) shall be tested per 43 CFR 3172. The BOPE configuration, choke manifold layout, and accumulator system will be in compliance with 43 CFR 3172. Bleed lines will discharge 100' from wellhead in non-H2S scenarios and 150' from wellhead in H2S scenarios.

Choke Diagram Attachment:

EILEEN_25_FED_COM_5M_CHOKE_20240807131312.pdf

BOP Diagram Attachment:

EILEEN_25_FED_COM_5M_BOP_20240807131317.pdf

EILEEN_25_FED_COM_WELLHEAD_20240807131325.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1563	0	1563	3668	2105	1563	J-55	54.5	OTHER - BTC	1.46	1.93	DRY	4.91	DRY	4.61
2	INTERMEDIATE	12.25	10.75	NEW	API	N	0	3377	0	3377	3668	291	3377	J-55	45.5	OTHER - BTC SCC	6.61	3.6	DRY	4.19	DRY	4.1
3	INTERMEDIATE	9.875	8.625	NEW	API	N	0	5687	0	5687	3411	-2019	5687	OTHER	32	OTHER - MO-FXL	4.37	1.33	DRY	1.79	DRY	2.6
4	PRODUCTION	7.875	5.5	NEW	API	N	0	21461	0	11249	3668	-7581	21461	OTHER	20	OTHER - GEOCONN	1.9	1.98	DRY	1.97	DRY	1.97

Casing Attachments

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

EILEEN_25_FED_COM_601H_DRILLING_PACKET_4_STRING_20240808084321.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Eileen_25_Fed_Com_601H_Permit_Info_20211110115433.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20211110115337.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20210729093647_20240808085022.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1563	1220	1.34	14.8	1630	50	Class C	Accelerator
INTERMEDIATE	Lead		0	2700	380	1.88	12.9	700	50	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
INTERMEDIATE	Tail		2700	3377	150	1.34	14.8	200	50	Class C	RETARDER
INTERMEDIATE	Lead		0	4540	370	1.88	12.9	680	50	CLASS C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
INTERMEDIATE	Tail		4540	5687	150	1.33	14.8	190	25	CLASS C	SALT
PRODUCTION	Lead		6187	10777	340	2.41	11.5	800	0	CLASS H	POZ, Extender, Fluid Loss, Dispersant, Retarder
PRODUCTION	Tail		10777	21461	1080	1.73	12.5	1860	0	CLASS H	POZ, Extender, Fluid Loss, Dispersant, Retarder

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1563	SPUD MUD	8.6	9.5							
1563	3377	SALT SATURATED	10	10							
3377	5687	WATER-BASED MUD	8.6	9.5							
10777	21461	OIL-BASED MUD	9	10							
5687	10777	SALT SATURATED	9	10							

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,GAMMA RAY LOG,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5850 **Anticipated Surface Pressure:** 3375

Anticipated Bottom Hole Temperature(F): 167

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Eileen_25_Fed_Com_601H_H2S_Plan_Summary_20211110124120.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Eileen_25_Fed_Com_601H_Planning_Report_20211110124221.pdf

Eileen_25_Fed_Com_601H_Wall_Plot_20211110124221.pdf

Other proposed operations facets description:

Well Plan and AC Report: attached
Batching Drilling Procedure: attached
WBD:attached
Flex Hose Specs: attached
Offline Cementing Procedure: attached
Break Testing Procedure: attached

Other proposed operations facets attachment:

Eileen_25_Fed_Com_601H_Rig_Layout_20240808120045.pdf

EILEEN_25_FED_COM_601H_WBD_20240808120101.pdf

EILEEN_25_FED_COM_601H_DRILLING_PACKET_4_STRING_20240808120136.pdf

Other Variance attachment:

EILEEN_25_FED_COM_BREAK_TESTING_PROCEDURE_20240808120113.pdf

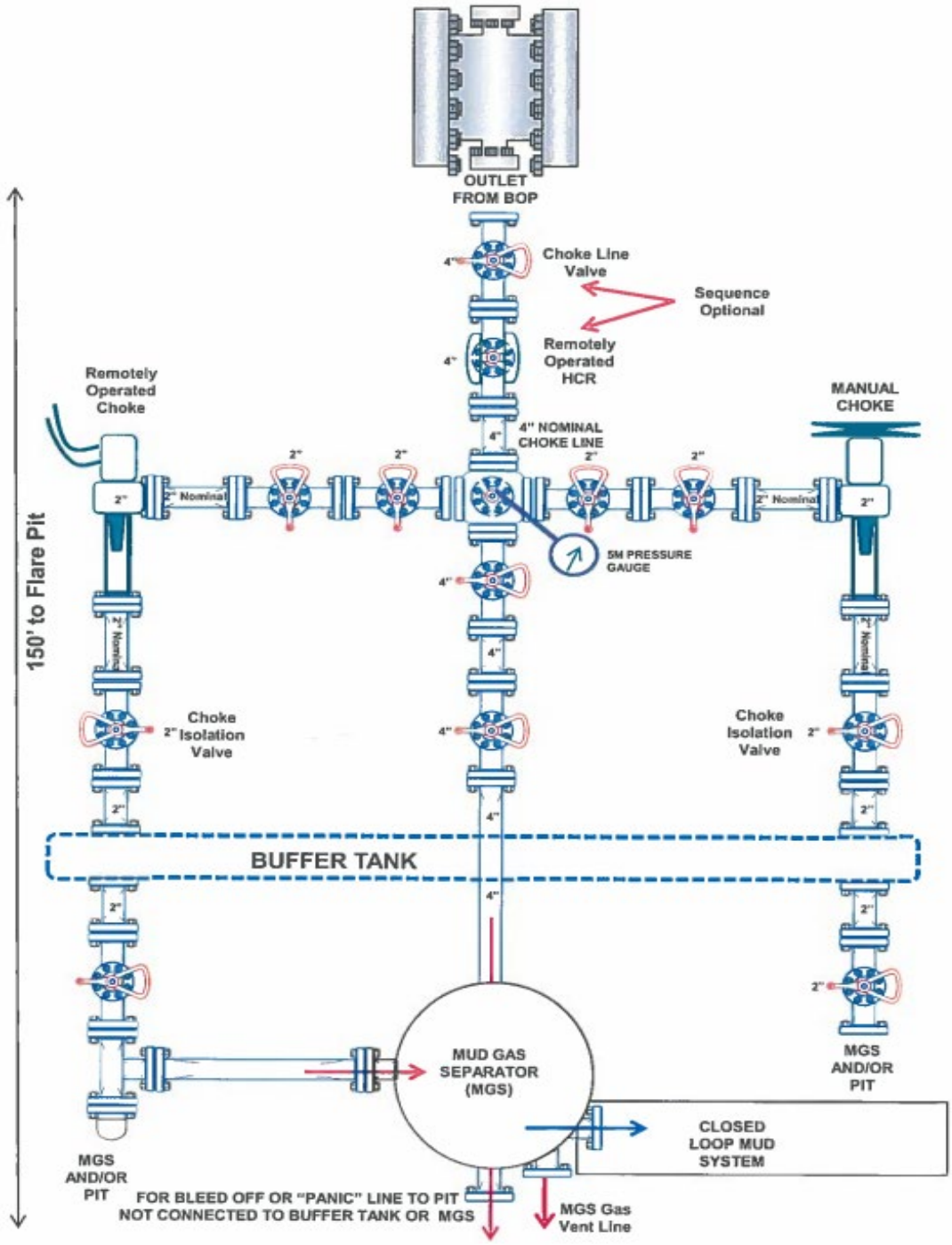
EILEEN_25_FED_COM_BATCH_DRILLING_OFFLINE_CEMENTING_PROCEDURE_20240808120120.pdf

Operator Name: EOG RESOURCES INCORPORATED

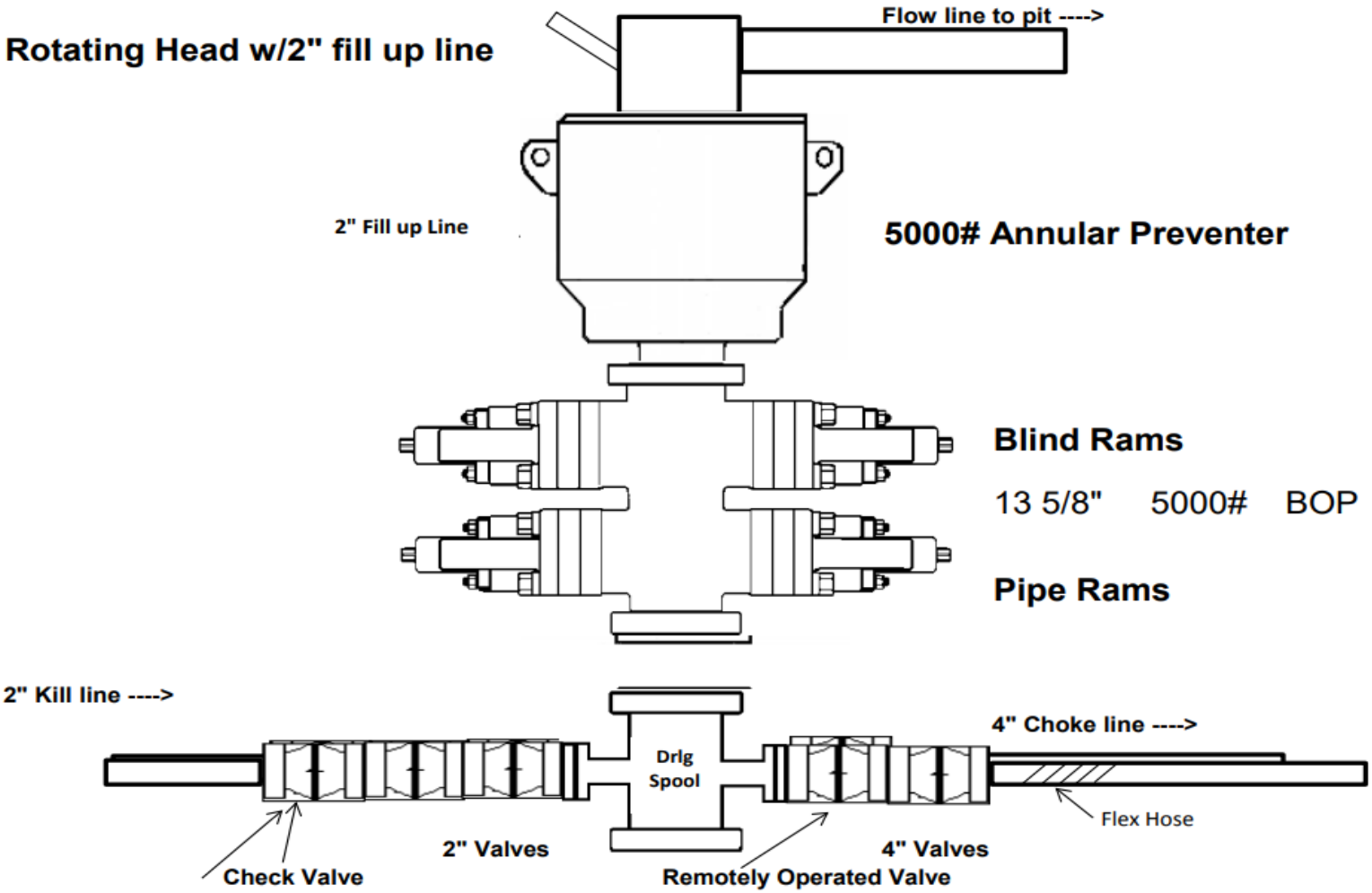
Well Name: EILEEN 25 FED COM **Well Number:** 601H

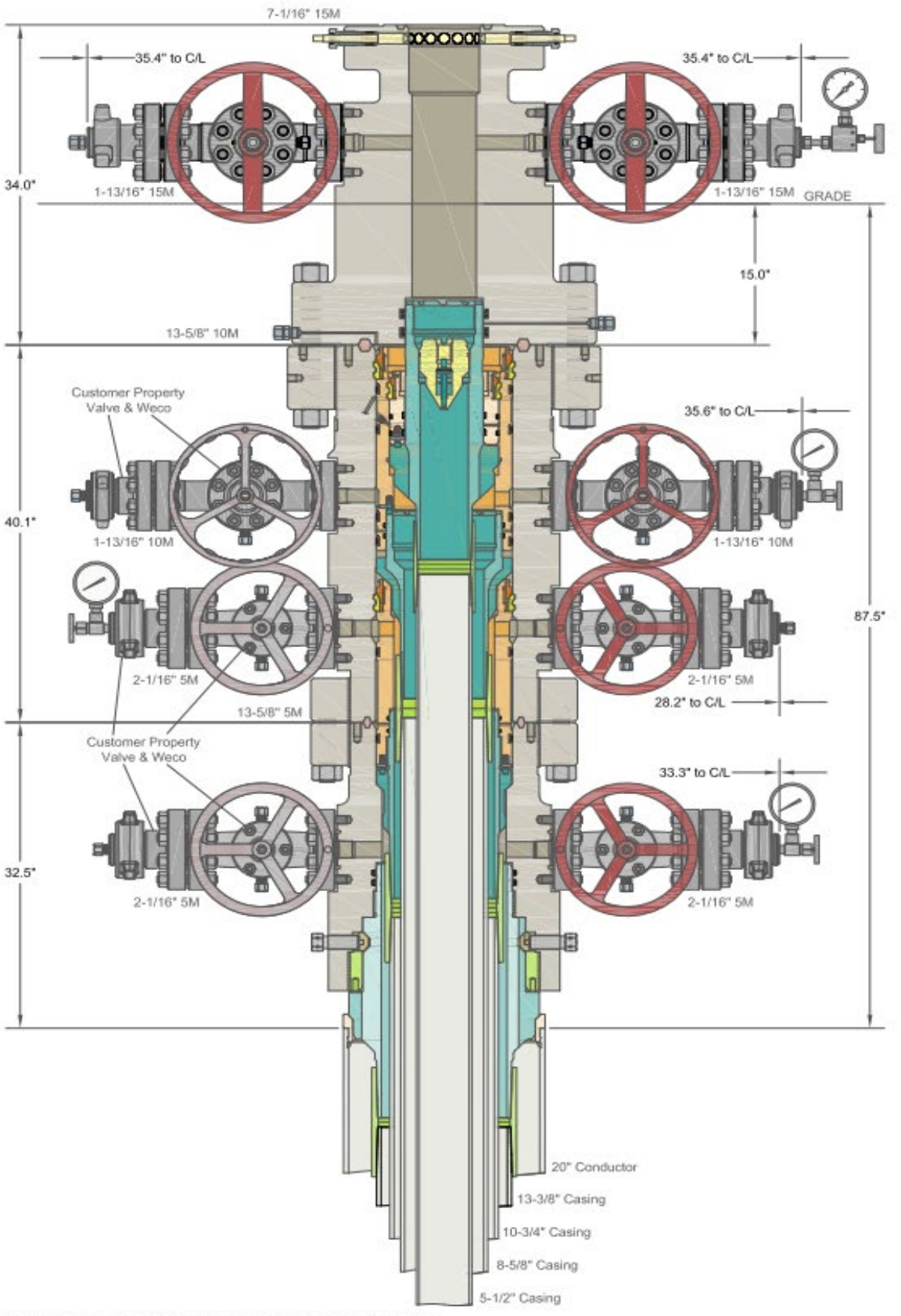
EILEEN_25_FED_COM_FLEX_HOSE_20240808120128.pdf

5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



5,000 psi BOP Schematic





ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	PERMIAN RESOURCES NEW MEXICO		
20" x 13-3/8" x 10-3/4" x 8-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO Sys. With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 10-3/4" & 7-5/8" & 5-1/2" Fluted Mandrel Casing Hangers	DRAWN	DLE	26OCT23
	APPRV		
	DRAWING NO.	HBE0001038	

Permian Resources - Eileen 25 Fed Com 601H

1. Geologic Formations

Formation	Lithology	Elevation	TVD	Target
Rustler	Sandstone	2185	1538	No
Top of Salt	Salt	1883	1840	No
Yates	Anhydrite/Shale	371	3352	No
Seven Rivers	Limestone	NP	NP	No
Capitan	Sandstone	113	3610	No
Delaware Sands	Sandstone	-2014	5737	No
Brushy Canyon	Sandstone	-2782	6505	No
Bone Spring Lime	Limestone/Shale	-4910	8633	No
1st Bone Spring Sand	Sandstone/Limestone/Shale	-5939	9662	No
2nd Bone Spring Sand	Sandstone/Limestone/Shale	-6454	10177	No
2nd Bone Spring Shale	Sandstone/Limestone/Shale	-7077	10800	Yes
3rd Bone Spring Sand	Sandstone/Limestone/Shale	-7277	11000	No
Wolfcamp	Shale	-7552	11275	No

2. Blowout Prevention

BOP installed and tested before drilling	Size?	Min. Required WP	Type	x	Tested to:
12.25	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		
9.875	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		
7.875	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		

Equipment: BOPE will meet all requirements for above listed system per 43 CFR 3172. BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional, tested, and will meet all requirements per 43 CFR 3172. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing of the surface x intermediate annulus without breaking the connection between the BOP & wellhead. A variance is

requested to utilize a flexible choke line (flexhose) from the BOP to choke manifold.

Requesting Variance? YES
Variance request: Break testing, flex hose, and offline cement variances, see attachments in section 8.
Testing Procedure: Operator requests to ONLY test broken pressure seals per API Standard 53 and the attachments in Section 8. The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed, b. whenever any seal subject to test pressure is broken, c. following related repairs, d. at 21-day intervals. Testing of the ram type preventer(s) and annual type preventer(s) shall be tested per 43 CFR 3172. The BOPE configuration, choke manifold layout, and accumulator system will be in compliance with 43 CFR 3172. Bleed lines will discharge 100' from wellhead in non-H2S scenarios and 150' from wellhead in H2S scenarios.

Choke Diagram Attachment: 5M Choke Manifold
BOP Diagram Attachment: BOP Schematics

3. Casing

String	Hole Size	Casing Size	Top	Bottom	Top TVD	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTC SCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.37	1.33	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	21461	0	11249	21461	P110RY	20	GeoConn	1.90	1.98	Dry	1.97	Dry	1.97
								BLM Min Safety Factor			1.125	1		1.6		1.6

Non API casing spec sheets and casing design assumptions attached.

4. Cement

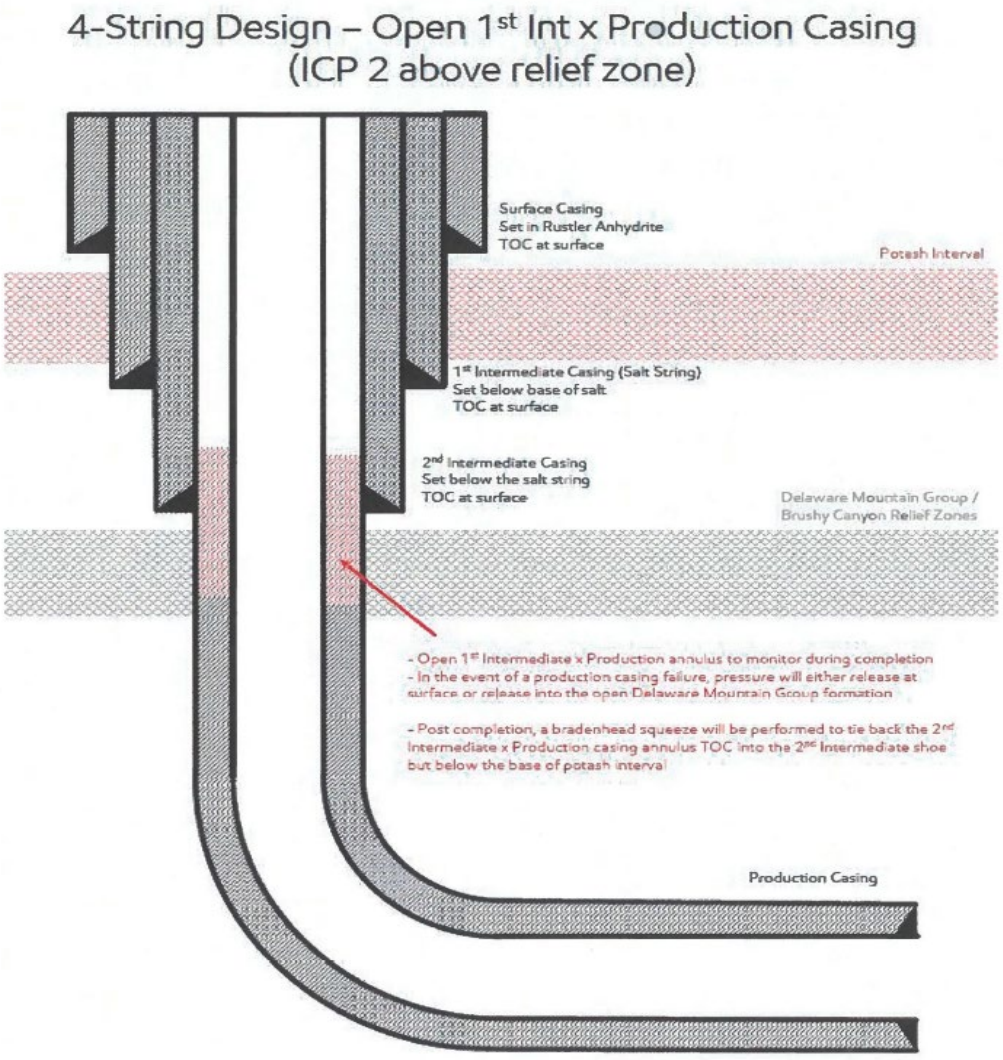
String	Lead/Tail	Top MD	Bottom MD	Quanity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Surface	Tail	0	1563	1220	1.34	14.8	1630	50%	Class C	Accelerator
Intermediate 1	Lead	0	2700	380	1.88	12.9	700	50%	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
Intermediate 1	Tail	2700	3377	150	1.34	14.8	200	50%	Class C	Retarder
Intermediate 2	Lead	0	4540	370	1.88	12.9	680	50%	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
Intermediate 2	Tail	4540	5687	150	1.33	14.8	190	25%	Class C	Salt
Production	Lead	6187	10777	340	2.41	11.5	800	0%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder
Production	Tail	10777	21461	1080	1.73	12.5	1860	0%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder

The WBD below depicts the ccement design required for R111Q.
The annulus between the production and intermediate casing strings shall be actively monitored for pressure during hydraulic fracturing operations. If pressure communication is observed, indicating a possible production casing failure, hydraulic fracturing operations must immediately cease, and source of the pressure increase shall be investigated. During hydraulic fracturing operations, a pressure relief valve or

appropriate venting system shall be installed to relieve pressure in the event of a production casing failure. The opening pressure of any pressure relief valves must be set below 50% of the intermediate casing burst rating. If the well design features an uncemented intermediate casing shoe (for example as shown in Exhibit B, Figure B) and the well approaches to within ¼ mile of an offset well drilling, completing or producing from the Delaware Mountain Group, then the pressure relief valve opening pressure shall be set no more than 1000 psi and at no time shall the pressure on the annulus be allowed to exceed 1000 psi. This requirement can be waived by the offset well operator.

Production cement will be 500' below the 2nd intermediate shoe with 0% excess leaving the DMG un-cemented as a pressure relief zone.

Bradenhead operations will be performed within 180 days of completing hydraulic fracturing operations, tying back cement at least 500' inside the 2nd intermediate shoe but below Marker Bed 126.



[Figure E] 4 String – Uncemented Annulus between 2nd Intermediate and Production Casing Strings

5. Circulating Medium

Mud System Type: Closed

Will an air or gas system be used: No

Describe what will be on location to control well or mitigate oter conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Cuttings Volume: 12590 Cu Ft

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight	Max Weight
0	1563	Spud Mud	8.6	9.5
1563	3377	Salt Saturated	10	10
3377	5687	Fresh Water	8.6	9.5
5687	10777	Brine	9	10
10777	21461	OBM	9	10

6. Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:
Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.
List of open and cased hole logs run in the well:
DIRECTIONAL SURVEY,GAMMA RAY LOG,
Coring operation description for the well:
N/A

7. Pressure

Anticipated Bottom Hole Pressure	5850	psi
Anticipated Surface Pressure	3375	psi
Anticipated Bottom Hole Temperature	167	°F
Anticipated Abnormal pressure, temp, or geo hazards	No	

8. Other Information

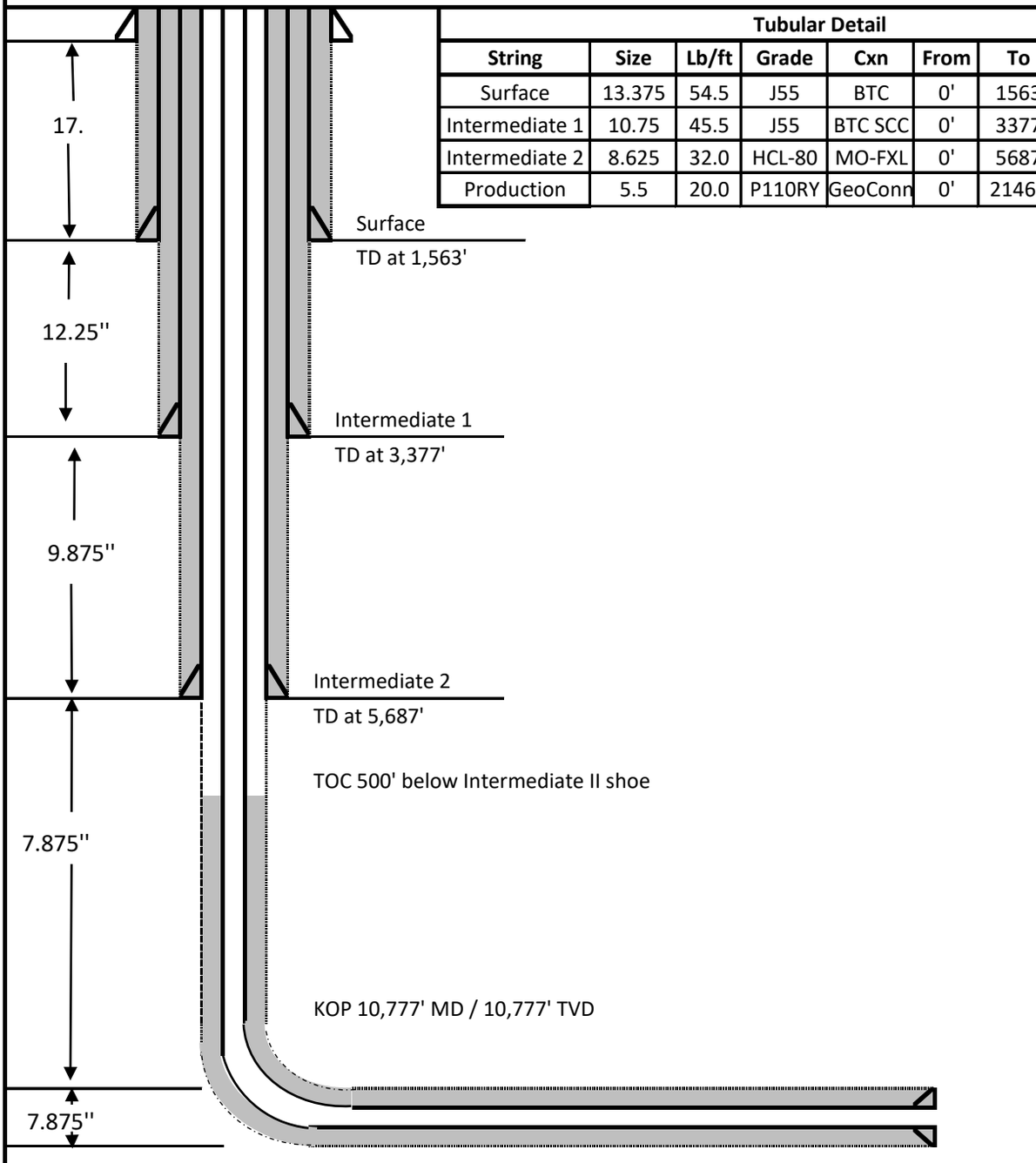
Well Plan and AC Report: attached
Batching Drilling Procedure: attached
WBD: attached
Flex Hose Specs: attached
Offline Cementing Procedure: attached
Break Testing Procedure: attached

Permian Resources

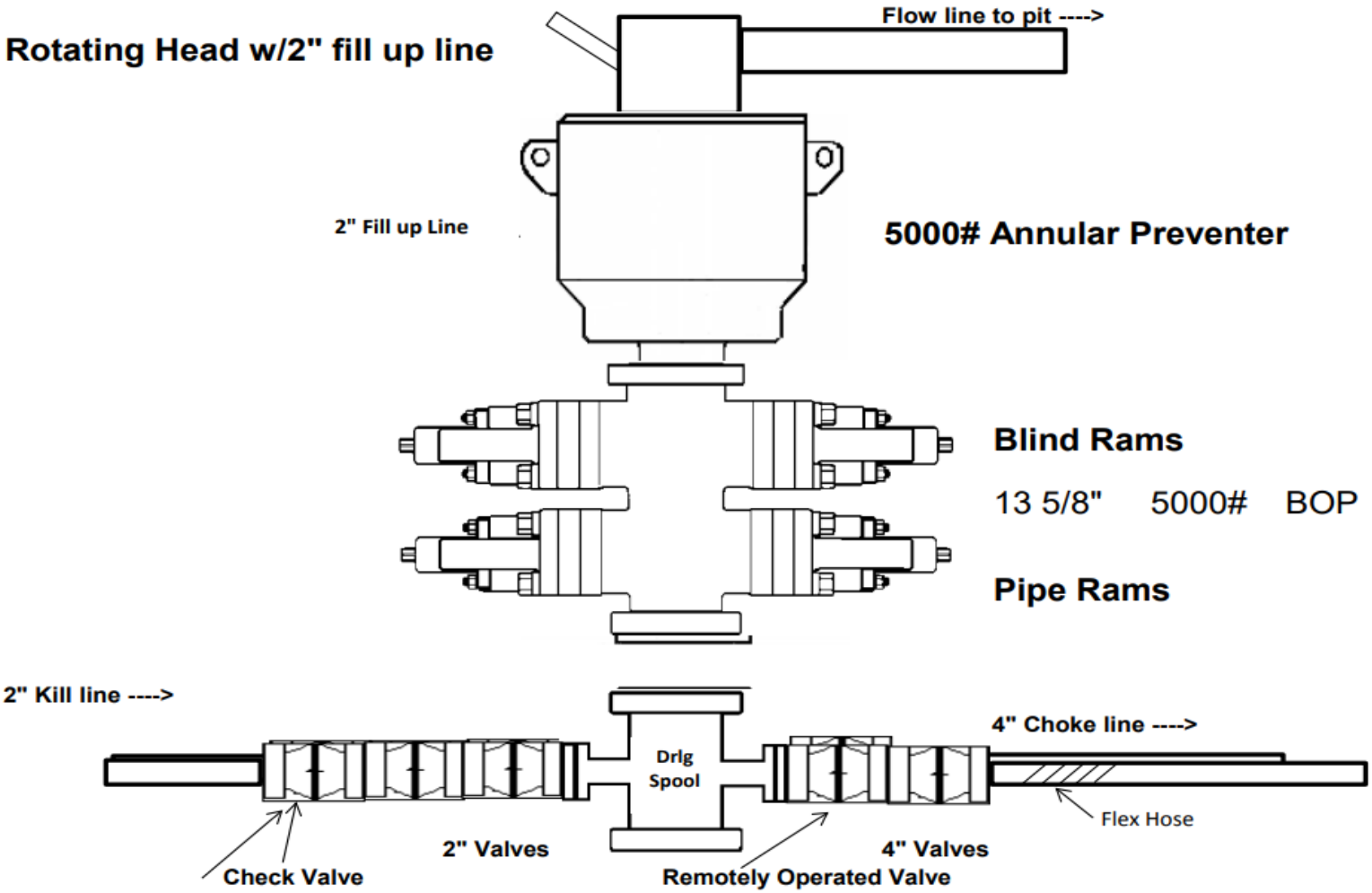
Well: Eileen 25 Fed Com 601H
State New Mexico **County:** Lea
FM Target: 3rd Bone Spring
Location: Section 25, T20S, R33E, 260' FSL, 630' FWL
BHL: Section 24, T20S, R33E, 100' FNL, 715' FWL
KB Elev: 3723 **KB:** 30 **GL Elev:** 3693

Tubular Detail

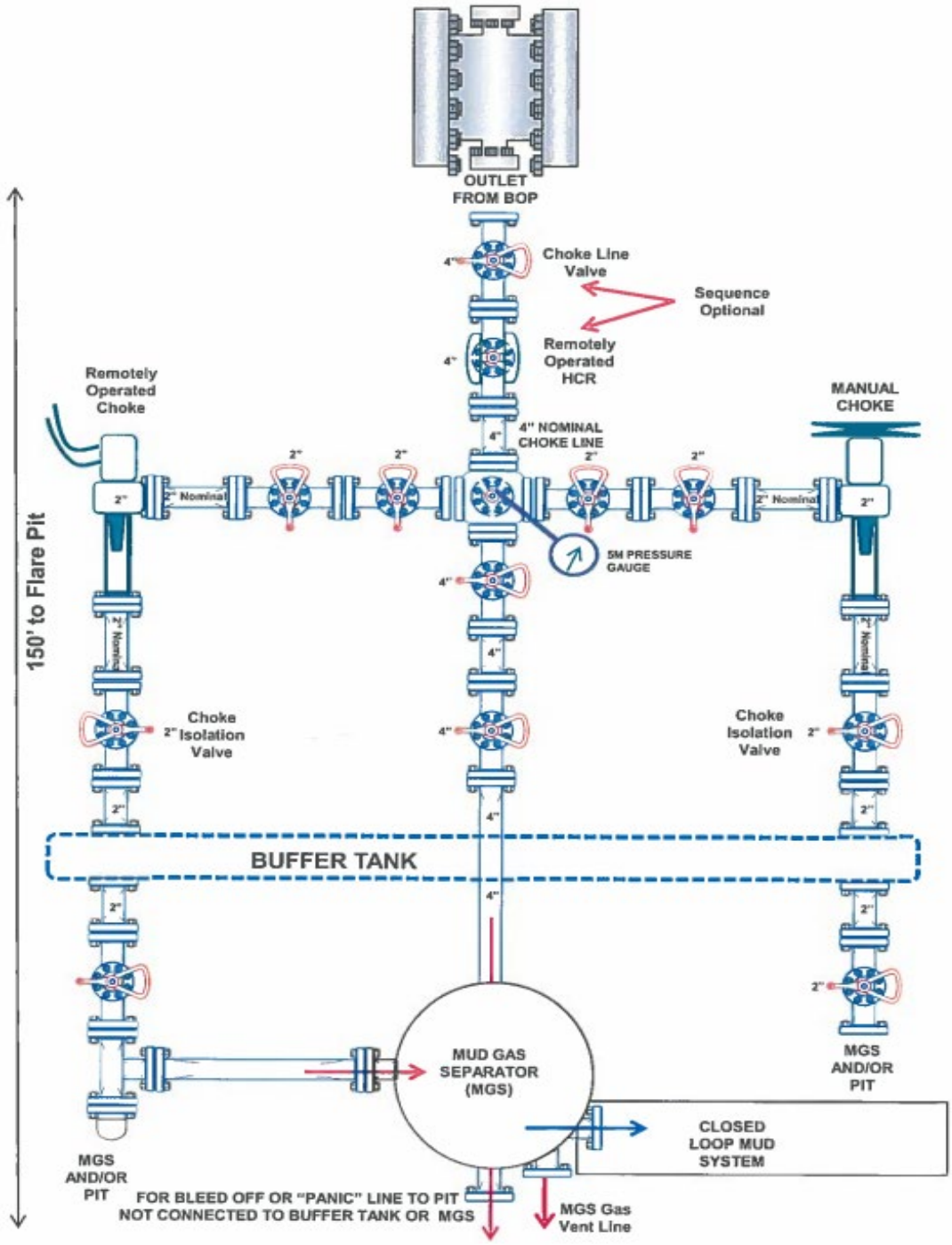
String	Size	Lb/ft	Grade	Cxn	From	To	Burst	Cllps
Surface	13.375	54.5	J55	BTC	0'	1563	2740	1,130
Intermediate 1	10.75	45.5	J55	BTC SCC	0'	3377	5210	2,470
Intermediate 2	8.625	32.0	HCL-80	MO-FXL	0'	5687	4000	4,130
Production	5.5	20.0	P110RY	GeoConn	0'	21461	13720	11,100



5,000 psi BOP Schematic



5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



Continental
ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE						CERT. N°:	504	
PURCHASER:	ContiTech Oil & Marine Corp.					P.O. N°:	4500409659	
CONTITECH RUBBER order N°:	538236		HOSE TYPE:	3"	ID	Choke and Kill Hose		
HOSE SERIAL N°:	67255		NOMINAL / ACTUAL LENGTH:			10,67 m / 10,77 m		
W.P. 68,9	MPa	10000 psi	T.P. 103,4	MPa	15000 psi	Duration:	60	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 20 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°
3" coupling with	9251	9254	AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end			AISI 4130	035608

Not Designed For Well Testing **API Spec 16 C**

Temperature rate:"B"

All metal parts are flawless.

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

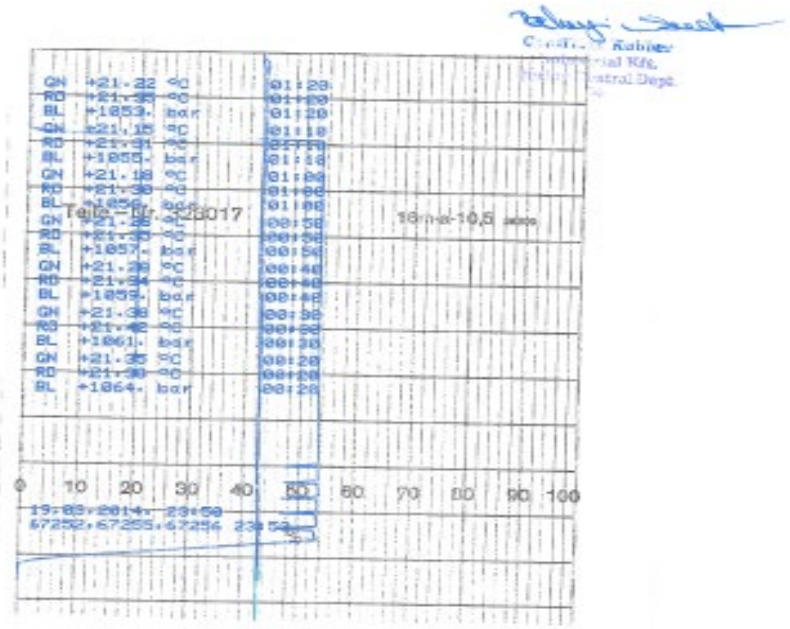
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
20. March 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 501, 504, 505*

Page: 1 / 1



Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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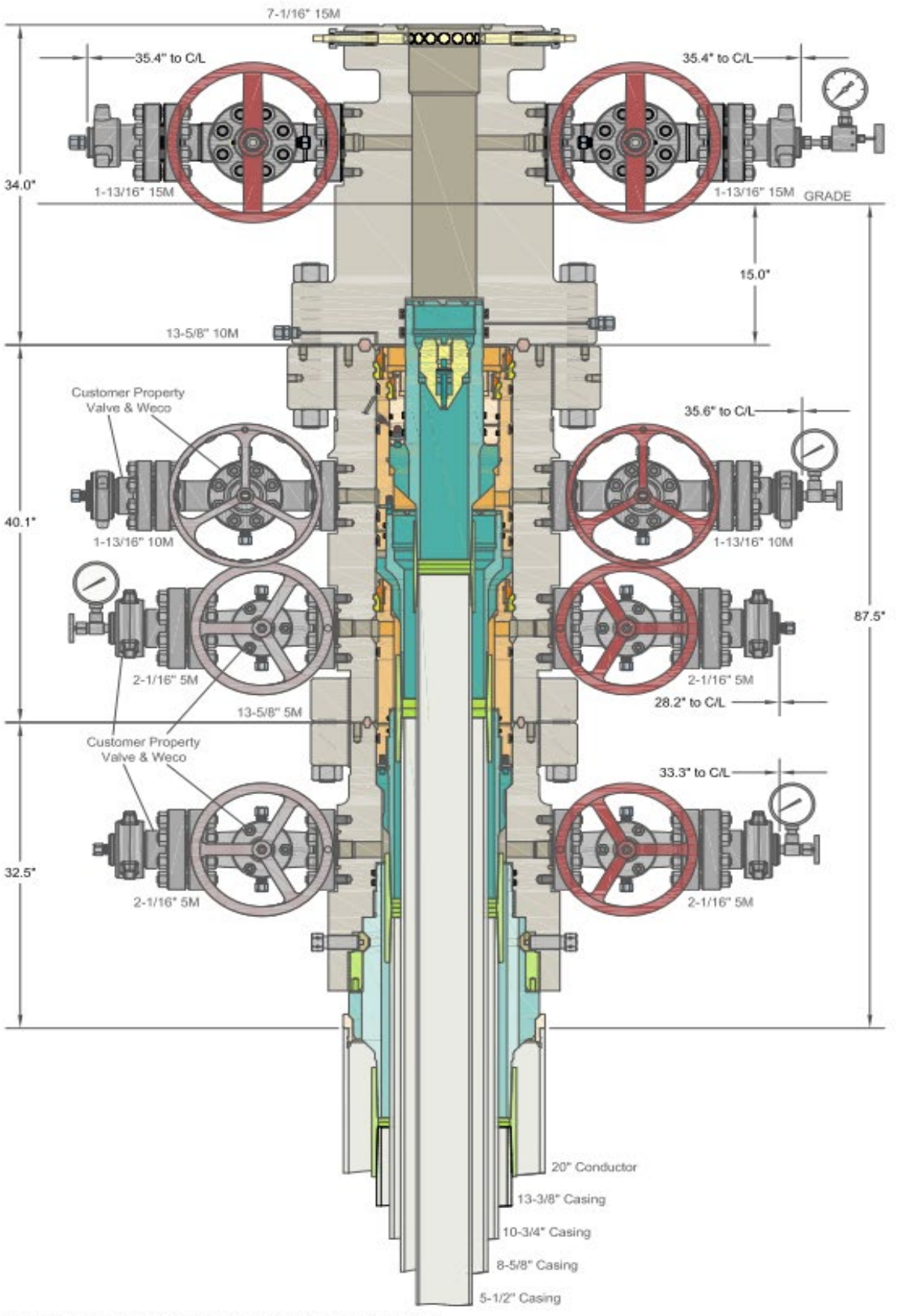


ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	PERMIAN RESOURCES NEW MEXICO		
20" x 13-3/8" x 10-3/4" x 8-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO Sys. With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 10-3/4" & 7-5/8" & 5-1/2" Fluted Mandrel Casing Hangers	DRAWN	DLE	26OCT23
	APPRV		
	DRAWING NO.	HBE0001038	

Permian Resources Casing Design Criteria

A sundry will be requested if any lesser grade or different size casing is substituted. All casing will be centralized as specified in On Shore Order II. Casing will be tested as specified in On Shore Order II.

Casing Design Assumptions:

Surface

1) Burst Design Loads
   a) Displacement to Gas
      (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
   b) Casing Pressure Test
      (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
2) Collapse Loads
   a) Cementing
      (1) Internal: Displacement fluid density.
      (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
   b) Lost Returns with Mud Drop
      (1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
      (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
3) Tension Loads
   a) Overpull Force
      1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
   b) Green Cement Casing Test
      1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate I

1) Burst Design Loads
   a) Displacement to Gas
      (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
   b) Casing Pressure Test
      (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
2) Collapse Loads
   a) Cementing
      (1) Internal: Displacement fluid density.

(2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.

b) Lost Returns with Mud Drop

(1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate or Intermediate II

1) Burst Design Loads

a) Gas Kick Profile

(1) Internal: Load profile based on influx encountered in lateral portion of wellbore with a maximum influx volume of 150 bbl and a kick intensity of 1.5 ppg using maximum anticipated MW of 9.9 ppg.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

b) Casing Pressure Test

(1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

2) Collapse Loads

a) Cementing

(1) Internal: Displacement fluid density.

(2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.

b) Lost Returns with Mud Drop

(1) Internal: Lost circulation at the deepest TVD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Production

1) Burst Design Loads

a) Injection Down Casing

(1) Internal: Surface pressure plus injection fluid gradient.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

b) Casing Pressure Test (Drilling)

(1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

c) Casing Pressure Test (Production)

(1) Internal: The design pressure test should be the greater of the planned test pressure prior to simulation down the casing, the regulatory test pressure, and the expected gas lift system pressure. The design test fluid should be the fluid associated with the pressure test having the greatest pressure

having the greatest pressure.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

d) Tubing Leak

(1) Internal: SITP plus a packer fluid gradient to the top of packer.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

2) Collapse Loads

a) Cementing

(1) Internal: Displacement fluid density.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

b) Full Evacuation

(1) Internal: Full void pipe.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

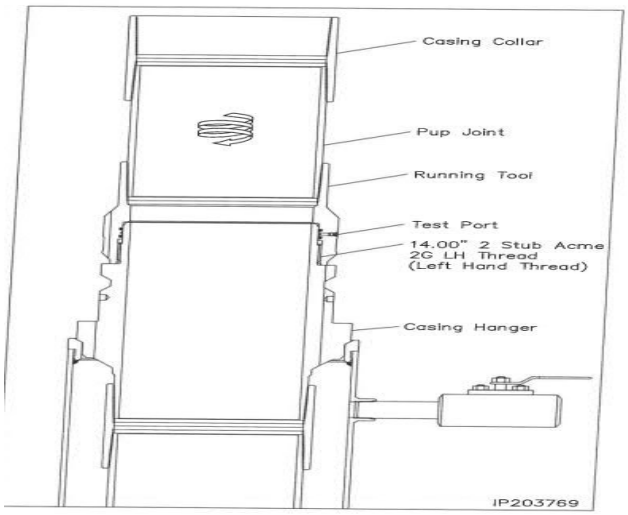
b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Permian Resources
Multi-Well Pad Batch Drilling & Off Line Cement Procedure

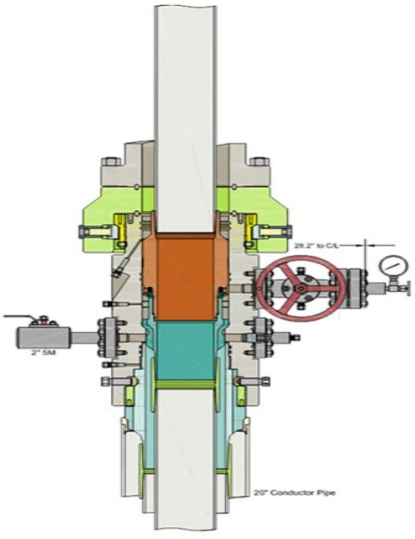
Surface Casing - PR intends to Batch set and offline cement all surface casing to a depth approved in the APD. Surface Holes will be batch drilled by a big rig. Appropriate notifications will be made prior to spudding the well, running, and cementing casing and prior to skidding to the rig to the next well on pad.

1. Drill Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run casing with Cactus Multibowl system, with baseplate supported by Conductor.
3. Circulate 1.5 csg capacity.
4. Flow test – Confirm well is static.
5. Install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test Surface casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.

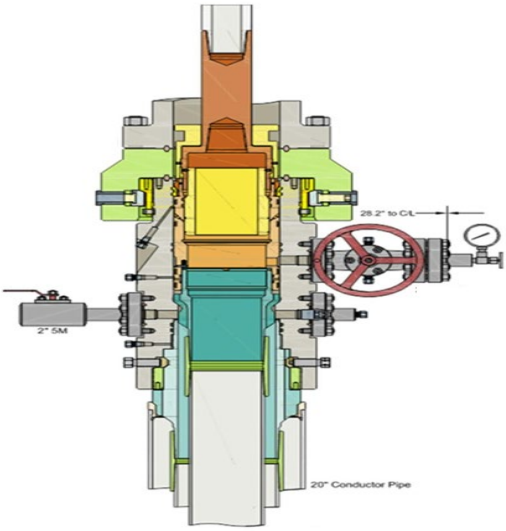


Intermediate 1 Casing – PR intends to Batch set all intermediate 1 casing strings to a depth approved in the APD, typically set into end of salts. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.
Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 1 as per requested break testing variance).
Install wear bushing then drill out 20" shoe-track.

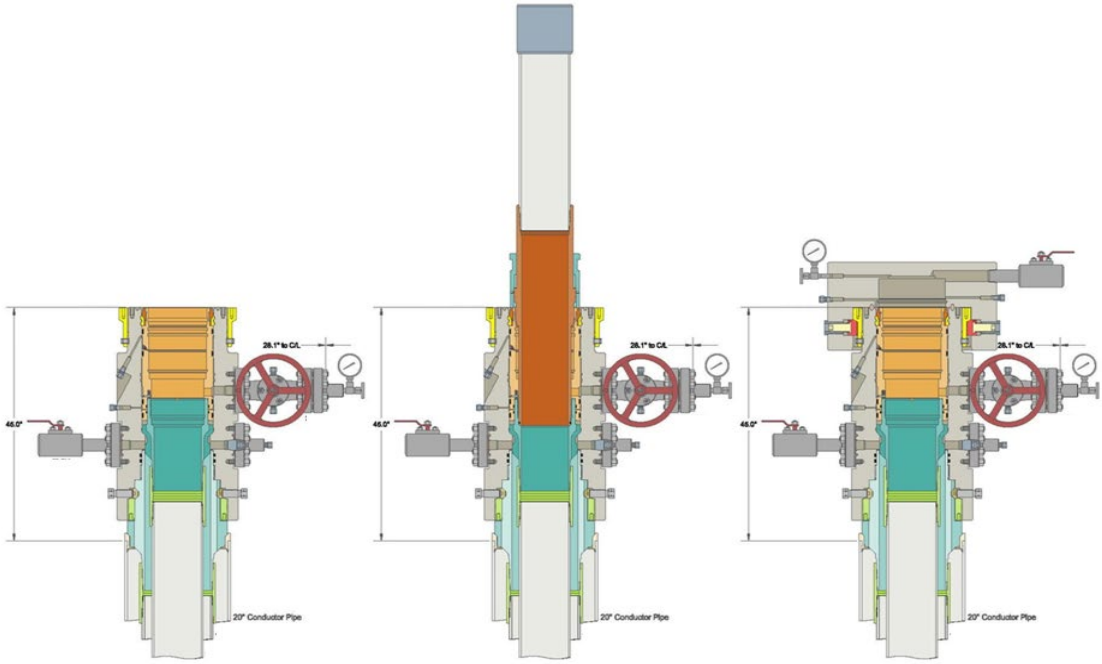
1. Drill Intermediate 1 hole to approved casing point. Trip out of hole with BHA to run Casing.
2. Remove wear bushing then run and land Intermediate 1 casing with mandrel hanger in wellhead.
3. Flow test – Confirm well is static.
4. Set Annular packoff and pressure test. Test to 5k.
5. Install BPV, Nipple down BOP and install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.



Run Intermediate Casing
Land Intermediate Casing on Mandrel Hanger
Cement Intermediate Casing
Retrieve Running Tool



Run Packoff
Test Upper and Lower Seals
Engage Lockring
Retrieve Running Tool



Intermediate 2 Casing – PR intends to Batch set all Intermediate 2 casing strings to a depth approved in the APD, typically set into Captain past losses. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 2 as per requested break testing variance).
2. Install wear bushing then drill out Intermediate 1 shoe-track.
3. Drill Intermediate 2 hole to approved casing point. Trip out of hole with BHA to run Casing.
4. Remove wear bushing then run and land Intermediate 2 casing with mandrel hanger in wellhead.
5. Flow test – Confirm well is static.
6. Set Annular packoff and pressure test. Test to 5k.
7. Install BPV, Nipple down BOP and install cap flange.
8. Skid rig to next well on pad
9. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
10. Install offline cement tool.
11. Rig up cementers.
12. Circulate bottoms up with cement truck
13. Commence planned cement job, take returns through the annulus wellhead valve
14. After plug is bumped confirm floats hold and well is static
15. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
16. Rig down cementers and equipment
17. Install night cap with pressure gauge to monitor.

Production Casing – PR intends to Batch set all Production casings. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE.
2. Install wear bushing then drill Intermediate shoe-track.
3. Drill Vertical hole to KOP – Trip out for Curve BHA.
4. Drill Curve, landing in production interval – Trip for Lateral BHA.
5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run Production Casing.
6. Remove wear bushing then run Production casing to TD landing casing mandrel in wellhead.
7. Cement Production string to surface with floats holding.

Permian Resources
BOP Break Testing Variance Procedure

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE). Permian Resources requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Title 43 CFR 3172, Drilling Operations, Sections 6.b.9.iv states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. 43 CFR 3172.13, Variances from minimum standards states, "An operator may request the authorized officer to approve a variance from any of the minimum standards prescribed in §§ 3172.6 through 3172.12. All such requests shall be submitted in writing to the appropriate authorized officer and provide information as to the circumstances which warrant approval of the variance(s) requested and the proposed alternative methods by which the related minimum standard(s) are to be satisfied. The authorized officer, after considering all relevant factors, if appropriate, may approve the requested variance(s) if it is determined that the proposed alternative(s) meet or exceed the objectives of the applicable minimum standard(s).". Permian Resources feels the break testing the BOPE is such a situation. Therefore, as per 43 CFR 3172.13, Permian Resources submits this request for the variance.

Supporting Documentation

The language used in 43 CFR 3172 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time, there have been significant changes in drilling technology. The BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR 3172 was originally released. The Permian Resources drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.

Figure 1: Winch System attached to BOP Stack

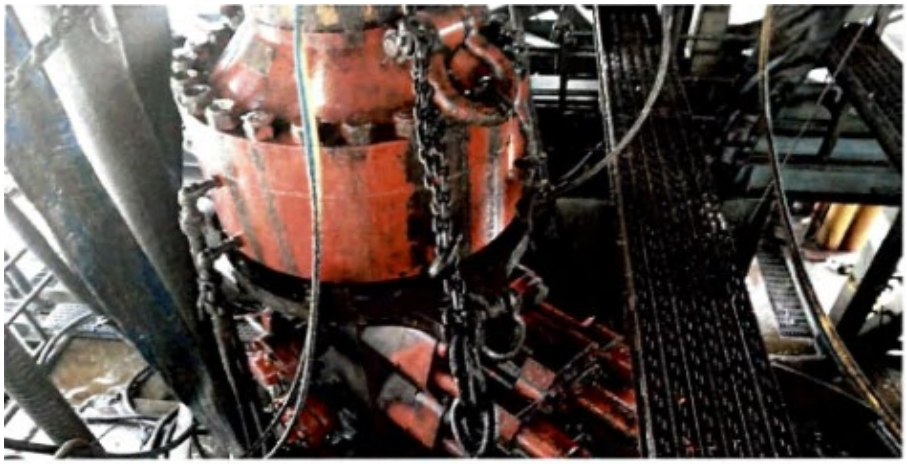


Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. 43 CFR 3172 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

62 API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure[a,c] psig (MPa)	Pressure Test—High Pressure[a,c]	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer[b]	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers[a,c]	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

[b] Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

[c] For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

[d] For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

* Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

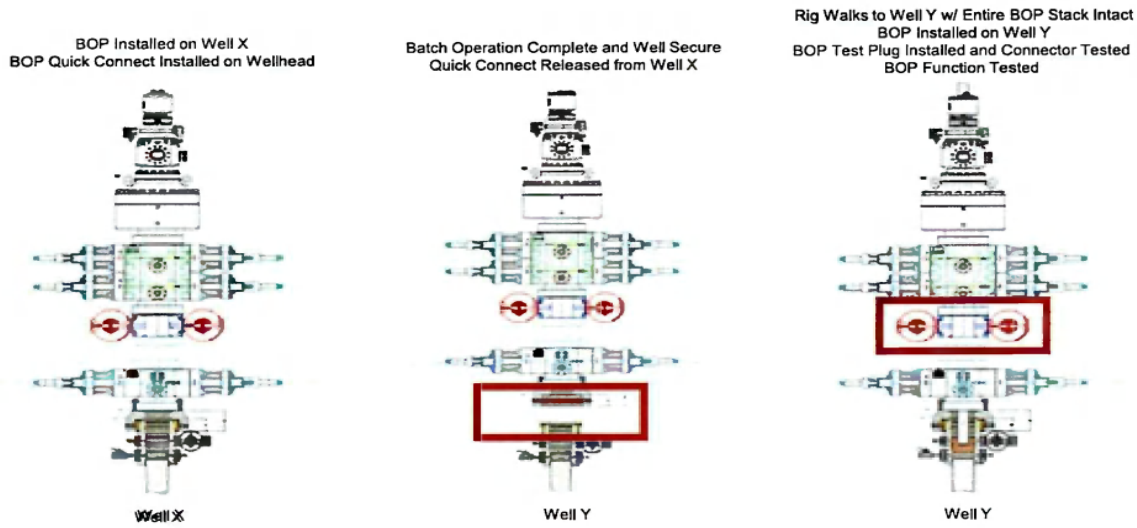
Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

Permian Resources feels break testing and our current procedures meet the intent of 43 CFR 3172 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. Permian Resources internal standards require complete BOPE tests more often than that of 43 CFR 3172 (every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, Permian Resources performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of 43 CFR 3172.

Procedures

1) Permian Resources will use this document for our break testing plan for New Mexico Delaware Basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2) Permian Resources will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
   a)A full BOP test will be conducted on the first well on the pad.
   b)The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same formation depth or shallower.
   c) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
   d) A full BOP test will be required prior to drilling any production hole.
3) After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
   a) Between the HCV valve and choke line connection
   b)Between the BOP quick connect and the wellhead
4) The BOP is then lifted and removed from the wellhead by a hydraulic system.
5) After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6) The connections mentioned in 3a and 3b will then be reconnected.
7) Install test plug into the wellhead using test joint or drill pipe.
8) A shell test is performed against the upper pipe rams testing the two breaks.
9) The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10) Function tests will be performed on the following components: lower pipe rams, blind rams, and annular.
11) For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12) A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



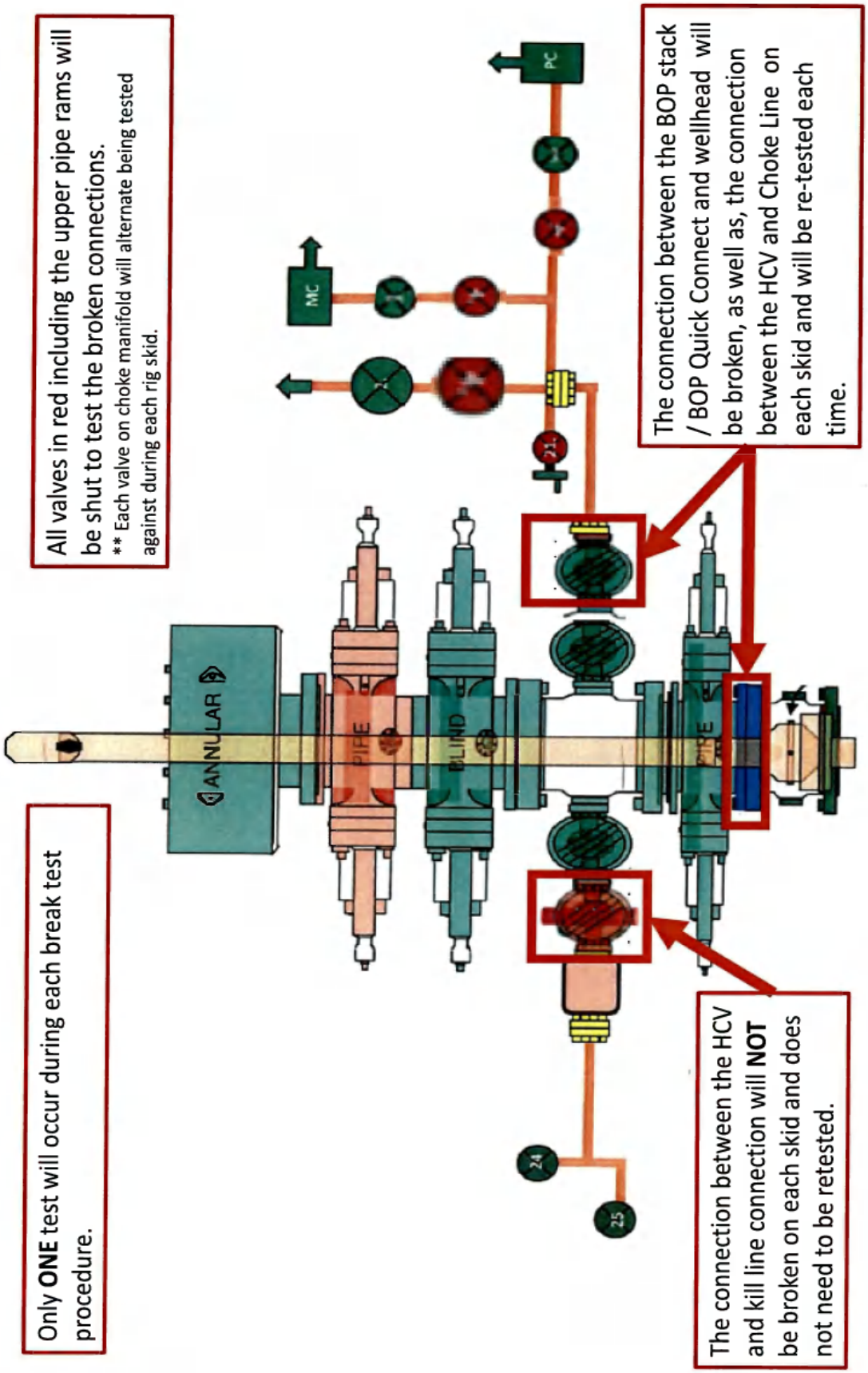
Summary

A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operations, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control
event occurs prior to the commencement of a BOPE Break Testing operation.

Based on public data and the supporting documentation submitted herein to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

1) After a full BOP test is conducted on the first well on the pad.
2) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same depth or shallower.
3) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4) A full BOP test will be required prior to drilling the production hole.


All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.
The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.
Only ONE test will occur during each break test procedure.
The connection between the HCV and kill line connection will NOT be broken on each skid and does not need to be retested.
ANNULAR
PIPE
BLIND
PIPE
MC
PC
21
24
25

SOP-12-F05
Performance Data Sheet

BORUSAN MANNESMANN

API 5CT Casing Performance Data Sheet

10.750" 45.50 lb/ft J55

Manufactured to specifications of API 5CT 10th edition and bears the API monogram.

Grade	J55

Sizes and Weights

OD	10.750 in
Nominal Wall Thickness	0.400 in
Nominal Weight, T&C	45.50 lb/ft
Nominal Weight, PE	44.26 lb/ft
Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in

Pipe Body Mechanical Properties

Minimum Yield Strength	55,000 psi
Maximum Yield Strength	80,000 psi
Minimum Tensile Strength	75,000 psi
Maximum Hardness	N/A

Minimum Performance

Collapse Pressure	2,470 psi
Minimal Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
Internal Pressure Leak Resistance STC/LTC Connections	6,880 lbs
Internal Pressure Leak Resistance BTC Connections	7,450 lbs

Special Clearance Coupling

OD	N/A
Minimum Length (NL)	10.625"
Diameter at Counterbore	13.515"
Width of Bearing Face	0.375"

Inspection and Testing

Visual	OD Longitudinal and independent 3rd party SEA
NDT	Weldline UT after hydrotest. Calibration notch sensitivity (% of specified wall thickness): 12.5%

Color code

Pipe ends	One green band
Couplings	Green with one white band (alternate coupling: K55 - green)

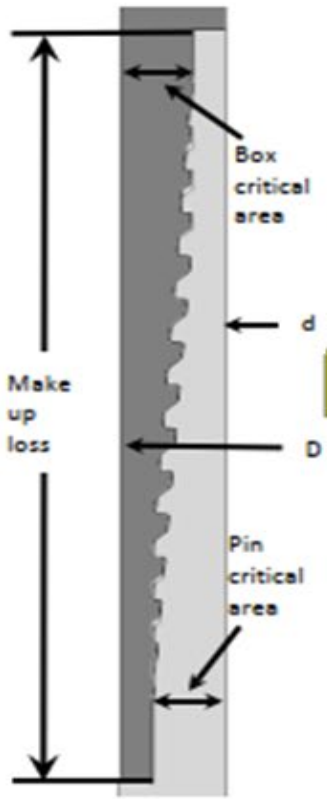
Metal One Corp.	MO-FXL	CDS#	MO-FXL 8-5/8 32.0
Metal One	*1 Pipe Body: BMP P110HSCY MinYS125ksi Min95%WT		P110HSCY
			MinYS125ksi
			Min95%WT
	Connection Data Sheet	Date	8-Sep-21

Geometry

MO-FXL

Pipe Body

	Imperial		S.I.	
Grade *1	P110HSCY		P110HSCY	
MinYS *1	125	ksi	125	ksi
Pipe OD (D)	8 5/8	in	219.08	mm
Weight	32.00	lb/ft	47.68	kg/m
Actual weight	31.10		46.34	kg/m
Wall Thickness (t)	0.352	in	8.94	mm
Pipe ID (d)	7.921	in	201.19	mm
Pipe body cross section	9.149	in^2	5,902	mm^2
Drift Dia.	7.796	in	198.02	mm
-	-	-	-	-



Connection

Box OD (W)	8.625	in	219.08	mm
PIN ID	7.921	in	201.19	mm
Make up Loss	3.847	in	97.71	mm
Box Critical Area	5.853	in^2	3686	mm^2
Joint load efficiency	69	%	69	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			

Performance

Performance Properties for Pipe Body

S.M.Y.S. *1	1,144	kips	5,087	kN
M.I.Y.P. *1	9,690	psi	66.83	MPa
Collapse Strength *1	4,300	psi	29.66	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

*1: BMP P110HSCY: MinYS125ksi, Min95%WT, Collapse Strength 4,300psi

Performance Properties for Connection

Tensile Yield load	789 kips (69% of S.M.Y.S.)
Min. Compression Yield	789 kips (69% of S.M.Y.S.)
Internal Pressure	6,780 psi (70% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	29

Recommended Torque

Min.	13,600	ft-lb	18,400	N-m
Opti.	14,900	ft-lb	20,200	N-m
Max.	16,200	ft-lb	21,900	N-m
Operational Max.	28,400	ft-lb	38,500	N-m

Note : Operational Max. torque can be applied for high torque application

Metal One Corp.

Metal One

GEOCONN-SC

Pipe Body: SeAH P110RY(SMYS110ksi) & 95%RBW *1

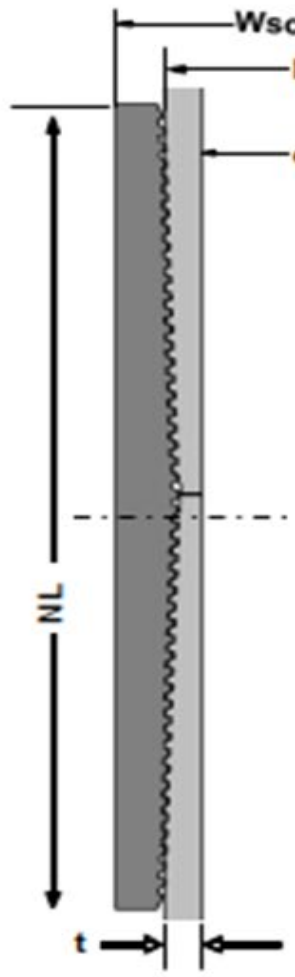
Coupling: P110CY (SMYS110ksi)

Connection Data Sheet

Page	MAI GC 5.5 20 SeAH PRY 95%RW
	SC-CplgOD 6.050 P110CY
Date	29-Sep-21
Rev.	0

Geometry

GEOCONN-SC



Pipe Body

Grade *1	SeAH P110RY	-	SeAH P110RY	
SMYS	110	ksi	110	ksi
Pipe OD (D)	5.500	in	139.70	mm
Weight	20.00	lb/ft	29.80	kg/m
Wall Thickness (t)	0.361	in	9.17	mm
Pipe ID (d)	4.778	in	121.36	mm
Drift Dia.	4.653	in	118.19	mm

Connection

		Imperial	S.I.	
Coupling SMYS	110	ksi	110	ksi
Coupling OD (Wsc1)	6.050	in	153.67	mm
Coupling Length (NL)	8.350	in	212.09	mm
Make up Loss	4.125	in	104.78	mm
Pipe Critical Area	5.83	in^2	3,760	mm^2
Box Critical Area	6.00	in^2	3,874	mm^2
Thread Taper	1 / 16 (3/4" per ft)			
Number of Threads	5 TPI			

Performance

Performance Properties for Pipe Body

		Imperial	S.I.	
S.M.Y.S.	641	kips	2,852	kN
M.I.Y.P. *1	13,720	psi	94.62	MPa
Collapse Strength	11,100	psi	76.55	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body

M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

*1 Pipe: SeAH P110RY (SMYS110ksi), Min Wall Thickness of Pipe Body: 95% of Nom wall

Performance Properties for Connection

Min. Connection Joint Strength	100% of S.M.Y.S.
Min. Compression Yield	100% of S.M.Y.S.
Internal Pressure	100% of M.I.Y.P.
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	>90

Recommended Torque

Min.	14,600	ft-lb	19,700	N-m
Opti.	16,200	ft-lb	21,900	N-m
Max.	17,800	ft-lb	24,100	N-m
Operational Max.	19,500	ft-lb	26,400	N-m

Note : Operational Max. torque can be applied for high torque application

See previously attached Drill Plan

See previously attached Drill Plan

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Eileen 25 Fed Com 601H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,524'
Tamarisk Anhydrite	1,631'
Top of Salt	1,897'
Base of Salt	3,224'
Lamar	3,561'
Bell Canyon	5,617'
Cherry Canyon	5,722'
Brushy Canyon	6,961'
Bone Spring Lime	8,650'
Leonard Shale	9,092'
1st Bone Spring Sand	9,670'
2nd Bone Spring Shale	9,947'
2nd Bone Spring Sand	10,197'
3rd Bone Spring Carb	10,702'
3rd Bone Spring Sand	11,016'
Wolfcamp	11,285'
TD	11,249'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400’	Fresh Water
Cherry Canyon	5,722'	Oil
Brushy Canyon	6,961'	Oil
Leonard Shale	9,092'	Oil
1st Bone Spring Sand	9,670'	Oil
2nd Bone Spring Shale	9,947'	Oil
2nd Bone Spring Sand	10,197'	Oil
3rd Bone Spring Carb	10,702'	Oil
3rd Bone Spring Sand	11,016'	Oil
Wolfcamp	11,285'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9.625" casing at 1,656' and circulating cement back to surface.

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4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DFmin Collapse	DFmin Burst	DFmin Tension
12.25"	0' - 1,660'	9.625"	36#	J-55	LTC	1.125	1.25	1.6
8.75"	0' - 10,802'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.6
6.75"	0' - 10,302'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6
6.75"	10,302' - 10,802'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.6
6.75"	10,802' - 21,461'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.6

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4 hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422'' annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422'' between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422'' is acceptable for the production open hole section.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,660' 9.625"	430	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,456')
10,802' 7.625"	480	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 6,761')
	1440	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
21,461' 5.5"	950	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,302')

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Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6,961') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,443 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Cement integrity tests will be performed immediately following plug bump.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4” OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000 psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top.

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,660'	Fresh - Gel	8.6-8.8	28-34	N/c
1,660' – 10,802'	Brine	10.0-10.2	28-34	N/c
10,802’ – 10,777'	Oil Base	8.7-9.4	58-68	N/c - 6
10,777’ – 21,461’ Lateral	Oil Base	10.0-14.0	58-68	4 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

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8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 182 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 8189 psig and a maximum anticipated surface pressure of 5714 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 6,961' to intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and Cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both “A” and “B” sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 9-5/8” surface casing, a 9-5/8” BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor’s representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

Eileen 25 Fed Com 601H

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 30 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and production sections that do not penetrate the Wolfcamp or deeper formations.
- After the well section is cemented the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad. The cemented well will be secured with a blind flange and a pressure gauge for monitoring.

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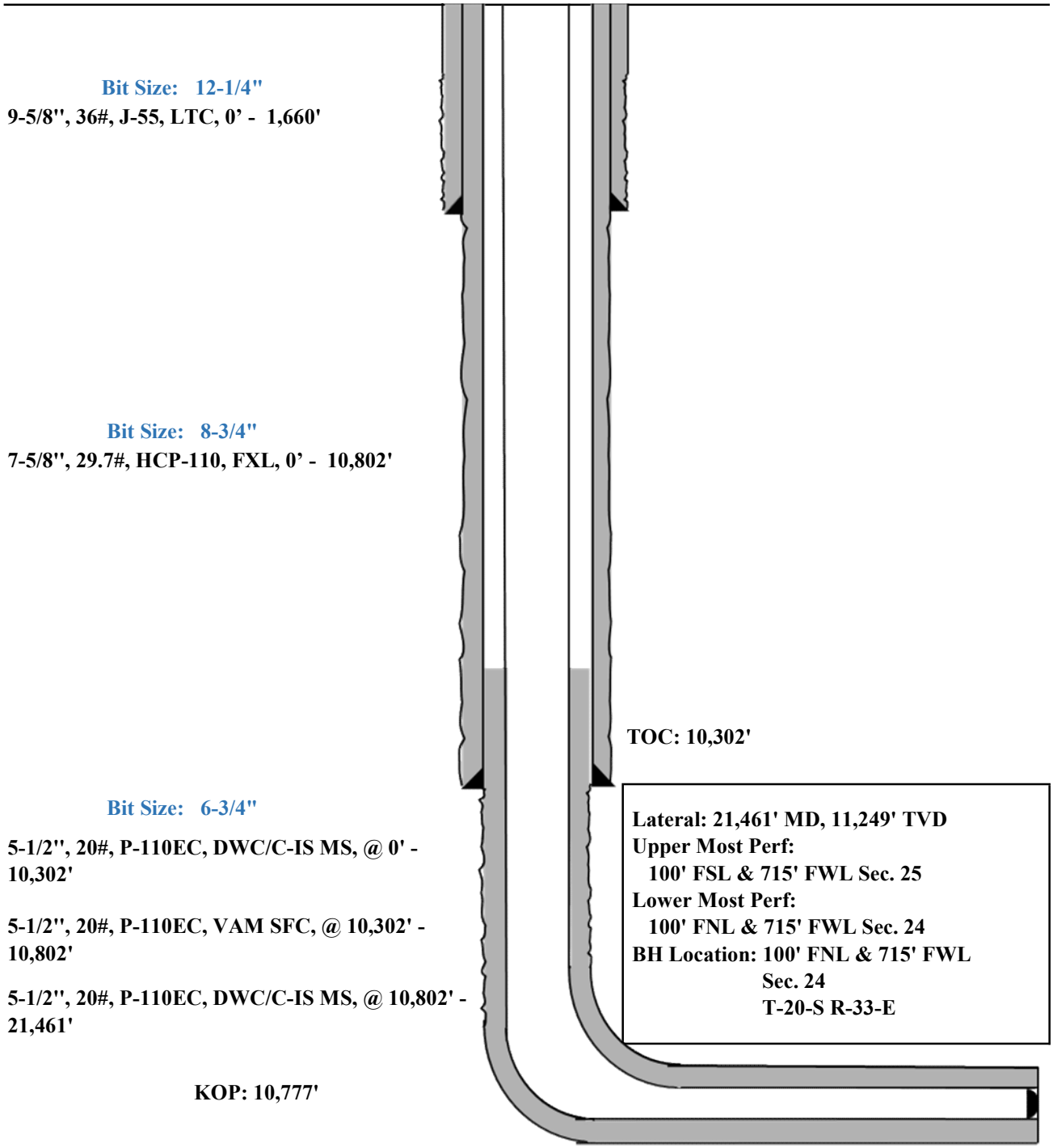
Eileen 25 Fed Com 601H

260' FSL
630' FWL
Section 25
T-20-S, R-33-E

Proposed Wellbore

API: 30-025-***

KB: 3693'
GL: 3668'



EOG RESOURCES, INC.
Eileen 25 Fed Com #601H

Hydrogen Sulfide Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  a. Flare line 150' from wellhead to be ignited by flare gun.
  b. Choke manifold with a remotely operated choke.
  c. Mud/gas separator

- Protective equipment for essential personnel.

  Breathing apparatus:
  a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
  c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

  Auxiliary Rescue Equipment:
  a. Stretcher
  b. Two OSHA full body harness
  c. 100 ft 5/8 inch OSHA approved rope
  d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:
  The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.
  (Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
  a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
  b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
  c. Two wind socks will be placed in strategic locations, visible from all angles.

- Mud program:

EOG RESOURCES, INC.
Eileen 25 Fed Com #601H

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

- Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

- Communication:
  Communication will be via cell phones and land lines where available.

EOG RESOURCES, INC.
Eileen 25 Fed Com #601H

Emergency Assistance Telephone List

PUBLIC SAFETY:		**911 or**
Lea County Sheriff's Department		(575) 396-3611
Rod Coffman		
Fire Department:		
Carlsbad		(575) 885-3125
Artesia		(575) 746-5050
Hospitals:		
Carlsbad		(575) 887-4121
Artesia		(575) 748-3333
Hobbs		(575) 392-1979
Dept. of Public Safety/Carlsbad		(575) 748-9718
Highway Department		(575) 885-3281
New Mexico Oil Conservation		(575) 476-3440
U.S. Dept. of Labor		(575) 887-1174

EOG Resources, Inc.		
EOG / Midland	Office	(432) 686-3600

Company Drilling Consultants:		
Jett Dueitt	Cell	(432) 230-4840
Blake Burney		

Drilling Engineer		
Steve Munsell	Office	(432) 686-3609
	Cell	(432) 894-1256

Drilling Manager		
Aj Dach	Office	(432) 686-3751
	Cell	(817) 480-1167

Drilling Superintendent		
Jason Townsend	Office	(432) 848-9209
	Cell	(210) 776-5131

H&P Drilling		
H&P Drilling	Office	(432) 563-5757
H&P 415 Drilling Rig	Rig	(432) 230-4840

Tool Pusher:		
Johnathan Craig	Cell	(817) 760-6374
Brad Garrett		

Safety		
Brian Chandler (HSE Manager)	Office	(432) 686-3695
	Cell	(817) 239-0251

Midland

Lea County, NM (NAD 83 NME)
Eileen 25 Fed Com
#601H

OH

Plan: Plan #0.1 RT

Standard Planning Report

01 November, 2021

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EOG Resources
Planning Report

Database:	PEDM	**Local Co-ordinate Reference:**	Well #601H
Company:	Midland	**TVD Reference:**	kb = 26' @ 3694.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project Lea County, NM (NAD 83 NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Eileen 25 Fed Com

Site Position:		**Northing:**	560,151.00 usft	**Latitude:**	32° 32' 16.456 N
From:	Map	**Easting:**	760,357.00 usft	**Longitude:**	103° 37' 21.428 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well #601H

Well Position	**+N/-S**	0.0 usft	**Northing:**	560,030.00 usft	**Latitude:**	32° 32' 15.273 N
	+E/-W	0.0 usft	**Easting:**	760,148.00 usft	**Longitude:**	103° 37' 23.878 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,668.0 usft
Grid Convergence:		0.38 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	11/1/2021	6.55	60.17	47,632.91239812

Design Plan #0.1 RT

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.10

Plan Survey Tool Program **Date** 11/1/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,461.3	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	

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EOG Resources

Planning Report

Database:	PEDM	**Local Co-ordinate Reference:**	Well #601H
Company:	Midland	**TVD Reference:**	kb = 26' @ 3694.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,929.1	2.58	157.73	1,929.1	-2.7	1.1	2.00	2.00	0.00	157.73	
6,837.0	2.58	157.73	6,831.9	-207.3	84.9	0.00	0.00	0.00	0.00	
6,966.1	0.00	0.00	6,961.0	-210.0	86.0	2.00	-2.00	0.00	180.00	
10,776.6	0.00	0.00	10,771.5	-210.0	86.0	0.00	0.00	0.00	0.00	KOP(Eileen 25 Fed C
10,997.0	26.46	0.00	10,984.2	-160.0	86.0	12.00	12.00	0.00	0.00	FTP(Eileen 25 Fed C
11,526.5	90.00	359.61	11,248.9	267.5	84.0	12.00	12.00	-0.07	-0.43	
18,909.3	90.00	359.61	11,249.0	7,650.0	34.0	0.00	0.00	0.00	0.00	Fed Perf 1(Eileen 25
21,461.3	90.00	359.62	11,249.0	10,202.0	17.0	0.00	0.00	0.00	86.16	PBHL(Eileen 25 Fed

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Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	2.00	157.73	1,900.0	-1.6	0.7	-1.6	2.00	2.00	0.00
1,929.1	2.58	157.73	1,929.1	-2.7	1.1	-2.7	2.00	2.00	0.00
2,000.0	2.58	157.73	1,999.9	-5.6	2.3	-5.6	0.00	0.00	0.00
2,100.0	2.58	157.73	2,099.8	-9.8	4.0	-9.8	0.00	0.00	0.00
2,200.0	2.58	157.73	2,199.7	-14.0	5.7	-14.0	0.00	0.00	0.00
2,300.0	2.58	157.73	2,299.6	-18.2	7.4	-18.1	0.00	0.00	0.00
2,400.0	2.58	157.73	2,399.5	-22.3	9.1	-22.3	0.00	0.00	0.00
2,500.0	2.58	157.73	2,499.4	-26.5	10.8	-26.5	0.00	0.00	0.00
2,600.0	2.58	157.73	2,599.3	-30.7	12.6	-30.6	0.00	0.00	0.00
2,700.0	2.58	157.73	2,699.2	-34.8	14.3	-34.8	0.00	0.00	0.00
2,800.0	2.58	157.73	2,799.1	-39.0	16.0	-39.0	0.00	0.00	0.00
2,900.0	2.58	157.73	2,899.0	-43.2	17.7	-43.1	0.00	0.00	0.00
3,000.0	2.58	157.73	2,998.9	-47.3	19.4	-47.3	0.00	0.00	0.00
3,100.0	2.58	157.73	3,098.8	-51.5	21.1	-51.5	0.00	0.00	0.00
3,200.0	2.58	157.73	3,198.7	-55.7	22.8	-55.6	0.00	0.00	0.00
3,300.0	2.58	157.73	3,298.6	-59.8	24.5	-59.8	0.00	0.00	0.00
3,400.0	2.58	157.73	3,398.5	-64.0	26.2	-64.0	0.00	0.00	0.00
3,500.0	2.58	157.73	3,498.4	-68.2	27.9	-68.1	0.00	0.00	0.00
3,600.0	2.58	157.73	3,598.3	-72.4	29.6	-72.3	0.00	0.00	0.00
3,700.0	2.58	157.73	3,698.2	-76.5	31.3	-76.5	0.00	0.00	0.00
3,800.0	2.58	157.73	3,798.1	-80.7	33.0	-80.6	0.00	0.00	0.00
3,900.0	2.58	157.73	3,898.0	-84.9	34.8	-84.8	0.00	0.00	0.00
4,000.0	2.58	157.73	3,997.9	-89.0	36.5	-89.0	0.00	0.00	0.00
4,100.0	2.58	157.73	4,097.8	-93.2	38.2	-93.1	0.00	0.00	0.00
4,200.0	2.58	157.73	4,197.7	-97.4	39.9	-97.3	0.00	0.00	0.00
4,300.0	2.58	157.73	4,297.5	-101.5	41.6	-101.5	0.00	0.00	0.00
4,400.0	2.58	157.73	4,397.4	-105.7	43.3	-105.6	0.00	0.00	0.00
4,500.0	2.58	157.73	4,497.3	-109.9	45.0	-109.8	0.00	0.00	0.00
4,600.0	2.58	157.73	4,597.2	-114.0	46.7	-114.0	0.00	0.00	0.00
4,700.0	2.58	157.73	4,697.1	-118.2	48.4	-118.1	0.00	0.00	0.00
4,800.0	2.58	157.73	4,797.0	-122.4	50.1	-122.3	0.00	0.00	0.00
4,900.0	2.58	157.73	4,896.9	-126.6	51.8	-126.5	0.00	0.00	0.00
5,000.0	2.58	157.73	4,996.8	-130.7	53.5	-130.6	0.00	0.00	0.00
5,100.0	2.58	157.73	5,096.7	-134.9	55.2	-134.8	0.00	0.00	0.00
5,200.0	2.58	157.73	5,196.6	-139.1	56.9	-139.0	0.00	0.00	0.00

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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	2.58	157.73	5,296.5	-143.2	58.7	-143.1	0.00	0.00	0.00
5,400.0	2.58	157.73	5,396.4	-147.4	60.4	-147.3	0.00	0.00	0.00
5,500.0	2.58	157.73	5,496.3	-151.6	62.1	-151.5	0.00	0.00	0.00
5,600.0	2.58	157.73	5,596.2	-155.7	63.8	-155.6	0.00	0.00	0.00
5,700.0	2.58	157.73	5,696.1	-159.9	65.5	-159.8	0.00	0.00	0.00
5,800.0	2.58	157.73	5,796.0	-164.1	67.2	-164.0	0.00	0.00	0.00
5,900.0	2.58	157.73	5,895.9	-168.2	68.9	-168.1	0.00	0.00	0.00
6,000.0	2.58	157.73	5,995.8	-172.4	70.6	-172.3	0.00	0.00	0.00
6,100.0	2.58	157.73	6,095.7	-176.6	72.3	-176.5	0.00	0.00	0.00
6,200.0	2.58	157.73	6,195.6	-180.8	74.0	-180.6	0.00	0.00	0.00
6,300.0	2.58	157.73	6,295.5	-184.9	75.7	-184.8	0.00	0.00	0.00
6,400.0	2.58	157.73	6,395.4	-189.1	77.4	-189.0	0.00	0.00	0.00
6,500.0	2.58	157.73	6,495.3	-193.3	79.1	-193.1	0.00	0.00	0.00
6,600.0	2.58	157.73	6,595.2	-197.4	80.9	-197.3	0.00	0.00	0.00
6,700.0	2.58	157.73	6,695.1	-201.6	82.6	-201.5	0.00	0.00	0.00
6,800.0	2.58	157.73	6,795.0	-205.8	84.3	-205.6	0.00	0.00	0.00
6,837.0	2.58	157.73	6,831.9	-207.3	84.9	-207.2	0.00	0.00	0.00
6,900.0	1.32	157.73	6,894.9	-209.3	85.7	-209.2	2.00	-2.00	0.00
6,966.1	0.00	0.00	6,961.0	-210.0	86.0	-209.9	2.00	-2.00	0.00
7,000.0	0.00	0.00	6,994.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,100.0	0.00	0.00	7,094.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,194.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,294.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,394.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,494.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,594.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,694.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,794.9	-210.0	86.0	-209.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,894.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,994.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,094.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,194.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,294.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,394.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,494.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,594.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,694.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,794.9	-210.0	86.0	-209.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,894.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,994.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,094.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,194.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,294.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,394.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,494.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,594.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,694.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,794.9	-210.0	86.0	-209.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,894.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,994.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,094.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,194.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,294.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,394.9	-210.0	86.0	-209.9	0.00	0.00	0.00

eog resources

EOG Resources

Planning Report

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Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	0.00	0.00	10,494.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,600.0	0.00	0.00	10,594.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,694.9	-210.0	86.0	-209.9	0.00	0.00	0.00
10,776.6	0.00	0.00	10,771.5	-210.0	86.0	-209.9	0.00	0.00	0.00
10,800.0	2.81	0.00	10,794.9	-209.4	86.0	-209.3	12.00	12.00	0.00
10,825.0	5.81	0.00	10,819.8	-207.5	86.0	-207.4	12.00	12.00	0.00
10,850.0	8.81	0.00	10,844.6	-204.4	86.0	-204.2	12.00	12.00	0.00
10,875.0	11.81	0.00	10,869.2	-199.9	86.0	-199.7	12.00	12.00	0.00
10,900.0	14.81	0.00	10,893.6	-194.1	86.0	-194.0	12.00	12.00	0.00
10,925.0	17.81	0.00	10,917.5	-187.1	86.0	-187.0	12.00	12.00	0.00
10,950.0	20.81	0.00	10,941.1	-178.8	86.0	-178.7	12.00	12.00	0.00
10,975.0	23.81	0.00	10,964.3	-169.4	86.0	-169.2	12.00	12.00	0.00
10,997.0	26.46	0.00	10,984.2	-160.0	86.0	-159.9	12.00	12.00	0.00
11,000.0	26.81	359.99	10,986.9	-158.7	86.0	-158.5	12.00	12.00	-0.20
11,025.0	29.81	359.95	11,008.9	-146.8	86.0	-146.7	12.00	12.00	-0.18
11,050.0	32.81	359.91	11,030.2	-133.8	86.0	-133.7	12.00	12.00	-0.15
11,075.0	35.81	359.88	11,050.9	-119.7	86.0	-119.6	12.00	12.00	-0.13
11,100.0	38.81	359.85	11,070.8	-104.6	85.9	-104.4	12.00	12.00	-0.11
11,125.0	41.81	359.83	11,089.8	-88.4	85.9	-88.3	12.00	12.00	-0.10
11,150.0	44.81	359.81	11,108.0	-71.3	85.8	-71.1	12.00	12.00	-0.09
11,175.0	47.81	359.79	11,125.3	-53.2	85.8	-53.0	12.00	12.00	-0.08
11,200.0	50.81	359.77	11,141.6	-34.2	85.7	-34.1	12.00	12.00	-0.07
11,225.0	53.81	359.75	11,156.8	-14.4	85.6	-14.3	12.00	12.00	-0.06
11,250.0	56.81	359.74	11,171.1	6.1	85.5	6.3	12.00	12.00	-0.06
11,275.0	59.81	359.72	11,184.2	27.4	85.4	27.5	12.00	12.00	-0.06
11,300.0	62.81	359.71	11,196.2	49.3	85.3	49.5	12.00	12.00	-0.05
11,325.0	65.81	359.70	11,207.0	71.8	85.2	72.0	12.00	12.00	-0.05
11,350.0	68.81	359.69	11,216.7	94.9	85.1	95.0	12.00	12.00	-0.05
11,375.0	71.81	359.68	11,225.1	118.4	84.9	118.6	12.00	12.00	-0.05
11,400.0	74.81	359.66	11,232.3	142.4	84.8	142.5	12.00	12.00	-0.04
11,425.0	77.81	359.65	11,238.2	166.7	84.6	166.8	12.00	12.00	-0.04
11,450.0	80.81	359.64	11,242.8	191.2	84.5	191.4	12.00	12.00	-0.04
11,475.0	83.81	359.63	11,246.2	216.0	84.3	216.1	12.00	12.00	-0.04
11,500.0	86.81	359.62	11,248.2	240.9	84.2	241.1	12.00	12.00	-0.04
11,526.5	90.00	359.61	11,248.9	267.5	84.0	267.6	12.00	12.00	-0.04
11,600.0	90.00	359.61	11,248.9	340.9	83.5	341.0	0.00	0.00	0.00
11,700.0	90.00	359.61	11,248.9	440.9	82.8	441.0	0.00	0.00	0.00
11,800.0	90.00	359.61	11,248.9	540.9	82.1	541.0	0.00	0.00	0.00
11,900.0	90.00	359.61	11,248.9	640.9	81.5	641.0	0.00	0.00	0.00
12,000.0	90.00	359.61	11,248.9	740.9	80.8	741.0	0.00	0.00	0.00
12,100.0	90.00	359.61	11,248.9	840.9	80.1	841.0	0.00	0.00	0.00
12,200.0	90.00	359.61	11,248.9	940.9	79.4	941.0	0.00	0.00	0.00
12,300.0	90.00	359.61	11,249.0	1,040.9	78.8	1,041.0	0.00	0.00	0.00
12,400.0	90.00	359.61	11,249.0	1,140.9	78.1	1,141.0	0.00	0.00	0.00
12,500.0	90.00	359.61	11,249.0	1,240.9	77.4	1,241.0	0.00	0.00	0.00
12,600.0	90.00	359.61	11,249.0	1,340.9	76.7	1,341.0	0.00	0.00	0.00
12,700.0	90.00	359.61	11,249.0	1,440.9	76.1	1,441.0	0.00	0.00	0.00
12,800.0	90.00	359.61	11,249.0	1,540.9	75.4	1,541.0	0.00	0.00	0.00
12,900.0	90.00	359.61	11,249.0	1,640.9	74.7	1,641.0	0.00	0.00	0.00
13,000.0	90.00	359.61	11,249.0	1,740.9	74.0	1,741.0	0.00	0.00	0.00
13,100.0	90.00	359.61	11,249.0	1,840.9	73.3	1,841.0	0.00	0.00	0.00
13,200.0	90.00	359.61	11,249.0	1,940.9	72.7	1,941.0	0.00	0.00	0.00
13,300.0	90.00	359.61	11,249.0	2,040.9	72.0	2,041.0	0.00	0.00	0.00
13,400.0	90.00	359.61	11,249.0	2,140.9	71.3	2,141.0	0.00	0.00	0.00

eog resources

EOG Resources

Planning Report

Database:	PEDM	**Local Co-ordinate Reference:**	Well #601H
Company:	Midland	**TVD Reference:**	kb = 26' @ 3694.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.0	90.00	359.61	11,249.0	2,240.9	70.6	2,241.0	0.00	0.00	0.00
13,600.0	90.00	359.61	11,249.0	2,340.9	70.0	2,341.0	0.00	0.00	0.00
13,700.0	90.00	359.61	11,249.0	2,440.9	69.3	2,441.0	0.00	0.00	0.00
13,800.0	90.00	359.61	11,249.0	2,540.9	68.6	2,541.0	0.00	0.00	0.00
13,900.0	90.00	359.61	11,249.0	2,640.9	67.9	2,641.0	0.00	0.00	0.00
14,000.0	90.00	359.61	11,249.0	2,740.8	67.2	2,741.0	0.00	0.00	0.00
14,100.0	90.00	359.61	11,249.0	2,840.8	66.6	2,841.0	0.00	0.00	0.00
14,200.0	90.00	359.61	11,249.0	2,940.8	65.9	2,941.0	0.00	0.00	0.00
14,300.0	90.00	359.61	11,249.0	3,040.8	65.2	3,040.9	0.00	0.00	0.00
14,400.0	90.00	359.61	11,249.0	3,140.8	64.5	3,140.9	0.00	0.00	0.00
14,500.0	90.00	359.61	11,249.0	3,240.8	63.9	3,240.9	0.00	0.00	0.00
14,600.0	90.00	359.61	11,249.0	3,340.8	63.2	3,340.9	0.00	0.00	0.00
14,700.0	90.00	359.61	11,249.0	3,440.8	62.5	3,440.9	0.00	0.00	0.00
14,800.0	90.00	359.61	11,249.0	3,540.8	61.8	3,540.9	0.00	0.00	0.00
14,900.0	90.00	359.61	11,249.0	3,640.8	61.2	3,640.9	0.00	0.00	0.00
15,000.0	90.00	359.61	11,249.0	3,740.8	60.5	3,740.9	0.00	0.00	0.00
15,100.0	90.00	359.61	11,249.0	3,840.8	59.8	3,840.9	0.00	0.00	0.00
15,200.0	90.00	359.61	11,249.0	3,940.8	59.1	3,940.9	0.00	0.00	0.00
15,300.0	90.00	359.61	11,249.0	4,040.8	58.4	4,040.9	0.00	0.00	0.00
15,400.0	90.00	359.61	11,249.0	4,140.8	57.8	4,140.9	0.00	0.00	0.00
15,500.0	90.00	359.61	11,249.0	4,240.8	57.1	4,240.9	0.00	0.00	0.00
15,600.0	90.00	359.61	11,249.0	4,340.8	56.4	4,340.9	0.00	0.00	0.00
15,700.0	90.00	359.61	11,249.0	4,440.8	55.7	4,440.9	0.00	0.00	0.00
15,800.0	90.00	359.61	11,249.0	4,540.8	55.1	4,540.9	0.00	0.00	0.00
15,900.0	90.00	359.61	11,249.0	4,640.8	54.4	4,640.9	0.00	0.00	0.00
16,000.0	90.00	359.61	11,249.0	4,740.8	53.7	4,740.9	0.00	0.00	0.00
16,100.0	90.00	359.61	11,249.0	4,840.8	53.0	4,840.9	0.00	0.00	0.00
16,200.0	90.00	359.61	11,249.0	4,940.8	52.3	4,940.9	0.00	0.00	0.00
16,300.0	90.00	359.61	11,249.0	5,040.8	51.7	5,040.9	0.00	0.00	0.00
16,400.0	90.00	359.61	11,249.0	5,140.8	51.0	5,140.9	0.00	0.00	0.00
16,500.0	90.00	359.61	11,249.0	5,240.8	50.3	5,240.9	0.00	0.00	0.00
16,600.0	90.00	359.61	11,249.0	5,340.8	49.6	5,340.9	0.00	0.00	0.00
16,700.0	90.00	359.61	11,249.0	5,440.8	49.0	5,440.9	0.00	0.00	0.00
16,800.0	90.00	359.61	11,249.0	5,540.8	48.3	5,540.9	0.00	0.00	0.00
16,900.0	90.00	359.61	11,249.0	5,640.8	47.6	5,640.9	0.00	0.00	0.00
17,000.0	90.00	359.61	11,249.0	5,740.8	46.9	5,740.9	0.00	0.00	0.00
17,100.0	90.00	359.61	11,249.0	5,840.8	46.3	5,840.8	0.00	0.00	0.00
17,200.0	90.00	359.61	11,249.0	5,940.8	45.6	5,940.8	0.00	0.00	0.00
17,300.0	90.00	359.61	11,249.0	6,040.8	44.9	6,040.8	0.00	0.00	0.00
17,400.0	90.00	359.61	11,249.0	6,140.8	44.2	6,140.8	0.00	0.00	0.00
17,500.0	90.00	359.61	11,249.0	6,240.8	43.5	6,240.8	0.00	0.00	0.00
17,600.0	90.00	359.61	11,249.0	6,340.8	42.9	6,340.8	0.00	0.00	0.00
17,700.0	90.00	359.61	11,249.0	6,440.8	42.2	6,440.8	0.00	0.00	0.00
17,800.0	90.00	359.61	11,249.0	6,540.8	41.5	6,540.8	0.00	0.00	0.00
17,900.0	90.00	359.61	11,249.0	6,640.8	40.8	6,640.8	0.00	0.00	0.00
18,000.0	90.00	359.61	11,249.0	6,740.8	40.2	6,740.8	0.00	0.00	0.00
18,100.0	90.00	359.61	11,249.0	6,840.8	39.5	6,840.8	0.00	0.00	0.00
18,200.0	90.00	359.61	11,249.0	6,940.8	38.8	6,940.8	0.00	0.00	0.00
18,300.0	90.00	359.61	11,249.0	7,040.8	38.1	7,040.8	0.00	0.00	0.00
18,400.0	90.00	359.61	11,249.0	7,140.7	37.4	7,140.8	0.00	0.00	0.00
18,500.0	90.00	359.61	11,249.0	7,240.7	36.8	7,240.8	0.00	0.00	0.00
18,600.0	90.00	359.61	11,249.0	7,340.7	36.1	7,340.8	0.00	0.00	0.00
18,700.0	90.00	359.61	11,249.0	7,440.7	35.4	7,440.8	0.00	0.00	0.00
18,800.0	90.00	359.61	11,249.0	7,540.7	34.7	7,540.8	0.00	0.00	0.00

eog resources

EOG Resources

Planning Report

Database:	PEDM	**Local Co-ordinate Reference:**	Well #601H
Company:	Midland	**TVD Reference:**	kb = 26' @ 3694.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	kb = 26' @ 3694.0usft
Site:	Eileen 25 Fed Com	**North Reference:**	Grid
Well:	#601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,909.3	90.00	359.61	11,249.0	7,650.0	34.0	7,650.0	0.00	0.00	0.00
19,000.0	90.00	359.61	11,249.0	7,740.7	33.4	7,740.8	0.00	0.00	0.00
19,100.0	90.00	359.61	11,249.0	7,840.7	32.7	7,840.8	0.00	0.00	0.00
19,200.0	90.00	359.61	11,249.0	7,940.7	32.0	7,940.8	0.00	0.00	0.00
19,300.0	90.00	359.61	11,249.0	8,040.7	31.4	8,040.8	0.00	0.00	0.00
19,400.0	90.00	359.61	11,249.0	8,140.7	30.7	8,140.8	0.00	0.00	0.00
19,500.0	90.00	359.61	11,249.0	8,240.7	30.0	8,240.8	0.00	0.00	0.00
19,600.0	90.00	359.62	11,249.0	8,340.7	29.3	8,340.8	0.00	0.00	0.00
19,700.0	90.00	359.62	11,249.0	8,440.7	28.7	8,440.8	0.00	0.00	0.00
19,800.0	90.00	359.62	11,249.0	8,540.7	28.0	8,540.8	0.00	0.00	0.00
19,900.0	90.00	359.62	11,249.0	8,640.7	27.3	8,640.7	0.00	0.00	0.00
20,000.0	90.00	359.62	11,249.0	8,740.7	26.7	8,740.7	0.00	0.00	0.00
20,100.0	90.00	359.62	11,249.0	8,840.7	26.0	8,840.7	0.00	0.00	0.00
20,200.0	90.00	359.62	11,249.0	8,940.7	25.3	8,940.7	0.00	0.00	0.00
20,300.0	90.00	359.62	11,249.0	9,040.7	24.7	9,040.7	0.00	0.00	0.00
20,400.0	90.00	359.62	11,249.0	9,140.7	24.0	9,140.7	0.00	0.00	0.00
20,500.0	90.00	359.62	11,249.0	9,240.7	23.3	9,240.7	0.00	0.00	0.00
20,600.0	90.00	359.62	11,249.0	9,340.7	22.7	9,340.7	0.00	0.00	0.00
20,700.0	90.00	359.62	11,249.0	9,440.7	22.0	9,440.7	0.00	0.00	0.00
20,800.0	90.00	359.62	11,249.0	9,540.7	21.4	9,540.7	0.00	0.00	0.00
20,900.0	90.00	359.62	11,249.0	9,640.7	20.7	9,640.7	0.00	0.00	0.00
21,000.0	90.00	359.62	11,249.0	9,740.7	20.0	9,740.7	0.00	0.00	0.00
21,100.0	90.00	359.62	11,249.0	9,840.7	19.4	9,840.7	0.00	0.00	0.00
21,200.0	90.00	359.62	11,249.0	9,940.7	18.7	9,940.7	0.00	0.00	0.00
21,300.0	90.00	359.62	11,249.0	10,040.7	18.1	10,040.7	0.00	0.00	0.00
21,400.0	90.00	359.62	11,249.0	10,140.7	17.4	10,140.7	0.00	0.00	0.00
21,461.3	90.00	359.62	11,249.0	10,202.0	17.0	10,202.0	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Eileen 25 Fed Com - plan hits target center - Point	0.00	0.00	10,771.5	-210.0	86.0	559,820.00	760,234.00	32° 32' 13.189 N	103° 37' 22.890 W
FTP(Eileen 25 Fed Com - plan hits target center - Point	0.00	0.00	10,984.2	-160.0	86.0	559,870.00	760,234.00	32° 32' 13.684 N	103° 37' 22.886 W
Fed Perf 1(Eileen 25 Fe - plan hits target center - Point	0.00	0.00	11,249.0	7,650.0	34.0	567,680.00	760,182.00	32° 33' 30.966 N	103° 37' 22.885 W
PBHL(Eileen 25 Fed Co - plan hits target center - Point	0.00	0.00	11,249.0	10,202.0	17.0	570,232.00	760,165.00	32° 33' 56.218 N	103° 37' 22.885 W

eog resources

Lea County, NM (NAD 83 NME)

Eileen 25 Fed Com #601H

Plan #0.1 RT

Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.17°

Magnetic Field
Strength: 47632.9nT
Dip Angle: 60.17°
Date: 11/1/2021
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.17°
To convert a Magnetic Direction to a True Direction, Add 6.55° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

WELL DETAILS: #601H

3668.0
kb = 26' @ 3694.0usft

Northing	Easting	Latittude	Longitude
560030.00	760148.00	32° 32' 15.273 N	103° 37' 23.878 W

SECTION DETAILS

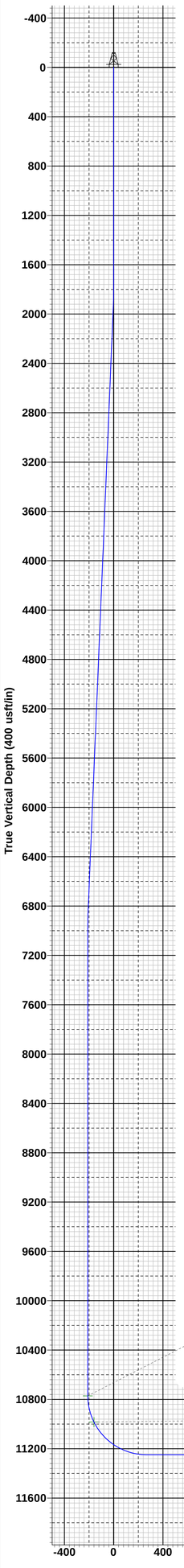
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	
3	1929.1	2.58	157.73	1929.1	-2.7	1.1	2.00	157.73	-2.7	
4	6837.0	2.58	157.73	6831.9	-207.3	84.9	0.00	0.00	-207.2	
5	6966.1	0.00	0.00	6961.0	-210.0	86.0	2.00	180.00	-209.9	
6	10776.6	0.00	0.00	10771.5	-210.0	86.0	0.00	0.00	-209.9	KOP(Eileen 25 Fed Com #601H)
7	10997.0	26.46	0.00	10984.2	-160.0	86.0	12.00	0.00	-159.9	FTP(Eileen 25 Fed Com #601H)
8	11526.5	90.00	359.61	11248.9	267.5	84.0	12.00	-0.43	267.6	
9	18909.3	90.00	359.61	11249.0	7650.0	34.0	0.00	0.00	7650.0	Fed Perf 1(Eileen 25 Fed Com #601H)
10	21461.3	90.00	359.62	11249.0	10202.0	17.0	0.00	86.16	10202.0	PBHL(Eileen 25 Fed Com #601H)

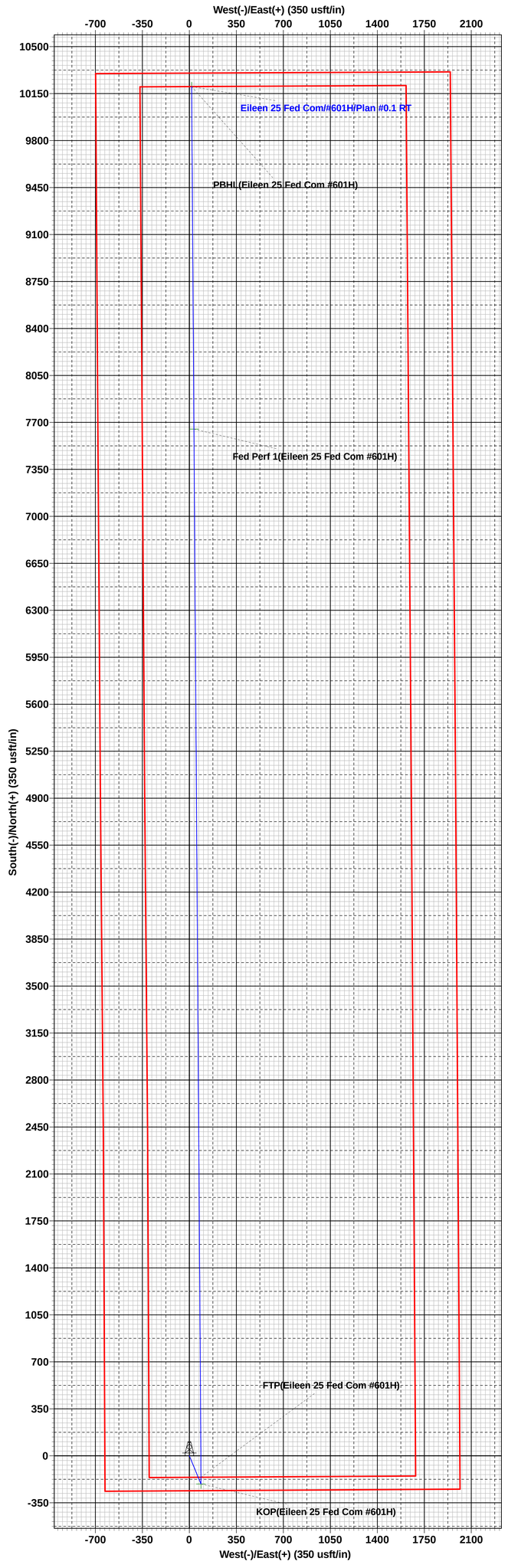
CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Eileen 25 Fed Com #601H)	10771.5	-210.0	86.0	559820.00	760234.00
FTP(Eileen 25 Fed Com #601H)	10984.2	-160.0	86.0	559870.00	760234.00
Fed Perf 1(Eileen 25 Fed Com #601H)	11249.0	7650.0	34.0	567680.00	760182.00
PBHL(Eileen 25 Fed Com #601H)	11249.0	10202.0	17.0	570232.00	760165.00



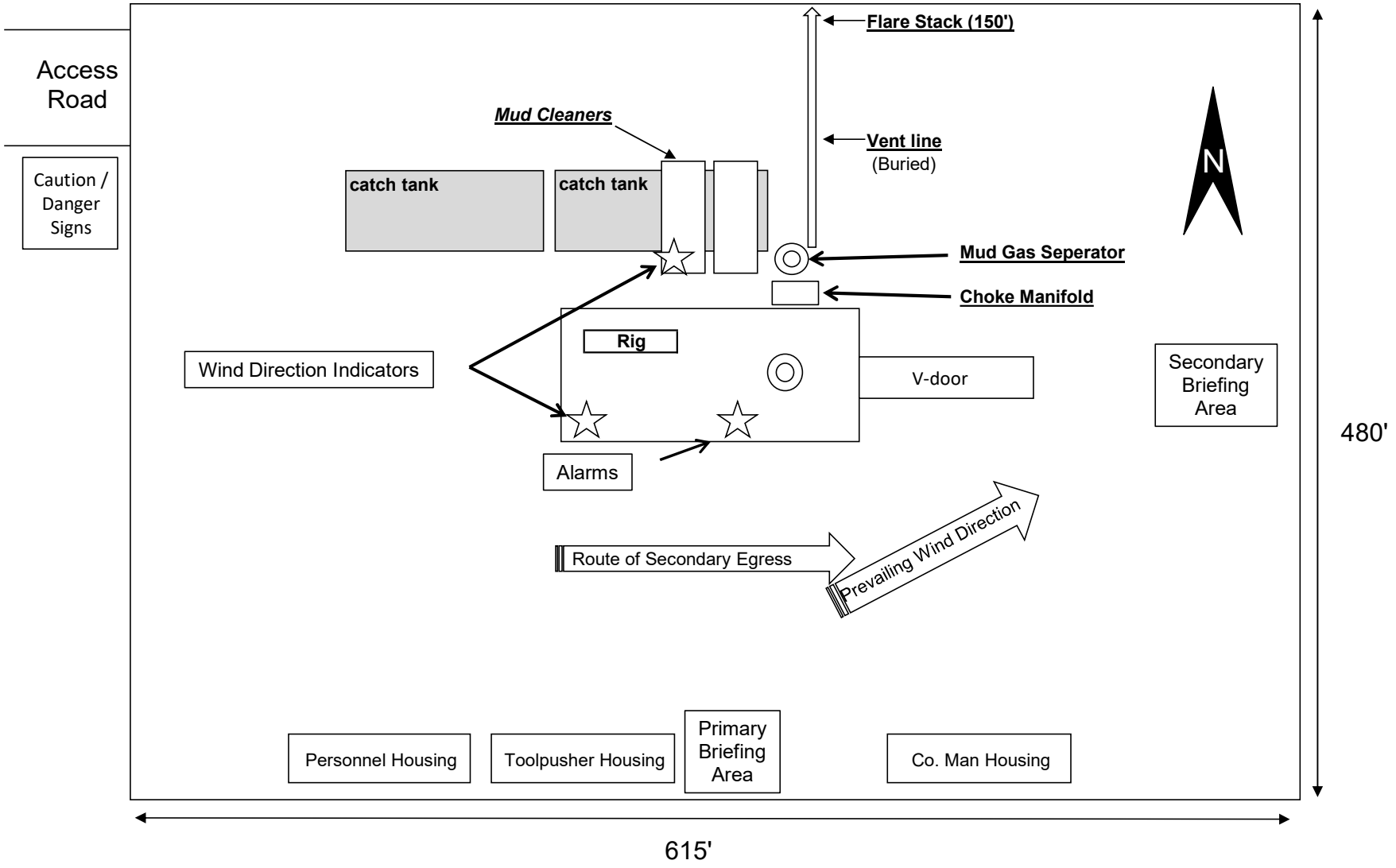


Lea County, NM (NAD 83 NME)
Eileen 25 Fed Com
#601H
OH
Plan #0.1 RT
16:02, November 01 2021

Exhibit 4

Well Site Diagram

EOG Resources
Eileen 25 Fed Com #601H

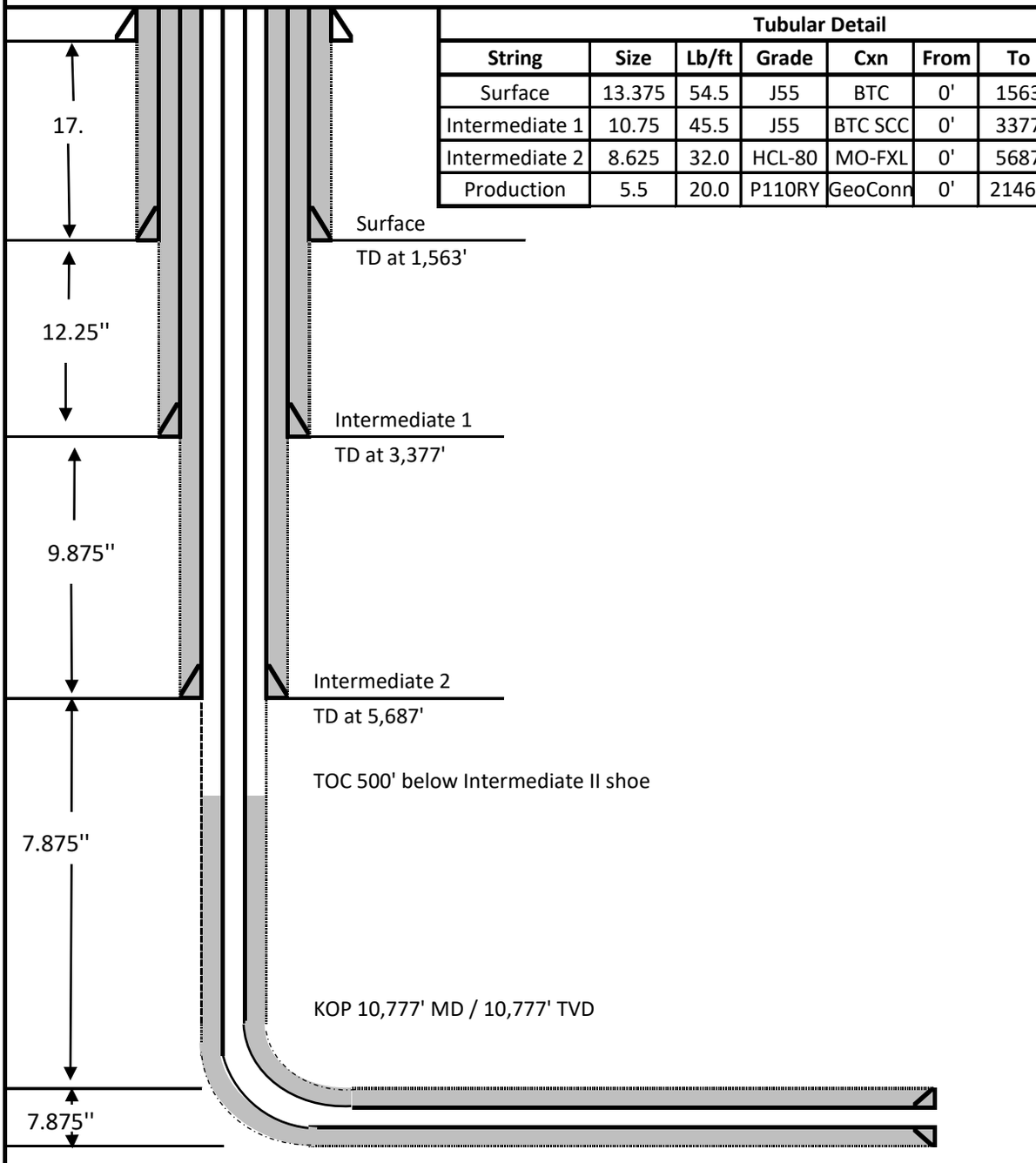


Permian Resources

Well: Eileen 25 Fed Com 601H
State New Mexico **County:** Lea
FM Target: 3rd Bone Spring
Location: Section 25, T20S, R33E, 260' FSL, 630' FWL
BHL: Section 24, T20S, R33E, 100' FNL, 715' FWL
KB Elev: 3723 **KB:** 30 **GL Elev:** 3693

Tubular Detail

String	Size	Lb/ft	Grade	Cxn	From	To	Burst	Cllps
Surface	13.375	54.5	J55	BTC	0'	1563	2740	1,130
Intermediate 1	10.75	45.5	J55	BTC SCC	0'	3377	5210	2,470
Intermediate 2	8.625	32.0	HCL-80	MO-FXL	0'	5687	4000	4,130
Production	5.5	20.0	P110RY	GeoConn	0'	21461	13720	11,100



Permian Resources - Eileen 25 Fed Com 601H

1. Geologic Formations

Formation	Lithology	Elevation	TVD	Target
Rustler	Sandstone	2185	1538	No
Top of Salt	Salt	1883	1840	No
Yates	Anhydrite/Shale	371	3352	No
Seven Rivers	Limestone	NP	NP	No
Capitan	Sandstone	113	3610	No
Delaware Sands	Sandstone	-2014	5737	No
Brushy Canyon	Sandstone	-2782	6505	No
Bone Spring Lime	Limestone/Shale	-4910	8633	No
1st Bone Spring Sand	Sandstone/Limestone/Shale	-5939	9662	No
2nd Bone Spring Sand	Sandstone/Limestone/Shale	-6454	10177	No
2nd Bone Spring Shale	Sandstone/Limestone/Shale	-7077	10800	Yes
3rd Bone Spring Sand	Sandstone/Limestone/Shale	-7277	11000	No
Wolfcamp	Shale	-7552	11275	No

2. Blowout Prevention

BOP installed and tested before drilling	Size?	Min. Required WP	Type	x	Tested to:
12.25	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		
9.875	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		
7.875	13-5/8”	5M	Annular	x	2500 psi
			Blind Ram	x	5000 psi
			Pipe Ram	x	
			Double Ram		
			Other*		

Equipment: BOPE will meet all requirements for above listed system per 43 CFR 3172. BOPE with working pressure ratings in excess of anticipated maximum surface pressure will be utilized for well control from drill out of surface casing to TMD. The system may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all of the components installed will be functional, tested, and will meet all requirements per 43 CFR 3172. The wellhead will be a multibowl speed head allowing for hangoff of intermediate casing of the surface x intermediate annulus without breaking the connection between the BOP & wellhead. A variance is

requested to utilize a flexible choke line (flexhose) from the BOP to choke manifold.

Requesting Variance? YES
Variance request: Break testing, flex hose, and offline cement variances, see attachments in section 8.
Testing Procedure: Operator requests to ONLY test broken pressure seals per API Standard 53 and the attachments in Section 8. The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed, b. whenever any seal subject to test pressure is broken, c. following related repairs, d. at 21-day intervals. Testing of the ram type preventer(s) and annual type preventer(s) shall be tested per 43 CFR 3172. The BOPE configuration, choke manifold layout, and accumulator system will be in compliance with 43 CFR 3172. Bleed lines will discharge 100' from wellhead in non-H2S scenarios and 150' from wellhead in H2S scenarios.

Choke Diagram Attachment: 5M Choke Manifold
BOP Diagram Attachment: BOP Schematics

3. Casing

String	Hole Size	Casing Size	Top	Bottom	Top TVD	Bottom TVD	Length	Grade	Weight	Connection	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1563	0	1563	1563	J55	54.5	BTC	1.46	1.93	Dry	4.91	Dry	4.61
Intermediate 1	12.25	10.75	0	3377	0	3377	3377	J55	45.5	BTC SCC	6.61	3.60	Dry	4.19	Dry	4.10
Intermediate 2	9.875	8.625	0	5687	0	5687	5687	HCL-80	32	MO-FXL	4.37	1.33	Dry	1.79	Dry	2.60
Production	7.875	5.5	0	21461	0	11249	21461	P110RY	20	GeoConn	1.90	1.98	Dry	1.97	Dry	1.97
								BLM Min Safety Factor			1.125	1		1.6		1.6

Non API casing spec sheets and casing design assumptions attached.

4. Cement

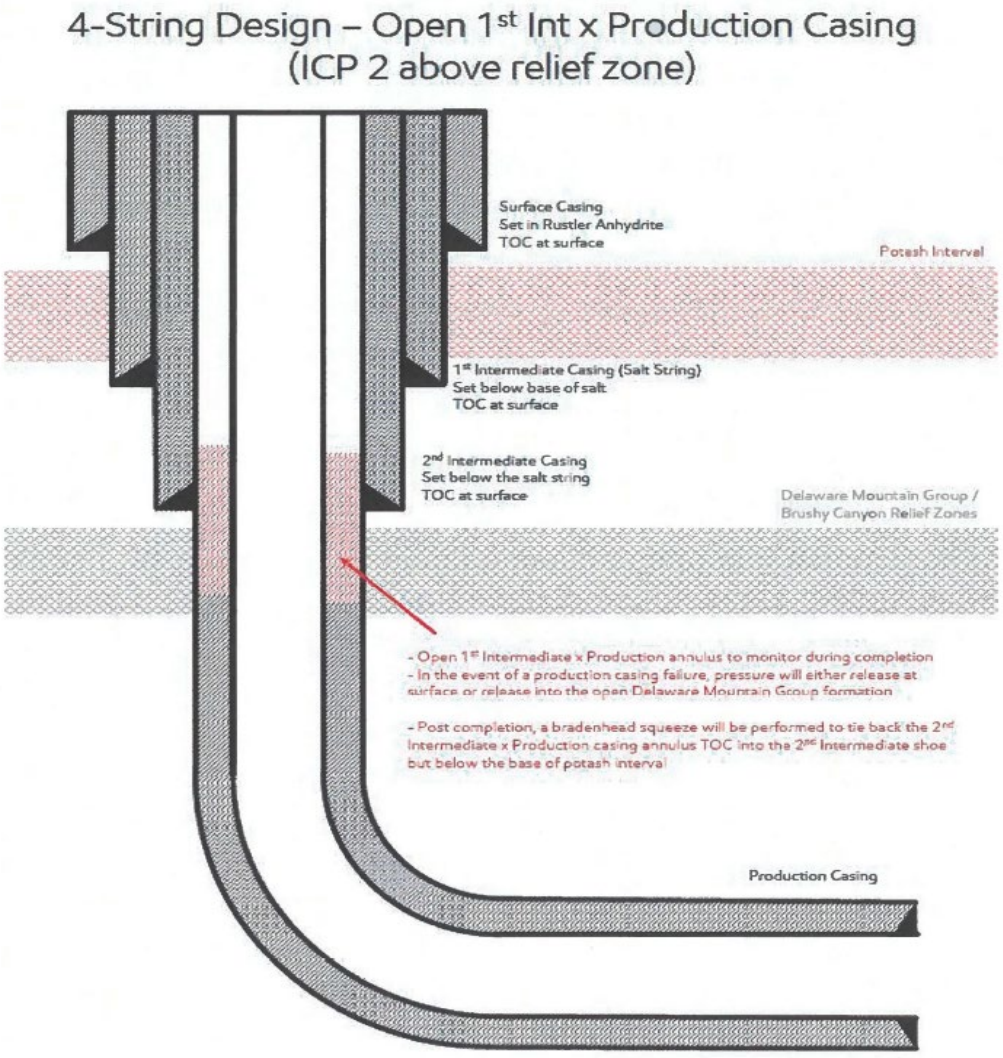
String	Lead/Tail	Top MD	Bottom MD	Quanity (sx)	Yield	Density	Cu Ft	Excess %	Cement Type	Additives
Surface	Tail	0	1563	1220	1.34	14.8	1630	50%	Class C	Accelerator
Intermediate 1	Lead	0	2700	380	1.88	12.9	700	50%	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
Intermediate 1	Tail	2700	3377	150	1.34	14.8	200	50%	Class C	Retarder
Intermediate 2	Lead	0	4540	370	1.88	12.9	680	50%	Class C	EconoCem-HLC + 5% Salt + 5% Kol-Seal
Intermediate 2	Tail	4540	5687	150	1.33	14.8	190	25%	Class C	Salt
Production	Lead	6187	10777	340	2.41	11.5	800	0%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder
Production	Tail	10777	21461	1080	1.73	12.5	1860	0%	Class H	POZ, Extender, Fluid Loss, Dispersant, Retarder

The WBD below depicts the ccement design required for R111Q.
The annulus between the production and intermediate casing strings shall be actively monitored for pressure during hydraulic fracturing operations. If pressure communication is observed, indicating a possible production casing failure, hydraulic fracturing operations must immediately cease, and source of the pressure increase shall be investigated. During hydraulic fracturing operations, a pressure relief valve or

appropriate venting system shall be installed to relieve pressure in the event of a production casing failure. The opening pressure of any pressure relief valves must be set below 50% of the intermediate casing burst rating. If the well design features an uncemented intermediate casing shoe (for example as shown in Exhibit B, Figure B) and the well approaches to within ¼ mile of an offset well drilling, completing or producing from the Delaware Mountain Group, then the pressure relief valve opening pressure shall be set no more than 1000 psi and at no time shall the pressure on the annulus be allowed to exceed 1000 psi. This requirement can be waived by the offset well operator.

Production cement will be 500' below the 2nd intermediate shoe with 0% excess leaving the DMG un-cemented as a pressure relief zone.

Bradenhead operations will be performed within 180 days of completing hydraulic fracturing operations, tying back cement at least 500' inside the 2nd intermediate shoe but below Marker Bed 126.



[Figure E] 4 String – Uncemented Annulus between 2nd Intermediate and Production Casing Strings

5. Circulating Medium

Mud System Type: Closed

Will an air or gas system be used: No

Describe what will be on location to control well or mitigate oter conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a saturated brine fluid to inhibit salt washout. The production hole will employ brine based and oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Cuttings Volume: 12590 Cu Ft

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight	Max Weight
0	1563	Spud Mud	8.6	9.5
1563	3377	Salt Saturated	10	10
3377	5687	Fresh Water	8.6	9.5
5687	10777	Brine	9	10
10777	21461	OBM	9	10

6. Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:
Will utilize MWD/LWD (Gamma Ray logging) from intermediate hole to TD of the well.
List of open and cased hole logs run in the well:
DIRECTIONAL SURVEY,GAMMA RAY LOG,
Coring operation description for the well:
N/A

7. Pressure

Anticipated Bottom Hole Pressure	5850	psi
Anticipated Surface Pressure	3375	psi
Anticipated Bottom Hole Temperature	167	°F
Anticipated Abnormal pressure, temp, or geo hazards	No	

8. Other Information

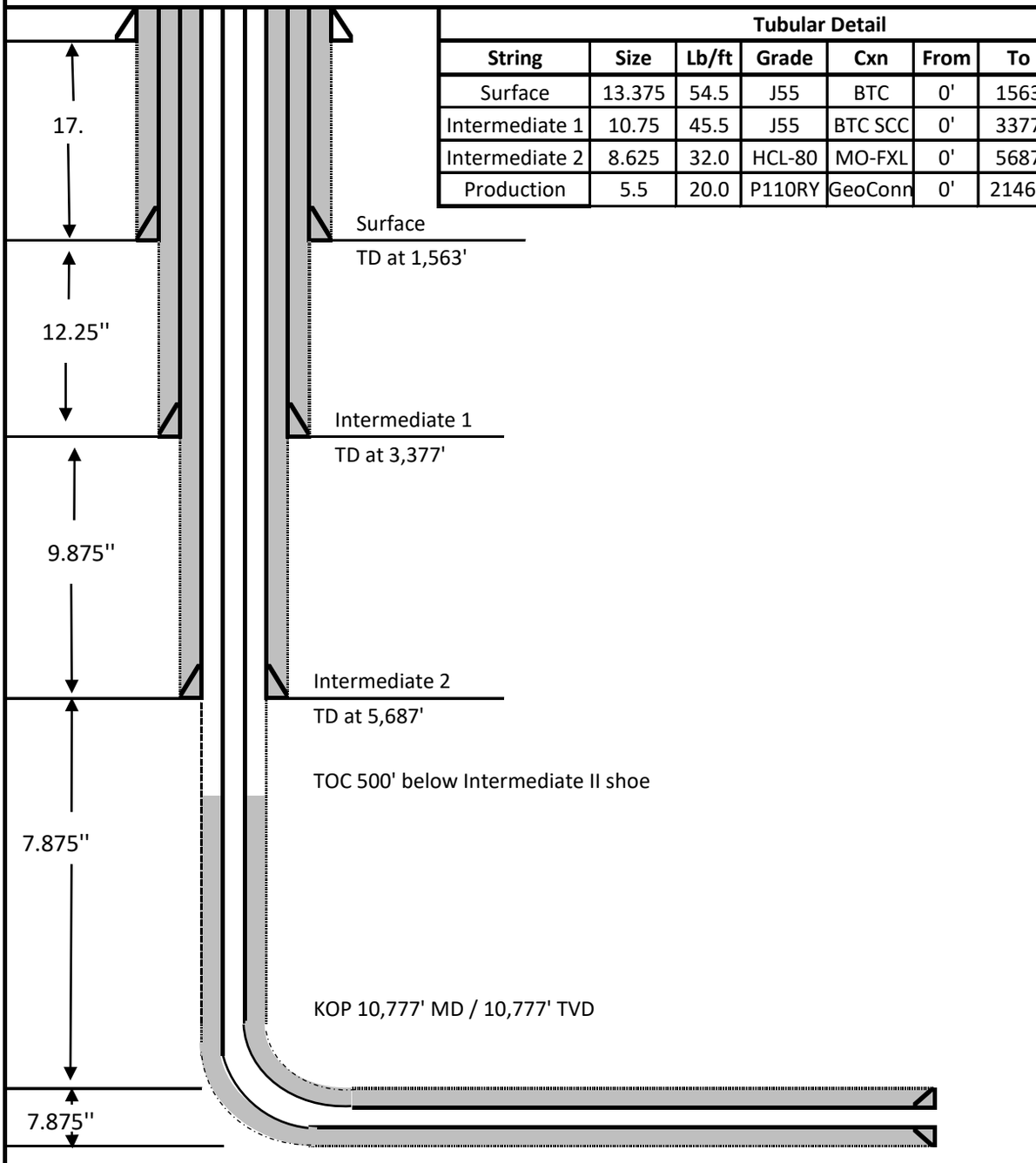
Well Plan and AC Report: attached
Batching Drilling Procedure: attached
WBD: attached
Flex Hose Specs: attached
Offline Cementing Procedure: attached
Break Testing Procedure: attached

Permian Resources

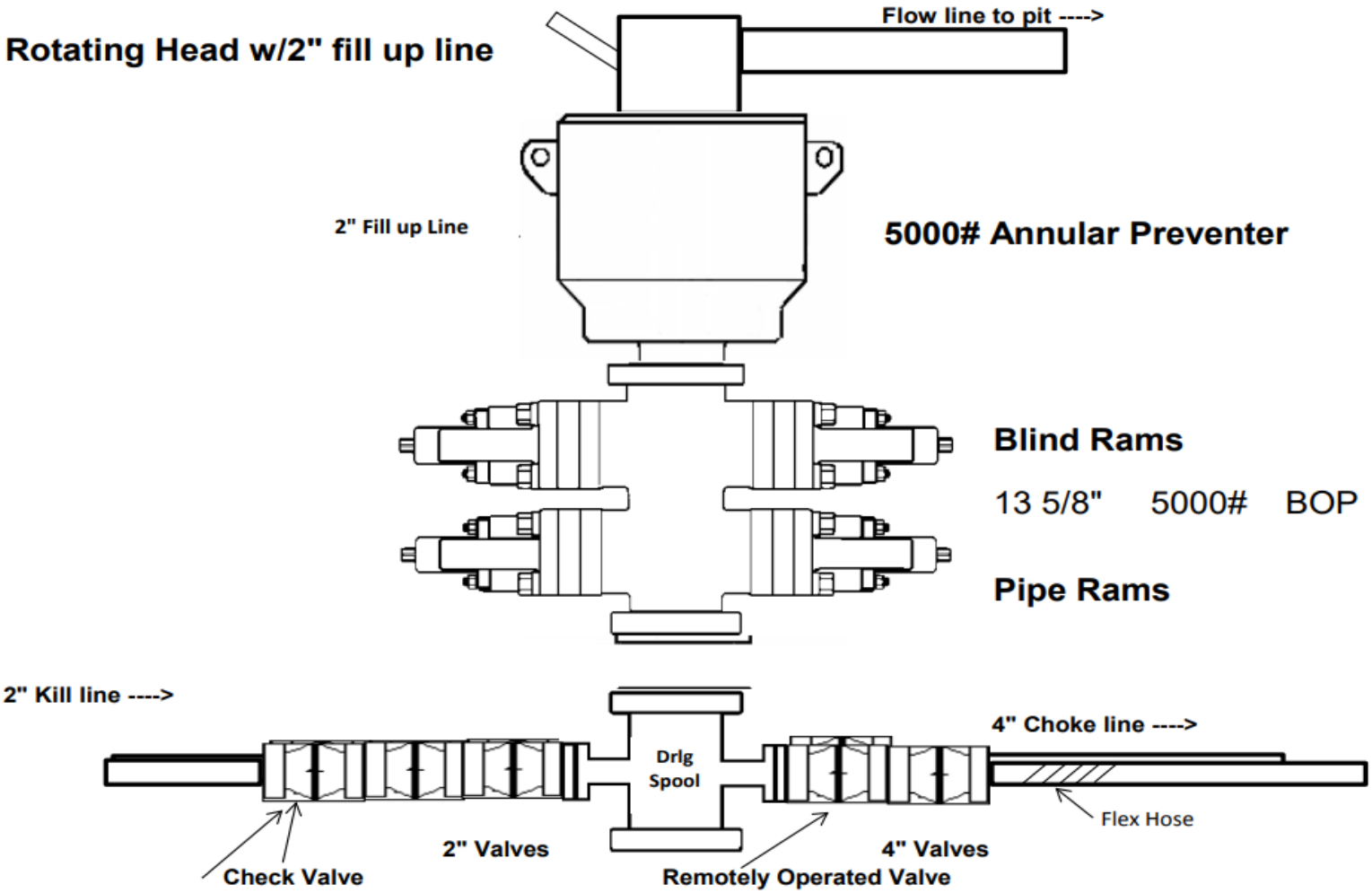
Well: Eileen 25 Fed Com 601H
State New Mexico **County:** Lea
FM Target: 3rd Bone Spring
Location: Section 25, T20S, R33E, 260' FSL, 630' FWL
BHL: Section 24, T20S, R33E, 100' FNL, 715' FWL
KB Elev: 3723 **KB:** 30 **GL Elev:** 3693

Tubular Detail

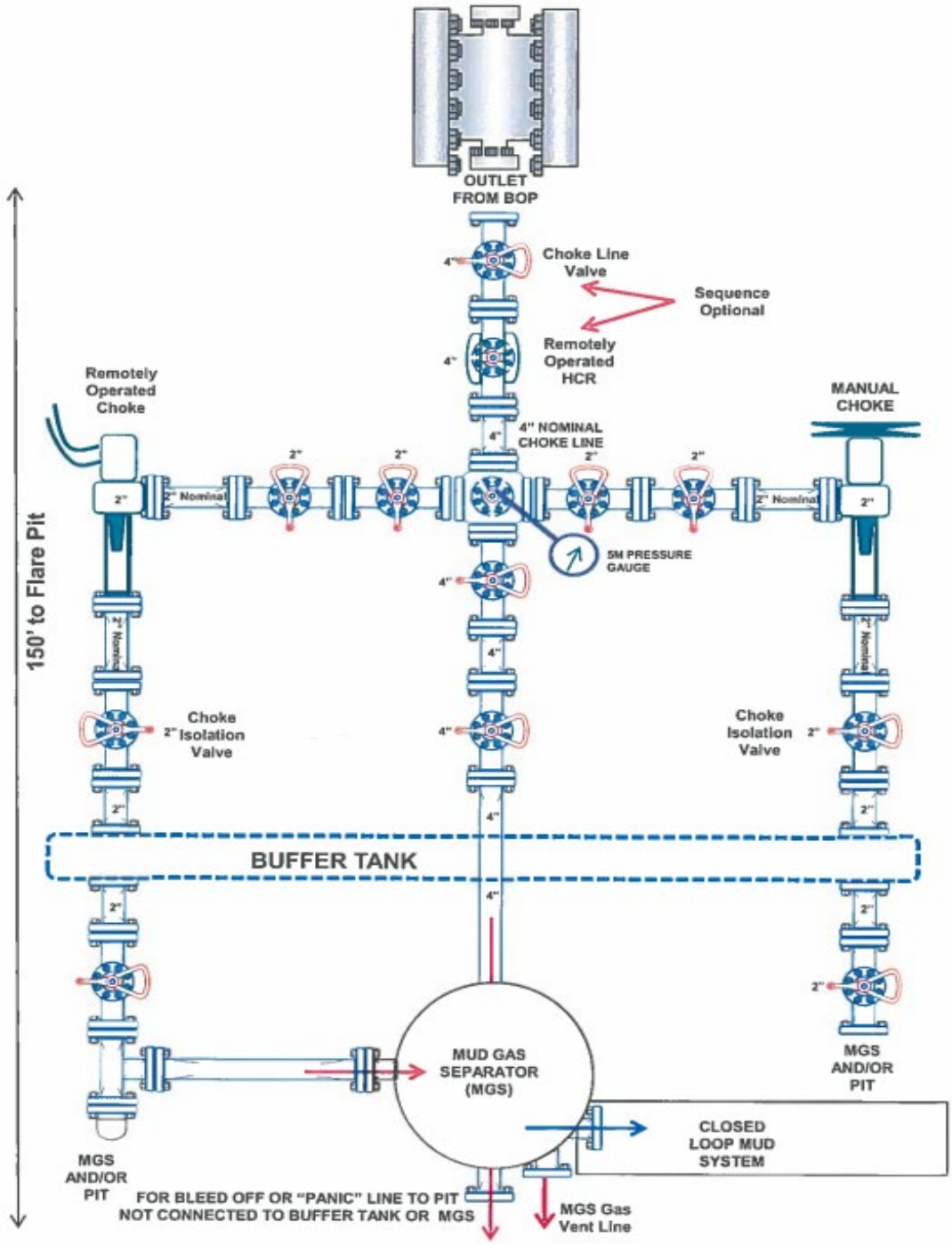
String	Size	Lb/ft	Grade	Cxn	From	To	Burst	Cllps
Surface	13.375	54.5	J55	BTC	0'	1563	2740	1,130
Intermediate 1	10.75	45.5	J55	BTC SCC	0'	3377	5210	2,470
Intermediate 2	8.625	32.0	HCL-80	MO-FXL	0'	5687	4000	4,130
Production	5.5	20.0	P110RY	GeoConn	0'	21461	13720	11,100



5,000 psi BOP Schematic



5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



Continental
ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE						CERT. N°:	504	
PURCHASER:	ContiTech Oil & Marine Corp.					P.O. N°:	4500409659	
CONTITECH RUBBER order N°:	538236		HOSE TYPE:	3"	ID	Choke and Kill Hose		
HOSE SERIAL N°:	67255		NOMINAL / ACTUAL LENGTH:			10,67 m / 10,77 m		
W.P. 68,9	MPa	10000 psi	T.P. 103,4	MPa	15000 psi	Duration:	60	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 20 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°
3" coupling with	9251	9254	AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end			AISI 4130	035608

Not Designed For Well Testing **API Spec 16 C**

Temperature rate:"B"

All metal parts are flawless.

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

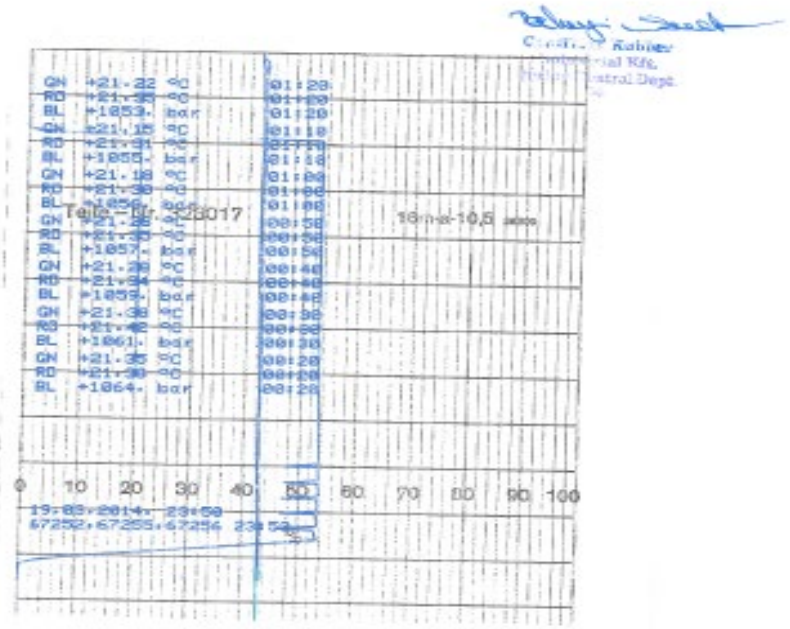
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
20. March 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 501, 504, 505*

Page: 1 / 1



Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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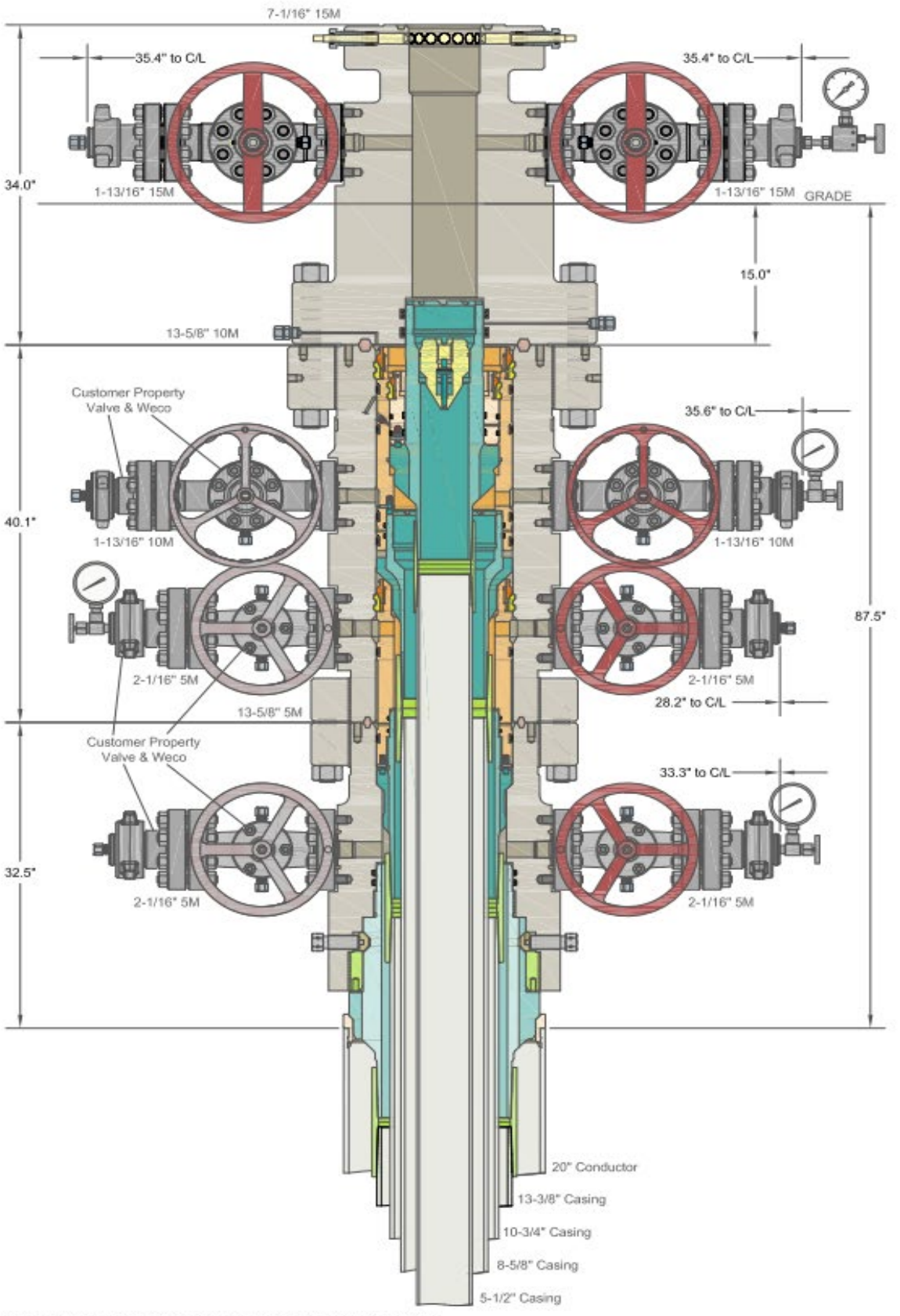


ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	PERMIAN RESOURCES NEW MEXICO		
20" x 13-3/8" x 10-3/4" x 8-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO Sys. With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 10-3/4" & 7-5/8" & 5-1/2" Fluted Mandrel Casing Hangers	DRAWN	DLE	26OCT23
	APPRV		
	DRAWING NO.	HBE0001038	

Permian Resources Casing Design Criteria

A sundry will be requested if any lesser grade or different size casing is substituted. All casing will be centralized as specified in On Shore Order II. Casing will be tested as specified in On Shore Order II.

Casing Design Assumptions:

Surface

1) Burst Design Loads
   a) Displacement to Gas
      (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
   b) Casing Pressure Test
      (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
2) Collapse Loads
   a) Cementing
      (1) Internal: Displacement fluid density.
      (2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.
   b) Lost Returns with Mud Drop
      (1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.
      (2) External: Mud weight to TOC and cement slurry(s) density below TOC.
3) Tension Loads
   a) Overpull Force
      1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.
   b) Green Cement Casing Test
      1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate I

1) Burst Design Loads
   a) Displacement to Gas
      (1) Internal: Assumes a full column of gas in the casing with a gas gradient of 0.7 psi/ft in the absence of better information. It is limited to the controlling pressure based on the maximum expected pore pressure within the next drilling interval.
      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
   b) Casing Pressure Test
      (1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

      (2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.
2) Collapse Loads
   a) Cementing
      (1) Internal: Displacement fluid density.

(2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.

b) Lost Returns with Mud Drop

(1) Internal: Lost circulation at the TD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Intermediate or Intermediate II

1) Burst Design Loads

a) Gas Kick Profile

(1) Internal: Load profile based on influx encountered in lateral portion of wellbore with a maximum influx volume of 150 bbl and a kick intensity of 1.5 ppg using maximum anticipated MW of 9.9 ppg.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

b) Casing Pressure Test

(1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

2) Collapse Loads

a) Cementing

(1) Internal: Displacement fluid density.

(2) External: Mud weight from TOC to surface and cement slurry weight from TOC to shoe.

b) Lost Returns with Mud Drop

(1) Internal: Lost circulation at the deepest TVD of the next hole section and the fluid level falls to a depth where the hydrostatic pressure of the mud column equals pore pressure at the depth of the lost circulation zone.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Production

1) Burst Design Loads

a) Injection Down Casing

(1) Internal: Surface pressure plus injection fluid gradient.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

b) Casing Pressure Test (Drilling)

(1) Internal: Displacement fluid plus surface pressure required to comply with regulatory casing test pressure requirements of Onshore Oil and Gas Order No. 2 and NM NMAC 19.15.16 of NMOCD regulations.

(2) External: Mud weight to TOC and cement mix water gradient (8.4 ppg) below TOC.

c) Casing Pressure Test (Production)

(1) Internal: The design pressure test should be the greater of the planned test pressure prior to simulation down the casing, the regulatory test pressure, and the expected gas lift system pressure. The design test fluid should be the fluid associated with the pressure test having the greatest pressure

having the greatest pressure.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

d) Tubing Leak

(1) Internal: SITP plus a packer fluid gradient to the top of packer.

(2) External: Mud base-fluid density to top of cement and cement mix water gradient (8.4 ppg) below TOC.

2) Collapse Loads

a) Cementing

(1) Internal: Displacement fluid density.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

b) Full Evacuation

(1) Internal: Full void pipe.

(2) External: Mud weight to TOC and cement slurry(s) density below TOC.

3) Tension Loads

a) Overpull Force

1. Axial: Buoyant weight of the string plus planned 100,000 lbs applied in stuck pipe situation.

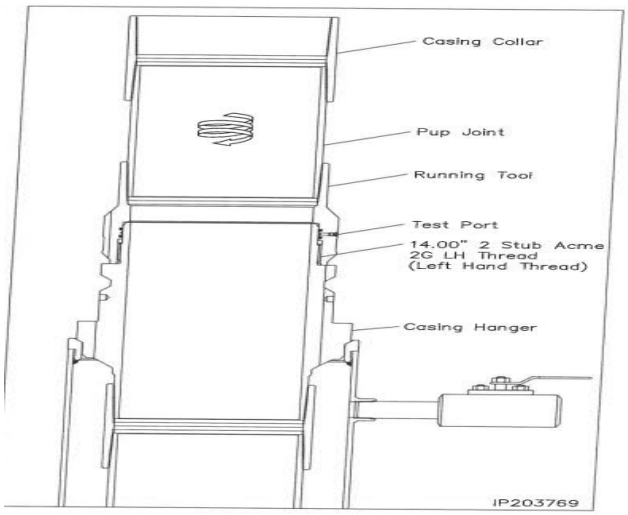
b) Green Cement Casing Test

1. Axial: Buoyant weight of the string plus cement plug bump pressure load.

Permian Resources
Multi-Well Pad Batch Drilling & Off Line Cement Procedure

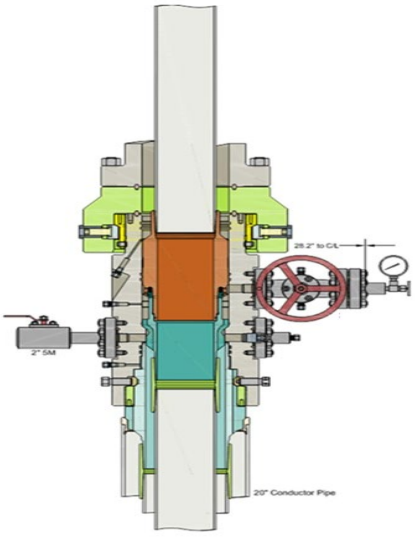
Surface Casing - PR intends to Batch set and offline cement all surface casing to a depth approved in the APD. Surface Holes will be batch drilled by a big rig. Appropriate notifications will be made prior to spudding the well, running, and cementing casing and prior to skidding to the rig to the next well on pad.

1. Drill Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run casing with Cactus Multibowl system, with baseplate supported by Conductor.
3. Circulate 1.5 csg capacity.
4. Flow test – Confirm well is static.
5. Install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test Surface casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.

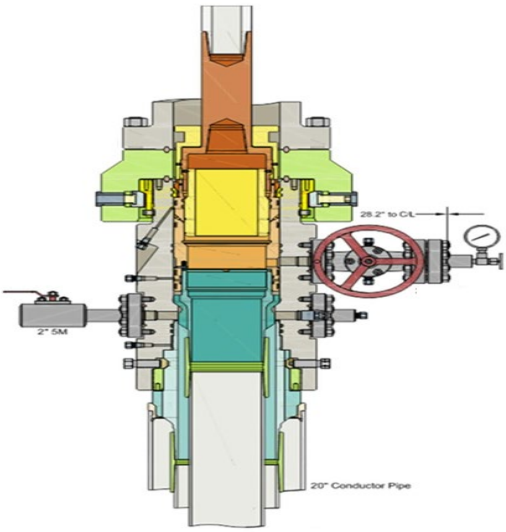


Intermediate 1 Casing – PR intends to Batch set all intermediate 1 casing strings to a depth approved in the APD, typically set into end of salts. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.
Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 1 as per requested break testing variance).
Install wear bushing then drill out 20" shoe-track.

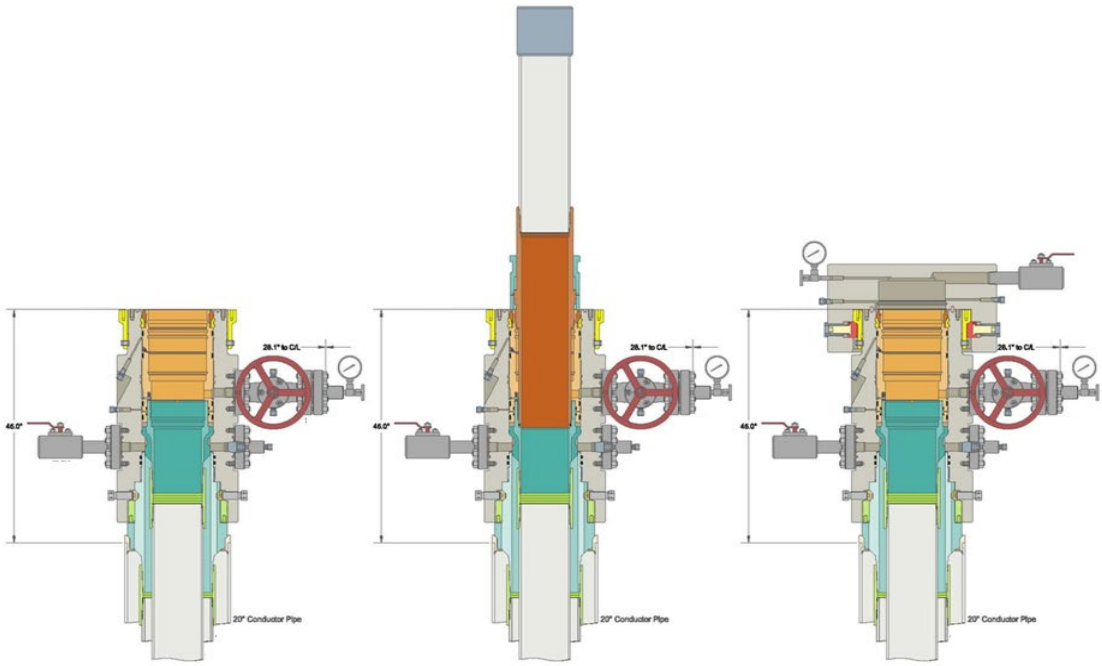
1. Drill Intermediate 1 hole to approved casing point. Trip out of hole with BHA to run Casing.
2. Remove wear bushing then run and land Intermediate 1 casing with mandrel hanger in wellhead.
3. Flow test – Confirm well is static.
4. Set Annular packoff and pressure test. Test to 5k.
5. Install BPV, Nipple down BOP and install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.



Run Intermediate Casing
Land Intermediate Casing on Mandrel Hanger
Cement Intermediate Casing
Retrieve Running Tool



Run Packoff
Test Upper and Lower Seals
Engage Lockring
Retrieve Running Tool



Intermediate 2 Casing – PR intends to Batch set all Intermediate 2 casing strings to a depth approved in the APD, typically set into Captain past losses. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 2 as per requested break testing variance).
2. Install wear bushing then drill out Intermediate 1 shoe-track.
3. Drill Intermediate 2 hole to approved casing point. Trip out of hole with BHA to run Casing.
4. Remove wear bushing then run and land Intermediate 2 casing with mandrel hanger in wellhead.
5. Flow test – Confirm well is static.
6. Set Annular packoff and pressure test. Test to 5k.
7. Install BPV, Nipple down BOP and install cap flange.
8. Skid rig to next well on pad
9. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
10. Install offline cement tool.
11. Rig up cementers.
12. Circulate bottoms up with cement truck
13. Commence planned cement job, take returns through the annulus wellhead valve
14. After plug is bumped confirm floats hold and well is static
15. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
16. Rig down cementers and equipment
17. Install night cap with pressure gauge to monitor.

Production Casing – PR intends to Batch set all Production casings. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE.
2. Install wear bushing then drill Intermediate shoe-track.
3. Drill Vertical hole to KOP – Trip out for Curve BHA.
4. Drill Curve, landing in production interval – Trip for Lateral BHA.
5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run Production Casing.
6. Remove wear bushing then run Production casing to TD landing casing mandrel in wellhead.
7. Cement Production string to surface with floats holding.

Permian Resources
BOP Break Testing Variance Procedure

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE). Permian Resources requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Title 43 CFR 3172, Drilling Operations, Sections 6.b.9.iv states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. 43 CFR 3172.13, Variances from minimum standards states, "An operator may request the authorized officer to approve a variance from any of the minimum standards prescribed in §§ 3172.6 through 3172.12. All such requests shall be submitted in writing to the appropriate authorized officer and provide information as to the circumstances which warrant approval of the variance(s) requested and the proposed alternative methods by which the related minimum standard(s) are to be satisfied. The authorized officer, after considering all relevant factors, if appropriate, may approve the requested variance(s) if it is determined that the proposed alternative(s) meet or exceed the objectives of the applicable minimum standard(s).". Permian Resources feels the break testing the BOPE is such a situation. Therefore, as per 43 CFR 3172.13, Permian Resources submits this request for the variance.

Supporting Documentation

The language used in 43 CFR 3172 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time, there have been significant changes in drilling technology. The BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR 3172 was originally released. The Permian Resources drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.

Figure 1: Winch System attached to BOP Stack

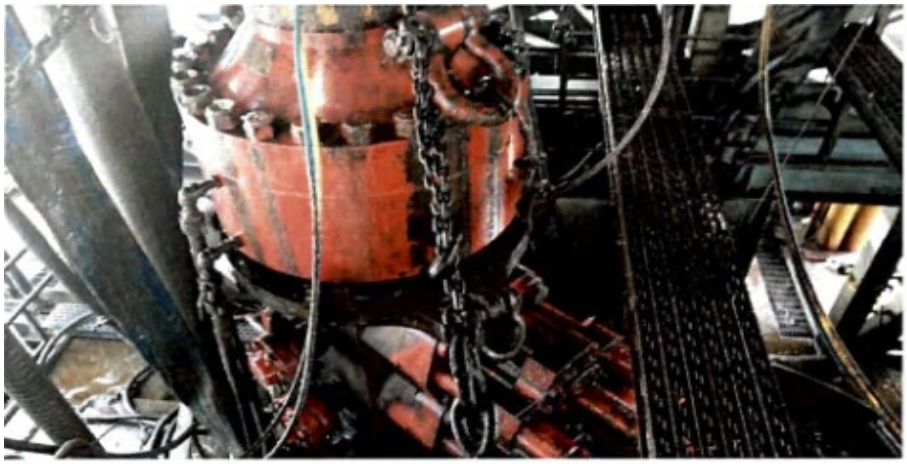


Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. 43 CFR 3172 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

62 API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure[a,c] psig (MPa)	Pressure Test—High Pressure[a,c]	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer[b]	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers[a,c]	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

[b] Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

[c] For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

[d] For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

[e] Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

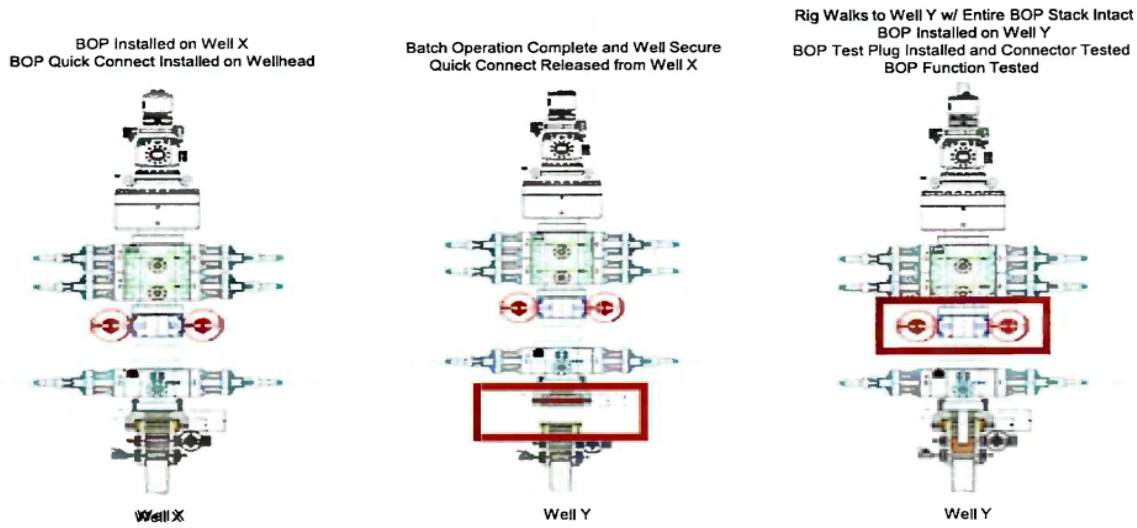
Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

Permian Resources feels break testing and our current procedures meet the intent of 43 CFR 3172 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. Permian Resources internal standards require complete BOPE tests more often than that of 43 CFR 3172 (every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, Permian Resources performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of 43 CFR 3172.

Procedures

1) Permian Resources will use this document for our break testing plan for New Mexico Delaware Basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2) Permian Resources will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
   a)A full BOP test will be conducted on the first well on the pad.
   b)The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same formation depth or shallower.
   c) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
   d) A full BOP test will be required prior to drilling any production hole.
3) After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
   a) Between the HCV valve and choke line connection
   b)Between the BOP quick connect and the wellhead
4) The BOP is then lifted and removed from the wellhead by a hydraulic system.
5) After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6) The connections mentioned in 3a and 3b will then be reconnected.
7) Install test plug into the wellhead using test joint or drill pipe.
8) A shell test is performed against the upper pipe rams testing the two breaks.
9) The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10) Function tests will be performed on the following components: lower pipe rams, blind rams, and annular.
11) For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12) A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



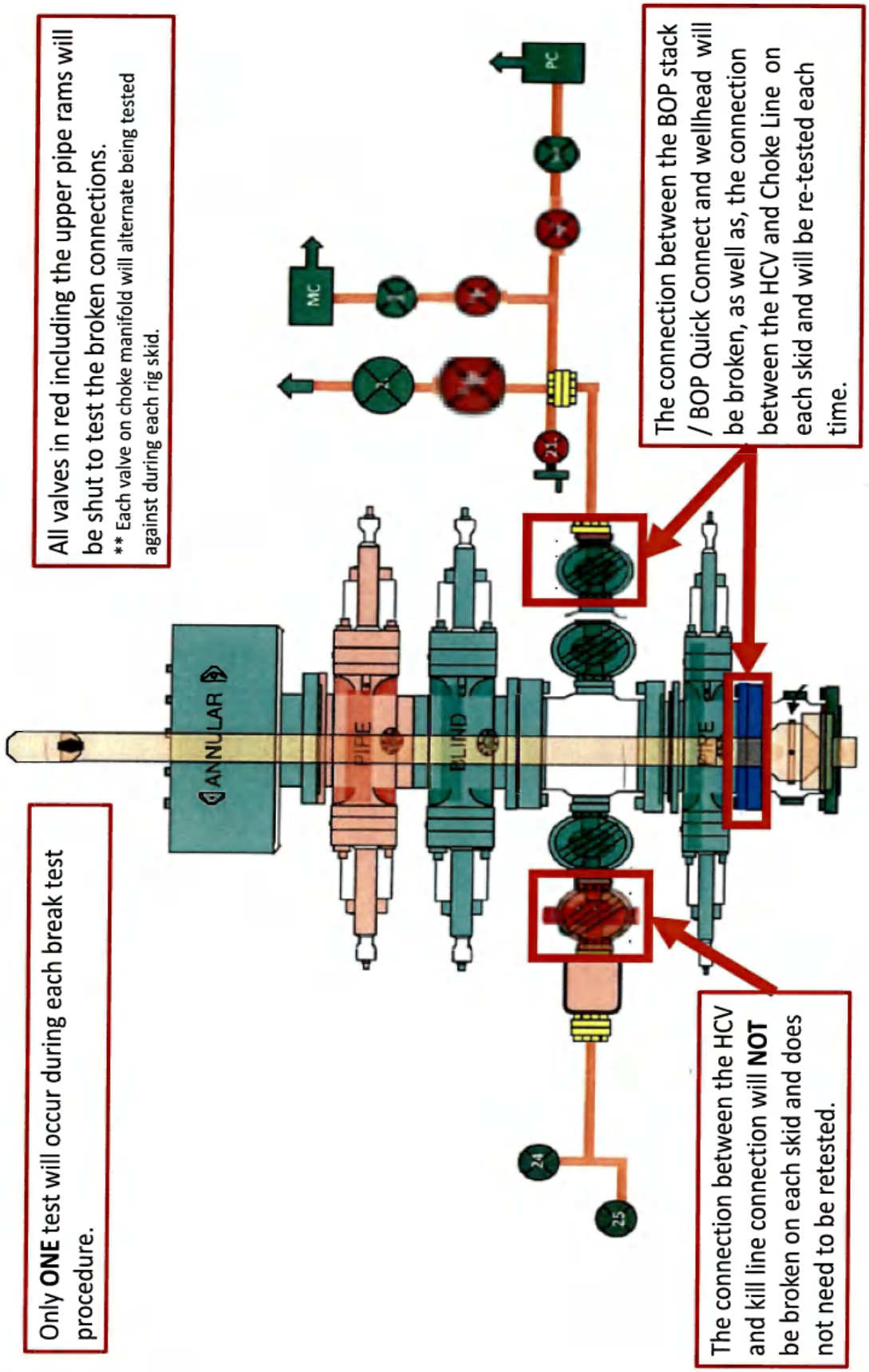
Summary

A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operations, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control
event occurs prior to the commencement of a BOPE Break Testing operation.

Based on public data and the supporting documentation submitted herein to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

1) After a full BOP test is conducted on the first well on the pad.
2) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same depth or shallower.
3) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4) A full BOP test will be required prior to drilling the production hole.


All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.
The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.
Only ONE test will occur during each break test procedure.
The connection between the HCV and kill line connection will NOT be broken on each skid and does not need to be retested.
ANNULAR
PIPE
BLIND
PIPE
MC
PC
21
24
25

SOP-12-F05
Performance Data Sheet

BORUSAN MANNESMANN

API 5CT Casing Performance Data Sheet

10.750" 45.50 lb/ft J55

Manufactured to specifications of API 5CT 10th edition and bears the API monogram.

Grade	J55

Sizes and Weights

OD	10.750 in
Nominal Wall Thickness	0.400 in
Nominal Weight, T&C	45.50 lb/ft
Nominal Weight, PE	44.26 lb/ft
Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in

Pipe Body Mechanical Properties

Minimum Yield Strength	55,000 psi
Maximum Yield Strength	80,000 psi
Minimum Tensile Strength	75,000 psi
Maximum Hardness	N/A

Minimum Performance

Collapse Pressure	2,470 psi
Minimal Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
Internal Pressure Leak Resistance STC/LTC Connections	6,880 lbs
Internal Pressure Leak Resistance BTC Connections	7,450 lbs

Special Clearance Coupling

OD	N/A
Minimum Length (NL)	10.625"
Diameter at Counterbore	13.515"
Width of Bearing Face	0.375"

Inspection and Testing

Visual	OD Longitudinal and independent 3rd party SEA
NDT	Weldline UT after hydrotest. Calibration notch sensitivity (% of specified wall thickness): 12.5%

Color code

Pipe ends	One green band
Couplings	Green with one white band (alternate coupling: K55 - green)

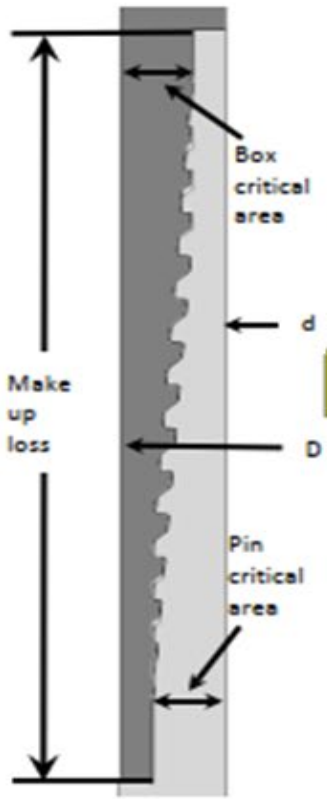
Metal One Corp.	MO-FXL	CDS#	MO-FXL 8-5/8 32.0
Metal One	*1 Pipe Body: BMP P110HSCY MinYS125ksi Min95%WT		P110HSCY
			MinYS125ksi
			Min95%WT
	Connection Data Sheet	Date	8-Sep-21

Geometry

MO-FXL

Pipe Body

	Imperial		S.I.	
Grade *1	P110HSCY		P110HSCY	
MinYS *1	125	ksi	125	ksi
Pipe OD (D)	8 5/8	in	219.08	mm
Weight	32.00	lb/ft	47.68	kg/m
Actual weight	31.10		46.34	kg/m
Wall Thickness (t)	0.352	in	8.94	mm
Pipe ID (d)	7.921	in	201.19	mm
Pipe body cross section	9.149	in^2	5,902	mm^2
Drift Dia.	7.796	in	198.02	mm
-	-	-	-	-



Connection

Box OD (W)	8.625	in	219.08	mm
PIN ID	7.921	in	201.19	mm
Make up Loss	3.847	in	97.71	mm
Box Critical Area	5.853	in^2	3686	mm^2
Joint load efficiency	69	%	69	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			

Performance

Performance Properties for Pipe Body

S.M.Y.S. *1	1,144	kips	5,087	kN
M.I.Y.P. *1	9,690	psi	66.83	MPa
Collapse Strength *1	4,300	psi	29.66	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

*1: BMP P110HSCY: MinYS125ksi, Min95%WT, Collapse Strength 4,300psi

Performance Properties for Connection

Tensile Yield load	789 kips (69% of S.M.Y.S.)
Min. Compression Yield	789 kips (69% of S.M.Y.S.)
Internal Pressure	6,780 psi (70% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	29

Recommended Torque

Min.	13,600	ft-lb	18,400	N-m
Opti.	14,900	ft-lb	20,200	N-m
Max.	16,200	ft-lb	21,900	N-m
Operational Max.	28,400	ft-lb	38,500	N-m

Note : Operational Max. torque can be applied for high torque application

Metal One Corp.

Metal One

GEOCONN-SC

Pipe Body: SeAH P110RY(SMYS110ksi) & 95%RBW *1

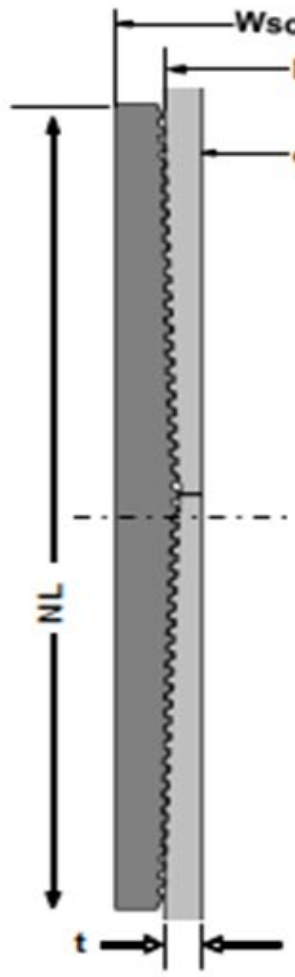
Coupling: P110CY (SMYS110ksi)

Connection Data Sheet

Page	MAI GC 5.5 20 SeAH PRY 95%RW
	SC-CplgOD 6.050 P110CY
Date	29-Sep-21
Rev.	0

Geometry

GEOCONN-SC



Pipe Body

Grade *1	SeAH P110RY	-	SeAH P110RY	
SMYS	110	ksi	110	ksi
Pipe OD (D)	5.500	in	139.70	mm
Weight	20.00	lb/ft	29.80	kg/m
Wall Thickness (t)	0.361	in	9.17	mm
Pipe ID (d)	4.778	in	121.36	mm
Drift Dia.	4.653	in	118.19	mm

Connection

		Imperial		S.I.
Coupling SMYS	110	ksi	110	ksi
Coupling OD (Wsc1)	6.050	in	153.67	mm
Coupling Length (NL)	8.350	in	212.09	mm
Make up Loss	4.125	in	104.78	mm
Pipe Critical Area	5.83	in^2	3,760	mm^2
Box Critical Area	6.00	in^2	3,874	mm^2
Thread Taper	1 / 16 (3/4" per ft)			
Number of Threads	5 TPI			

Performance

Performance Properties for Pipe Body

		Imperial		S.I.
S.M.Y.S.	641	kips	2,852	kN
M.I.Y.P. *1	13,720	psi	94.62	MPa
Collapse Strength	11,100	psi	76.55	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body

M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

*1 Pipe: SeAH P110RY (SMYS110ksi), Min Wall Thickness of Pipe Body: 95% of Nom wall

Performance Properties for Connection

Min. Connection Joint Strength	100% of S.M.Y.S.
Min. Compression Yield	100% of S.M.Y.S.
Internal Pressure	100% of M.I.Y.P.
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	>90

Recommended Torque

Min.	14,600	ft-lb	19,700	N-m
Opti.	16,200	ft-lb	21,900	N-m
Max.	17,800	ft-lb	24,100	N-m
Operational Max.	19,500	ft-lb	26,400	N-m

Note : Operational Max. torque can be applied for high torque application

Permian Resources
BOP Break Testing Variance Procedure

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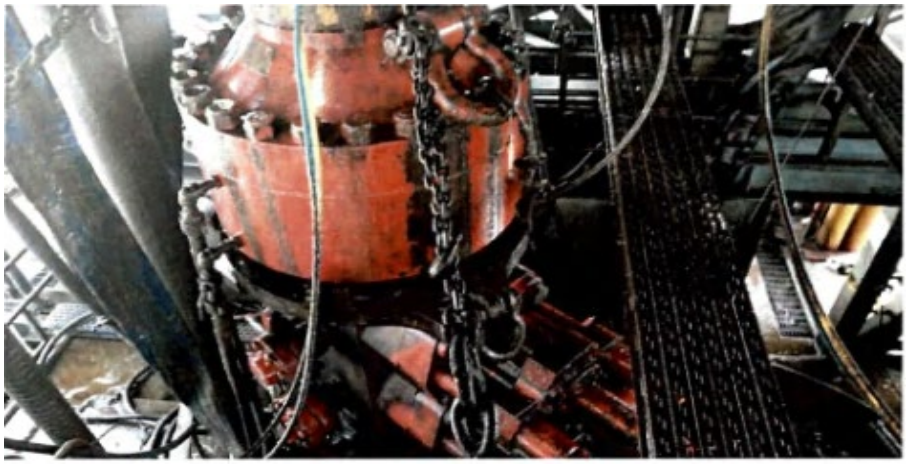
Figure 1: Winch System attached to BOP Stack



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62 API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure[a,c] psig (MPa)	Pressure Test—High Pressure[a,c]	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer[b]	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers[a,c]	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes*	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

[b] Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

[c] For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

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   c) A full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
   d) A full BOP test will be required prior to drilling any production hole.
3) After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
   a) Between the HCV valve and choke line connection
   b)Between the BOP quick connect and the wellhead
4) The BOP is then lifted and removed from the wellhead by a hydraulic system.
5) After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6) The connections mentioned in 3a and 3b will then be reconnected.
7) Install test plug into the wellhead using test joint or drill pipe.
8) A shell test is performed against the upper pipe rams testing the two breaks.
9) The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10) Function tests will be performed on the following components: lower pipe rams, blind rams, and annular.
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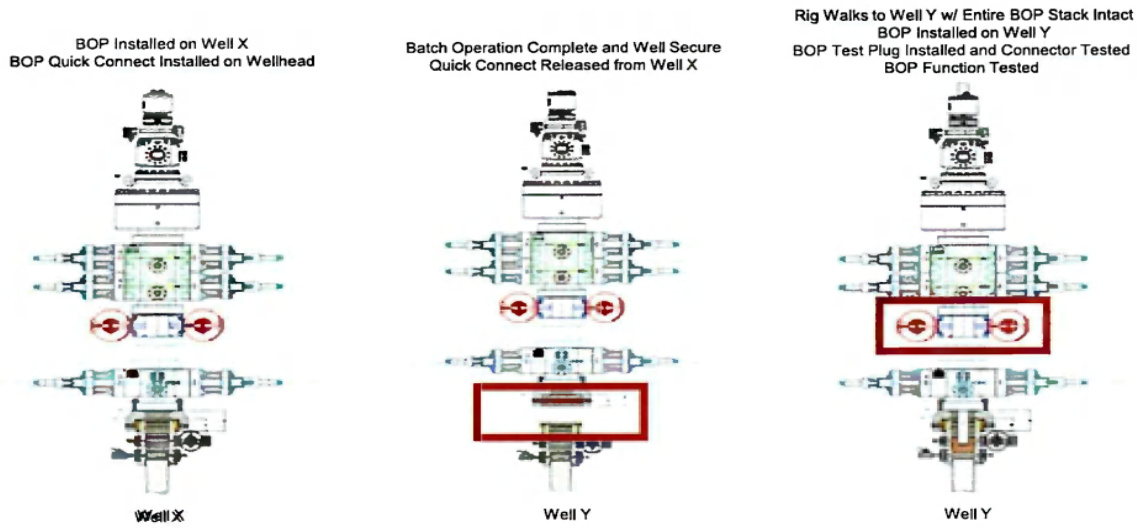
Note: Picture below highlights BOP components that will be tested during batch operations



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The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control
event occurs prior to the commencement of a BOPE Break Testing operation.

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1) After a full BOP test is conducted on the first well on the pad.
2) The first intermediate hole section drilled on the pad will be the deepest. All the remaining hole sections will be the same depth or shallower.
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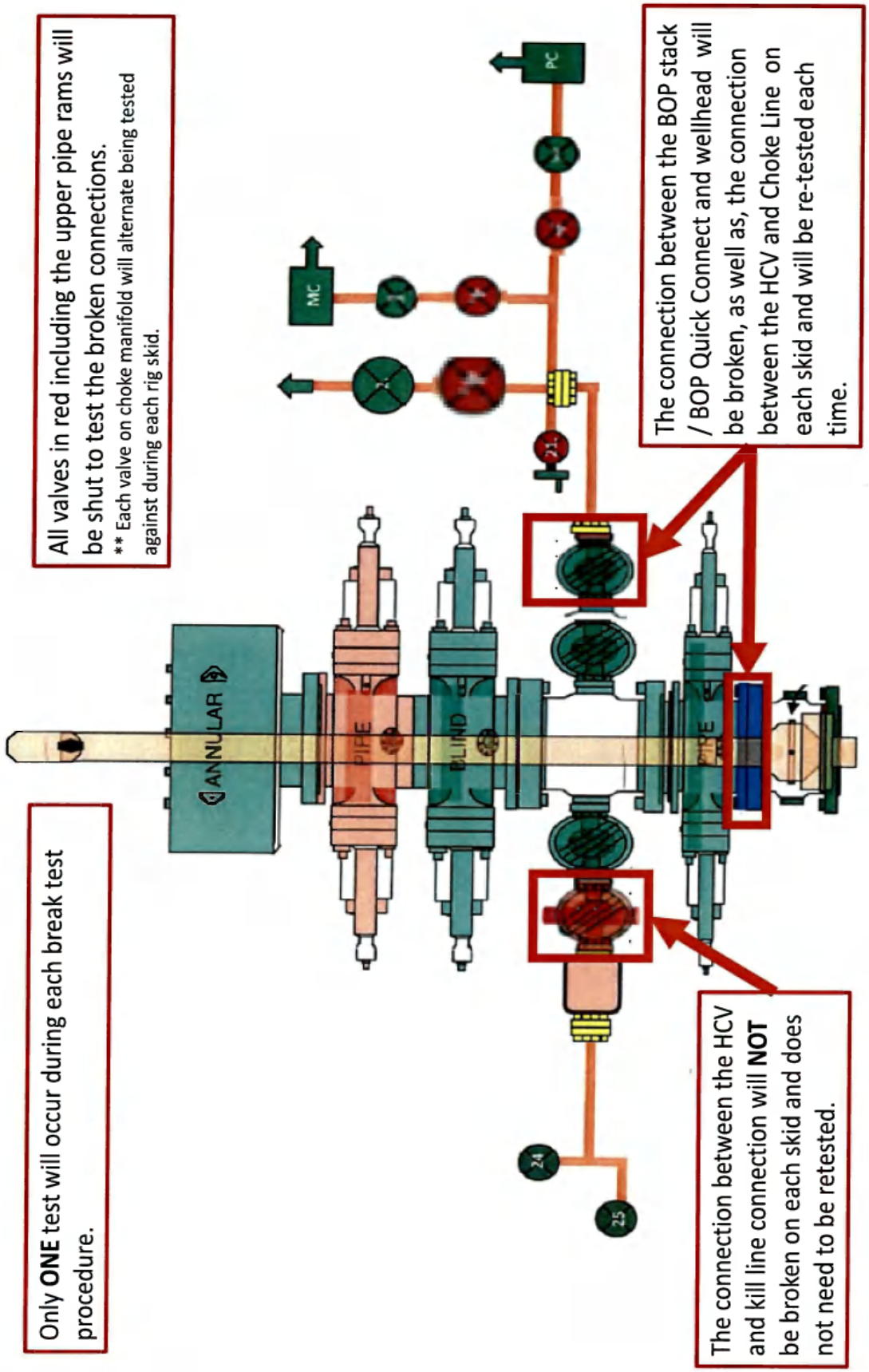
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ANNULAR
PIPE
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SOP-12-F05
Performance Data Sheet

BORUSAN MANNESMANN

API 5CT Casing Performance Data Sheet

10.750" 45.50 lb/ft J55

Manufactured to specifications of API 5CT 10th edition and bears the API monogram.

Grade	J55

Sizes and Weights

OD	10.750 in
Nominal Wall Thickness	0.400 in
Nominal Weight, T&C	45.50 lb/ft
Nominal Weight, PE	44.26 lb/ft
Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in

Pipe Body Mechanical Properties

Minimum Yield Strength	55,000 psi
Maximum Yield Strength	80,000 psi
Minimum Tensile Strength	75,000 psi
Maximum Hardness	N/A

Minimum Performance

Collapse Pressure	2,470 psi
Minimal Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
Internal Pressure Leak Resistance STC/LTC Connections	6,880 lbs
Internal Pressure Leak Resistance BTC Connections	7,450 lbs

Special Clearance Coupling

OD	N/A
Minimum Length (NL)	10.625"
Diameter at Counterbore	13.515"
Width of Bearing Face	0.375"

Inspection and Testing

Visual	OD Longitudinal and independent 3rd party SEA
NDT	Weldline UT after hydrotest. Calibration notch sensitivity (% of specified wall thickness): 12.5%

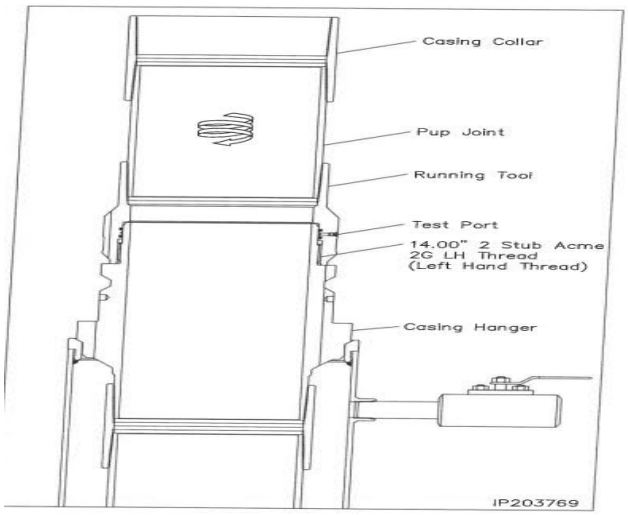
Color code

Pipe ends	One green band
Couplings	Green with one white band (alternate coupling: K55 - green)

Permian Resources
Multi-Well Pad Batch Drilling & Off Line Cement Procedure

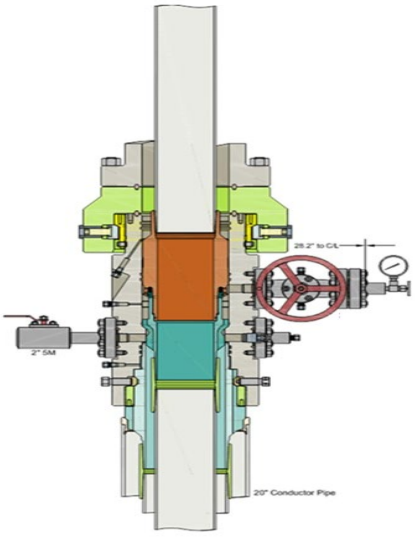
Surface Casing - PR intends to Batch set and offline cement all surface casing to a depth approved in the APD. Surface Holes will be batch drilled by a big rig. Appropriate notifications will be made prior to spudding the well, running, and cementing casing and prior to skidding to the rig to the next well on pad.

1. Drill Surface hole to Approved Depth with Surface Preset Rig and perform wellbore cleanup cycles. Trip out and rack back drilling BHA.
2. Run casing with Cactus Multibowl system, with baseplate supported by Conductor.
3. Circulate 1.5 csg capacity.
4. Flow test – Confirm well is static.
5. Install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test Surface casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.

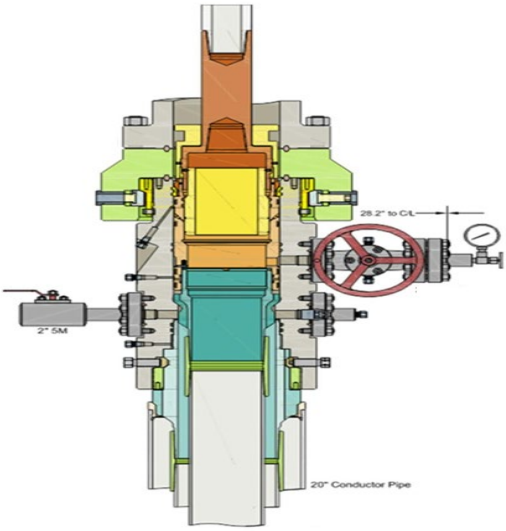


Intermediate 1 Casing – PR intends to Batch set all intermediate 1 casing strings to a depth approved in the APD, typically set into end of salts. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.
Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 1 as per requested break testing variance).
Install wear bushing then drill out 20" shoe-track.

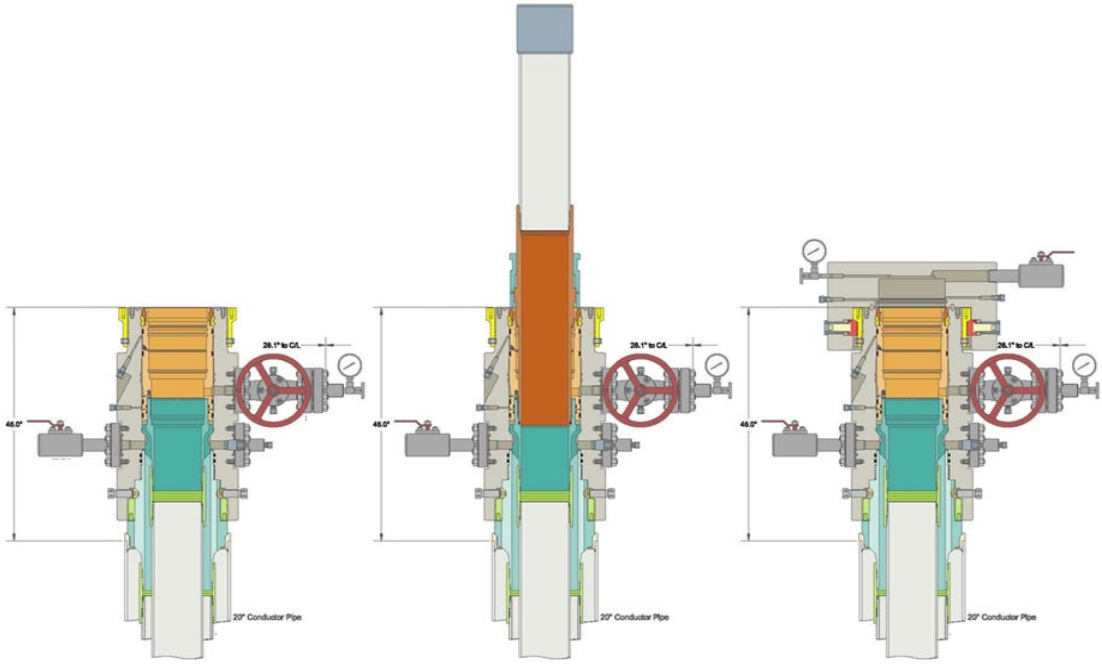
1. Drill Intermediate 1 hole to approved casing point. Trip out of hole with BHA to run Casing.
2. Remove wear bushing then run and land Intermediate 1 casing with mandrel hanger in wellhead.
3. Flow test – Confirm well is static.
4. Set Annular packoff and pressure test. Test to 5k.
5. Install BPV, Nipple down BOP and install cap flange.
6. Skid rig to next well on pad
7. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
8. Install offline cement tool.
9. Rig up cementers.
10. Circulate bottoms up with cement truck
11. Commence planned cement job, take returns through the annulus wellhead valve
12. After plug is bumped confirm floats hold and well is static
13. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
14. Rig down cementers and equipment
15. Install night cap with pressure gauge to monitor.



Run Intermediate Casing
Land Intermediate Casing on Mandrel Hanger
Cement Intermediate Casing
Retrieve Running Tool



Run Packoff
Test Upper and Lower Seals
Engage Lockring
Retrieve Running Tool



Intermediate 2 Casing – PR intends to Batch set all Intermediate 2 casing strings to a depth approved in the APD, typically set into Captain past losses. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE (testing will be performed on the first Intermediate 2 as per requested break testing variance).
2. Install wear bushing then drill out Intermediate 1 shoe-track.
3. Drill Intermediate 2 hole to approved casing point. Trip out of hole with BHA to run Casing.
4. Remove wear bushing then run and land Intermediate 2 casing with mandrel hanger in wellhead.
5. Flow test – Confirm well is static.
6. Set Annular packoff and pressure test. Test to 5k.
7. Install BPV, Nipple down BOP and install cap flange.
8. Skid rig to next well on pad
9. Remove cap flange (confirm well is static before removal)
    a) If well is not static use the casing outlet valves to kill well
    b) Drillers method will be used in well control event
    c) High pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    d) Kill mud will be circulated once influx is circulated out of hole
    e) Confirm well is static and remove cap flange to start offline cement operations
10. Install offline cement tool.
11. Rig up cementers.
12. Circulate bottoms up with cement truck
13. Commence planned cement job, take returns through the annulus wellhead valve
14. After plug is bumped confirm floats hold and well is static
15. Perform green cement casing test.
    a) Test casing (.22 psi/ft or 1500 psi whichever is greater) - not to exceed 70% casing burst.
16. Rig down cementers and equipment
17. Install night cap with pressure gauge to monitor.

Production Casing – PR intends to Batch set all Production casings. Appropriate notifications will be made prior Testing BOPE, and prior to running/cementing all casing strings.

1. Rig will remove the nightcap and install and test BOPE.
2. Install wear bushing then drill Intermediate shoe-track.
3. Drill Vertical hole to KOP – Trip out for Curve BHA.
4. Drill Curve, landing in production interval – Trip for Lateral BHA.
5. Drill Lateral / Production hole to Permitted BHL, perform cleanup cycles and trip out to run Production Casing.
6. Remove wear bushing then run Production casing to TD landing casing mandrel in wellhead.
7. Cement Production string to surface with floats holding.

Continental
ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 504

PURCHASER:	ContiTech Oil & Marine Corp.			P.O. N°:	4500409659		
CONTITECH RUBBER order N°:	538236	HOSE TYPE:	3" ID	Choke and Kill Hose			
HOSE SERIAL N°:	67255	NOMINAL / ACTUAL LENGTH:		10,67 m / 10,77 m			
W.P. 68,9 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration:	60 min.		

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 20 MPa

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	9251 9254	AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end		AISI 4130	035608

Not Designed For Well Testing **API Spec 16 C**

Temperature rate:"B"

All metal parts are flawless.

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

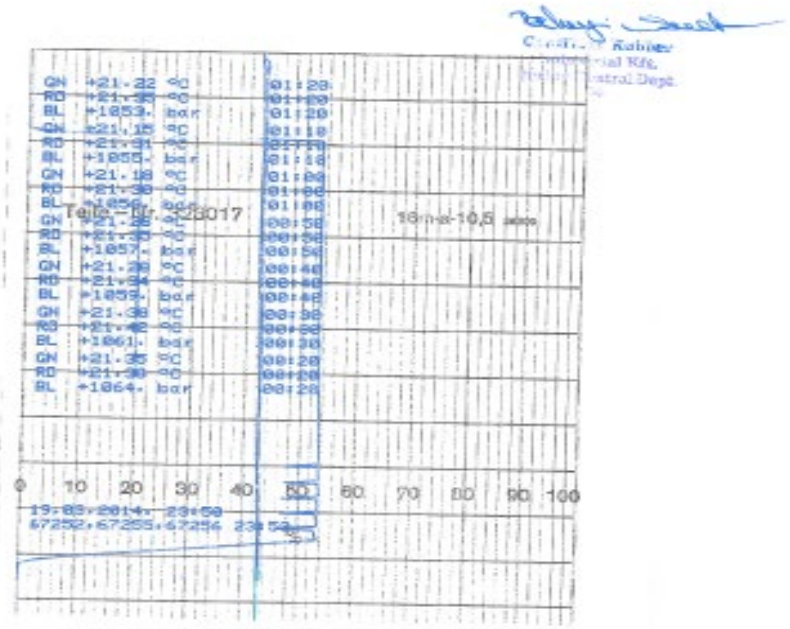
COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
20. March 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

ContiTech Rubber Industrial Kft. | Budapesti út 10. H-6728 Szeged | H-6701 P.O.Box 152 Szeged, Hungary
Phone: +36 62 566 737 | Fax: +36 62 566 726 | e-mail: info@fluid.contitech.hu | Internet: www.contitech-rubber.hu; www.contitech.hu
The Court of Csongrád County as Registry Court | Registry Court No: Cg.06-09-003503 | EU VAT No: HU11837209
Bank data Commerzbank Zrt., Budapest | 14230106-20839003

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE *No: 501, 504, 505*

Page: 1 / 1



Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report
10/22/2024

APD ID: 10400081598
Submission Date: 11/11/2021
Operator Name: EOG RESOURCES INCORPORATED
Well Name: EILEEN 25 FED COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

LO_EILEEN_25_FED_COM_601H_VIC_S_20211110124610.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT
Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

EILEEN_25_FED_COM_ROADS_SEC25_REV1_S_20240808120813.pdf
EILEEN_25_FED_COM_ROADS_SEC36_S_20240808120819.pdf

New road type: RESOURCE

Length: 2998 Feet
Width (ft.): 30

Max slope (%): 2
Max grade (%): 5

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.
New road access plan or profile prepared? N

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

New road access plan

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6 of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: No Drainage crossings

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

LO_EILEEN_25_FED_COM_601H_MILE_RADIUS_S_20211110125202.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M. LEA COUNTY, NEW MEXICO

Production Facilities map:

EILEEN_25_FED_COM_CTB_20240808120836.pdf
EILEEN_25_FED_COM_501H_502H_601H_602H_701H_702H_FL_S_20240808120844.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

EILEEN_25_FED_COM_GAS_SEC25_S_20240808120859.pdf
EILEEN_25_FED_COM_GL_SEC29_20240808120909.pdf
EILEEN_25_FED_COM_GL_SEC30_S_20240808120917.pdf
EILEEN_25_FED_COM_WATER_SEC20_S_20240808120925.pdf
EILEEN_25_FED_COM_WATER_SEC21_S_20240808120936.pdf
EILEEN_25_FED_COM_WATER_SEC25_S_20240808120944.pdf
EILEEN_25_FED_COM_WATER_SEC29_S_20240808120951.pdf
EILEEN_25_FED_COM_WATER_SEC30_S_20240808120957.pdf
EILEEN_25_FED_COM_ELECTRIC_SEC25_S_20240808121005.pdf
EILEEN_25_FED_COM_ELECTRIC_SEC36_S_20240808121012.pdf
EILEEN_25_FED_COM_INFRASTRUCTURE_20240808121017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: RECYCLED

Water source use type: OTHER

Describe use type: The source and location of the wat
location will be drilled using a combination of water muc
program. (i) Water will be obtained from commercial wa
to location by trucks using existing and proposed roads
attached. (ii) Water may as be supplied from frac ponds
temporary above ground surface lines a shown on the n
4-inch lay-flat lines and up to five 12-inch lay-flat lines fo
freshwater. Freshwater is defined as containing less tha
Solids (TDS), exhibiting no petroleum sheen when stan
mechanical processes that expose it to heavy metals or
to utilize up to five 12-inch lay-flat lines for the purpose
water being defined as the reconditioning of produced w
include mechanical and chemical processes. Freshwate
Heartthrob Water Pit located in Section 17, Township 24
Mexico. Treated Produced Water Sources: 1. EOG Res
Section 16 , Township 24-S, Range 33-E, Lea County, N
lines would originate from a single water source location
in the surrounding area of the proposed action and be te
minimal disturbance. Temporary surface line(s) shall be
edge of the existing disturbance (i.e., edge of bar/borrow
road or other man-made addition to the landscape). A p
be used. All vehicle equipment will remain within the exi
showing the locations of the temporary surface lines wil
be included in the Environmental Assessment. Electron
shall be submitted with the Environmental Assessment.
proposed route for up to five temporary above ground s
the surface for a time (>180 days). Temporary above gr
water for drilling and completions operations.

Source latitude:

Source longitude:

Source datum:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

OTHER

Describe use type: The source and location of the wat
location will be drilled using a combination of water muc
program. (i) Water will be obtained from commercial wa
to location by trucks using existing and proposed roads
attached. (ii) Water may as be supplied from frac ponds
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be included in the Environmental Assessment. Electron
shall be submitted with the Environmental Assessment.
proposed route for up to five temporary above ground s
the surface for a time (>180 days). Temporary above gr
water for drilling and completions operations.

Water source permit type: WATER RIGHT

Water source transport method: TRUCKING

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1

Source volume (acre-feet): 0.00012889

Source volume (gal): 42

Water source and transportation

Eileen_25_Fed_Com_Water_20240607065341.pdf

Water source comments:

New water well? N

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by Flipping the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for Flipping a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location

Eileen_25_Fed_Com_Caliche_20240607065351.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored onsite in frac tanks and disposed of at the time of rig down. Primary disposal location for EOGs NM operations is the North Delaware Basin Disposal facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.
Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: STEEL TANKS

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: NORTH DELAWARE BASIN DISPOSAL FACILITY IN JAL NM

Waste type: SEWAGE

Waste content description: GREY WATER

Amount of waste:

Waste disposal frequency : Weekly

Safe containment description: Human waste managed by third-party vendors. ROW construction waste contained in on-site portable toilets maintained by third party vendor. During drilling activities waste is managed by third party vendor utilizing onsite aerobic (treatment) wastewater management. Liquids treated through the aerobic system are transferred to via water line to CTBs for reuse by EOG. All solid waste remaining after treatment process are pumped into an enclosed waste transfer truck at the time of rig down and taken to one of the following disposal facilities by the thirdparty vendor: Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

Waste type: GARBAGE

Waste content description: TRASH GENERATED ONSITE

Amount of waste:

Waste disposal frequency : Weekly

Safe containment description: ENCLOSED DUMPSTERS

Safe containmant attachment:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Waste disposal type: OTHER **Disposal location ownership:** OTHER

Disposal type description: LEA CO NM LANDFILL

Disposal location description: Trash dumpsters are utilized to contain garbage onsite. Dumpsters are maintained by a thirdparty vendor. All trash is hauled to Lee County, NM landfill.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location EOG utilizes a Closed Loop System, cuttings leave the rig and enter low/highwall cuttings bin. Cuttings are then transferred to trucks for transportation to a State of New Mexico approved disposal facility. Primary disposal location for EOGs NM operations is the North Delaware Basin Disposal Facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Section 9 - Well Site

Well Site Layout Diagram:

LO_EILEEN_25_FED_COM_601H_SITE_S_20211110125235.pdf

LO_EILEEN_25_FED_COM_601H_WELLSITE_S_20211110125235.pdf

Eileen_25_Fed_Com_601H_Rig_Layout_20211110125246.pdf

Comments: Exhibit 2A-Wellsite, Exhibit 2B-Padsite, Exhibit 4-Rig Layout

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: EILEEN 25 FED COM

Multiple Well Pad Number: 501H/502H/601H/602H/701H/702H/201H/202H/301H/302H

Recontouring

LO_EILEEN_25_FED_COM_601H_RECLAMATION_S_20240808121225.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Well pad proposed disturbance (acres): 0	**Well pad interim reclamation (acres):** 0	**Well pad long term disturbance (acres):** 0
Road proposed disturbance (acres): 0	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 0	**Total interim reclamation:** 0	**Total long term disturbance:** 0

Disturbance Comments: All Interim and Final reclamation must be within 6 months. Interim must be within 6 months of completion and final within 6 months of abandonment plugging. Dual pad operations may alter timing.

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Soil treatment: Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.

Weed treatment plan

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

Monitoring plan

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other

Right of Way needed? Y **Use APD as ROW?** Y

ROW Type(s): 288100 ROW – O&G Pipeline

ROW

SUPO Additional Information: An onsite meeting was conducted on July 8th, 2024. We plan to use (6) 12-inch lay flat hoses to transport water and (6) 4-inch polylines or layflat for drilling and frac operations. We are asking for 4 associated pipelines all depicted on the attached INFRASTRUCTURE MAP and associated pipeline plats: EILEEN 25 FED COM_501H_502H_601H_602H_701H_702H_FL EILEEN 25 FED COM_GL_SEC25_SEC29_SEC30 EILEEN 25 FED COM_WATER_SEC20_SEC21_SEC25_SEC29_SEC30 The well will be produced using gas lift as the artificial lift method. Produced water will be transported via pipeline to the EOG produced water gathering system

Use a previously conducted onsite? N

Previous Onsite information:

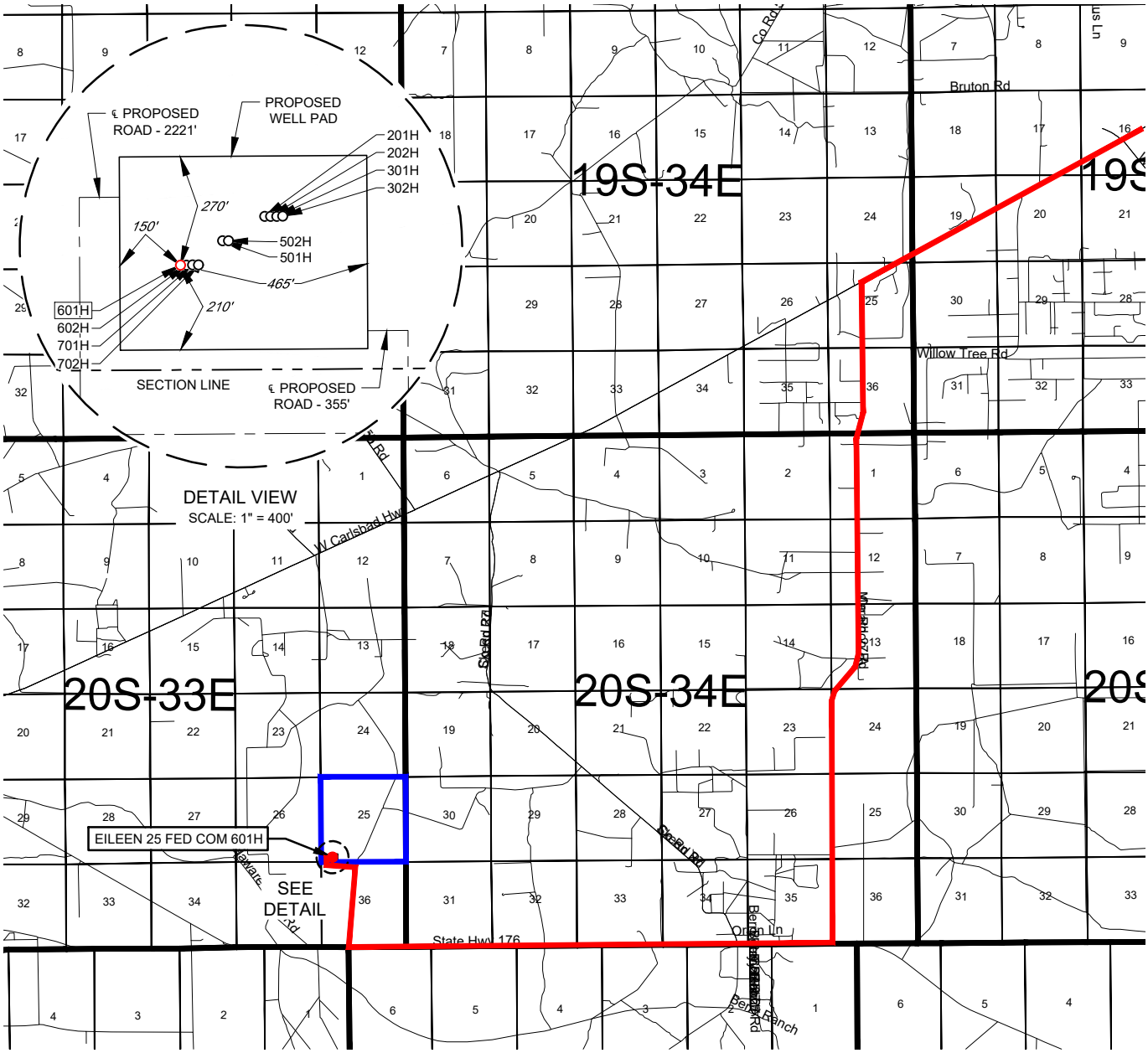
Other SUPO

LO_EILEEN_25_FED_COM_601H_L_E_S_20211110125339.pdf

SUPO_EILEEN_25_FED_COM_601H_20240808121324.pdf

EXHIBIT 2

VICINITY MAP



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LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

SECTION 25 TWP 20-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 260' FSL & 630' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-18 N. & US-180, GO WEST ON US-180 ±23.6 MILES, THENCE SOUTH (LEFT) ON COUNTY RD. 27-A ±7.9 MILES, THENCE WEST (RIGHT) ON NM-176 W ±5.7 MILES, THENCE NORTH (RIGHT) ON A LEASE ROAD ±1.0 MILES, THENCE WEST (LEFT) ON A PROPOSED ROAD ±2221 FEET TO A POINT ±227 FEET NORTHWEST OF THE LOCATION.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

SCALE: 1" = 10000'

0' 5000' 10000'

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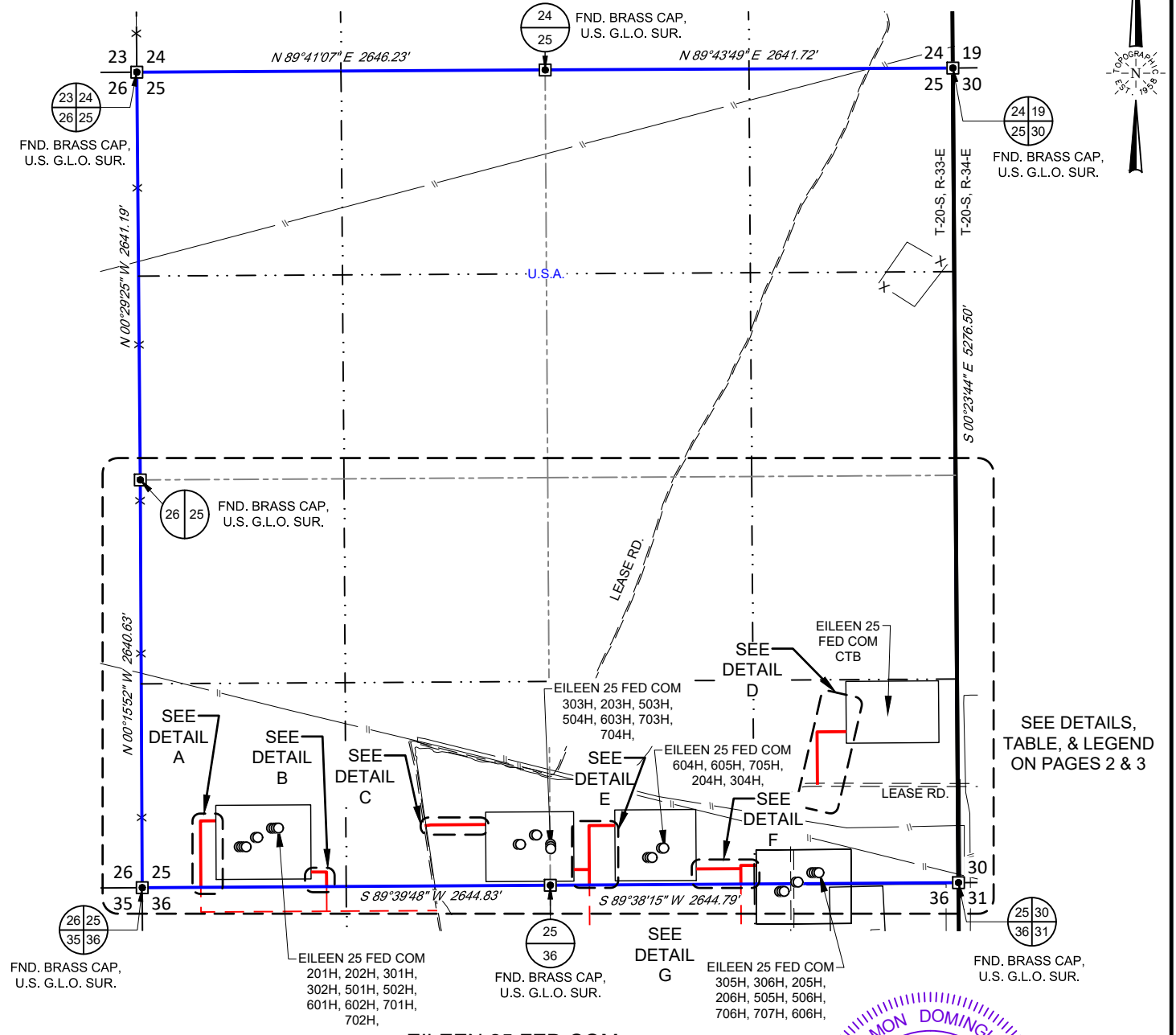
SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



SEE DETAILS, TABLE, & LEGEND ON PAGES 2 & 3

EILEEN 25 FED COM ROAD EASEMENTS

Being proposed road easements being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2815.53 feet or 170.64 rods, containing 1.94 acres more or less.

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:03:56 AM

Ramon A. Dominguez, P.S. No. 24508

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DATE: 09/30/21		
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SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
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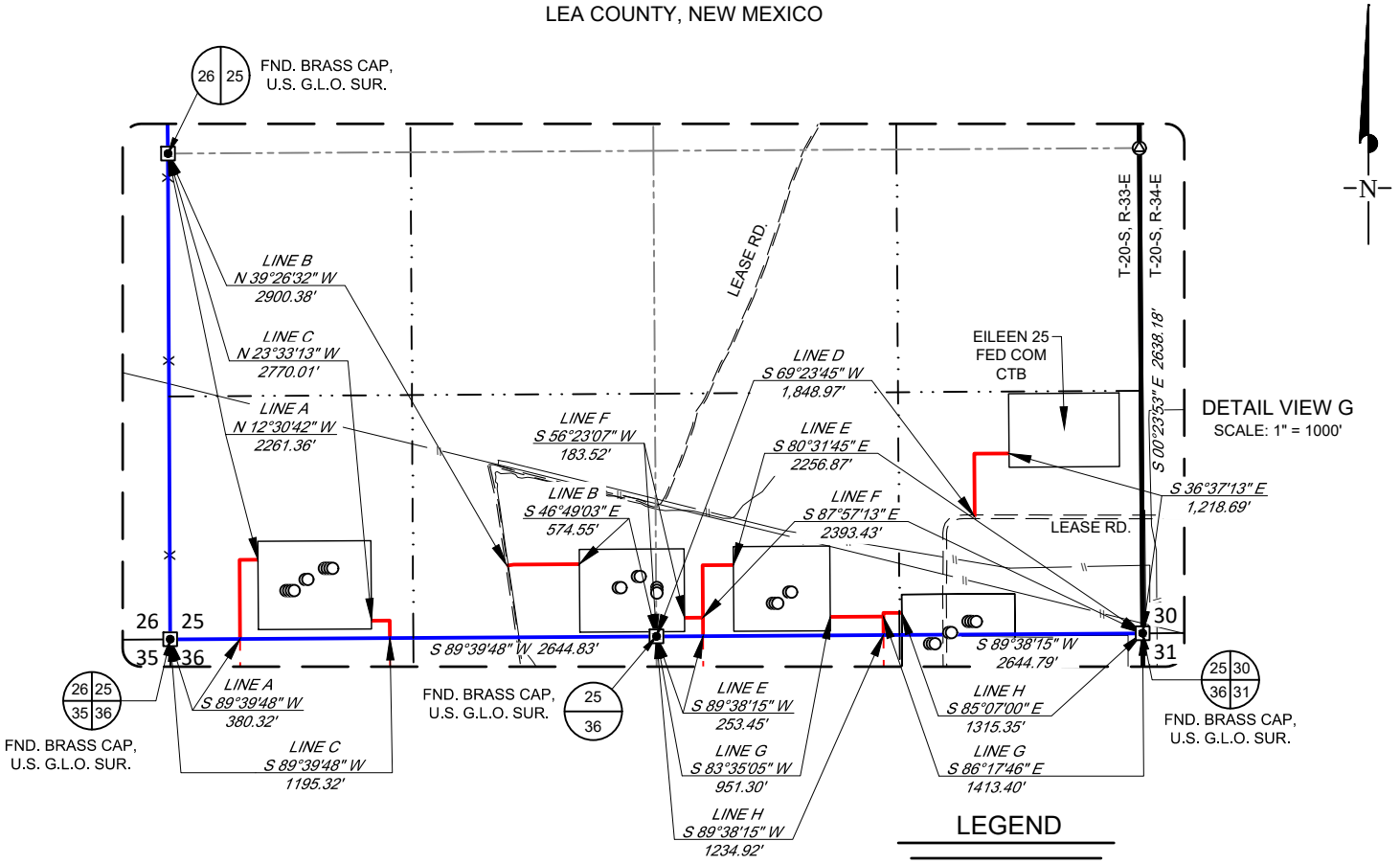

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

LINE TABLE A

LINE	BEARING	DISTANCE
A1	N 00°20'53" W	430.11'
A2	N 89°39'07" E	100.00'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 81°20'16" E	38.72'
B2	N 89°39'21" E	357.15'

LINE TABLE C

LINE	BEARING	DISTANCE
C1	N 00°20'53" W	94.95'
C2	S 89°39'07" W	100.00'

LINE TABLE D

LINE	BEARING	DISTANCE
1	S 89°36'25" W	189.44'
2	S 00°23'35" E	342.91'

LINE TABLE E

LINE	BEARING	DISTANCE
E1	N 00°20'53" W	385.49'
E2	N 89°39'07" E	167.53'

LINE TABLE F

LINE	BEARING	DISTANCE
F1	S 89°39'07" W	100.00'

LINE TABLE G

LINE	BEARING	DISTANCE
G1	S 89°39'07" W	288.94'

LINE TABLE H

LINE	BEARING	DISTANCE
H1	N 00°20'53" W	120.29'
H2	N 89°39'07" E	100.00'

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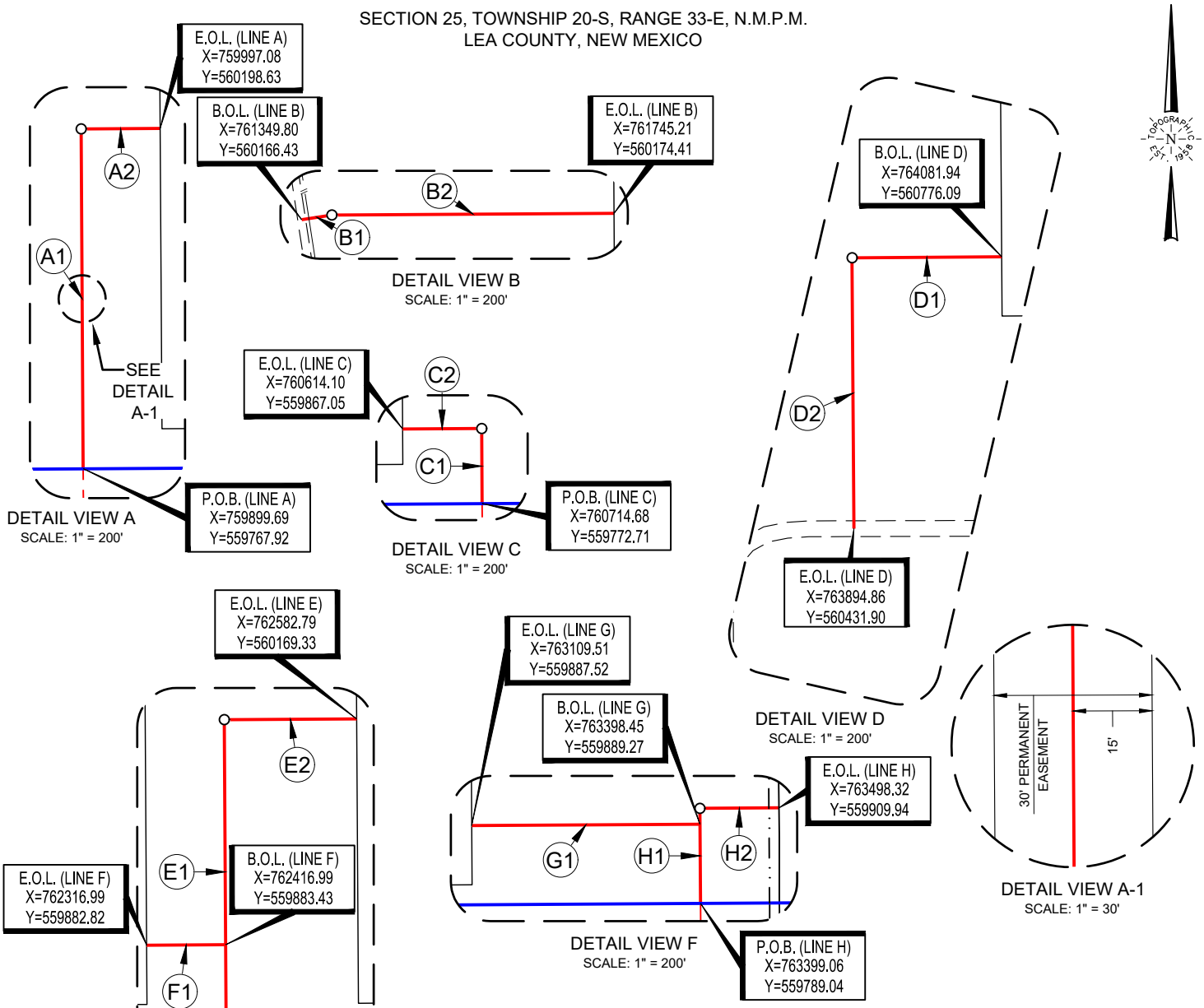
LEA COUNTY, NEW MEXICO



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LEA COUNTY, NEW MEXICO

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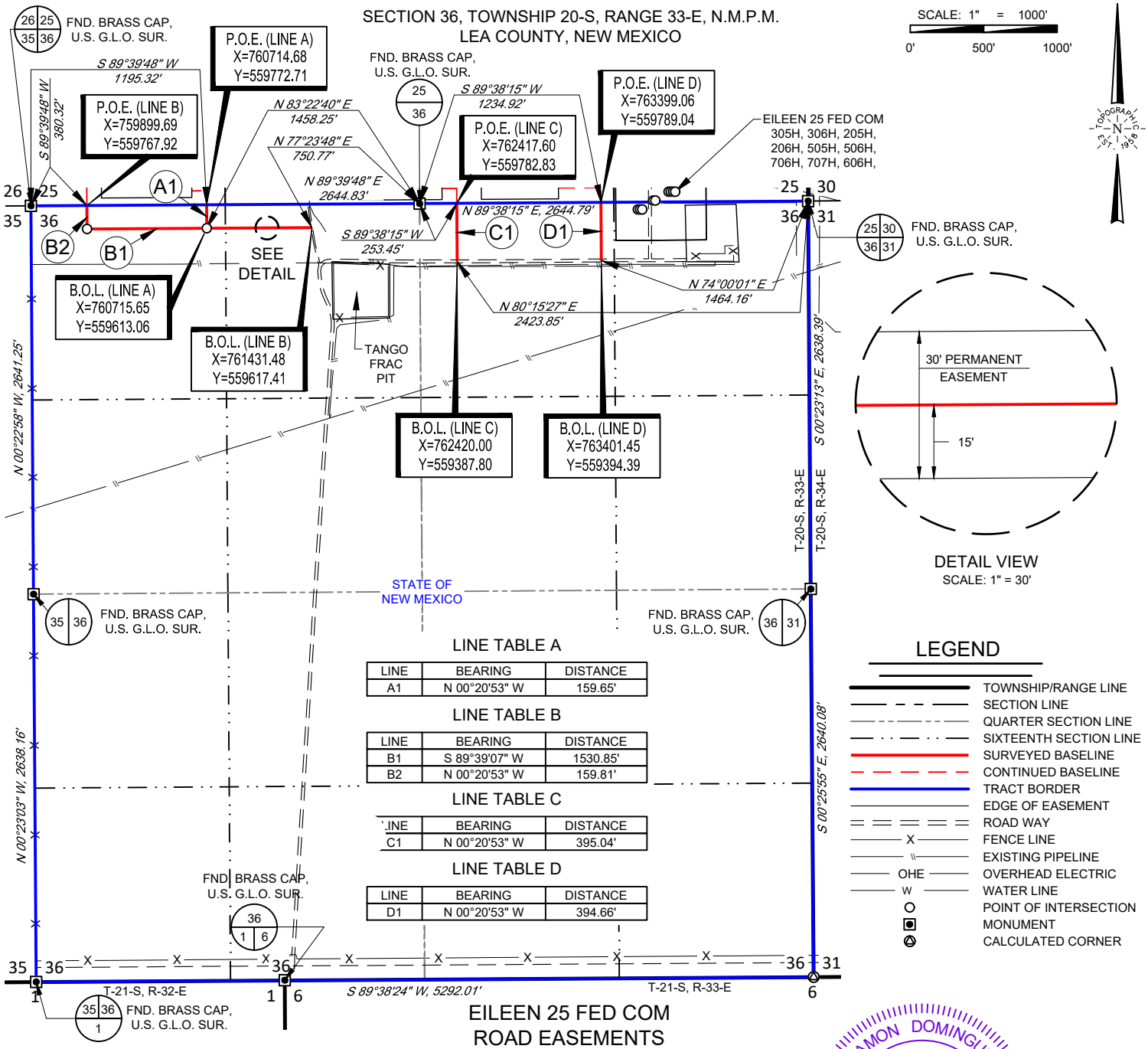

DETAIL VIEW
SCALE: 1" = 30'

LINE TABLE A

LINE	BEARING	DISTANCE
A1	N 00°20'53" W	159.65'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	S 89°39'07" W	1530.85'
B2	N 00°20'53" W	159.81'

LINE TABLE C

LINE	BEARING	DISTANCE
C1	N 00°20'53" W	395.04'

LINE TABLE D

LINE	BEARING	DISTANCE
D1	N 00°20'53" W	394.66'

LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- W — WATER LINE
- POINT OF INTERSECTION
- MONUMENT
- CALCULATED CORNER

EILEEN 25 FED COM ROAD EASEMENTS

Being proposed road easements being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2640.01 feet or 160.00 rods, containing 1.82 acres more or less and allocated by quarter quarters as follows:

NW/4 NW/4 - 1261.68 feet or 76.47 rods, containing 0.87 acres
NE/4 NW/4 - 588.63 feet or 35.67 rods, containing 0.41 acres
NW/4 NE/4 - 789.70 feet or 47.86 rods, containing 0.54 acres

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7/24/2024 9:18:49 AM

Ramon A. Dominguez, P.S. No. 24508

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EXHIBIT 3

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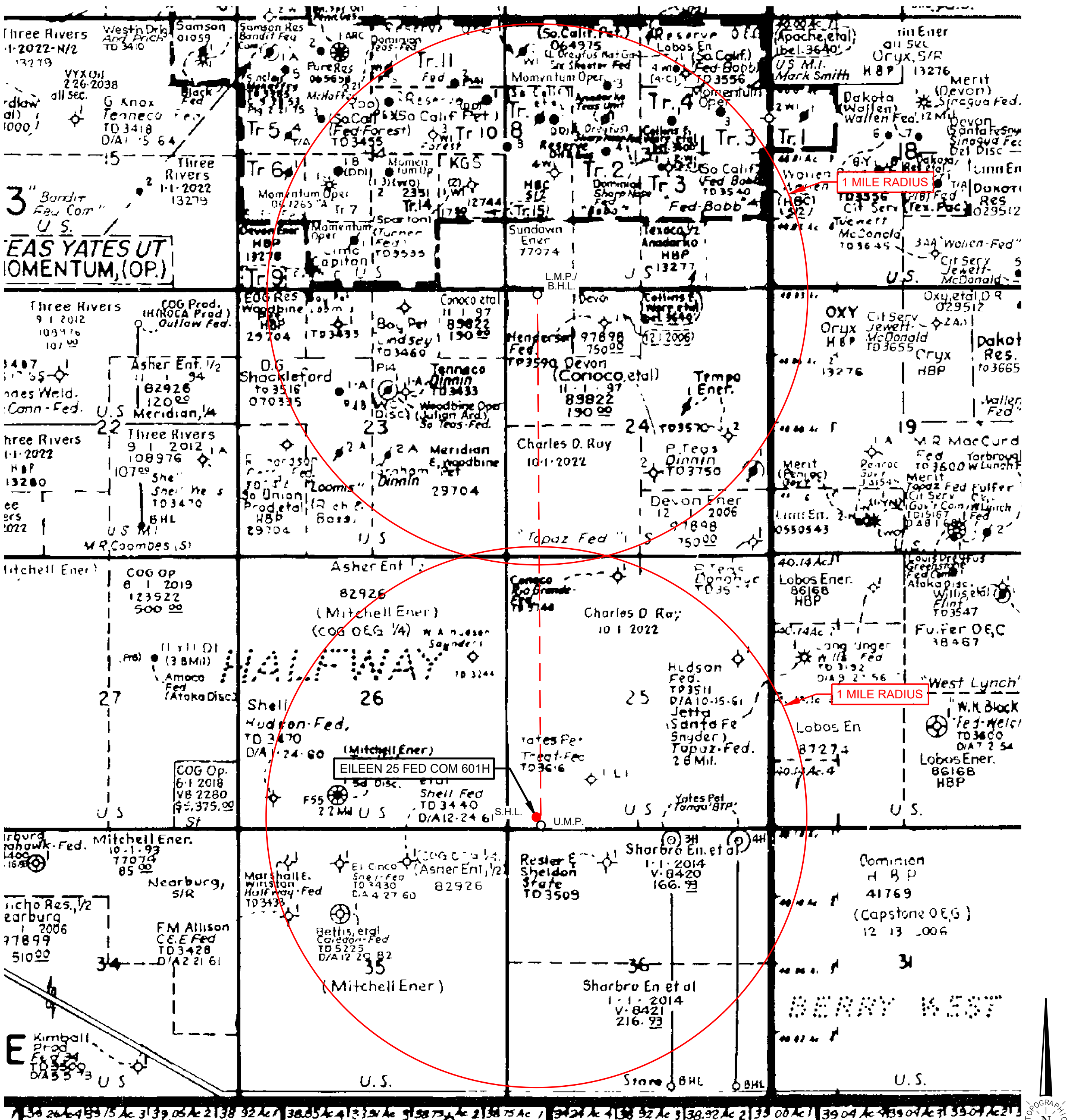

LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

601H LATITUDE N 32.5375745 601H LONGITUDE W 103.6232992

SCALE: NTS

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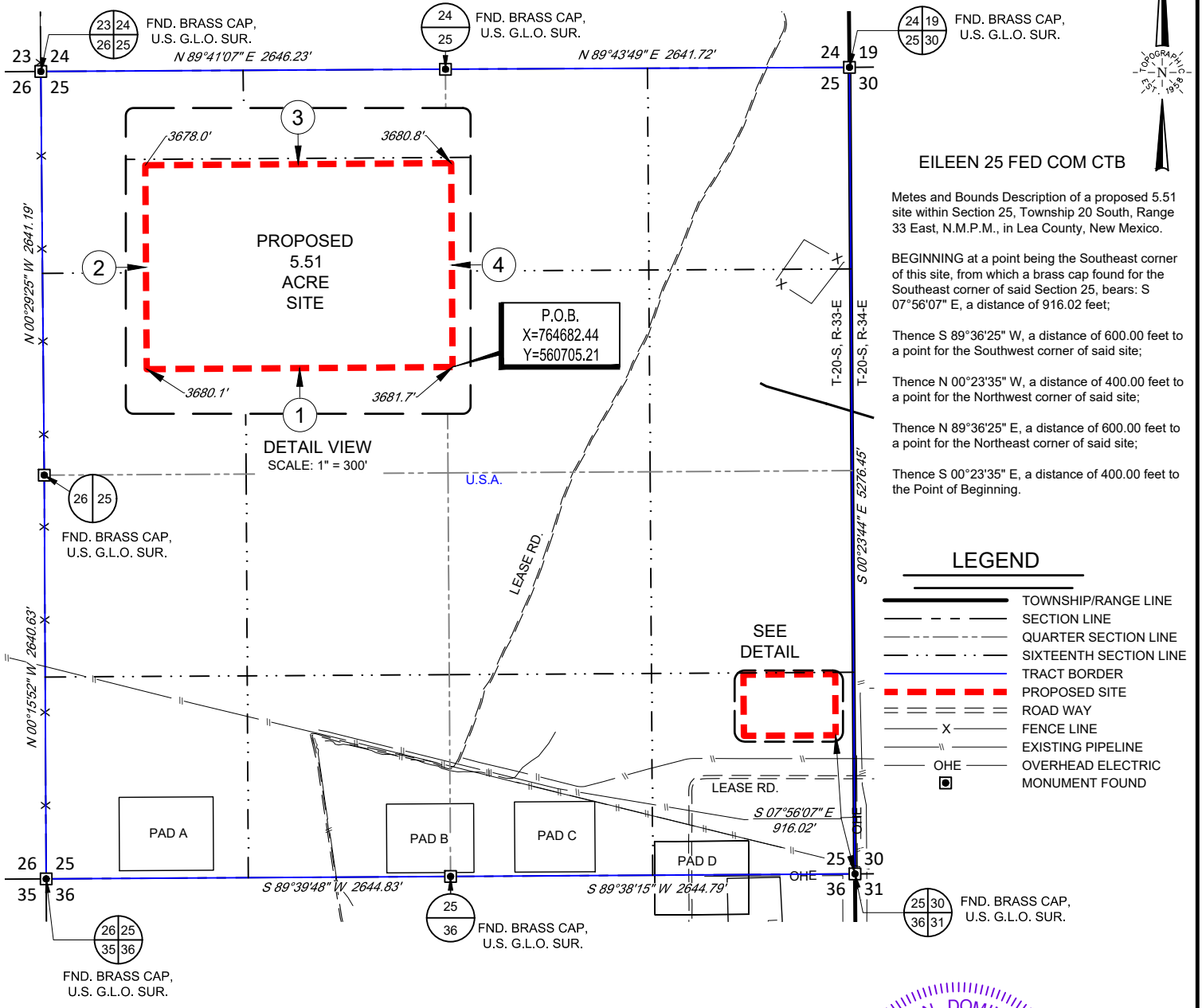
LEA COUNTY, NEW MEXICO



EILEEN 25 FED COM CTB

Metes and Bounds Description of a proposed 5.51 site within Section 25, Township 20 South, Range 33 East, N.M.P.M., in Lea County, New Mexico.

BEGINNING at a point being the Southeast corner of this site, from which a brass cap found for the Southeast corner of said Section 25, bears: S 07°56'07" E, a distance of 916.02 feet;

Thence S 89°36'25" W, a distance of 600.00 feet to a point for the Southwest corner of said site;

Thence N 00°23'35" W, a distance of 400.00 feet to a point for the Northwest corner of said site;

Thence N 89°36'25" E, a distance of 600.00 feet to a point for the Northeast corner of said site;

Thence S 00°23'35" E, a distance of 400.00 feet to the Point of Beginning.

LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- TRACT BORDER
- PROPOSED SITE
- ROAD WAY
- X — FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- MONUMENT FOUND

LINE TABLE

LINE	BEARING	DISTANCE
1	S 89°36'25" W	600.00'
2	N 00°23'35" W	400.00'
3	N 89°36'25" E	600.00'
4	S 00°23'35" E	400.00'

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:15:34 AM

Ramon A. Dominguez, P.S. No. 24508

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EILEEN 25 FED COM CTB	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: BO_EILEEN_25_FED_COM_CTB		
DRAWN BY: CSG		
SHEET : 1 OF 1		

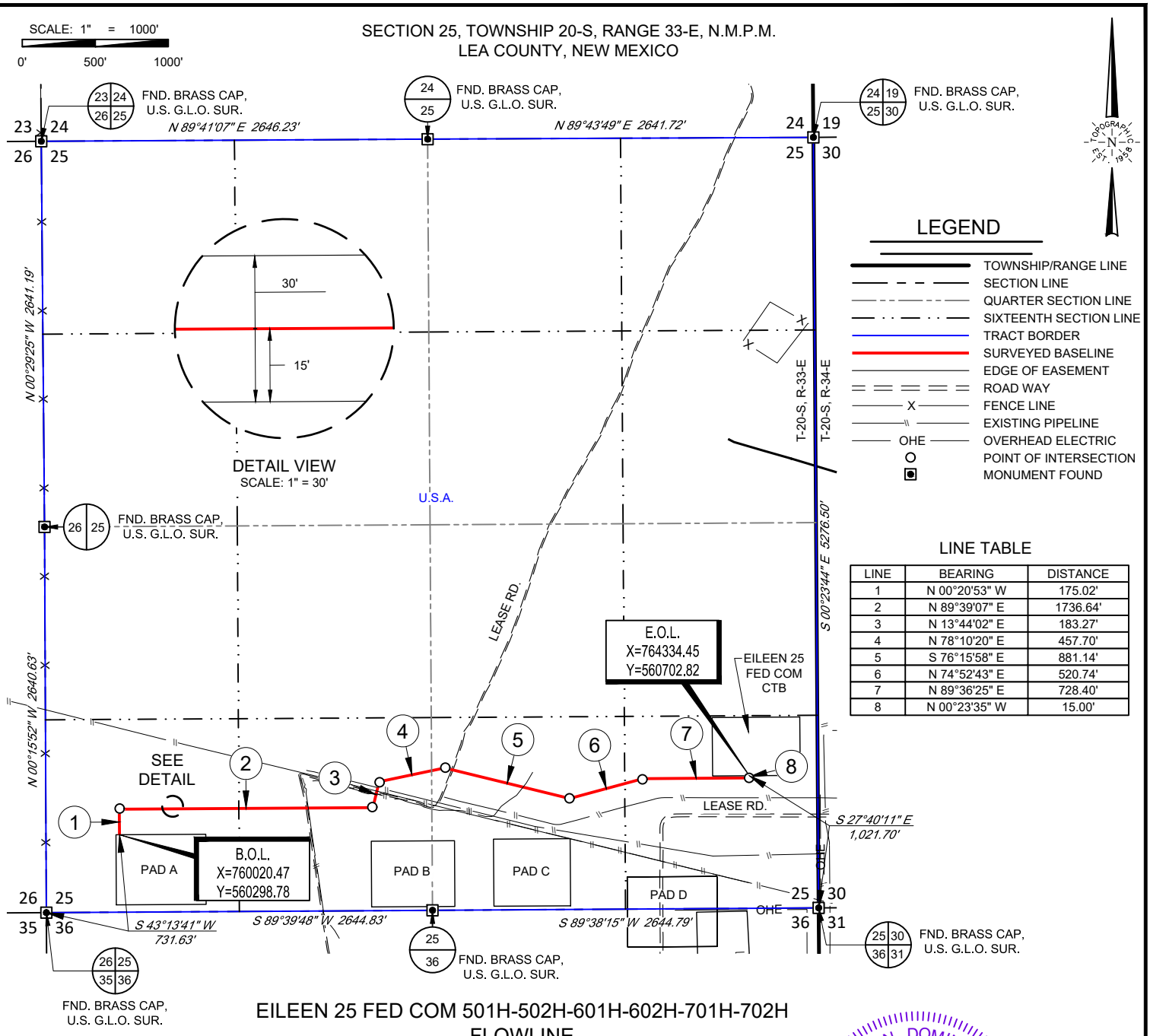
NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\BO_EILEEN_25_FED_COM_CTB.DWG 7/22/2024 11:15:33 AM wnotgrass

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT FOUND

LINE TABLE

LINE	BEARING	DISTANCE
1	N 00°20'53" W	175.02'
2	N 89°39'07" E	1736.64'
3	N 13°44'02" E	183.27'
4	N 78°10'20" E	457.70'
5	S 76°15'58" E	881.14'
6	N 74°52'43" E	520.74'
7	N 89°36'25" E	728.40'
8	N 00°23'35" W	15.00'

EILEEN 25 FED COM 501H-502H-601H-602H-701H-702H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 4,697.91 feet or 284.72 rods, containing 3.24 acres more or less.

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:16:12 AM

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
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eog resources, Inc.

EILEEN 25 FED COM 501H-502H-601H-602H 701H-702H FLOWLINE	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: EP_EILEEN_25_FED_COM_501H_502H_601H_602H_701H_702H_FL		
DRAWN BY: CSG		
SHEET : 1 OF 1		

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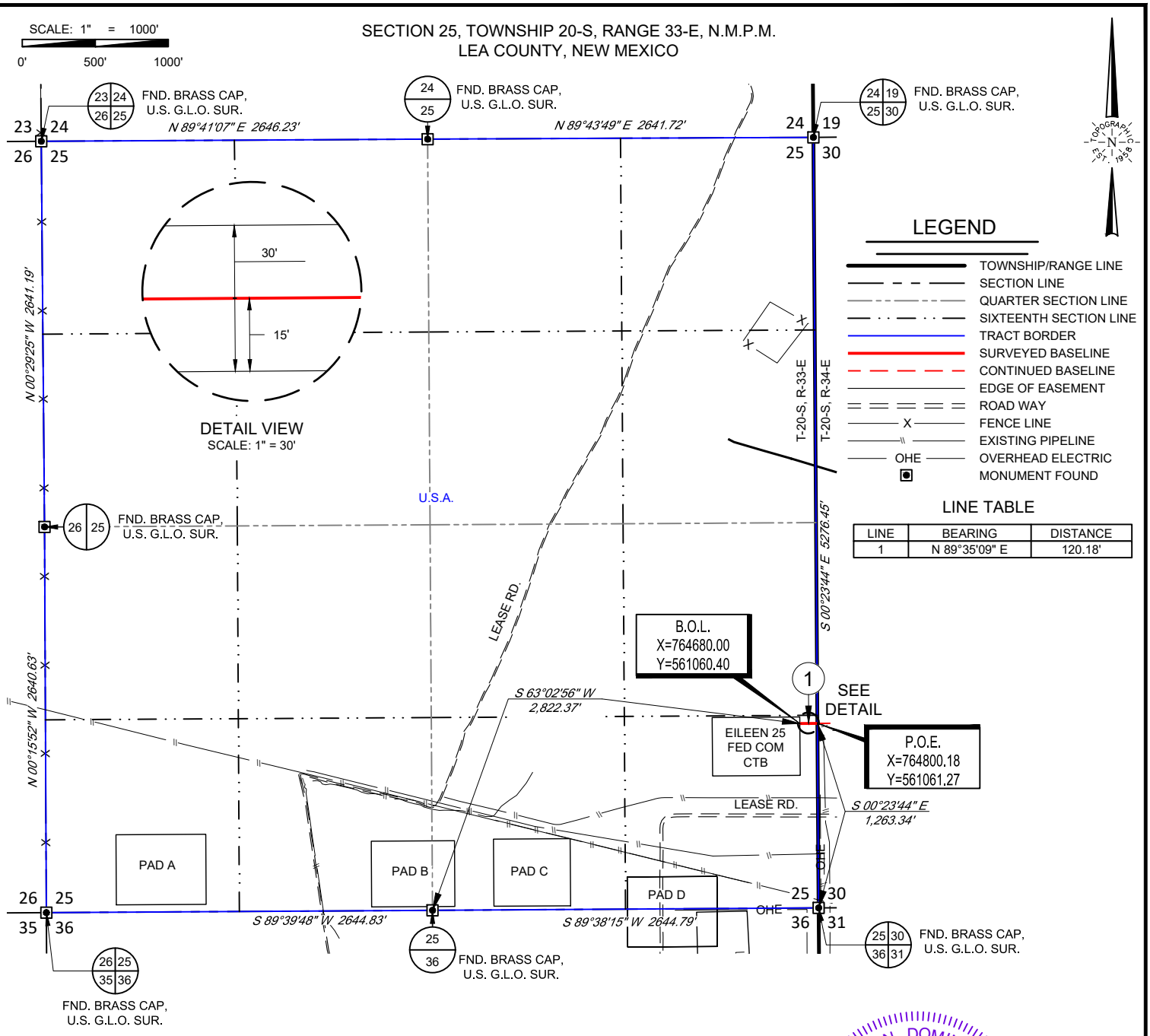
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE
- CONTINUED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- MONUMENT FOUND

LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°35'09" E	120.18'

EILEEN 25 FED COM GAS

Being a proposed gas easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 120.18 feet or 7.28 rods, containing 0.08 acres more or less.

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:17:01 AM

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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TEXAS FIRM REGISTRATION NO. 10042504
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EILEEN 25 FED COM GAS	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: EP_EILEEN_25_FED_COM_GAS_SEC25		
DRAWN BY: CSG		
SHEET : 1 OF 1		

NOTES:
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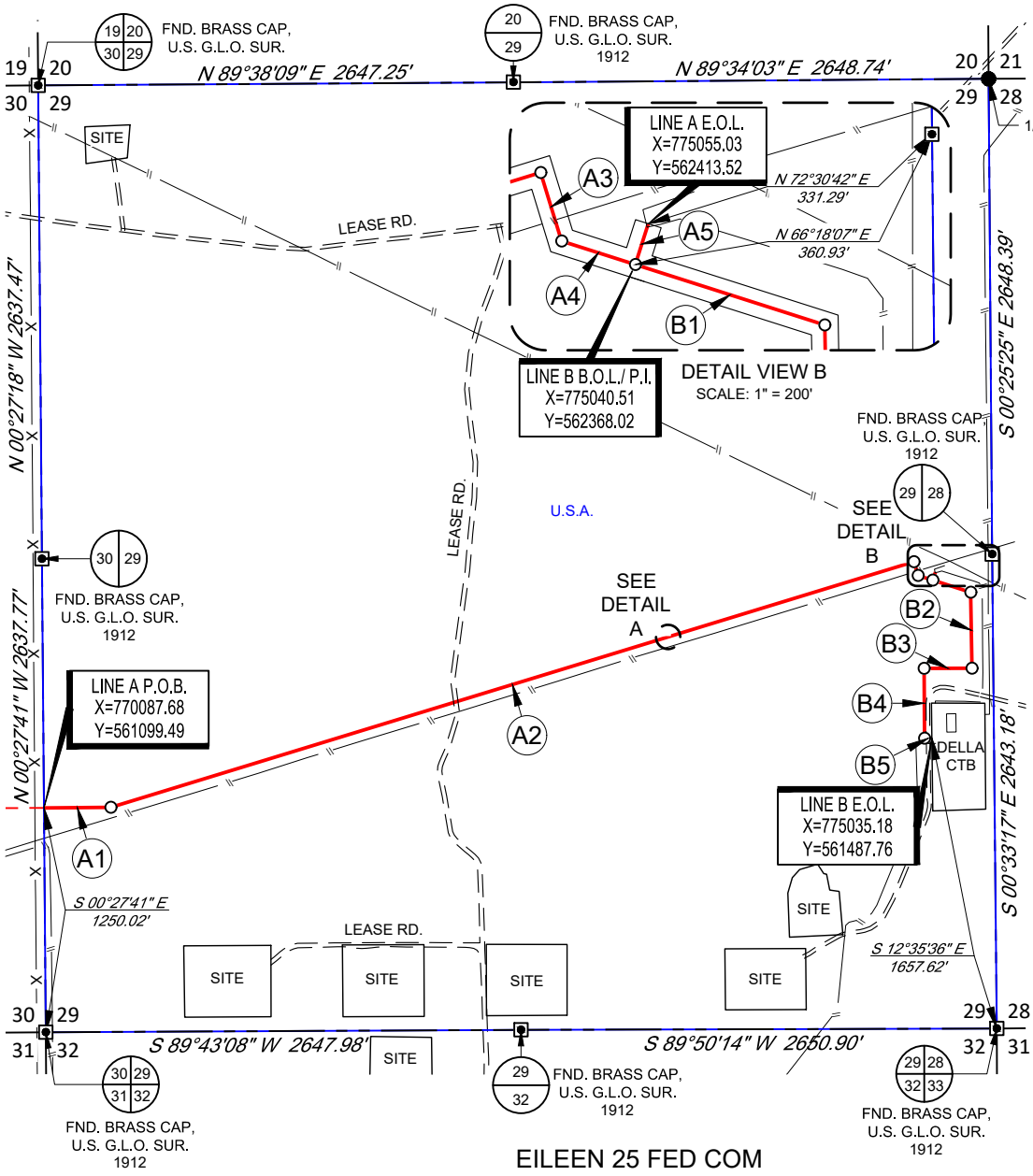
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 29, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LINE TABLE A

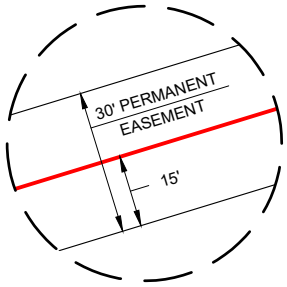
LINE	BEARING	DISTANCE
A1	N 89°35'01" E	372.90'
A2	N 72°59'46" E	4679.03'
A3	S 17°00'14" E	79.79'
A4	S 72°18'25" E	86.19'
A5	N 17°41'35" E	47.77'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	S 72°18'25" E	221.48'
B2	S 00°58'53" E	423.79'
B3	S 89°52'34" W	267.01'
B4	S 00°23'59" E	389.09'
B5	N 89°22'45" E	40.71'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- EXISTING POWER LINE
- MONUMENT
- POINT OF INTERSECTION
- IRON ROD FOUND



DETAIL VIEW A
SCALE: 1" = 40'

EILEEN 25 FED COM
GAS LINE EASEMENT

Being a proposed gas line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 6607.76 feet or 400.47 rods, containing 4.55 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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eog resources, Inc.

EILEEN 25 FED COM GAS LINE EASEMENT	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_GL_SEC29		
DRAWN BY: IMU		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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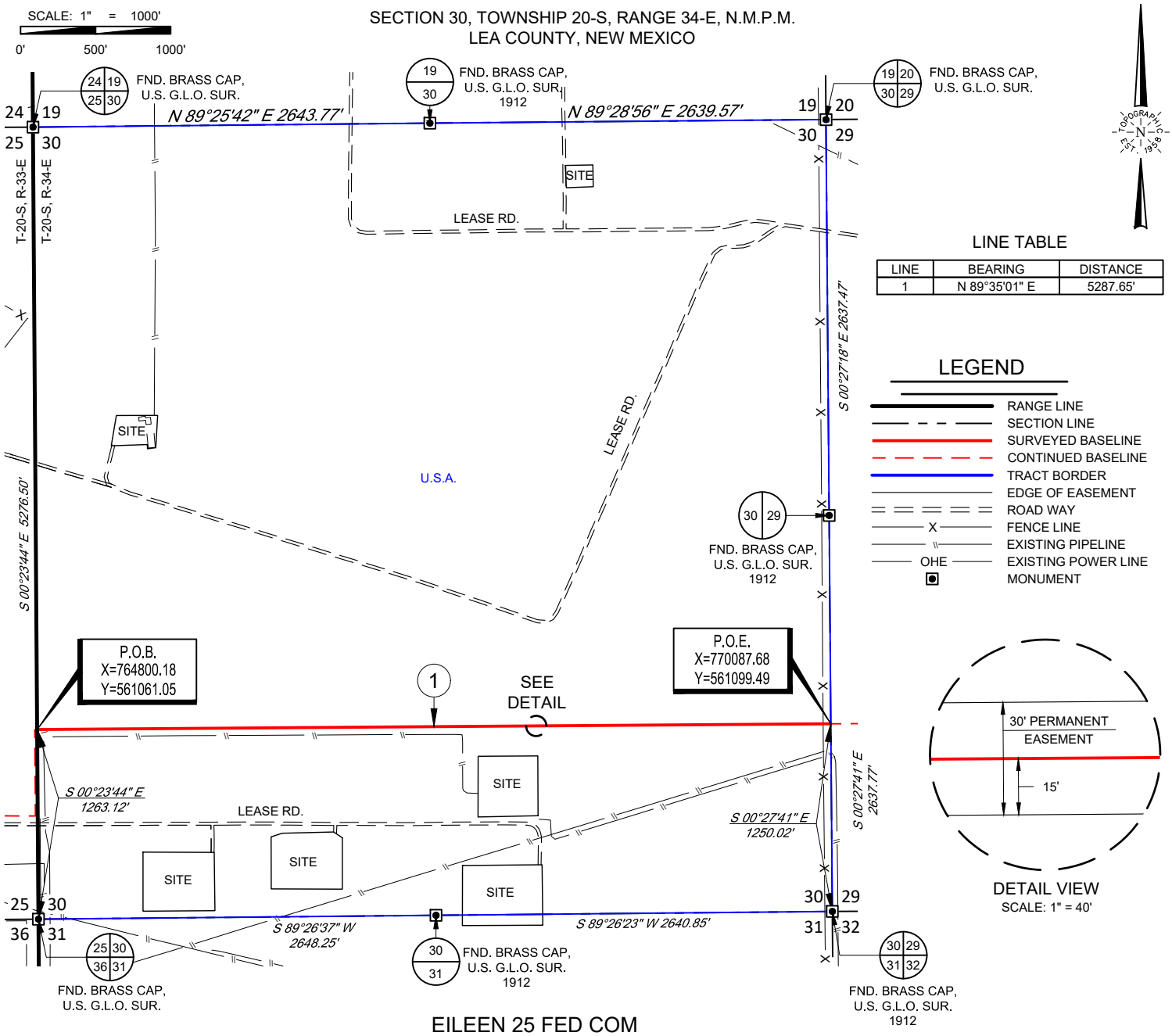
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 30, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°35'01" E	5287.65'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- EXISTING POWER LINE
- MONUMENT

DETAIL VIEW
SCALE: 1" = 40'

EILEEN 25 FED COM
GAS LINE EASEMENT

Being a proposed gas line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 5287.65 feet or 320.47 rods, containing 3.64 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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EILEEN 25 FED COM GAS LINE EASEMENT	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_GL_SEC30		
DRAWN BY: IMU		
SHEET : 1 OF 1		

NOTES:
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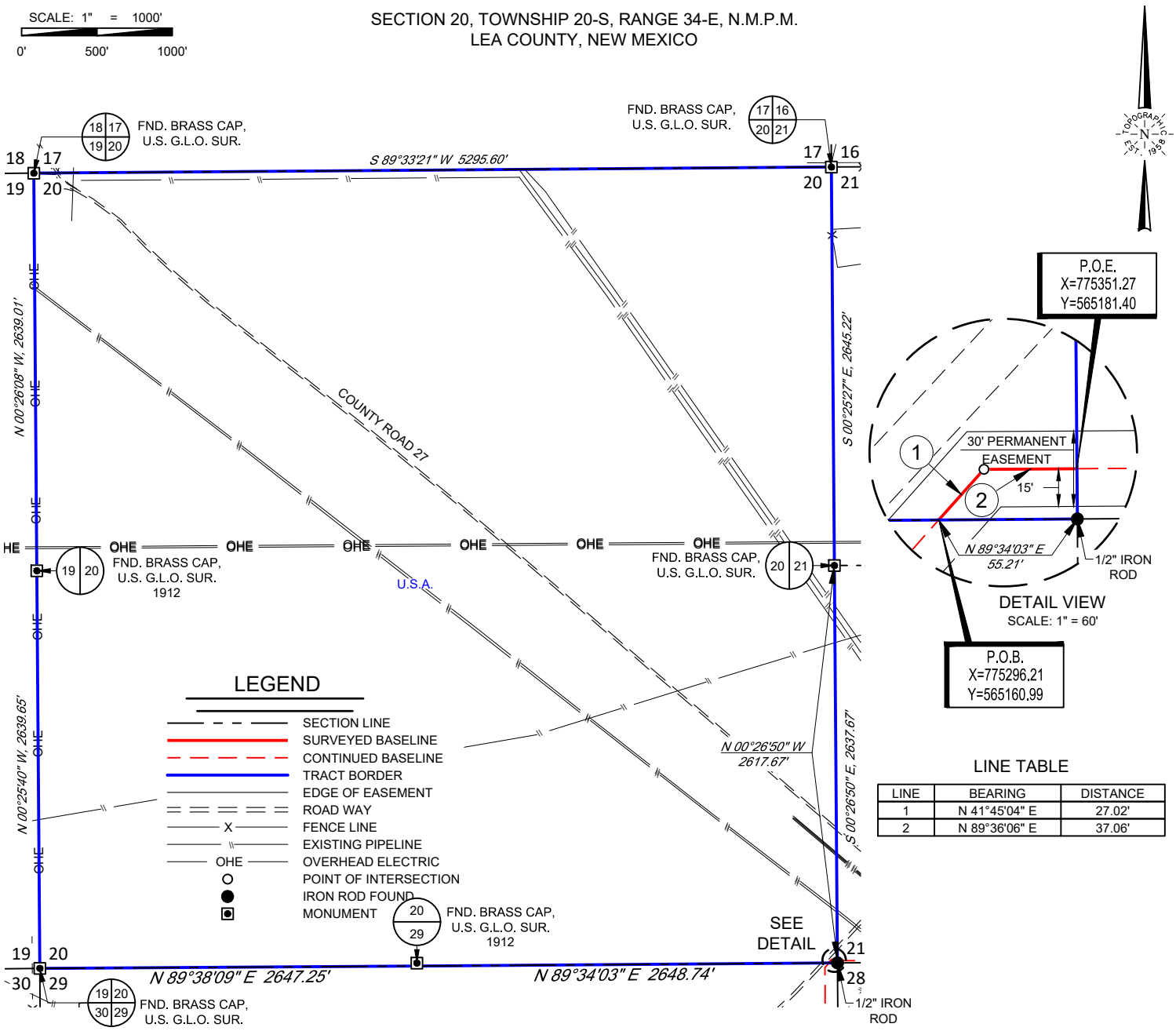
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 20, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LINE TABLE

LINE	BEARING	DISTANCE
1	N 41°45'04" E	27.02'
2	N 89°36'06" E	37.06'

EILEEN 25 FED COM WATER LINE

Being a proposed water line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 64.08 feet or 3.88 rods, containing 0.04 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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EILEEN 25 FED COM WATER LINE	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_WATER_SEC20		
DRAWN BY: MML		
SHEET : 1 OF 1		

NOTES:
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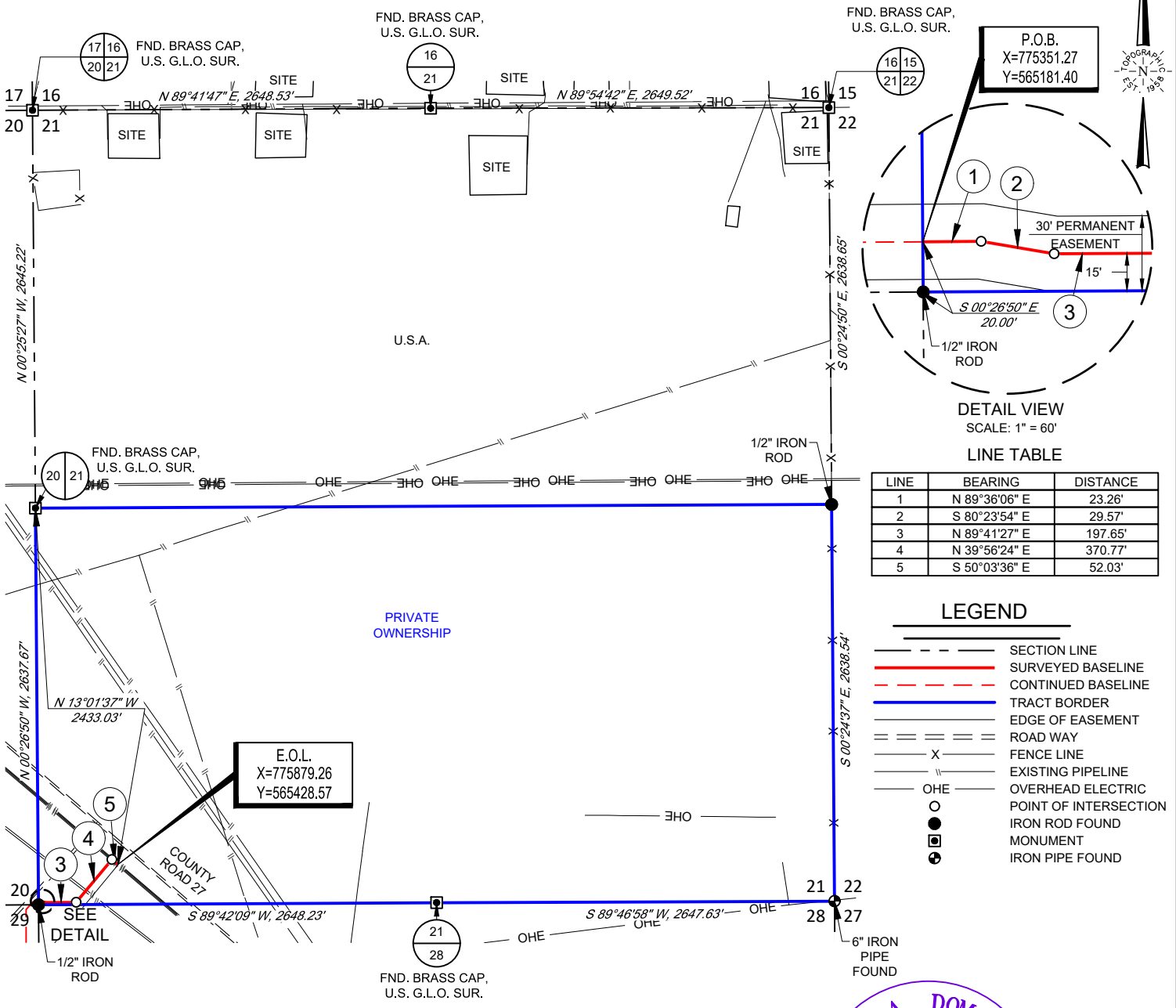
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 21, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



DETAIL VIEW
SCALE: 1" = 60'

LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°36'06" E	23.26'
2	S 80°23'54" E	29.57'
3	N 89°41'27" E	197.65'
4	N 39°56'24" E	370.77'
5	S 50°03'36" E	52.03'

LEGEND

- SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- IRON ROD FOUND
- MONUMENT
- IRON PIPE FOUND

EILEEN 25 FED COM WATER LINE

Being a proposed water line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 673.28 feet or 40.80 rods, containing 0.46 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

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EILEEN 25 FED COM WATER LINE	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_WATER_SEC21		
DRAWN BY: MML		
SHEET : 1 OF 1		

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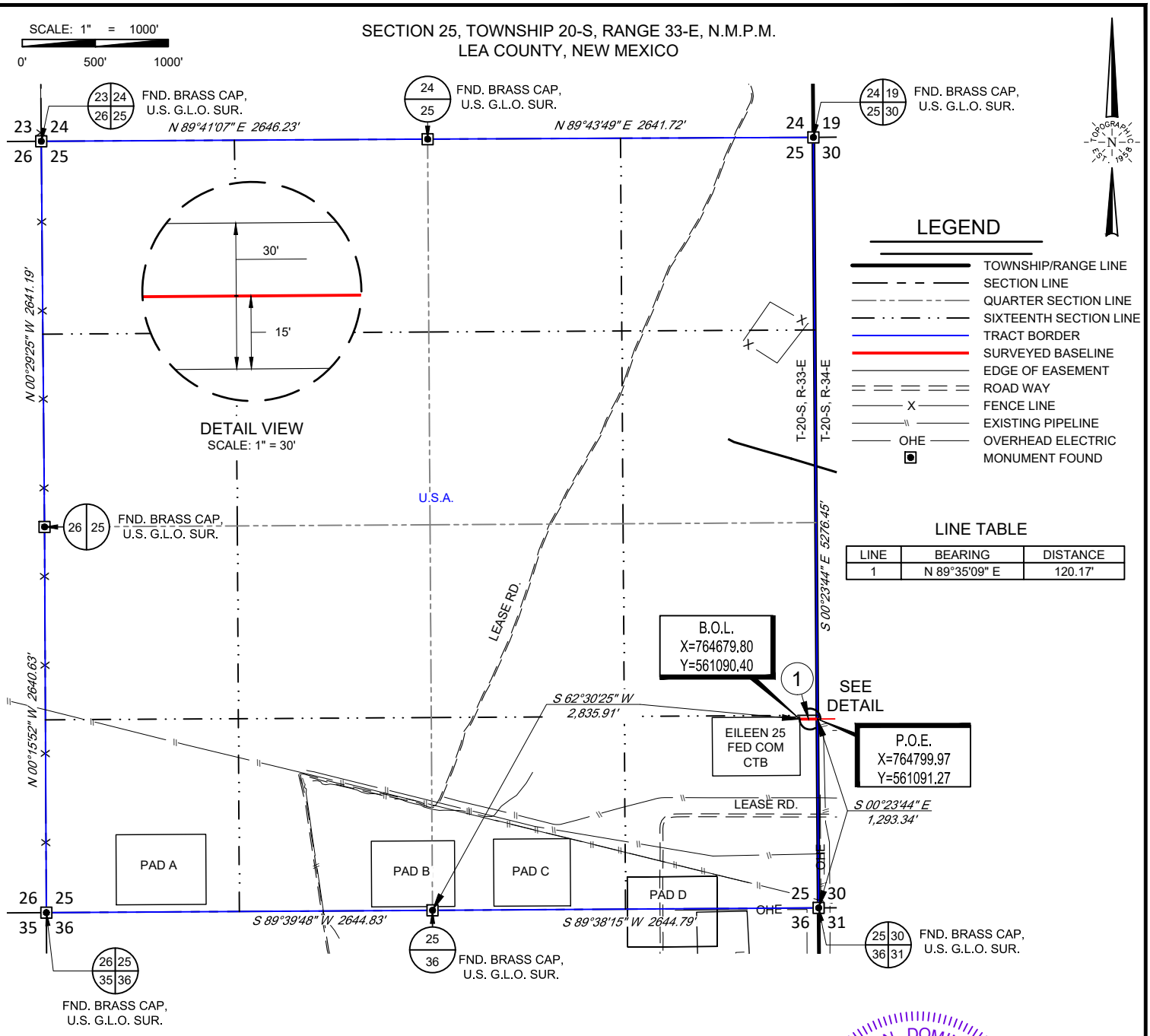
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°35'09" E	120.17'

EILEEN 25 FED COM WATER

Being a proposed water easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 120.17 feet or 7.28 rods, containing 0.08 acres more or less.

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:17:24 AM

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

eog resources, Inc.

EILEEN 25 FED COM WATER	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: EP_EILEEN_25_FED_COM_WATER_SEC25		
DRAWN BY: CSG		
SHEET : 1 OF 1		

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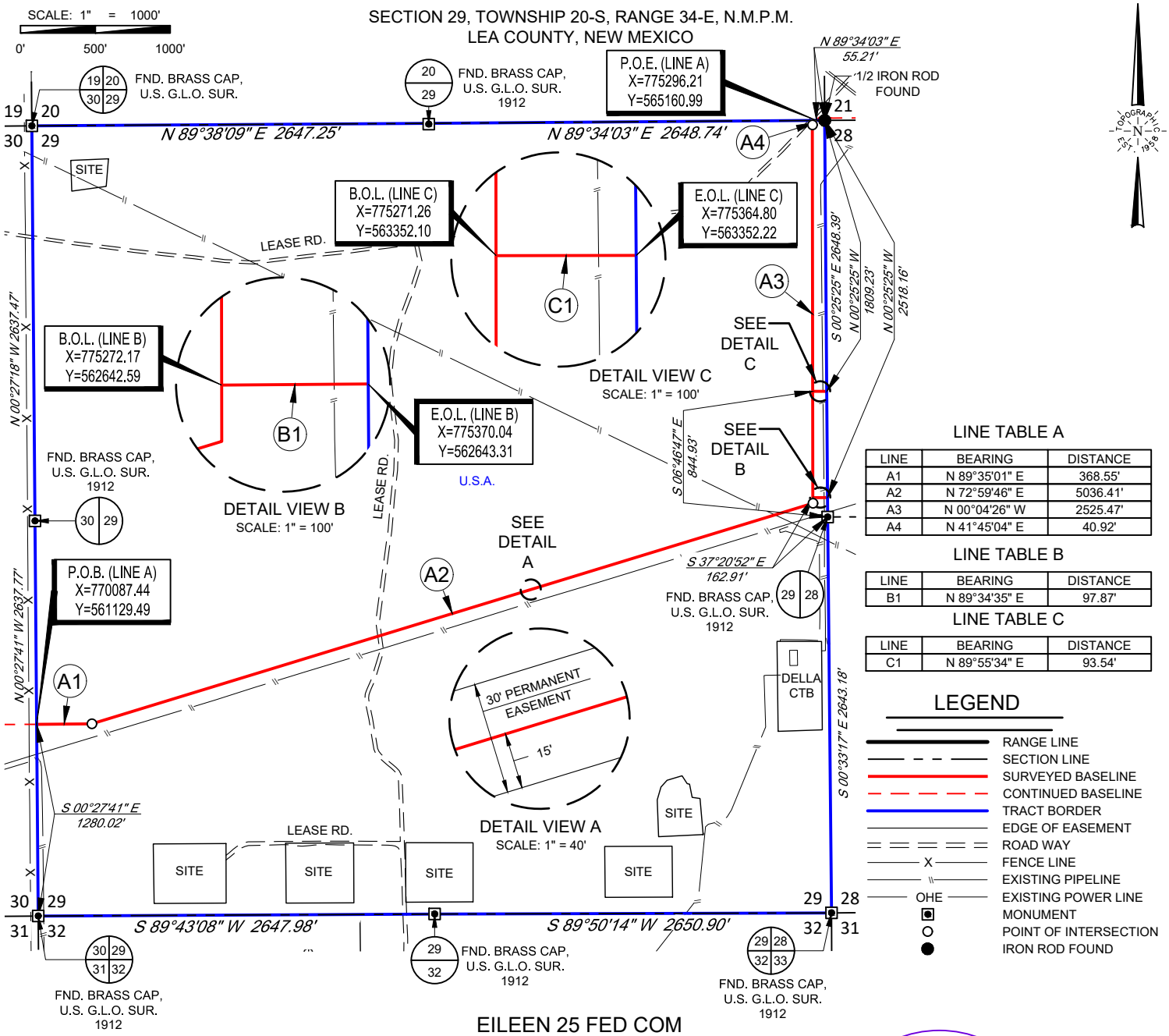
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\EP_EILEEN_25_FED_COM_WATER_SEC25.DWG 7/22/2024 11:17:23 AM wnotgrass



LINE TABLE A

LINE	BEARING	DISTANCE
A1	N 89°35'01" E	368.55'
A2	N 72°59'46" E	5036.41'
A3	N 00°04'26" W	2525.47'
A4	N 41°45'04" E	40.92'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	N 89°34'35" E	97.87'

LINE TABLE C

LINE	BEARING	DISTANCE
C1	N 89°55'34" E	93.54'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- EXISTING POWER LINE
- MONUMENT
- POINT OF INTERSECTION
- IRON ROD FOUND

EILEEN 25 FED COM WATER LINE

Being a proposed water line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 8162.76 feet or 494.71 rods, containing 5.62 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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eog resources, inc.

EILEEN 25 FED COM WATER LINE	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_WATER_SEC29		
DRAWN BY: MML		
SHEET : 1 OF 1		

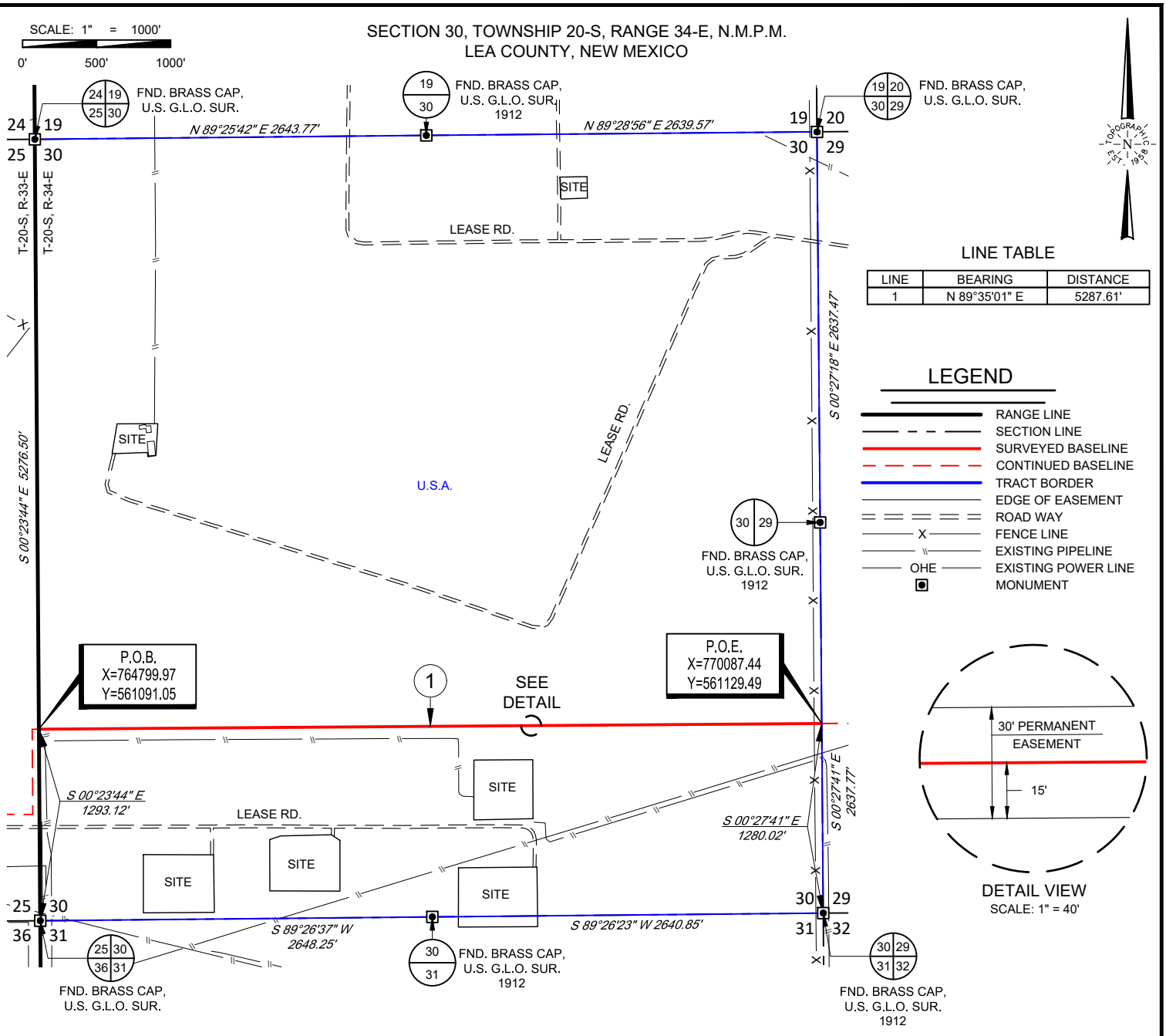
NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\EP_EILEEN_25_FC_WATER_SEC29.DWG 10/2/2021 11:26:13 AM adisabella

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 30, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°35'01" E	5287.61'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- CONTINUED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- EXISTING POWER LINE
- MONUMENT

DETAIL VIEW
SCALE: 1" = 40'

EILEEN 25 FED COM WATER LINE

Being a proposed water line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 5287.61 feet or 320.46 rods, containing 3.64 acres more or less.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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EILEEN 25 FED COM WATER LINE	REVISION: INT	DATE
DATE: 09/30/21		
FILE: EP_EILEEN_25_FC_WATER_SEC30		
DRAWN BY: MML		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

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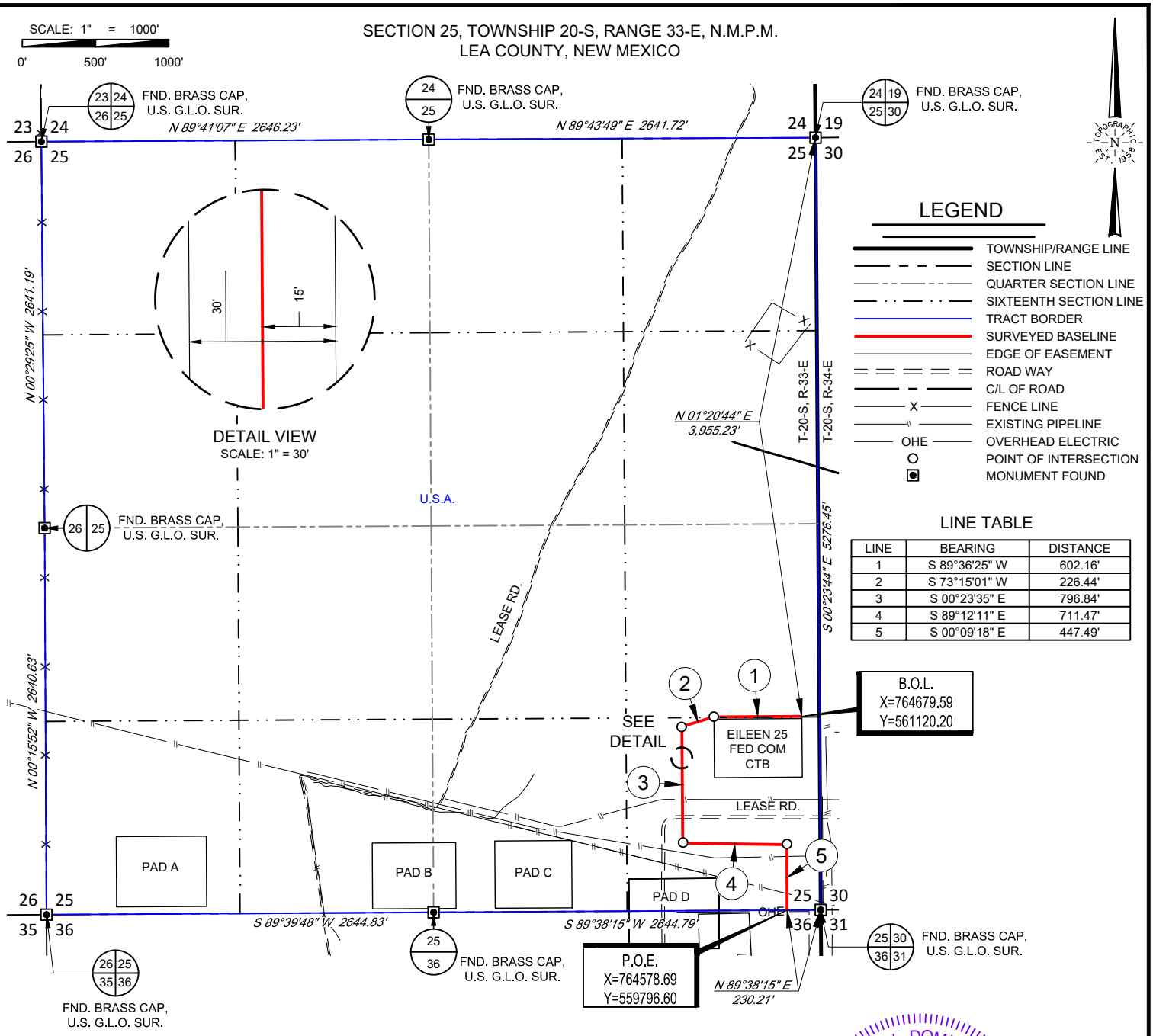
SCALE: 1" = 1000'

0' 500' 1000'

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- C/L OF ROAD
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- POINT OF INTERSECTION
- MONUMENT FOUND

LINE TABLE

LINE	BEARING	DISTANCE
1	S 89°36'25" W	602.16'
2	S 73°15'01" W	226.44'
3	S 00°23'35" E	796.84'
4	S 89°12'11" E	711.47'
5	S 00°09'18" E	447.49'

EILEEN 25 FED COM ELECTRICAL

Being a proposed electrical easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2,784.50 feet or 168.76 rods, containing 1.92 acres more or less.

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:16:37 AM

Ramon A. Dominguez, P.S. No. 24508

TOPOGRAPHIC LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

eog resources, inc.

EILEEN 25 FED COM ELECTRICAL	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: EP_EILEEN_25_FED_COM_ELECTRIC_SEC25		
DRAWN BY: CSG		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
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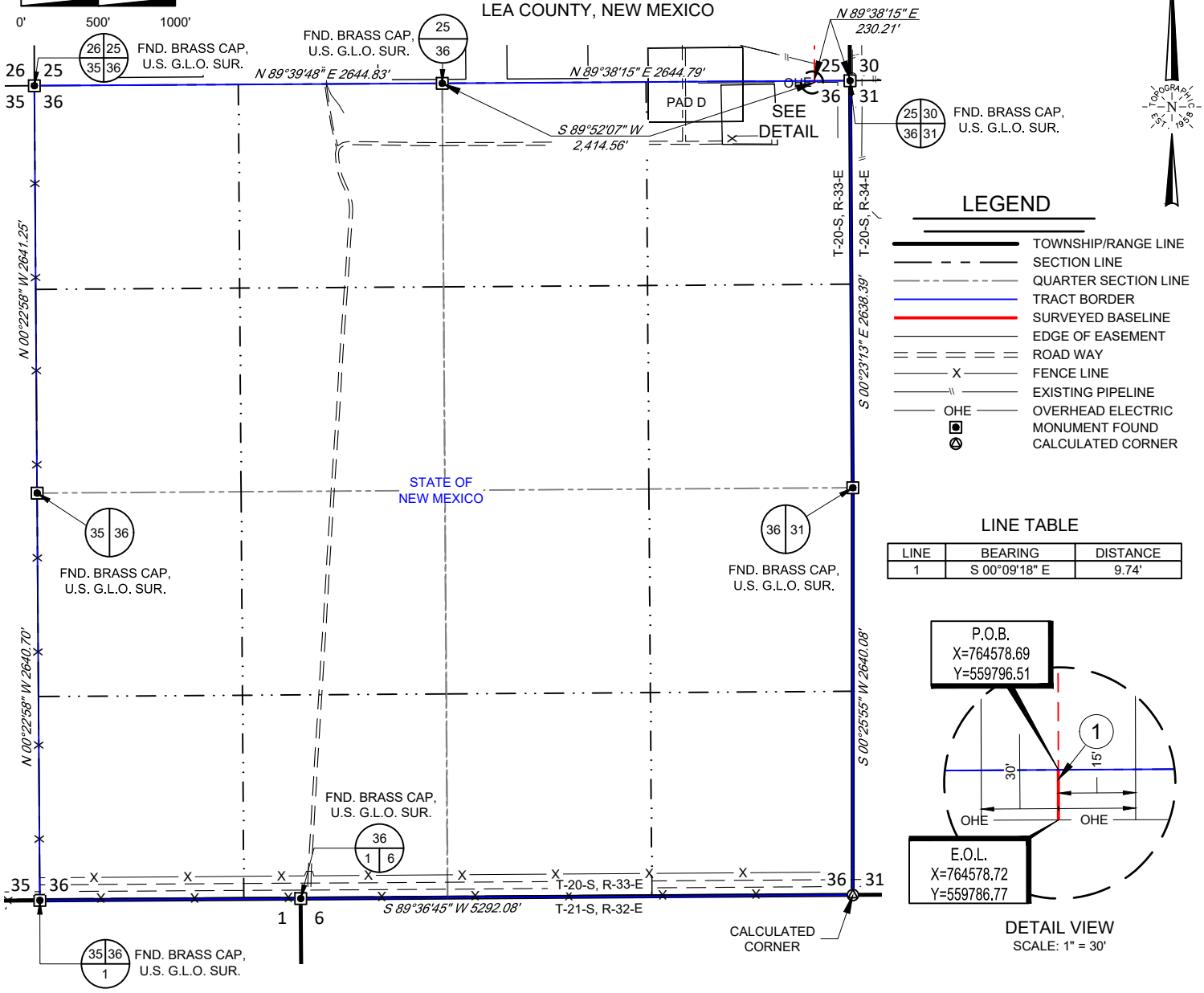
S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\EP_EILEEN_25_FED_COM_ELECTRIC_SEC25.DWG 7/22/2024 11:16:36 AM wnotgrass

SCALE: 1" = 1000'

0' 500' 1000'

SECTION 36, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEGEND

- TOWNSHIP/RANGE LINE
- SECTION LINE
- QUARTER SECTION LINE
- TRACT BORDER
- SURVEYED BASELINE
- EDGE OF EASEMENT
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- MONUMENT FOUND
- CALCULATED CORNER

LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°09'18" E	9.74'

DETAIL VIEW
SCALE: 1" = 30'

EILEEN 25 FED COM ELECTRICAL

Being a proposed electrical easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 9.74 feet or 0.59 rods, containing 0.01 acres more or less and allocated by quarter quarters as follows:

NE/4 NE/4 - 9.74 or 0.59 rods, containing 0.01 acres

RAMON DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

7/22/2024 11:16:49 AM

Ramon A. Dominguez, P.S. No. 24508

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481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
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TEXAS FIRM REGISTRATION NO. 10042504
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EILEEN 25 FED COM ELECTRICAL	REVISION: INT	DATE
DATE: 07/17/2024		
FILE: EP_EILEEN_25_FED_COM_ELECTRIC_SEC36		
DRAWN BY: CSG		
SHEET : 1 OF 1		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
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5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

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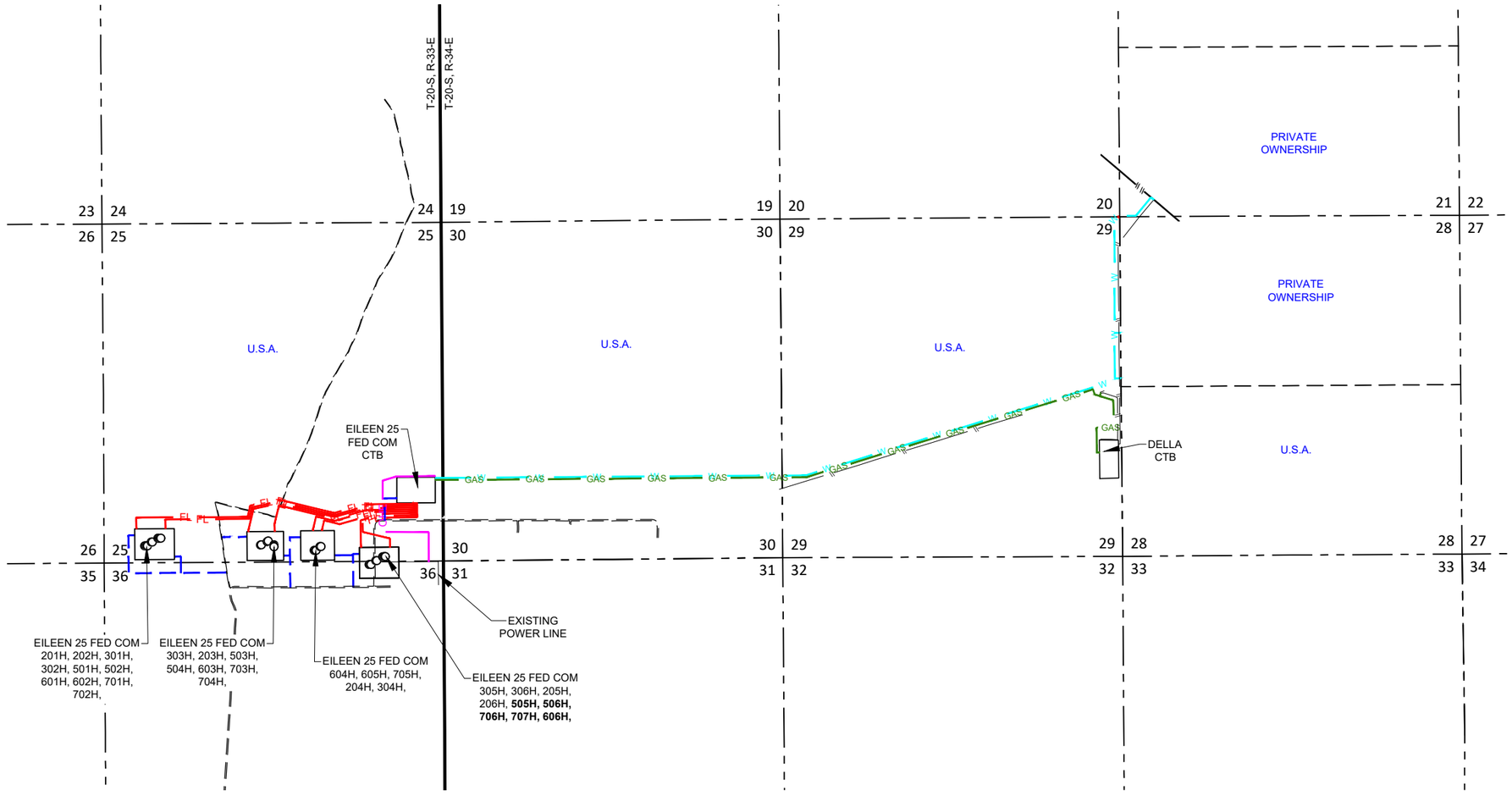
EXHIBIT 5

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
SECTIONS 20,21,29, & 30, TOWNSHIP 20-S, RANGE 34-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

EILEEN 25 FED COM
OVERALL SKETCH

eog resources, inc.

SCALE: 1" = 2000'
0' 1000' 2000'



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LOYALTY INNOVATION LEGACY
481 WINSCOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
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LEGEND

- TOWNSHIP LINE
- SECTION LINE
- PROPOSED ROAD
- FL — PROPOSED FLOWLINE
- LIFT — PROPOSED GAS LIFT LINE
- OHE — PROPOSED ELECTRIC
- W — PROPOSED WATER LINE
- GAS — PROPOSED GAS LINE
- OIL — PROPOSED OIL LINE
- ROAD WAY
- EXISTING PIPELINE
- OHE — EXISTING POWER LINE

EILEEN 25 FED COM OVERALL SKETCH	REVISION:	
	JTS	07/23/2024
DATE: 09/23/2021		
FILE: SK_EILEEN_25_FC_OVERALL_REV1		
DRAWN BY: MML		
SHEET : 1 OF 1		

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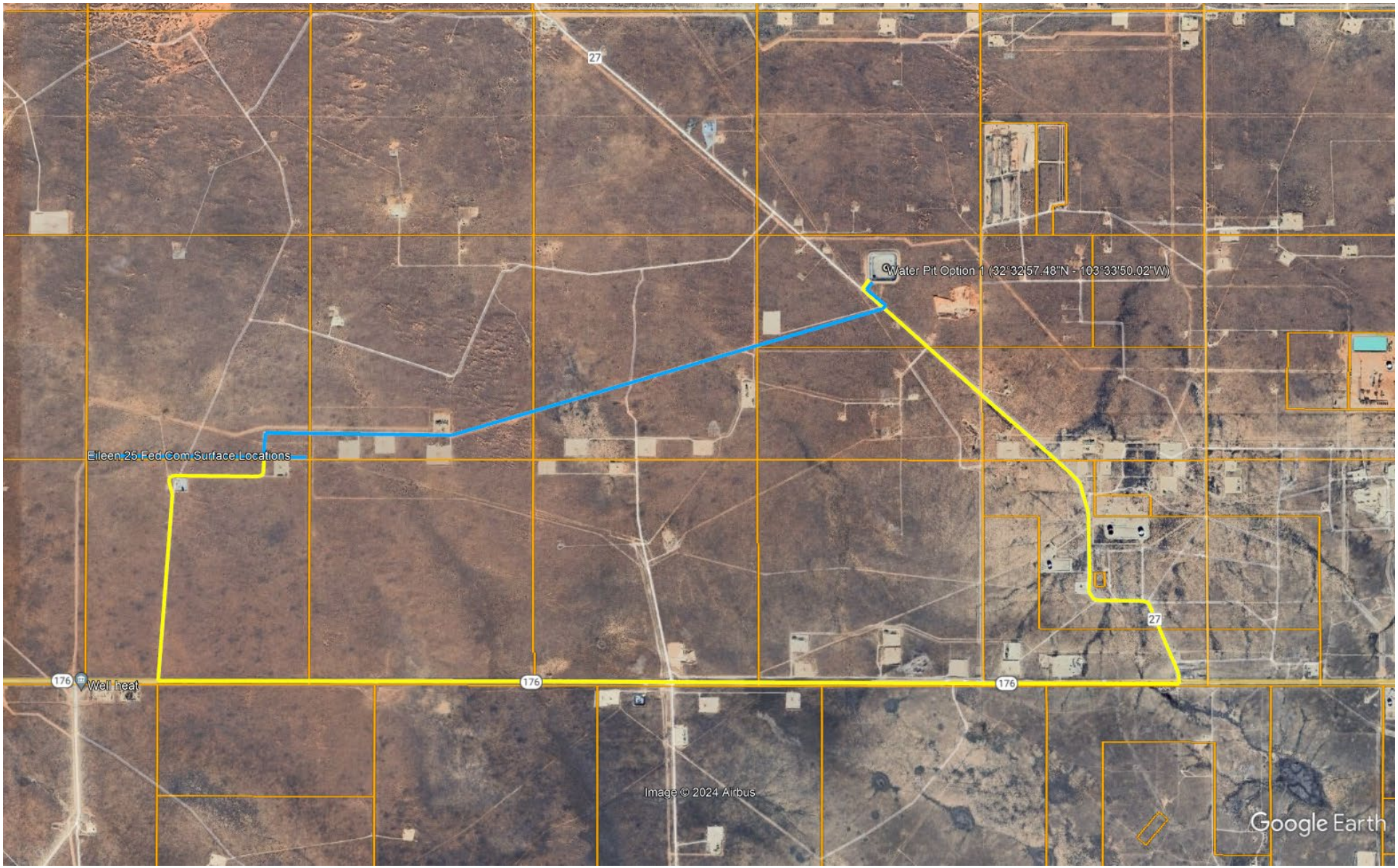
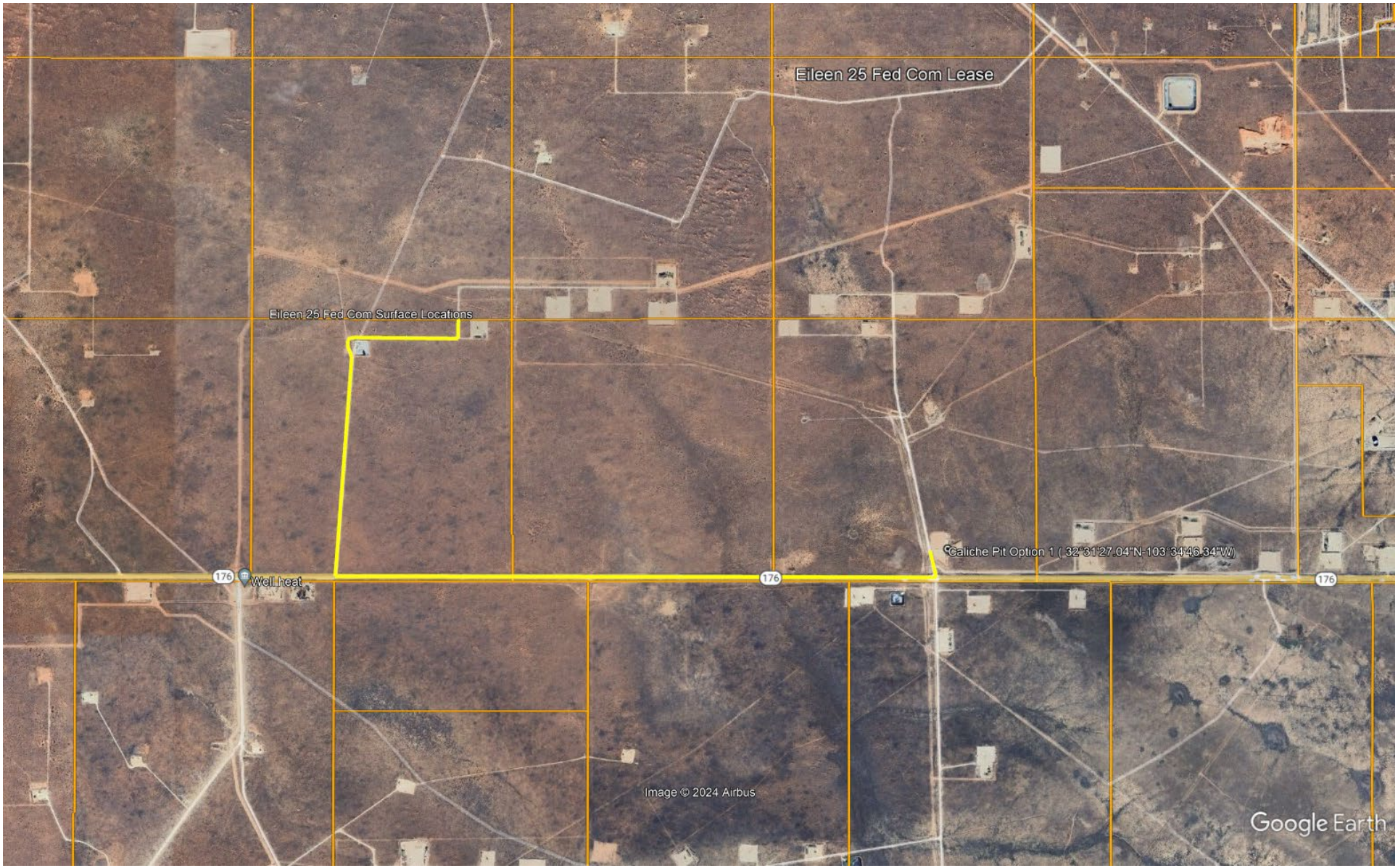
Eileen 25 Fed Com Water Map



Water Pit Option 1 is in the NW4/NE4 of Section 28, Township 20S, Range 34E (32°32'57.48"N—103°33'50.02" W). The plan is to lay six (12”) above-ground flat lines following existing disturbances from the pit to the Eileen locations. The Line would leave the pit crossing Sections 28, 29, 30, Township 20S, Range 34E, and Section 25, Township 20S, Range 33E for approx. 3.5 miles. Access would be using Hwy 27 from the pit, heading south for 2.51 miles, turning right, heading west on Hwy 176 for 4.58 miles, turning right onto the lease road, and heading north for 1.32 miles.

Caliche Map Eileen 25 Fed Com



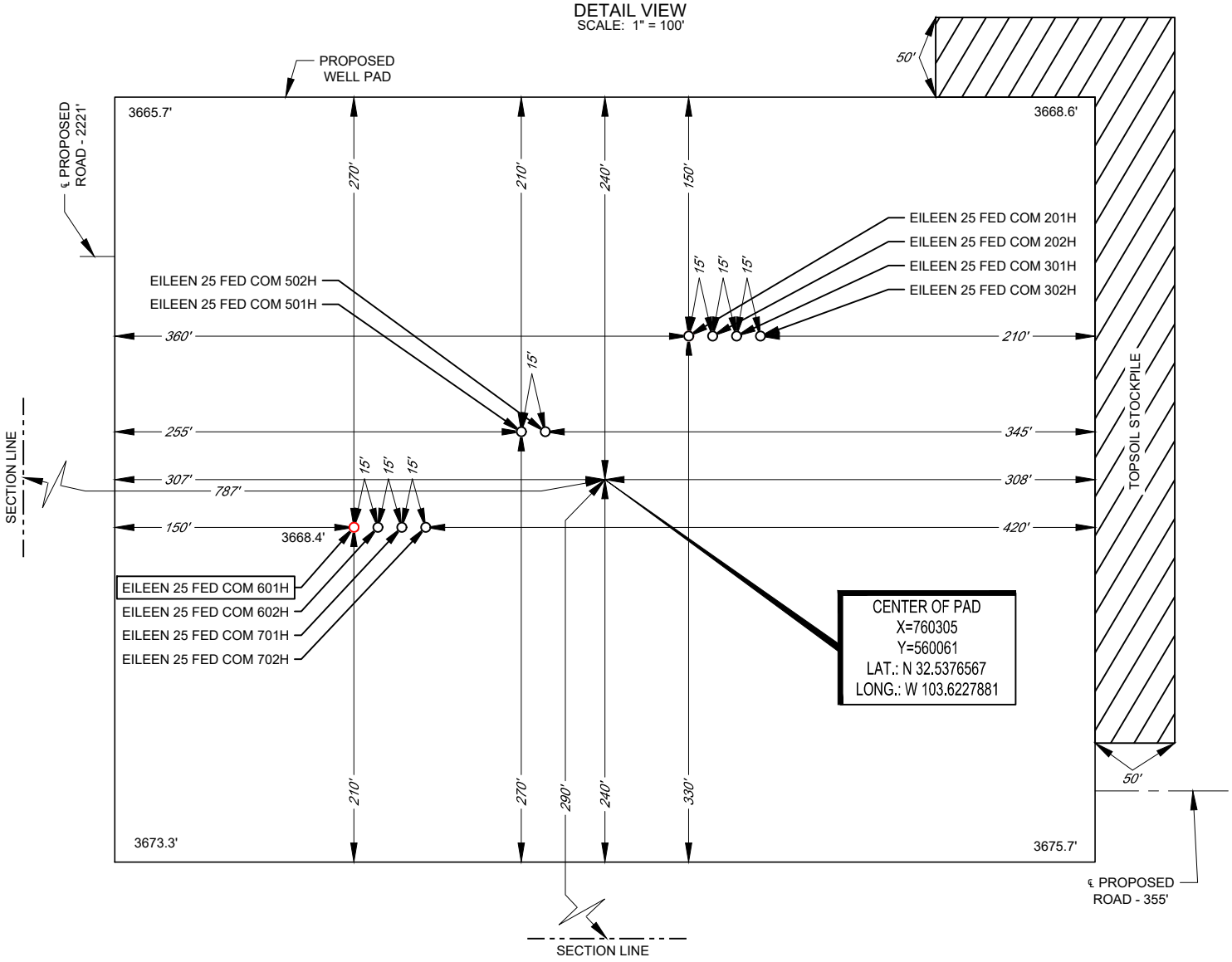
Caliche Pit Option 1 is located in the SW4/SW4 of Section 32, Township 20S, Range 34E, in Lea County, New Mexico (32°31'27.04”N - 103°34'46.34”W). From Hwy 176, head west for 2.30. Turn right onto Lease Road, heading north for 1.35 miles.

EXHIBIT 2B

eog resources, inc.

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

601H LATITUDE N 32.5375745 601H LONGITUDE W 103.6232992

CENTER OF PAD IS 290' FSL & 787' FWL

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508

SCALE: 1" = 100'

0' 50' 100'

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

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LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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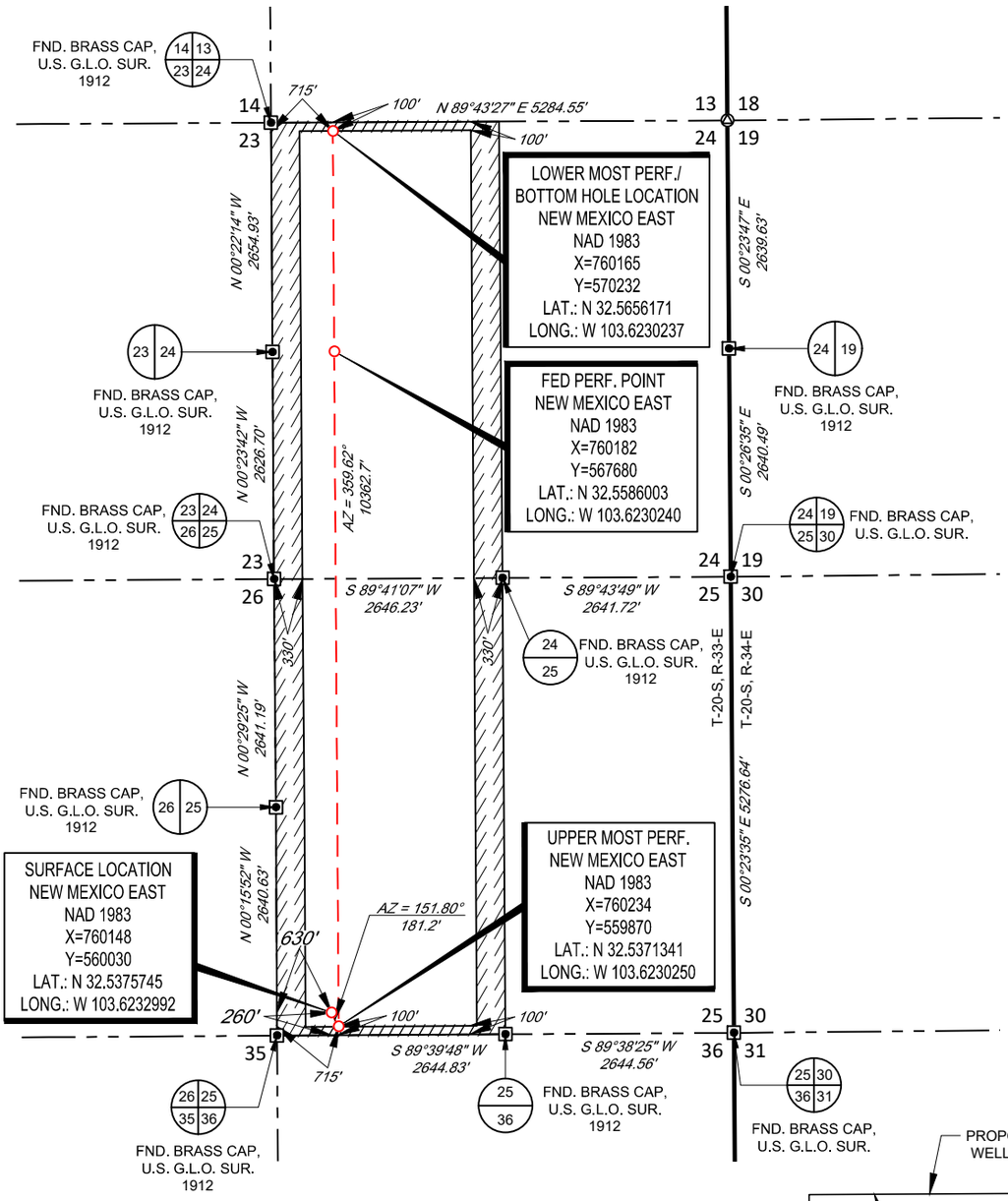
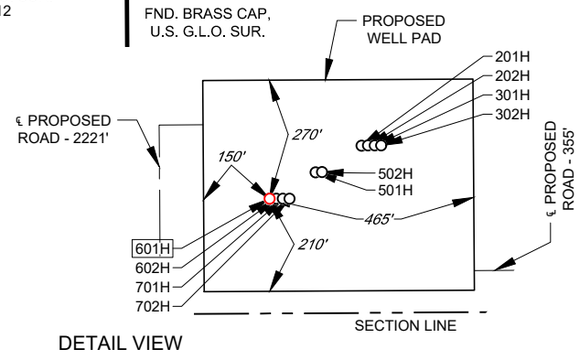
EXHIBIT 2A

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO





DETAIL VIEW
SCALE: 1" = 400'

SCALE: 1" = 2000'
0' 1000' 2000'

LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

SECTION 25 TWP 20-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 260' FSL & 630' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-18 N. & US-180, GO WEST ON US-180 ±23.6 MILES, THENCE SOUTH (LEFT) ON COUNTY RD. 27-A ±7.9 MILES, THENCE WEST (RIGHT) ON NM-176 W ±5.7 MILES, THENCE NORTH (RIGHT) ON A LEASE ROAD ±1.0 MILES, THENCE WEST (LEFT) ON A PROPOSED ROAD ±2221 FEET TO A POINT ±227 FEET NORTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508
September 08, 2021

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\LO_EILEEN_25_FED_COM_601H.DWG 11/2/2021 10:54:27 AM kenneth.stallings

Exhibit 4

Well Site Diagram

EOG Resources
Eileen 25 Fed Com #601H

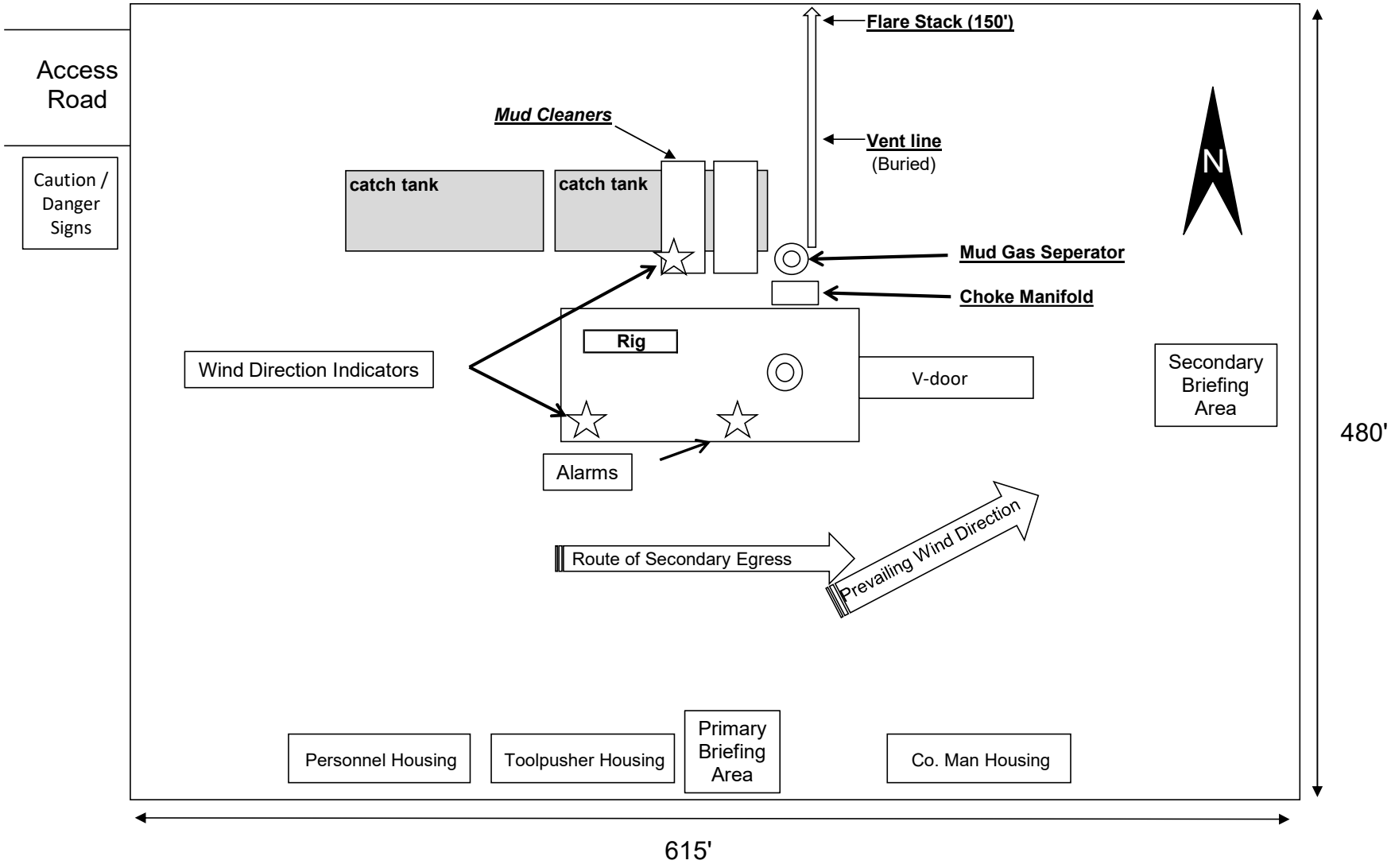
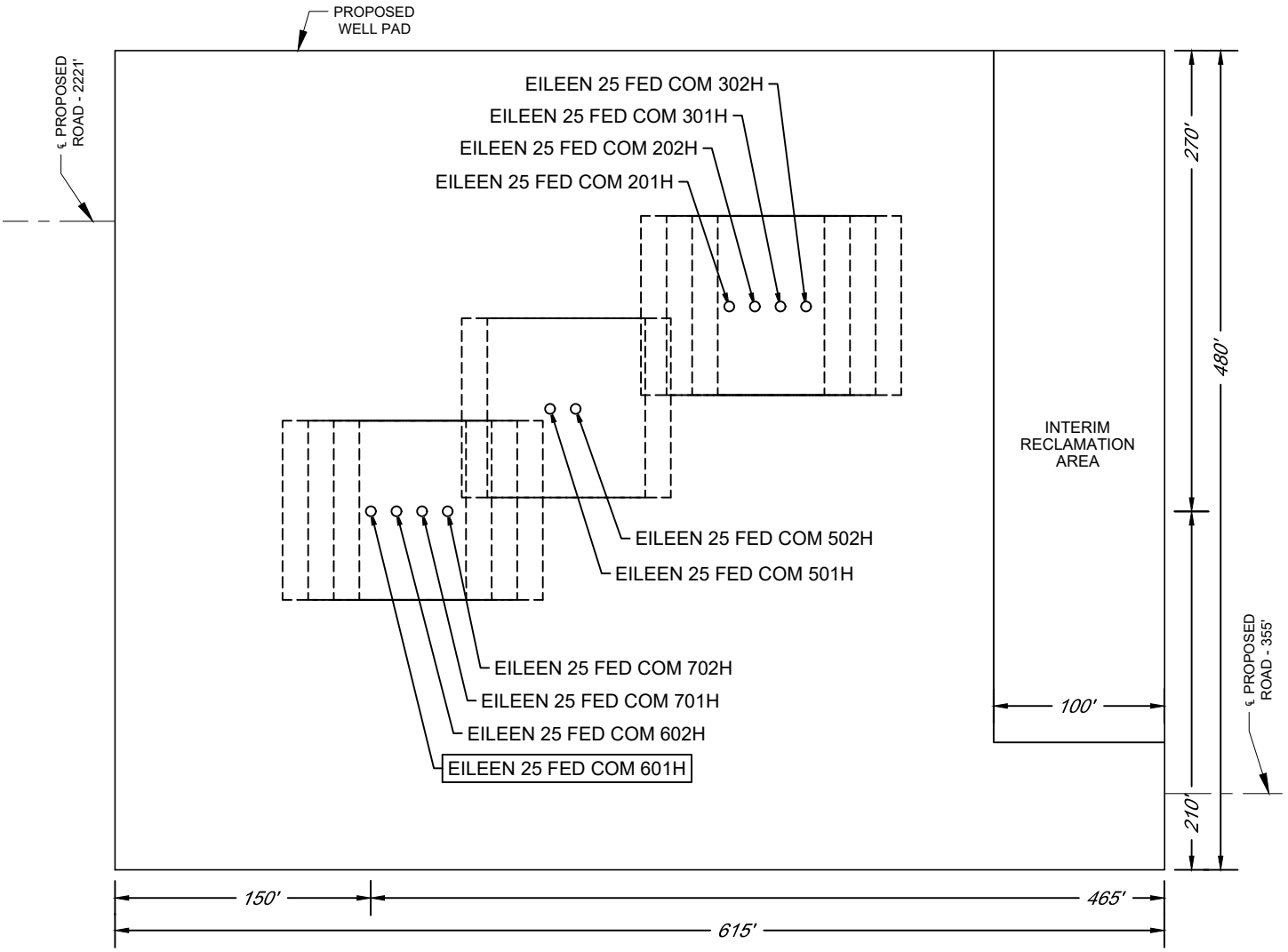


EXHIBIT 2C

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION 25, TOWNSHIP 20-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

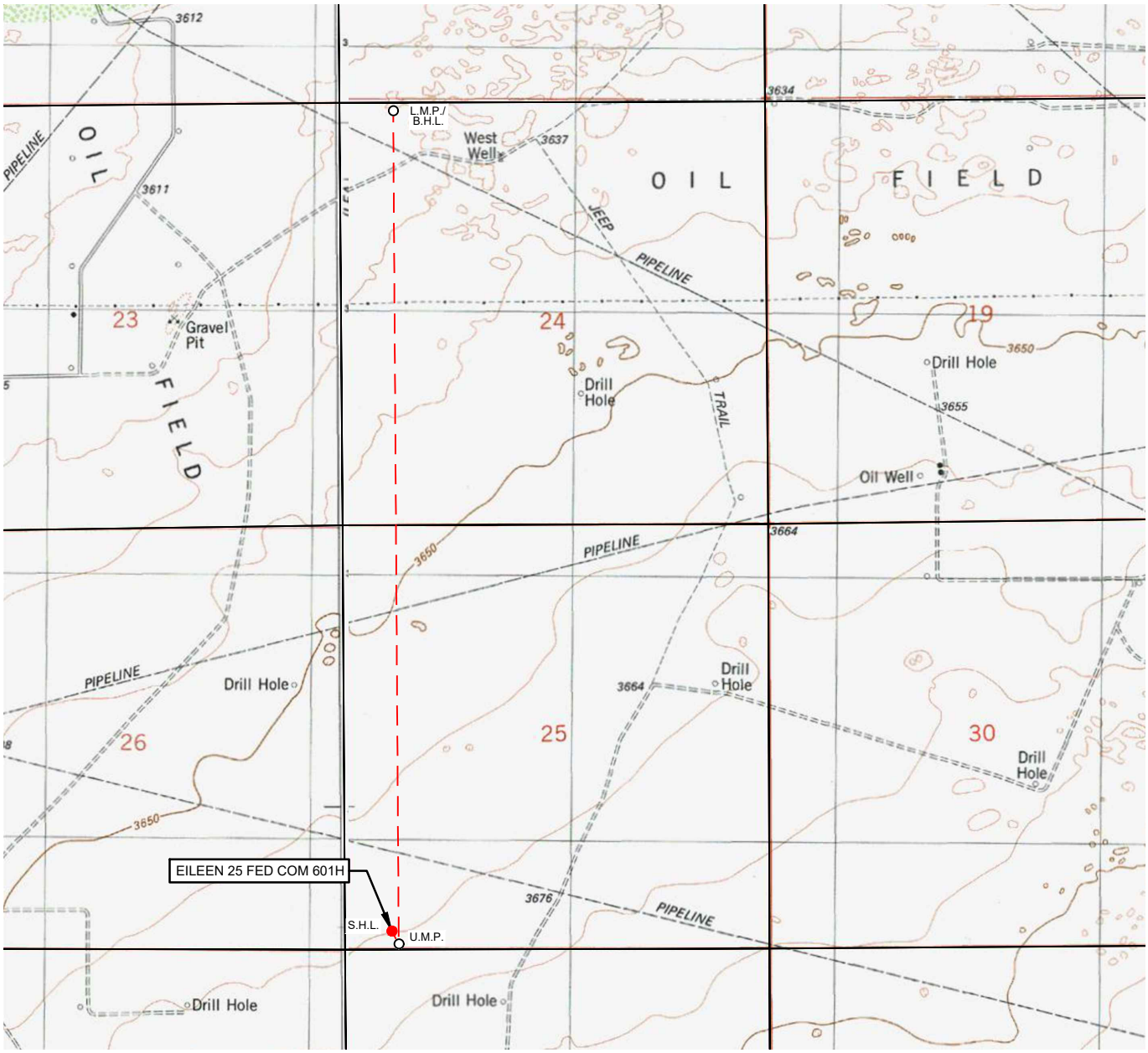


LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

601H LATITUDE N 32.5375745 601H LONGITUDE W 103.6232992

S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\LO_EILEEN_25_FED_COM_601H.DWG 11/2/2021 10:54:29 AM kenneth.stallings

LOCATION & ELEVATION VERIFICATION MAP



eog resources, inc.

LEASE NAME & WELL NO.: EILEEN 25 FED COM 601H

SECTION 25 TWP 20-S RGE 33-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3668'
DESCRIPTION 260' FSL & 630' FWL

LATITUDE N 32.5375745 LONGITUDE W 103.6232992

SCALE: 1" = 2000'
0' 1000' 2000'

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

TOPOGRAPHIC
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S:\SURVEY\EOG_MIDLAND\EILEEN_25_FED\FINAL_PRODUCTS\LO_EILEEN_25_FED_COM_601H.DWG 11/2/2021 10:54:24 AM kenneth.stallings

Surface Use Plan of Operations

Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbance.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soil storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

1. Existing Roads

a. The existing access road route to the proposed project is depicted on EILEEN 25 FED COM 601H VICINITY. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan..

b. The existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.

c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

d. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

2. New or Reconstructed Access Roads

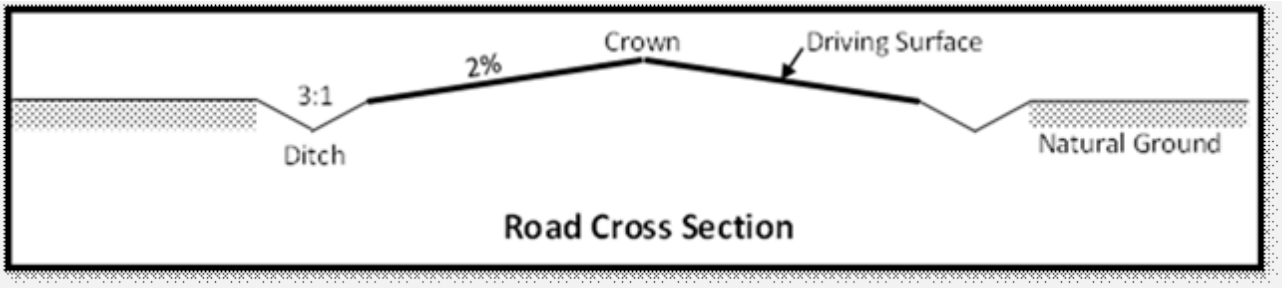
a. An access road will be needed for this proposed project. See the survey plat for the location of the access road.

b. The length of access road needed to be constructed for this proposed project is about 2998 feet.

c. The maximum driving width of the access road will be 24 feet. The maximum width of surface disturbance when constructing the access road will not exceed 30 feet. All areas outside of the driving surface will be revegetated.

d. The access road will be constructed with 6 inches of compacted Caliche.

e. When the road travels on fairly level ground, the road will be crowned and ditched with a 2% slope from the tip of the road crown to the edge of the driving surface. The ditches will be 3 feet wide with 3:1 slopes. See Road Cross Section diagram below.



f. The access road will be constructed with a ditch on each side of the road.

g. The maximum grade for the access road will be 6 percent.

h. No turnouts will be constructed on the proposed access road.

i. No cattleguards will be installed for this proposed access road.

j. No BLM right-of-way grant is needed for the construction of this access road.

k. No culverts will be constructed for this proposed access road.

l. No low water crossings will be constructed for the access road.

m. Since the access road is on level ground, no lead-off ditches will be constructed for the proposed access road.

n. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management, will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

3. Location of Existing Wells

a. EILEEN 25 FED COM 601H RADIUS MAP of the APD depicts all known wells within a one mile radius of the proposed well.

b. There is no other information regarding wells within a one mile radius.

4. Location of Existing and/or Proposed Production Facilities

SEE ELECTRICAL ATTACHMENT

a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.

b. If any type of production facilities are located on the well pad, they will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.

c. A production facility is proposed to be installed off the proposed well location. Production from the well will be processed at this production facility. EILEEN 25 FED COM CTB depicts the location of the production facilities.

d. The proposed production facility will have a secondary containment structure that is constructed to hold the capacity of 1-1/2 times the largest tank, plus freeboard to account for percipitation, unless more stringent protective requirements are deemed necessary.

e. EILEEN 25 FED COM INFRASTRUCTURE MAP depicts the production facility as well.

f. A pipeline to transport production from the proposed well to the production facility will be installed.

i. We plan to install a 6 inch buried Flexpipe/Flexsteel pipeline from the proposed well to the offsite production facility. The proposed length of the pipeline will be 4698 feet. The working pressure of the pipeline will be about 1440 psi. A 30 feet wide work area will be needed to install the buried pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

ii. EILEEN 25 FED COM INFRASTRUCTURE MAP depicts the proposed production pipeline route from the well to the existing production facility.

iii. Since the proposed pipeline crossess lease boundaries, a right of way grant will be acquired prior to installation of the proposed pipeline.

If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.

Additional Pipeline(s)

We propose to install 3 additional pipeline(s):

1. Buried Gas Lift
   Gas Lift Gas pipeline:

   a. We plan to install a 6 inch buried Flexsteel pipeline from the proposed well to Eileen 25 Fed Com CTB. The proposed length of the pipeline will be 4698 feet. The working pressure of the pipeline will be about 1440 psi. A 30 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

   b. EILEEN 25 FED COM INFRASTRUCTURE MAP depicts the proposed Gas Lift Gas Lift Gas pipeline route.

   c. Since the proposed pipeline crossess lease boundaries, a right of way grant will be acquired prior to installation of the proposed pipeline.

2. Buried Produced Water pipeline:

   a. We plan to install a 20 inch buried Poly pipeline from Eileen 25 Fed Com CTB to Sec 21, T20S, R34E. The proposed length of the pipeline will be 14308 feet. The working pressure of the pipeline will be about 205 psi. A 30 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

   b. EILEEN 25 FED COM INFRASTRUCTURE MAP depicts the proposed Produced Water

pipeline route.

c. Since the proposed pipeline crossess lease boundaries, a right of way grant will be acquired prior to installation of the proposed pipeline.

3. Buried Gas Sales pipeline:

a. We plan to install a 16 inch buried Steel pipeline from Eileen 25 Fed Com CTB to Della CTB. The proposed length of the pipeline will be 12016 feet. The working pressure of the pipeline will be about 1200 psi. A 30 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

b. EILEEN 25 FED COM INFRASTRUCTURE MAP depicts the proposed Gas Sales pipeline route.

c. Since the proposed pipeline crossess lease boundaries, a right of way grant will be acquired prior to installation of the proposed pipeline.

Electric Line(s)

a. We plan to install an overhead electric line for the proposed well. The proposed length of the electric line will be 2794 feet. EILEEN_25_FC_INFRASTRUCTURE depicts the location of the proposed electric line route. The electric line will be construction to provide protection from raptor electrocution.

b. The proposed electric line does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

5. Location and Types of Water

a. The source and location of the water supply are as follows: The source and location of the water supply are as follows: This location will be drilled using a combination of water mud systems as outlined in the drilling program (i) Water will be obtained from commercial water stations in the area and hauled to the location by trucks using existing and proposed roads as depicted on the road map attached (ii) Water may be supplied from frac ponds and transported to the location by temporary above ground surface lines a shown on the map
EOG plans to utilize up to six 4 inch polyethylene or layflat lines and up to six 12 inch layflat lines to transport fresh water Freshwater is defined as containing less than 10_000 mg_I Total Dissolved Solids (TDS)_ exhibiting no petroleum sheen when standing_ and not previously used in mechanical processes that expose it to heavy metals or other potential toxins
EOG plans to utilize up to six 4 inch polyethylene or layflat lines and up to six 12 inch layflat lines to transport treated produced water is defined as the reconditioning of produced water to a reusable form and may include mechanical and chemical processes
Brackish Water Pit located in Section 28_ Township 20S_ Range 34 E
Temporary surface lines would originate from a single or multiple water source locations in the surrounding area of the proposed action and be temporarily laid above ground with minimal disturbance
Temporary surface line(s) shall be laid no more than 10 feet from the edge of the existing disturbance (ie_ edge of bar_borrow ditch_ road surface or two track road_ or other man made addition to the landscape) A push off arm or another mechanism will be used All vehicle equipment will remain within the existing disturbance
Map or maps showing the locations of the temporary surface lines will be provided with the APD and included in the Environmental Assessment An electronic map file (shape file or KMZ file) shall be submitted with the Environmental Assessment.

b. Eileen 25 Fed Com Water Map depicts the proposed route for a 12 inch Layflat and polylines temporary (<90 days) water pipeline supplying water for drilling operations.

6. Construction Material

a. Caliche will be supplied from pits shown on the attached caliche source map.
Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows:
*□
-An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.
-An area will be used within the proposed well site dimensions to excavate caliche.
Subsoil will be removed and stockpiled within the surveyed well pad dimensions.
-Once caliche/surfacing mineral is found, the mineral material will be excavated and stockpiled within the approved drilling pad dimensions.
-Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).
-Neither caliche nor subsoil will be stockpiled outside the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.
*□
If no caliche is found onsite, caliche will be hauled in from a BLM-approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired before obtaining mineral material from BLM pits or federal land.

7. Methods for Handling Waste

SEE SECTION SEVEN ATTACHMENT

a. Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.

b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.

e. The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

8. Ancillary Facilities

a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

a. The following information is presented in the well site survey plat or diagram:

a. reasonable scale (near 1":50')

i. well pad dimensions

ii. well pad orientation

iii. drilling rig components

iv. proposed access road

v.elevations of all points

vi. topsoil stockpile

vii. reserve pit location/dimensions if applicable

viii. other disturbances needed (flare pit, stinger, frac farm pad, etc.)

ix. existing structures within the 600' x 600' archaeoligical surveyed area (pipelines, electric lines, well pads, etc

x.The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.

b. A title of a well site diagram is EILEEN 25 FED COM 601H RIG LAYOUT. This diagram depicts the RIG LAYOUT.

c. Topsoil Salvaging

i. Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

10. Plans for Surface Reclamation

Reclamation Objectives

i. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.

ii. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.

iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.

v.Interim reclamation will be performed on the well site after the well is drilled and completed. EILEEN 25 FED COM 601H RECLAMATION depicts the location and dimensions of the planned interim reclamation for the well site.

Interim Reclamation Procedures (If performed)

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.

6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Final Reclamation (well pad, buried pipelines, etc.)

1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.

2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.

3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

a. The surface ownership of the proposed project is Federal.

12. Other Information

An onsite meeting was conducted on July 8th, 2024.

We plan to use (6) 12-inch lay flat hoses to transport water and (6) 4-inch polylines or layflat for drilling and frac operations.

We are asking for 4 associated pipelines all depicted on the attached INFRASTRUCTURE MAP and associated pipeline plats:

EILEEN 25 FED COM_501H_502H_601H_602H_701H_702H_FL
EILEEN 25 FED COM_GL_SEC25_SEC29_SEC30
EILEEN 25 FED COM_WATER_SEC20_SEC21_SEC25_SEC29_SEC30

The well will be produced using gas lift as the artificial lift method.

Produced water will be transported via pipeline to the EOG produced water gathering system

13. Maps and Diagrams

EILEEN 25 FED COM 601H VICINITY - Existing Road
EILEEN 25 FED COM 601H RADIUS MAP - Wells Within One Mile
EILEEN 25 FED COM CTB - Production Facilities Diagram
EILEEN 25 FED COM INFRASTRUCTURE MAP - Additional Production Facilities Diagram
EILEEN 25 FED COM INFRASTRUCTURE MAP - Production Pipeline
EILEEN 25 FED COM INFRASTRUCTURE MAP - Gas Lift Gas Lift Gas Pipeline
EILEEN 25 FED COM INFRASTRUCTURE MAP - Produced Water Pipeline
EILEEN 25 FED COM INFRASTRUCTURE MAP - Gas Sales Pipeline
EILEEN 25 FED COM INFRASTRUCTURE MAP - Electric Line
EILEEN 25 FED COM WATER AND CALICHE MAP - Drilling Water Pipeline
EILEEN 25 FED COM 601H RIG LAYOUT - Well Site Diagram
EILEEN 25 FED COM 601H RECLAMATION - Interim Reclamation

EOG Resources, Inc.

Surface Use Plan of Operations Section 7 Methods for Handling Waste Attachment

Human waste managed by third-party vendors. ROW construction waste contained in on-site portable toilets maintained by third party vendor. During drilling activities waste is managed by third party vendor utilizing onsite aerobic (treatment) wastewater management. Liquids treated through the aerobic system are transferred to via water line to CTBs for reuse by EOG. All solid waste remaining after treatment process are pumped into an enclosed waste transfer truck at the time of rig down and taken to one of the following disposal facilities by the third-party vendor: Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

Trash dumpsters are utilized to contain garbage onsite. Dumpsters are maintained by a third-party vendor. All trash is hauled to Lee County, NM landfill.

EOG utilizes a Closed Loop System, cuttings leave the rig and enter low/highwall cuttings bin. Cuttings are then transferred to trucks for transportation to a State of New Mexico approved disposal facility. Primary disposal location for EOG's NM operations is the North Delaware Basin Disposal Facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored onsite in frac tanks and disposed of at the time of rig down. Primary disposal location for EOG's NM operations is the North Delaware Basin Disposal facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

OVERHEAD ELECTRIC LINE ATTACHMENT

Electric Line(s)

a. We plan to install an overhead electric line for the proposed well. The proposed length of the electric line will be 94 feet. Overhead Electric Line depicts the location of the proposed electric line route. The electric line will be constructed to provide protection from raptor electrocution.

b. The proposed electric line does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

10/22/2024

APD ID: 10400081598 **Submission Date:** 11/11/2021

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: EOG RESOURCES INCORPORATED

Well Name: EILEEN 25 FED COM **Well Number:** 601H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data

10/22/2024

APD ID: 10400081598
Submission Date: 11/11/2021
Operator Name: EOG RESOURCES INCORPORATED
Well Name: EILEEN 25 FED COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: NM2308

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

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: Permian Resources Operating, LLC **OGRID:** 372165 **Date:** 06 / 19 / 2024

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
See Attached Spreadheet						

IV. Central Delivery Point Name: EILEEN CTB SESW _____ _____ [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
See Attached Spreadsheet						

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 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:	JENNIFER ELROD
Title:	SR. REGULATORY ANALYST
E-mail Address:	jennifer.elrod@permianres.com
Date:	6/19/2024
Phone:	940-452-6214

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

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

WELL NAME	API	UL/SECT/T/R	FOOTAGES	ANTICIPATED OIL BBL/D	ANTICIPATED GAS MCF/D	ANTICIPATED WATER BBL/D
EILEEN 25 FED COM 501H		M-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 502H		M-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 503H		N-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 504H		N-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 505H		P-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 506H		P-25-20S-33E		1190	1074	3282
EILEEN 25 FED COM 601H		M-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 602H		M-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 603H		O-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 604H		O-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 605H		O-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 606H		A-36-20S-33E		1225	1142	1272
EILEEN 25 FED COM 172H		M-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 173H		N-25-20S-33E		1225	1142	1272
EILEEN 25 FED COM 174H		P-25-20S-33E		1225	1142	1272

WELL NAME	API	SPUD	TD	COMPLETION DATE	FLOW BACK DATE	FIRST PRODUCTION
EILEEN 25 FED COM 501H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 502H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 503H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 504H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 505H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 506H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 601H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 602H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 603H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 604H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 605H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 606H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 172H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 173H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25
EILEEN 25 FED COM 174H		11-Jan-25	1-May-25	1-Jul-25	1-Aug-25	1-Aug-25

WELL NAME	API		Anticipated Average Natural Gas Rate MCF/D		Anticipated Volume of Natural Gas for the First Year MCF	
EILEEN 25 FED COM 501H			759		282675	
EILEEN 25 FED COM 502H			759		282675	
EILEEN 25 FED COM 503H			759		282675	
EILEEN 25 FED COM 504H			759		282675	
EILEEN 25 FED COM 505H			759		282675	
EILEEN 25 FED COM 506H			759		282675	
EILEEN 25 FED COM 601H			740		275545	
EILEEN 25 FED COM 602H			740		275545	
EILEEN 25 FED COM 603H			740		275545	
EILEEN 25 FED COM 604H			740		275545	
EILEEN 25 FED COM 605H			740		275545	
EILEEN 25 FED COM 606H			740		275545	
EILEEN 25 FED COM 172H			740		275545	
EILEEN 25 FED COM 173H			740		275545	
EILEEN 25 FED COM 174H			740		275545	

Permian Resources Operating, LLC (372165)

Natural Gas Management Plan Descriptions

VI. Separation Equipment:

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

VII. Operational Practices:

Drilling

During Permian's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

Flowback

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Permian routes gas though a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

Production

Per 19.15.27.8.D, Permian's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

Performance Standards

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Permian's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Permian's flare stacks, both currently installed and for future installation, are:

1) Appropriately sized and designed to ensure proper combustion efficiency.
2) Equipped with an automatic ignitor or continuous pilot.
3) Anchored and located at least 100 feet from the well and storage tanks.

Permian's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

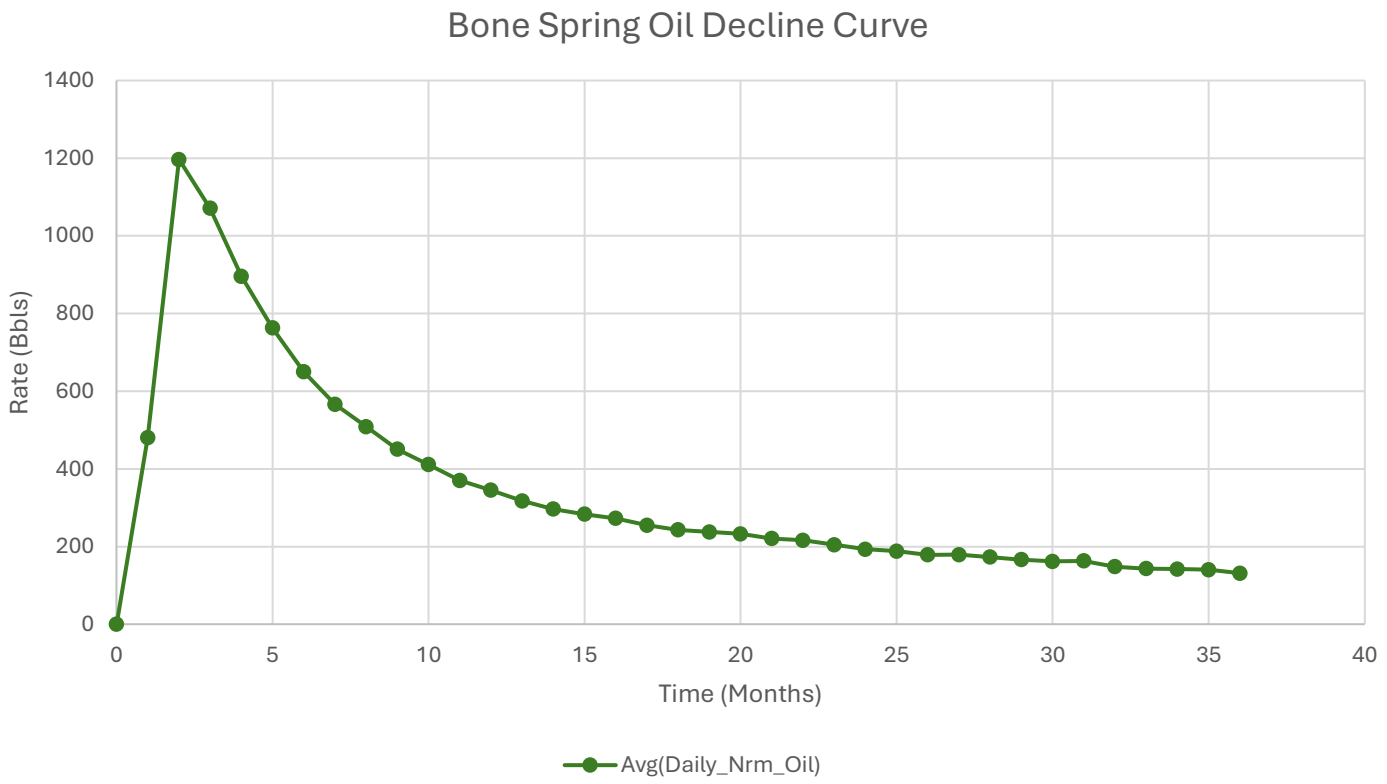
Measurement or estimation

Permian measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

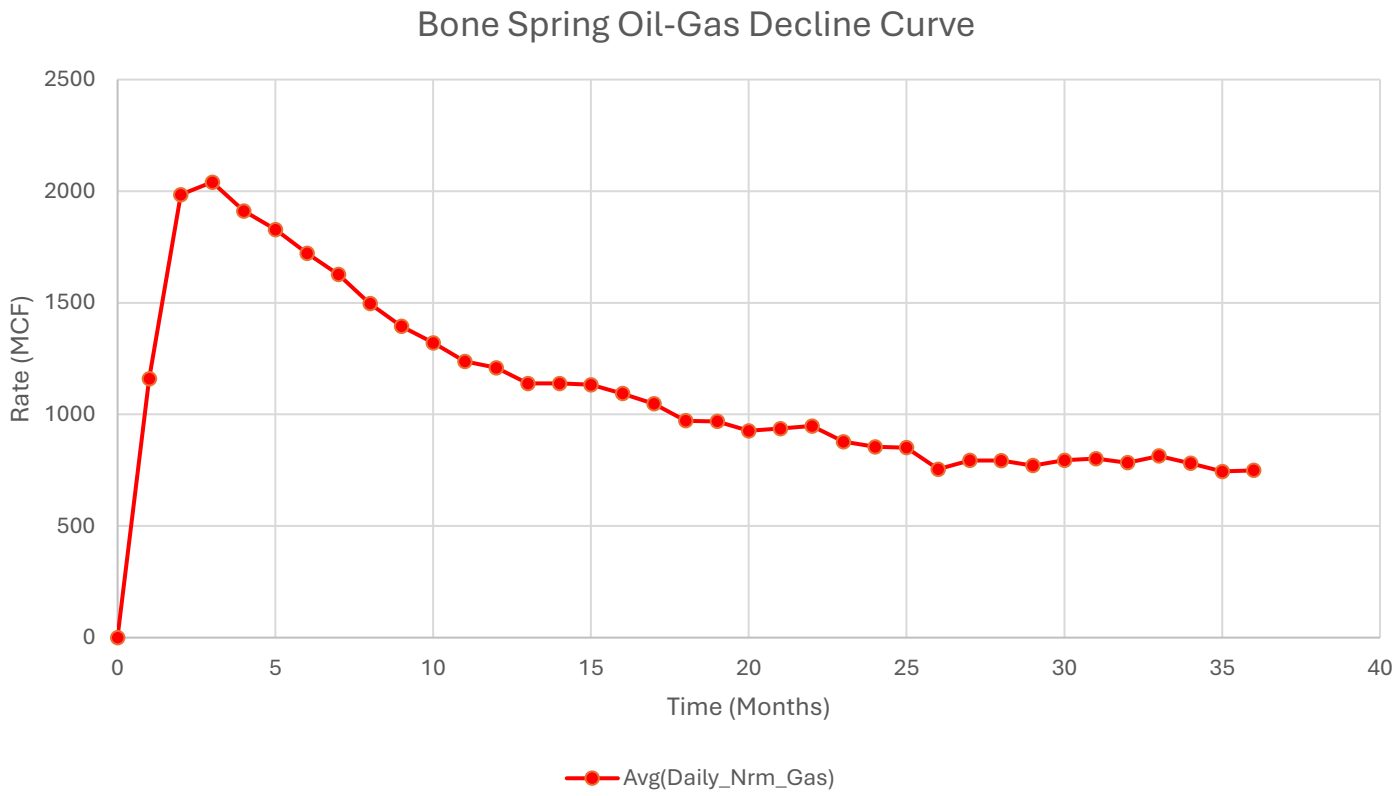
VIII. Best Management Practices:

Permian utilizes the following BMPs to minimize venting during active and planned maintenance activities:

- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary



1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.



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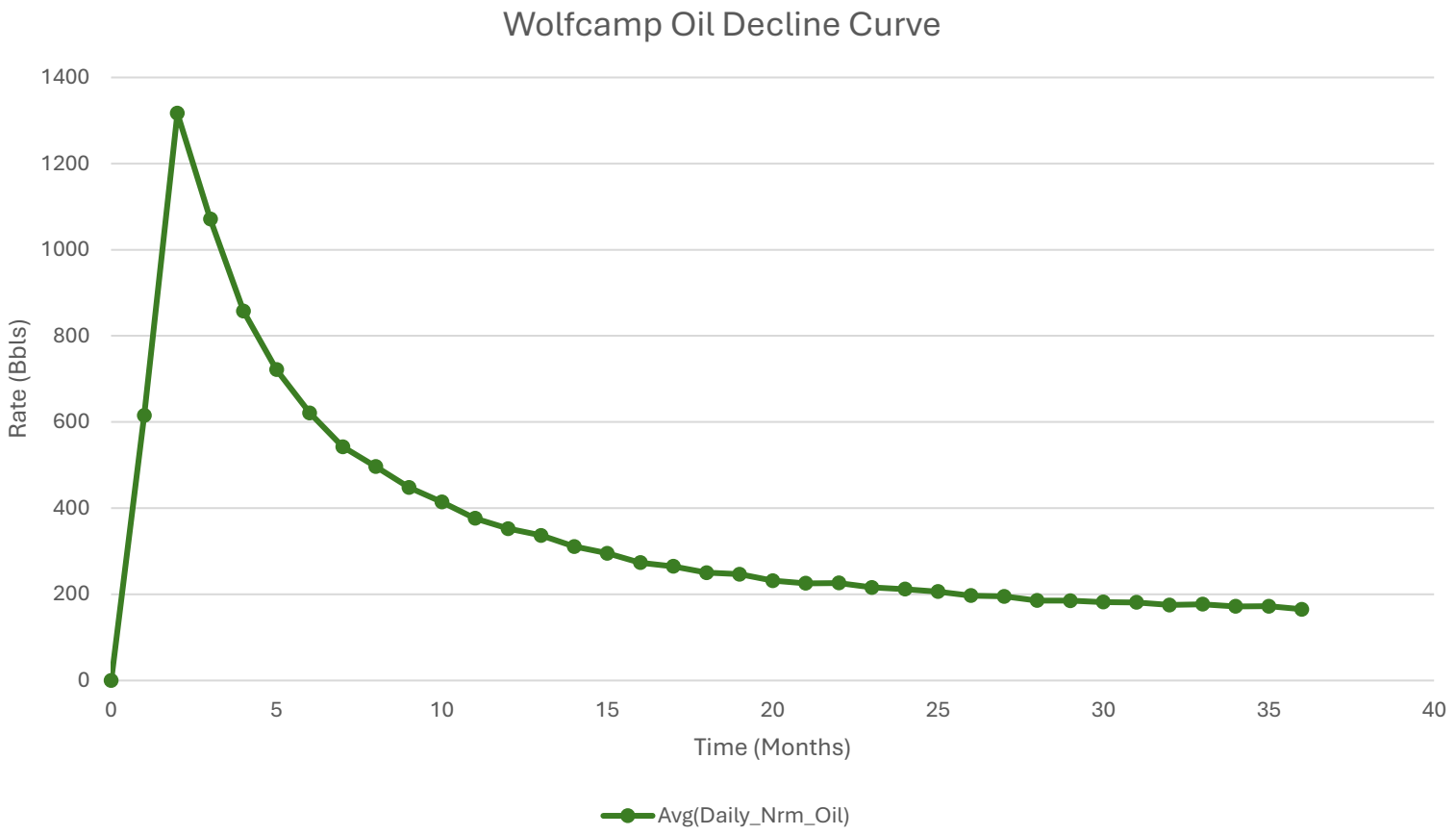
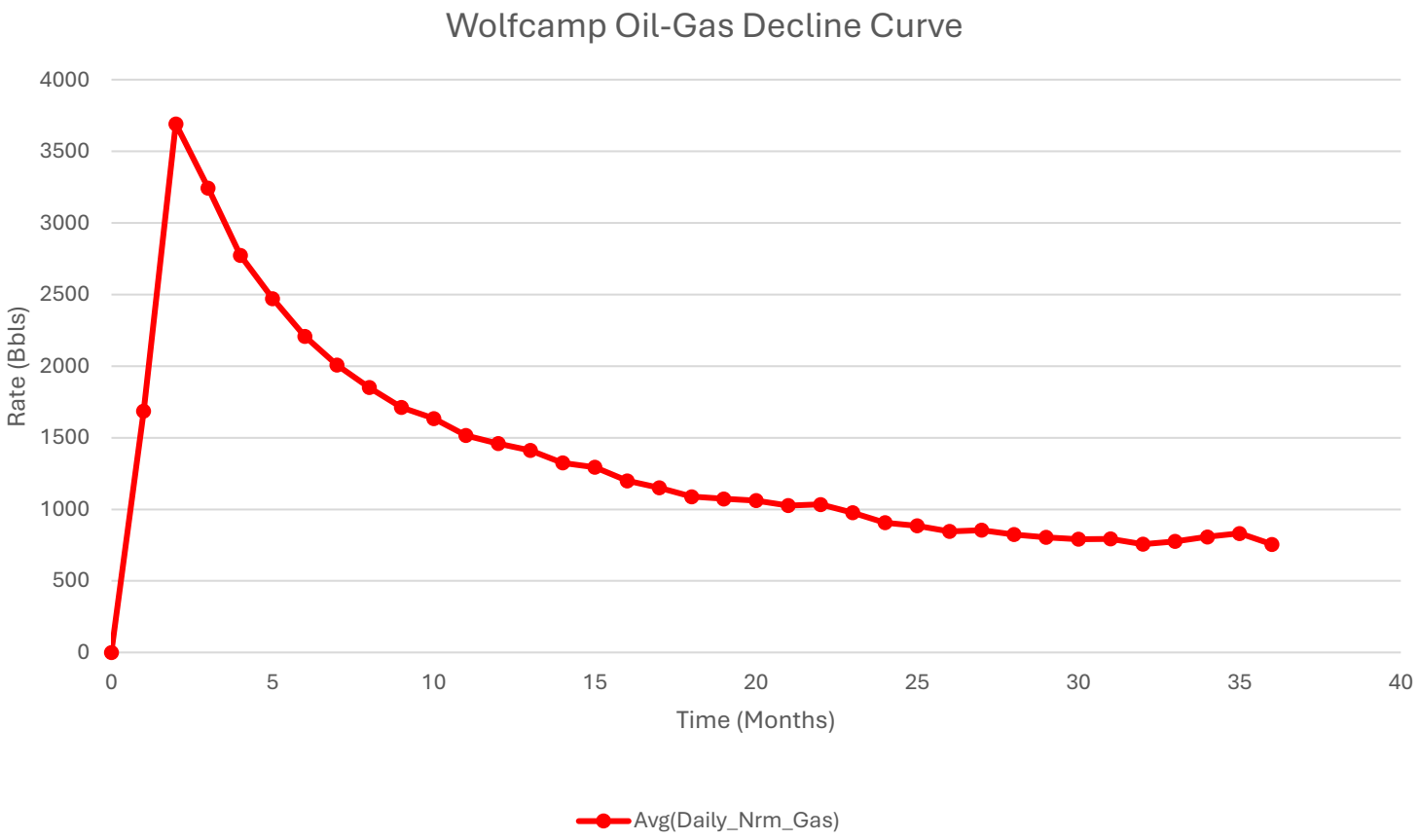


1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.



1. Represented curve is generic based on 3-Years available information for the Bone Spring formation and may not be representative of forecasted production or actual volumes.
2. Decline curves are based on an average 10,000ft lateral length. Multiple factors may influence production and decline curves, including but not limited to: lateral length and completion type.

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. Please see attached

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No. Please see attached

2. Name of Operator Permian Resources Operating,LLC (372165)

9. API Well No. Please see attached

3a. Address 300 N Marienfeld St., Suite 1000 Midland, TX 79701

3b. Phone No. *(include area code)* (432) 400-0185

10. Field and Pool or Exploratory Area Please see attached

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* Please see attached

11. Country or Parish, State Lea County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other CHANGE OF OPERATOR
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

This Is notification that Permian Resources Operating, LLC is taking over operations of the following leases, please see attached.

Permian Resources Operating, LLC, as the new operator, accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on this lease, or portion of lease described.

Bond Coverage: BLM Bond File No.: B001841

Change of Operator Effective: 01/29/2024

Former Operator: EOG Resources, Inc.

EOG Representative Signature Star L Harrell

See Conditions of Approval

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* Kanicia Schlichting

Title Regulatory Specialist

Signature

Date 10/07/2024

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by JENNIFER SANCHEZ Digitally signed by JENNIFER SANCHEZ Date: 2024.10.09 09:53:48 -06'00'

Title Petroleum Engineer

Date 10/09/2024

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office RFO

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Well Name	Lease Number	API Number	Location	County	Pool	APD ID Number	APD Status
Eileen 25 Fed Com 501H	NMNM128833	Pending	Unit M, Sec 25, T20S, R33E, 320' FSL & 735' FWL	Lea	Bone Spring, South	10400081561	Approved
Eileen 25 Fed Com 502H	NMNM128833	Pending	Unit M, Sec 25, T20S, R33E, 320' FSL & 750' FWL	Lea	Bone Spring, South	10400081595	Approved
Eileen 25 Fed Com 503H	NMNM128833	Pending	Unit N, Sec 25, T20S, R33E, 266' FSL & 2438' FWL	Lea	Bone Spring, South	10400081601	Approved
Eileen 25 Fed Com 504H	NMNM128833	Pending	Unit N, Sec 25, T20S, R33E, 266' FSL & 2453' FWL	Lea	Bone Spring, South	10400081606	Approved
Eileen 25 Fed Com 505H	NMNM128833	Pending	Unit P, Sec 25, T20S, R33E, 10' FSL & 1055' FEL	Lea	Bone Spring, South	10400081610	Approved
Eileen 25 Fed Com 506H	NMNM128833	Pending	Unit P, Sec 25, T20S, R33E, 10' FSL & 1040' FEL	Lea	Bone Spring, South	10400081616	Approved
Eileen 25 Fed Com 601H	NMNM128833	Pending	Unit M, Sec 25, T20S, R33E, 260' FSL & 630' FWL	Lea	Bone Spring, South	10400081598	Approved
Eileen 25 Fed Com 602H	NMNM128833	Pending	Unit M, Sec 25, T20S, R33E, 260' FSL & 645' FWL	Lea	Bone Spring, South	10400081600	Approved
Eileen 25 Fed Com 603H	NMNM128833	Pending	Unit O, Sec 25, T20S, R33E, 266' FSL & 2841' FEL	Lea	Bone Spring, South	10400081607	Approved
Eileen 25 Fed Com 604H	NMNM128833	Pending	Unit O, Sec 25, T20S, R33E, 175' FSL & 2013' FEL	Lea	Bone Spring, South	10400081629	Approved
Eileen 25 Fed Com 605H	NMNM128833	Pending	Unit O, Sec 25, T20S, R33E, 175' FSL & 1998' FEL	Lea	Bone Spring, South	10400081633	Approved
Eileen 25 Fed Com 606H	NMNM128833	Pending	Unit A, Sec 36, T20S, R33E, 50' FNL & 1130' FEL	Lea	Bone Spring, South	10400081621	Approved

Change of Operator
Conditions of Approval

1. Tank battery must be bermed/diked (must be able to contain 1 1/2 times the volume of the largest tank) within 90 days.
2. Submit for approval of water disposal method within 60 days, if changes have been made from previously approved disposal method.
3. Review facility diagram on file, and submit updated facility diagrams, as per Onshore Order #3 within 60 day.
4. This agency shall be notified of any spill or discharge as required by NTL-3A.
5. All outstanding environmental issue must be addressed within 90 days. Contact Jim Amos for inspection and to resolve environmental issues. 575-234-5909
6. Install legible well sign on location with operator name, well name and number, lease number, unit number, 1/4 1/4, section, township, and range. NMOCD requires the API number on well signs.
7. Subject to like approval by NMOCD.
8. All Reporting to ONRR (OGOR Reports) must be brought current within 30 days of this approval including any past history.
9. If this well is incapable of producing in paying quantities submit NOI to plug and abandon this well or obtain approval to do otherwise within 90 days.
10. Submit plan for approval of well operations for all TA/SI wells within 30 days of this approval to change operator.
11. If not in place acquire operating rights on this lease within 30 days with BLM office in Santa Fe, NM.

JAM

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: Permian Resources Operating, LLC 300 N. Marienfeld St Ste 1000 Midland, TX 79701	OGRID: 372165
	Action Number: 399718
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
jelrod32	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/5/2024
jelrod32	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	11/5/2024
pkautz	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/17/2024
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.	11/17/2024
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.	11/17/2024