



U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed: 01/08/2026 12:07 PM

APD ID: 10400090871	Well Status: AAPD
APD Received Date: 02/23/2023 09:08 AM	Well Name: VERMINATOR 6 FED COM
Operator: EOG RESOURCES INCORPORATED	Well Number: 302H

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
 - Blowout Prevention Choke Diagram Attachment: 1 file(s)
 - Blowout Prevention BOP Diagram Attachment: 1 file(s)
 - Casing Design Assumptions and Worksheet(s): 7 file(s)
 - Hydrogen sulfide drilling operations plan: 1 file(s)
 - Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
 - Other Facets: 9 file(s)
 - Other Variances: 8 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 1 file(s)
 - New Road Map: 2 file(s)
 - Attach Well map: 1 file(s)
 - Production Facilities map: 8 file(s)
 - Water source and transportation map: 1 file(s)
 - Construction Materials source location attachment: 1 file(s)
 - Well Site Layout Diagram: 4 file(s)
 - Recontouring attachment: 1 file(s)
 - Other SUPO Attachment: 2 file(s)
- PWD Report
- PWD Attachments
 - None

- Bond Report
- Bond Attachments
 - None

Form 3160-3
(October 2024)FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM94110
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☒ Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator EOG RESOURCES INCORPORATED		8. Lease Name and Well No. VERMINATOR 6 FED COM 302H
3a. Address 1111 BAGBY SKY LOBBY 2, HOUSTON, TX 77002	3b. Phone No. (include area code) (713) 651-7000	9. API Well No. 30-025-55917
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface LOT 6 / 2302 FSL / 1306 FWL / LAT 32.3327172 / LONG -103.4109895 At proposed prod. zone LOT 4 / 100 FSL / 1254 FWL / LAT 32.3121468 / LONG -103.4111501		10. Field and Pool, or Exploratory ANTELOPE RIDGE/BONE SPRING NOR
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 6/T23S/R35E/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 100 feet		12. County or Parish LEA
16. No of acres in lease		13. State NM
17. Spacing Unit dedicated to this well 475.0		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20 feet		20. BLM/BIA Bond No. in file FED: NMB106709157
19. Proposed Depth 9876 feet / 17527 feet		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3362 feet	22. Approximate date work will start* 08/14/2023	23. Estimated duration 25 days
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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) CRAIG RICHARDSON / Ph: (713) 651-7000	Date 02/23/2023
Title Regulatory Specialist		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 01/07/2026
Title Assistant Field Manager Lands & Minerals		
Office Carlsbad Field 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.

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 01/07/2026

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: LOT 6 / 2302 FSL / 1306 FWL / TWSP: 23S / RANGE: 35E / SECTION: 6 / LAT: 32.3327172 / LONG: -103.4109895 (TVD: 0 feet, MD: 0 feet)

PPP: TR L / 2452 FSL / 1254 FWL / TWSP: 23S / RANGE: 35E / SECTION: 6 / LAT: 32.333377 / LONG: -103.4111574 (TVD: 9611 feet, MD: 9701 feet)

BHL: LOT 4 / 100 FSL / 1254 FWL / TWSP: 23S / RANGE: 35E / SECTION: 7 / LAT: 32.3121468 / LONG: -103.4111501 (TVD: 9876 feet, MD: 17527 feet)

BLM Point of Contact

Name: MARIAH HUGHES

Title: Land Law Examiner

Phone: (575) 234-5972

Email: MHUGHES@BLM.GOV

SPECIAL REQUIREMENTS

WILDLIFE

Lesser Prairie Chicken

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: EOG RESOURCES INC.
WELL NAME & NO.: VERMINATOR 6 FED COM 302H
LOCATION: SEC 6, T23S R35E
COUNTY: Lea County, New Mexico

Create COAs

H₂S Present	Cave / Karst Low	Waste Prevention Rule APD Submitted Prior to 06/10/24
Potash None	R-111-Q Design 	
Wellhead Multibowl	Casing 3-String Well ☐ Liner ☒ Fluid Filled ☒ Casing Clearance	
☒ Flex Hose ☒ Break Testing	Cementing ☐ DV Tool ☒ Bradenhead ☐ Echometer ☒ Offline Cement ☐ Open Annulus ☐ Pilot Hole	
Special Requirements		
☒ Capitan Reef	☐ Water Disposal	☒ COM ☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet all requirements from 43 CFR 3176, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Only primary design has been reviewed and approved. Alternative designs have been proposed but is NOT approved, due to the well being in HIGH PRIORITY – CAPITAN REEF area.

1. The **10-3/4** inch surface casing shall be set at approximately **1874** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - 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 pounds compressive strength**, whichever is greater (including 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 **8-5/8** inch intermediate casing is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.
 - **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 - Switch to freshwater mud to protect the Capitan Reef and use freshwater mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
 - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.

INTERMEDIATE CASING MUST BE KEPT A MINIMUM HALF FULL DURING RUN TO MEET COLLAPSE SF.
3. The minimum required fill of cement behind the **6** inch x **5.5** inch tapered **production** casing is at least **50 feet on top of Capitan Reef top or 200 feet into the previous casing, whichever is greater**. If cement does not circulate see B.1.a, c-d above.
 - If cement does not circulate to surface on the previous casing, this string must come to surface.
 - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.

OPERATOR HAS REQUESTED OPTION TO RUN EITHER ONLY 6" OR 5.5" CASING THROUGH THE ENTIRE PRODUCTION INTERVAL. REVIEWED AND IS OK. PLEASE REVIEW CEMENT VOLUMES TO ACHIEVE TIE-BACK.

C. PRESSURE CONTROL

1. 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. Variance is approved to use a 5000 (5M) annular which shall be tested to 3500 (3.5M) 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.
2. 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).
3. Break testing has been approved for this well ONLY on those 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.)** If in the event break testing is not utilized, then a full BOPE test would be conducted.
 - BOPE Break Testing is ONLY permitted for hole sections with 5M MASP or less.
 - The break test should involve a shell test that includes testing the upper pipe rams as proposed.
 - Variance only pertains to the hole-sections in and shallower than the Wolfcamp formation. Break testing is NOT allowed when planning to penetrate the Penn group.
 - While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle in accordance with API STD 53.
 - Any well control event while drilling require notification to the BLM Petroleum Engineer.
 - A full BOPE test is required prior to drilling the first intermediate section.

- If a hole section tends to show more background gas than normal, please notify BLM Engineer prior to proceeding with break testing on the next well.
- The BLM PET is to be contacted 4 hours prior to BOPE tests.
 - Eddy County Petroleum Engineering Inspection Staff: (575) 361-2822
 - Lea County Petroleum Engineering Inspection Staff: (575) 689-5981
- 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.

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.

Offline Cementing

Offline cementing has been approved for **all hole sections**. Contact the BLM prior to the commencement of any offline cementing procedure.

Casing Clearance

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Production casing tieback. Operator may contact approving engineer to discuss changing casing set depth or grade to meet clearance requirement.

Salt interval clearance OK based on washout data. Operator plans to bradenhead production interval to surface and is OK.

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

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;
[BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822

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 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 swell.
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 always be operational 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 doghouse 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 & CEMENT

1. The current acceptable methods of cement verification are as follows:
 - i. Observing cement circulated to surface,
 - ii. Cement Bond Log (CBL),
 - iii. Temperature log within 8-10 hours after completing the cement job,
 - iv. Echometer (if a second-stage bradenhead is being utilized and operator was granted approval prior to operations.)

2. 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.
3. 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 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.
4. 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.
5. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Well specific cement details must be onsite prior to pumping the cement for each casing string.
6. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
7. 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.
8. If hard band 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.
9. 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. (This 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 -our 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 because 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.

KEITH IMMATTY 12/17/2025



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

Operator Certification Data Report

01/08/2026

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: 02/23/2023

Title:

Street Address:

City:

State:

Zip:

Phone:

Email address:

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data

01/08/2026

APD ID: 10400090871

Submission Date: 02/23/2023

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data
reflects the most
recent changes
[Show Final Text](#)

Section 1 - General

APD ID: 10400090871

Tie to previous NOS?

Submission Date: 02/23/2023

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: NMNM94110

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: VERMINATOR 6 FED COM

Well Number: 302H

Field/Pool or Exploratory? Field and Pool

Field Name: ANTELOPE RIDGE Pool Name: BONE SPRING
NORTH

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**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:**
VERMINATOR 6 FED COM**Number:** 101H, 102H, 103H,
301H, 302H, 303H, 501H, 502H,
503H**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:** 20 FT**Distance to lease line:** 100 FT**Reservoir well spacing assigned acres Measurement:** 475 Acres**Well plat:** VERMINATOR_6_FC_302H_C1O2_signed_20230223072852.pdf**Well work start Date:** 08/14/2023**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	2302	FSL	1306	FWL	23S	35E	6	Lot 6	32.3327172	- 103.4109895	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3362			Y
KOP Leg #1	2592	FSL	1254	FWL	23S	35E	6	Tract L	32.3335182	- 103.408165	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 6037	9480	9399	Y

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

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	2452	FSL	1254	FWL	23S	35E	6	Tract L	32.33337	- 103.4111574	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 6249	9701	9611	Y
EXIT Leg #1	100	FSL	1254	FWL	23S	35E	7	Lot 4	32.3121468	- 103.4111501	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 128370	- 6514	17527	9876	Y
BHL Leg #1	100	FSL	1254	FWL	23S	35E	7	Lot 4	32.3121468	- 103.4111501	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 128370	- 6514	17527	9876	Y

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-	² Pool Code 2205	³ Pool Name Antelope Ridge; Bone Spring, North
⁴ Property Code	⁵ Property Name VERMINATOR 6 FED COM	⁶ Well Number 302H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3362'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
6	6	23-S	35-E	-	2302'	SOUTH	1306'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	7	23-S	35-E	-	100'	SOUTH	1254'	WEST	LEA

¹² Dedicated Acres 474.32	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ UPPER MOST PERF. NEW MEXICO EAST NAD 1927 X=784983 Y=486181 LAT.: N 32.3332523 LONG.: W 103.4106814 NAD 1983 X=826167 Y=486241 LAT.: N 32.3333770 LONG.: W 103.4111574 SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=785037 Y=485941 LAT.: N 32.3325925 LONG.: W 103.4105135 NAD 1983 X=826221 Y=486001 LAT.: N 32.3327172 LONG.: W 103.4109895 LOWER MOST PERF./ BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 X=785052 Y=478457 LAT.: N 32.3120220 LONG.: W 103.4106747 NAD 1983 X=826236 Y=478517 LAT.: N 32.3121468 LONG.: W 103.4111501 FED PERF. POINT NEW MEXICO EAST NAD 1927 X=785006 Y=483639 LAT.: N 32.3262659 LONG.: W 103.4106792 NAD 1983 X=826190 Y=483699 LAT.: N 32.3263907 LONG.: W 103.4111550	¹⁷OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Shea Keithley</i> <u>2/6/23</u> Signature Date Shea Keithley Printed Name shea_keithley@eogresources.com E-mail Address ¹⁸SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief. <u>05/22/2022</u> Date of Survey <i>Ramon A. Dominguez</i> Signature of Professional Surveyor Certificate Number
---	--



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

Drilling Plan Data Report

01/08/2026

APD ID: 10400090871

Submission Date: 02/23/2023

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
17124500	PERMIAN	3362	0	0	ALLUVIUM	NONE	N
17124501	RUSTLER	1575	1787	1787	ANHYDRITE	NONE	N
17124502	TOP SALT	1107	2255	2255	SALT	NONE	N
17124503	BASE OF SALT	-677	4039	4039	SALT	NONE	N
17124498	TANSILL	-797	4159	4159	ANHYDRITE, LIMESTONE, SILTSTONE	NONE	N
17124499	CAPITAN REEF	-1237	4599	4599	DOLOMITE, LIMESTONE	NATURAL GAS, OIL	N
17124504	LAMAR	-2448	5810	5810	LIMESTONE	NONE	N
17124506	BELL CANYON	-2489	5851	5851	SANDSTONE	NATURAL GAS, OIL	N
17124507	CHERRY CANYON	-2755	6117	6117	SANDSTONE	NATURAL GAS, OIL	N
17124508	BRUSHY CANYON	-4141	7503	7503	SANDSTONE	NATURAL GAS, OIL	N
17124509	BONE SPRING LIME	-5353	8715	8715	LIMESTONE	NATURAL GAS, OIL	N
17124510	AVALON SAND	-5427	8789	8789	SANDSTONE	NATURAL GAS, OIL	Y
17124516	BONE SPRING 1ST	-6367	9729	9729	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**Pressure Rating (PSI):** 10M**Rating Depth:** 9876**Equipment:** SEE ATTACHED DRILL PLAN**Requesting Variance?** YES**Variance request:** SEE VARIANCE ATTACHMENT**Testing Procedure:** SEE ATTACHED DRILL PLAN**Choke Diagram Attachment:**

10_M_Choke_Manifold_20221101153052.pdf

BOP Diagram Attachment:

10_M_BOP_Diagram_13.625_in_20221101153107.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	13	10.75	NEW	API	N	0	1874	0	1874	3362	1488	1874	J-55	40.5	ST&C	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	9.875	8.625	NEW	API	N	0	5946	0	5860	3362	-2498	5946	J-55	32	OTHER - BTC-SC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	7.875	6.0	NEW	API	N	0	9380	0	9299	3397	-5937	9380	P-110	24.5	OTHER - VAM SPRINT TC	1.125	1.25	BUOY	1.6	BUOY	1.6
4	PRODUCTION	6.75	5.5	NEW	API	N	9380	17527	9299	9876	-5937	-6514	8147	P-110	20	OTHER - VAM SPRINT SF	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COMWell Number: 302H

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

- 10.750in_40.5ppf_J55_STC_20251209083334.pdf
- Verminator_6_Fed_Com_302H_Permit_Info_20251209083335.pdf
- 13.375in_54.0ppf_J55_STC_20251209083335.pdf

Casing ID: 2StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

- See_previously_attached_Drill_Plan_20210729093647.pdf
- 8.625in_32ppf_J55_BTC_SC_20251209083352.pdf

Casing ID: 3StringPRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

- 5.500in_20.00ppf_VST_P110EC_DWC_C_IS_MS_CDS_AB_20251209083528.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Casing Attachments

Casing ID: 4 String PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

6.000in_22.30ppf_VST_P110EC_DWC_20251209083609.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	1680	420	1.73	13.5	726.6	25	Class C	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		1680	1880	120	1.34	13.5	160.8	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1650')
INTERMEDIATE	Lead		0	4757	360	2.22	12.7	799.2	25	Class C	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
INTERMEDIATE	Tail		4757	5946	330	1.32	14.8	435.6	25	Class C	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 4757')
PRODUCTION	Lead		0	6120	1000	1.32	14.8	1320	25	CLASS H	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4990')
PRODUCTION	Tail		6120	1752 7	1190	1.52	13.2	1808. 8	25	CLASS H	Tail: Class C/H + additives (TOC @ 6120')

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

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 43 CFR 3172:****Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:**

Describe what will be on location to control well or mitigate other conditions: (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.

Describe the mud monitoring system 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.

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	1874	WATER-BASED MUD	8.6	8.8							
1874	5860	SALT SATURATED	9.8	10.8							
5860	9876	OIL-BASED MUD	8.8	9.5							

Section 6 - Test, Logging, Coring

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

Open-hole logs are not planned for this well.

GRCCCL will be run in cased hole during completions phase of operations.

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

DIRECTIONAL SURVEY,

Coring operation description for the well:

None

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4622**Anticipated Surface Pressure:** 2449**Anticipated Bottom Hole Temperature(F):** 169**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

Verminator_6_Fed_Com_302H_H2S_Plan_Summary_20230223073646.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

VERMINATOR_6_FED_COM_302H_Wall_Plot_20230223073711.pdf

VERMINATOR_6_FED_COM_302H_Planning_Report_20230223073710.pdf

Other proposed operations facets description:

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 1,500 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.

Other proposed operations facets attachment:

10_M_BOP_Diagram_13.625_in_20230105092524.pdf

Verminator_6_Fed_Com_Well_Package_TVD_20230222153223.pdf

Wellhead_3_string_10.750x8.625x5.500_SDT_3141_20230105092556.pdf

EOG_Cameron_3_String_13in_10M_MNDS_20220929064654.PDF

6.000in_24.00lbf_P110_HP_EAGLE_SF_H_SC_20221201074704.pdf

8.625in_32ppf_J55_BTC_SC_20221201074705.pdf

8.625in_32ppf_P110EC_BTC_SC_20221201074705.pdf

Verminator_6_Fed_Com_302H_Rig_Layout_20230223073729.pdf

Verminator_6_Fed_Com_302H_Permit_Info_20251209084031.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Other Variance request(s)?: Y

Other Variance attachment:

10_M_Choke_Manifold_20211227132831.pdf

EOG_BLM_Variance_1c___10M_Annular_Variance___3_String_Large_surface_hole_20230105092154.pdf

EOG_BLM_Variance_3a___Offline_Cement_Intermediate_Operational_Procedure_20221221092700.pdf

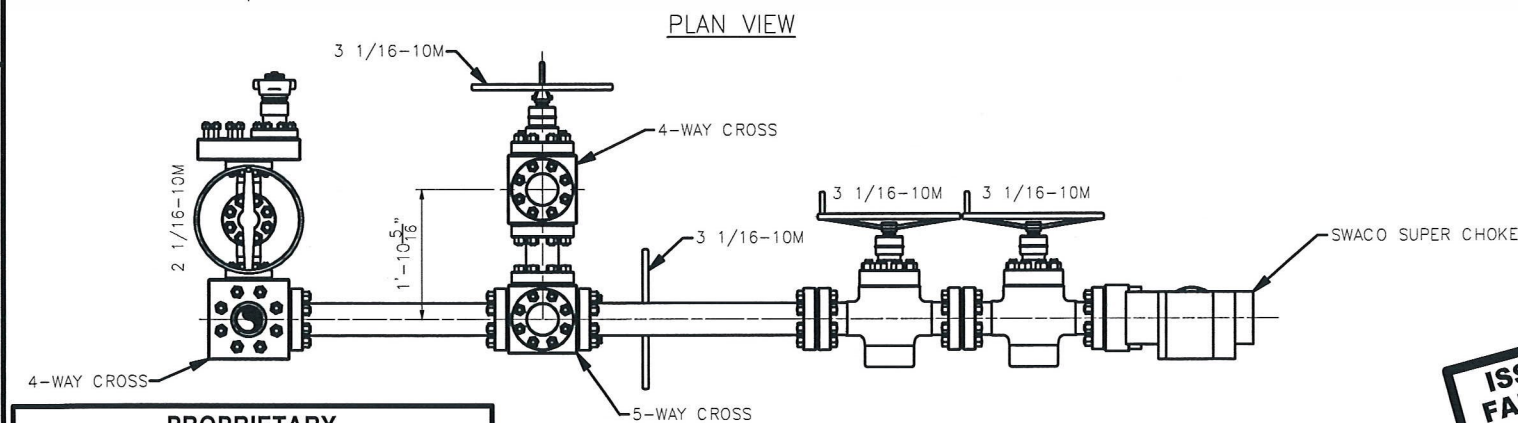
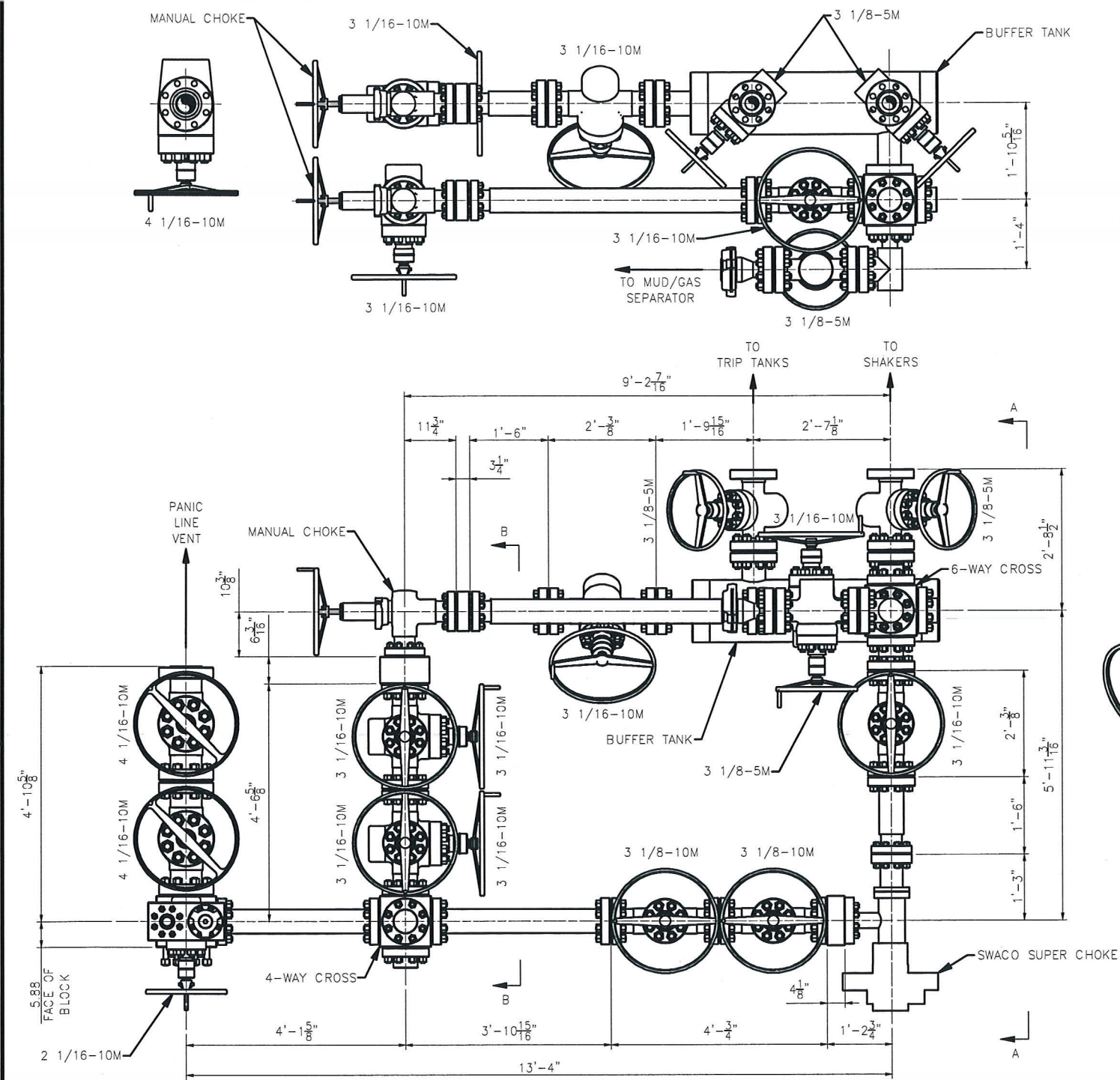
EOG_BLM_Variance_4a___Salt_Section_Annular_Clearance_11.8.2022_20230105092154.pdf

EOG_Cameron_3_String_13in_10M_MNDS_20211227132830.PDF

Wellhead_3_string_10.750x8.625x5.500_SDT_3141_20230105092615.pdf

BOP_Annular_Variance_Documents_20220929064719.pdf

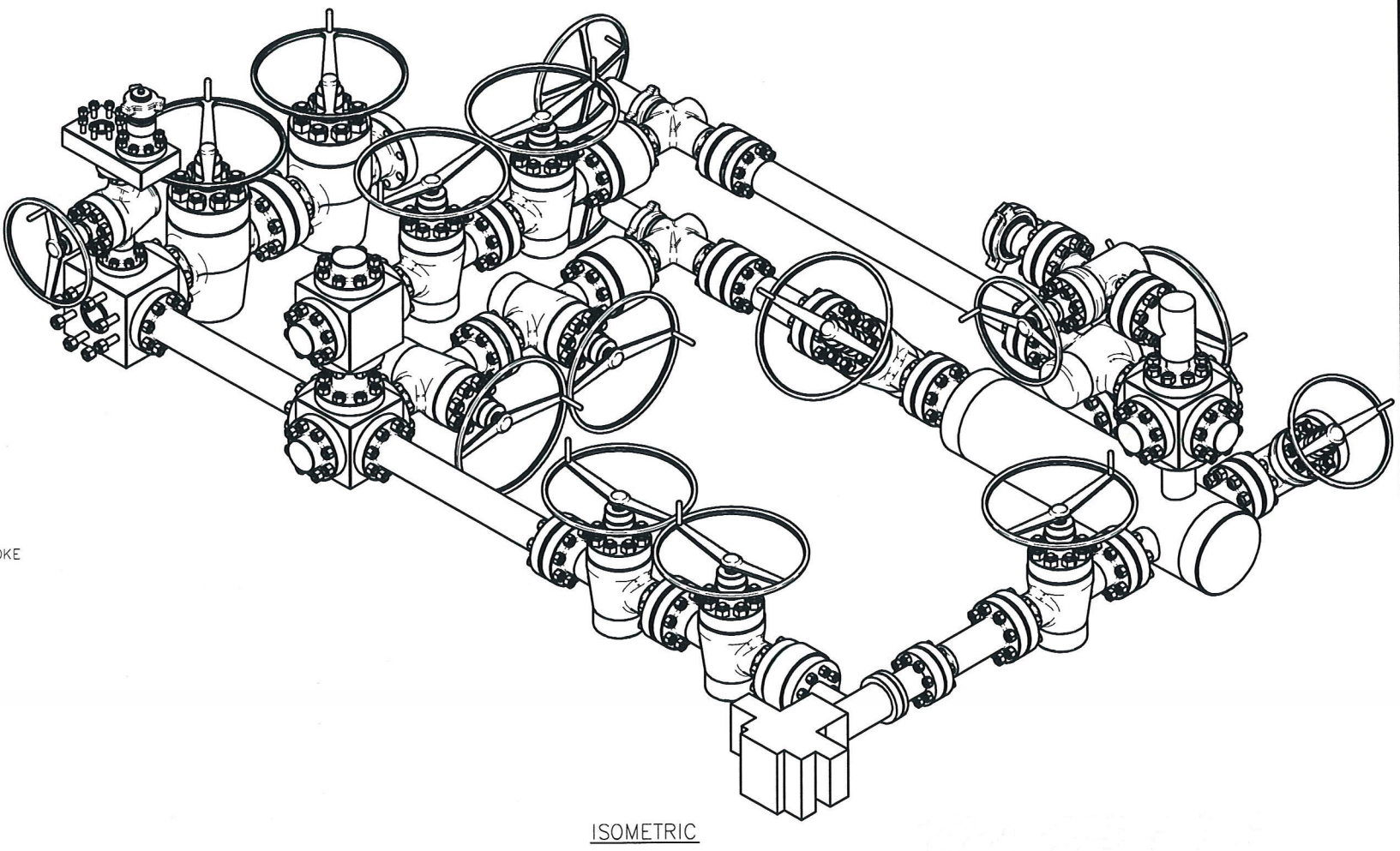
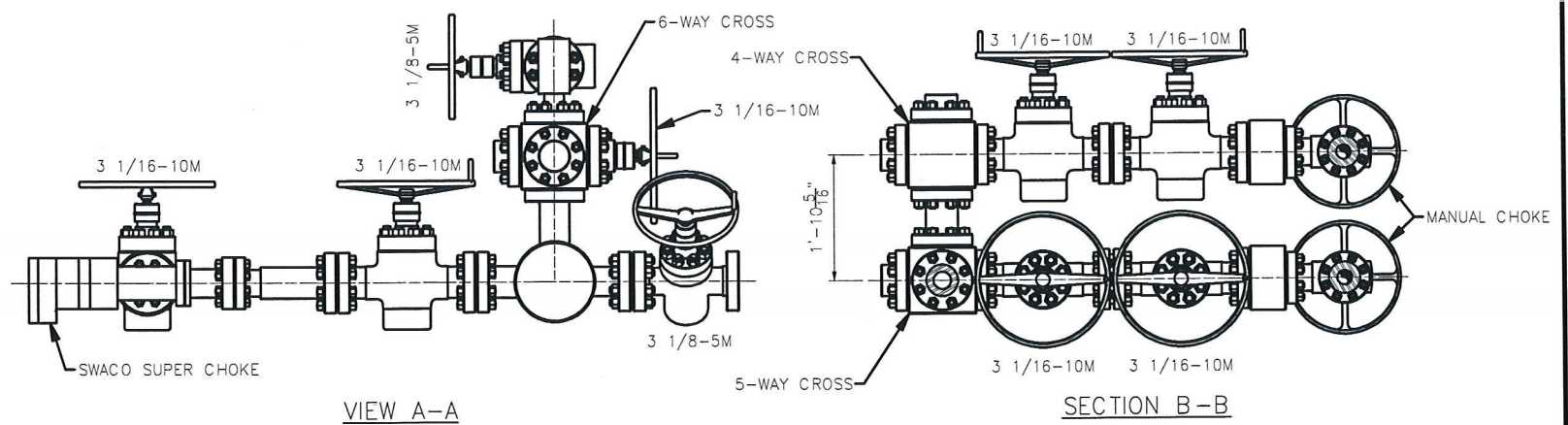
Gates_Co_Flex_Hose_Test_Chart_and_Certifications_20251209084053.pdf



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ISSUED FOR FABRICATION
February-10-2014
DRAFTSMAN *MWL*
ENGINEER *[Signature]*



STANDARD TOLERANCES
(UNLESS NOTED)

1. FABRICATION DIMENSIONS:

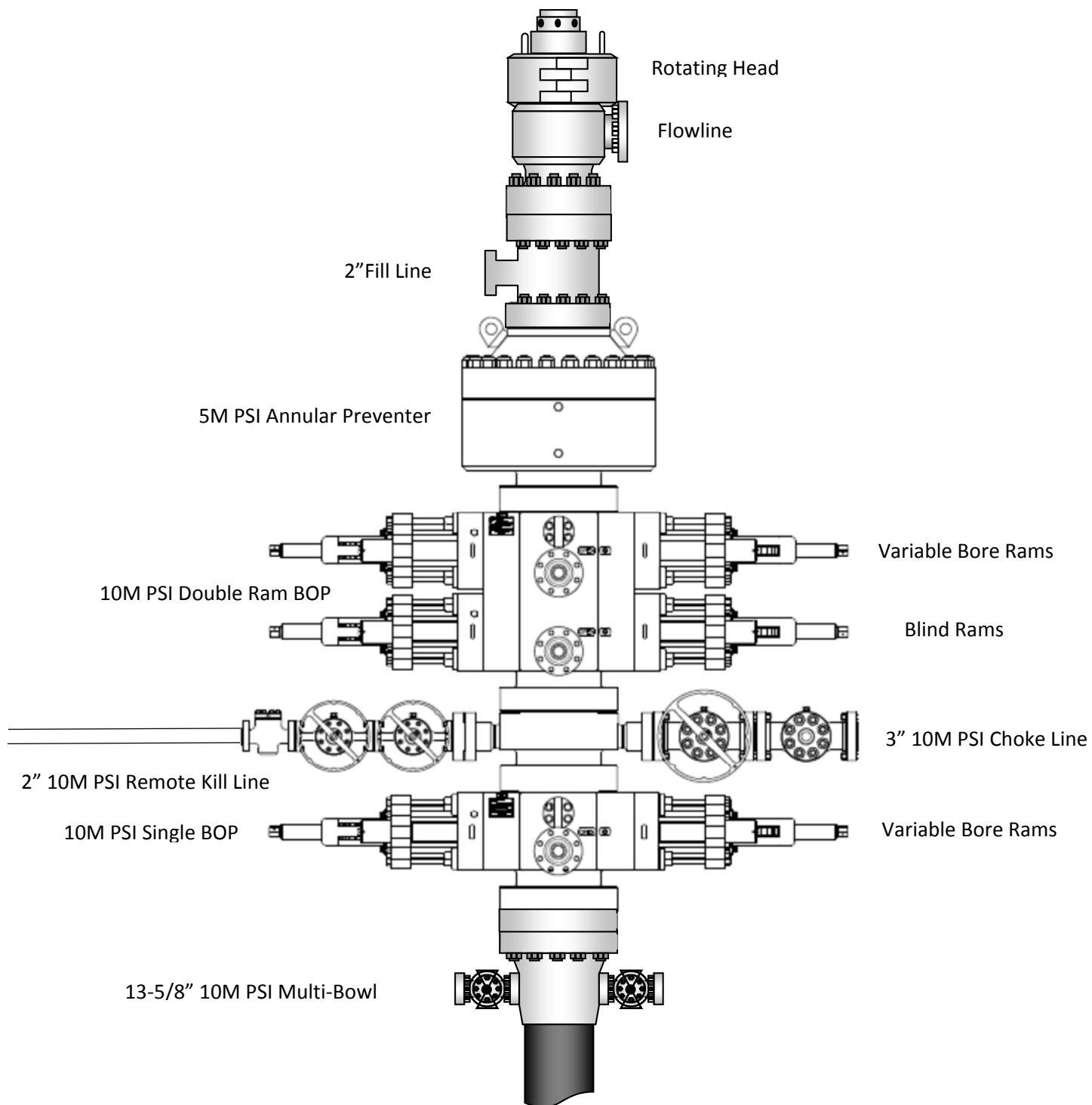
A-0" TO 24"
B-24" TO 120"
C-OVER 120"

2. MACHINED DIMENSIONS:

A-ANGULAR
B-LINEAR (EXPRESSED AS FRACTION)
C-LINEAR (EXPRESSED TO ONE DECIMAL)
D-LINEAR (EXPRESSED TO TWO DECIMALS)
E-LINEAR (EXPRESSED TO THREE DECIMALS)

± 1/16"
± 1/8"
± 1/4"
± .30"
± .015
± .1
± .015
± .005

Exhibit 1
EOG Resources
13-5/8" 10M PSI BOP Stack



See previously attached Drill Plan



API 5CT, 10th Ed. Connection Data Sheet

O.D. (in)	WEIGHT (lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: 32.00 Plain End: 31.13	0.352	J55	7.796	87.5

Material Properties (PE)

Pipe	
Minimum Yield Strength:	55 ksi
Maximum Yield Strength:	80 ksi
Minimum Tensile Strength:	75 ksi
Coupling	
Minimum Yield Strength:	55 ksi
Maximum Yield Strength:	80 ksi
Minimum Tensile Strength:	75 ksi

Pipe Body Data (PE)

Geometry	
Nominal ID:	7.92 inch
Nominal Area:	9.149 in ²
*Special/Alt. Drift:	7.875 inch
Performance	
Pipe Body Yield Strength:	503 kips
Collapse Resistance:	2,530 psi
Internal Yield Pressure: (API Historical)	3,930 psi

API Connection Data

Coupling OD: 9.625"

STC Performance	
STC Internal Pressure:	3,930 psi
STC Joint Strength:	372 kips
LTC Performance	
LTC Internal Pressure:	3,930 psi
LTC Joint Strength:	417 kips
SC-BTC Performance - Cplg OD = 9.125"	
BTC Internal Pressure:	3,930 psi
BTC Joint Strength:	503 kips

API Connection Torque

STC Torque (ft-lbs)			
Min:	2,793	Opti:	3,724
		Max:	4,655
LTC Torque (ft-lbs)			
Min:	3,130	Opti:	4,174
		Max:	5,217
BTC Torque (ft-lbs)			
follow API guidelines regarding positional make up			

*Alt. Drift will be used unless API Drift is specified on order.

**If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

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Rev 3, 7/30/2021

10/21/2022 15:24

VALLOUREC STAR 8.625 32# J55 S S2L2 DA 7.875 W/O# SLN# PO# MADE IN USA FT LB

New Search »

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USC ☒ Metric

6/8/2015 10:14:05 AM

Mechanical Properties	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
Dimenstons	Pipe	BTC	LTC	STC	
Outside Diameter	10.750	11.750	--	11.750	in.
Wall Thickness	0.350	--	--	--	in.
Inside Diameter	10.050	10.050	--	10.050	in.
Standard Drift	9.894	9.894	--	9.894	in.
Alternate Drift	--	--	--	--	in.
Nominal Linear Weight, T&C	40.50	--	--	--	lbs/ft
Plain End Weight	38.91	--	--	--	lbs/ft
Performance	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	1,580	1,580	--	1,580	psi
Minimum Internal Yield Pressure	3,130	3,130	--	3,130	psi
Minimum Pipe Body Yield Strength	629.00	--	--	--	1000 lbs
Joint Strength	--	700	--	420	1000 lbs
Reference Length	--	11,522	--	6,915	ft
Make-Up Data	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	3,150	ft-lbs
Maximum Make-Up Torque	--	--	--	5,250	ft-lbs



Verminator 6 Fed Com #302H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,787'
Tamarisk Anhydrite	1,849'
Top of Salt	2,255'
Base of Salt	4,039'
Tansill	4,159'
Capitan	4,599'
Lamar	5,810'
Bell Canyon	5,851'
Cherry Canyon	6,117'
Brushy Canyon	7,503'
Bone Spring Lime	8,715'
Leonard (Avalon) Shale	8,789'
1st Bone Spring Sand	9,729'
2nd Bone Spring Shale	9,919'
2nd Bone Spring Sand	10,251'
3rd Bone Spring Carb	10,560'
3rd Bone Spring Sand	11,093'
TD	9,876'

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

Upper Permian Sands	0- 400'	Fresh Water
Capitan	4,599'	Oil
Bell Canyon	5,851'	Oil
Cherry Canyon	6,117'	Oil
Brushy Canyon	7,503'	Oil
Bone Spring Lime	8,715'	Oil
Leonard (Avalon) Shale	8,789'	Oil
1st Bone Spring Sand	9,729'	Oil
2nd Bone Spring Shale	9,919'	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 10-3/4" casing at 1,874' and circulating cement back to surface.



Verminator 6 Fed Com #302H

4. PRIMARY APD DESIGN A

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13"	0	1,874	0	1,874	10-3/4"	40.5#	J-55	STC
9-7/8"	0	5,946	0	5,860	8-5/8"	32#	J-55	BTC-SC
7-7/8"	0	9,380	0	9,299	6"	24.5#	P110-EC	VAM Sprint-TC
6-3/4"	9,380	17,527	9,299	9,876	5-1/2"	20#	P110-EC	VAM Sprint SF

**For highlighted rows above, variance is requested to run entire string of either 6" or 5-1/2" casing string above due to availability.

Hole will be full during casing run for well control and tensile SF factor. Casing will be kept at least half full during run for this design to meet BLM collapse SF requirement. External pressure will be reviewed prior to conducting casing pressure tests to ensure that 70% of the yield is not exceeded.

Variance is requested to waive the centralizer requirements for the 8-5/8" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" and 5-1/2" casings in the 7-7/8" and 6-3/4" hole sizes. An expansion additive will be utilized in the cement slurry for the entire length of the 7-7/8" and 6-3/4" hole intervals to maximize cement bond and zonal isolation.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Title 43 CFR Part 3170 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

5. CEMENTING PROGRAM:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,880' 10-3/4"	420	13.5	1.73	Lead: Class C/H + additives (TOC @ Surface)
	120	14.8	1.34	Tail: Class C/H + additives (TOC @ 1680')
5,946' 8-5/8"	360	12.7	2.22	Lead: Class C/H + additives + expansive additives (TOC @ Surface)
	330	14.8	1.32	Tail: Class C/H + additives + expansive additives (TOC @ 4757')
17,527' 6"	1000	14.8	1.32	Bradenhead squeeze: Class C/H + additives + expansive additives (TOC @ surface)
	1190	13.2	1.52	Tail: Class C/H + additives (TOC @ 6120')

**Verminator 6 Fed Com #302H**

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

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.

EOG requests variance from minimum standards to pump a two stage cement job on the 6" and 5-1/2" production casing strings with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,503') 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 Class C/H cement + additives (1.32 yld, 14.8 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

Bradenhead will be the primary option for production cementing. EOG also requests to have the conventional option in place to accommodate for logistical or wellbore conditions. The tie back requirements will be met if the cement is pumped conventionally, and cement volumes will be adjusted accordingly. TOC will be verified by CBL.



Verminator 6 Fed Com #302H

6. 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. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

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.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5,000/ 250 psig.

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.

7. 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 – 1,874'	Fresh - Gel	8.6-8.8	28-34	N/c
1,874' – 5,860'	Brine	9.8-10.8	28-34	N/c
5,860' – 17,527' Lateral	Oil Base	8.8-9.5	58-68	N/c - 6

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.

**Verminator 6 Fed Com #302H****8. 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.

9. LOGGING, TESTING AND CORING PROGRAM:

- (A) Open-hole logs are not planned for this well.
- (B) GR-CCL will be run in cased hole during completions phase of operations.

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

The estimated bottom-hole temperature (BHT) at TD is 169 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4,622 psig and a maximum anticipated surface pressure of 2,449 psig (based on 9.0 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 6,117' to intermediate casing point.

11. 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 1,500 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.

**Verminator 6 Fed Com #302H****12. WELLHEAD:**

A multi-bowl wellhead system will be utilized.

After running the surface casing, a 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 Title 43 CFR Part 3170.

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.

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 Title 43 CFR Part 3170 to at least 0.22 psi/ft or 1,500 psi, whichever is greater.

13. VARIANCE REQUESTS:

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 3e - BOP Break-test and Offline Surface and Intermediate Cement
- EOG BLM Variance 3d - Production Offline Cement
- EOG BLM Variance 4a - Salt Section Annular Clearance
- EOG BLM Variance 5a - Alternate Shallow Casing Designs



Verminator 6 Fed Com #302H

14. TUBING REQUIREMENTS:

EOG respectfully requests an exception to the following NMOCD rule:

19.15.16.10 Casing AND TUBING REQUIREMENTS:

- J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



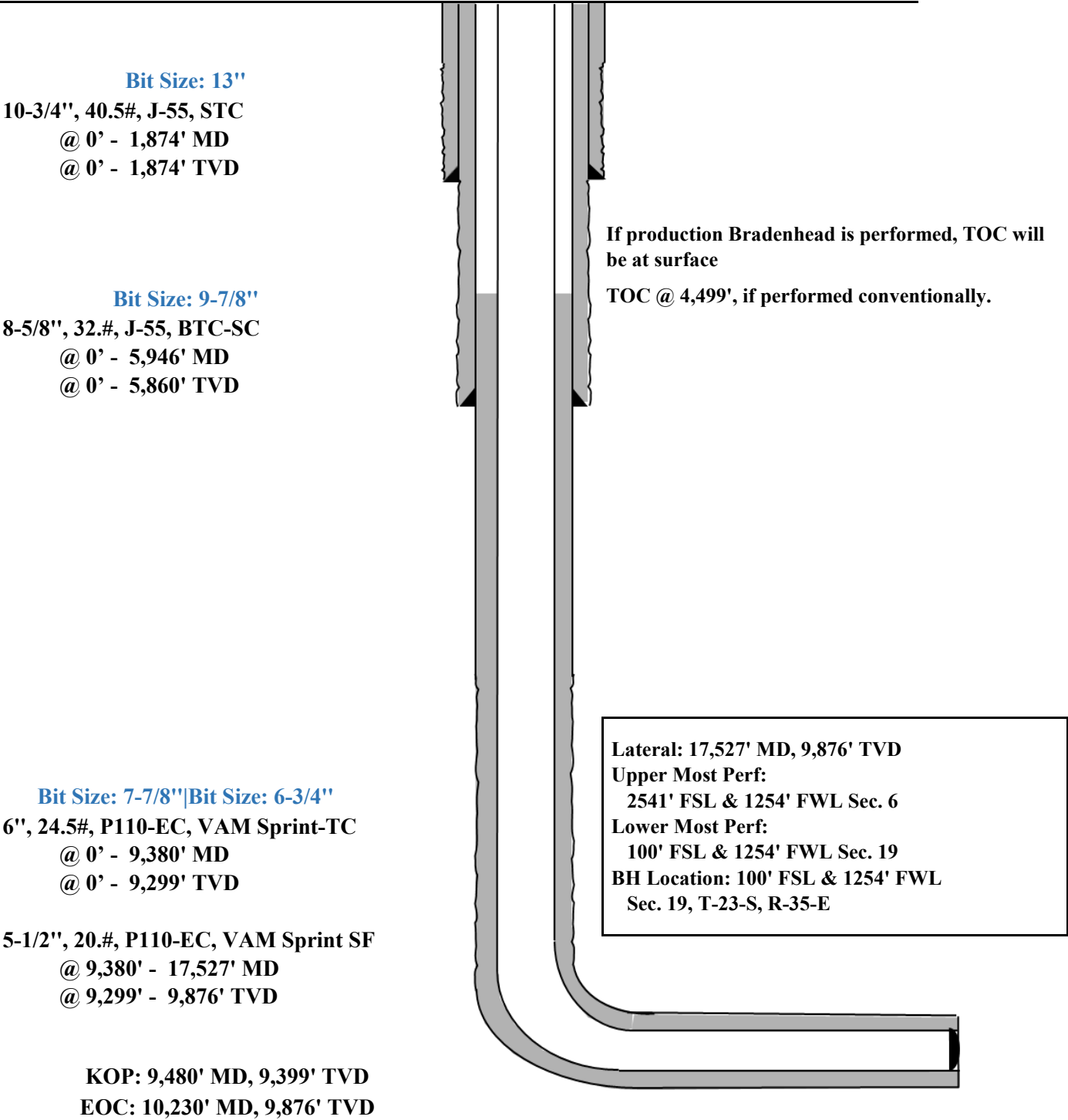
Verminator 6 Fed Com #302H

2302' FSL
1293' FWL
Section 6
T-23-S, R-35-E

Proposed Wellbore

API: 30-025-*****

KB: 3387'
GL: 3362'



New Search »

« Back to Previous List

USC ☒ Metric

6/8/2015 10:04:37 AM

Mechanical Properties	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
Dimenstons	Pipe	BTC	LTC	STC	
Outside Diameter	13.375	14.375	--	14.375	in.
Wall Thickness	0.380	--	--	--	in.
Inside Diameter	12.615	12.615	--	12.615	in.
Standard Drift	12.459	12.459	--	12.459	in.
Alternate Drift	--	--	--	--	in.
Nominal Linear Weight, T&C	54.50	--	--	--	lbs/ft
Plain End Weight	52.79	--	--	--	lbs/ft
Performance	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	1,130	1,130	--	1,130	psi
Minimum Internal Yield Pressure	2,740	2,740	--	2,740	psi
Minimum Pipe Body Yield Strength	853.00	--	--	--	1000 lbs
Joint Strength	--	909	--	514	1000 lbs
Reference Length	--	11,125	--	6,290	ft
Make-Up Data	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	3,860	ft-lbs
Maximum Make-Up Torque	--	--	--	6,430	ft-lbs



Connection Data Sheet

OD (in.)	WEIGHT (lbs./ft.)	WALL (in.)	GRADE	API DRIFT (in.)	RBW%	CONNECTION
6.000	Nominal: 22.30 Plain End: 21.70	0.360	VST P110EC	5.155	92.5	DWC/C-IS

PIPE PROPERTIES

Nominal OD	6.000	in.
Nominal ID	5.280	in.
Nominal Area	6.379	sq.in.
Grade Type	API 5CT	
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Tensile Strength	135	ksi
Yield Strength	797	klb
Ultimate Strength	861	klb
Min. Internal Yield Pressure	13,880	psi
Collapse Pressure	9,800	psi

CONNECTION PERFORMANCES

Yield Strength	797	klb
Parting Load	861	klb
Compression Rating	797	klb
Min. Internal Yield	13,880	psi
External Pressure	9,800	psi
Maximum Uniaxial Bend Rating	47.7	°/100 ft
Reference String Length w 1.4 Design Factor	25,530	ft.

CONNECTION PROPERTIES

Connection Type	Semi-Premium T&C
Connection OD (nom)	6.650 in.
Connection ID (nom)	5.280 in.
Make-Up Loss	4.313 in.
Coupling Length	9.625 in.
Critical Cross Section	6.379 sq.in.
Tension Efficiency	100.0% of pipe
Compression Efficiency	100.0% of pipe
Internal Pressure Efficiency	100.0% of pipe
External Pressure Efficiency	100.0% of pipe

FIELD END TORQUE VALUES

Min. Make-up torque	17,000	ft.lb
Opti. Make-up torque	18,250	ft.lb
Max. Make-up torque	19,500	ft.lb
Min. Shoulder Torque	1,700	ft.lb
Max. Shoulder Torque	13,600	ft.lb
Min. Delta Turn	-	Turns
Max. Delta Turn	0.200	Turns
Maximum Operational Torque	24,200	ft.lb
Maximum Torsional Value (MTV)	26,620	ft.lb

Need Help? Contact: tech.support@vam-usa.com

Reference Drawing: 8135PP Rev.02 & 8135BP Rev.02

Date: 07/30/2020

Time: 07:50:47 PM

For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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DWC Connection Data Sheet Notes:

1. DWC connections are available with a seal ring (SR) option.
2. All standard DWC/C connections are interchangeable for a given pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
3. Connection performance properties are based on nominal pipe body and connection dimensions.
4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
7. Bending efficiency is equal to the compression efficiency.
8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
9. Connection yield torque is not to be exceeded.
10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
11. DWC connections will accommodate API standard drift diameters.
12. DWC/C family of connections are compatible with API Buttress BTC connections. Please contact tech.support@vam-usa.com for details on connection ratings and make-up.

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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Verminator 6 Fed Com #302H

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:**

- a. Breathing Apparatus:
 - i. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
 - ii. Work/Escape packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - iii. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.
- b. Auxiliary Rescue Equipment:
 - i. Stretcher
 - ii. Two OSHA full body harness
 - iii. 100 ft 5/8 inch OSHA approved rope
 - iv. 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 System:**

- 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.



Verminator 6 Fed Com #302H

■ **Mud Program:**

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:**

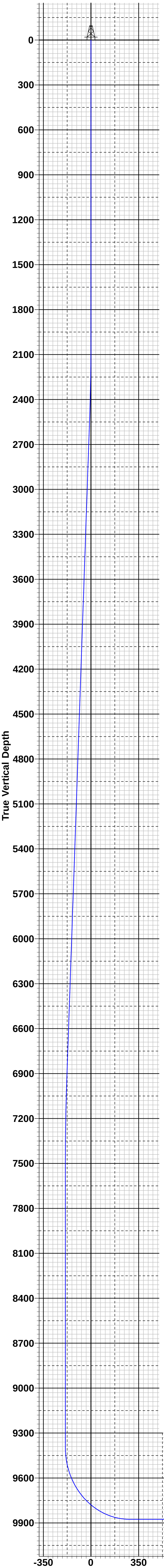
Communication will be via cell phones and land lines where available.

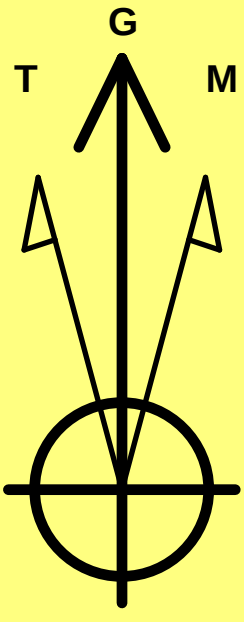


Verminator 6 Fed Com #302H

Emergency Assistance Telephone List

PUBLIC SAFETY:	911 or
Lea County Sheriff's Department	(575) 396-3611
Corey Helton	
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
U.S. Department of Labor	(575) 887-1174
Bureau of Land Management - Hobbs (Lea Co)	(575) 393-3612
PET On Call - Hobbs	(575) 706-2779
Bureau of Land Management - Carlsbad (Eddy Co)	(575) 234-5972
PET On Call - Carlsbad	(575) 706-2779
New Mexico Oil Conservation Division - Artesia	(575) 748-1283
Inspection Group South - Gilbert Gordero	(575) 626-0830
EOG Resources, Inc.	
EOG Midland	(432) 686-3600
Company Drilling Consultants:	
Jett Dueitt	(432) 230-4840
Blake Burney	
Drilling Engineers	
Stephen Davis	(432) 235-9789
Matt Day	(210) 296-4456
Drilling Managers	
Branden Keener	(210) 294-3729
Drilling Superintendents	
Lance Hardy	(432) 215-8152
Ryan Reynolds	(432) 215-5978
Steve Kelly	(210) 416-7894
H&P Drilling	
H&P Drilling	(432) 563-5757
Nabors Drilling	
Nabors Drilling	(432) 363-8180
Patterson UTI	
Patterson UTI	(432) 561-9382
EOG Safety	
Brian Chandler (HSE Manager)	(817) 239-0251





Azimuths to Grid North
True North: -0.49°
Magnetic North: 5.79°

Magnetic Field
Strength: 47402.2nT
Dip Angle: 59.97°
Date: 2/9/2023
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 5.79°
To convert a Magnetic Direction to a True Direction, Add 6.28° East
To convert a True Direction to a Grid Direction, Subtract 0.49°

Lea County, NM (NAD 83 NME)

Verminator 6 Fed Com #302H

Plan #0.1 RT

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

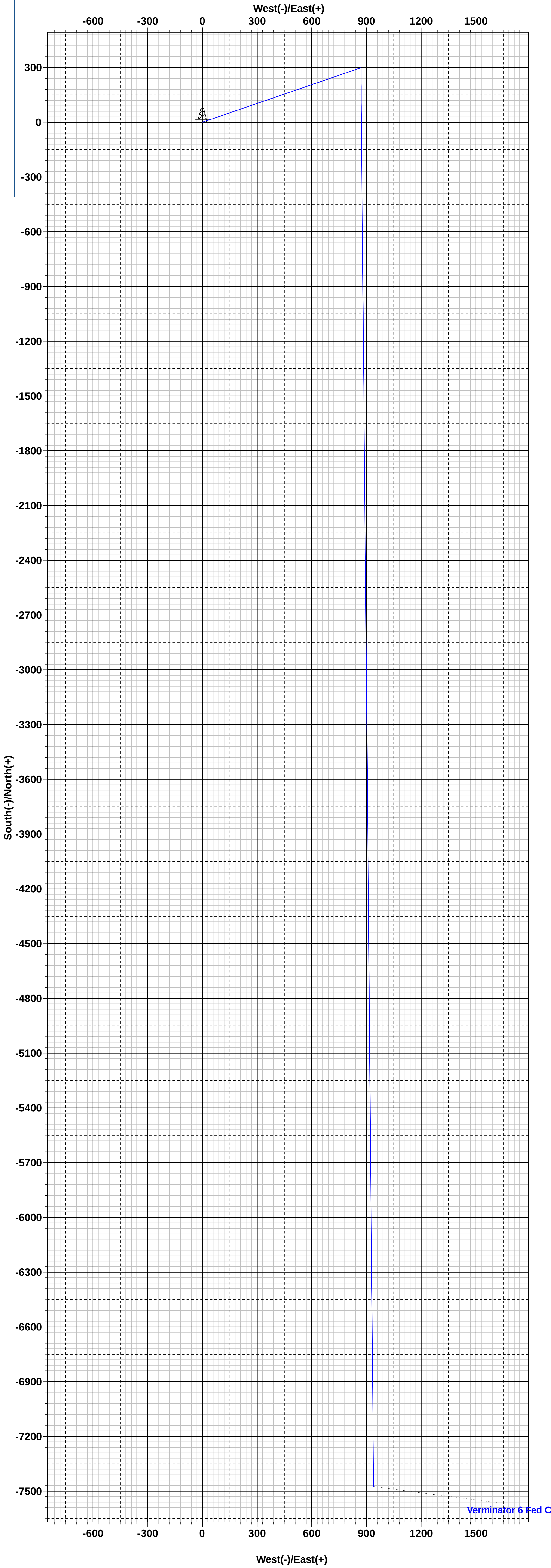
WELL DETAILS: #302H			
kb = 26' @ 3388.0usft		3362.0	
Northing	Easting	Latitude	Longitude
486001.00	826221.00	32° 19' 57.781 N	103° 24' 39.563 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	2526.4	10.53	71.03	2523.4	15.7	45.6	2.00	71.03	-9.9	
4	7033.4	10.53	71.03	6954.6	283.3	824.4	0.00	0.00	-178.4	
5	7559.8	0.00	0.00	7478.0	299.0	870.0	2.00	180.00	-188.2	
6	9480.3	0.00	0.00	9398.5	299.0	870.0	0.00	0.00	-188.2	KOP(Verminator 6 Fed Com #303H)
7	9700.7	26.46	180.00	9611.2	249.0	870.0	12.00	180.00	-138.6	FTP(Verminator 6 Fed Com #303H)
8	10230.3	90.00	179.45	9875.9	-178.4	872.8	12.00	-0.61	285.8	
9	12344.9	90.00	179.45	9876.0	-2293.0	893.0	0.00	0.00	2386.4	Fed Perf 1(Verminator 6 Fed Com #303H)
10	14985.0	90.00	179.55	9876.0	-4933.0	916.0	0.00	88.32	5008.7	Fed Perf 2(Verminator 6 Fed Com #303H)
11	17527.1	90.00	179.41	9876.0	-7475.0	939.0	0.01	-91.20	7533.7	PBHL(Verminator 6 Fed Com #303H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northings	Easting
KOP(Verminator 6 Fed Com #303H)	9398.5	299.0	870.0	486300.00	827091.00
FTP(Verminator 6 Fed Com #303H)	9611.2	249.0	870.0	486250.00	827091.00
Fed Perf 1(Verminator 6 Fed Com #303H)	9876.0	-2293.0	893.0	483708.00	827114.00
Fed Perf 2(Verminator 6 Fed Com #303H)	9876.0	-4933.0	916.0	481068.00	827137.00
PBHL(Verminator 6 Fed Com #303H)	9876.0	-7475.0	939.0	478526.00	827160.00



Vertical Section at 172.84°



Midland

Lea County, NM (NAD 83 NME)

Verminator 6 Fed Com

#302H

OH

Plan: Plan #0.1 RT

Standard Planning Report

15 February, 2023



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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	Verminator 6 Fed Com				
Site Position:		Northing:	486,003.00 usft	Latitude:	32° 19' 57.784 N
From:	Map	Easting:	826,421.00 usft	Longitude:	103° 24' 37.232 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#302H					
Well Position	+N/-S	0.0 usft	Northing:	486,001.00 usft	Latitude:	32° 19' 57.781 N
	+E/-W	0.0 usft	Easting:	826,221.00 usft	Longitude:	103° 24' 39.563 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,362.0 usft
Grid Convergence:		0.49 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/9/2023	6.28	59.97	47,402.15144422

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	172.84	

Plan Survey Tool Program	Date	2/15/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,527.1	Plan #0.1 RT (OH)	EOG MWD+IFR1	
				MWD + IFR1	



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,526.4	10.53	71.03	2,523.4	15.7	45.6	2.00	2.00	0.00	71.03	
7,033.4	10.53	71.03	6,954.6	283.3	824.4	0.00	0.00	0.00	0.00	
7,559.8	0.00	0.00	7,478.0	299.0	870.0	2.00	-2.00	0.00	180.00	
9,480.3	0.00	0.00	9,398.5	299.0	870.0	0.00	0.00	0.00	0.00	KOP(Verminator 6 Fe
9,700.7	26.46	180.00	9,611.2	249.0	870.0	12.00	12.00	81.65	180.00	FTP(Verminator 6 Fe
10,230.3	90.00	179.45	9,875.9	-178.4	872.8	12.00	12.00	-0.10	-0.61	
12,344.9	90.00	179.45	9,876.0	-2,293.0	893.0	0.00	0.00	0.00	0.00	Fed Perf 1(Verminator
14,985.0	90.00	179.55	9,876.0	-4,933.0	916.0	0.00	0.00	0.00	88.32	Fed Perf 2(Verminator
17,527.1	90.00	179.41	9,876.0	-7,475.0	939.0	0.01	0.00	-0.01	-91.20	PBHL(Verminator 6 F



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	2.00	71.03	2,100.0	0.6	1.7	-0.4	2.00	2.00	0.00
2,200.0	4.00	71.03	2,199.8	2.3	6.6	-1.4	2.00	2.00	0.00
2,300.0	6.00	71.03	2,299.5	5.1	14.8	-3.2	2.00	2.00	0.00
2,400.0	8.00	71.03	2,398.7	9.1	26.4	-5.7	2.00	2.00	0.00
2,500.0	10.00	71.03	2,497.5	14.1	41.2	-8.9	2.00	2.00	0.00
2,526.4	10.53	71.03	2,523.4	15.7	45.6	-9.9	2.00	2.00	0.00
2,600.0	10.53	71.03	2,595.8	20.0	58.3	-12.6	0.00	0.00	0.00
2,700.0	10.53	71.03	2,694.1	26.0	75.6	-16.4	0.00	0.00	0.00
2,800.0	10.53	71.03	2,792.4	31.9	92.9	-20.1	0.00	0.00	0.00
2,900.0	10.53	71.03	2,890.8	37.9	110.2	-23.8	0.00	0.00	0.00
3,000.0	10.53	71.03	2,989.1	43.8	127.4	-27.6	0.00	0.00	0.00
3,100.0	10.53	71.03	3,087.4	49.7	144.7	-31.3	0.00	0.00	0.00
3,200.0	10.53	71.03	3,185.7	55.7	162.0	-35.1	0.00	0.00	0.00
3,300.0	10.53	71.03	3,284.0	61.6	179.3	-38.8	0.00	0.00	0.00
3,400.0	10.53	71.03	3,382.3	67.6	196.6	-42.5	0.00	0.00	0.00
3,500.0	10.53	71.03	3,480.7	73.5	213.8	-46.3	0.00	0.00	0.00
3,600.0	10.53	71.03	3,579.0	79.4	231.1	-50.0	0.00	0.00	0.00
3,700.0	10.53	71.03	3,677.3	85.4	248.4	-53.7	0.00	0.00	0.00
3,800.0	10.53	71.03	3,775.6	91.3	265.7	-57.5	0.00	0.00	0.00
3,900.0	10.53	71.03	3,873.9	97.2	283.0	-61.2	0.00	0.00	0.00
4,000.0	10.53	71.03	3,972.2	103.2	300.2	-65.0	0.00	0.00	0.00
4,100.0	10.53	71.03	4,070.6	109.1	317.5	-68.7	0.00	0.00	0.00
4,200.0	10.53	71.03	4,168.9	115.1	334.8	-72.4	0.00	0.00	0.00
4,300.0	10.53	71.03	4,267.2	121.0	352.1	-76.2	0.00	0.00	0.00
4,400.0	10.53	71.03	4,365.5	126.9	369.4	-79.9	0.00	0.00	0.00
4,500.0	10.53	71.03	4,463.8	132.9	386.6	-83.7	0.00	0.00	0.00
4,600.0	10.53	71.03	4,562.1	138.8	403.9	-87.4	0.00	0.00	0.00
4,700.0	10.53	71.03	4,660.5	144.8	421.2	-91.1	0.00	0.00	0.00
4,800.0	10.53	71.03	4,758.8	150.7	438.5	-94.9	0.00	0.00	0.00
4,900.0	10.53	71.03	4,857.1	156.6	455.8	-98.6	0.00	0.00	0.00
5,000.0	10.53	71.03	4,955.4	162.6	473.0	-102.3	0.00	0.00	0.00
5,100.0	10.53	71.03	5,053.7	168.5	490.3	-106.1	0.00	0.00	0.00
5,200.0	10.53	71.03	5,152.0	174.4	507.6	-109.8	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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	10.53	71.03	5,250.4	180.4	524.9	-113.6	0.00	0.00	0.00
5,400.0	10.53	71.03	5,348.7	186.3	542.2	-117.3	0.00	0.00	0.00
5,500.0	10.53	71.03	5,447.0	192.3	559.4	-121.0	0.00	0.00	0.00
5,600.0	10.53	71.03	5,545.3	198.2	576.7	-124.8	0.00	0.00	0.00
5,700.0	10.53	71.03	5,643.6	204.1	594.0	-128.5	0.00	0.00	0.00
5,800.0	10.53	71.03	5,741.9	210.1	611.3	-132.3	0.00	0.00	0.00
5,900.0	10.53	71.03	5,840.3	216.0	628.5	-136.0	0.00	0.00	0.00
6,000.0	10.53	71.03	5,938.6	222.0	645.8	-139.7	0.00	0.00	0.00
6,100.0	10.53	71.03	6,036.9	227.9	663.1	-143.5	0.00	0.00	0.00
6,200.0	10.53	71.03	6,135.2	233.8	680.4	-147.2	0.00	0.00	0.00
6,300.0	10.53	71.03	6,233.5	239.8	697.7	-150.9	0.00	0.00	0.00
6,400.0	10.53	71.03	6,331.8	245.7	714.9	-154.7	0.00	0.00	0.00
6,500.0	10.53	71.03	6,430.2	251.6	732.2	-158.4	0.00	0.00	0.00
6,600.0	10.53	71.03	6,528.5	257.6	749.5	-162.2	0.00	0.00	0.00
6,700.0	10.53	71.03	6,626.8	263.5	766.8	-165.9	0.00	0.00	0.00
6,800.0	10.53	71.03	6,725.1	269.5	784.1	-169.6	0.00	0.00	0.00
6,900.0	10.53	71.03	6,823.4	275.4	801.3	-173.4	0.00	0.00	0.00
7,000.0	10.53	71.03	6,921.7	281.3	818.6	-177.1	0.00	0.00	0.00
7,033.4	10.53	71.03	6,954.6	283.3	824.4	-178.4	0.00	0.00	0.00
7,100.0	9.20	71.03	7,020.2	287.0	835.2	-180.7	2.00	-2.00	0.00
7,200.0	7.20	71.03	7,119.2	291.7	848.7	-183.6	2.00	-2.00	0.00
7,300.0	5.20	71.03	7,218.6	295.2	858.9	-185.8	2.00	-2.00	0.00
7,400.0	3.20	71.03	7,318.3	297.6	865.8	-187.3	2.00	-2.00	0.00
7,500.0	1.20	71.03	7,418.2	298.8	869.4	-188.1	2.00	-2.00	0.00
7,559.8	0.00	0.00	7,478.0	299.0	870.0	-188.2	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,518.2	299.0	870.0	-188.2	0.00	0.00	0.00
7,700.0	0.00	0.00	7,618.2	299.0	870.0	-188.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,718.2	299.0	870.0	-188.2	0.00	0.00	0.00
7,900.0	0.00	0.00	7,818.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,918.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,100.0	0.00	0.00	8,018.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,200.0	0.00	0.00	8,118.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,218.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,318.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,500.0	0.00	0.00	8,418.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,518.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,618.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,718.2	299.0	870.0	-188.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,818.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,918.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,018.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,118.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,300.0	0.00	0.00	9,218.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,400.0	0.00	0.00	9,318.2	299.0	870.0	-188.2	0.00	0.00	0.00
9,480.3	0.00	0.00	9,398.5	299.0	870.0	-188.2	0.00	0.00	0.00
9,500.0	2.37	180.00	9,418.2	298.6	870.0	-187.8	12.00	12.00	0.00
9,525.0	5.37	180.00	9,443.1	296.9	870.0	-186.2	12.00	12.00	0.00
9,550.0	8.37	180.00	9,468.0	293.9	870.0	-183.2	12.00	12.00	0.00
9,575.0	11.37	180.00	9,492.6	289.6	870.0	-178.9	12.00	12.00	0.00
9,600.0	14.37	180.00	9,517.0	284.1	870.0	-173.4	12.00	12.00	0.00
9,625.0	17.37	180.00	9,541.0	277.2	870.0	-166.6	12.00	12.00	0.00
9,650.0	20.37	180.00	9,564.7	269.2	870.0	-158.6	12.00	12.00	0.00
9,675.0	23.37	180.00	9,587.9	259.8	870.0	-149.4	12.00	12.00	0.00
9,700.7	26.46	180.00	9,611.2	249.0	870.0	-138.6	12.00	12.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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)
9,725.0	29.37	179.94	9,632.6	237.6	870.0	-127.4	12.00	12.00	-0.26
9,750.0	32.37	179.88	9,654.1	224.8	870.0	-114.6	12.00	12.00	-0.22
9,775.0	35.37	179.84	9,674.9	210.9	870.1	-100.8	12.00	12.00	-0.18
9,800.0	38.37	179.80	9,694.8	195.9	870.1	-85.9	12.00	12.00	-0.16
9,825.0	41.37	179.76	9,714.0	179.9	870.2	-70.0	12.00	12.00	-0.14
9,850.0	44.37	179.73	9,732.4	162.9	870.2	-53.1	12.00	12.00	-0.12
9,875.0	47.37	179.70	9,749.8	144.9	870.3	-35.3	12.00	12.00	-0.11
9,900.0	50.37	179.68	9,766.2	126.1	870.4	-16.6	12.00	12.00	-0.10
9,925.0	53.37	179.66	9,781.6	106.4	870.6	2.9	12.00	12.00	-0.09
9,950.0	56.37	179.63	9,796.0	86.0	870.7	23.2	12.00	12.00	-0.09
9,975.0	59.37	179.61	9,809.3	64.8	870.8	44.2	12.00	12.00	-0.08
10,000.0	62.37	179.60	9,821.5	43.0	871.0	65.9	12.00	12.00	-0.07
10,025.0	65.37	179.58	9,832.5	20.5	871.1	88.2	12.00	12.00	-0.07
10,050.0	68.37	179.56	9,842.3	-2.4	871.3	111.0	12.00	12.00	-0.07
10,075.0	71.37	179.55	9,850.9	-25.9	871.5	134.3	12.00	12.00	-0.06
10,100.0	74.37	179.53	9,858.3	-49.8	871.7	158.1	12.00	12.00	-0.06
10,125.0	77.37	179.51	9,864.4	-74.0	871.9	182.1	12.00	12.00	-0.06
10,150.0	80.37	179.50	9,869.2	-98.6	872.1	206.5	12.00	12.00	-0.06
10,175.0	83.37	179.48	9,872.8	-123.3	872.3	231.1	12.00	12.00	-0.06
10,200.0	86.37	179.47	9,875.0	-148.2	872.5	255.8	12.00	12.00	-0.06
10,225.0	89.37	179.46	9,875.9	-173.2	872.8	280.6	12.00	12.00	-0.06
10,230.3	90.00	179.45	9,875.9	-178.4	872.8	285.8	12.00	12.00	-0.06
10,300.0	90.00	179.45	9,875.9	-248.2	873.5	355.1	0.00	0.00	0.00
10,400.0	90.00	179.45	9,876.0	-348.2	874.4	454.5	0.00	0.00	0.00
10,500.0	90.00	179.45	9,876.0	-448.2	875.4	553.8	0.00	0.00	0.00
10,600.0	90.00	179.45	9,876.0	-548.2	876.3	653.1	0.00	0.00	0.00
10,700.0	90.00	179.45	9,876.0	-648.2	877.3	752.5	0.00	0.00	0.00
10,800.0	90.00	179.45	9,876.0	-748.2	878.3	851.8	0.00	0.00	0.00
10,900.0	90.00	179.45	9,876.0	-848.2	879.2	951.1	0.00	0.00	0.00
11,000.0	90.00	179.45	9,876.0	-948.1	880.2	1,050.5	0.00	0.00	0.00
11,100.0	90.00	179.45	9,876.0	-1,048.1	881.1	1,149.8	0.00	0.00	0.00
11,200.0	90.00	179.45	9,876.0	-1,148.1	882.1	1,249.1	0.00	0.00	0.00
11,300.0	90.00	179.45	9,876.0	-1,248.1	883.0	1,348.5	0.00	0.00	0.00
11,400.0	90.00	179.45	9,876.0	-1,348.1	884.0	1,447.8	0.00	0.00	0.00
11,500.0	90.00	179.45	9,876.0	-1,448.1	884.9	1,547.1	0.00	0.00	0.00
11,600.0	90.00	179.45	9,876.0	-1,548.1	885.9	1,646.5	0.00	0.00	0.00
11,700.0	90.00	179.45	9,876.0	-1,648.1	886.8	1,745.8	0.00	0.00	0.00
11,800.0	90.00	179.45	9,876.0	-1,748.1	887.8	1,845.1	0.00	0.00	0.00
11,900.0	90.00	179.45	9,876.0	-1,848.1	888.8	1,944.5	0.00	0.00	0.00
12,000.0	90.00	179.45	9,876.0	-1,948.1	889.7	2,043.8	0.00	0.00	0.00
12,100.0	90.00	179.45	9,876.0	-2,048.1	890.7	2,143.1	0.00	0.00	0.00
12,200.0	90.00	179.45	9,876.0	-2,148.1	891.6	2,242.5	0.00	0.00	0.00
12,300.0	90.00	179.45	9,876.0	-2,248.1	892.6	2,341.8	0.00	0.00	0.00
12,344.9	90.00	179.45	9,876.0	-2,293.0	893.0	2,386.4	0.00	0.00	0.00
12,400.0	90.00	179.46	9,876.0	-2,348.1	893.5	2,441.1	0.00	0.00	0.00
12,500.0	90.00	179.46	9,876.0	-2,448.1	894.5	2,540.5	0.00	0.00	0.00
12,600.0	90.00	179.46	9,876.0	-2,548.1	895.4	2,639.8	0.00	0.00	0.00
12,700.0	90.00	179.47	9,876.0	-2,648.1	896.3	2,739.1	0.00	0.00	0.00
12,800.0	90.00	179.47	9,876.0	-2,748.1	897.3	2,838.5	0.00	0.00	0.00
12,900.0	90.00	179.47	9,876.0	-2,848.1	898.2	2,937.8	0.00	0.00	0.00
13,000.0	90.00	179.48	9,876.0	-2,948.1	899.1	3,037.1	0.00	0.00	0.00
13,100.0	90.00	179.48	9,876.0	-3,048.1	900.0	3,136.5	0.00	0.00	0.00
13,200.0	90.00	179.48	9,876.0	-3,148.1	900.9	3,235.8	0.00	0.00	0.00
13,300.0	90.00	179.49	9,876.0	-3,248.0	901.8	3,335.1	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	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)
13,400.0	90.00	179.49	9,876.0	-3,348.0	902.7	3,434.4	0.00	0.00	0.00
13,500.0	90.00	179.49	9,876.0	-3,448.0	903.6	3,533.8	0.00	0.00	0.00
13,600.0	90.00	179.50	9,876.0	-3,548.0	904.5	3,633.1	0.00	0.00	0.00
13,700.0	90.00	179.50	9,876.0	-3,648.0	905.4	3,732.4	0.00	0.00	0.00
13,800.0	90.00	179.51	9,876.0	-3,748.0	906.2	3,831.8	0.00	0.00	0.00
13,900.0	90.00	179.51	9,876.0	-3,848.0	907.1	3,931.1	0.00	0.00	0.00
14,000.0	90.00	179.51	9,876.0	-3,948.0	907.9	4,030.4	0.00	0.00	0.00
14,100.0	90.00	179.52	9,876.0	-4,048.0	908.8	4,129.7	0.00	0.00	0.00
14,200.0	90.00	179.52	9,876.0	-4,148.0	909.6	4,229.0	0.00	0.00	0.00
14,300.0	90.00	179.52	9,876.0	-4,248.0	910.5	4,328.4	0.00	0.00	0.00
14,400.0	90.00	179.53	9,876.0	-4,348.0	911.3	4,427.7	0.00	0.00	0.00
14,500.0	90.00	179.53	9,876.0	-4,448.0	912.1	4,527.0	0.00	0.00	0.00
14,600.0	90.00	179.53	9,876.0	-4,548.0	912.9	4,626.3	0.00	0.00	0.00
14,700.0	90.00	179.54	9,876.0	-4,648.0	913.7	4,725.6	0.00	0.00	0.00
14,800.0	90.00	179.54	9,876.0	-4,748.0	914.5	4,825.0	0.00	0.00	0.00
14,900.0	90.00	179.55	9,876.0	-4,848.0	915.3	4,924.3	0.00	0.00	0.00
14,985.0	90.00	179.55	9,876.0	-4,933.0	916.0	5,008.7	0.00	0.00	0.00
15,000.0	90.00	179.55	9,876.0	-4,948.0	916.1	5,023.6	0.01	0.00	-0.01
15,100.0	90.00	179.54	9,876.0	-5,048.0	916.9	5,122.9	0.01	0.00	-0.01
15,200.0	90.00	179.54	9,876.0	-5,148.0	917.7	5,222.2	0.01	0.00	-0.01
15,300.0	90.00	179.53	9,876.0	-5,248.0	918.5	5,321.5	0.01	0.00	-0.01
15,400.0	90.00	179.53	9,876.0	-5,348.0	919.3	5,420.9	0.01	0.00	-0.01
15,500.0	90.00	179.52	9,876.0	-5,448.0	920.2	5,520.2	0.01	0.00	-0.01
15,600.0	90.00	179.52	9,876.0	-5,548.0	921.0	5,619.5	0.01	0.00	-0.01
15,700.0	90.00	179.51	9,876.0	-5,648.0	921.9	5,718.8	0.01	0.00	-0.01
15,800.0	90.00	179.51	9,876.0	-5,748.0	922.7	5,818.1	0.01	0.00	-0.01
15,900.0	90.00	179.50	9,876.0	-5,848.0	923.6	5,917.5	0.01	0.00	-0.01
16,000.0	90.00	179.50	9,876.0	-5,948.0	924.5	6,016.8	0.01	0.00	-0.01
16,100.0	90.00	179.49	9,876.0	-6,047.9	925.4	6,116.1	0.01	0.00	-0.01
16,200.0	90.00	179.48	9,876.0	-6,147.9	926.3	6,215.5	0.01	0.00	-0.01
16,300.0	90.00	179.48	9,876.0	-6,247.9	927.2	6,314.8	0.01	0.00	-0.01
16,400.0	90.00	179.47	9,876.0	-6,347.9	928.1	6,414.1	0.01	0.00	-0.01
16,500.0	90.00	179.47	9,876.0	-6,447.9	929.0	6,513.4	0.01	0.00	-0.01
16,600.0	90.00	179.46	9,876.0	-6,547.9	929.9	6,612.8	0.01	0.00	-0.01
16,700.0	90.00	179.46	9,876.0	-6,647.9	930.9	6,712.1	0.01	0.00	-0.01
16,800.0	90.00	179.45	9,876.0	-6,747.9	931.8	6,811.4	0.01	0.00	-0.01
16,900.0	90.00	179.45	9,876.0	-6,847.9	932.8	6,910.8	0.01	0.00	-0.01
17,000.0	90.00	179.44	9,876.0	-6,947.9	933.7	7,010.1	0.01	0.00	-0.01
17,100.0	90.00	179.44	9,876.0	-7,047.9	934.7	7,109.4	0.01	0.00	-0.01
17,200.0	90.00	179.43	9,876.0	-7,147.9	935.7	7,208.8	0.01	0.00	-0.01
17,300.0	90.00	179.43	9,876.0	-7,247.9	936.7	7,308.1	0.01	0.00	-0.01
17,400.0	90.00	179.42	9,876.0	-7,347.9	937.7	7,407.5	0.01	0.00	-0.01
17,500.0	90.00	179.42	9,876.0	-7,447.9	938.7	7,506.8	0.01	0.00	-0.01
17,527.1	90.00	179.41	9,876.0	-7,475.0	939.0	7,533.7	0.01	0.00	-0.01



Planning Report

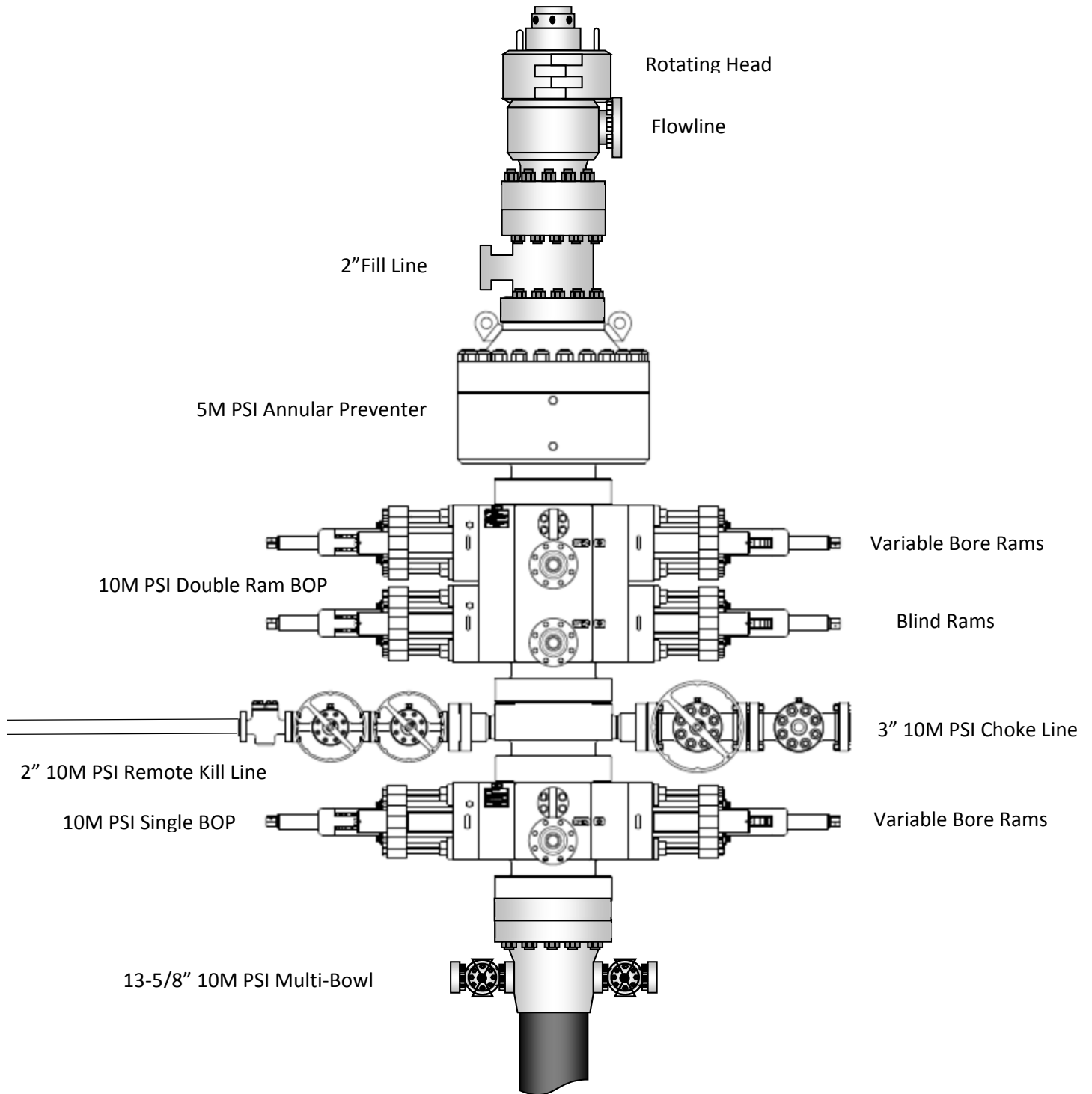
Database:	PEDM	Local Co-ordinate Reference:	Well #302H
Company:	Midland	TVD Reference:	kb = 26' @ 3388.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3388.0usft
Site:	Verminator 6 Fed Com	North Reference:	Grid
Well:	#302H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
KOP(Verminator 6 Fed C - plan hits target center - Point	0.00	0.00	9,398.5	299.0	870.0	486,300.00	827,091.00	32° 20' 0.666 N	103° 24' 29.394 W
FTP(Verminator 6 Fed C - plan hits target center - Point	0.00	0.00	9,611.2	249.0	870.0	486,250.00	827,091.00	32° 20' 0.171 N	103° 24' 29.399 W
PBHL(Verminator 6 Fed - plan hits target center - Point	0.00	0.00	9,876.0	-7,475.0	939.0	478,526.00	827,160.00	32° 18' 43.739 N	103° 24' 29.372 W
Fed Perf 2(Verminator 6 - plan hits target center - Point	0.00	0.00	9,876.0	-4,933.0	916.0	481,068.00	827,137.00	32° 19' 8.893 N	103° 24' 29.385 W
Fed Perf 1(Verminator 6 - plan hits target center - Point	0.00	0.00	9,876.0	-2,293.0	893.0	483,708.00	827,114.00	32° 19' 35.017 N	103° 24' 29.387 W

Exhibit 1

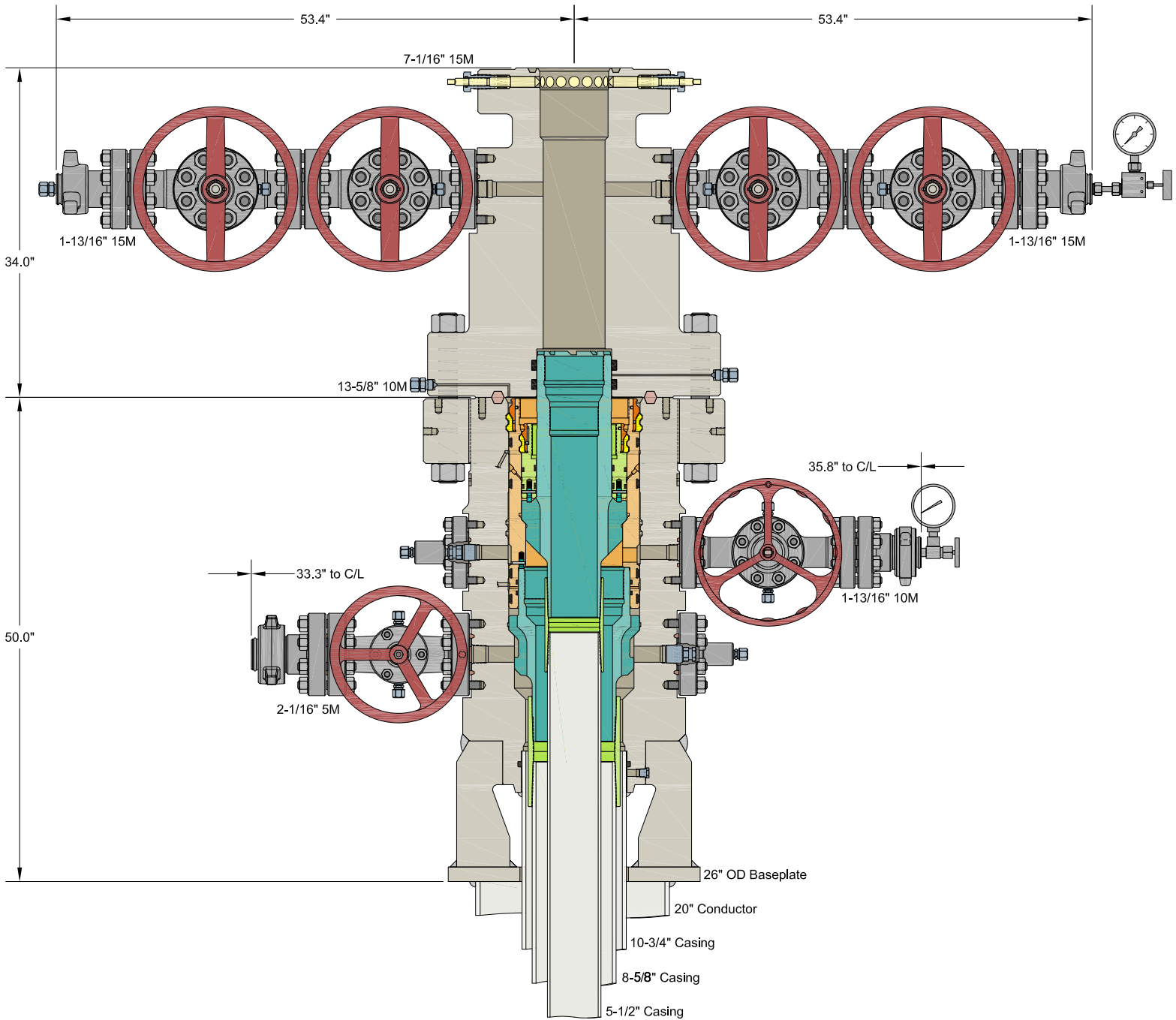
EOG Resources

13-5/8" 10M PSI BOP Stack



**Verminator 6 Fed Com Package**

Wells in package:	Tgt TVD
Lakewood 28 Fed Com #101H	9,458
Lakewood 28 Fed Com #102H	9,458
Lakewood 28 Fed Com #103H	9,458
Lakewood 28 Fed Com #104H	9,458
Lakewood 28 Fed Com #105H	9,458
Lakewood 28 Fed Com #106H	9,458
Lakewood 28 Fed Com #201H	9,785
Lakewood 28 Fed Com #202H	9,785
Lakewood 28 Fed Com #203H	9,785
Lakewood 28 Fed Com #204H	9,785
Lakewood 28 Fed Com #205H	9,785
Lakewood 28 Fed Com #301H	10,418
Lakewood 28 Fed Com #302H	10,418
Lakewood 28 Fed Com #303H	10,418
Lakewood 28 Fed Com #304H	10,418
Lakewood 28 Fed Com #305H	10,418
Lakewood 28 Fed Com #306H	10,418
Lakewood 28 Fed Com #311H	10,418
Lakewood 28 Fed Com #312H	10,418
Lakewood 28 Fed Com #313H	10,418
Lakewood 28 Fed Com #314H	10,418
Lakewood 28 Fed Com #315H	10,418
Lakewood 28 Fed Com #316H	10,418
Lakewood 28 Fed Com #501H	10,983
Lakewood 28 Fed Com #502H	10,983
Lakewood 28 Fed Com #503H	10,983
Lakewood 28 Fed Com #504H	10,983
Lakewood 28 Fed Com #505H	10,983
Lakewood 28 Fed Com #506H	10,983
Lakewood 28 Fed Com #507H	10,983
Lakewood 28 Fed Com #508H	10,983



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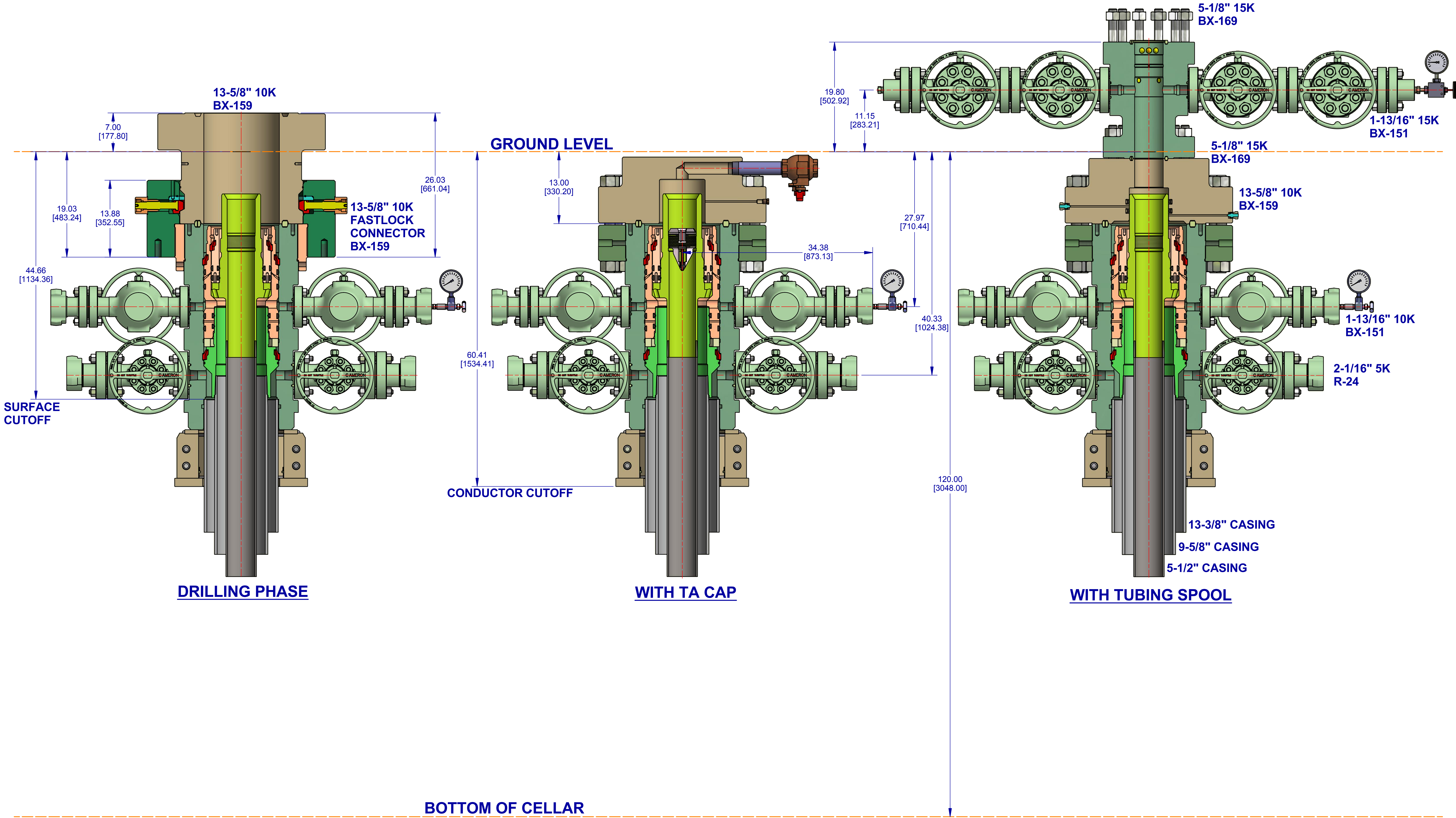
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

EOG RESOURCES

10-3/4" x 8-5/8" x 5-1/2" MBU-3T-SF-SOW Wellhead System
With 8-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers
And 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head

DRAWN	DLE	14APR21
APPRV		
DRAWING NO.	SDT-3141	



CONFIDENTIAL									
 THIRD ANGLE	DESIGNED IN INCHES DIMENSIONAL UNITS INCHES [MILLIMETERS]	MACHINING TOLERANCES UNLESS OTHERWISE SPECIFIED		SURFACE TREATMENT	DO NOT SCALE		 CAMERON A Schlumberger Company	SURFACE SYSTEMS	
					DRAWN BY: KEN REED	DATE 6 Nov 18			
					CHECKED BY: PA	DATE 6 Nov 18			
					APPROVED BY: APPROVER NAME	DATE 6 Nov 18			
					ESTIMATED WEIGHT: 8147.2 LBS [INITIAL USE BIM: 3895.5 KG EWR:650353762]				
MATERIAL & HEAT TREAT		SHEET 1 OF 1		REV: 01					
MACHINED FILLET RADII .015-.050 [0.38-1.27]. BREAK ALL SHARP EDGES .01-.03 [0.2-0.8] RADII OR 45°. SURFACE FINISH IN MICRO (μ) INCHES (Ra). INTERPRET DRAWING PER ASME Y14.5, ASME Y14.36, AND AWS A2.4 STANDARDS. SEE BIM FOR MATERIAL AND SPECIAL REQUIREMENTS. ITEM NUMBERS NOT APPEARING ON BIM DO NOT APPLY.									
X [D.] ± = []		ANGLES ± °		RA ON ALL MACHINED SURFACES		SD-052491-19-07		INVENTOR	
XX [D X] ± = []		✓							
XXX [D X X] ± = []									



U. S. Steel Tubular Products

3/2/2021 9:19:17 AM

6.000" 24.00lbs/ft (0.400" Wall) P110 HP USS-EAGLE SFH® SC



MECHANICAL PROPERTIES	Pipe	USS-EAGLE SFH® SC	
Minimum Yield Strength	125,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	130,000	--	psi
DIMENSIONS	Pipe	USS-EAGLE SFH® SC	
Outside Diameter	6.000	6.265	in.
Wall Thickness	0.400	--	in.
Inside Diameter	5.200	5.116	in.
Standard Drift	5.075	5.075	in.
Alternate Drift	--	5.075	in.
Nominal Linear Weight, T&C	24.00	--	lbs/ft
Plain End Weight	23.95	--	lbs/ft
SECTION AREA	Pipe	USS-EAGLE SFH® SC	
Critical Area	7.037	5.816	sq. in.
Joint Efficiency	--	82.7	%
PERFORMANCE	Pipe	USS-EAGLE SFH® SC	
Minimum Collapse Pressure	13,510	13,510	psi
External Pressure Leak Resistance	--	7,820	psi
Minimum Internal Yield Pressure	14,580	14,580	psi
Minimum Pipe Body Yield Strength	880,000	--	lbs
Joint Strength	--	727,000	lbs
Compression Rating	--	727,000	lbs
Reference Length	--	20,240	ft
Maximum Uniaxial Bend Rating	--	78.9	deg/100 ft
MAKE-UP DATA	Pipe	USS-EAGLE SFH® SC	
Make-Up Loss	--	6.66	in.
Minimum Make-Up Torque	--	20,400	ft-lbs
Maximum Make-Up Torque	--	22,400	ft-lbs
Maximum Operating Torque	--	35,200	ft-lbs

Legal Notice

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Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com



API 5CT, 10th Ed. Connection Data Sheet

O.D. (in)	WEIGHT (lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: 32.00 Plain End: 31.13	0.352	J55	7.796	87.5

Material Properties (PE)

Pipe	
Minimum Yield Strength:	55 ksi
Maximum Yield Strength:	80 ksi
Minimum Tensile Strength:	75 ksi
Coupling	
Minimum Yield Strength:	55 ksi
Maximum Yield Strength:	80 ksi
Minimum Tensile Strength:	75 ksi

Pipe Body Data (PE)

Geometry	
Nominal ID:	7.92 inch
Nominal Area:	9.149 in ²
*Special/Alt. Drift:	7.875 inch
Performance	
Pipe Body Yield Strength:	503 kips
Collapse Resistance:	2,530 psi
Internal Yield Pressure: (API Historical)	3,930 psi

API Connection Data

Coupling OD: 9.625"

STC Performance	
STC Internal Pressure:	3,930 psi
STC Joint Strength:	372 kips
LTC Performance	
LTC Internal Pressure:	3,930 psi
LTC Joint Strength:	417 kips
SC-BTC Performance - Cplg OD = 9.125"	
BTC Internal Pressure:	3,930 psi
BTC Joint Strength:	503 kips

API Connection Torque

STC Torque (ft-lbs)			
Min:	2,793	Opti:	3,724
		Max:	4,655
LTC Torque (ft-lbs)			
Min:	3,130	Opti:	4,174
		Max:	5,217
BTC Torque (ft-lbs)			
follow API guidelines regarding positional make up			

*Alt. Drift will be used unless API Drift is specified on order.

**If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

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Rev 3, 7/30/2021

10/21/2022 15:24

VALLOUREC STAR 8.625 32# J55 S S2L2 DA 7.875 W/O# SLN# PO# MADE IN USA FT LB

VALLOUREC STAR 8.625 32# P110EC S S2L2 DA 7.875 W/O# SLN# PO# MADE IN USA FT LB



API 5CT, 10th Ed. Connection Data Sheet

O.D. (in)	WEIGHT (lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: 32.00 Plain End: 31.13	0.352	P110EC	7.796	87.5

Material Properties (PE)

Pipe	
Minimum Yield Strength:	125 ksi
Maximum Yield Strength:	140 ksi
Minimum Tensile Strength:	135 ksi
Coupling	
Minimum Yield Strength:	125 ksi
Maximum Yield Strength:	140 ksi
Minimum Tensile Strength:	135 ksi

Pipe Body Data (PE)

Geometry	
Nominal ID:	7.92 inch
Nominal Area:	9.149 in ²
*Special/Alt. Drift:	7.875 inch
Performance	
Pipe Body Yield Strength:	1,144 kips
Collapse Resistance:	4,000 psi
Internal Yield Pressure: (API Historical)	8,930 psi

THIS SIZE/GRADE IS NOT VALIDATED BY API TO HAVE AN API CONNECTION

API Connection Data

Coupling OD: 9.625"

STC Performance

STC Internal Pressure:	8,930 psi
STC Joint Strength:	793 kips

LTC Performance

LTC Internal Pressure:	8,930 psi
LTC Joint Strength:	887 kips

SC-BTC Performance - Cplg OD = 9.125"

BTC Internal Pressure:	6,340 psi
BTC Joint Strength:	1,120 kips

API Connection Torque

STC Torque (ft-lbs)

Min:	5,948	Opti:	7,930	Max:	9,913
------	-------	-------	-------	------	-------

LTC Torque (ft-lbs)

Min:	6,653	Opti:	8,870	Max:	11,088
------	-------	-------	-------	------	--------

BTC Torque (ft-lbs)

follow API guidelines regarding positional make up

*Alt. Drift will be used unless API Drift is specified on order.

**If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

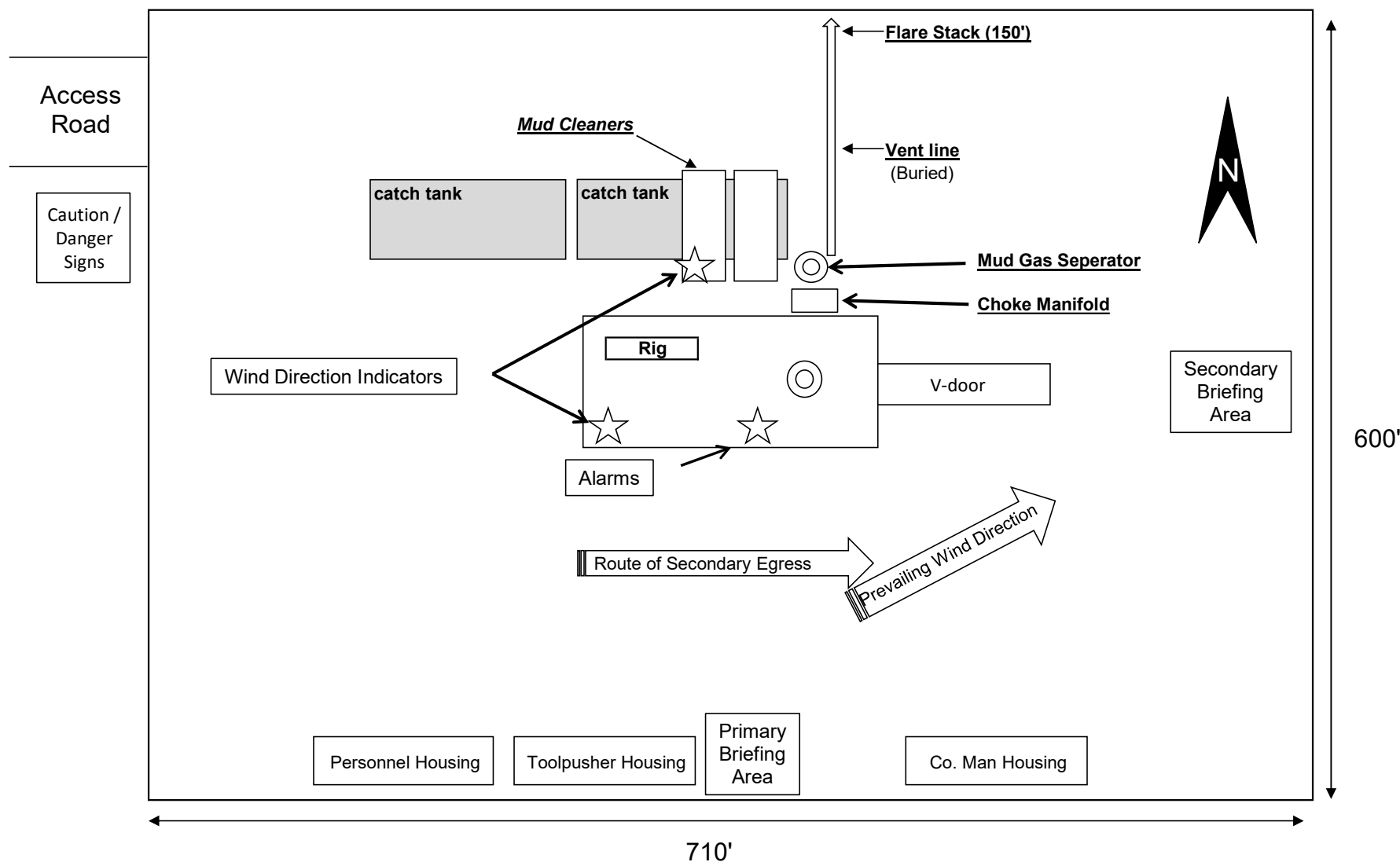
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Rev 3, 7/30/2021

10/26/2022 14:52

Exhibit 4
EOG Resources
Verminator 6 Fed Com #302H

Well Site Diagram





Verminator 6 Fed Com #302H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,787'
Tamarisk Anhydrite	1,849'
Top of Salt	2,255'
Base of Salt	4,039'
Tansill	4,159'
Capitan	4,599'
Lamar	5,810'
Bell Canyon	5,851'
Cherry Canyon	6,117'
Brushy Canyon	7,503'
Bone Spring Lime	8,715'
Leonard (Avalon) Shale	8,789'
1st Bone Spring Sand	9,729'
2nd Bone Spring Shale	9,919'
2nd Bone Spring Sand	10,251'
3rd Bone Spring Carb	10,560'
3rd Bone Spring Sand	11,093'
TD	9,876'

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

Upper Permian Sands	0- 400'	Fresh Water
Capitan	4,599'	Oil
Bell Canyon	5,851'	Oil
Cherry Canyon	6,117'	Oil
Brushy Canyon	7,503'	Oil
Bone Spring Lime	8,715'	Oil
Leonard (Avalon) Shale	8,789'	Oil
1st Bone Spring Sand	9,729'	Oil
2nd Bone Spring Shale	9,919'	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 10-3/4" casing at 1,874' and circulating cement back to surface.



Verminator 6 Fed Com #302H

4. PRIMARY APD DESIGN A

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13"	0	1,874	0	1,874	10-3/4"	40.5#	J-55	STC
9-7/8"	0	5,946	0	5,860	8-5/8"	32#	J-55	BTC-SC
7-7/8"	0	9,380	0	9,299	6"	24.5#	P110-EC	VAM Sprint-TC
6-3/4"	9,380	17,527	9,299	9,876	5-1/2"	20#	P110-EC	VAM Sprint SF

**For highlighted rows above, variance is requested to run entire string of either 6" or 5-1/2" casing string above due to availability.

Hole will be full during casing run for well control and tensile SF factor. Casing will be kept at least half full during run for this design to meet BLM collapse SF requirement. External pressure will be reviewed prior to conducting casing pressure tests to ensure that 70% of the yield is not exceeded.

Variance is requested to waive the centralizer requirements for the 8-5/8" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" and 5-1/2" casings in the 7-7/8" and 6-3/4" hole sizes. An expansion additive will be utilized in the cement slurry for the entire length of the 7-7/8" and 6-3/4" hole intervals to maximize cement bond and zonal isolation.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Title 43 CFR Part 3170 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

5. CEMENTING PROGRAM:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,880' 10-3/4"	420	13.5	1.73	Lead: Class C/H + additives (TOC @ Surface)
	120	14.8	1.34	Tail: Class C/H + additives (TOC @ 1680')
5,946' 8-5/8"	360	12.7	2.22	Lead: Class C/H + additives + expansive additives (TOC @ Surface)
	330	14.8	1.32	Tail: Class C/H + additives + expansive additives (TOC @ 4757')
17,527' 6"	1000	14.8	1.32	Bradenhead squeeze: Class C/H + additives + expansive additives (TOC @ surface)
	1190	13.2	1.52	Tail: Class C/H + additives (TOC @ 6120')



Verminator 6 Fed Com #302H

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

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.

EOG requests variance from minimum standards to pump a two stage cement job on the 6" and 5-1/2" production casing strings with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,503') 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 Class C/H cement + additives (1.32 yld, 14.8 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

Bradenhead will be the primary option for production cementing. EOG also requests to have the conventional option in place to accommodate for logistical or wellbore conditions. The tie back requirements will be met if the cement is pumped conventionally, and cement volumes will be adjusted accordingly. TOC will be verified by CBL.



Verminator 6 Fed Com #302H

6. 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. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

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.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/ 250 psig and the annular preventer to 5,000/ 250 psig.

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.

7. 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 – 1,874'	Fresh - Gel	8.6-8.8	28-34	N/c
1,874' – 5,860'	Brine	9.8-10.8	28-34	N/c
5,860' – 17,527' Lateral	Oil Base	8.8-9.5	58-68	N/c - 6

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.

**Verminator 6 Fed Com #302H****8. 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.

9. LOGGING, TESTING AND CORING PROGRAM:

- (A) Open-hole logs are not planned for this well.
- (B) GR-CCL will be run in cased hole during completions phase of operations.

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

The estimated bottom-hole temperature (BHT) at TD is 169 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4,622 psig and a maximum anticipated surface pressure of 2,449 psig (based on 9.0 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 6,117' to intermediate casing point.

11. 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 1,500 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.

**Verminator 6 Fed Com #302H****12. WELLHEAD:**

A multi-bowl wellhead system will be utilized.

After running the surface casing, a 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 Title 43 CFR Part 3170.

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.

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 Title 43 CFR Part 3170 to at least 0.22 psi/ft or 1,500 psi, whichever is greater.

13. VARIANCE REQUESTS:

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 3e - BOP Break-test and Offline Surface and Intermediate Cement
- EOG BLM Variance 3d - Production Offline Cement
- EOG BLM Variance 4a - Salt Section Annular Clearance
- EOG BLM Variance 5a - Alternate Shallow Casing Designs



Verminator 6 Fed Com #302H

14. TUBING REQUIREMENTS:

EOG respectfully requests an exception to the following NMOCD rule:

19.15.16.10 Casing AND TUBING REQUIREMENTS:

- J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



Verminator 6 Fed Com #302H

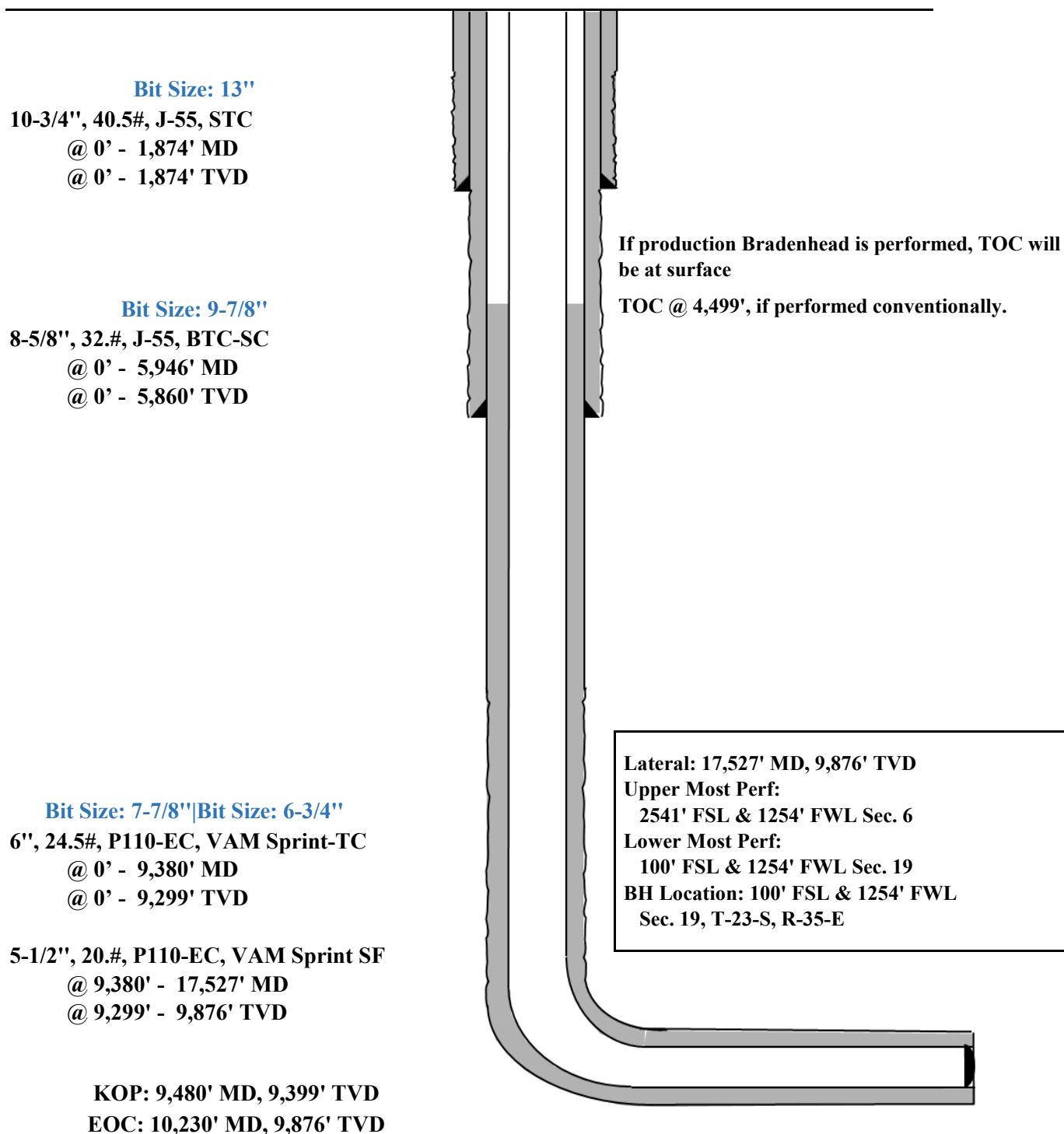
2302' FSL
1293' FWL
Section 6
T-23-S, R-35-E

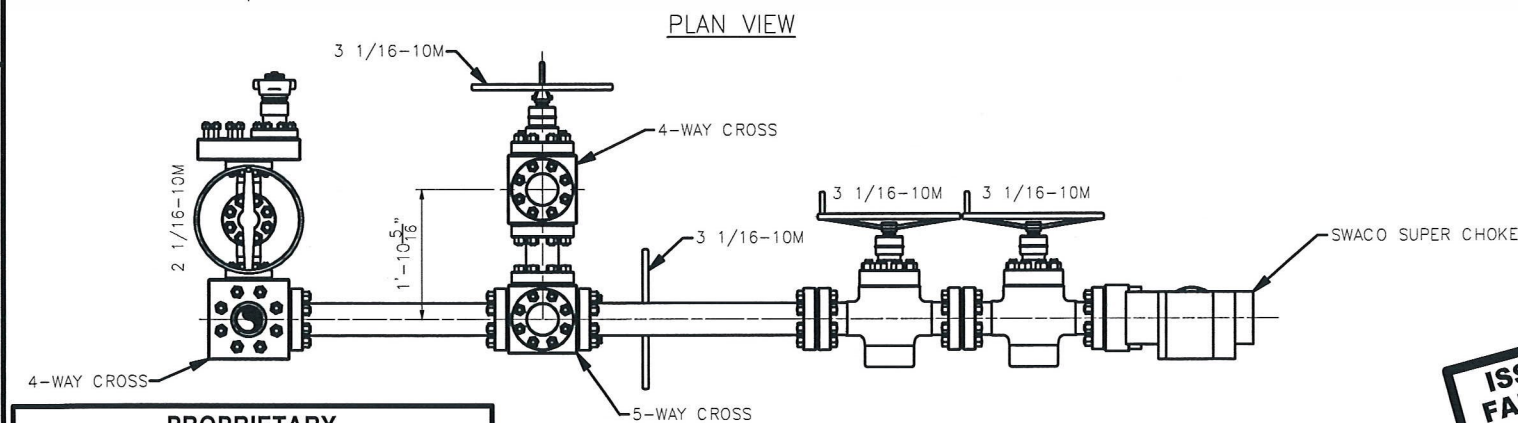
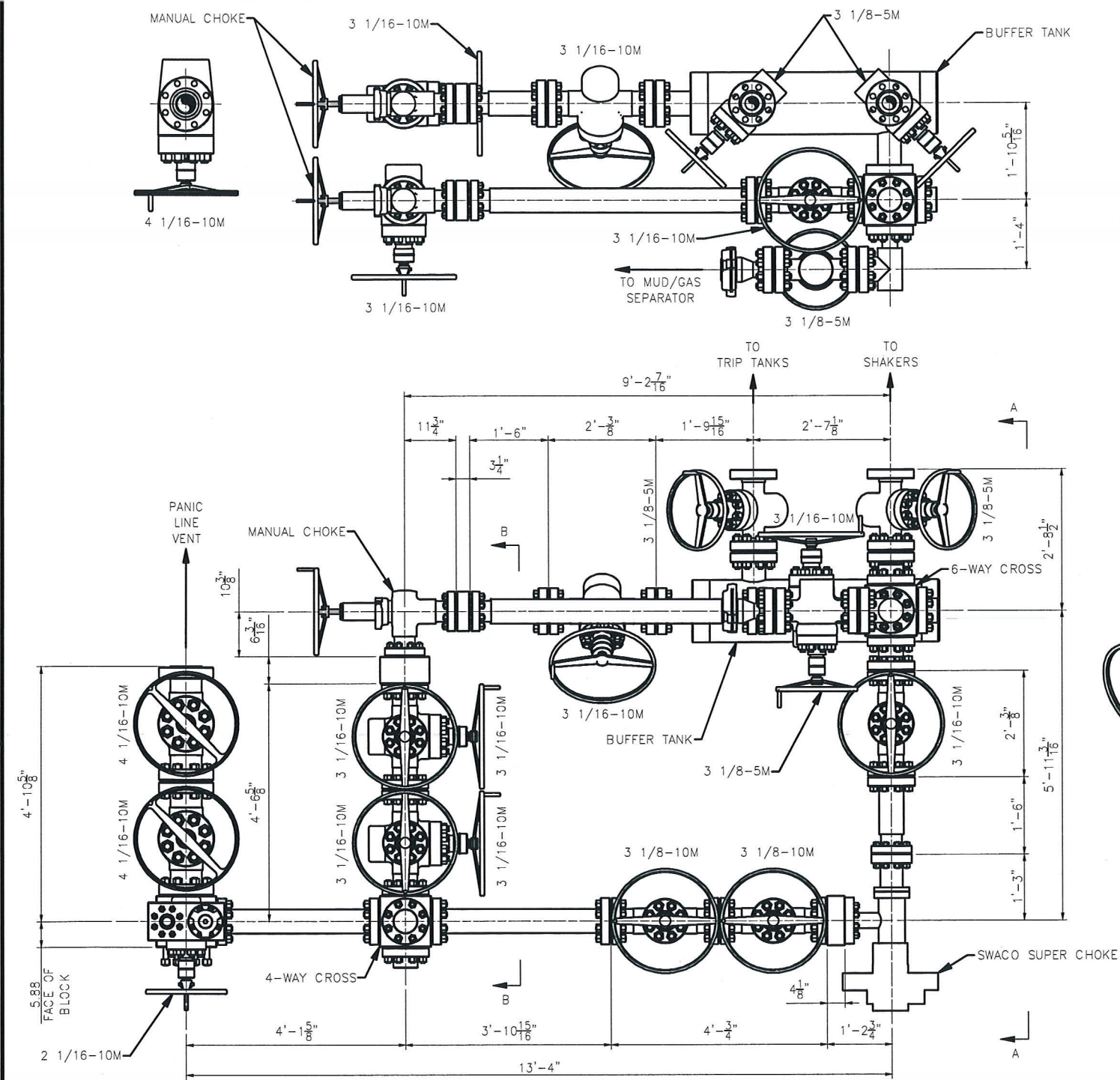
Proposed Wellbore

KB: 3387'

GL: 3362'

API: 30-025-*****

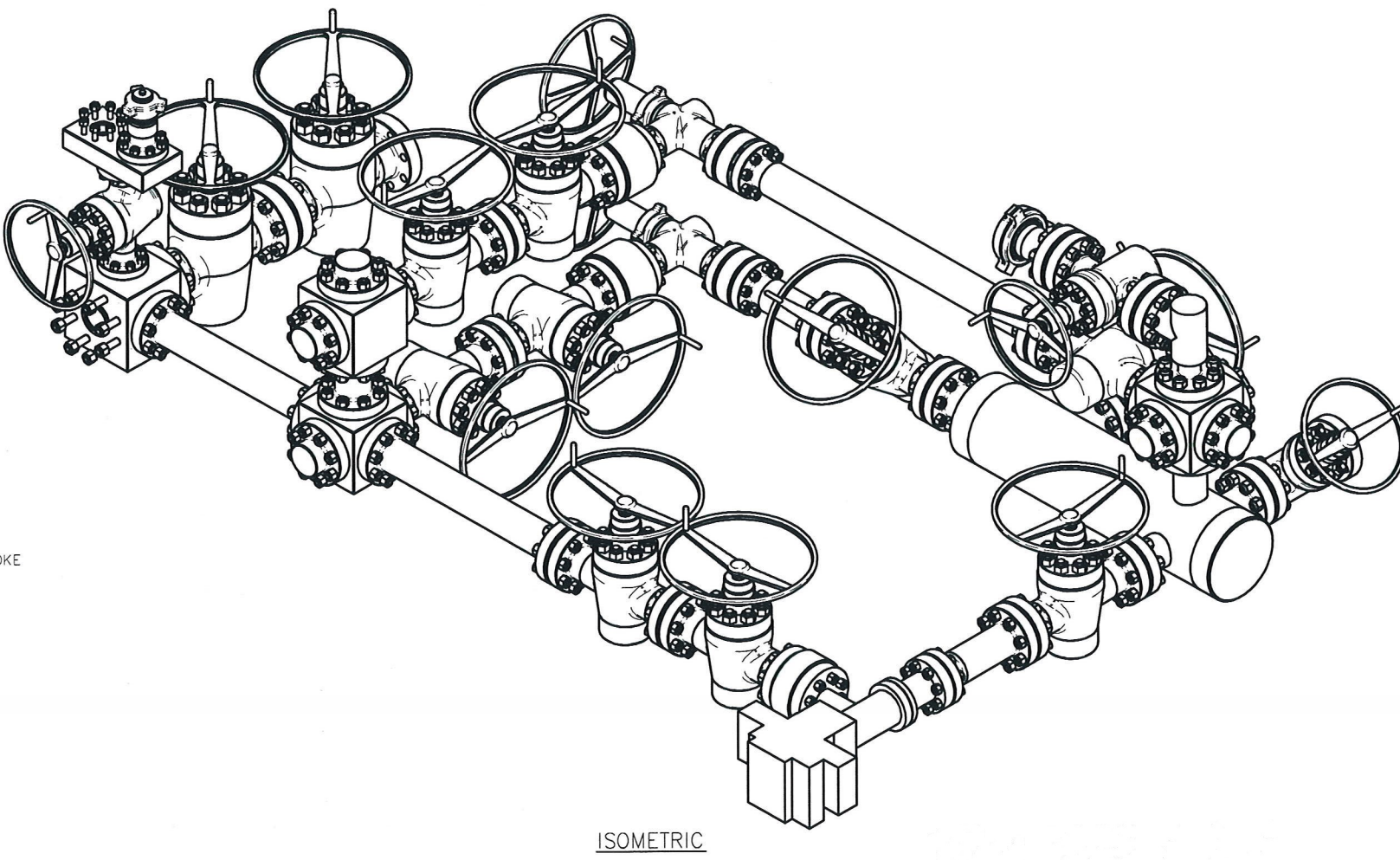
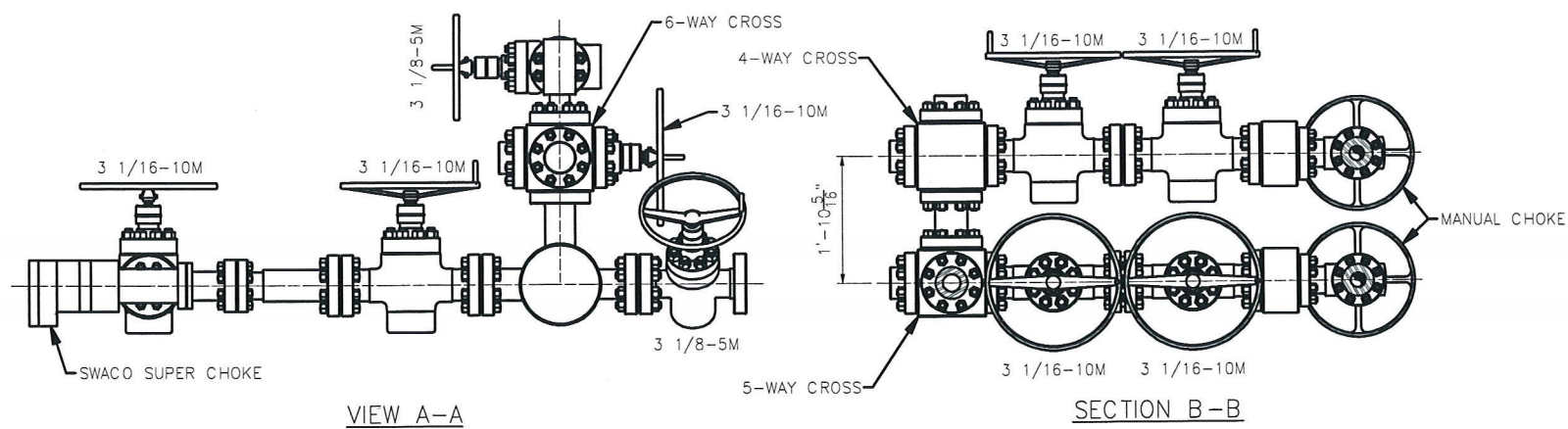




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ISSUED FOR FABRICATION
February-10-2014
DRAFTSMAN *MWL*
ENGINEER *[Signature]*



STANDARD TOLERANCES (UNLESS NOTED)			
1. FABRICATION DIMENSIONS:	A-0" TO 24"	± 1/16"	
	B-24" TO 120"	± 1/8"	
	C-OVER 120"	± 1/4"	
2. MACHINED DIMENSIONS:	A-ANGULAR	± .30"	
	B-LINEAR (EXPRESSED AS FRACTION)	± .015	
	C-LINEAR (EXPRESSED TO ONE DECIMAL)	± .1	
	D-LINEAR (EXPRESSED TO TWO DECIMALS)	± .015	
	E-LINEAR (EXPRESSED TO THREE DECIMALS)	± .005	

REV		DATE	DESCRIPTION	BY

TITLE:		HELMERICH & PAYNE INTERNATIONAL DRILLING CO.		
CUSTOMER:		H&P		
PROJECT:		3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.		
DRAWN:	MWL	DATE:	2/10/2014	DWG. NO.:
SCALE:	3/4"=1'-0"	SHEET:	1 OF 1	HP-D1254

10,000 PSI BOP Annular Variance Request (EOG Variance 1c)

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

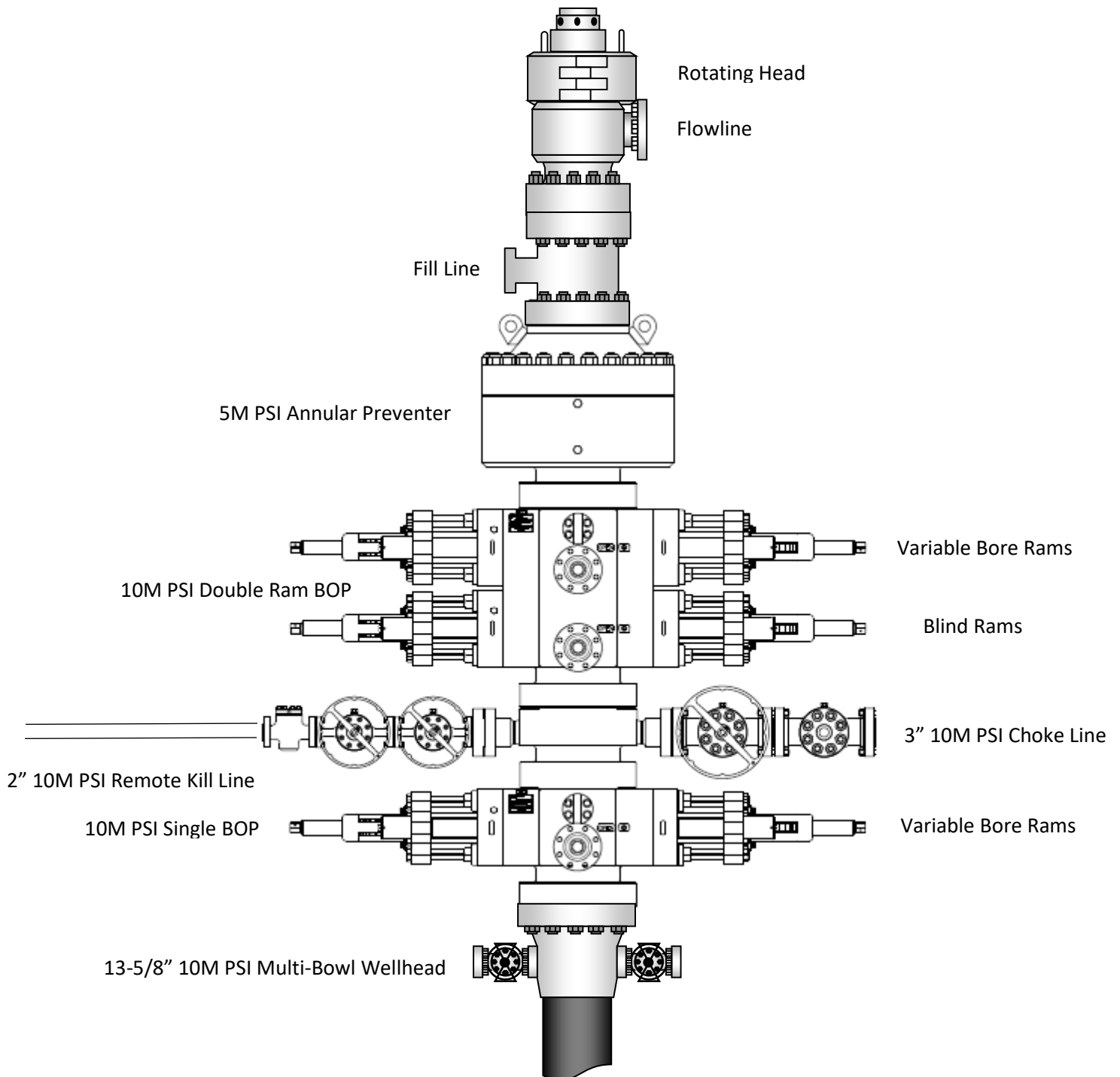
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

12-1/4" Intermediate Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	8.000" – 9.625"	Annular	5M	-	-
1 st Intermediate casing	9.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

8-3/4" Production Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	6.750" – 8.000"	Annular	5M	-	-
2 nd Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources 13-5/8" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
 - a. Perform flowcheck, if flowing:
 - b. Sound alarm (alert crew)
 - c. Stab full opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams.
 - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams.
 - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
 - c. If impossible to pick up high enough to pull the string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
 - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan



Offline Intermediate Cementing Procedure

2/24/2022

Cement Program

1. No changes to the cement program will take place for offline cementing.

Summarized Operational Procedure for Intermediate Casing

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
 - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
2. Land production casing on mandrel hanger through BOP.
 - a. If casing is unable to be landed with a mandrel hanger, then the **casing will be cemented online**.
3. Break circulation and confirm no restrictions.
 - a. Ensure no blockage of float equipment and appropriate annular returns.
 - b. Perform flow check to confirm well is static.
4. Set pack-off
 - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
 - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
 - a. Minimum 4 hrs notice.
6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
 - a. **Note, if any of the barriers fail to test, the BOP stack will not be nipped down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.**
7. Skid/Walk rig off current well.
8. Confirm well is static before removing TA Plug.
 - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
 - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
 - c. Well control plan can be seen in Section B, Well Control Procedures.
 - d. If need be, rig can be moved back over well and BOP nipped back up for any further remediation.



Offline Intermediate Cementing Procedure

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- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
9. Rig up return lines to take returns from wellhead to pits and rig choke.
 - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
 - b. If either test fails, perform corrections and retest before proceeding.
 - c. Return line schematics can be seen in Figure 3.
10. Remove TA Plug from the casing.
11. Install offline cement tool.
 - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
12. Rig up cement head and cementing lines.
 - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
13. Break circulation on well to confirm no restrictions.
 - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
 - b. Max anticipated time before circulating with cement truck is 6 hrs.
14. Pump cement job as per plan.
 - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
 - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
15. Confirm well is static and floats are holding after cement job.
 - a. With floats holding and backside static:
 - i. Remove cement head.
 - b. If floats are leaking:
 - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
 - c. If there is flow on the backside:
 - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
16. Remove offline cement tool.
17. Install night cap with pressure gauge for monitoring.
18. Test night cap to 5,000 psi for 10 min.



Offline Intermediate Cementing Procedure

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Example Well Control Plan Content

A. Well Control Component Table

The table below, which covers the cementing of the **5M MASP (Maximum Allowable Surface Pressure) portion of the well**, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nipped up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2" 1502 Lo-Torque Valves	15M

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

General Procedure While Circulating

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.



Offline Intermediate Cementing Procedure

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6. Read and record the following:
 - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
 - b. Pit gain
 - c. Time
 - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

General Procedure While Cementing

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.
6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
7. Continue to place cement until plug bumps.
8. At plug bump close rig choke and cement head.
9. Read and record the following
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead

General Procedure After Cementing

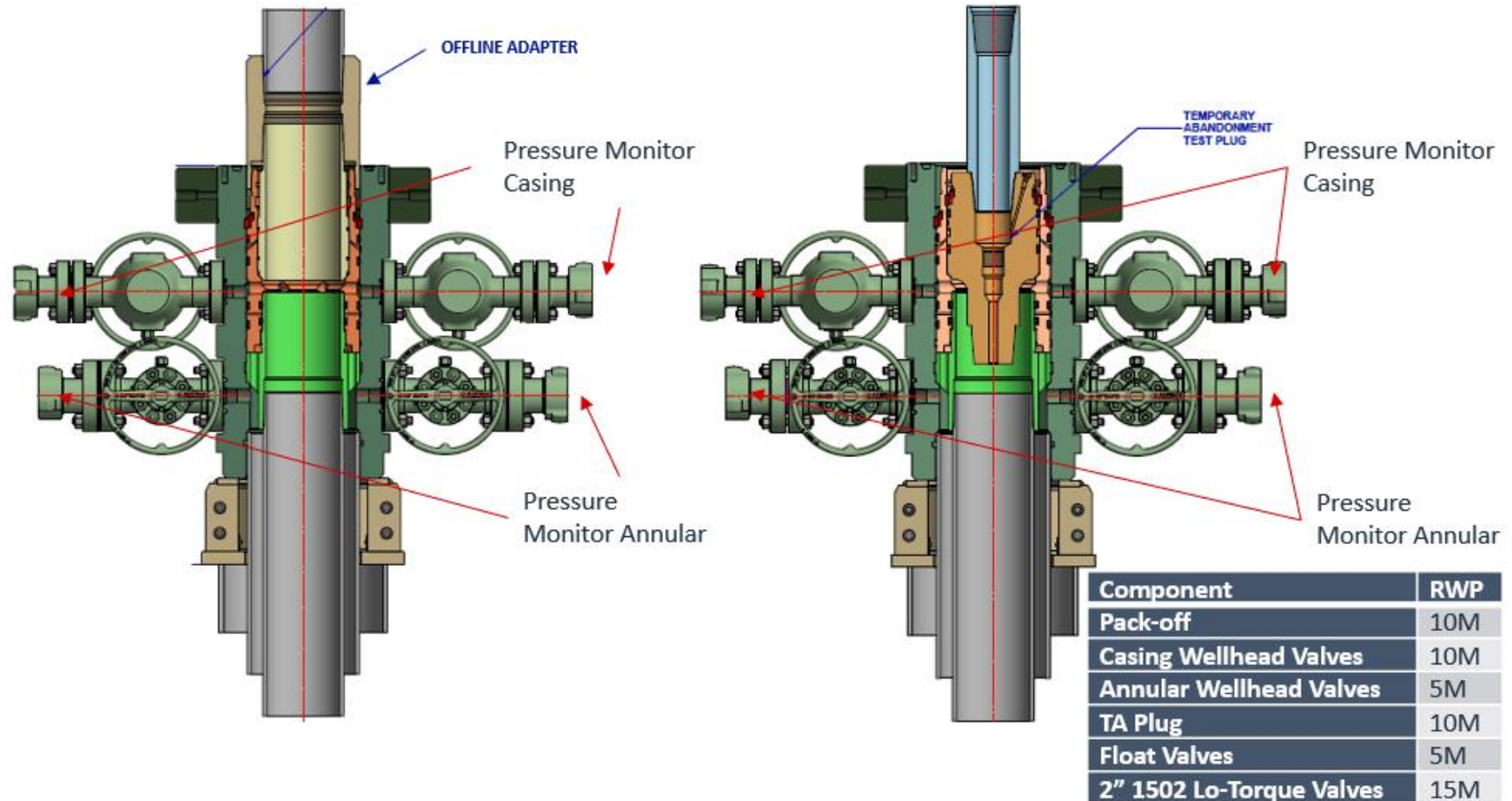
1. Sound alarm (alert crew).
2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
3. Confirm shut-in.
4. Notify tool pusher/company representative.
5. Read and record the following:
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead



Offline Intermediate Cementing Procedure

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Figure 1: Cameron TA Plug and Offline Adapter Schematic

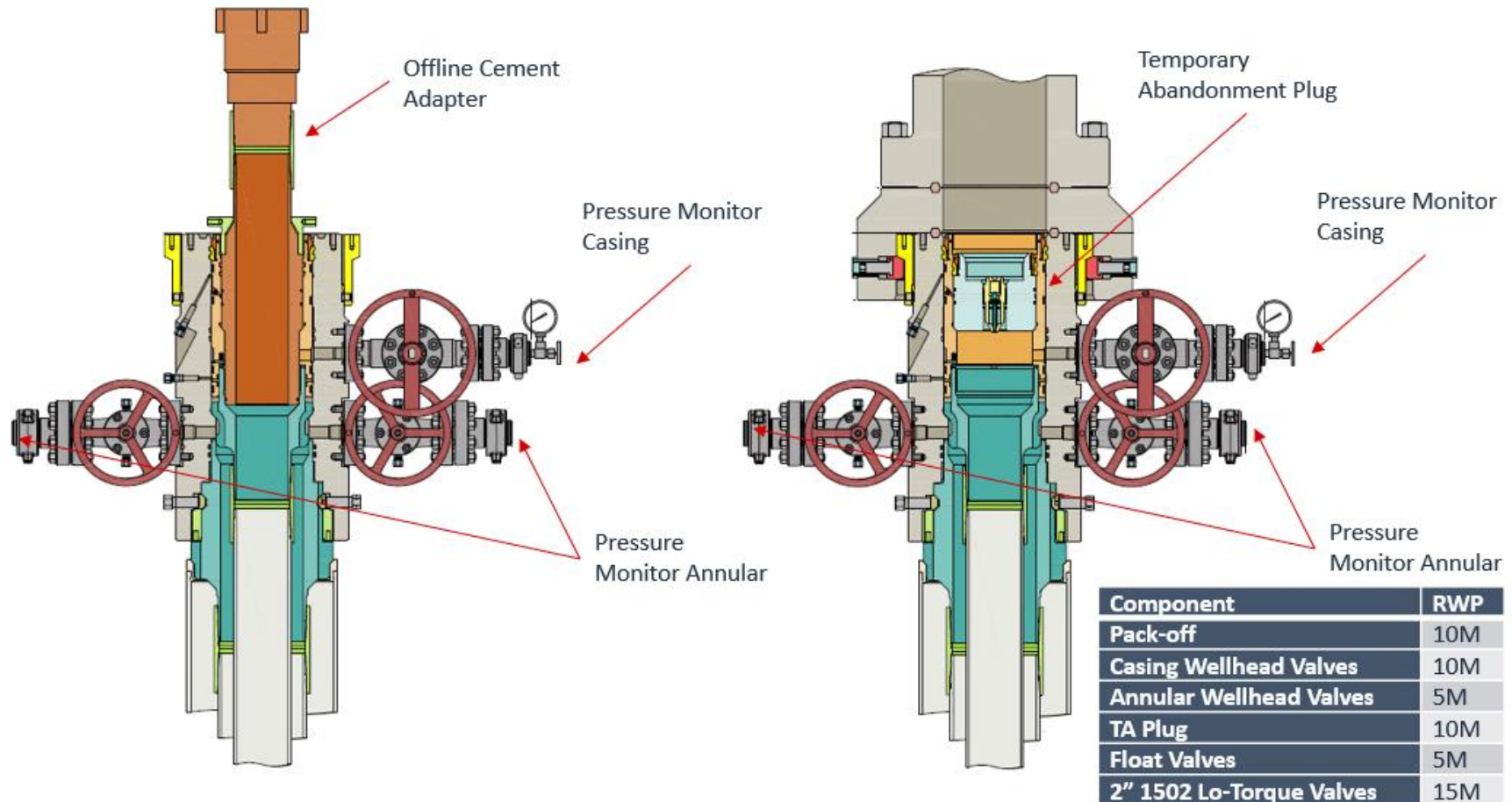




Offline Intermediate Cementing Procedure

2/24/2022

Figure 2: Cactus TA Plug and Offline Adapter Schematic

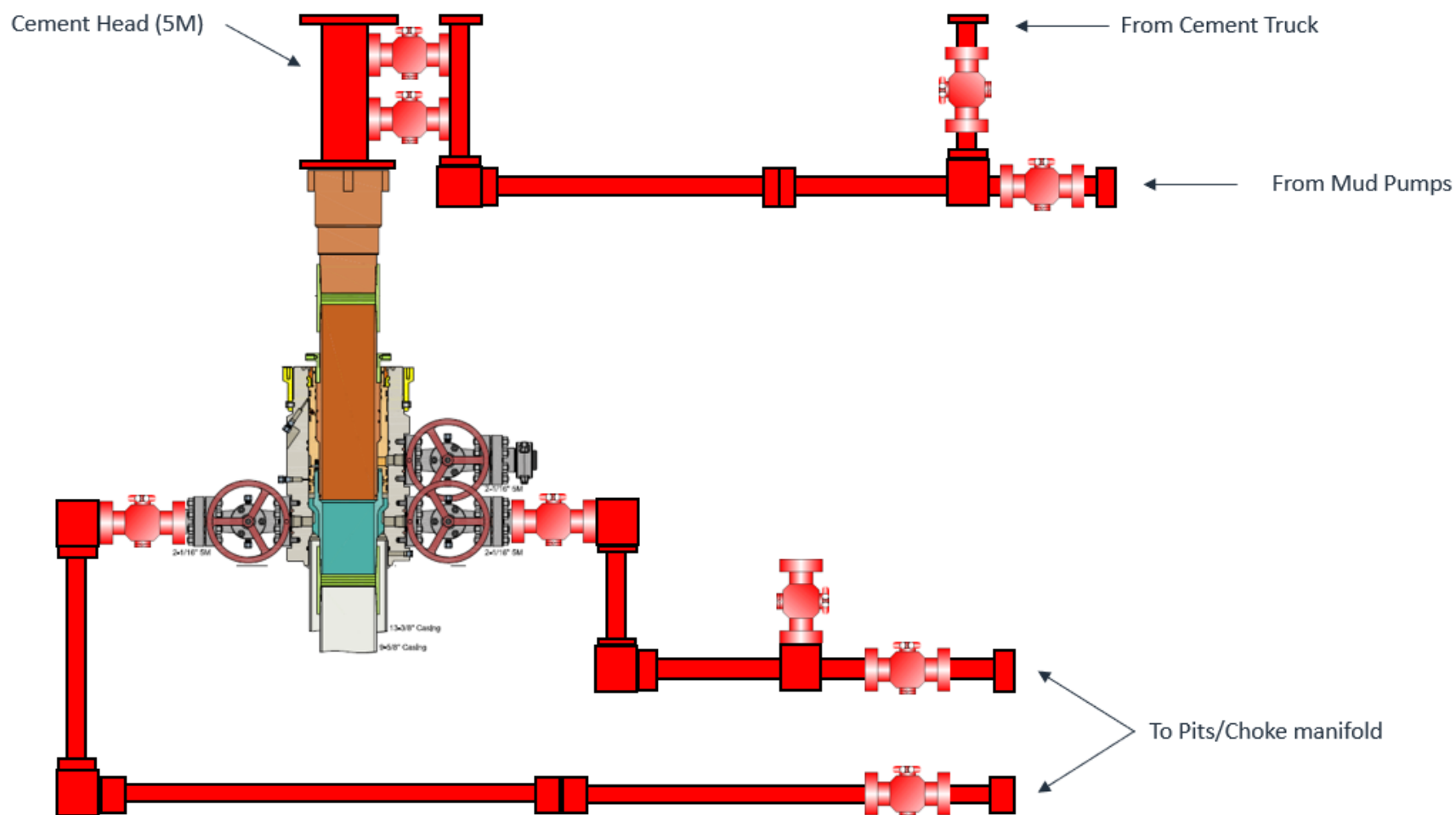




Offline Intermediate Cementing Procedure

2/24/2022

Figure 3: Back Yard Rig Up



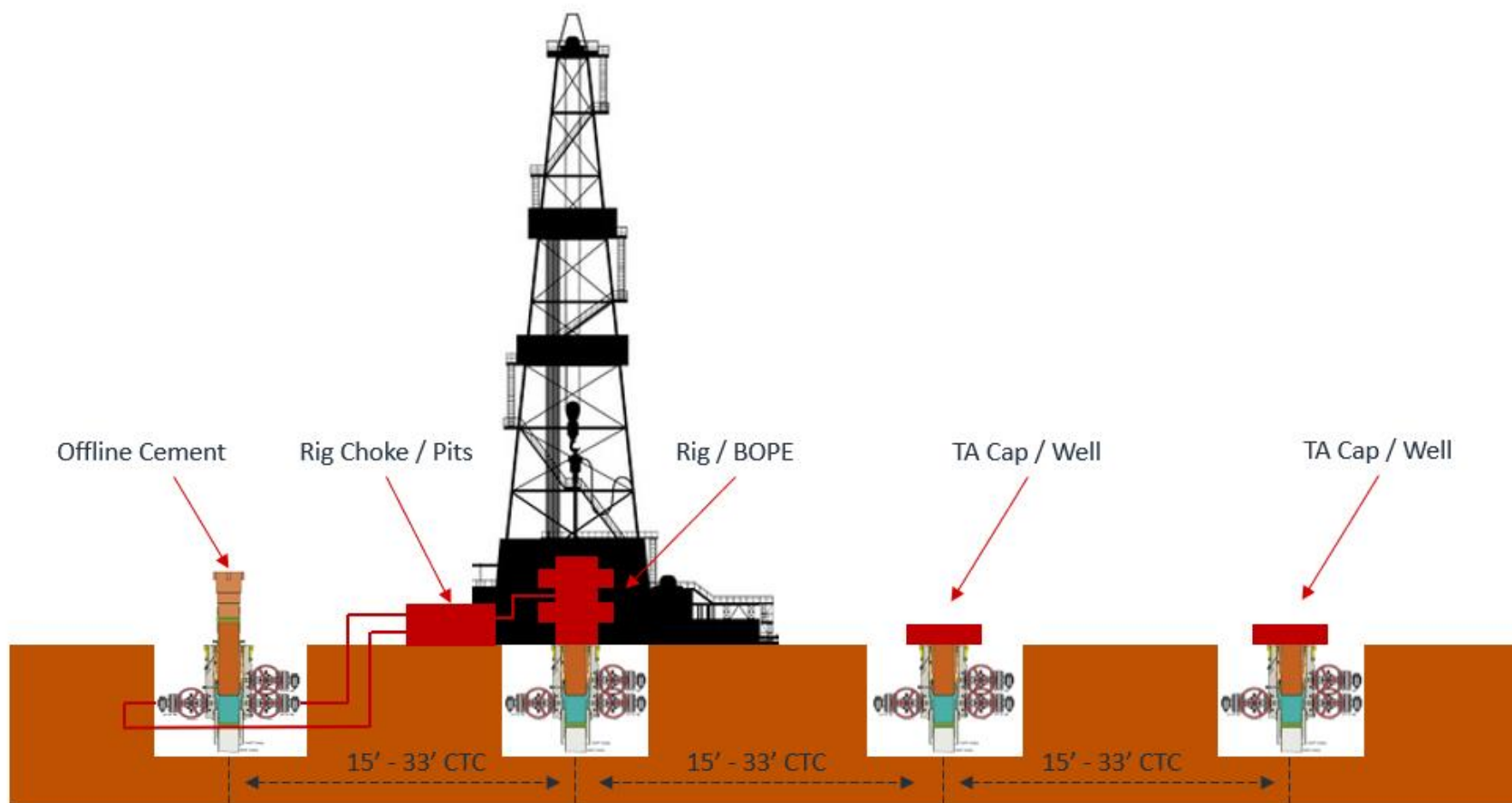
*** All Lines 10M rated working pressure



Offline Intermediate Cementing Procedure

2/24/2022

Figure 4: Rig Placement Diagram





Salt Section Annular Clearance Variance Request

Daniel Moose

Current Design (Salt Strings)

0.422" Annular clearance requirement

- Casing collars shall have a minimum clearance of 0.422 inches on all sides in the hole/casing annulus, with recognition that variances can be granted for justified exceptions.

- 12.25" Hole x 9.625" 40# J55/HCK55 LTC Casing
 - 1.3125" Clearance to casing OD
 - 0.8125" Clearance to coupling OD
- 9.875" Hole x 8.75" 38.5# P110 Sprint-SF Casing
 - 0.5625" Clearance to casing OD
 - 0.433" Clearance to coupling OD

Annular Clearance Variance Request

EOG request permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues

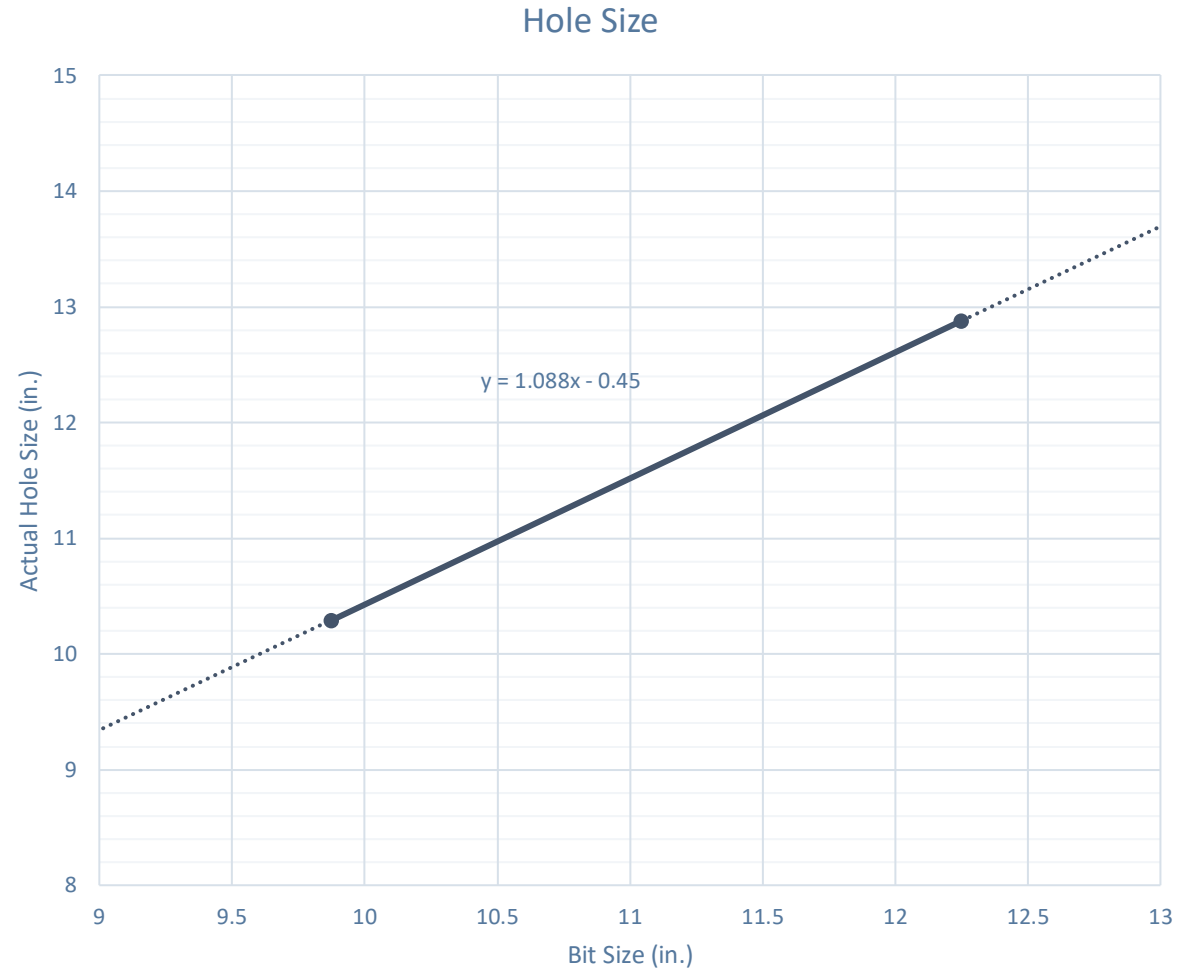
Volumetric Hole Size Calculation

Hole Size Calculations Off Cement Volumes

- Known volume of cement pumped
- Known volume of cement returned to surface
- Must not have had any losses
- Must have bumped plug

Average Hole Size

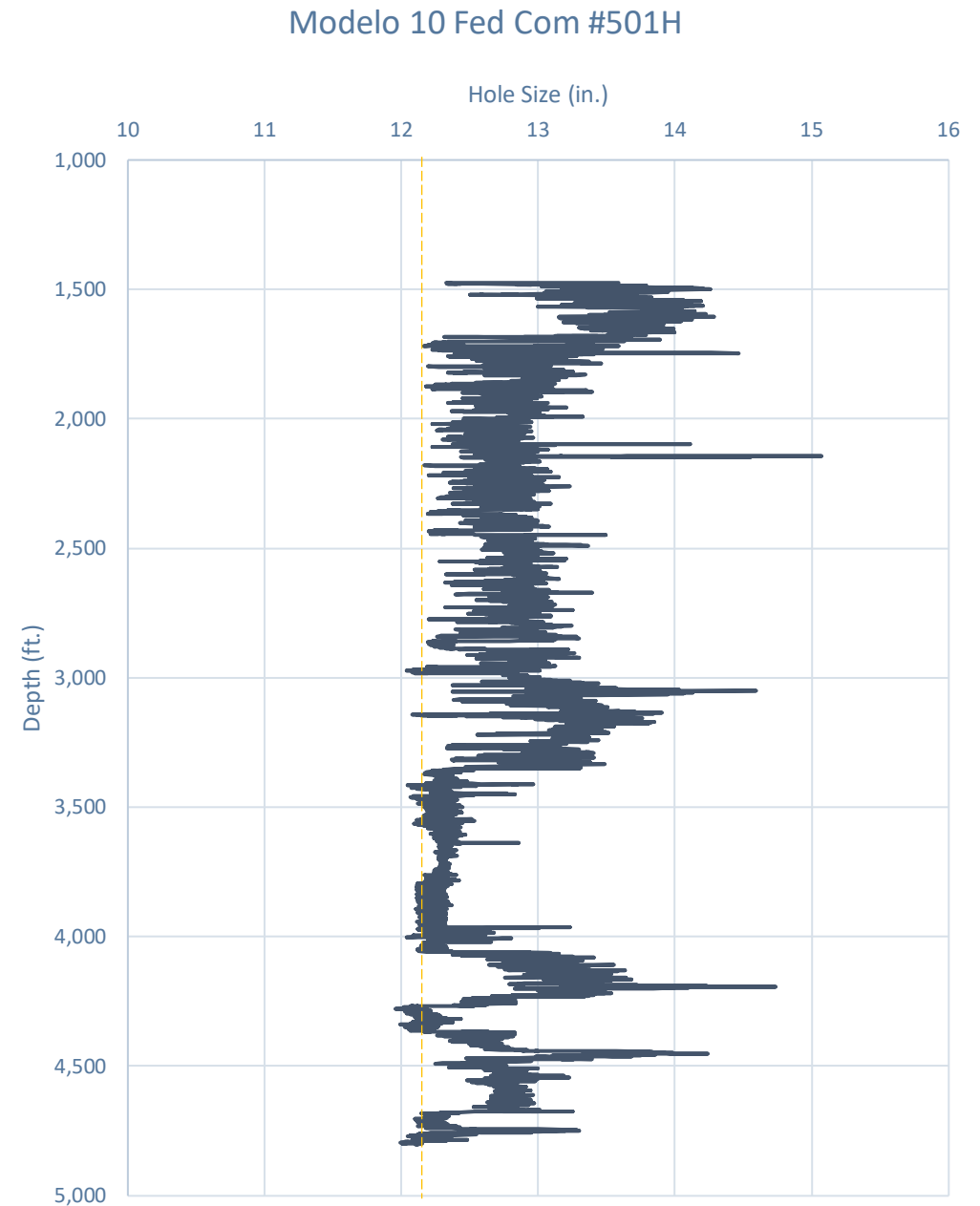
- 12.25" Hole
 - 12.88" Hole
 - 5.13% diameter increase
 - 10.52% area increase
 - 0.63" Average enlargement
 - 0.58" Median enlargement
 - 179 Well Count
- 9.875" Hole
 - 10.30" Hole
 - 4.24% diameter increase
 - 9.64% area increase
 - 0.42" Average enlargement
 - 0.46" Median enlargement
 - 11 Well Count



Caliper Hole Size (12.25")

Average Hole Size

- 12.25" Bit
 - 12.76" Hole
 - 4.14% diameter increase
 - 8.44% area increase
 - 0.51" Average enlargement
 - 0.52" Median enlargement
 - Brine

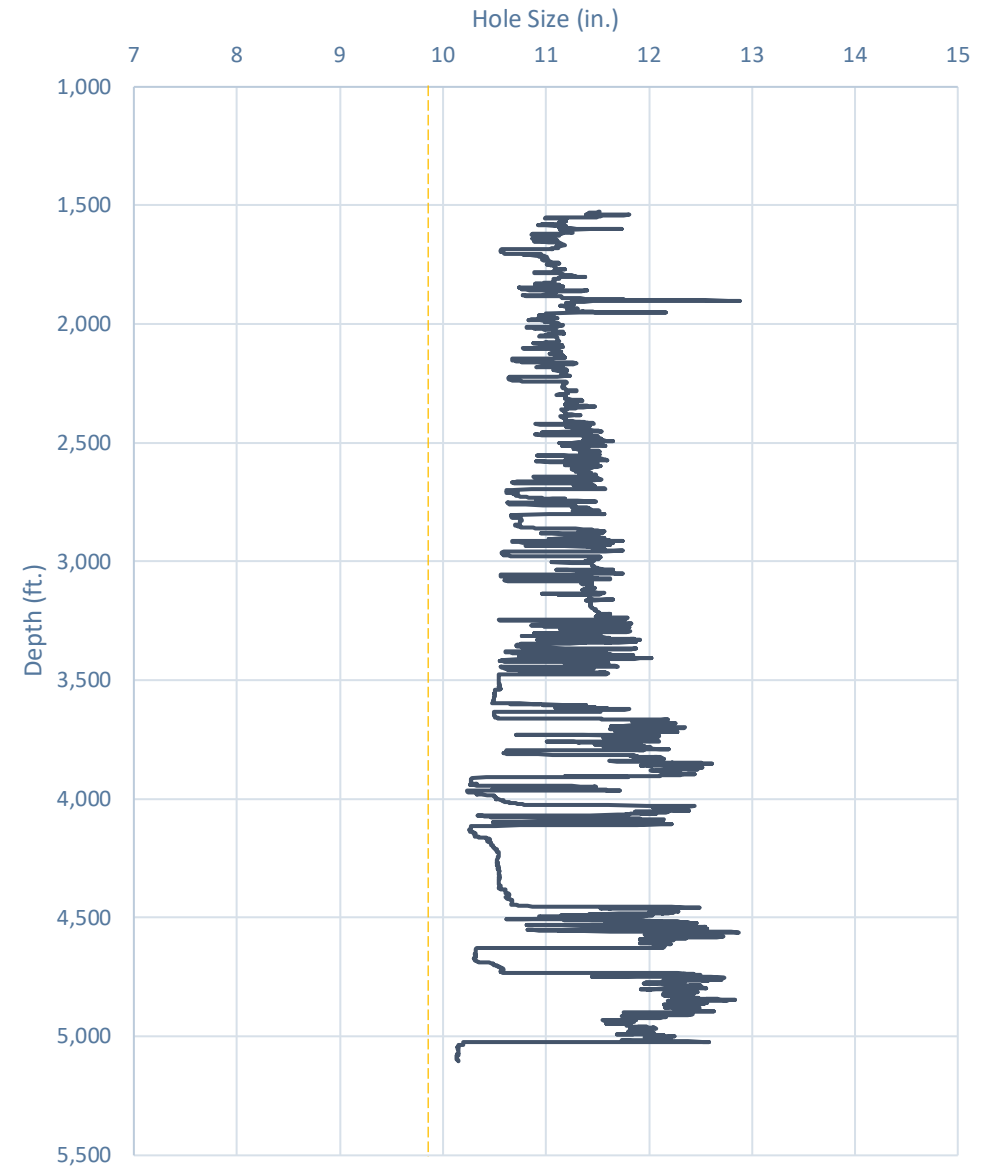


Caliper Hole Size (9.875")

Average Hole Size

- 9.875" Hole
 - 11.21" Hole
 - 13.54% diameter increase
 - 28.92% area increase
 - 1.33" Average enlargement
 - 1.30" Median enlargement
 - EnerLite

Whirling Wind 11 Fed Com #744H



Design A

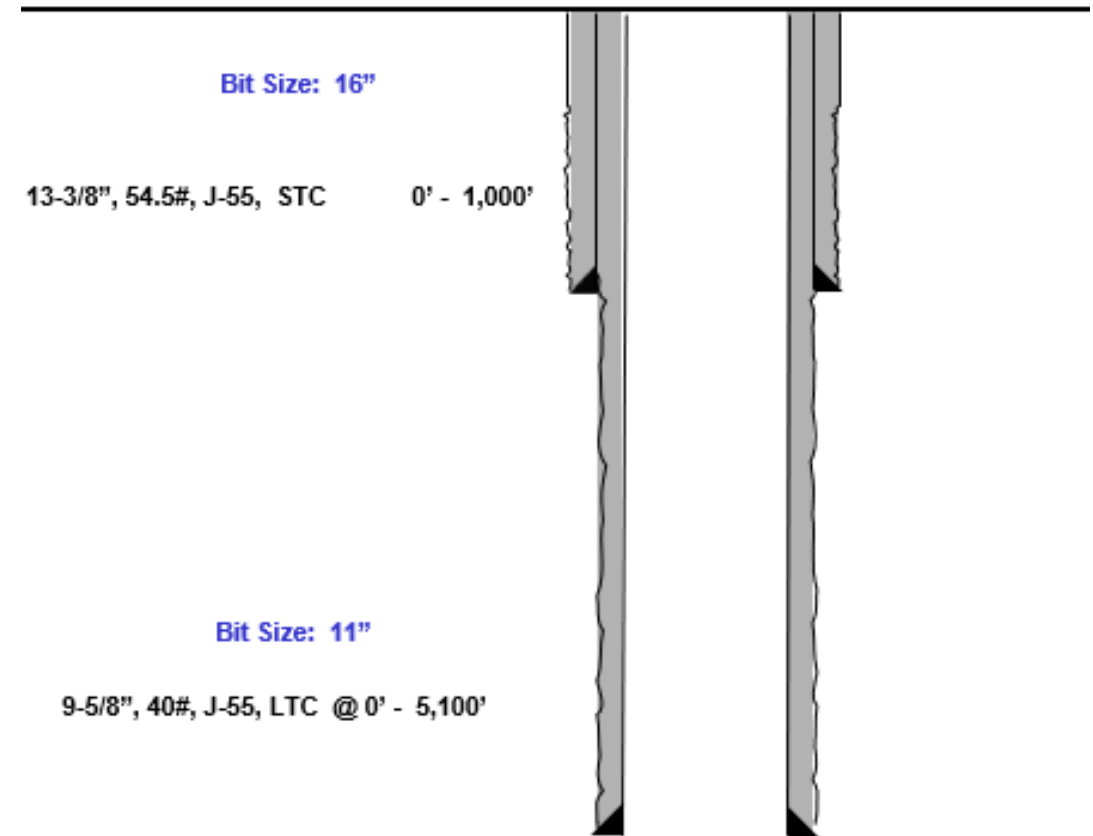
Proposed 11" Hole with 9.625" 40# J55/HCK55 LTC Casing

- 11" Bit + 0.52" Average hole enlargement = 11.52" Hole Size
 - 0.9475" Clearance to casing OD

$$= \frac{11.52 - 9.625}{2}$$
 - 0.4475" Clearance to coupling OD

$$= \frac{11.52 - 10.625}{2}$$
- Previous Shoe – 13.375" 54.5# J55 STC
 - 0.995" Clearance to coupling OD (~1,200' overlap)

$$= \frac{12.615 - 10.625}{2}$$



Design B

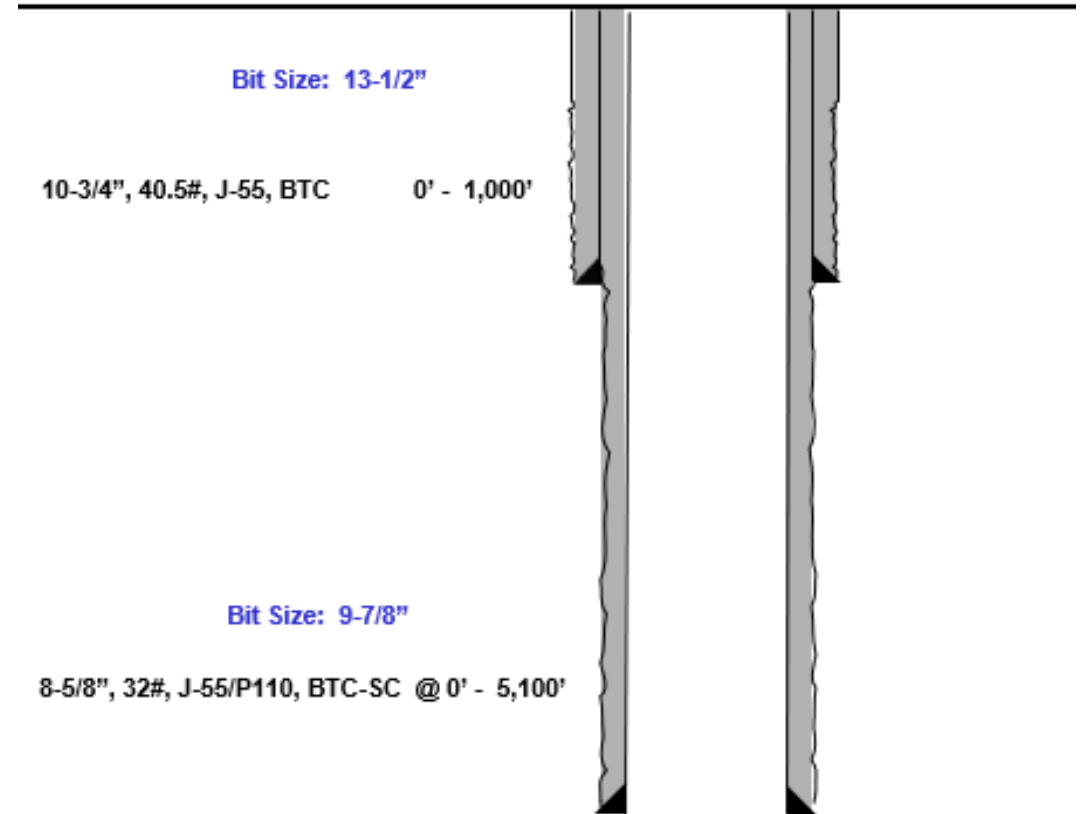
Proposed 9.875" Hole with 8.625" 32# J55/P110 BTC-SC Casing

- 9.875" Bit + 0.42" Average hole enlargement = 10.295" Hole Size
 - 0.835" Clearance to casing OD

$$= \frac{10.295 - 8.625}{2}$$
 - 0.585" Clearance to coupling OD

$$= \frac{10.295 - 9.125}{2}$$
- Previous Shoe – 10.75" 40.5# J55 STC
 - 0.4625" Clearance to coupling OD (~1,200' overlap)

$$= \frac{10.05 - 9.125}{2}$$





Index

Casing Spec Sheets

PERFORMANCE DATA

API LTC

Technical Data Sheet

9.625 in

40.00 lbs/ft

K55 HC

Tubular Parameters

Size	9.625	in	Minimum Yield	55	ksi
Nominal Weight	40.00	lbs/ft	Minimum Tensile	95	ksi
Grade	K55 HC		Yield Load	629	kips
PE Weight	38.94	lbs/ft	Tensile Load	1088	kips
Wall Thickness	0.395	in	Min. Internal Yield Pressure	3,950	psi
Nominal ID	8.835	in	Collapse Pressure	3600	psi
Drift Diameter	8.750	in			
Nom. Pipe Body Area	11.454	in²			

Connection Parameters

Connection OD	10.625	in
Coupling Length	10.500	in
Threads Per Inch	8	tpi
Standoff Thread Turns	3.50	turns
Make-Up Loss	4.750	in
Min. Internal Yield Pressure	3,950	psi

Pipe Body and API Connections Performance Data

13.375 54.50/0.380 J55

PDF

New Search »

« Back to Previous List

USC ☒ Metric

6/8/2015 10:04:37 AM

Mechanical Properties	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
Dimensions	Pipe	BTC	LTC	STC	
Outside Diameter	13.375	14.375	--	14.375	in.
Wall Thickness	0.380	--	--	--	in.
Inside Diameter	12.615	12.615	--	12.615	in.
Standard Drift	12.459	12.459	--	12.459	in.
Alternate Drift	--	--	--	--	in.
Nominal Linear Weight, T&C	54.50	--	--	--	lbs/ft
Plain End Weight	52.79	--	--	--	lbs/ft
Performance	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	1,130	1,130	--	1,130	psi
Minimum Internal Yield Pressure	2,740	2,740	--	2,740	psi
Minimum Pipe Body Yield Strength	853.00	--	--	--	1000 lbs
Joint Strength	--	909	--	514	1000 lbs
Reference Length	--	11,125	--	6,290	ft
Make-Up Data	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	3,860	ft-lbs
Maximum Make-Up Torque	--	--	--	6,430	ft-lbs

Casing Spec Sheets

Pipe Body and API Connections Performance Data

10.750 40.50/0.350 J55

PDF

New Search »

« Back to Previous List

USC ☒ Metric

6/8/2015 10:14:05 AM

Mechanical Properties	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
Dimensions	Pipe	BTC	LTC	STC	
Outside Diameter	10.750	11.750	--	11.750	in.
Wall Thickness	0.350	--	--	--	in.
Inside Diameter	10.050	10.050	--	10.050	in.
Standard Drift	9.894	9.894	--	9.894	in.
Alternate Drift	--	--	--	--	in.
Nominal Linear Weight, T&C	40.50	--	--	--	lbs/ft
Plain End Weight	38.91	--	--	--	lbs/ft
Performance	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	1,580	1,580	--	1,580	psi
Minimum Internal Yield Pressure	3,130	3,130	--	3,130	psi
Minimum Pipe Body Yield Strength	629.00	--	--	--	1000 lbs
Joint Strength	--	700	--	420	1000 lbs
Reference Length	--	11,522	--	6,915	ft
Make-Up Data	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	3,150	ft-lbs
Maximum Make-Up Torque	--	--	--	5,250	ft-lbs



API 5CT, 10th Ed. Connection Data Sheet

O.D. (in)	WEIGHT (lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: 32.00 Plain End: 31.13	0.352	J55	7.796	87.5

Material Properties (PE)		Pipe Body Data (PE)	
Pipe		Geometry	
Minimum Yield Strength:	55 ksi	Nominal ID:	7.92 inch
Maximum Yield Strength:	80 ksi	Nominal Area:	9.149 in ²
Minimum Tensile Strength:	75 ksi	*Special/Alt. Drift:	7.875 inch
Coupling		Performance	
Minimum Yield Strength:	55 ksi	Pipe Body Yield Strength:	503 kips
Maximum Yield Strength:	80 ksi	Collapse Resistance:	2,530 psi
Minimum Tensile Strength:	75 ksi	Internal Yield Pressure: (API Historical)	3,930 psi

API Connection Data		API Connection Torque	
Coupling OD: 9.625"		STC Torque (ft-lbs)	
STC Performance		Min: 2,793 Opti: 3,724 Max: 4,655	
STC Internal Pressure: 3,930 psi		LTC Torque (ft-lbs)	
STC Joint Strength: 372 kips		Min: 3,130 Opti: 4,174 Max: 5,217	
LTC Performance		BTC Torque (ft-lbs)	
LTC Internal Pressure: 3,930 psi		follow API guidelines regarding positional make up	
LTC Joint Strength: 417 kips			
SC-BTC Performance - Cplg OD = 9.125"			
BTC Internal Pressure: 3,930 psi			
BTC Joint Strength: 503 kips			

*Alt. Drift will be used unless API Drift is specified on order.

**If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

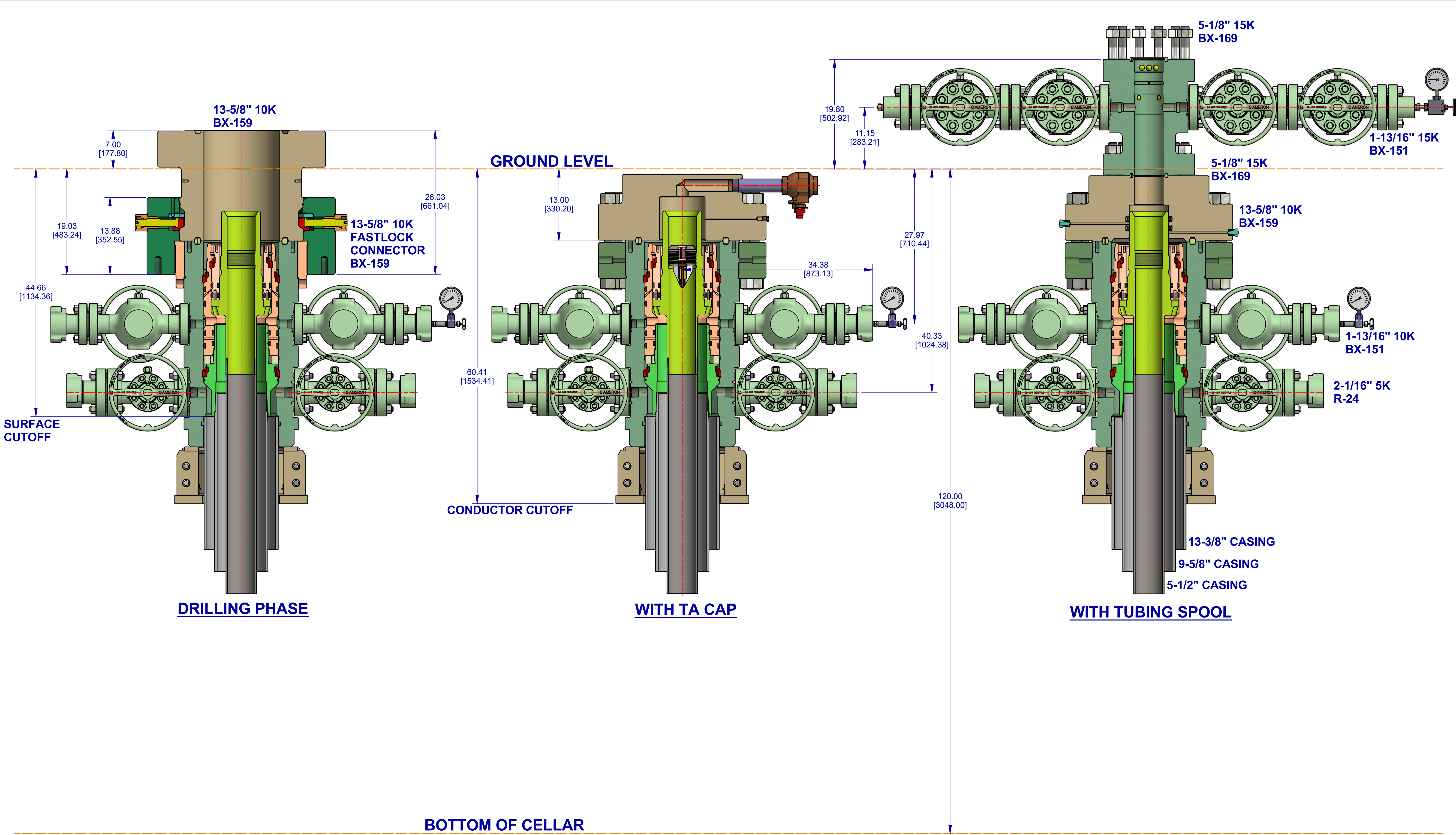
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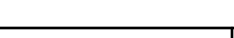
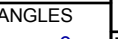
Rev 3, 7/30/2021

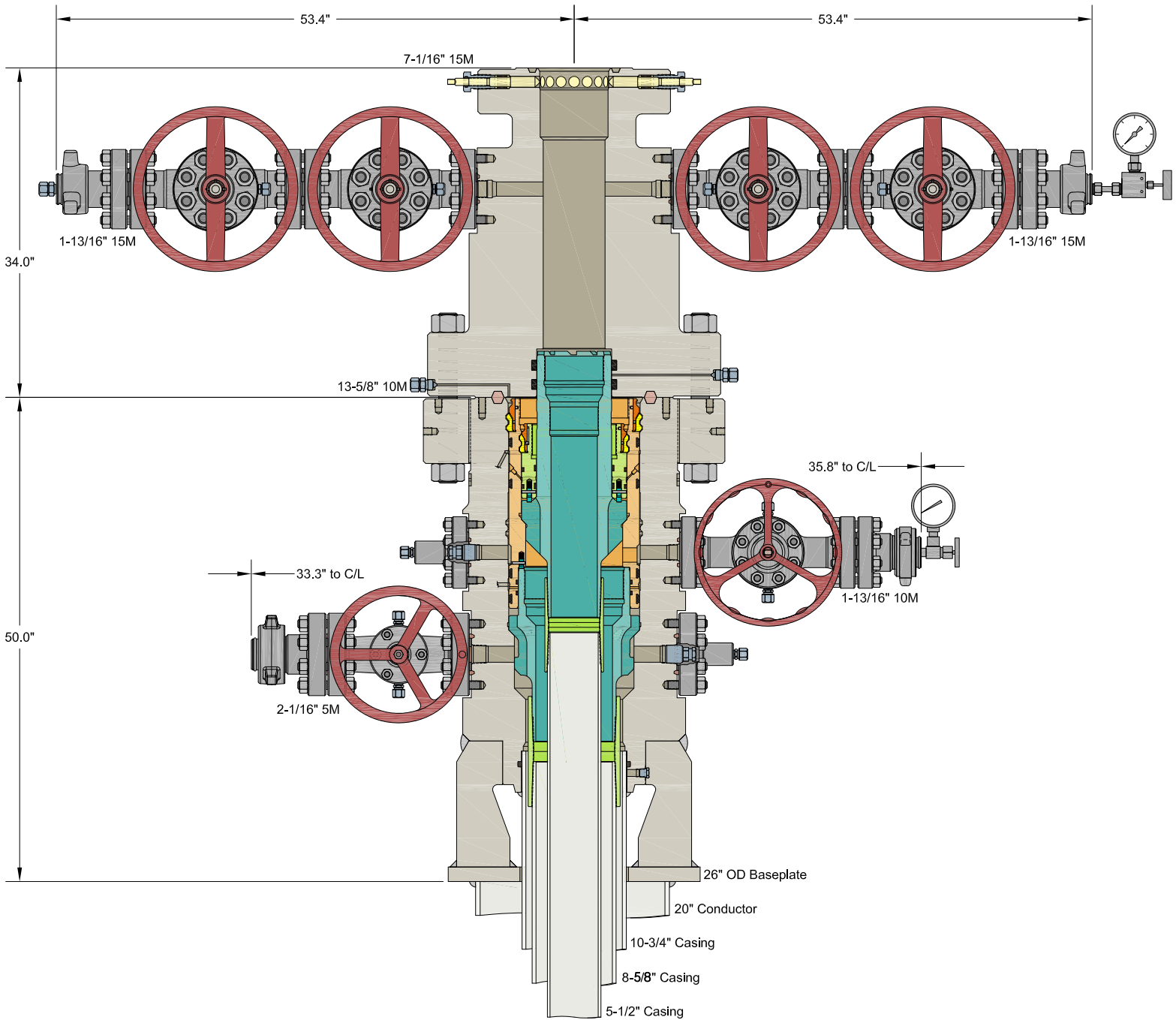
10/21/2022 15:24



Annular Clearance Variance



CONFIDENTIAL										
 THIRD ANGLE	DESIGNED IN INCHES		MACHINING TOLERANCES UNLESS OTHERWISE SPECIFIED		SURFACE TREATMENT		DO NOT SCALE		 CAMERON A Schlumberger Company	SURFACE SYSTEMS
	DIMENSIONAL UNITS				DRAWN BY: KEN REED		DATE: 6 Nov 18			
	INCHES [MILLIMETERS]		X [D.] ± = []		CHECKED BY: PA		DATE: 6 Nov 18			
	ANGLES ± °		MATERIAL & HEAT TREAT		APPROVED BY: APPROVER NAME		DATE: 6 Nov 18			
	XX [D.X] ± = []				ESTIMATED WEIGHT: 8147.2 LBS [3695.5 KG]		INITIAL USE B/M: EWR:650353762			
	XXX [D.XX] ± = []				SHEET 1 OF 1					
MACHINED FILLET RADII .015-.050 [0.38-1.27]. BREAK ALL SHARP EDGES .01-.03 [0.2-0.8] RADII OR 45°. SURFACE FINISH IN MICRO (μ) INCHES (Ra). INTERPRET DRAWING PER ASME Y14.5, ASME Y14.36, AND AWS A2.4 STANDARDS. SEE B/M FOR MATERIAL AND SPECIAL REQUIREMENTS. ITEM NUMBERS NOT APPEARING ON B/M DO NOT APPLY.					EOG RESOURCES, INC 13-5/8" 10K MN-DS WELLHEAD 13-3/8" X 9-5/8" X 5-1/2"					REV: 01
					SD-052491-19-07					INVENTOR: _____



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

EOG RESOURCES

10-3/4" x 8-5/8" x 5-1/2" MBU-3T-SF-SOW Wellhead System
With 8-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers
And 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head

DRAWN	DLE	14APR21
APPRV		
DRAWING NO.	SDT-3141	

10,000 PSI BOP Annular Variance Request (EOG Variance 1c)

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

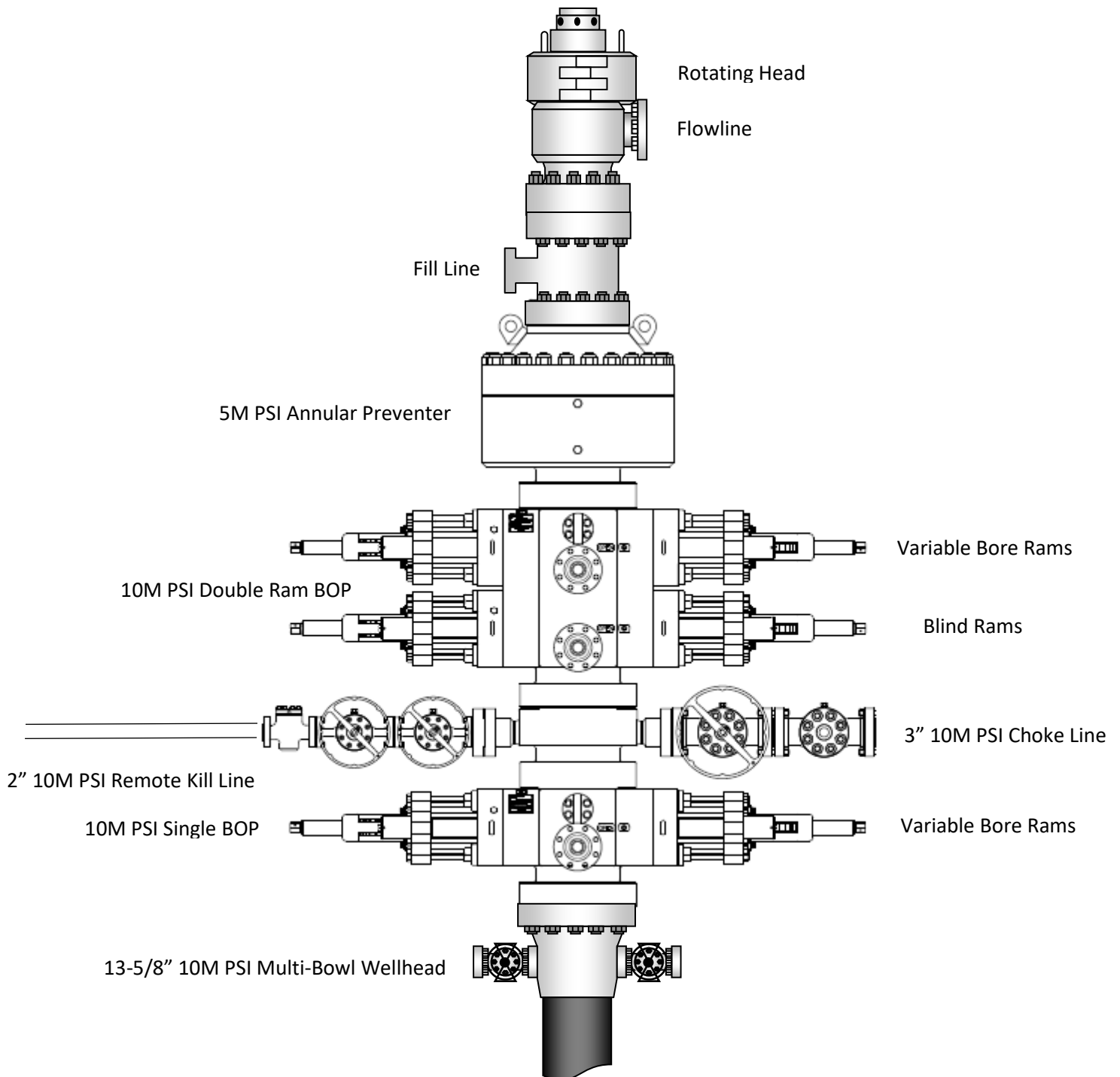
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

12-1/4" Intermediate Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	8.000" – 9.625"	Annular	5M	-	-
1 st Intermediate casing	9.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

8-3/4" Production Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500" – 8.000"	Annular	5M	-	-
Mud Motor	6.750" – 8.000"	Annular	5M	-	-
2 nd Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources 13-5/8" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

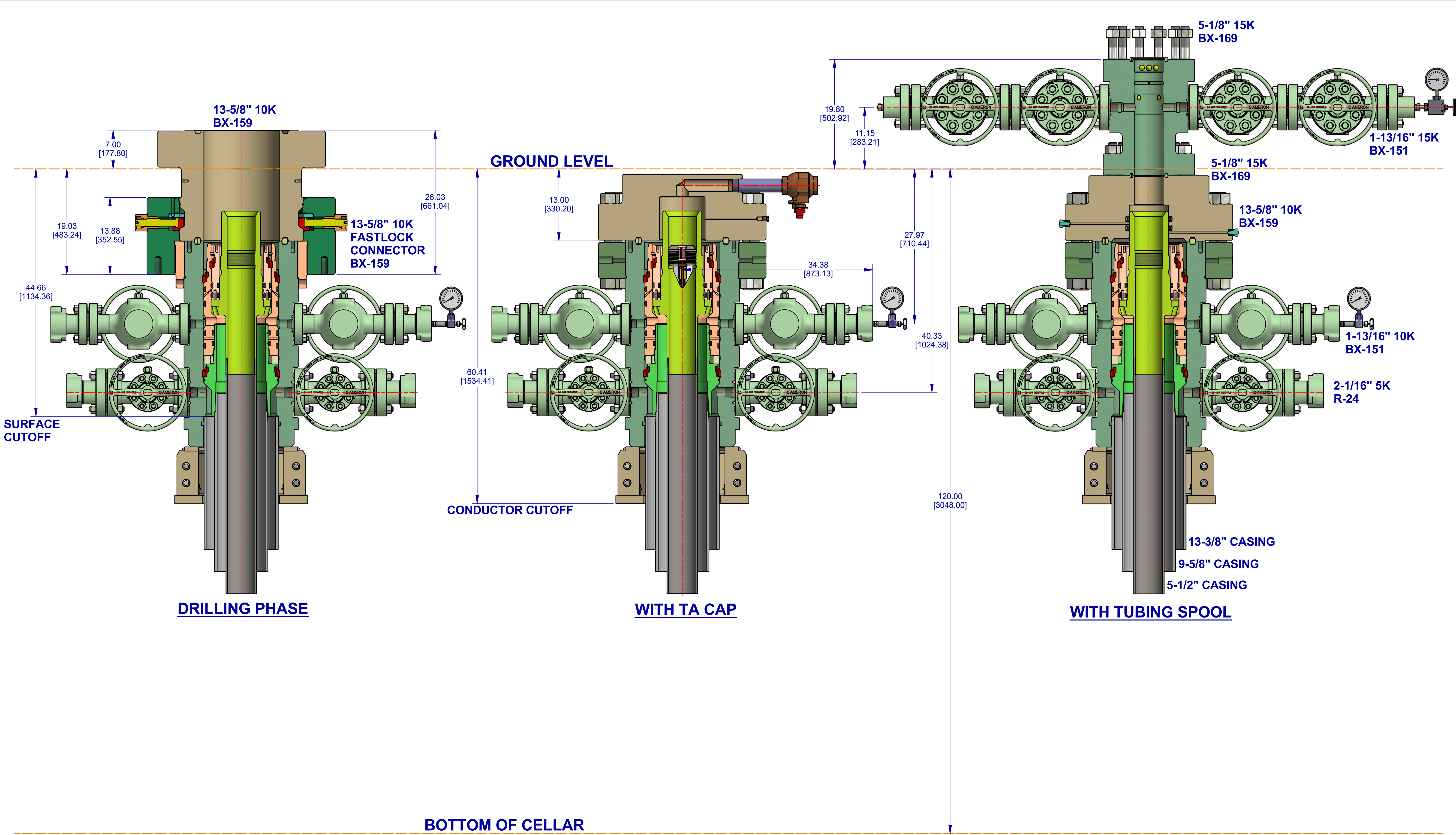
General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
 - a. Perform flowcheck, if flowing:
 - b. Sound alarm (alert crew)
 - c. Stab full opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams.
 - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams.
 - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
 - c. If impossible to pick up high enough to pull the string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
 - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan

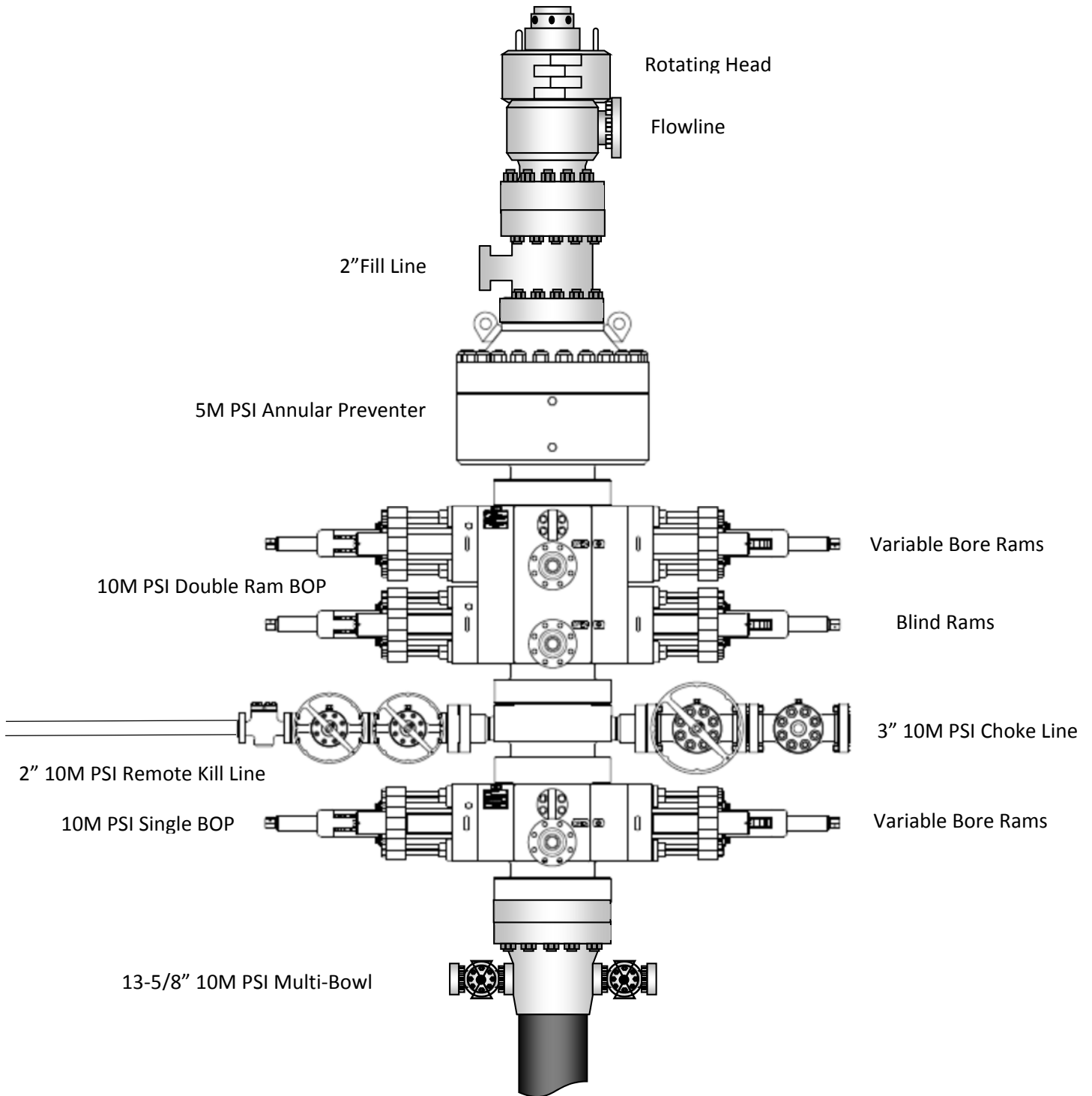


CONFIDENTIAL												
 THIRD ANGLE	DESIGNED IN INCHES DIMENSIONAL UNITS INCHES [MILLIMETERS]	MACHINING TOLERANCES UNLESS OTHERWISE SPECIFIED X [D.] ± = [] XX [D.X] ± = [] XXX [D.XX] ± = []		ANGLES ° ± ° ✓ RA ON ALL MACHINED SURFACES	SURFACE TREATMENT		DO NOT SCALE		 CAMERON A Schlumberger Company	SURFACE SYSTEMS		
					MATERIAL & HEAT TREAT	DRAWN BY: KEN REED	DATE 6 Nov 18	CHECKED BY: PA				
						APPROVED BY: APPROVER NAME	DATE 6 Nov 18					
							ESTIMATED WEIGHT: 8147.2 LBS [INITIAL USE BIM: 3895.5 KG EWR:650353762]					
							MACHINED FILLET RADII .015-.050 [0.38-1.27]. BREAK ALL SHARP EDGES .01-.03 [0.2-0.8] RADII OR 45°. SURFACE FINISH IN MICRO (μ) INCHES (Ra). INTERPRET DRAWING PER ASME Y14.5, ASME Y14.36, AND AWS A2.4 STANDARDS. SEE BIM FOR MATERIAL AND SPECIAL REQUIREMENTS. ITEM NUMBERS NOT APPEARING ON BIM DO NOT APPLY.				APPROVED BY: APPROVER NAME	
					SHEET 1 OF 1		SD-052491-19-07		REV: 01			
									INVENTOR			

Exhibit 1

EOG Resources

13-5/8" 10M PSI BOP Stack





®

**American
Petroleum
Institute**



2018-151

Certificate of Authority to use the Official API Monogram

License Number: 7K-0519

ORIGINAL

The American Petroleum Institute hereby grants to

GATES ENGINEERING AND SERVICES

7603 Prairie Oak Drive, Suite 190

Houston, TX

United States

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-7K** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **7K-0519**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: High Pressure Mud and Cement Hoses at FSL 0, at FSL 1, at FSL 2

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: OCTOBER 24, 2024

Expiration Date: DECEMBER 18, 2027

To verify the authenticity of this license, go to www.api.org/compositelist.

Anchal Liddar

Senior Vice President of Global Industry Services



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**American
Petroleum
Institute**



2018-151

Certificate of Authority to use the Official API Monogram
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Houston, TX
United States

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-16C** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **16C-0485**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Flexible Choke and Kill Lines at FSL 0, FSL 1, FSL 2, FSL 3

QMS Exclusions: No Exclusions Identified as Applicable

Effective Date: OCTOBER 24, 2024

Expiration Date: DECEMBER 18, 2027

To verify the authenticity of this license, go to www.api.org/composite1st.



Senior Vice President of Global Industry Services

Michael Diddar



American
Petroleum
Institute

REGISTRATION NO. Q1-3650

Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

GATES ENGINEERING AND SERVICES
7603 Prairie Oak Drive, Suite 190
Houston, TX
United States

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

API Spec Q1, 9th Edition

The scope of this registration and the approved quality management system applies to the

**Assembly and Pressure Test of High Pressure Mud and Cement Hoses,
Flexible Choke and Kill Lines and General Rubber Hydraulic Hose Assemblies**

API approves the organization's justification for excluding

No Exclusions Identified as Applicable



Effective Date: **OCTOBER 24, 2024**
Expiration Date: **DECEMBER 18, 2027**
Registered Since: **DECEMBER 18, 2018**

Anchal Liddar

Senior Vice President of Global Industry Services

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of API Spec Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*, and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. This certificate has been issued from API offices located at 200 Massachusetts Avenue, NW Suite 1100, Washington, DC 20001-5571, U.S.A. It is the property of API and must be returned upon request. To verify the authenticity of this certificate, go to www.api.org/compositelist.

2023-120 | 06.23 | 4M | Printed in the USA | 



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WEB: gates.com/oilandgas

CERTIFICATE OF CONFORMANCE

This is to verify that all Parts and/or Materials included in this shipment have been manufactured and/or processed in Conformance with applicable drawings and specifications, and that Records of Required Tests are on file and subject to examination. The following items were purchased via **Gates Engineering & Services North America** facilities in Houston, TX, USA. This hose assembly was designed and manufactured to meet requirements of API Spec 16C, 3rd Edition.

CUSTOMER: HELMERICH & PAYNE INTERNATIONAL DRILLING CO.
CUSTOMER P.O.#: 740399823 (TAG WITH H&P I.D # 88076545 &H&P P.O. # 740399823 (UK S/O 34557))
CUSTOMER P/N: 3.035.016C4116FX-FLTSSA
PART DESCRIPTION: 3" X 35 FT GATES API 16C CHOKE & KILL FSL 3 TEMP B HOSE ASSEMBLY WITH STAINLESS STEEL ARMOR C/W 4 1/16" 10K H2S SUITED FLOAT X FLOAT FLANGES WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS/LIFT EYE CLAMPS
SALES ORDER #: 525112
QUANTITY: 1
SERIAL #: SN 139321 HOSE BATCH 139244

SIGNATURE: 
TITLE: QUALITY ASSURANCE
DATE: 2/10/2023

Gates Engineering & Services UK Ltd		CERTIFICATE OF CONFORMITY	
Doc. Ref.	Form-056		
Revision	4		

Gates SO No. 34557	Customer Name & Address:
Customer PO No: 1803964/ 1	Gates Engineering & Services NA Inc
Description: 3" 10K API 16C CHOKE & KILL HOSE ASSEMBLY X 35FT OAL (QTY 5)	Accounts payable
	7N GESNA
	1144 Fifteenth Street, Suite 1400 Denver, CO 80202 USA

This is to certify that the components listed below have been supplied in accordance with API 16C & the above referenced order number. The assemblies listed below have been manufactured and tested in the UK.

SPECIFICATION

ITEM	DESCRIPTION	BATCH NUMBER	QTY
1	3" 10K API 16C CHOKE & KILL HOSE ASSEMBLY X 35FT OAL PART NO: HA34539-001 END A: 4.1/16" 10K API SPEC 6A TYPE FLANGE WITH BX155 RING GROOVE END B: 4.1/16" 10K API SPEC 17D SV SWIVEL FLANGE WITH BX155 RING GROOVE EACH END HAS AN INCONEL 625 INLAID RING GROOVE HOSE METALLIC PARTS MEET NACE-MR-0175 LATEST EDITION REQUIREMENTS WORKING PRESSURE: 10,000 PSI TEST PRESSURE: 15,000 PSI STANDARD: API 16C FSL3 MONOGRAMMED, 3RD EDITION EXTERNAL PROTECTION: STAINLESS STEEL ARMOUR INCLUDED FIRE RATED: API 16C STANDARD SECTION B.12.4 (704° FOR 30 MINS) H2S SERVICE SUITABLE TEMPERATURE CLASS B(-25 TO 100°C) HIGH TEMPERATURE EXPOSURE / SURVIVAL @ 177°C (INTERNAL IN A KICK SITUATION) SAFETY EQUIPMENT: INCLUDED 2 X HOSE SAFETY CLAMPS 2 X 3.6T SHACKLES 2 X 10MM OD X 6FT PCP COATED CHAINS HOSE ASSEMBLY WORKS ORDERS NUMBERS: 139051 139052 139053 139054 139321	139062 139063 139064 139065 139244	5
	SAFETY/LIFTER CLAMP 195MM 1.7T PART NO: HCC108	MYB59483	10
	SAFETY CHAIN 10MM C/S PCP 6FT PART NO: CHC001	ACU59481	10

Accepted by  J. Winkler 06 DEC 2022 for and on behalf of Gates Engineering & Services UK Ltd

Gates Engineering & Services UK Ltd		PRESSURE TEST CERTIFICATE	
Doc. Ref.	Form-051		
Revision	9		

			Certificate No:
☐ BURST	☒ HYDROSTATIC	☐ CYCLIC	PTC-139321

Product:	CK03F	Hose WO/Batch:	139244
Assembly WO:	139321	Length:	35FT
SO No:	34557	Date:	25/11/22
Customer:	Gates Engineering & Services NA Inc	Customer Reference:	PO 1803964/ 1

Inner Diameter:	3	Inch		
Working Pressure:	10000	Psi	690	bar
Test Pressure:	15000	Psi	1034	bar
Burst Pressure:	22500	Psi	1551	bar

Hose Description:		3" 10K API 16C CHOKE & KILL HOSE ASSEMBLY X 35FT OAL END A: 4.1/16" 10K API SPEC 6A TYPE FLANGE WITH BX155 RING GROOVE END B: 4.1/16" 10K API SPEC 17D SV SWIVEL FLANGE WITH BX155 RING GROOVE	
Item No	Qty	Part Code	Customer Tag No (if applicable)
1	1	HA34539-001	N/A

Details of Test:	Pressure tested with water at ambient temperature for a minimum of 60 minutes at test pressure 1034 BAR Pressure Transducer S/N: 131203 (CH1) Chart Recorder S/N: S5VB14523 Calibration Certificate No: IKMCERTU823
Results:	Pressure Loss: 8.43 BAR Acceptance Criteria: Pressure loss not to exceed 500 PSI (34.47 BAR)

GESUK Ltd	Third Party
 <i>J. W. W. W. W.</i> 06 DEC 2022	

1/1

File Message : CH1 139321
Device Type : GX20
Serial No. : S5VB14523

Start Time
Stop Time

: 2022/11/25 00:53:50.000 (UTC+08:00)
: 2022/11/25 03:53:20.000 (UTC+08:00)

Print Groups : GROUP 1

Print Range : 2022/11/25 00:53:50.000 - 2022/11/25 03:53:20.000 (UTC+08:00)



06 DEC 2022

Section	427	787	2022/11/25 02:05:00.000 - 2022/11/25 03:05:00.000			
Channel	CH0001[bar g]	MIN	MAX	P-P	Mean	RMS
		1050.12	1058.55	8.43	1053.28	1053.28





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

SUPO Data Report

01/08/2026

APD ID: 10400090871

Submission Date: 02/23/2023

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

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:

VERMINATOR_6_FC_302H_Vicinity_20230223073802.pdf

Existing Road Purpose: ACCESS

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:

EP_VERMINATOR_6_FC_RD_S_20230223071518.pdf

SK_VERMINATOR_6_FC_EXHIBIT_5_20230223071518.pdf

New road type: RESOURCE

Length: 7207

Feet

Width (ft.): 30

Max slope (%): 20

Max grade (%): 20

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:** VERMINATOR 6 FED COM**Well Number:** 302H**New road access plan****Access road engineering design?** N**Access road engineering design****Turnout?** N**Access surfacing type:** OTHER**Access topsoil source:** OFFSITE**Access surfacing type description:** 6" COMPACTED CALICHE**Access onsite topsoil source depth:****Offsite topsoil source description:** 6**Onsite topsoil removal process:****Access other construction information:****Access miscellaneous information:****Number of access turnouts:****Access turnout map:****Drainage Control****New road drainage crossing:** CULVERT**Drainage Control comments:** no drainage crossing**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**Existing Well map Attachment:**

VERMINATOR_6_FC_302H_Radius_20230223073824.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT**Production Facilities description:** SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M. LEA COUNTY, NEW MEXICO**Production Facilities map:**

BO_VERMINATOR_6_FC_CTB_S_20230223072018.pdf

CD_VERMINATOR_6_FC_CTB_S_20230223072018.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

- EP_VERMINATOR_6_FC_301H_302H_303H_501H_502H_503H_FL_S_20230223072018.pdf
- EP_VERMINATOR_6_FC_ELECTRIC_LINE_SEC6_S_20230223072018.pdf
- EP_VERMINATOR_6_FC_GAS_LIFT_SEC6_S_20230223072018.pdf
- EP_VERMINATOR_6_FC_GAS_SEC6_S_20230223072018.pdf
- EP_VERMINATOR_6_FC_WL_SEC6_S_20230223072018.pdf
- SK_VERMINATOR_6_FC_EXHIBIT_5_20230223072018.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 water location will be drilled using a combination of water mud program. (i) Water will be obtained from commercial water 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 for freshwater. Freshwater is defined as containing less than 500 mg/L Total Solids (TDS), exhibiting no petroleum sheen when shaken, and not requiring mechanical processes that expose it to heavy metals or other contaminants to utilize up to five 4-inch lay-flat and up to five 12-inch lay-flat lines for transporting treated produced water being defined as the water that is recycled to a reusable form and may include mechanical and chemical treatment. Sources: EOG Resources, Inc., Resolute Frac Pond located in Section 33-E, Lea County, New Mexico. Treated Produced Water: EOG Resources, Inc., Gem Reuse Frac Pond located in Section 33-E, Lea County, New Mexico. Temporary surface lines will be installed at source location or multiple water source locations in the area of the action and be temporarily laid above ground with minimum 4-inch lay-flat line(s) shall be laid no more than 10 feet from the edge of the disturbance (edge of bar/borrow ditch, road surface or two-track road surface, etc. landscape). A push off arm or other mechanism will be used to ensure lines remain within the existing disturbance. Map or maps showing the location of surface lines will be provided with the APD and will be included in the Environmental Assessment. Electronic map file (shape file or KMZ file) will be provided with the Environmental Assessment. Attached Water Map depicts the location of temporary above ground surface lines and maybe installed for 30 days). Temporary above ground surface lines shall support the water completions operations.

Source latitude:

Source longitude:

Source datum:

City:

Water source permit type: WATER RIGHT

Water source transport method: TRUCKING
PIPELINE

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**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**

VERMINATOR_6_FC_WATER_ROUTE_20230223072530.pdf

Water source comments: n/a**New water well?** N**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

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

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

VERMINATOR_6_FC_CALICHE_MAP_20230223072048.pdf

Section 7 - Methods for Handling**Waste type:** DRILLING

Waste content description: Drill 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. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. 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.

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, New Mexico**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 third- party vendor: Quail 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: Quail 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)

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**Waste type:** GARBAGE**Waste content description:** TRASH GENERATED ONSITE**Amount of waste:****Waste disposal frequency :** Weekly**Safe containment description:** ENCLOSED DUMPSTERS**Safe containmant attachment:****Waste disposal type:** OTHER**Disposal location ownership:** OTHER**Disposal type description:** LEA COUNTY, NM**Disposal location description:** Trash dumpsters are utilized to contain garbage onsite. Dumpsters are maintained by a third- party vendor. All trash is hauled to Lea 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?****Cuttings area liner****Cuttings area liner specifications and installation description**

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N**Ancillary Facilities****Comments:**

Section 9 - Well Site

Well Site Layout Diagram:

6_6a_CD_VERMINATOR_6_FC_301H_303H_501H_503H_601H_604H_101H_103H_PAD_SITE_S_20230223072141.pdf

Verminator_6_Fed_Com_302H_Rig_Layout_20230223073931.pdf

VERMINATOR_6_FC_302H_Pad_Site_20230223073931.pdf

VERMINATOR_6_FC_302H_Well_Site_20230223073931.pdf

Comments: Exhibit 2A-Wellsite, Exhibit 2B-Padsite, Exhibit 4-Rig Layout, 6 and 6A

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance**Multiple Well Pad Name:** VERMINATOR 6 FED COM**Multiple Well Pad Number:** 101H, 102H, 103H, 301H, 302H, 303H, 501H, 502H, 503H**Recontouring**

VERMINATOR_6_FC_302H_Reclamation_20230223073946.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

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H

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 redistributed, and that erosion is controlled.

Existing Vegetation at the well pad: 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 respreads evenly on the site following topsoil resspreading. 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 attachment:

Will seed be harvested for use in site reclamation? N

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**Seed harvest description:****Seed harvest description attachment:****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**

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**Disturbance type:** WELL PAD**Describe:****Surface Owner:** PRIVATE OWNERSHIP**Other surface owner description:****BIA Local Office:****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:****Surface use plan certification:** NO**Surface use plan certification document:****Surface access agreement or bond:** AGREEMENT**Surface Access Agreement Need description:** LIMESTONE BASIN PROPERTIES RANCH, LLC 6 DESTA DRIVE, STE 2725 MIDLAND TX 79705**Surface Access Bond BLM or Forest Service:****BLM Surface Access Bond number:****USFS Surface access bond number:**

Section 12 - Other

Right of Way needed? N**Use APD as ROW?****ROW Type(s):****ROW**

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

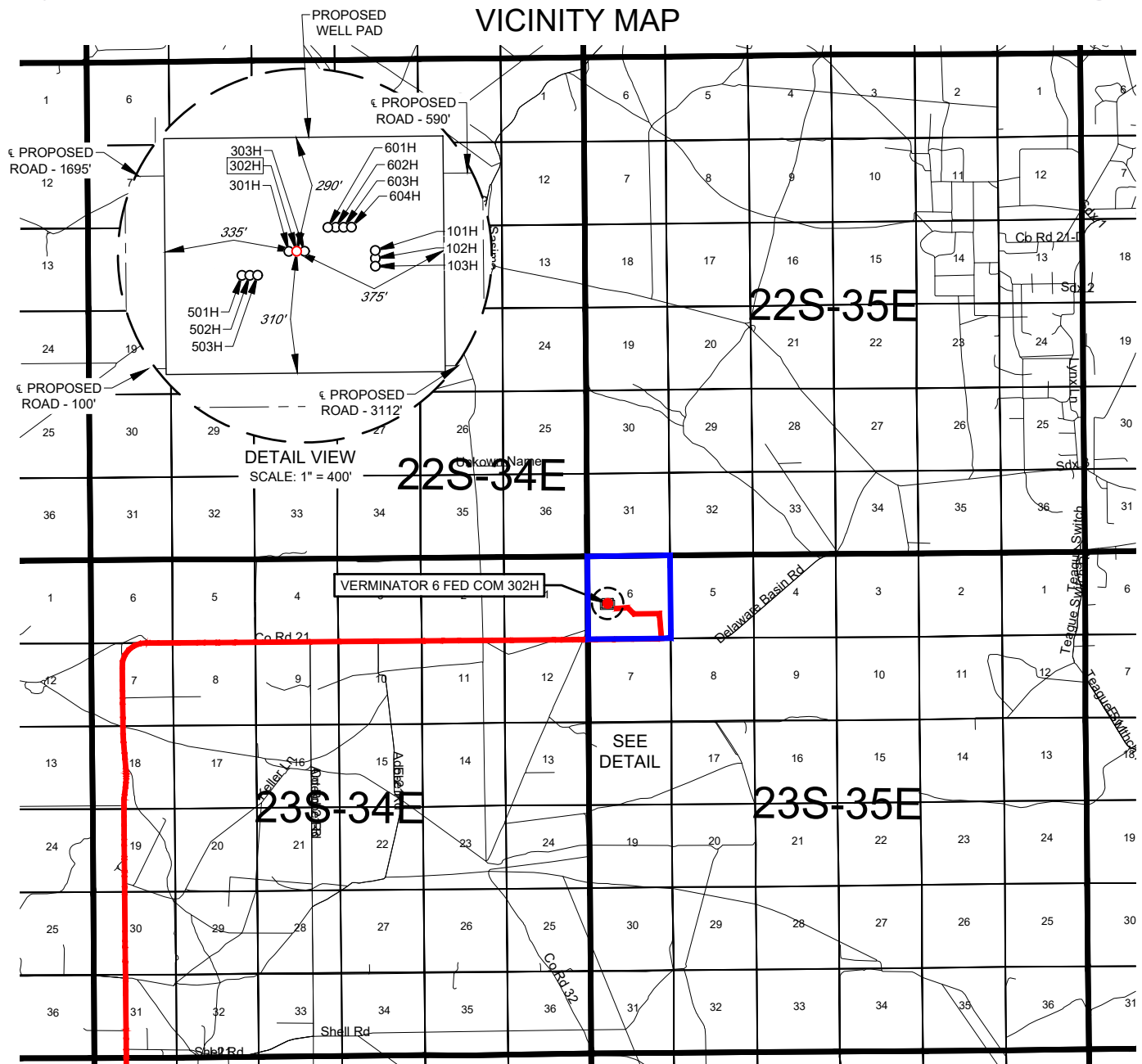
SUPO Additional Information: An onsite meeting was conducted on N/A (fee, fee, fed) Please find attached SUPO Plan.
Roads: 7,206.55 Flowlines & Gas Lift: 301H/302H/303H: 1,908.67 Produced Water: 3,565.73 Gas Sales: 3,717.98 Localized
Gas Lift: 3,676.63 Electric: 3,610.68
Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

SUPO_VERMINATOR_6_FED_COM_302H_20230223074018.pdf

VERMINATOR_6_FC_302H_Location_20230223074018.pdf



LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H

SECTION 6 TWP 23-S RGE 35-E SURVEY N.M.P.M.

COUNTY LEA STATE NM

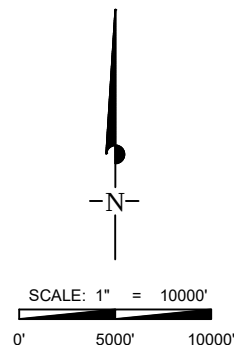
DESCRIPTION 2302' FSL & 1306' FWL

DISTANCE & DIRECTION

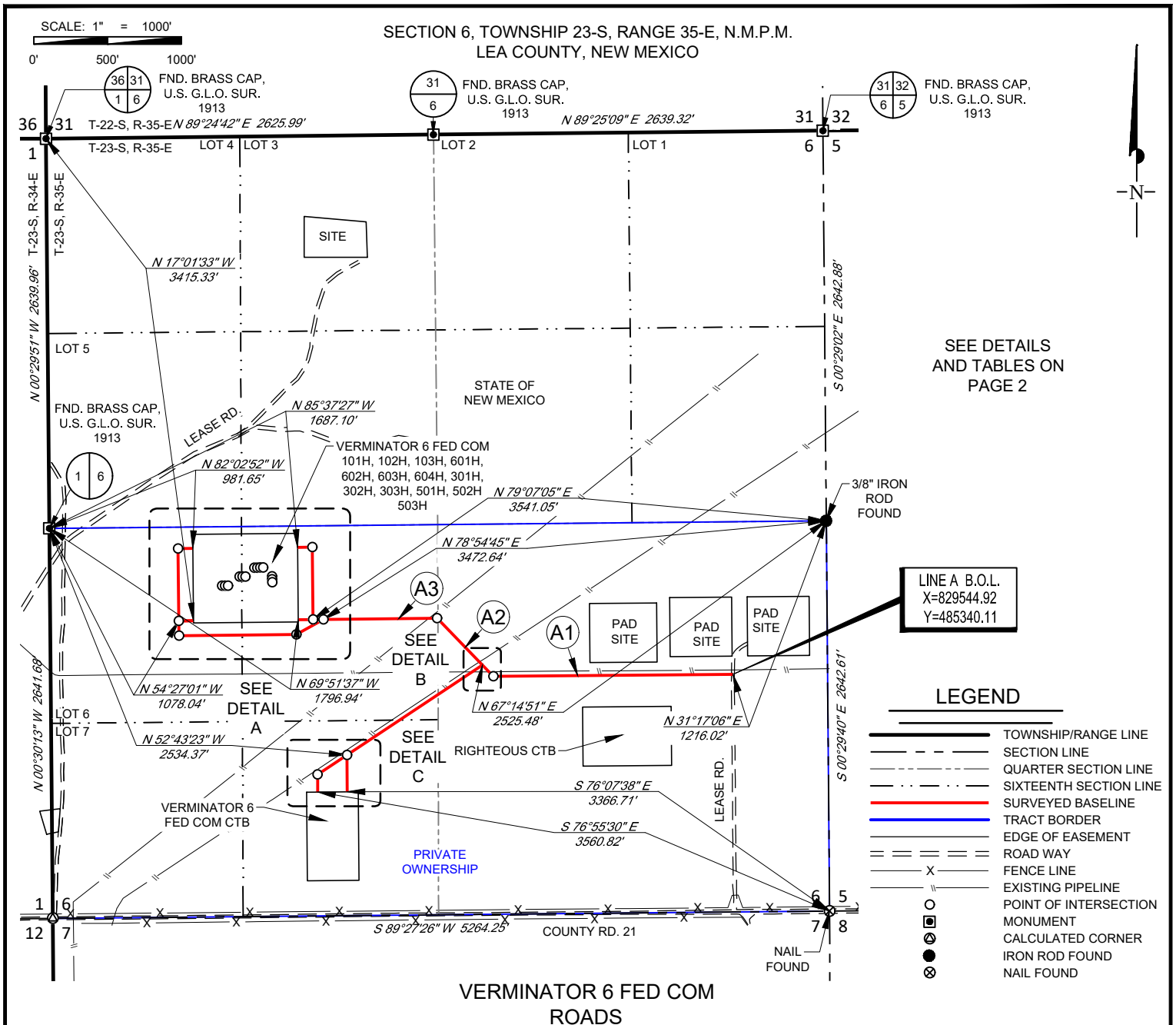
FROM INT. OF NM-128. & DELAWARE BASIN RD./CR 21. GO NORTH ON DELAWARE BASIN RD. ±14.4 MILES, THENCE NORTH(LEFT) ON A LEASE RD. ±0.3 MILES, THENCE WEST (LEFT) ON A PROPOSED RD. ±3112 FEET TO A POINT ±477 FEET SOUTHEAST OF THE LOCATION.

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.

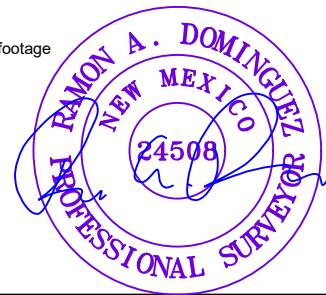
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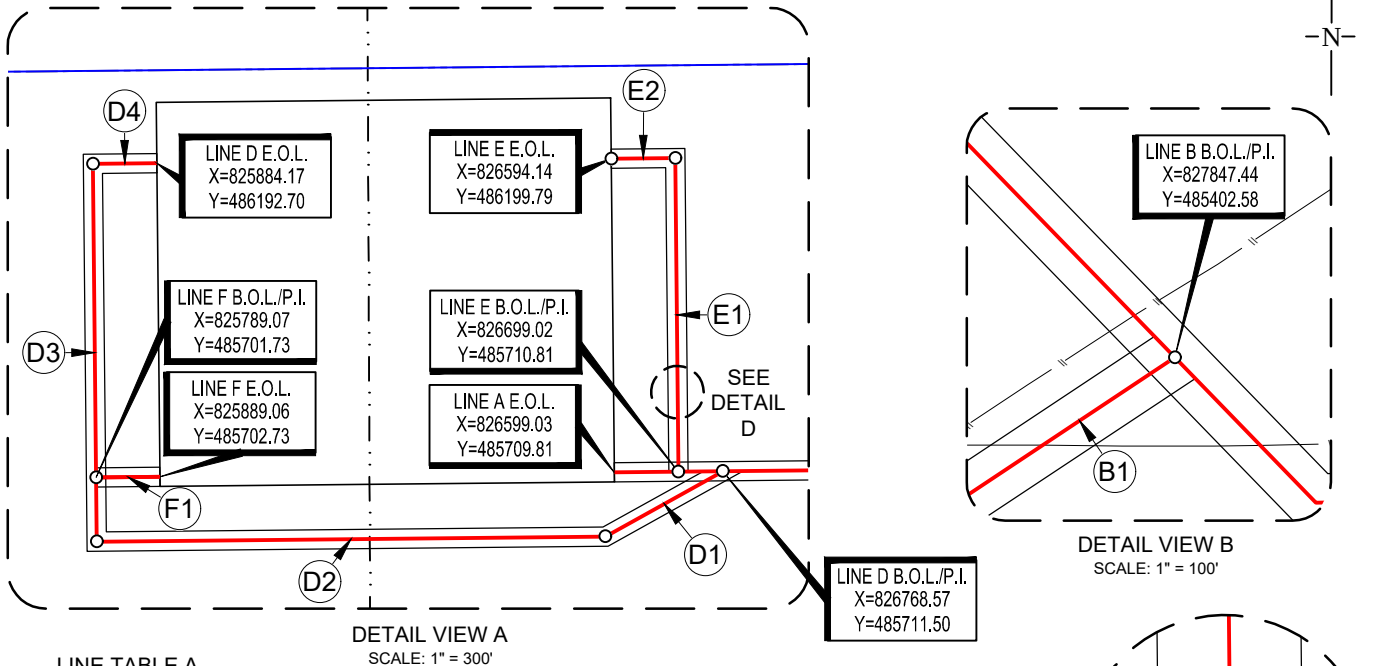
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VERMINATOR 6 FED COM ROADS	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/22			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, 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.
FILE:EP_VERMINATOR_6_FC_RD			
DRAWN BY: SAR			
SHEET: 1 OF 2			

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SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LINE TABLE A

LINE	BEARING	DISTANCE
A1	S 89°32'21" W	1624.18'
A2	N 44°09'48" W	546.67'
A3	S 89°25'42" W	940.95'

LINE TABLE B

LINE	BEARING	DISTANCE
B1	S 56°27'42" W	1341.00'
B2	S 00°28'46" E	119.34'

LINE TABLE C

LINE	BEARING	DISTANCE
C1	S 00°28'47" E	249.51'

LINE TABLE D

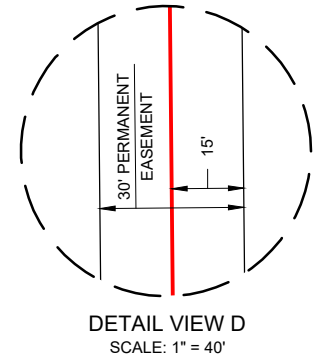
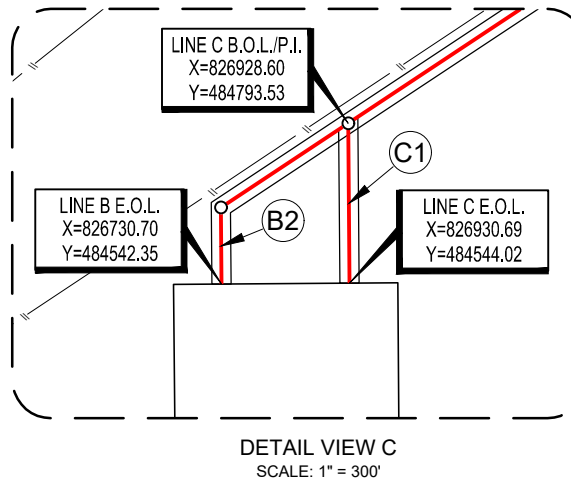
LINE	BEARING	DISTANCE
D1	S 60°58'40" W	209.90'
D2	S 89°25'41" W	795.00'
D3	N 00°34'18" W	590.00'
D4	N 89°25'41" E	100.00'

LINE TABLE E

LINE	BEARING	DISTANCE
E1	N 00°34'19" W	490.00'
E2	S 89°25'44" W	100.00'

LINE TABLE F

LINE	BEARING	DISTANCE
F1	N 89°25'41" E	100.00'



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VERMINATOR 6 FED
COM ROADS

REVISION:

INT DATE

DATE: 11/29/22

FILE:EP_VERMINATOR_6_FC_RD

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NOTES:

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5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
6. P.I. = POINT OF INTERSECTION
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EXHIBIT 5

SECTION 6 TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

VERMINATOR 6 FED COM AREA SKETCH



SCALE: 1" = 1000'

0' 500' 1000'

T-23-S, R-34-E
T-23-S, R-35-E

VERMINATOR 6 FED COM
101H-102H-103H
301H-302H-303H
501H-502H-503H
601H-602H-603H-604H
SITE

VERMINATOR 6
FED COM CTB

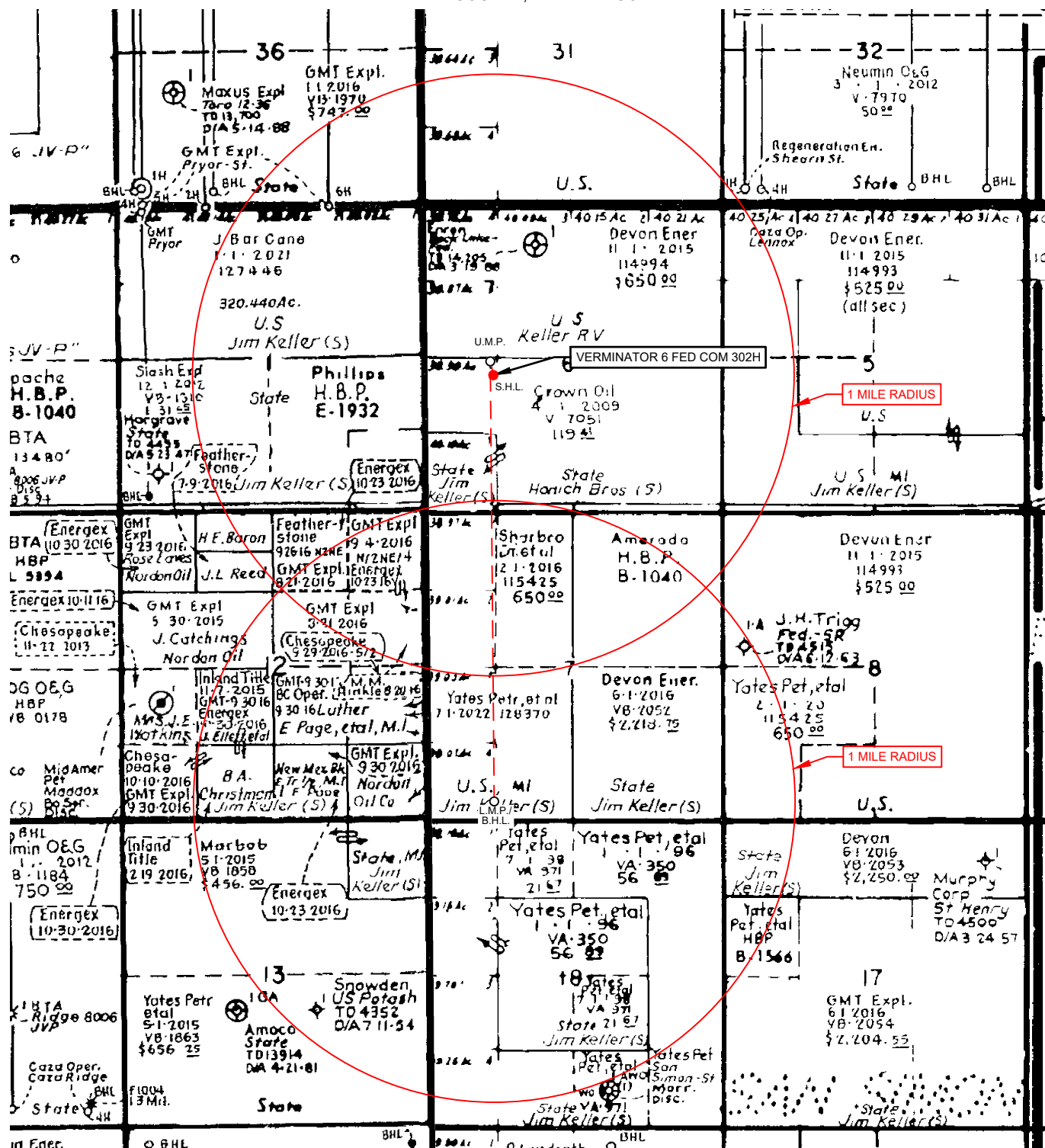


VERMINATOR 6 FED COM AREA SKETCH	REVISION:	
	INT	DATE
DATE: 12/1/22		
FILE:SK_VERMINATOR_6_FC_EXHIBIT_5		
DRAWN BY: CES		
SHEET : 1 OF 1		

--- -- -- SECTION LINE
 - - - - - CONTINUED BASELINE
 = = = = = ROAD WAY
 - - - - - PROPOSED ROAD
 FL PROPOSED FLOWLINE
 OHE PROPOSED ELECTRIC
 W WATERLINE
 GAS GAS LINE
 LIFT GAS LIFT LINE

S:\SURVEY\EOG_MIDLAND\VERMINATOR_6_FED_COM\FINAL_PRODUCTS\SKETCH\SK_VERMINATOR_6_FC_EXHIBIT_5.DWG 12/1/2022 5:10:07 PM csmith5

EXHIBIT 3

SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H

SCALE: NTS

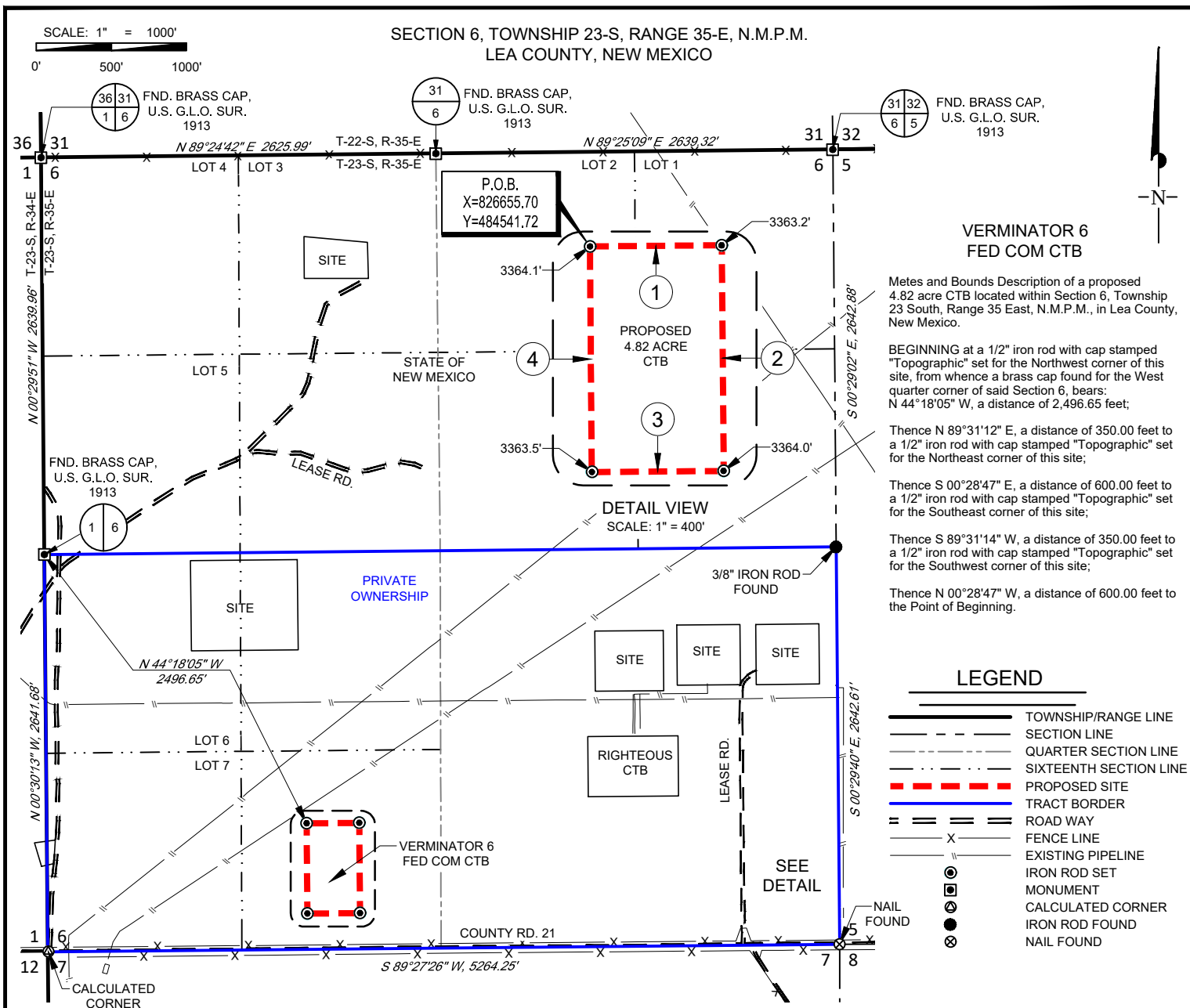
302H LATITUDE N 32.3327172

302H LONGITUDE W 103.4109895

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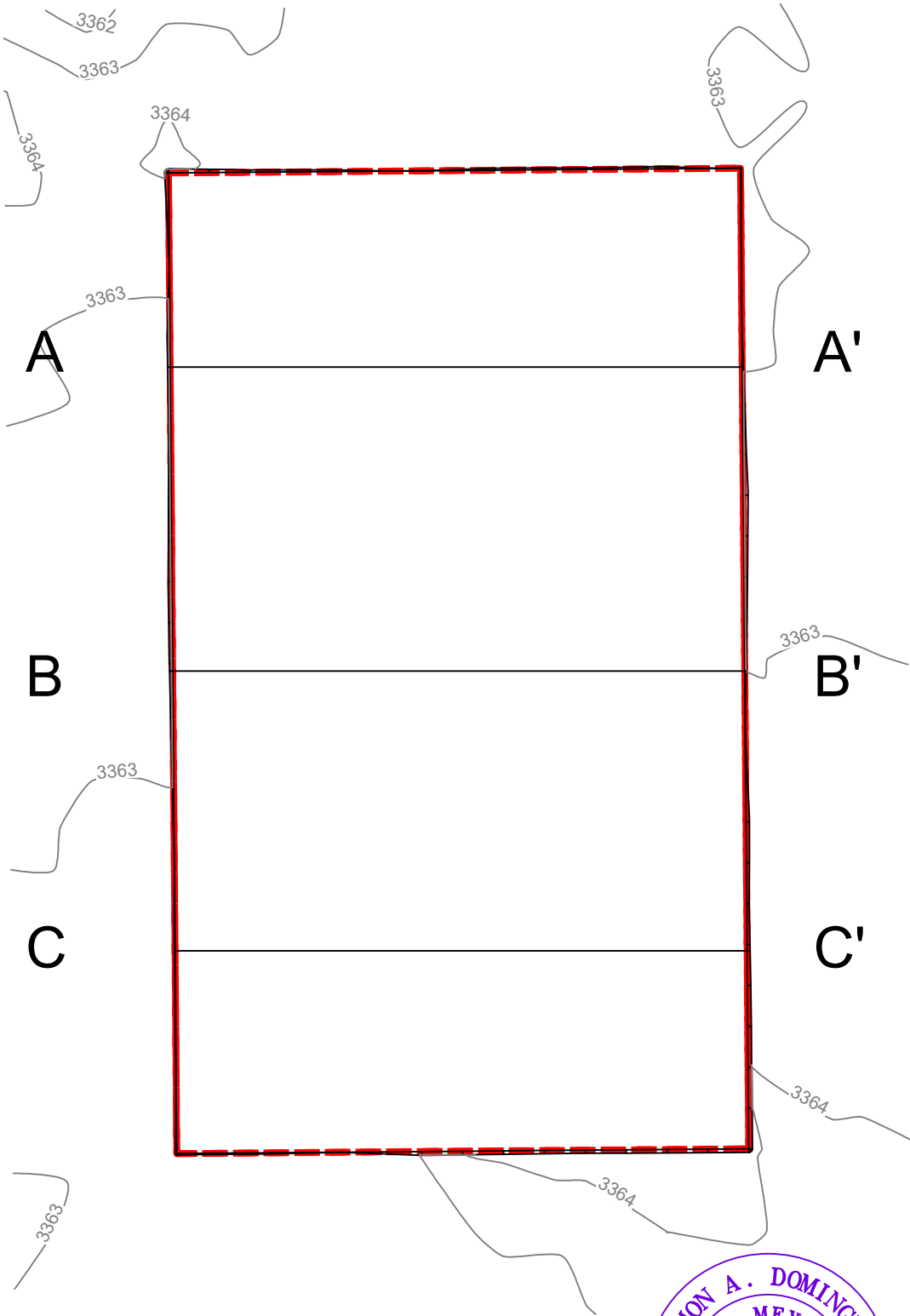
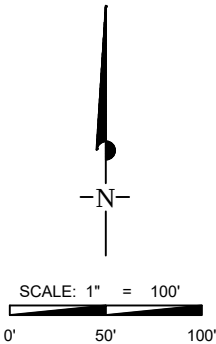
Ramon A. Dominguez, P.S. No. 24508

VERMINATOR 6 FED COM CTB	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/2022			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
FILE:BO_VERMINATOR_6_FC_CTB			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.
DRAWN BY: IMU			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.
SHEET: 1 OF 1			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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EXHIBIT 6

SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



TOPOGRAPHIC
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Top of pad elevation: 3363.2536
Cut Slope: 33.33% 3.000:1 18.43°
Fill Slope: 33.33% 3.000:1 18.43°
Balance Tolerance (C.Y.): 0.00
Cut Swell Factor: 1.00
Fill Shrink Factor: 1.00

Pad Earthwork Volumes
Cut : 42,810.7 C.F., 1,585.58 C.Y.
Fill: 42,810.7 C.F., 1,585.58 C.Y.
Area: 212376.8 Sq.Ft., 4.876 Acres

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

Field note description of even date accompanies this plat.

VERMINATOR 6 FED COM CTB	REVISION:	
	INT	DATE
DATE: 12/1/2022		
FILE:CD_VERMINATOR_6_FC_CTB		
DRAWN BY: AMD		
SHEET : 1 OF 2		

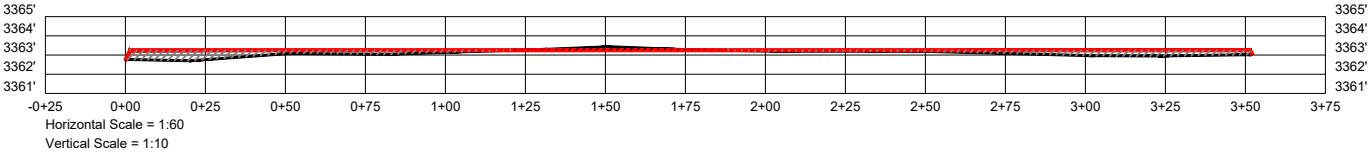
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Horizontal Scale = 1:60
Vertical Scale = 1:10

EXHIBIT 6A
SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

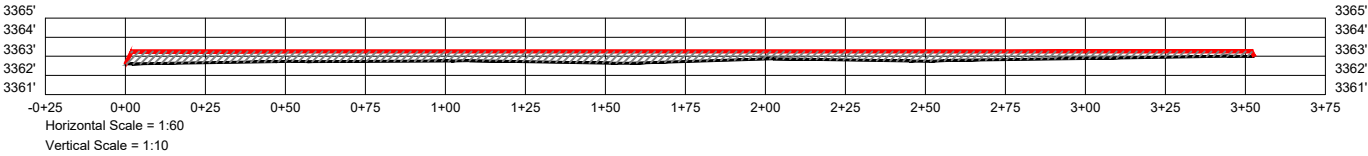


A



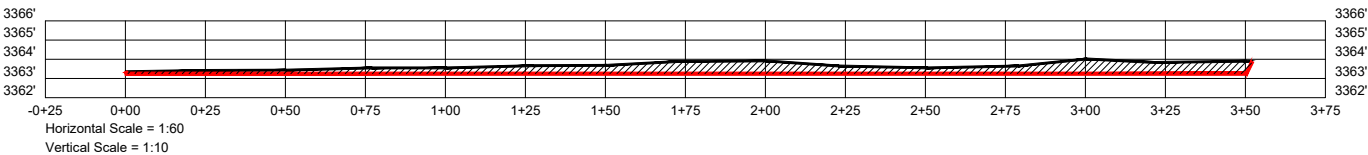
A'

B



B'

C

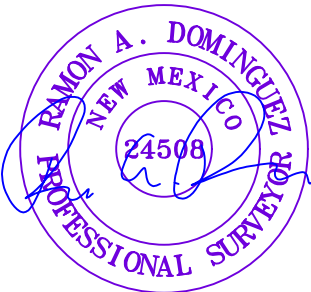


C'



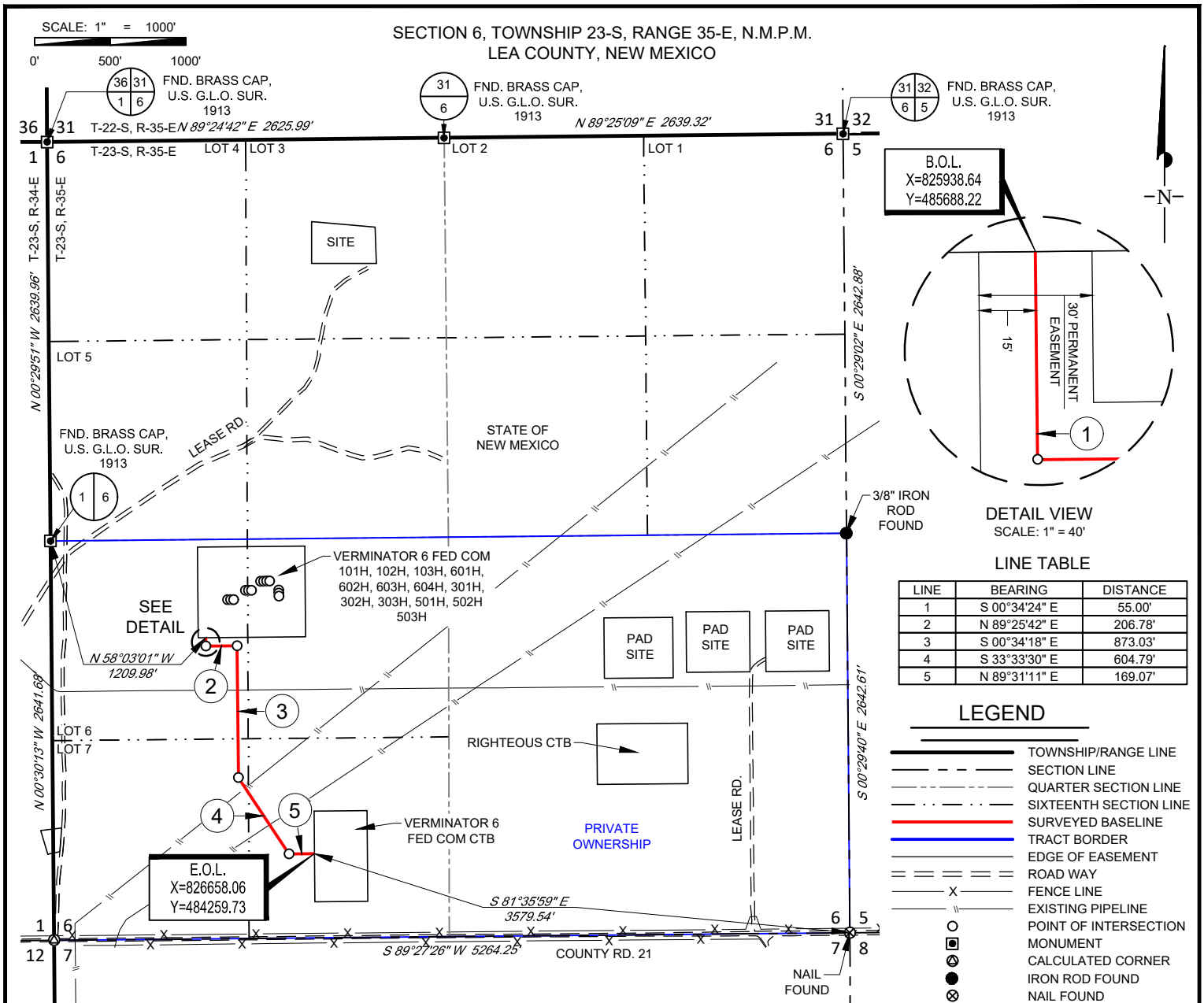
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	INT	DATE	
DATE: 12/1/2022			
FILE:CD_VERMINATOR_6_FC_CTB			
DRAWN BY: AMD			
SHEET : 2 OF 2			



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

Field note description of even date accompanies this plat.



VERMINATOR 6 FED COM PAD
301H-302H-303H-501H-502H-503H
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 1908.67 feet or 115.68 rods, containing 1.31 acres more or less.

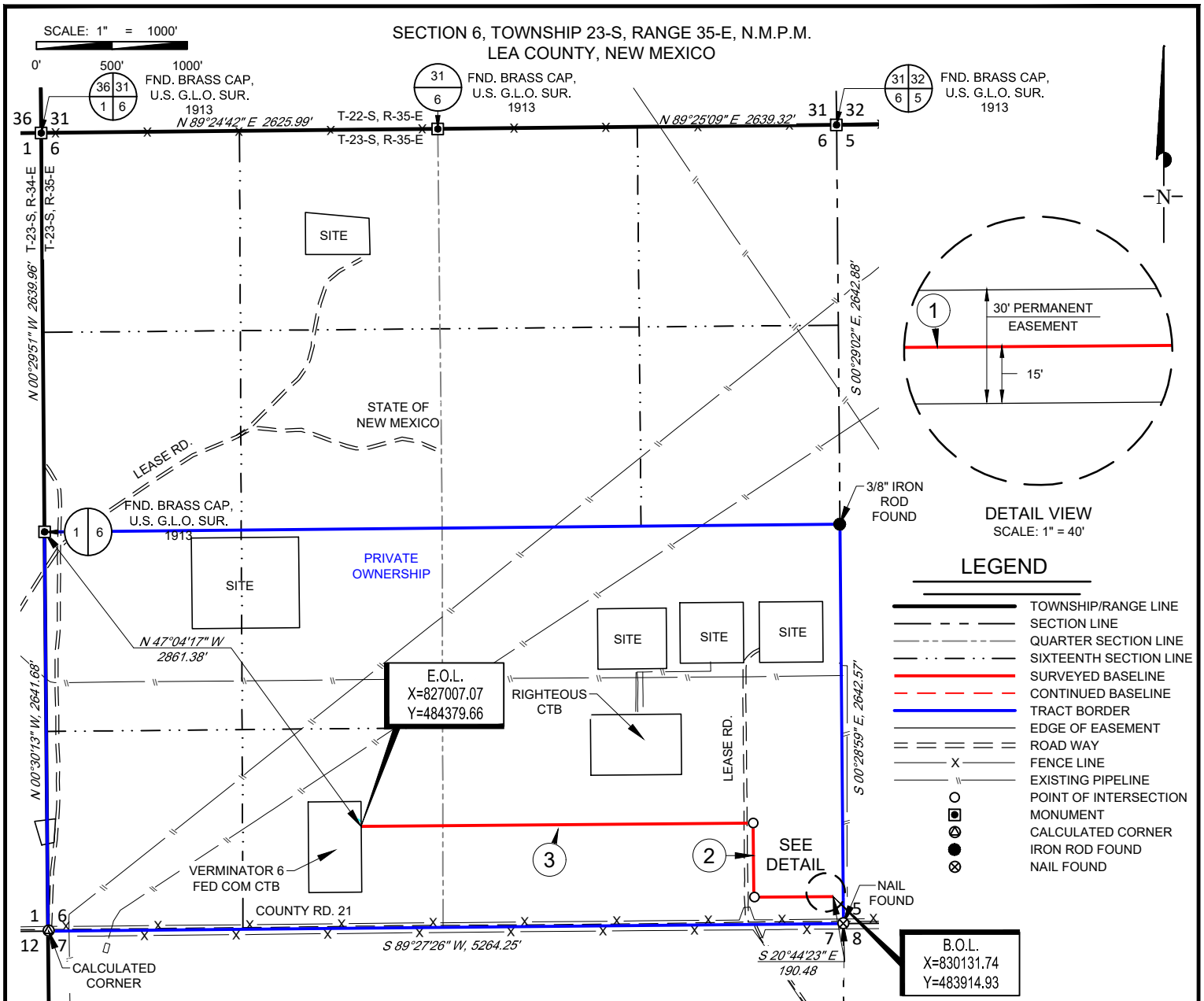


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VERMINATOR 6 FED COM PAD 301H-302H-303H-501H-502H-503H FLOWLINE	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/22			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO 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.
FILE: EP_VERMINATOR_6_FC_301H-302H-303H-501H-502H-503H_FL			
DRAWN BY: SAR			
SHEET: 1 OF 1			



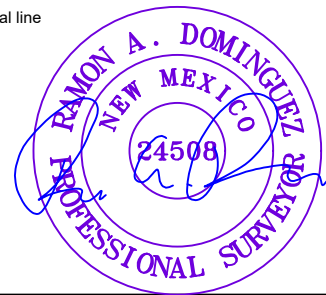
LINE TABLE

LINE	BEARING	DISTANCE
1	S 89°34'39" W	525.37'
2	N 00°31'06" W	490.34'
3	S 89°31'13" W	2594.97'



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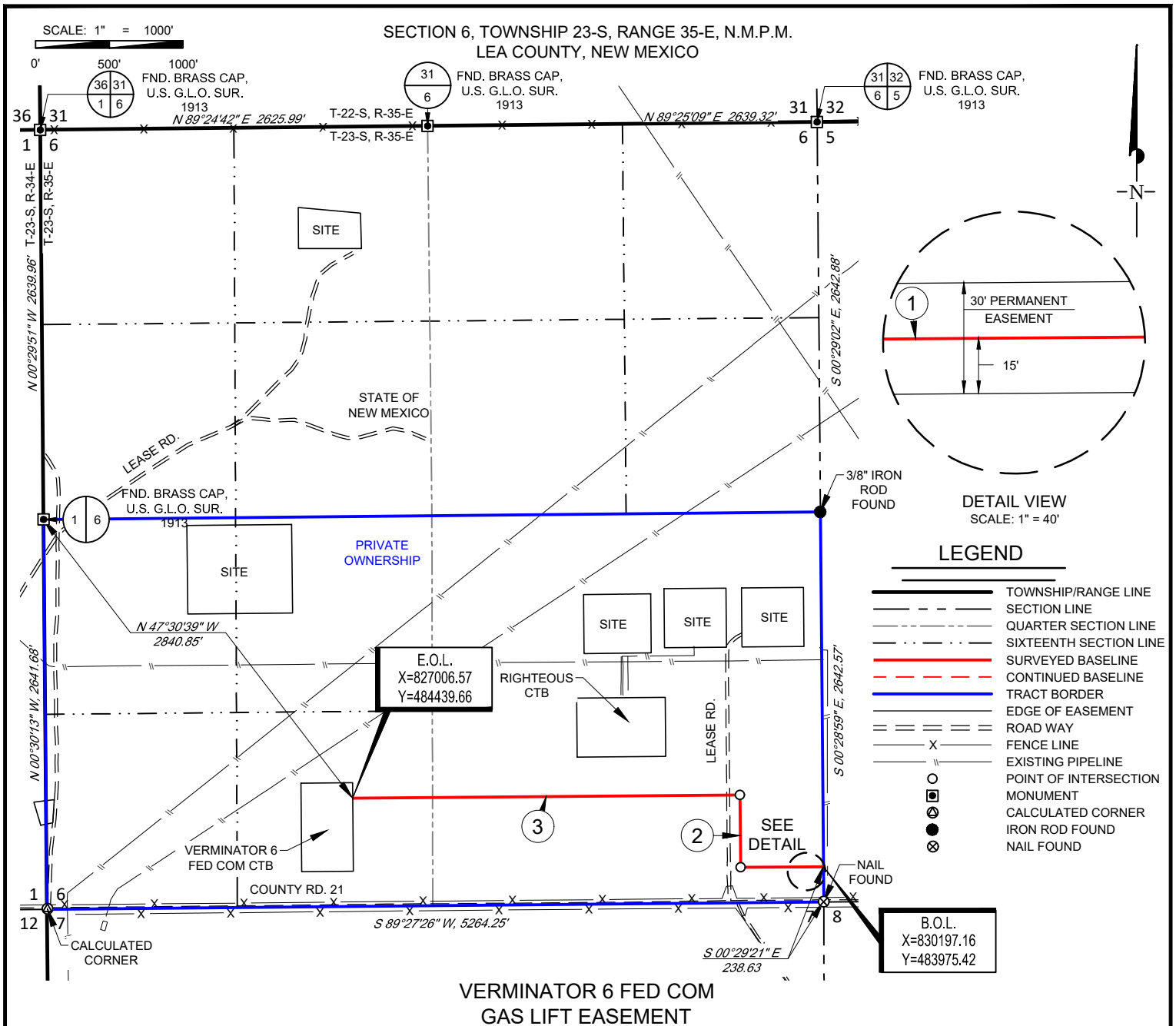
EOG resources, Inc.



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

VERMINATOR 6 FED COM ELECTRIC LINE EASEMENT	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/22			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
FILE: EP_VERMINATOR_6_FC_ELECTRIC_LINE_SEC6			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.
DRAWN BY: LS			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.
SHEET: 1 OF 1			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\VERMINATOR_6_FED_COM\FINAL_PRODUCTS\IEP_VERMINATOR_6_FC_ELECTRIC_LINE_SEC6.DWG 12/12/2022 3:23:03 PM acardona-lopez

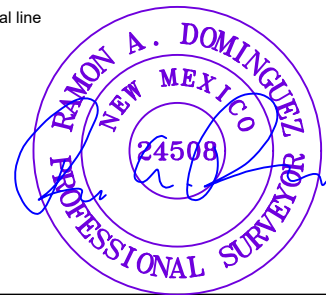


LINE TABLE

LINE	BEARING	DISTANCE
1	S 89°34'39" W	561.33'
2	N 00°31'06" W	490.37'
3	S 89°31'13" W	2624.93'



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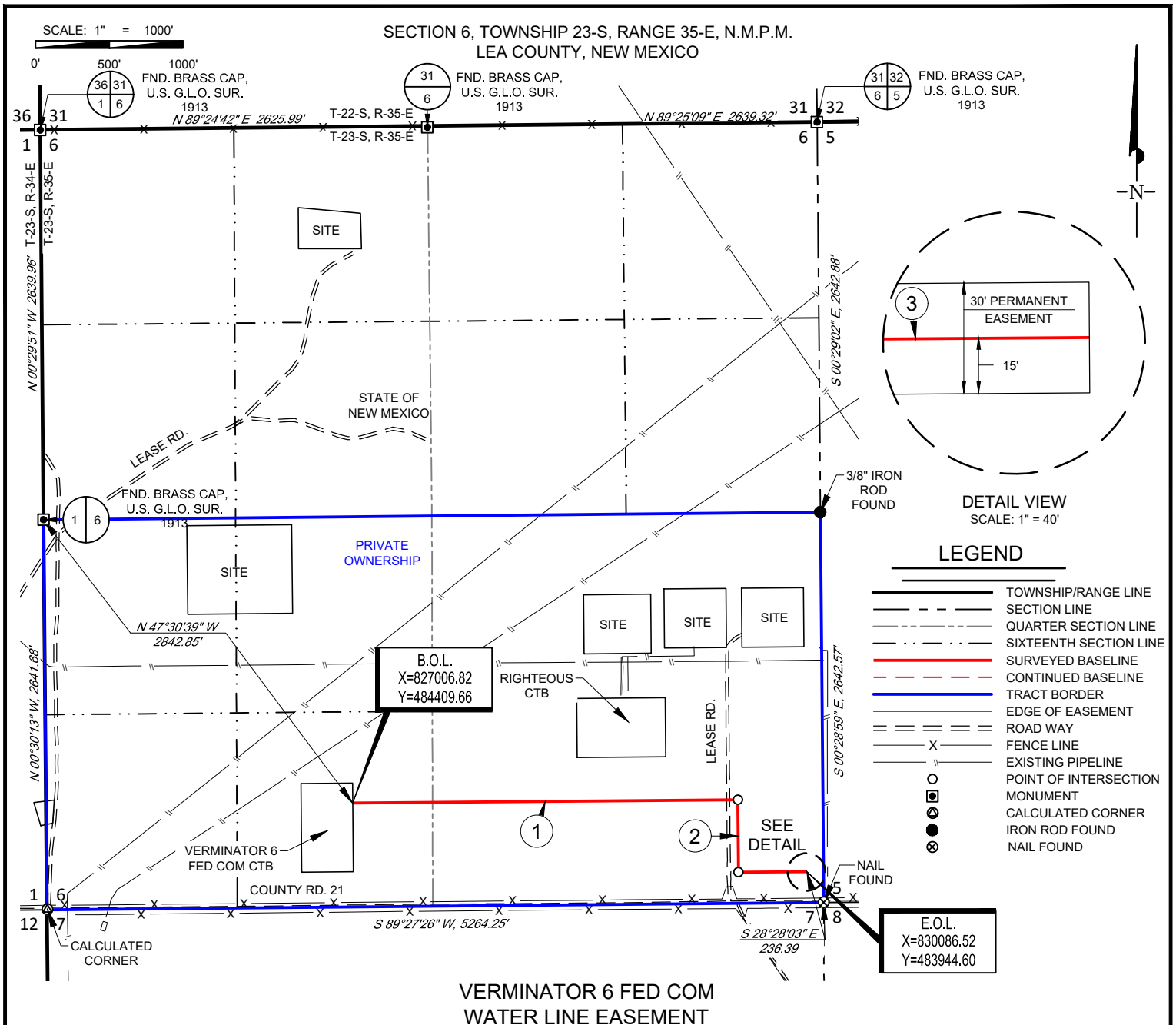


Ramon A. Dominguez, P.S. No. 24508

VERMINATOR 6 FED COM GAS LIFT EASEMENT	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/22			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.
FILE: EP_VERMINATOR_6_FC_GAS_LIFT_SEC6			
DRAWN BY: LS			
SHEET: 1 OF 1			

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VERMINATOR 6 FED COM WATER LINE EASEMENT

Being a proposed waterline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 3,565.73 feet or 216.10 rods, containing 2.46 acres more or less.

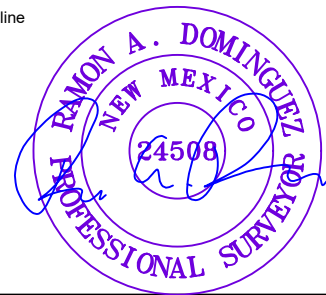
LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°31'13" E	2609.95'
2	S 00°31'06" E	490.36'
3	N 89°34'38" E	465.42'



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

VERMINATOR 6 FED COM WATER LINE EASEMENT	REVISION:		NOTES:
	INT	DATE	
DATE: 11/29/22			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.
FILE:EP_VERMINATOR_6_FC_WL_SEC6			
DRAWN BY: LS			
SHEET: 1 OF 1			

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EXHIBIT 5

SECTION 6 TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

VERMINATOR 6 FED COM AREA SKETCH



SCALE: 1" = 1000'

0' 500' 1000'

T-23-S, R-34-E
T-23-S, R-35-E

VERMINATOR 6 FED COM
101H-102H-103H
301H-302H-303H
501H-502H-503H
601H-602H-603H-604H
SITE

VERMINATOR 6
FED COM CTB



VERMINATOR 6 FED COM AREA SKETCH	REVISION:	
	INT	DATE
DATE: 12/1/22		
FILE: SK_VERMINATOR_6_FC_EXHIBIT_5		
DRAWN BY: CES		
SHEET: 1 OF 1		

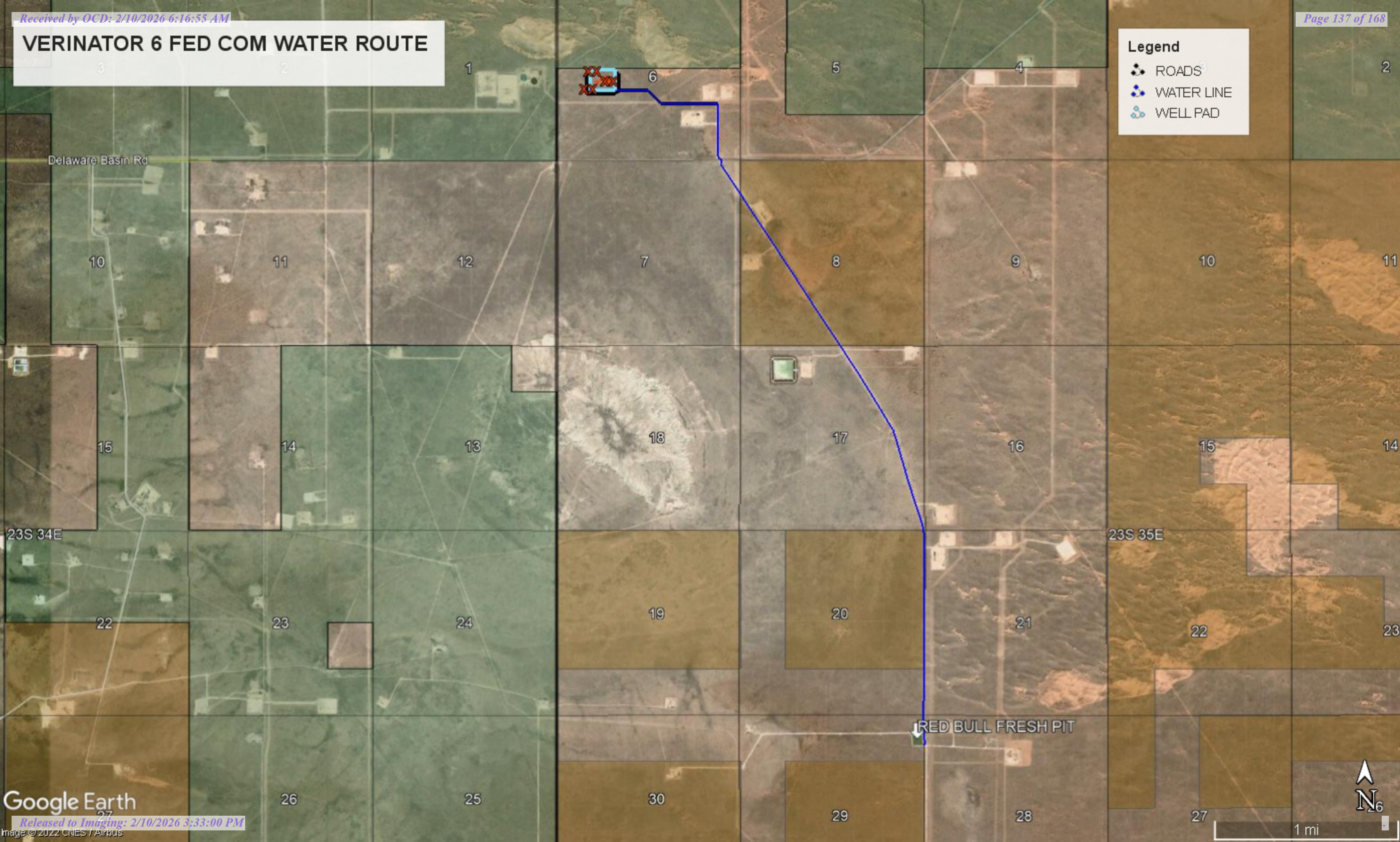
--- -- -- SECTION LINE
 - - - - - CONTINUED BASELINE
 = = = = = ROAD WAY
 - - - - - PROPOSED ROAD
 FL PROPOSED FLOWLINE
 OHE PROPOSED ELECTRIC
 W WATERLINE
 GAS GAS LINE
 LIFT GAS LIFT LINE

S:\SURVEY\EOG_MIDLAND\VERMINATOR_6_FED_COM\FINAL_PRODUCTS\SKETCH\SK_VERMINATOR_6_FC_EXHIBIT_5.DWG 12/1/2022 5:10:07 PM csmilh5

VERINATOR 6 FED COM WATER ROUTE

Legend

- ROADS
- WATER LINE
- WELL PAD



verminator 6 Caliche Map

Legend

-  Limestone Livestock Caliche Pit
-  Roads
-  Verminator Well Pad

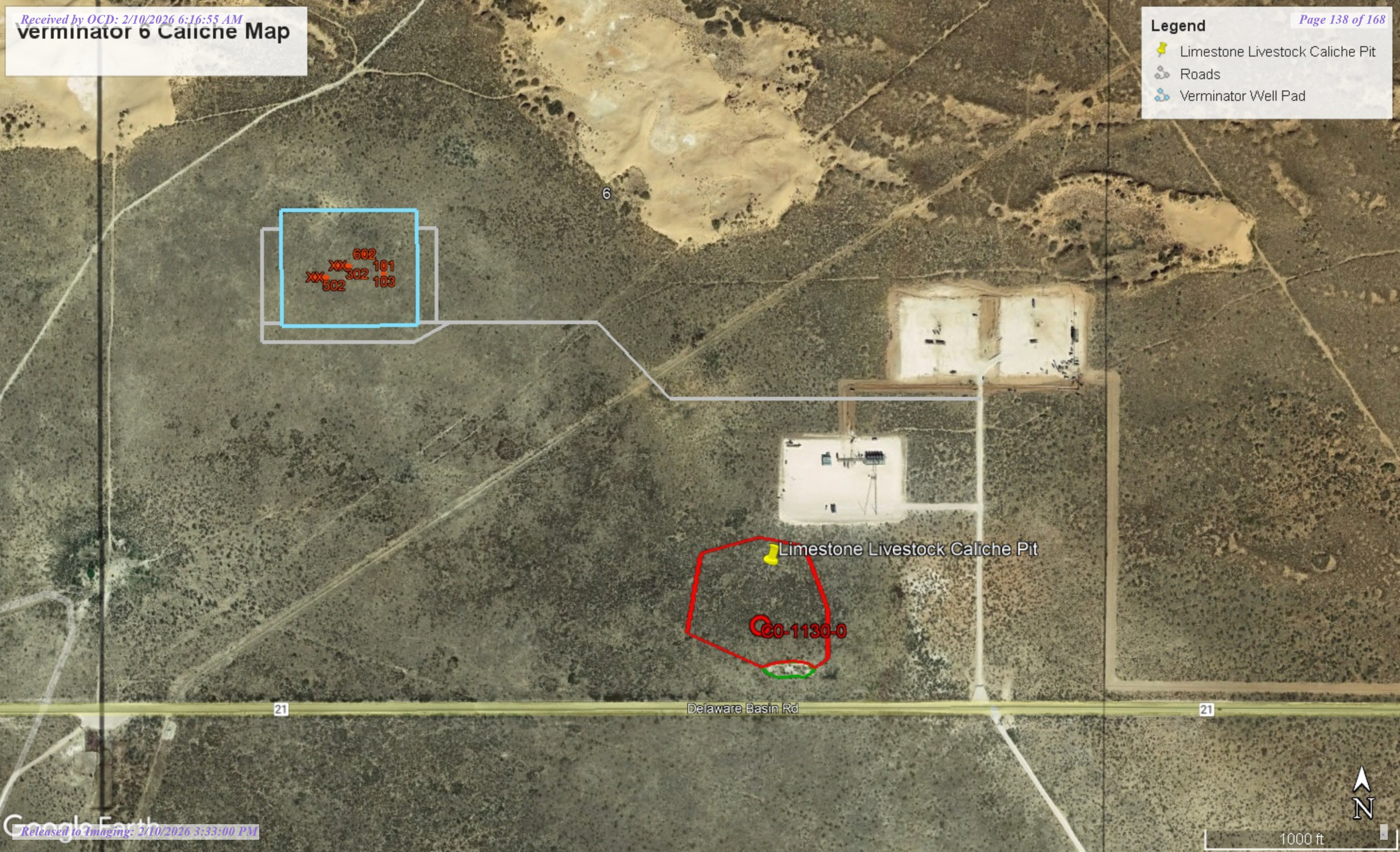


EXHIBIT 6

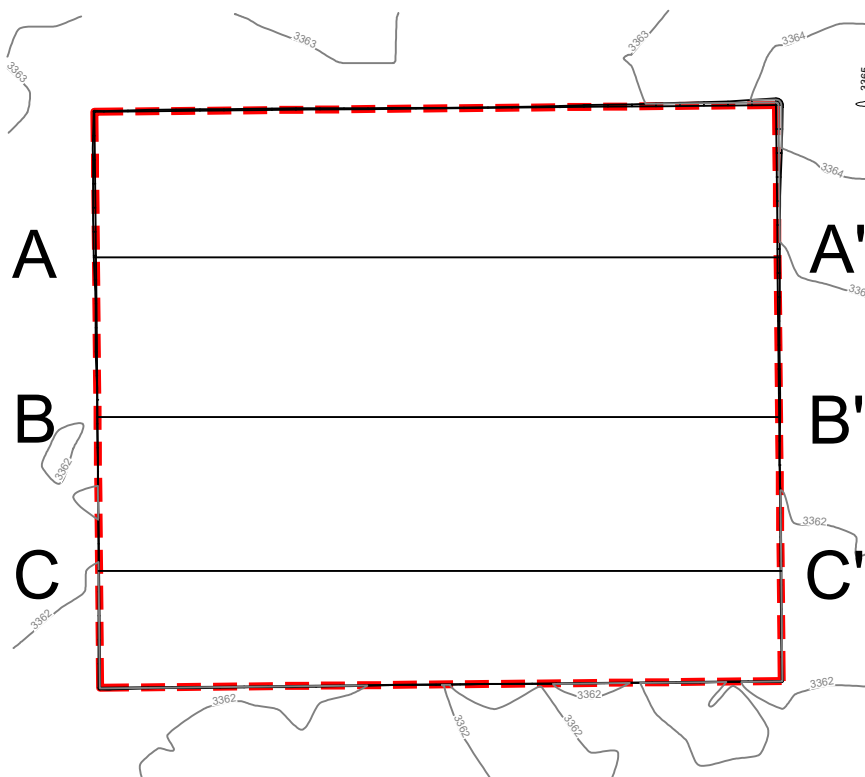
SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



SCALE: 1" = 200'



0' 100' 200'



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Top of pad elevation: 3362.1641
Cut Slope: 33.33% 3.000:1 18.43°
Fill Slope: 33.33% 3.000:1 18.43°
Balance Tolerance (C.Y.): 0.00
Cut Swell Factor: 1.00
Fill Shrink Factor: 1.00

Pad Earthwork Volumes
Cut : 62,976.3 C.F., 2,332.46 C.Y.
Fill: 62,976.4 C.F., 2,332.46 C.Y.
Area: 429603.1 Sq.Ft., 9.862 Acres



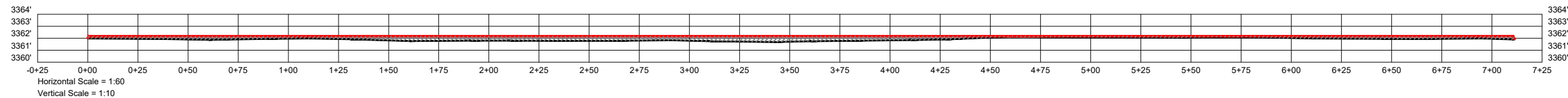
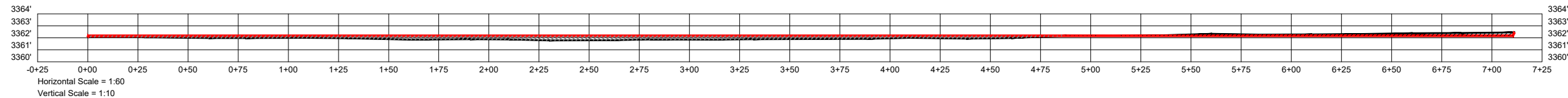
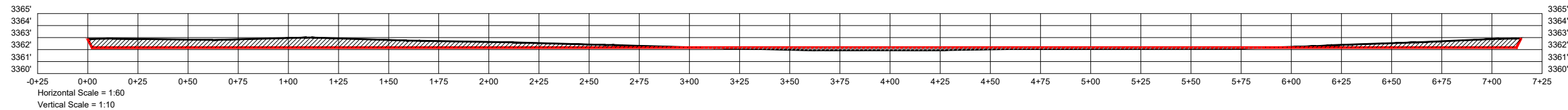
Ramon A. Dominguez, P.S. No. 24508

Field note description of even date accompanies this plat.

VERMINATOR 6 FED COM PAD 301H-303H,501H-503H,101H-103H SITE	REVISION:		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.
	INT	DATE	
DATE: 12/01/2022			
FILE: CD:\VERMINATOR 6 FC 301H-303H-501H-503H-101H-103H PAD SITE			
DRAWN BY: AMD			
SHEET : 1 OF 2			

Horizontal Scale = 1:60
Vertical Scale = 1:10

EXHIBIT 6A
SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

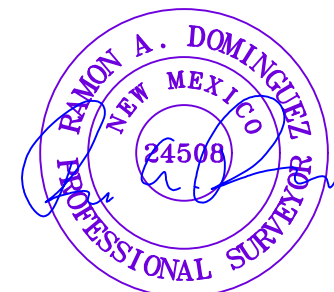


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REVISION:	
INT	DATE

NOTES:

- ORIGINAL DOCUMENT SIZE: 11" X 17"
- 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.
- 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.

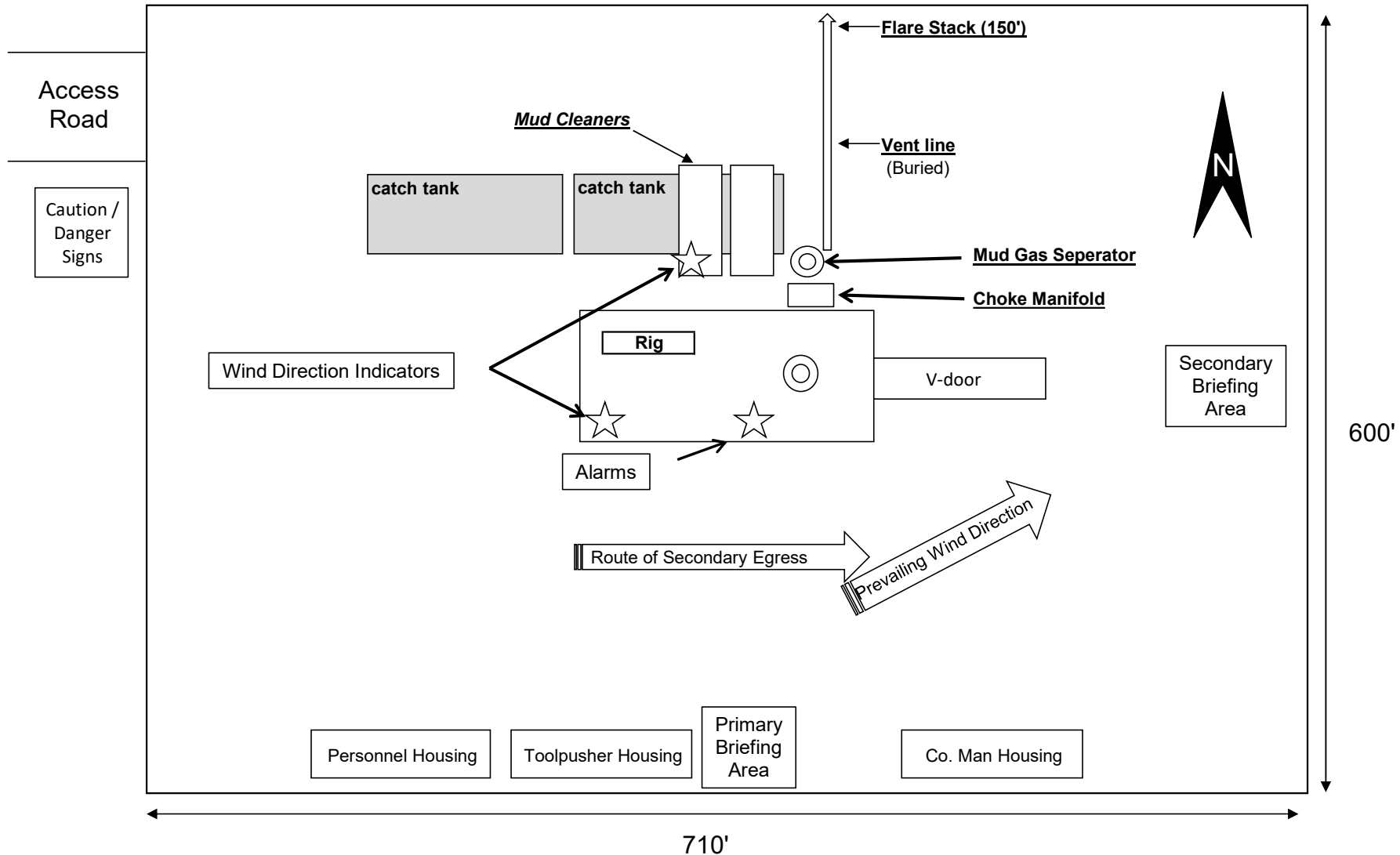


Ramon A. Dominguez, P.S. No. 24508

Field note description of even date accompanies this plat.

Exhibit 4
EOG Resources
Verminator 6 Fed Com #302H

Well Site Diagram



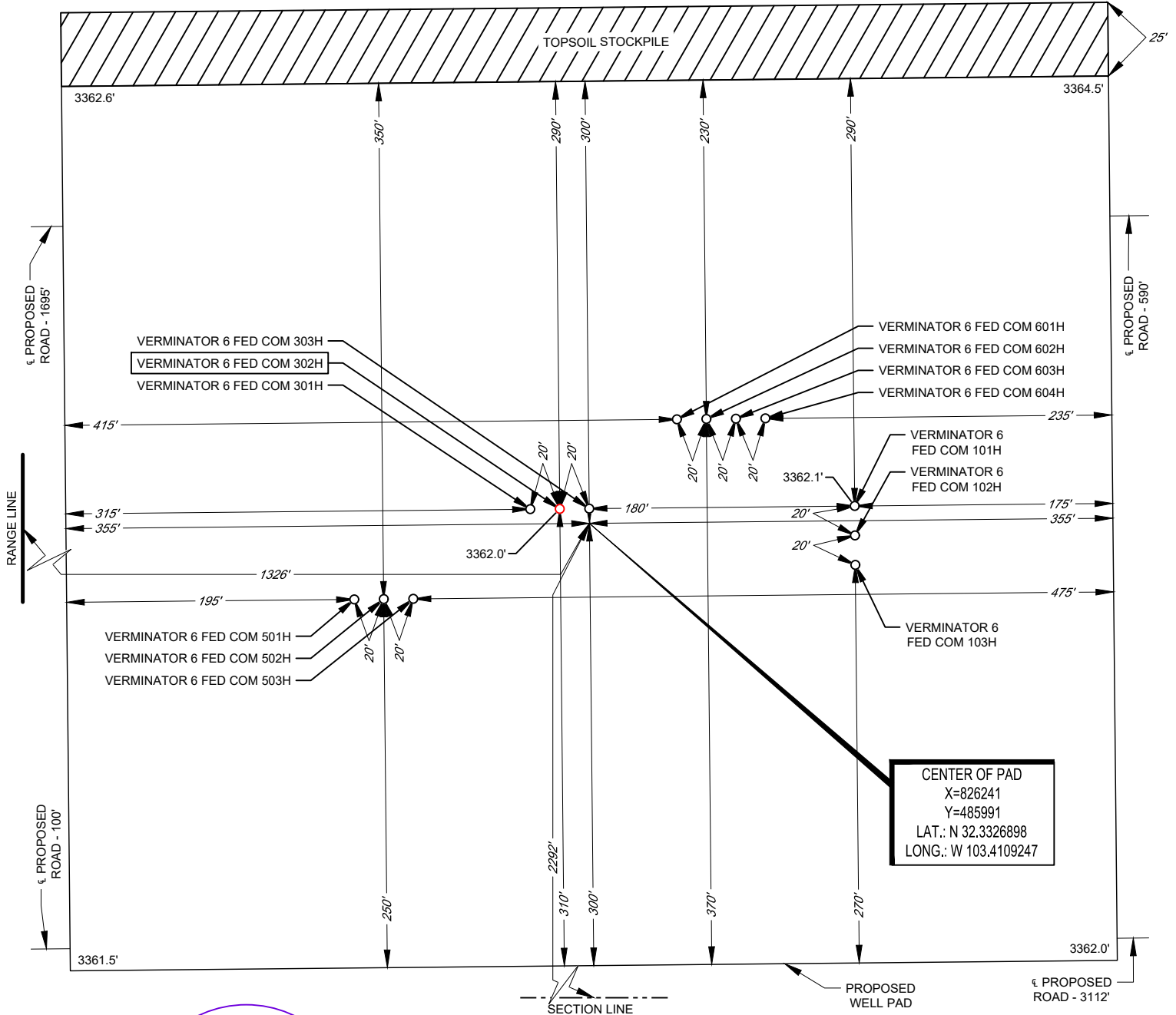
LEGEND

— RANGE LINE
 --- SECTION LINE
 --- PROPOSED ROAD



SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
 LEA COUNTY, NEW MEXICO

DETAIL VIEW
 SCALE: 1" = 100'



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

November 17, 2022

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"

Released to Imaging: 2/10/2026 3:33:00 PM

LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H
 302H LATITUDE N 32.3327172 302H LONGITUDE W 103.4109895

CENTER OF PAD IS 2292' FSL & 1326' FWL



SCALE: 1" = 100'
 0' 50' 100'

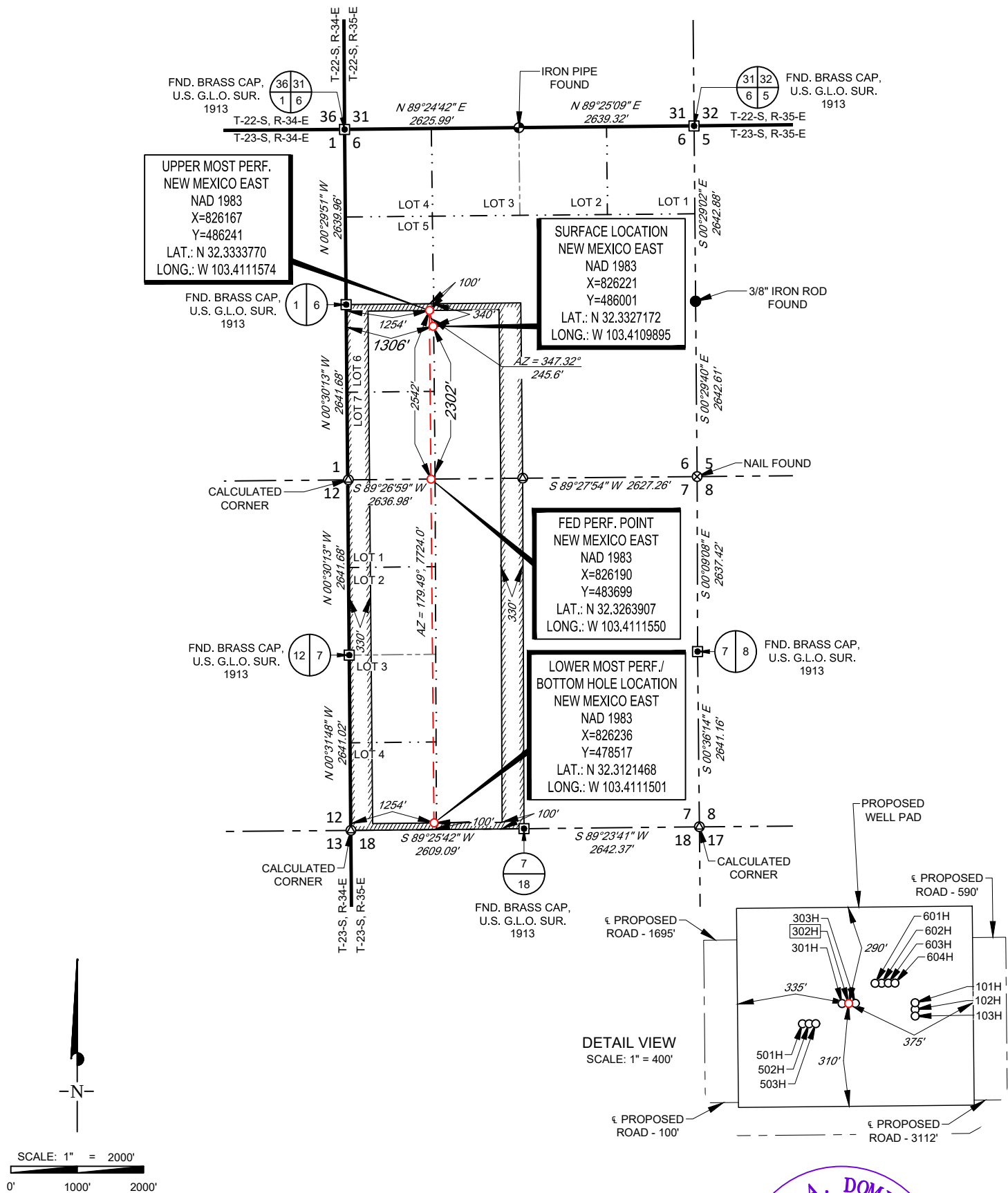


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EXHIBIT 2A

SECTION 6, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H

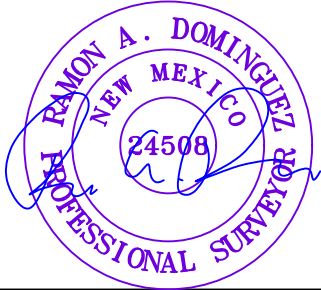
SECTION 6 TWP 23-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 2302' FSL & 1306' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-128. & DELAWARE BASIN RD./CR 21. GO NORTH ON DELAWARE BASIN RD. ±14.4 MILES, THENCE NORTH(LEFT) ON A LEASE RD. ±0.3 MILES, THENCE WEST (LEFT) ON A PROPOSED RD. ±3112 FEET TO A POINT ±477 FEET SOUTHEAST 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, P.S. No. 24508
May 31, 2022

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

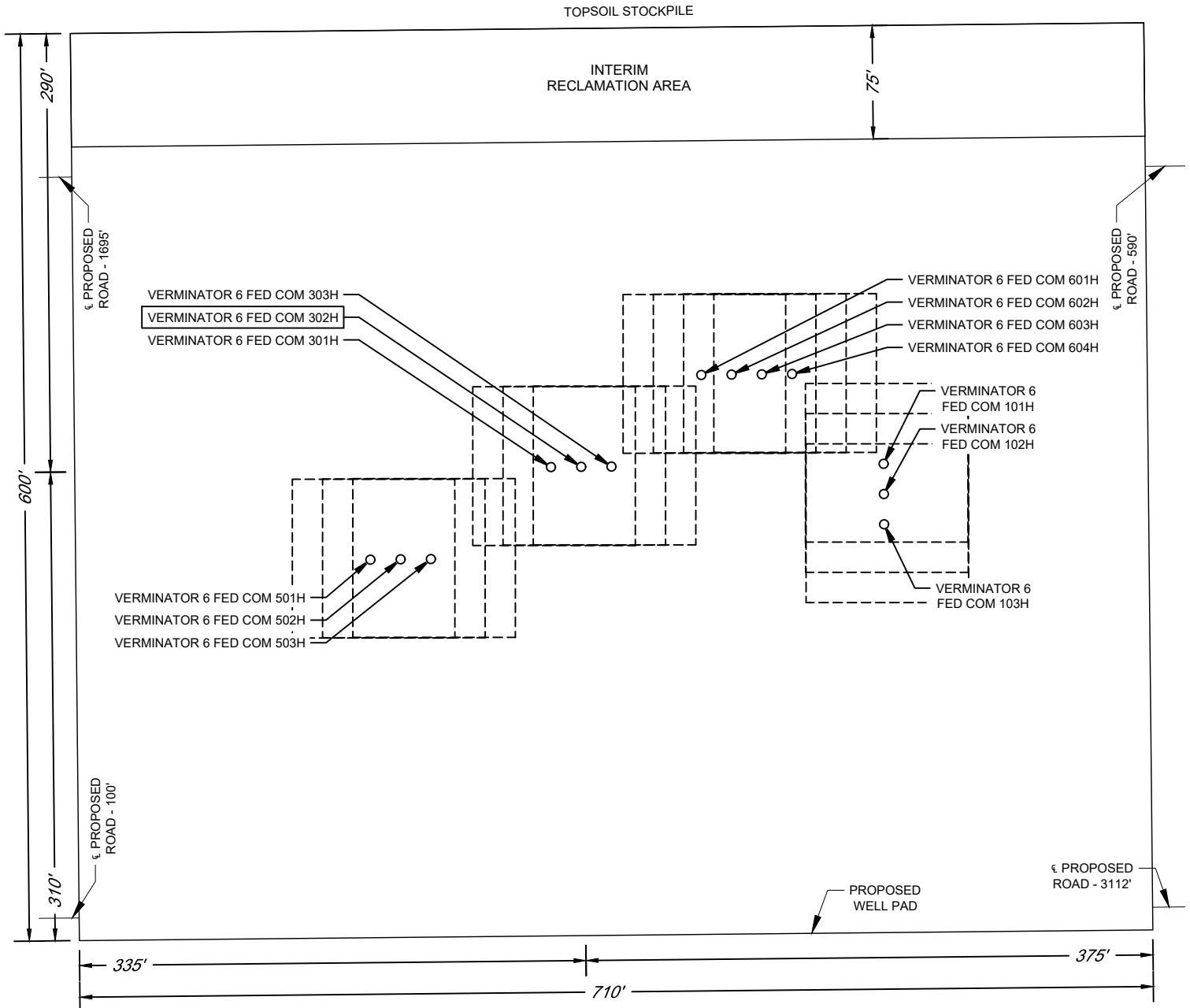
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
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EXHIBIT 2C

RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION #, TOWNSHIP ####, RANGE ####, N.M.P.M.
 ### COUNTY, NEW MEXICO

DETAIL VIEW
 SCALE: 1" = 100'



LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H
 302H LATITUDE N 32.3327172 302H LONGITUDE W 103.4109895

EOG Resources, Inc.
VERMINATOR 6 FED COM 302H

SHL: 2302 FSL & 1306 FWL, Section: 6, T.23S., R.35E.
BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

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 soils 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 VERMINATOR 6 FED COM 302H 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

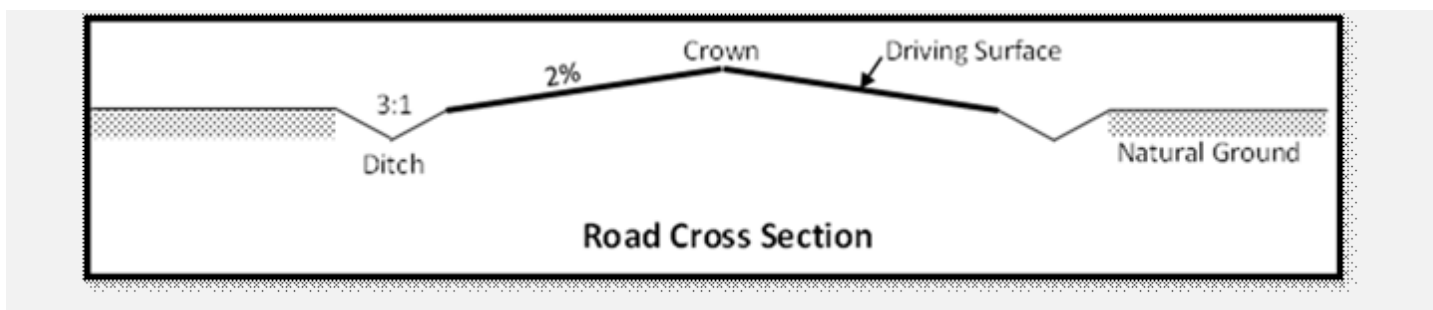
- a. An access road will be needed for this proposed project. See the survey plat for the location of the access road.
- b. The length of access road needed to be constructed for this proposed project is about 7207 feet.
- c. The maximum driving width of the access road will be 24 feet. The maximum width of surface disturbance when constructing the access road will not exceed 25 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.

EOG Resources, Inc.

SHL: 2302 FSL & 1306 FWL, Section: 6, T.23S., R.35E.

VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.



- 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 20 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. VERMINATOR 6 FED COM 302H 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

- 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. VERMINATOR 6 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 precipitation, unless more stringent protective requirements are deemed necessary.

EOG Resources, Inc.

SHL: 2302 FSL & 1306 FWL, Section: 6, T.23S., R.35E.

VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

- e. There is no other diagram that depicts production facilities.
- 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 STEEL pipeline from the proposed well to the offsite production facility. The proposed length of the pipeline will be 1909 feet. The working pressure of the pipeline will be about 1440 psi. A 50 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. VERMINATOR 6 FED COM INFRASTRUCTURE depicts the proposed production pipeline route from the well to the existing production facility.
 - iii. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

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.

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 3611 feet. VERMINATOR 6 FED COM 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 outline in the drilling program (i) Water will be obtained from commercial water stations in the area and hauled to location by trucks using existing and proposed roads as depicted on the road map attached (ii) Water may as be supplied from frac ponds and transported to location by temporary above ground surface lines a shown on the map EOG plans to utilize up to five 4 inch lay flat lines and up to five 12 inch lay flat lines for the purpose of transporting freshwater 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 five 4 inch lay flat and up to five 12 inch lay flat lines for the purpose of transporting treated produced water being defined as the reconditioning of produced water to a reusable form and may include mechanical and chemical processes

Freshwater Sources:

1Devon's Red Bull Fresh Water Pit located in Section 29_ Township 23 S_ Range 35 E_ Lea County_ New Mexico

2EOG Resources_ Inc_ Chili Pepper Reuse pit located in Section 17_ Township 23 S_ Range 35E_ Lea County_ New Mexico

Treated Produced Water Sources:

EOG Resources_ Inc_ Ross Draw Reuse Pit located in Section 16_ Section 8_ Township 26 S_ Range 31 E_ Eddy

EOG Resources, Inc.

SHL: 2302 FSL & 1306 FWL, Section: 6, T.23S., R.35E.

VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

County_ New Mexico

Temporary surface lines would originate from a single water source location 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 other 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 will be included in the Environmental Assessment. Electronic map file (shape file or KMZ file) shall be submitted with the Environmental Assessment.

Attached Water Map depicts the proposed route for up to five temporary above ground surface lines and maybe installed on the surface for a time (>180 days). Temporary above ground surface lines shall supply water for drilling and completions operations.

b. VERMINATOR 6 FED COM WATER AND CALICHE MAP depicts the proposed route for a 12 inch LAY-FLAT POLY 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 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.

7. Methods for Handling Waste

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.

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VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

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:

- i. reasonable scale (near 1":50')
- ii. well pad dimensions
- iii. well pad orientation
- iv. drilling rig components
- v. proposed access road
- vi. elevations of all points
- vii. topsoil stockpile
- viii. reserve pit location/dimensions if applicable
- ix. other disturbances needed (flare pit, stinger, frac farm pad, etc.)
- x. existing structures within the 600' x 600' archaeological surveyed area (pipelines, electric lines, well pads, etc)

b. 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.

c. The submitted survey plat does depict all the necessary information required by Onshore Order No. 1.

d. 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 resspreading. 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

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VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

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.

VERMINATOR 6 FED COM 302H 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

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SHL: 2302 FSL & 1306 FWL, Section: 6, T.23S., R.35E.

VERMINATOR 6 FED COM 302H

BHL: 100 FSL & 1254 FWL, Section: 7, T.23S., R.35E.

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 PRIVATE.

1. **Surface Owner:** Limestone Basin Properties Ranch, LLC

Phone Number: (000) 000-0000

Address: 6 Desta Drive, STE. 2725 Midland, TX 79705

a. A surface use agreement was obtained from the private surface owner regarding the proposed project.

b. A good faith effort was made to provide a copy of the APD Surface Use Plan of Operations to the private surface owner.

12. Other Information

a. Regulatory will list all proposed pipelines.

The well is planned to 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

VERMINATOR 6 FED COM 302H VICINITY - Existing Road

VERMINATOR 6 FED COM 302H - Wells Within One Mile

VERMINATOR 6 FED COM CTB - Production Facilities Diagram

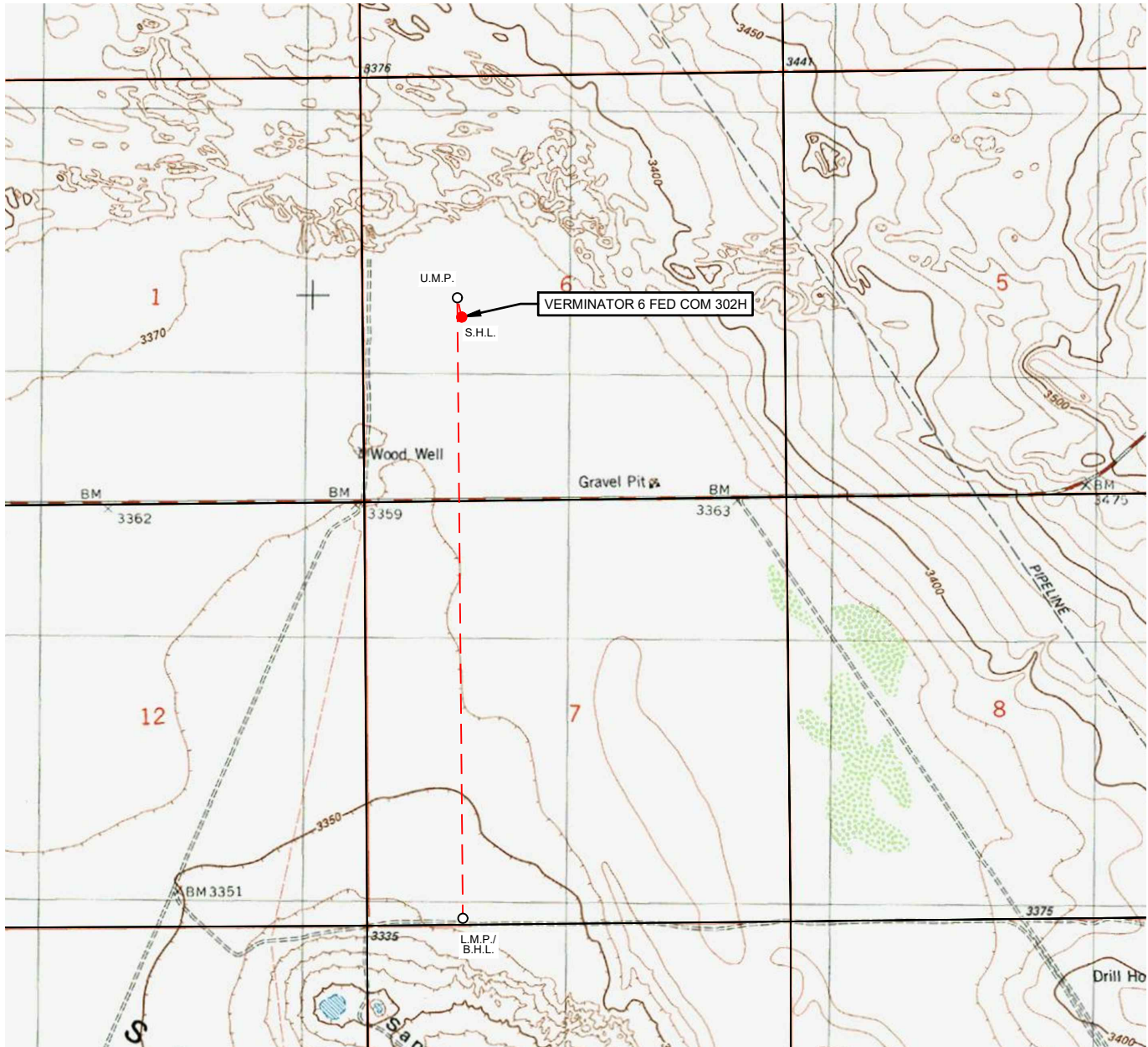
VERMINATOR 6 FED COM INFRASTRUCTURE - Production Pipeline

VERMINATOR 6 FED COM INFRASTRUCTURE - Electric Line

VERMINATOR 6 FED COM WATER AND CALICHE MAP - Drilling Water Pipeline

VERMINATOR 6 FED COM 302H RECLAMATION - Interim Reclamation

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: VERMINATOR 6 FED COM 302H

SECTION 6 TWP 23-S RGE 35-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3362'
 DESCRIPTION 2302' FSL & 1306' FWL

LATITUDE N 32.3327172 LONGITUDE W 103.4109895

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.



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
 WWW.TOPOGRAPHIC.COM



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

PWD Data Report

01/08/2026

APD ID: 10400090871

Submission Date: 02/23/2023

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

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):

Other PWD Surface Owner Description:

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:

Describe 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: VERMINATOR 6 FED COM

Well Number: 302H

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:

Other PWD Surface Owner Description:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Describe 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):

Precipitated Solids Permit

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

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** VERMINATOR 6 FED COM**Well Number:** 302H**State****Unlined Produced Water Pit Estimated****Unlined pit: do you have a reclamation bond for the pit?****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):****Other PWD Surface Owner Description:****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):****Other PWD Surface Owner Description :****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:**

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

PWD Surface Owner Description:

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



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

Bond Info Data

01/08/2026

APD ID: 10400090871

Submission Date: 02/23/2023

Highlighted data
reflects the most
recent changes
[Show Final Text](#)

Operator Name: EOG RESOURCES INCORPORATED

Well Name: VERMINATOR 6 FED COM

Well Number: 302H

Well Type: OIL WELL

Well Work Type: Drill

Bond

Federal/Indian APD: FED

BLM Bond number: NMB106709157

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 attachment:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 55917	Pool Code 2205	Pool Name Antelope Ridge; Bone Spring, North
Property Code 338817	Property Name VERMINATOR 6 FED COM	Well Number 302H
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Ground Level Elevation 3362'
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
K	6	23-S	35-E	-	2302' S	1306' W	N 32.3327177	W 103.4109902	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
4	7	23-S	35-E	-	100' S	1254' W	N 32.3121468	W 103.4111527	LEA

Dedicated Acres 474.32	Infill or Defining Well DEFINING	Defining Well API PENDING API VERMINATOR 6 FED COM 302	Overlapping Spacing Unit (Y/N) N	Consolidated Code C
Order Numbers COM PENDING			Well Setbacks are under Common Ownership: ☐ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
6	6	23-S	35-E	-	2591' S	1254' W	N 32.3335119	W 103.4111587	LEA

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
6	6	23-S	35-E	-	2541' S	1254' W	N 32.3333744	W 103.4111586	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
4	7	23-S	35-E	-	100' S	1254' W	N 32.3121468	W 103.4111527	LEA

Unitized Area or Area of Uniform Interest UNITIZED AREA	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3387'
---	--	--

OPERATOR CERTIFICATION 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. Star L Harrell 2/10/26 Signature Date		SURVEYORS CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  Star L Harrell _____ Signature and Seal of Professional Surveyor Date	
Print Name star_harrell@eogresources.com E-mail Address		Certificate Number Date of Survey 05/22/2022	

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled
Property Name and Well Number VERMINATOR 6 FED COM 302H		

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=826221 Y=486001
LAT.: N 32.3327177
LONG.: W 103.4109902

NAD 1927

X=785037 Y=485942
LAT.: N 32.3325955
LONG.: W 103.4105134
2302' FSL 1306' FWL

KICK OFF POINT (KOP)

NEW MEXICO EAST
NAD 1983
X=826166 Y=486290
LAT.: N 32.3335119
LONG.: W 103.4111587

NAD 1927

X=784983 Y=486231
LAT.: N 32.3333897
LONG.: W 103.4106819
2591' FSL 1254' FWL

UPPER MOST PERF. (UMP)

NEW MEXICO EAST
NAD 1983
X=826167 Y=486240
LAT.: N 32.333744
LONG.: W 103.4111586

NAD 1927

X=784983 Y=486181
LAT.: N 32.3332522
LONG.: W 103.4106818
2541' FSL 1254' FWL

PROPOSED PERF. POINT (PPP1)

NEW MEXICO EAST
NAD 1983
X=826189 Y=483699
LAT.: N 32.3263903
LONG.: W 103.4111567

NAD 1927

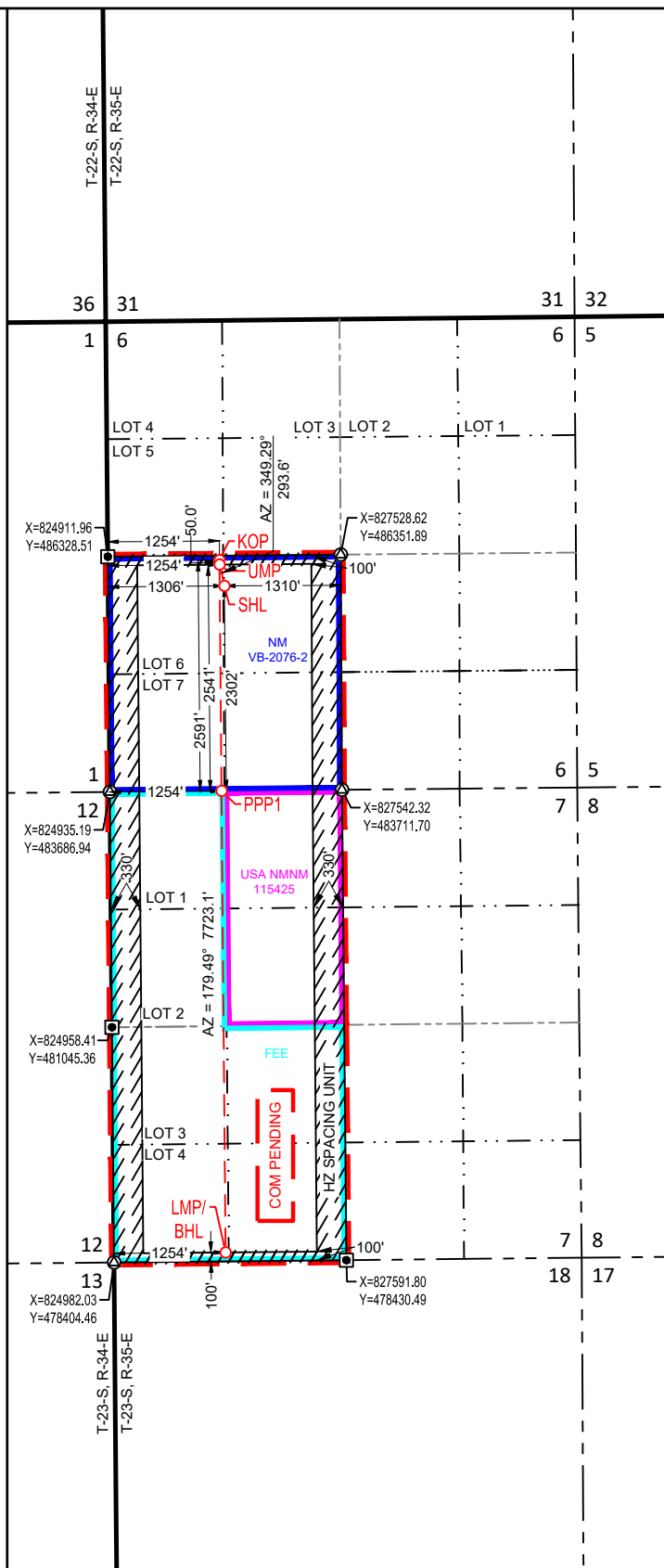
X=785005 Y=483640
LAT.: N 32.3262681
LONG.: W 103.4106801
0' FNL 1254' FWL

**LOWER MOST PERF. (LMP)
BOTTOM HOLE LOCATION (BHL)**

NEW MEXICO EAST
NAD 1983
X=826235 Y=478517
LAT.: N 32.3121468
LONG.: W 103.4111527

NAD 1927

X=785051 Y=478458
LAT.: N 32.3120244
LONG.: W 103.4106767
100' FSL 1254' FWL



T-23-S, R-35-E
SECTION 6

LOT 1 - 40.21 ACRES
LOT 2 - 40.15 ACRES
LOT 3 - 40.09 ACRES
LOT 4 - 39.55 ACRES
LOT 5 - 39.36 ACRES
LOT 6 - 39.20 ACRES
LOT 7 - 39.04 ACRES
SECTION 7
LOT 1 - 38.97 ACRES
LOT 2 - 39.01 ACRES
LOT 3 - 39.03 ACRES
LOT 4 - 39.07 ACRES

SURVEYORS CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
05/22/2022

Date of Survey

Signature and Seal of Professional Surveyor:



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: EOG Resources, Inc. **OGRID:** 7377 **Date:** 1/8/2026

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
VERMINATOR 6 FED COM 302H		L-6-23S-35E	2302' FSL & 1293' FWL	+/- 1000	+/- 3500	+/- 3000

IV. Central Delivery Point Name: Verminator 6 Fed Com CTB [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
VERMINATOR 6 FED COM 302H		1/30/26	2/15/26	3/01/26	4/01/26	5/01/26

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

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

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

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: *Star L Harrell*

Printed Name: Star L Harrell

Title: Regulatory Advisor

E-mail Address: Star_Harrell@eogresources.com

Date: 1/8/2026

Phone: (432) 848-9161

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

Approved By:

Title:

Approval Date:

Conditions of Approval:

Natural Gas Management Plan**Items VI-VIII****VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

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

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

Production Operations

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses will be installed.

- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

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

- During downhole well maintenance, EOG will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

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

ACKNOWLEDGMENTS

Action 552111

ACKNOWLEDGMENTS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 552111
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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COMMENTS

Action 552111

COMMENTS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 552111
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
jeffrey.harrison	Submitted as defining well.	2/10/2026

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CONDITIONS

Action 552111

CONDITIONS

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 552111
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
sharrell1	Cement is required to circulate on both surface and intermediate1 strings of casing.	2/10/2026
sharrell1	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	2/10/2026
jeffrey.harrison	This well is within the Capitan Reef aquifer zone. The first intermediate casing string shall be set and cemented back to surface immediately below the Capitan Reef.	2/10/2026
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	2/10/2026
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	2/10/2026
jeffrey.harrison	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.	2/10/2026
jeffrey.harrison	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.	2/10/2026