

Form 3160-3  
(October 2024)FORM APPROVED  
OMB No. 1004-0220  
Expires: October 31, 2027

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work:	<input checked="" type="checkbox"/> DRILL	<input type="checkbox"/> REENTER	7. If Unit or CA Agreement, Name and No.	
1b. Type of Well:	<input checked="" type="checkbox"/> Oil Well	<input type="checkbox"/> Gas Well	8. Lease Name and Well No.	
1c. Type of Completion:	<input type="checkbox"/> Hydraulic Fracturing	<input checked="" type="checkbox"/> Single Zone	<input type="checkbox"/> Multiple Zone	PILEDRIVER FEDERAL COM 505H
2. Name of Operator COG OPERATING LLC	9. API Well No. <b>30-025-55644</b>			
3a. Address 600 West Illinois Ave, Midland, TX 79701	3b. Phone No. (include area code) (432) 683-7443			
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNE / 655 FNL / 1945 FEL / LAT 32.092419 / LONG -103.660526 At proposed prod. zone SWSE / 50 FSL / 1430 FEL / LAT 32.050434 / LONG -103.658756	10. Field and Pool, or Exploratory <del>JENNINGS/UPPER BONE SPRING SHA WC-025 G-08 S253235G:LWR BONE SPRIN</del> 11. Sec., T. R. M. or Blk. and Survey or Area SEC 34/T25S/R32E/NMP			
14. Distance in miles and direction from nearest town or post office* 24 miles	12. County or Parish LEA		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 50 feet	16. No of acres in lease	17. Spacing Unit dedicated to this well 960.0		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 10550 feet / 26218 feet	20. BLM/BIA Bond No. in file FED: NMB000125		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3362 feet	22. Approximate date work will start* 04/01/2026	23. Estimated duration 30 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) MAYTE REYES / Ph: (432) 683-7443	Date 07/14/2025
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Title

Regulatory Analyst

Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 10/23/2025
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Title

Assistant Field Manager Lands &amp; 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.

**APPROVED WITH CONDITIONS**

(Continued on page 2)

\*(Instructions on page 2)

## 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 collects this information to allow 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.

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(Form 3160-3, page 2)

(Continued on page 3)

## Additional Operator Remarks

### Location of Well

0. SHL: NWNE / 655 FNL / 1945 FEL / TWSP: 25S / RANGE: 32E / SECTION: 34 / LAT: 32.092419 / LONG: -103.660526 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNE / 100 FNL / 1430 FEL / TWSP: 25S / RANGE: 32E / SECTION: 34 / LAT: 32.093953 / LONG: -103.658854 ( TVD: 10434 feet, MD: 10521 feet )

BHL: SWSE / 50 FSL / 1430 FEL / TWSP: 26S / RANGE: 32E / SECTION: 10 / LAT: 32.050434 / LONG: -103.658756 ( TVD: 10550 feet, MD: 26218 feet )

### BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@BLM.GOV

C-102		State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
Submit Electronically Via OCD Permitting				Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal <input type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

## WELL LOCATION INFORMATION

WC-025 G-08 S253235G1 LWR BONE SPRIN

API Number <b>30-025- 55644</b>	Pool Code <b>97838 97903</b>	Pool Name <b>Jennings; Upper Bone Spring Shale</b>			
Property Code <b>333937</b>	Property Name <b>PILEDRIVER FEDERAL COM</b>			Well Number <b>505H</b>	
OGRID No. <b>229137</b>	Operator Name <b>COG OPERATING LLC</b>			Ground Level Elevation <b>3361.5'</b>	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal			Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		

## Surface Location

UL <b>B</b>	Section <b>34</b>	Township <b>25-S</b>	Range <b>32-E</b>	Lot	Ft. from N/S <b>655 FNL</b>	Ft. from E/W <b>1945 FEL</b>	Latitude <b>32.092419°N</b>	Longitude <b>103.660526°W</b>	County <b>LEA</b>
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## Bottom Hole Location

UL <b>0</b>	Section <b>10</b>	Township <b>26-S</b>	Range <b>32-E</b>	Lot	Ft. from N/S <b>50 FSL</b>	Ft. from E/W <b>1430 FEL</b>	Latitude <b>32.050434°N</b>	Longitude <b>103.658756°W</b>	County <b>LEA</b>
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Dedicated Acres <b>960</b>	Infill or Defining Well <b>Defining</b>	Defining Well API <b>Pending</b>	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL <b>B</b>	Section <b>34</b>	Township <b>25-S</b>	Range <b>32-E</b>	Lot	Ft. from N/S <b>655 FNL</b>	Ft. from E/W <b>1945 FEL</b>	Latitude <b>32.092419°N</b>	Longitude <b>103.660526°W</b>	County <b>LEA</b>
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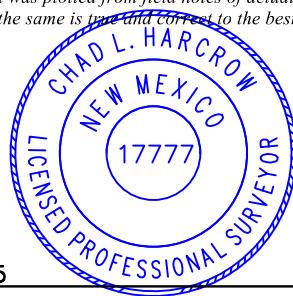
## First Take Point (FTP)

UL <b>B</b>	Section <b>34</b>	Township <b>25-S</b>	Range <b>32-E</b>	Lot	Ft. from N/S <b>100 FNL</b>	Ft. from E/W <b>1430 FEL</b>	Latitude <b>32.093953°N</b>	Longitude <b>103.658854°W</b>	County <b>LEA</b>
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## Last Take Point (LTP)

UL <b>0</b>	Section <b>10</b>	Township <b>26-S</b>	Range <b>32-E</b>	Lot	Ft. from N/S <b>100 FSL</b>	Ft. from E/W <b>1430 FEL</b>	Latitude <b>32.050576°N</b>	Longitude <b>103.658756°W</b>	County <b>LEA</b>
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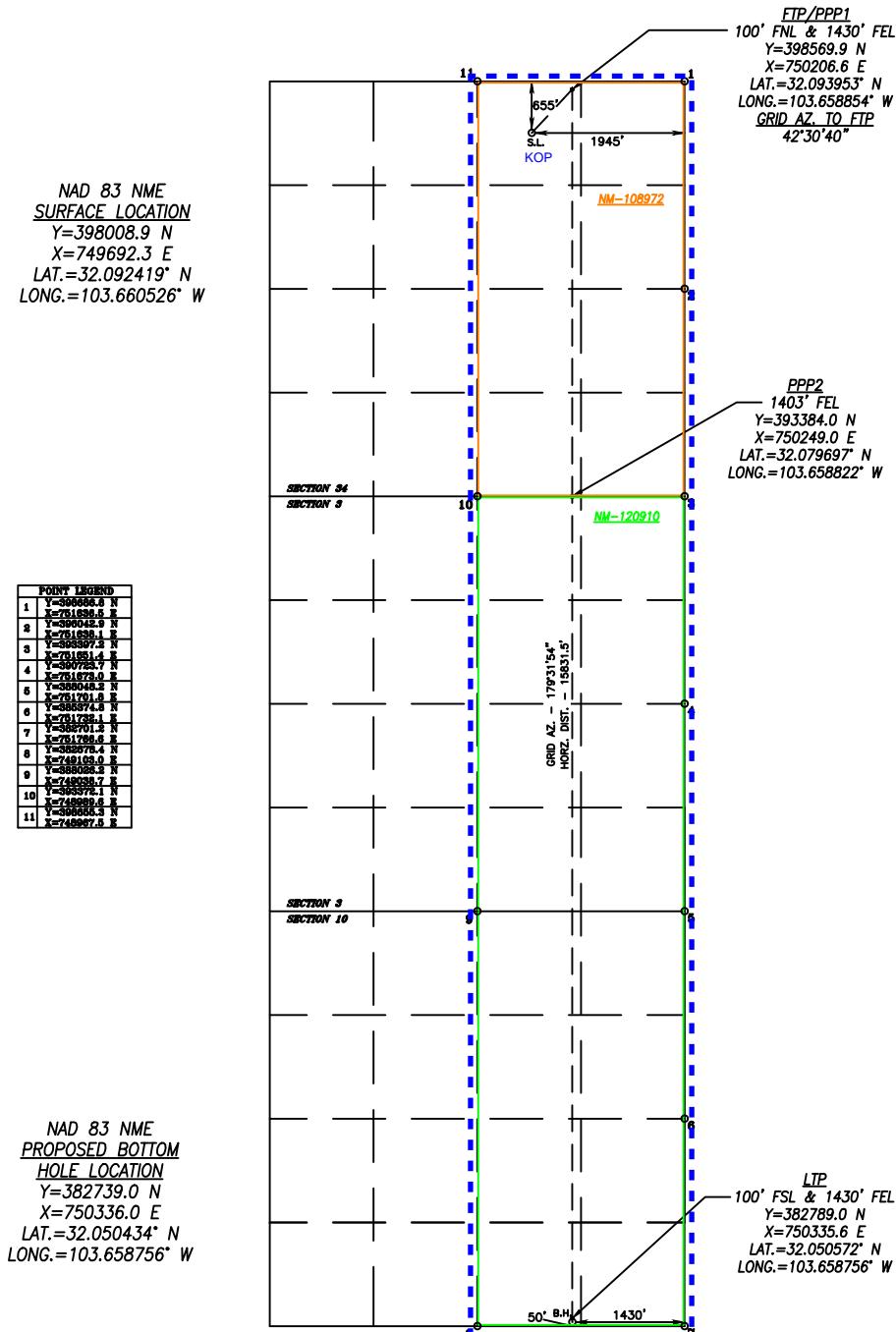
Unitized Area or Area of Uniform Interest <b>COM</b>	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: <b>3361.5'</b>
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OPERATOR CERTIFICATIONS		SURVEYOR CERTIFICATIONS	
<p>I hereby 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.</p> <p>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.</p>		<p>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.</p>	
Signature <b>Mayte Reyes</b> Date <b>7/9/2025</b>		Signature and Seal of Professional Surveyor  <b>Chad Harrow</b> <b>5/9/25</b>	
Printed Name <b>Mayte Reyes</b> Email Address <b>mayte.reyes@cop.com</b>		Certificate Number <b>17777</b>	Date of Survey <b>MAY 1, 2025</b> W.O.# <b>25-407</b> DRAWN BY: <b>WN</b> PAGE <b>1 OF 2</b>

ACREAGE DEDICATION  
PLATS

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

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



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:** COG Operating LLC OGRID: 217955 Date: 07 / 09 / 2025

**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
Piledriver Federal Com 505H	30-025-	B-34-25S-32E	655 FNL & 1945 FEL	± 1290	± 3560	± 4180

**IV. Central Delivery Point Name:** \_\_\_\_\_ [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
Piledriver Federal Com 505H	Pending	6/30/2026	± 25 days from spud	10/28/2026	11/7/2026	11/12/2026

**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.

## VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

All ConocoPhillips production facility equipment will be sized per industry standards (API 12J) with adequate retention time to effectively separate all phases of production. Each project will take into consideration the number of wells and type curves for each formation pool to ensure adequate facility capacity. Design considerations will also include review of all piping, tanks, VRU's and associated equipment to ensure optimized gas capture minimized risk of release.

## VII. Operational Practices

Actions Operator will take to comply with the requirements below:

### B. Drilling Operations

- During drilling, flare stacks will be located a minimum of 100 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety, and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

### C. Completion Operations

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- Individual well test separators will be set to properly separate gas and liquids. A temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline.

### D. Venting and flaring during production operations

- During each phase of well life (drilling, completion and production) of a ConocoPhillips well, COP personnel will follow all necessary procedures to ensure both the operation and the equipment are within the NMAC 19.15.27.8 Subsection D guidelines.
- During well operations that require unloading of the well to atmospheric pressure, all reasonable actions will be taken to minimize vented gas
- Through the life of the well all flaring shall be measured, and venting events quantified using the data available and industry best practice.

### E. Performance standards for separation, storage tank and flare equipment

- All storage tanks and separation equipment are designed minimize risk of liquid or vapor release and optimize gas capture. This includes automation for automatic gauging and pressure monitoring.

- All flare stacks are equipped with auto ignition devices and/or continuous pilots and are designed to operate at maximum combustion efficiency pursuant NMAC 19.15.27.8 Subsection E. Flares will follow COP spacing guidelines to ensure they are a safe distance from combustibles and operations equipment.
- COP personnel will conduct routine AVO inspections on a regular basis per NMAC 19.15.27.8 Subsection E guidelines.

F. Measurement of vented and flared natural gas.

- Measurement equipment will be installed to quantify gas flared during drilling, completion and production of the well.
- All measurement devices installed will meet accuracy ratings per AGA and API standards.
- Measurement devices will be installed without manifolds that allow diversion of gas around the metering element, except for the sole purpose of inspection of servicing the measurement device.

**VIII. Best Management Practices**

- Operator will curtail or shut in production, within reasonable limits, during upset conditions to minimize venting and flaring.
- When feasible, Operator will use equipment to capture gas that would otherwise be vented or flared.
- During completions and production operations Operator will minimize blowdowns to atmosphere
- When feasible, Operator will use electric or air actuated equipment to reduce bleed emissions

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: *Mayte Reyes*

Printed Name: Mayte Reyes

Title: Sr. Regulatory Coordinator

E-mail Address: mayte.x.reyes@conocophillips.com

Date: 07/09/2025

Phone: 575-748-6945

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

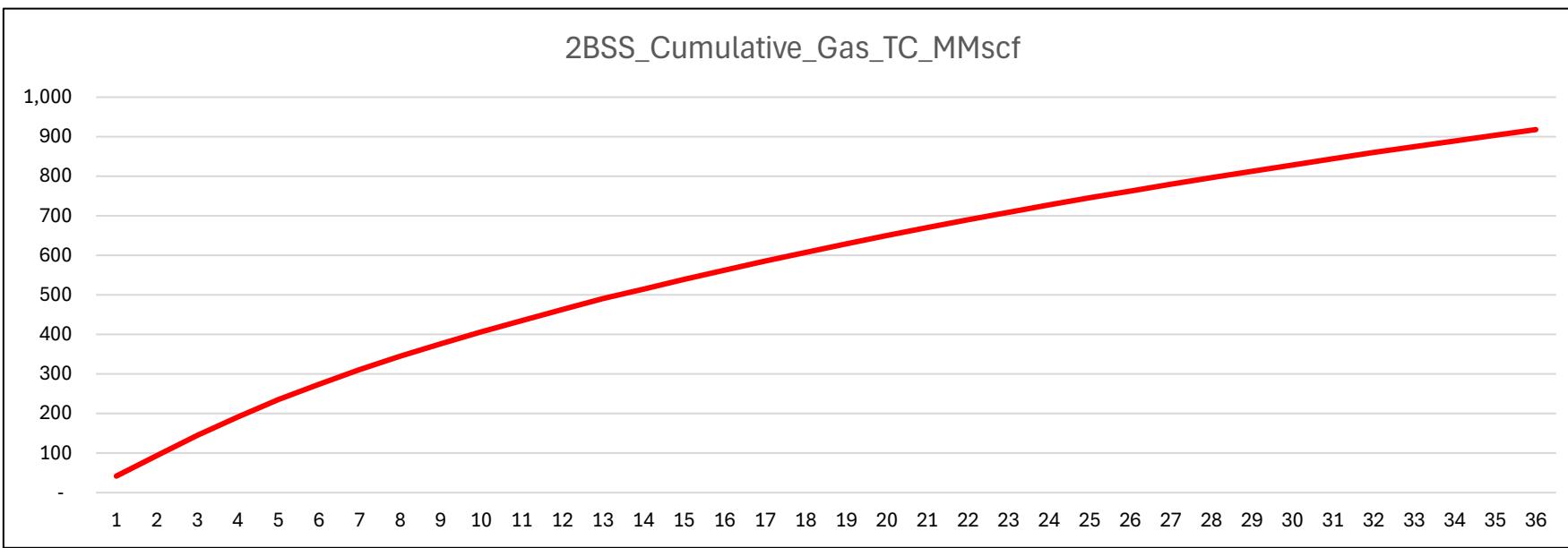
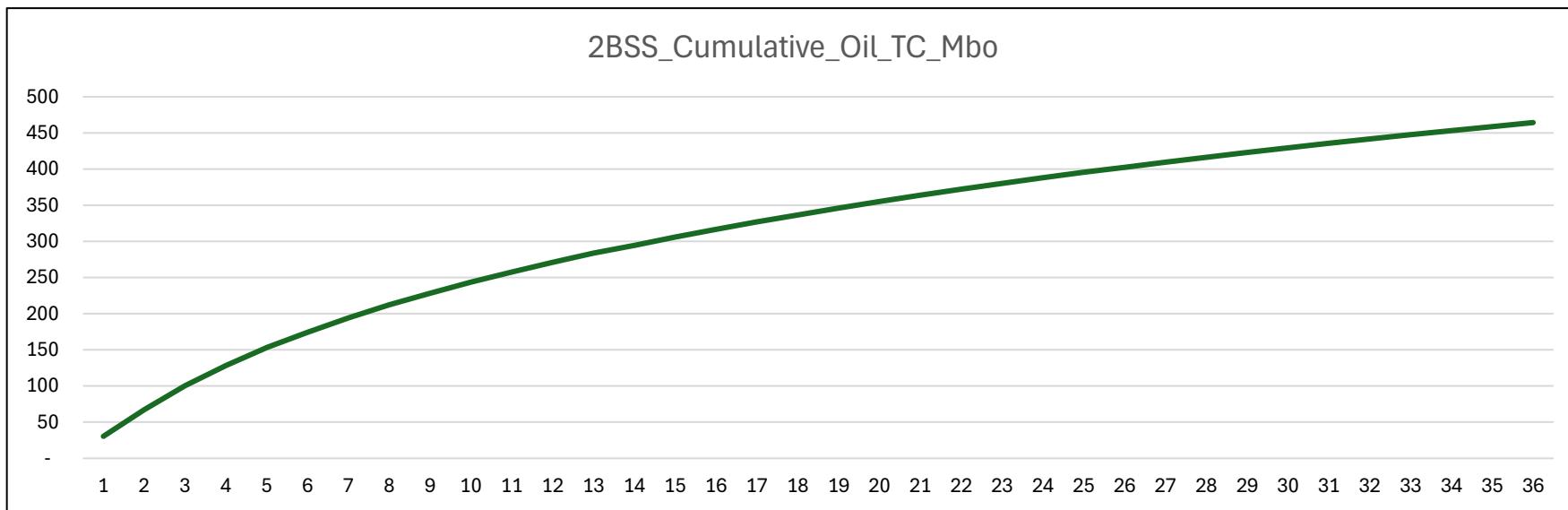
Approved By:

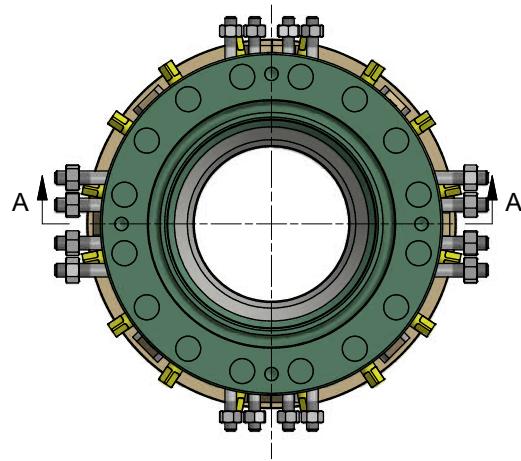
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Approval Date:

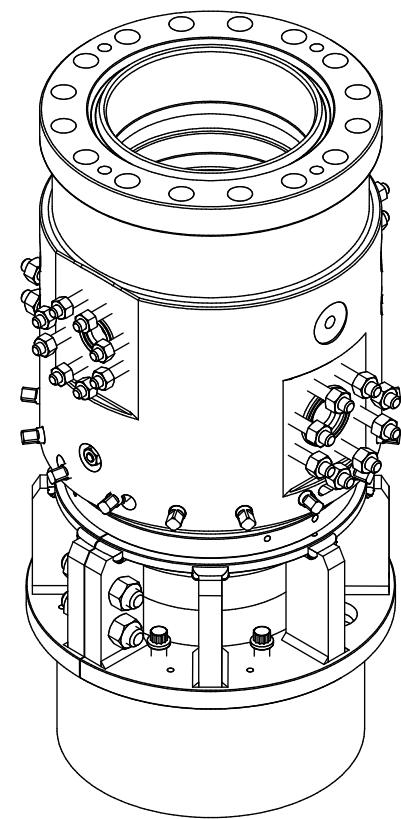
Conditions of Approval:

## Anticipated Production Decline Curve



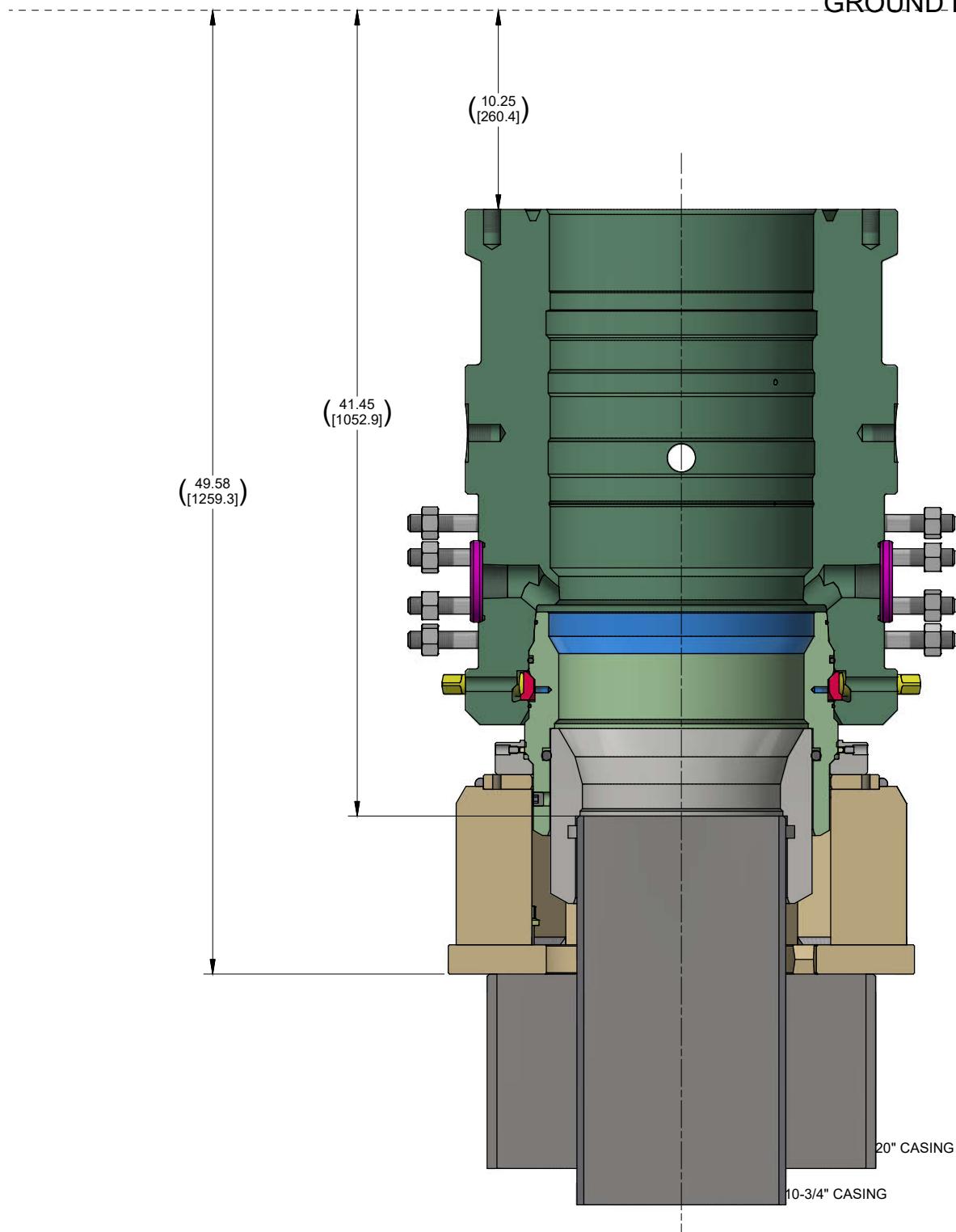


TOP VIEW



ISOMETRIC VIEW

## GROUND LEVEL



SECTION A-A

CONFIDENTIAL			
SURFACE TREATMENT	DO NOT SCALE		
DRAWN BY: A. SKLENKA	DATE: 8 Aug 22		
MATERIAL & HEAT TREAT	CHECKED BY: A. SKLENKA	DATE: 8 Aug 22	
	APPROVED BY: A. SKLENKA	DATE: 8 Aug 22	
ESTIMATED WEIGHT: 2517.9 LBS 1142.1 KG	INITIAL USE B/M: IT # A. KOLINEK	SHEET: 1 of 1	REV: 01
CONOCO ADAPT NST STACK-UP W/ 10-3/4" CASING		LO-096232-92	

**Casing Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
11,945' 9-7/8"	465	15.6	1.196	1st Stage: Halliburton Halcem (TOC @ Brushy Canyon)
	1000	14.8	1.519	2nd Stage (Bradenhead squeeze): Halliburton Thixotropic Halcem + 5% Cal-Seal 60, .6% HR-800 + 10% Salt + 3% Microbond
	400	14.8	1.332	Top out Slurry: Halliburton Halcem (TOC @ surface)

COG Production LLC requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. After the bradenhead squeeze, 50 sacks of the 14.8 ppg top out slurry will be pumped followed by shutting down and waiting on cement (WOC) 2 hours. After 2 hours, if necessary, a top out consisting of 350 sacks of Halliburton's Halcem at 14.8 ppg (1.332 yld) will be executed as a contingency. When washing valves, 2 bbls of water will be utilized. If the valves still contain cement, washing will occur in 1 bbl increments up to a maximum of 5 bbls.

COG Production will run a cement bond log (CBL) after the cement job is performed to evaluate the quality of the cement job.

**Wellhead & Offline Cementing:**

COG Production LLC respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "Offline Cement Intermediate Operational Procedure"

COG Production LLC believes that the combination of drilling fluid inside the casing, the abandonment plug with BPV, casing and annular valves and the TA cap provide multiple barriers to ensure complete closure of the wellbore prior to skidding/walking the rig.

## Bradenhead Cementing Procedure for Intermediate Casing

1. R/U cement head and test lines
2. Pump first stage conventionally down the 7-5/8" intermediate casing
  - a. 15.6 ppg slurry with TOC @ the Brushy Canyon
3. Displace with drilling fluid and bump plug
4. Bump at 500 psi over FCP, hold 5 mins.
5. Bleed back to cement truck to check floats
6. Rig up on 10-3/4" x 7-5/8" annulus by lining up to pump down both valves.
7. Establish injection rate and displace annulus with FW
8. Pump bradenhead squeeze with 14.8 ppg thixotropic slurry
  - a. Limit pressure to 1500 psi (10-3/4" surf csg test)
9. After pumping 14.8 ppg thixotropic slurry, pump 50 sacks of 14.8 ppg top out slurry to flush valves of thixotropic cement.
10. WOC 2 hours
11. Top out with 350 sacks of 14.8 ppg top out slurry. If more cement is necessary, note in report and notify BLM.
12. Displace cement with fresh water and clear valves. Start with 2 bbls of fresh water. If more water is necessary, 1 bbl increments will be used to a maximum of 5 bbls.
13. Shut down and monitor the shut-in pressure on the 10-3/4" x 7-5/8" annulus.

## Summarized Operational Procedure for Intermediate Casing

1. Run casing as per normal operations.
  - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
2. Land intermediate 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**.
  - b. If time from landing mandrel hanger to skidding/walking rig off well exceeds 8 hours, BLM will be notified.
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 ensuring pipe is full of drilling 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 ensuring pipe is full of drilling 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/BPV 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 BOP handler.
  - 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 tail cement has 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, if needed.
  - 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.
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 2.
10. Remove TA Plug/BPV from the casing.
11. Install offline cement tool.
  - a. Current offline cement tool schematics can be seen in Figure 1 (Streamflo)
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 displacement, 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.

## 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	10M

## 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.
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

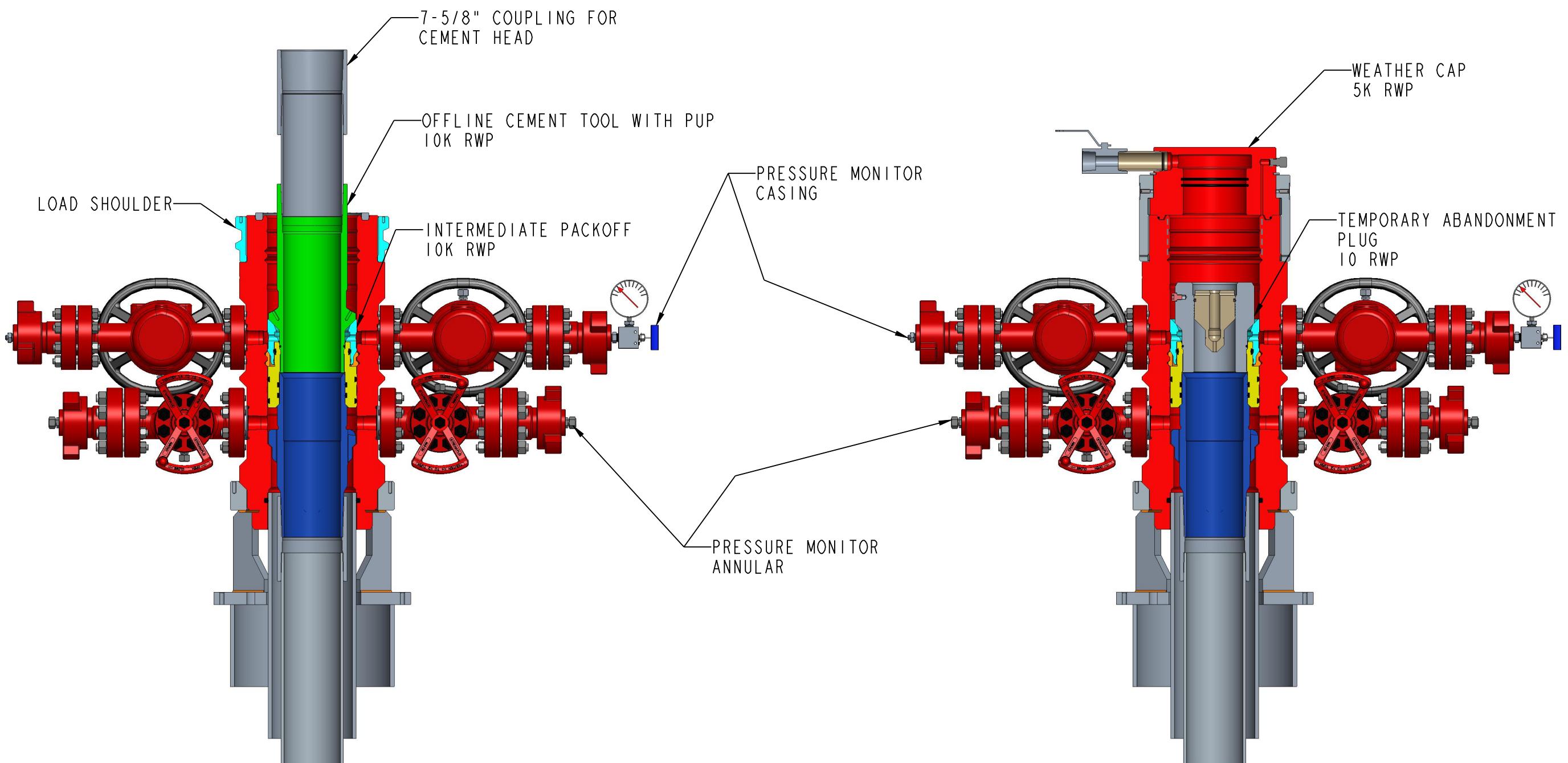
1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.
6. Open rig choke and begin pumping again taking returns through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

Figure 1: Offline Cement Tool Schematics



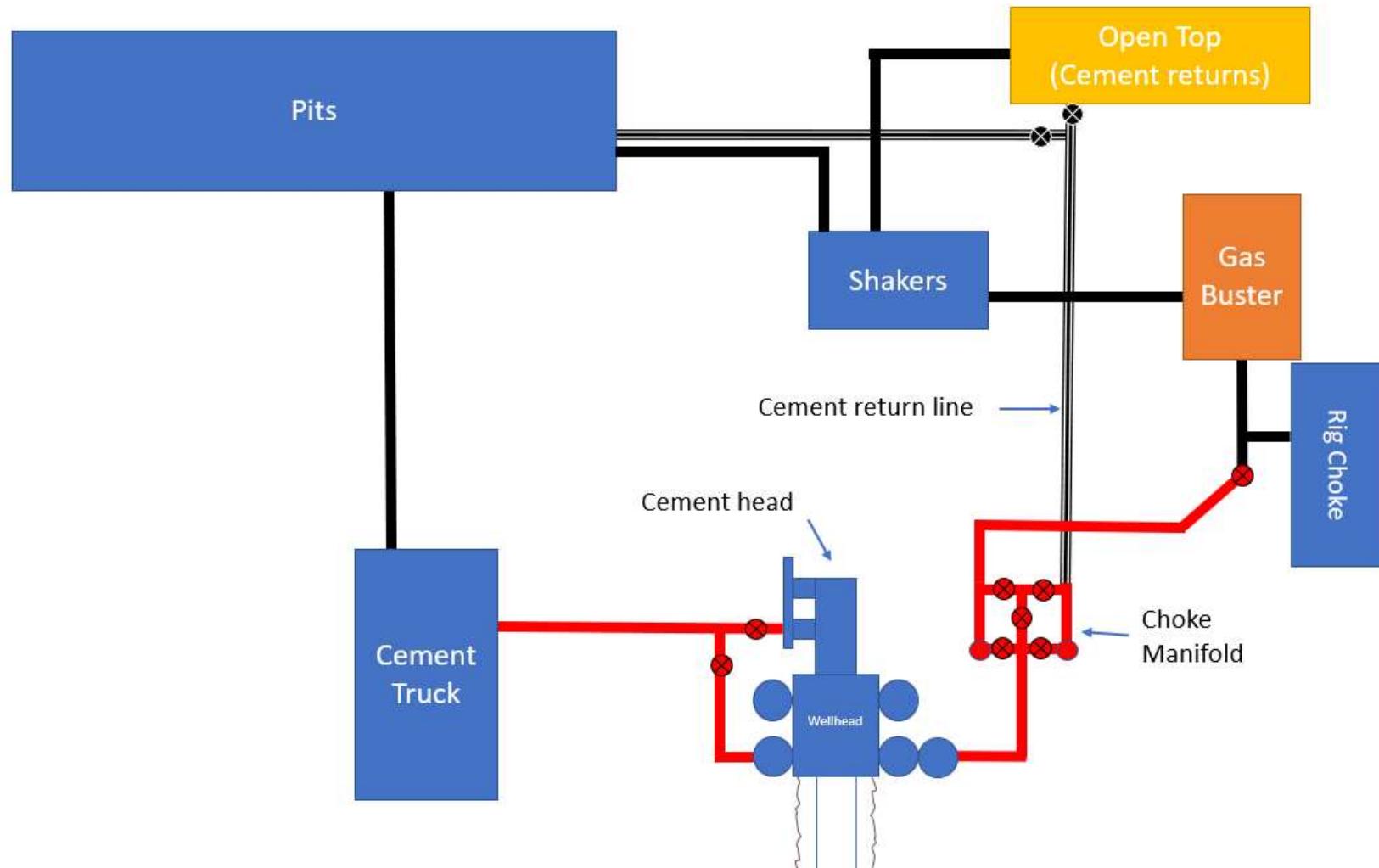
CONOCOPHILLIPS COMPANY  
7-5/8" OFFLINE CEMENT AND  
ABANDAMENT PLUG LAYOUT  
DMLX WELLHEAD ASSEMBLY

DWN.	CWB	03-09-23
CHK.		
APPR.		
	BY	DATE



DRAWING No.  
WH-24621

Figure 2: Back Yard Rig Up



\*All lines rated to 10M working pressure

\*\*Cement head rated to 7.5M working pressure



APD ID: 10400105904

Submission Date: 07/14/2025

Highlighted data  
reflects the most  
recent changes

Operator Name: COG OPERATING LLC

Well Name: PILEDRIVER FEDERAL COM

Well Number: 505H

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 Formation
16655039	QUATERNARY	3362	0	0	ALLUVIUM	NONE	N
16655026	RUSTLER	2495	867	867	ALLUVIUM	NONE	N
16655036	TOP SALT	2121	1241	1241	SALT	NONE	N
16655044	BASE OF SALT	-1085	4447	4447	ANHYDRITE	NONE	N
16655021	LAMAR	-1272	4634	4634	LIMESTONE	NATURAL GAS, OIL	N
16655020	BELL CANYON	-1300	4662	4662	SANDSTONE	NONE	N
16655056	CHERRY CANYON	-2250	5612	5612	SANDSTONE	NATURAL GAS, OIL	N
16655046	BRUSHY CANYON	-3780	7142	7142	SANDSTONE	NATURAL GAS, OIL	N
16655053	BONE SPRING	-5399	8761	8761	LIMESTONE	NATURAL GAS, OIL	N
16655029	BONE SPRING 1ST	-6366	9728	9728	SANDSTONE	NATURAL GAS, OIL	N
16655030	BONE SPRING 2ND	-6978	10340	10340	SANDSTONE	NATURAL GAS, OIL	Y
16655058	BONE SPRING 3RD	-8116	11478	11478	SANDSTONE	NATURAL GAS, OIL	N

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 10550

**Equipment:** Annular, Blind Ram, Pipe Ram, Double Ram. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to choke manifold. See attached for specs and hydrostatic test chart. A variance is requested for use of a multi-bowl wellhead. A variance is requested to allow for break testing during batch drilling.

**Operator Name:** COG OPERATING LLC**Well Name:** PILEDRIVER FEDERAL COM**Well Number:** 505H

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

**Choke Diagram Attachment:**[COG\\_Piledriver\\_10M\\_Choke\\_20250709143142.pdf](#)[NEW\\_COG\\_Piledriver\\_10M\\_Choke\\_20250930105522.pdf](#)**BOP Diagram Attachment:**[COG\\_Piledriver\\_Flex\\_Hose\\_Variance\\_20250709143158.pdf](#)[COG\\_Piledriver\\_10M\\_BOP\\_20250709143158.pdf](#)[NEW\\_COG\\_Piledriver\\_Flex\\_Hose\\_Variance\\_20250930105548.pdf](#)[NEW\\_COG\\_Piledriver\\_10M\\_BOP\\_20250930105549.pdf](#)**Pressure Rating (PSI):** 5M**Rating Depth:** 10100

**Equipment:** Annular, Blind Ram, Pipe Ram, Double Ram. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Requesting Variance? YES**

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to choke manifold. See attached for specs and hydrostatic test chart. A variance is requested for use of a multi-bowl wellhead. A variance is requested to allow for break testing during batch drilling.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

**Choke Diagram Attachment:**[COG\\_Piledriver\\_5M\\_Choke\\_20250709143224.pdf](#)[NEW\\_COG\\_Piledriver\\_5M\\_Choke\\_20250930105619.pdf](#)**BOP Diagram Attachment:**[COG\\_Piledriver\\_Flex\\_Hose\\_Variance\\_20250709143234.pdf](#)[NEW\\_COG\\_Piledriver\\_Flex\\_Hose\\_Variance\\_20250930105658.pdf](#)[NEW\\_COG\\_Piledriver\\_5M\\_BOP\\_20250930105658.pdf](#)[COG\\_Piledriver\\_5M\\_BOP\\_20250930105733.pdf](#)

Operator Name: COG OPERATING LLC

Well Name: PILEDRIVER FEDERAL COM

Well Number: 505H

**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	14.75	10.75	NEW	API	N	0	1100	0	1100	3362	2262	1100	J-55	45.5	OTHER - BTC	4.15	1.14	DRY	15.9	DRY	14.29
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	7500	0	10100	3330	-6738	7500	OTH ER - P110- ICY	29.7	OTHER - W513	1.4	1.74	DRY	2.14	DRY	3.56
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	26218	0	10550	3689	-7188	26218	OTH ER - P110- ICY	23	OTHER - W441	1.96	2.29	DRY	2.73	DRY	3

**Casing Attachments**

Casing ID: 1      String      SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG\_Piledriver\_505H\_Casing\_Program\_20250709143515.pdf

NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930105905.pdf

**Operator Name:** COG OPERATING LLC**Well Name:** PILEDRIVER FEDERAL COM**Well Number:** 505H**Casing Attachments****Casing ID:** 2      **String**      INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:**

COG\_Piledriver\_505H\_Casing\_Program\_20250709143325.pdf

NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930105818.pdf

**Casing Design Assumptions and Worksheet(s):**

COG\_Piledriver\_505H\_Casing\_Program\_20250709143400.pdf

NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930105829.pdf

**Casing ID:** 3      **String**      PRODUCTION**Inspection Document:****Spec Document:****Tapered String Spec:**

COG\_Piledriver\_505H\_Casing\_Program\_20250709143428.pdf

NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930105841.pdf

**Casing Design Assumptions and Worksheet(s):**

COG\_Piledriver\_505H\_Casing\_Program\_20250709143448.pdf

NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930105850.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	1100	530	1.75	12.8	927	50	Class C	4% Gel + 1% CaCl2
SURFACE	Tail		1100	1100	250	1.34	14.8	335	50	Class C	2% CaCl2

Operator Name: COG OPERATING LLC

Well Name: PILEDRIVER FEDERAL COM

Well Number: 505H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		10100	10100	730	3.3	10.3	2409	50	Halliburton tuned light	N/A
INTERMEDIATE	Tail		10100	10100	250	1.35	14.8	337	50	Tail: Class H	N/A
PRODUCTION	Lead		10550	26218	630	1.48	12.5	932	20	Lead: 50:50:10 H Blend	N/A
PRODUCTION	Tail		10550	26218	1230	1.34	13.2	1648	20	Tail: 50:50:2 Class H Blend	N/A

## 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:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

## 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
10100	26218	OTHER : OBM	9.6	13.5							OBM
1100	10100	OTHER : Brine Diesel Emulsion	8.4	10							Brine Diesel Emulsion
0	1100	OTHER : Fresh water gel	8.6	8.8							Fresh water gel

**Operator Name:** COG OPERATING LLC**Well Name:** PILEDRIVER FEDERAL COM**Well Number:** 505H

## Section 6 - Test, Logging, Coring

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

None planned

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

CEMENT BOND LOG, COMPENSATED NEUTRON LOG, GAMMA RAY LOG, MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

None planned

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7410**Anticipated Surface Pressure:** 5088**Anticipated Bottom Hole Temperature(F):** 160**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**

COG\_Piledriver\_401H\_504H\_505H\_506H\_402H\_H2S\_Schem\_20250709104755.pdf

COG\_Piledriver\_H2S\_SUP\_20250709104755.pdf

NEW\_COG\_Piledriver\_401H\_504H\_505H\_506H\_402H\_H2S\_Schem\_20250930110008.pdf

NEW\_COG\_Piledriver\_H2S\_SUP\_20250930110009.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

COG\_Piledriver\_505H\_AC\_Report\_20250709143908.pdf

COG\_Piledriver\_505H\_Directional\_Plan\_20250709143908.pdf

NEW\_COG\_Piledriver\_505H\_Directional\_Plan\_20250930110032.pdf

NEW\_COG\_Piledriver\_505H\_AC\_Report\_20250930110032.pdf

**Other proposed operations facets description:**

COG requests option to preset casing.

Break Testing.

Bradenhead Cement.

**Other proposed operations facets attachment:**

10.75\_45.5\_J\_55\_BTC\_Spec.\_Sheet\_20250709105313.pdf

**Operator Name:** COG OPERATING LLC**Well Name:** PILEDRIVER FEDERAL COM**Well Number:** 505H

API\_BTC\_7.625\_0.375\_L80\_ICY\_01052024\_20250709105316.pdf  
TXP\_BTC\_5.500\_0.415\_P110\_CY\_02202022\_20250709105316.pdf  
Wedge\_441\_5.500\_0.415\_P110\_CY\_02202022\_20250709105316.pdf  
Wedge\_513\_7.625\_0.375\_P110\_ICY\_02202022\_20250709105316.pdf  
COG\_Piledriver\_505H\_Casing\_Program\_20250709143848.pdf  
COG\_Piledriver\_505H\_Cement\_Program\_20250709143848.pdf  
COG\_Piledriver\_505H\_Drilling\_Program\_20250709143848.pdf  
COG\_Piledriver\_505H\_GCP\_20250714192112.pdf  
NEW\_COG\_Piledriver\_505H\_GCP\_20250930110049.pdf  
NEW\_COG\_Piledriver\_505H\_Cement\_Program\_20250930110050.pdf  
NEW\_COG\_Piledriver\_505H\_Casing\_Program\_20250930110050.pdf  
NEW\_COG\_Piledriver\_505H\_Drilling\_Program\_20250930110050.pdf  
NEW\_10.75\_45.5\_J\_55\_BTC\_Spec\_Sheet\_20250930110128.pdf  
NEW\_TXP\_BTC\_5.500\_0.415\_P110\_CY\_02202022\_20250930110130.pdf  
NEW\_API\_BTC\_7.625\_0.375\_L80\_ICY\_01052024\_20250930110130.pdf  
NEW\_Wedge\_441\_5.500\_0.415\_P110\_CY\_02202022\_20250930110130.pdf  
NEW\_Wedge\_513\_7.625\_0.375\_P110\_ICY\_02202022\_20250930110130.pdf

**Other Variance request(s)?:** Y**Other Variance attachment:**

COP\_Offline\_Bradenhead\_Intermediate\_Documentation\_3\_11\_23\_\_Rev2\_20240905223209.pdf  
COG\_5M\_Variance\_Well\_Plan\_20240903103517.pdf  
COP\_BOP\_Break\_Testing\_Documentation\_6\_07\_23\_20240903103517.pdf  
Cameron\_Multi\_Bowl\_WH\_20240903103517.pdf  
NEW\_Cameron\_Multi\_Bowl\_WH\_20250930110157.pdf  
NEW\_COP\_BOP\_Break\_Testing\_Documentation\_6\_07\_23\_20250930110158.pdf  
NEW\_COP\_Offline\_Bradenhead\_Intermediate\_Documentation\_3\_11\_23\_\_Rev2\_20250930110159.pdf

# **DELAWARE BASIN EAST**

**LEA COUNT SOUTH WEST (NM-E)  
PILEDRIVER FEDERAL PROJECT  
PILEDRIVER FED COM 505H**

**OWB**

**Plan: PWP0**

# **Standard Planning Report**

**30 May, 2025**

## ConocoPhillips

## Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _PILEDRIVER FED COM 505H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3398.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3398.0usft
Site:	PILEDRIVER FEDERAL PROJECT	North Reference:	Grid
Well:	_PILEDRIVER FED COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Project	LEA COUNT SOUTH WEST (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	PILEDRIVER FEDERAL PROJECT			
Site Position:		Northing:	387,991.37 usft	Latitude: 32° 3' 53.574 N
From:	Map	Easting:	710,514.75 usft	Longitude: 103° 39' 13.572 W
Position Uncertainty:	3.0 usft	Slot Radius:	13-3/16 "	

Well	_PILEDRIVER FED COM 505H				
Well Position	+N/-S 0.0 usft	Northing:	397,954.35 usft	Latitude:	32° 5' 32.291 N
	+E/-W 0.0 usft	Easting:	708,505.61 usft	Longitude:	103° 39' 36.196 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,366.0 usft
Grid Convergence:	0.36 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	3/26/2025	6.23	59.59	47,141.21995570

Design	PWP0				
<b>Audit Notes:</b>					
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	177.59

Plan Survey Tool Program	Date	5/30/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1 0.0	26,290.2	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5

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	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
1,947.9	8.96	42.57	1,946.0	25.7	23.6	2.00	2.00	0.00	42.57	
6,161.1	8.96	42.57	6,107.9	508.8	467.4	0.00	0.00	0.00	0.00	
7,056.8	0.00	0.00	7,000.0	560.3	514.7	1.00	-1.00	0.00	180.00	
10,129.3	0.00	0.00	10,072.5	560.3	514.7	0.00	0.00	0.00	0.00	
11,032.9	90.36	179.53	10,645.4	-16.3	519.4	10.00	10.00	19.87	179.53	
26,290.2	90.36	179.53	10,550.0	-15,272.7	643.4	0.00	0.00	0.00	0.00	

## ConocoPhillips

## Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _PILEDRIVER FED COM 505H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3398.0usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3398.0usft
Site:	PILEDRIVER FEDERAL PROJECT	North Reference:	Grid
Well:	_PILEDRIVER FED COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	2.00	42.57	1,600.0	1.3	1.2	-1.2	2.00	2.00	0.00
1,700.0	4.00	42.57	1,699.8	5.1	4.7	-4.9	2.00	2.00	0.00
1,800.0	6.00	42.57	1,799.5	11.6	10.6	-11.1	2.00	2.00	0.00
1,900.0	8.00	42.57	1,898.7	20.5	18.9	-19.7	2.00	2.00	0.00
1,947.9	8.96	42.57	1,946.0	25.7	23.6	-24.7	2.00	2.00	0.00
2,000.0	8.96	42.57	1,997.5	31.7	29.1	-30.5	0.00	0.00	0.00
2,100.0	8.96	42.57	2,096.3	43.2	39.7	-41.5	0.00	0.00	0.00
2,200.0	8.96	42.57	2,195.1	54.6	50.2	-52.5	0.00	0.00	0.00
2,300.0	8.96	42.57	2,293.9	66.1	60.7	-63.5	0.00	0.00	0.00
2,400.0	8.96	42.57	2,392.7	77.6	71.3	-74.5	0.00	0.00	0.00
2,500.0	8.96	42.57	2,491.4	89.0	81.8	-85.5	0.00	0.00	0.00
2,600.0	8.96	42.57	2,590.2	100.5	92.3	-96.5	0.00	0.00	0.00
2,700.0	8.96	42.57	2,689.0	112.0	102.9	-107.5	0.00	0.00	0.00
2,800.0	8.96	42.57	2,787.8	123.4	113.4	-118.6	0.00	0.00	0.00
2,900.0	8.96	42.57	2,886.6	134.9	123.9	-129.6	0.00	0.00	0.00
3,000.0	8.96	42.57	2,985.3	146.4	134.5	-140.6	0.00	0.00	0.00
3,100.0	8.96	42.57	3,084.1	157.8	145.0	-151.6	0.00	0.00	0.00
3,200.0	8.96	42.57	3,182.9	169.3	155.5	-162.6	0.00	0.00	0.00
3,300.0	8.96	42.57	3,281.7	180.8	166.1	-173.6	0.00	0.00	0.00
3,400.0	8.96	42.57	3,380.5	192.2	176.6	-184.6	0.00	0.00	0.00
3,500.0	8.96	42.57	3,479.3	203.7	187.1	-195.6	0.00	0.00	0.00
3,600.0	8.96	42.57	3,578.0	215.2	197.7	-206.6	0.00	0.00	0.00
3,700.0	8.96	42.57	3,676.8	226.6	208.2	-217.7	0.00	0.00	0.00
3,800.0	8.96	42.57	3,775.6	238.1	218.7	-228.7	0.00	0.00	0.00
3,900.0	8.96	42.57	3,874.4	249.6	229.3	-239.7	0.00	0.00	0.00
4,000.0	8.96	42.57	3,973.2	261.0	239.8	-250.7	0.00	0.00	0.00
4,100.0	8.96	42.57	4,071.9	272.5	250.3	-261.7	0.00	0.00	0.00
4,200.0	8.96	42.57	4,170.7	284.0	260.8	-272.7	0.00	0.00	0.00
4,300.0	8.96	42.57	4,269.5	295.4	271.4	-283.7	0.00	0.00	0.00
4,400.0	8.96	42.57	4,368.3	306.9	281.9	-294.7	0.00	0.00	0.00
4,500.0	8.96	42.57	4,467.1	318.4	292.4	-305.8	0.00	0.00	0.00
4,600.0	8.96	42.57	4,565.8	329.8	303.0	-316.8	0.00	0.00	0.00
4,700.0	8.96	42.57	4,664.6	341.3	313.5	-327.8	0.00	0.00	0.00
4,800.0	8.96	42.57	4,763.4	352.7	324.0	-338.8	0.00	0.00	0.00
4,900.0	8.96	42.57	4,862.2	364.2	334.6	-349.8	0.00	0.00	0.00
5,000.0	8.96	42.57	4,961.0	375.7	345.1	-360.8	0.00	0.00	0.00
5,100.0	8.96	42.57	5,059.7	387.1	355.6	-371.8	0.00	0.00	0.00
5,200.0	8.96	42.57	5,158.5	398.6	366.2	-382.8	0.00	0.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	EDT 17 Permian Prod DELAWARE BASIN EAST LEA COUNT SOUTH WEST (NM-E) PILEDRIVER FEDERAL PROJECT _PILEDRIVER FED COM 505H OWB PWP0	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well _PILEDRIVER FED COM 505H KB @ 3398.0usft KB @ 3398.0usft Grid Minimum Curvature
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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	8.96	42.57	5,257.3	410.1	376.7	-393.9	0.00	0.00	0.00
5,400.0	8.96	42.57	5,356.1	421.5	387.2	-404.9	0.00	0.00	0.00
5,500.0	8.96	42.57	5,454.9	433.0	397.8	-415.9	0.00	0.00	0.00
5,600.0	8.96	42.57	5,553.6	444.5	408.3	-426.9	0.00	0.00	0.00
5,700.0	8.96	42.57	5,652.4	455.9	418.8	-437.9	0.00	0.00	0.00
5,800.0	8.96	42.57	5,751.2	467.4	429.4	-448.9	0.00	0.00	0.00
5,900.0	8.96	42.57	5,850.0	478.9	439.9	-459.9	0.00	0.00	0.00
6,000.0	8.96	42.57	5,948.8	490.3	450.4	-470.9	0.00	0.00	0.00
6,100.0	8.96	42.57	6,047.5	501.8	461.0	-482.0	0.00	0.00	0.00
6,161.1	8.96	42.57	6,107.9	508.8	467.4	-488.7	0.00	0.00	0.00
6,200.0	8.57	42.57	6,146.3	513.2	471.4	-492.9	1.00	-1.00	0.00
6,300.0	7.57	42.57	6,245.4	523.5	480.9	-502.8	1.00	-1.00	0.00
6,400.0	6.57	42.57	6,344.6	532.6	489.2	-511.5	1.00	-1.00	0.00
6,500.0	5.57	42.57	6,444.0	540.4	496.4	-519.0	1.00	-1.00	0.00
6,600.0	4.57	42.57	6,543.6	546.9	502.4	-525.2	1.00	-1.00	0.00
6,700.0	3.57	42.57	6,643.4	552.1	507.2	-530.3	1.00	-1.00	0.00
6,800.0	2.57	42.57	6,743.2	556.0	510.8	-534.0	1.00	-1.00	0.00
6,900.0	1.57	42.57	6,843.2	558.7	513.2	-536.6	1.00	-1.00	0.00
7,000.0	0.57	42.57	6,943.2	560.1	514.5	-537.9	1.00	-1.00	0.00
7,056.8	0.00	0.00	7,000.0	560.3	514.7	-538.1	1.00	-1.00	0.00
7,100.0	0.00	0.00	7,043.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,143.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,243.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,343.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,443.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,543.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,643.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,743.2	560.3	514.7	-538.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,843.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,943.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,043.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,143.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,243.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,400.0	0.00	0.00	8,343.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,443.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,600.0	0.00	0.00	8,543.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,643.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,743.2	560.3	514.7	-538.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,843.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,943.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,043.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,143.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,300.0	0.00	0.00	9,243.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,343.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,443.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,543.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,643.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,743.2	560.3	514.7	-538.1	0.00	0.00	0.00
9,900.0	0.00	0.00	9,843.2	560.3	514.7	-538.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,943.2	560.3	514.7	-538.1	0.00	0.00	0.00
10,100.0	0.00	0.00	10,043.2	560.3	514.7	-538.1	0.00	0.00	0.00
10,129.3	0.00	0.00	10,072.5	560.3	514.7	-538.1	0.00	0.00	0.00
10,200.0	7.07	179.53	10,143.0	555.9	514.7	-533.8	10.00	10.00	0.00
10,300.0	17.07	179.53	10,240.6	535.0	514.9	-512.9	10.00	10.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	EDT 17 Permian Prod DELAWARE BASIN EAST LEA COUNT SOUTH WEST (NM-E) PILEDRIVER FEDERAL PROJECT _PILEDRIVER FED COM 505H OWB PWP0	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well _PILEDRIVER FED COM 505H KB @ 3398.0usft KB @ 3398.0usft Grid Minimum Curvature
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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,400.0	27.07	179.53	10,333.2	497.5	515.2	-475.4	10.00	10.00	0.00
10,500.0	37.07	179.53	10,417.8	444.5	515.6	-422.4	10.00	10.00	0.00
10,600.0	47.07	179.53	10,492.0	377.6	516.2	-355.5	10.00	10.00	0.00
10,700.0	57.07	179.53	10,553.4	298.8	516.8	-276.8	10.00	10.00	0.00
10,800.0	67.07	179.53	10,600.2	210.6	517.5	-188.6	10.00	10.00	0.00
10,900.0	77.07	179.53	10,630.9	115.6	518.3	-93.7	10.00	10.00	0.00
11,000.0	87.07	179.53	10,644.7	16.7	519.1	5.2	10.00	10.00	0.00
11,032.9	90.36	179.53	10,645.4	-16.3	519.4	38.1	10.00	10.00	0.00
11,100.0	90.36	179.53	10,645.0	-83.3	519.9	105.1	0.00	0.00	0.00
11,200.0	90.36	179.53	10,644.4	-183.3	520.7	205.1	0.00	0.00	0.00
11,300.0	90.36	179.53	10,643.8	-283.3	521.5	305.0	0.00	0.00	0.00
11,400.0	90.36	179.53	10,643.2	-383.3	522.4	405.0	0.00	0.00	0.00
11,500.0	90.36	179.53	10,642.5	-483.3	523.2	504.9	0.00	0.00	0.00
11,600.0	90.36	179.53	10,641.9	-583.3	524.0	604.8	0.00	0.00	0.00
11,700.0	90.36	179.53	10,641.3	-683.3	524.8	704.8	0.00	0.00	0.00
11,800.0	90.36	179.53	10,640.6	-783.3	525.6	804.7	0.00	0.00	0.00
11,900.0	90.36	179.53	10,640.0	-883.3	526.4	904.7	0.00	0.00	0.00
12,000.0	90.36	179.53	10,639.4	-983.3	527.2	1,004.6	0.00	0.00	0.00
12,100.0	90.36	179.53	10,638.8	-1,083.3	528.0	1,104.5	0.00	0.00	0.00
12,200.0	90.36	179.53	10,638.1	-1,183.3	528.9	1,204.5	0.00	0.00	0.00
12,300.0	90.36	179.53	10,637.5	-1,283.3	529.7	1,304.4	0.00	0.00	0.00
12,400.0	90.36	179.53	10,636.9	-1,383.3	530.5	1,404.4	0.00	0.00	0.00
12,500.0	90.36	179.53	10,636.3	-1,483.2	531.3	1,504.3	0.00	0.00	0.00
12,600.0	90.36	179.53	10,635.6	-1,583.2	532.1	1,604.2	0.00	0.00	0.00
12,700.0	90.36	179.53	10,635.0	-1,683.2	532.9	1,704.2	0.00	0.00	0.00
12,800.0	90.36	179.53	10,634.4	-1,783.2	533.7	1,804.1	0.00	0.00	0.00
12,900.0	90.36	179.53	10,633.8	-1,883.2	534.5	1,904.1	0.00	0.00	0.00
13,000.0	90.36	179.53	10,633.1	-1,983.2	535.4	2,004.0	0.00	0.00	0.00
13,100.0	90.36	179.53	10,632.5	-2,083.2	536.2	2,103.9	0.00	0.00	0.00
13,200.0	90.36	179.53	10,631.9	-2,183.2	537.0	2,203.9	0.00	0.00	0.00
13,300.0	90.36	179.53	10,631.3	-2,283.2	537.8	2,303.8	0.00	0.00	0.00
13,400.0	90.36	179.53	10,630.6	-2,383.2	538.6	2,403.8	0.00	0.00	0.00
13,500.0	90.36	179.53	10,630.0	-2,483.2	539.4	2,503.7	0.00	0.00	0.00
13,600.0	90.36	179.53	10,629.4	-2,583.2	540.2	2,603.6	0.00	0.00	0.00
13,700.0	90.36	179.53	10,628.8	-2,683.2	541.1	2,703.6	0.00	0.00	0.00
13,800.0	90.36	179.53	10,628.1	-2,783.2	541.9	2,803.5	0.00	0.00	0.00
13,900.0	90.36	179.53	10,627.5	-2,883.2	542.7	2,903.5	0.00	0.00	0.00
14,000.0	90.36	179.53	10,626.9	-2,983.2	543.5	3,003.4	0.00	0.00	0.00
14,100.0	90.36	179.53	10,626.3	-3,083.2	544.3	3,103.3	0.00	0.00	0.00
14,200.0	90.36	179.53	10,625.6	-3,183.2	545.1	3,203.3	0.00	0.00	0.00
14,300.0	90.36	179.53	10,625.0	-3,283.2	545.9	3,303.2	0.00	0.00	0.00
14,400.0	90.36	179.53	10,624.4	-3,383.1	546.7	3,403.2	0.00	0.00	0.00
14,500.0	90.36	179.53	10,623.8	-3,483.1	547.6	3,503.1	0.00	0.00	0.00
14,600.0	90.36	179.53	10,623.1	-3,583.1	548.4	3,603.0	0.00	0.00	0.00
14,700.0	90.36	179.53	10,622.5	-3,683.1	549.2	3,703.0	0.00	0.00	0.00
14,800.0	90.36	179.53	10,621.9	-3,783.1	550.0	3,802.9	0.00	0.00	0.00
14,900.0	90.36	179.53	10,621.3	-3,883.1	550.8	3,902.9	0.00	0.00	0.00
15,000.0	90.36	179.53	10,620.6	-3,983.1	551.6	4,002.8	0.00	0.00	0.00
15,100.0	90.36	179.53	10,620.0	-4,083.1	552.4	4,102.7	0.00	0.00	0.00
15,200.0	90.36	179.53	10,619.4	-4,183.1	553.2	4,202.7	0.00	0.00	0.00
15,300.0	90.36	179.53	10,618.8	-4,283.1	554.1	4,302.6	0.00	0.00	0.00
15,400.0	90.36	179.53	10,618.1	-4,383.1	554.9	4,402.6	0.00	0.00	0.00
15,500.0	90.36	179.53	10,617.5	-4,483.1	555.7	4,502.5	0.00	0.00	0.00
15,600.0	90.36	179.53	10,616.9	-4,583.1	556.5	4,602.4	0.00	0.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _PILEDRIVER FED COM 505H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	KB @ 3398.0usft
<b>Project:</b>	LEA COUNT SOUTH WEST (NM-E)	<b>MD Reference:</b>	KB @ 3398.0usft
<b>Site:</b>	PILEDRIVER FEDERAL PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	_PILEDRIVER FED COM 505H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)
15,700.0	90.36	179.53	10,616.3	-4,683.1	557.3	4,702.4	0.00	0.00	0.00
15,800.0	90.36	179.53	10,615.6	-4,783.1	558.1	4,802.3	0.00	0.00	0.00
15,900.0	90.36	179.53	10,615.0	-4,883.1	558.9	4,902.3	0.00	0.00	0.00
16,000.0	90.36	179.53	10,614.4	-4,983.1	559.8	5,002.2	0.00	0.00	0.00
16,100.0	90.36	179.53	10,613.7	-5,083.1	560.6	5,102.1	0.00	0.00	0.00
16,200.0	90.36	179.53	10,613.1	-5,183.1	561.4	5,202.1	0.00	0.00	0.00
16,300.0	90.36	179.53	10,612.5	-5,283.0	562.2	5,302.0	0.00	0.00	0.00
16,400.0	90.36	179.53	10,611.9	-5,383.0	563.0	5,402.0	0.00	0.00	0.00
16,500.0	90.36	179.53	10,611.2	-5,483.0	563.8	5,501.9	0.00	0.00	0.00
16,600.0	90.36	179.53	10,610.6	-5,583.0	564.6	5,601.8	0.00	0.00	0.00
16,700.0	90.36	179.53	10,610.0	-5,683.0	565.4	5,701.8	0.00	0.00	0.00
16,800.0	90.36	179.53	10,609.4	-5,783.0	566.3	5,801.7	0.00	0.00	0.00
16,900.0	90.36	179.53	10,608.7	-5,883.0	567.1	5,901.7	0.00	0.00	0.00
17,000.0	90.36	179.53	10,608.1	-5,983.0	567.9	6,001.6	0.00	0.00	0.00
17,100.0	90.36	179.53	10,607.5	-6,083.0	568.7	6,101.6	0.00	0.00	0.00
17,200.0	90.36	179.53	10,606.9	-6,183.0	569.5	6,201.5	0.00	0.00	0.00
17,300.0	90.36	179.53	10,606.2	-6,283.0	570.3	6,301.4	0.00	0.00	0.00
17,400.0	90.36	179.53	10,605.6	-6,383.0	571.1	6,401.4	0.00	0.00	0.00
17,500.0	90.36	179.53	10,605.0	-6,483.0	571.9	6,501.3	0.00	0.00	0.00
17,600.0	90.36	179.53	10,604.4	-6,583.0	572.8	6,601.3	0.00	0.00	0.00
17,700.0	90.36	179.53	10,603.7	-6,683.0	573.6	6,701.2	0.00	0.00	0.00
17,800.0	90.36	179.53	10,603.1	-6,783.0	574.4	6,801.1	0.00	0.00	0.00
17,900.0	90.36	179.53	10,602.5	-6,883.0	575.2	6,901.1	0.00	0.00	0.00
18,000.0	90.36	179.53	10,601.9	-6,983.0	576.0	7,001.0	0.00	0.00	0.00
18,100.0	90.36	179.53	10,601.2	-7,083.0	576.8	7,101.0	0.00	0.00	0.00
18,200.0	90.36	179.53	10,600.6	-7,182.9	577.6	7,200.9	0.00	0.00	0.00
18,300.0	90.36	179.53	10,600.0	-7,282.9	578.5	7,300.8	0.00	0.00	0.00
18,400.0	90.36	179.53	10,599.4	-7,382.9	579.3	7,400.8	0.00	0.00	0.00
18,500.0	90.36	179.53	10,598.7	-7,482.9	580.1	7,500.7	0.00	0.00	0.00
18,600.0	90.36	179.53	10,598.1	-7,582.9	580.9	7,600.7	0.00	0.00	0.00
18,700.0	90.36	179.53	10,597.5	-7,682.9	581.7	7,700.6	0.00	0.00	0.00
18,800.0	90.36	179.53	10,596.9	-7,782.9	582.5	7,800.5	0.00	0.00	0.00
18,900.0	90.36	179.53	10,596.2	-7,882.9	583.3	7,900.5	0.00	0.00	0.00
19,000.0	90.36	179.53	10,595.6	-7,982.9	584.1	8,000.4	0.00	0.00	0.00
19,100.0	90.36	179.53	10,595.0	-8,082.9	585.0	8,100.4	0.00	0.00	0.00
19,200.0	90.36	179.53	10,594.4	-8,182.9	585.8	8,200.3	0.00	0.00	0.00
19,300.0	90.36	179.53	10,593.7	-8,282.9	586.6	8,300.2	0.00	0.00	0.00
19,400.0	90.36	179.53	10,593.1	-8,382.9	587.4	8,400.2	0.00	0.00	0.00
19,500.0	90.36	179.53	10,592.5	-8,482.9	588.2	8,500.1	0.00	0.00	0.00
19,600.0	90.36	179.53	10,591.9	-8,582.9	589.0	8,600.1	0.00	0.00	0.00
19,700.0	90.36	179.53	10,591.2	-8,682.9	589.8	8,700.0	0.00	0.00	0.00
19,800.0	90.36	179.53	10,590.6	-8,782.9	590.6	8,799.9	0.00	0.00	0.00
19,900.0	90.36	179.53	10,590.0	-8,882.9	591.5	8,899.9	0.00	0.00	0.00
20,000.0	90.36	179.53	10,589.4	-8,982.9	592.3	8,999.8	0.00	0.00	0.00
20,100.0	90.36	179.53	10,588.7	-9,082.8	593.1	9,099.8	0.00	0.00	0.00
20,200.0	90.36	179.53	10,588.1	-9,182.8	593.9	9,199.7	0.00	0.00	0.00
20,300.0	90.36	179.53	10,587.5	-9,282.8	594.7	9,299.6	0.00	0.00	0.00
20,400.0	90.36	179.53	10,586.8	-9,382.8	595.5	9,399.6	0.00	0.00	0.00
20,500.0	90.36	179.53	10,586.2	-9,482.8	596.3	9,499.5	0.00	0.00	0.00
20,600.0	90.36	179.53	10,585.6	-9,582.8	597.2	9,599.5	0.00	0.00	0.00
20,700.0	90.36	179.53	10,585.0	-9,682.8	598.0	9,699.4	0.00	0.00	0.00
20,800.0	90.36	179.53	10,584.3	-9,782.8	598.8	9,799.3	0.00	0.00	0.00
20,900.0	90.36	179.53	10,583.7	-9,882.8	599.6	9,899.3	0.00	0.00	0.00
21,000.0	90.36	179.53	10,583.1	-9,982.8	600.4	9,999.2	0.00	0.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well _PILEDRIVER FED COM 505H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	KB @ 3398.0usft
<b>Project:</b>	LEA COUNT SOUTH WEST (NM-E)	<b>MD Reference:</b>	KB @ 3398.0usft
<b>Site:</b>	PILEDRIVER FEDERAL PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	_PILEDRIVER FED COM 505H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP0		

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)	
21,100.0	90.36	179.53	10,582.5	-10,082.8	601.2	10,099.2	0.00	0.00	0.00	
21,200.0	90.36	179.53	10,581.8	-10,182.8	602.0	10,199.1	0.00	0.00	0.00	
21,300.0	90.36	179.53	10,581.2	-10,282.8	602.8	10,299.0	0.00	0.00	0.00	
21,400.0	90.36	179.53	10,580.6	-10,382.8	603.7	10,399.0	0.00	0.00	0.00	
21,500.0	90.36	179.53	10,580.0	-10,482.8	604.5	10,498.9	0.00	0.00	0.00	
21,600.0	90.36	179.53	10,579.3	-10,582.8	605.3	10,598.9	0.00	0.00	0.00	
21,700.0	90.36	179.53	10,578.7	-10,682.8	606.1	10,698.8	0.00	0.00	0.00	
21,800.0	90.36	179.53	10,578.1	-10,782.8	606.9	10,798.7	0.00	0.00	0.00	
21,900.0	90.36	179.53	10,577.5	-10,882.8	607.7	10,898.7	0.00	0.00	0.00	
22,000.0	90.36	179.53	10,576.8	-10,982.7	608.5	10,998.6	0.00	0.00	0.00	
22,100.0	90.36	179.53	10,576.2	-11,082.7	609.3	11,098.6	0.00	0.00	0.00	
22,200.0	90.36	179.53	10,575.6	-11,182.7	610.2	11,198.5	0.00	0.00	0.00	
22,300.0	90.36	179.53	10,575.0	-11,282.7	611.0	11,298.4	0.00	0.00	0.00	
22,400.0	90.36	179.53	10,574.3	-11,382.7	611.8	11,398.4	0.00	0.00	0.00	
22,500.0	90.36	179.53	10,573.7	-11,482.7	612.6	11,498.3	0.00	0.00	0.00	
22,600.0	90.36	179.53	10,573.1	-11,582.7	613.4	11,598.3	0.00	0.00	0.00	
22,700.0	90.36	179.53	10,572.5	-11,682.7	614.2	11,698.2	0.00	0.00	0.00	
22,800.0	90.36	179.53	10,571.8	-11,782.7	615.0	11,798.1	0.00	0.00	0.00	
22,900.0	90.36	179.53	10,571.2	-11,882.7	615.9	11,898.1	0.00	0.00	0.00	
23,000.0	90.36	179.53	10,570.6	-11,982.7	616.7	11,998.0	0.00	0.00	0.00	
23,100.0	90.36	179.53	10,570.0	-12,082.7	617.5	12,098.0	0.00	0.00	0.00	
23,200.0	90.36	179.53	10,569.3	-12,182.7	618.3	12,197.9	0.00	0.00	0.00	
23,300.0	90.36	179.53	10,568.7	-12,282.7	619.1	12,297.9	0.00	0.00	0.00	
23,400.0	90.36	179.53	10,568.1	-12,382.7	619.9	12,397.8	0.00	0.00	0.00	
23,500.0	90.36	179.53	10,567.5	-12,482.7	620.7	12,497.7	0.00	0.00	0.00	
23,600.0	90.36	179.53	10,566.8	-12,582.7	621.5	12,597.7	0.00	0.00	0.00	
23,700.0	90.36	179.53	10,566.2	-12,682.7	622.4	12,697.6	0.00	0.00	0.00	
23,800.0	90.36	179.53	10,565.6	-12,782.7	623.2	12,797.6	0.00	0.00	0.00	
23,900.0	90.36	179.53	10,565.0	-12,882.6	624.0	12,897.5	0.00	0.00	0.00	
24,000.0	90.36	179.53	10,564.3	-12,982.6	624.8	12,997.4	0.00	0.00	0.00	
24,100.0	90.36	179.53	10,563.7	-13,082.6	625.6	13,097.4	0.00	0.00	0.00	
24,200.0	90.36	179.53	10,563.1	-13,182.6	626.4	13,197.3	0.00	0.00	0.00	
24,300.0	90.36	179.53	10,562.5	-13,282.6	627.2	13,297.3	0.00	0.00	0.00	
24,400.0	90.36	179.53	10,561.8	-13,382.6	628.1	13,397.2	0.00	0.00	0.00	
24,500.0	90.36	179.53	10,561.2	-13,482.6	628.9	13,497.1	0.00	0.00	0.00	
24,600.0	90.36	179.53	10,560.6	-13,582.6	629.7	13,597.1	0.00	0.00	0.00	
24,700.0	90.36	179.53	10,559.9	-13,682.6	630.5	13,697.0	0.00	0.00	0.00	
24,800.0	90.36	179.53	10,559.3	-13,782.6	631.3	13,797.0	0.00	0.00	0.00	
24,900.0	90.36	179.53	10,558.7	-13,882.6	632.1	13,896.9	0.00	0.00	0.00	
25,000.0	90.36	179.53	10,558.1	-13,982.6	632.9	13,996.8	0.00	0.00	0.00	
25,100.0	90.36	179.53	10,557.4	-14,082.6	633.7	14,096.8	0.00	0.00	0.00	
25,200.0	90.36	179.53	10,556.8	-14,182.6	634.6	14,196.7	0.00	0.00	0.00	
25,300.0	90.36	179.53	10,556.2	-14,282.6	635.4	14,296.7	0.00	0.00	0.00	
25,400.0	90.36	179.53	10,555.6	-14,382.6	636.2	14,396.6	0.00	0.00	0.00	
25,500.0	90.36	179.53	10,554.9	-14,482.6	637.0	14,496.5	0.00	0.00	0.00	
25,600.0	90.36	179.53	10,554.3	-14,582.6	637.8	14,596.5	0.00	0.00	0.00	
25,700.0	90.36	179.53	10,553.7	-14,682.6	638.6	14,696.4	0.00	0.00	0.00	
25,800.0	90.36	179.53	10,553.1	-14,782.5	639.4	14,796.4	0.00	0.00	0.00	
25,900.0	90.36	179.53	10,552.4	-14,882.5	640.2	14,896.3	0.00	0.00	0.00	
26,000.0	90.36	179.53	10,551.8	-14,982.5	641.1	14,996.2	0.00	0.00	0.00	
26,100.0	90.36	179.53	10,551.2	-15,082.5	641.9	15,096.2	0.00	0.00	0.00	
26,200.0	90.36	179.53	10,550.6	-15,182.5	642.7	15,196.1	0.00	0.00	0.00	
26,290.2	90.36	179.53	10,550.0	-15,272.7	643.4	15,286.3	0.00	0.00	0.00	

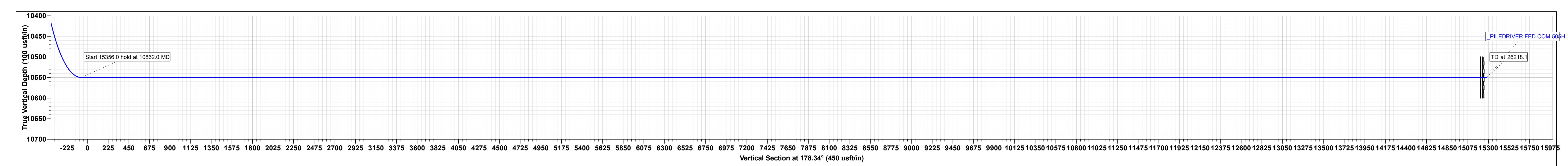
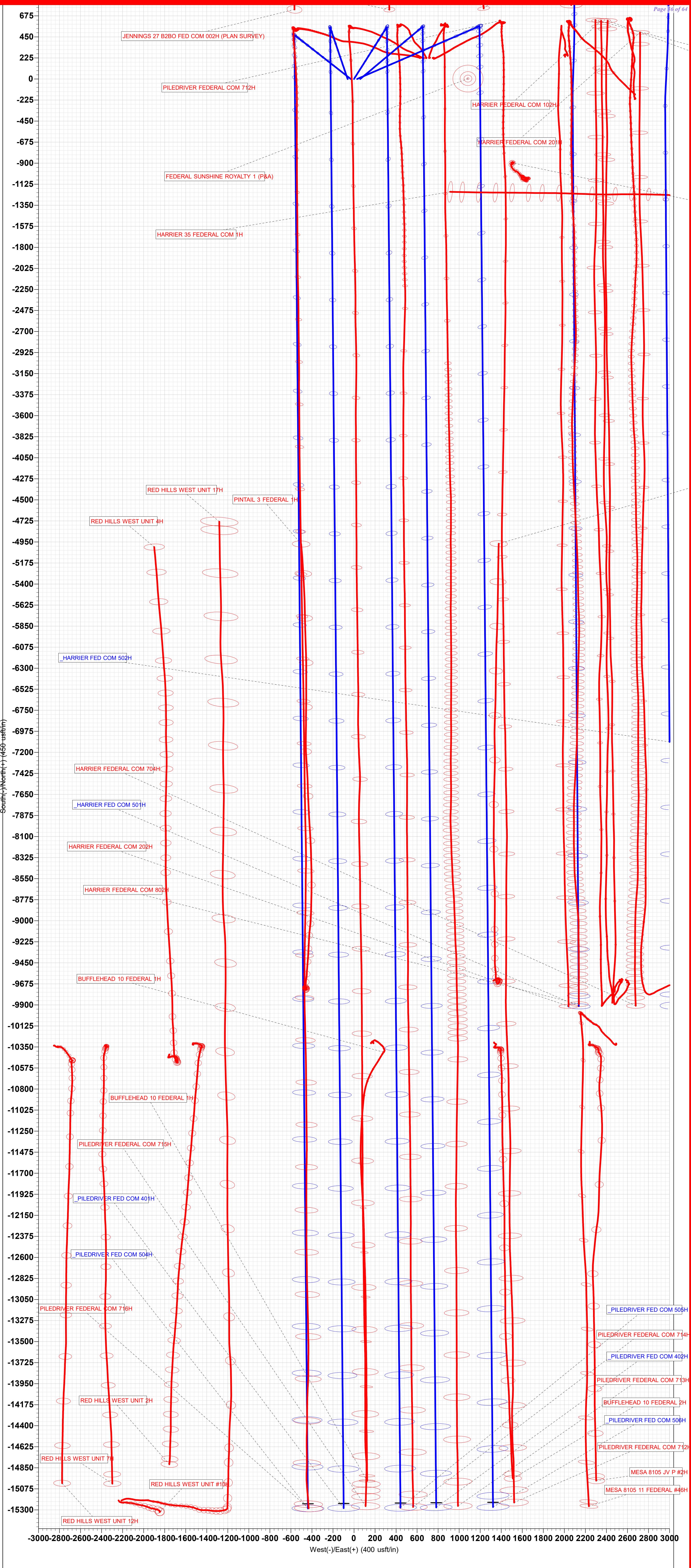
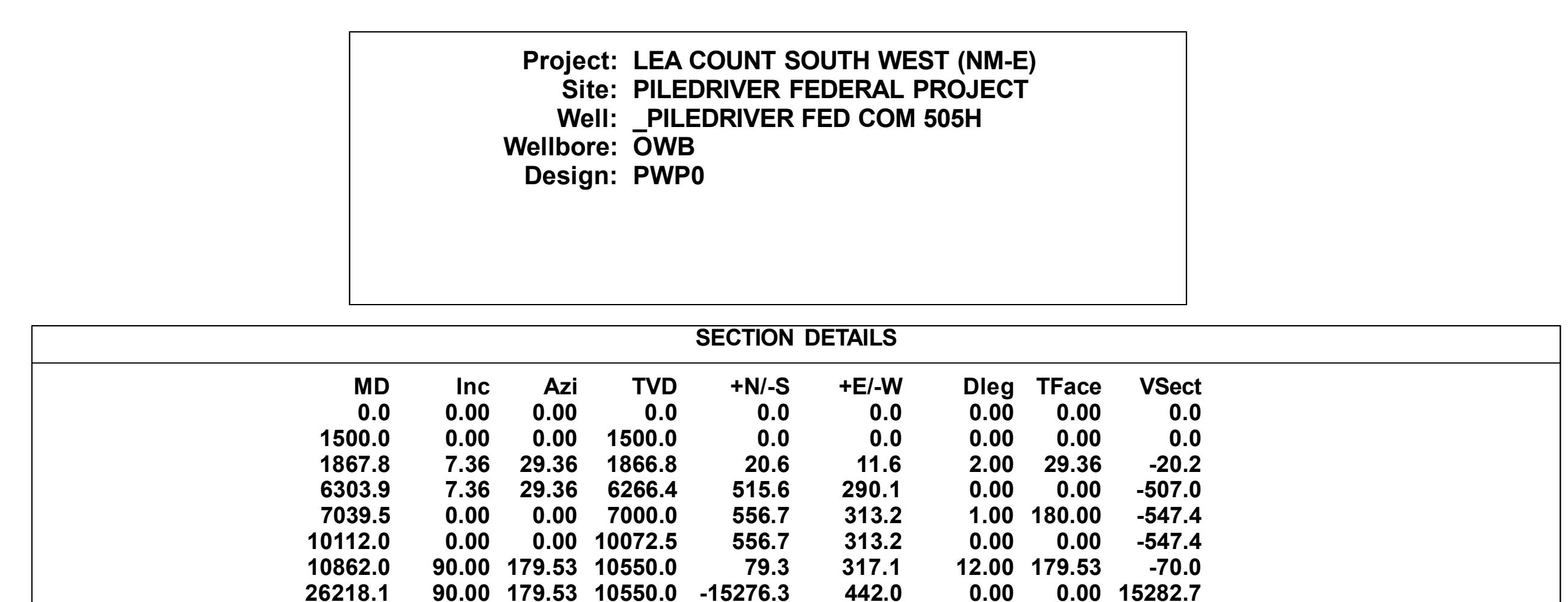
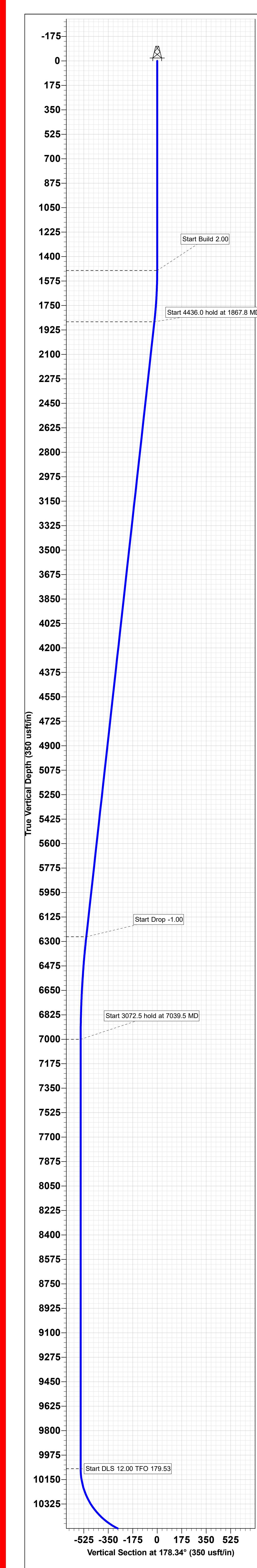
## ConocoPhillips

## Planning Report

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	EDT 17 Permian Prod DELAWARE BASIN EAST LEA COUNT SOUTH WEST (NM-E) PILEDRIVER FEDERAL PROJECT PILEDRIVER FED COM 505H OWB PWP0	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well _PILEDRIVER FED COM 505H KB @ 3398.0usft KB @ 3398.0usft Grid Minimum Curvature
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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)			
LTP_PILEDRIVER FED	90.00	0.00	9,950.0	-15,227.3	102.8	382,727.01	708,608.40	32° 3' 1.596 N	103° 39' 36.106 W	
- plan misses target center by 808.8usft at 26200.0usft MD (10550.6 TVD, -15182.5 N, 642.7 E)										
- Circle (radius 50.0)										
LTP_PILEDRIVER FED	90.00	0.00	9,950.0	-15,219.8	982.8	382,734.55	709,488.37	32° 3' 1.616 N	103° 39' 25.881 W	
- plan misses target center by 691.2usft at 26200.0usft MD (10550.6 TVD, -15182.5 N, 642.7 E)										
- Circle (radius 50.0)										
LTP_PILEDRIVER FED	90.00	0.01	10,550.0	-15,215.2	1,522.8	382,739.18	710,028.36	32° 3' 1.629 N	103° 39' 19.607 W	
- plan misses target center by 880.7usft at 26200.0usft MD (10550.6 TVD, -15182.5 N, 642.7 E)										
- Circle (radius 50.0)										
LTP_PILEDRIVER FED	90.00	0.00	10,550.0	-15,230.3	-237.2	382,724.09	708,268.41	32° 3' 1.588 N	103° 39' 40.056 W	
- plan misses target center by 881.2usft at 26200.0usft MD (10550.6 TVD, -15182.5 N, 642.7 E)										
- Circle (radius 50.0)										
FTP_PILEDRIVER FED	0.00	0.00	10,550.0	560.3	514.7	398,514.62	709,020.29	32° 5' 37.804 N	103° 39' 30.173 W	
- plan misses target center by 173.1usft at 10520.6usft MD (10434.0 TVD, 431.8 N, 515.7 E)										
- Circle (radius 50.0)										
PBHL_PILEDRIVER FE	0.00	359.53	10,550.0	-15,272.7	643.4	382,681.64	709,149.03	32° 3' 1.114 N	103° 39' 29.828 W	
- plan hits target center										
- Rectangle (sides W100.0 H15,833.5 D20.0)										
LTP_PILEDRIVER FED	90.00	0.00	10,550.0	-15,222.7	642.8	382,731.64	709,148.38	32° 3' 1.609 N	103° 39' 29.832 W	
- plan misses target center by 40.2usft at 26200.0usft MD (10550.6 TVD, -15182.5 N, 642.7 E)										
- Circle (radius 50.0)										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name			Casing Diameter ("")	Hole Diameter ("")
26,290.2	10,550.0	5-1/2" Production Casing			5-1/2	6



## PECOS DISTRICT

### DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CONOCOPHILLIPS COMPANY
WELL NAME & NO.:	PILEDRIVER FED COM 505H
LOCATION:	Section 34, T.25 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

COA

<input checked="" type="radio"/> H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input checked="" type="radio"/> High
Cave/Karst Potential	<input checked="" type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Wellhead Variance	<input checked="" type="radio"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input checked="" type="checkbox"/> Contingency Cement Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry		
Special Requirements Variance	<input checked="" type="checkbox"/> Break Testing	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Casing Clearance

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### B. CASING

##### Primary Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **1100 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

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

#### **Contingency Squeeze:**

**Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

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

- Cement should tie-back at least **200 feet** into previous casing string.  
Operator shall provide method of verification.
- **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

**Contingency Casing Design:**

4. The **13-3/8** inch surface casing shall be set at approximately **1100 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - e. 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.
  - f. 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. (This is to include the lead cement)
  - g. 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.
  - h. If cement falls back, remedial cementing will be done prior to drilling out that string.
5. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**  
**Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**
6. . The minimum required fill of cement behind the **7-5/8** inch intermediate liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**  
**Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

**Contingency Squeeze:**

**Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8"**

**casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

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

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

## **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi**. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) 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 OOGO2.III.A.2.i must be followed.

## D. SPECIAL REQUIREMENT (S)

### **Communityization Agreement**

- The operator will submit a Communityization 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 Communityization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communityization 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 Onshore Order 1 and 2.
- 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 Communityization Agreement number is known, it shall also be on the sign.

### **(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)**

#### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

#### **Casing Clearance:**

- The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate “coffee ground or less” before cementing.

**Offline Cementing:**

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

## GENERAL REQUIREMENTS

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

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

Eddy County

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

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> 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 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational

at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

## A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.

- iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
- v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

- i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.

If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

### **C. DRILLING MUD**

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

### **D. WASTE MATERIAL AND FLUIDS**

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

JS 10/21/2025

**COG OPERATING LLC**  
**HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

**1. HYDROGEN SULFIDE TRAINING**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

**2. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S. If H<sub>2</sub>S greater than 100 ppm is encountered in the gas stream we will shut in and install H<sub>2</sub>S equipment.

- a. Well Control Equipment:
  - Flare line.
  - Choke manifold with remotely operated choke.
  - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:  
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:  
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:  
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:  
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:  
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:  
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

# WARNING

**YOU ARE ENTERING AN H<sub>2</sub>S AREA  
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE**

COG OPERATING LLC

1-575-748-6940

## **EMERGENCY CALL LIST**

### **OFFICE**

COG OPERATING LLC OFFICE	575-748-6940
DALLAS DALEY	432-818-2329

## **EMERGENCY RESPONSE NUMBERS**

### **OFFICE**

STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

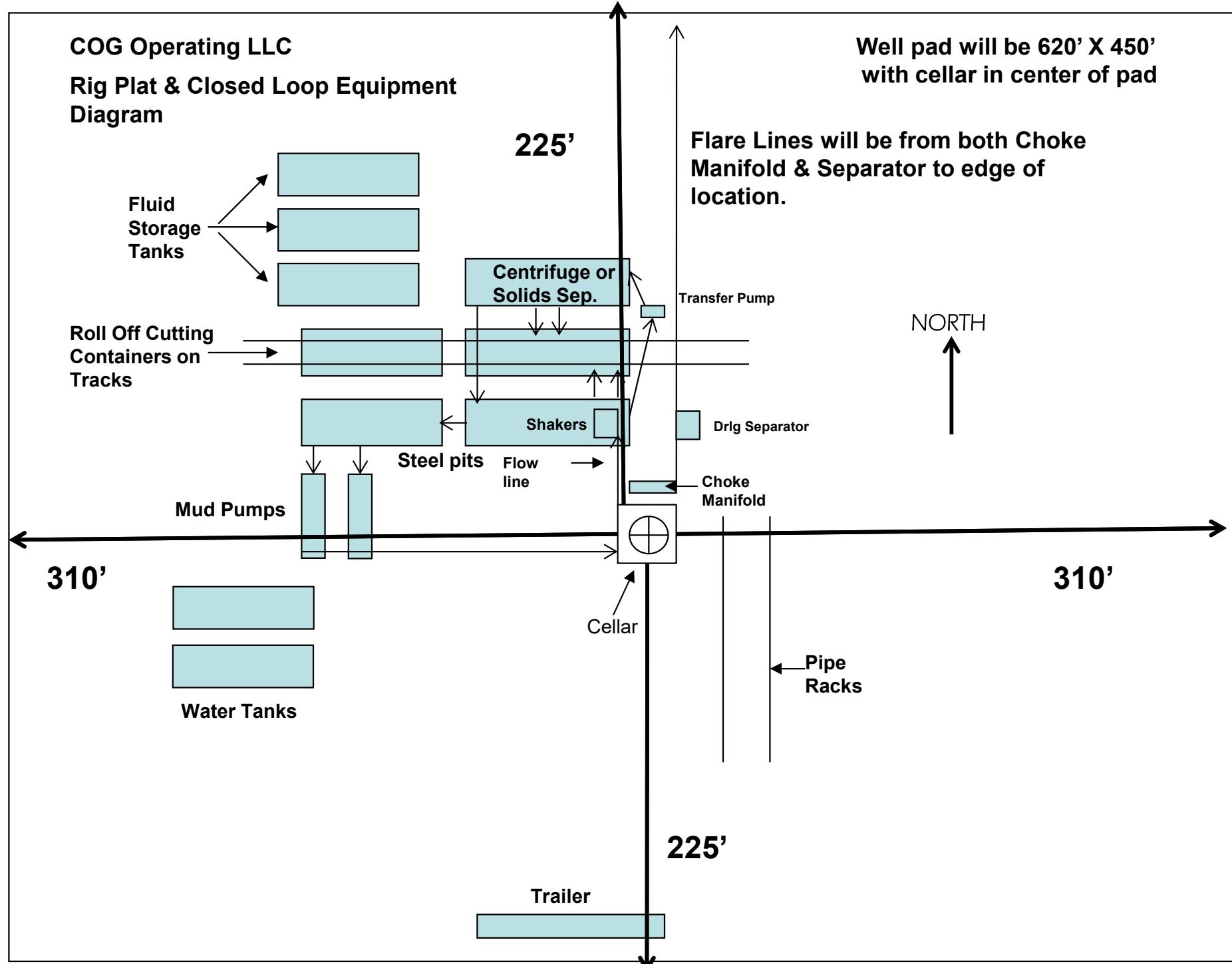


Exhibit 1

Released to Imaging: 12/18/2025 10:09:49 AM

"I further certify that COG will comply with Rule 19.15.17  
 NMAC by using a Closed Loop System."

# ConocoPhillips Company - Piledriver Fed Com 505H

## 1. Geologic Formations

TVD of target	10,550' EOL	Pilot hole depth	NA
MD at TD:	26,218'	Deepest expected fresh water:	0'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	867	Water	
Top of Salt	1241	Salt	
Base of Salt	4447	Salt	
Lamar	4634	Salt Water	
Bell Canyon	4662	Salt Water	
Cherry Canyon	5612	Oil/Gas	
Brushy Canyon	7142	Oil/Gas	
Bone Spring	8761	Oil/Gas	
1st Bone Spring Sand	9728	Oil/Gas	
2nd Bone Spring Sand	10340	Target	
3rd Bone Spring Sand	11478	Not Penetrated	

## 2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1100	10.75"	45.5	J55	BTC	4.15	1.14	14.29	15.90
9.875"	0	7500	7.625"	29.7	L80-ICY	BTC	1.51	1.15	3.26	3.29
8.750"	7500	10100	7.625"	29.7	P110-ICY	W513	1.40	1.74	3.56	2.14
6.75"	0	9900	5.5"	23	P110-CY	BTC	2.09	2.44	3.20	3.20
6.75"	9900	26,218	5.5"	23	P110-CY	W441	1.96	2.29	3.00	2.73
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

## 2b. Contingency Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
17.50"	0	1100	13.375"	54.5	J55	BTC	2.24	1.43	14.23	15.16
12.25"	0	4540	9.625"	40	L80-IC	BTC	1.64	1.45	5.04	5.21
8.75"	4340	10100	7.625"	29.7	P110- ICY	W513	1.40	1.74	3.56	2.14
6.75"	0	9900	5.5"	23	P110-CY	BTC	2.09	2.44	3.20	3.20
6.75"	9900	26,218	5.5"	23	P110-CY	W441	1.96	2.29	3.00	2.73
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7  
frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and  
All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172

**Contingency program will be run if large water flows are encountered.**

The 5 1/2" W441 casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is  
greater than .422" for the cement bond tie in.

## ConocoPhillips Company - Piledriver Fed Com 505H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef? If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P? If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA? If yes, are the first three strings cemented to surface? Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst? If yes, are there two strings cemented to surface? (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst? If yes, are there three strings cemented to surface?	N

## ConocoPhillips Company - Piledriver Fed Com 505H

## 3. Cementing Program

Casing	# Skns	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	530	12.8	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl <sub>2</sub>
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter. Stage 1	730	10.3	3.3	22	24	Halliburton tuned light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	630	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1230	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 <sup>st</sup> Intermediate	0'	50%
Production	9,600'	20% OH in Lateral (KOP to EOL)

## 3b. Contingency Cementing Program

Casing	# Skns	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	660	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl <sub>2</sub>
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl <sub>2</sub>
Int. #1	670	12.8	1.75	9.21	12	Lead: Class C + 4% Gel + 1% CaCl <sub>2</sub>
	390	14.8	1.35	6.6	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter. #2 (Liner)	200	10.5	3.3	22	24	Tuned light
	90	14.8	1.35	6.6	8	Tail: Class H
Prod	830	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1230	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

Contingency program will be run if large water flows are encountered.

Casing String	TOC	% Excess
Surface	0'	50%
1 <sup>st</sup> Intermediate	0'	50%
2 <sup>nd</sup> Intermediate	4,340'	20%
Production	9,850'	20% OH in Lateral (KOP to EOL)

## ConocoPhillips Company - Piledriver Fed Com 505H

## 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.				
Y	A variance is requested for the use of BOPE break testing on intermediate skids (in accordance with the 30 day full BOPE test requirements).				

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4" or 9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2.
Y	On Exploratory wells or 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. Will be tested in accordance with 43 CFR Part 3170 Subpart 3172.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per 43 CFR Part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

## ConocoPhillips Company - Piledriver Fed Com 505H

## 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 10	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 13.5	35-45	<20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

## 5b. Contingency Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Brine	8.4 - 10	28-34	N/C
9-5/8" Int shoe	7-5/8" Int shoe	Brine	8.4 - 10	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 13.5	35-45	<20

## 6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

## ConocoPhillips Company - Piledriver Fed Com 505H

## 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7410 psi at 10550' TVD
Abnormal Temperature	NO 160 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H <sub>2</sub> S is present
Y	H <sub>2</sub> S Plan attached

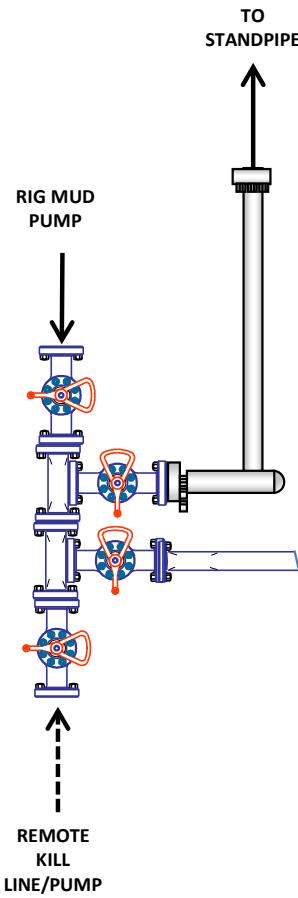
## 8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

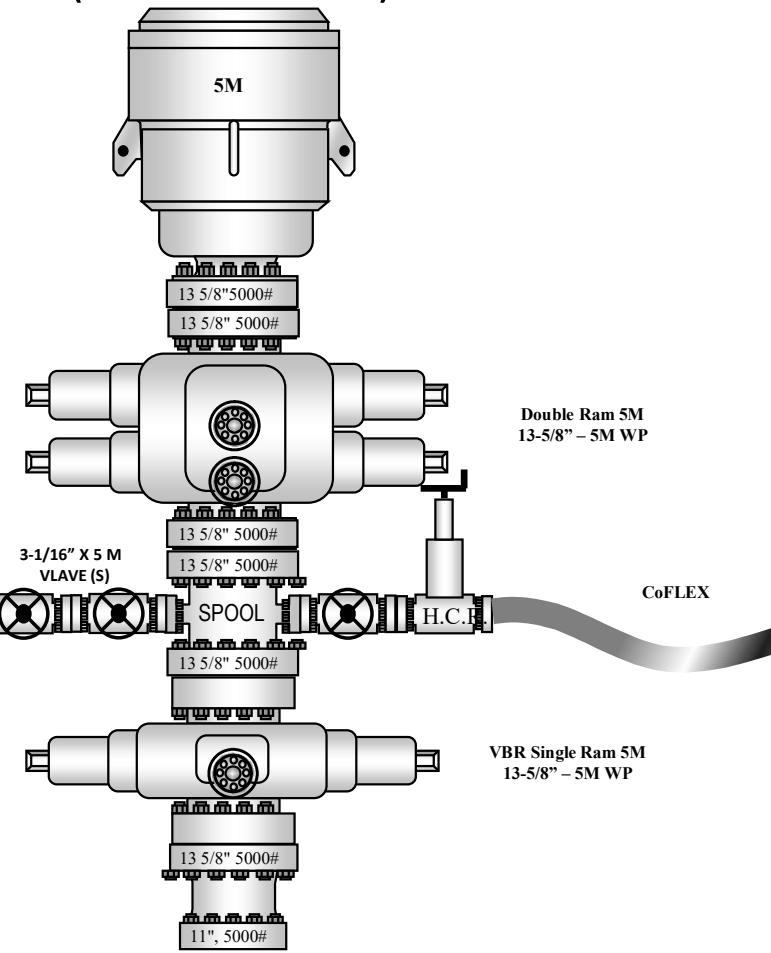
x	H <sub>2</sub> S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

## 5M BOP Stack

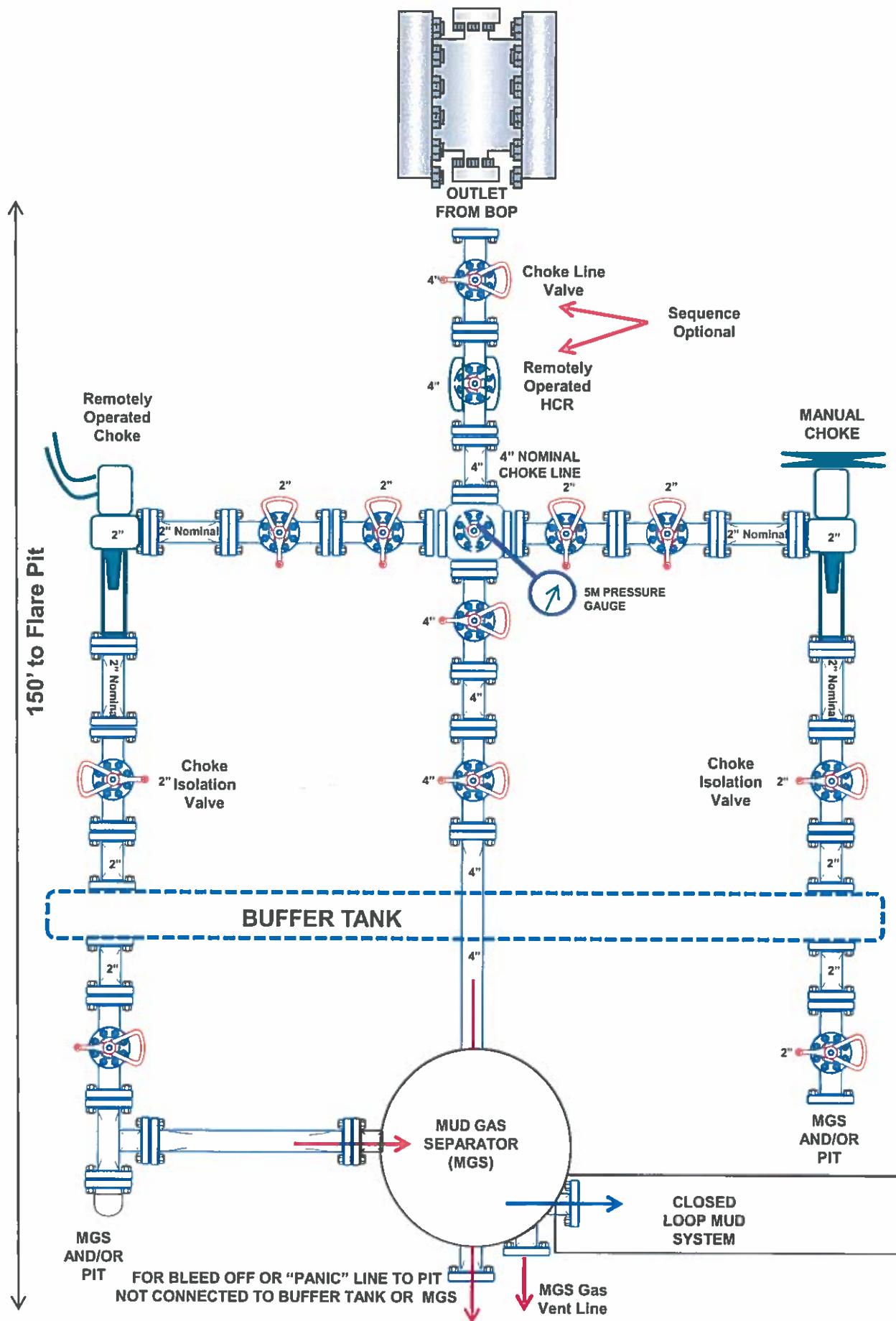
## 10M REMOTE KILL SCHEMATIC



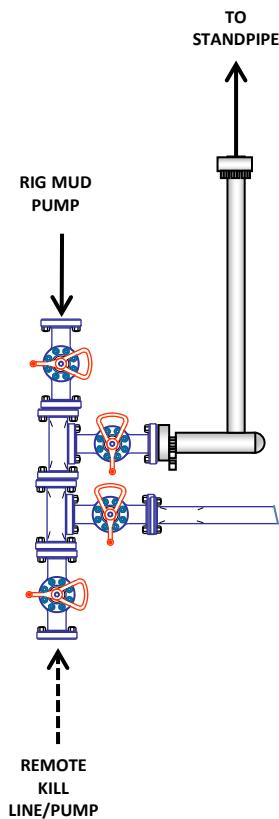
## 5M BOP Stack (2.5M Annular)



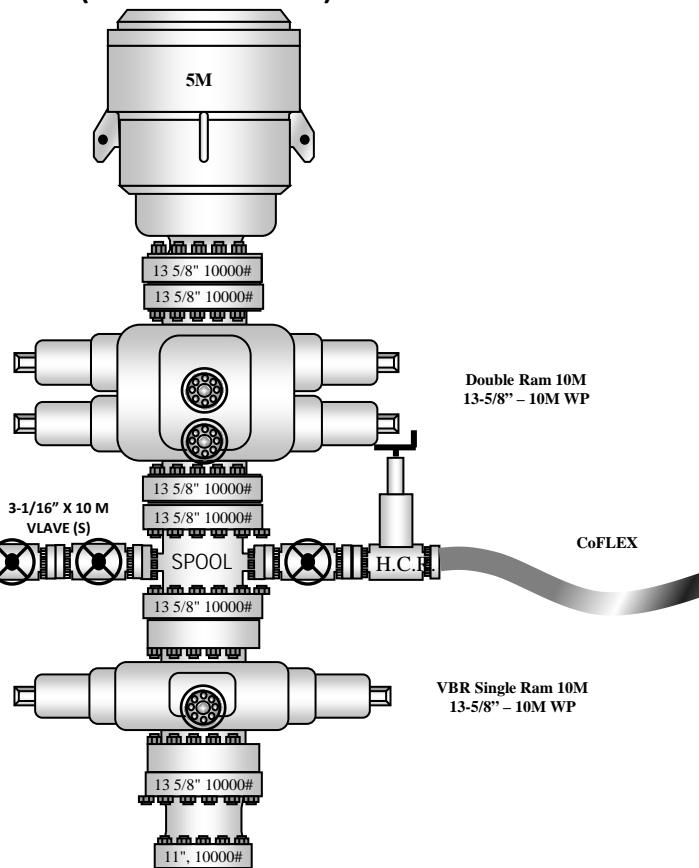
## 5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)



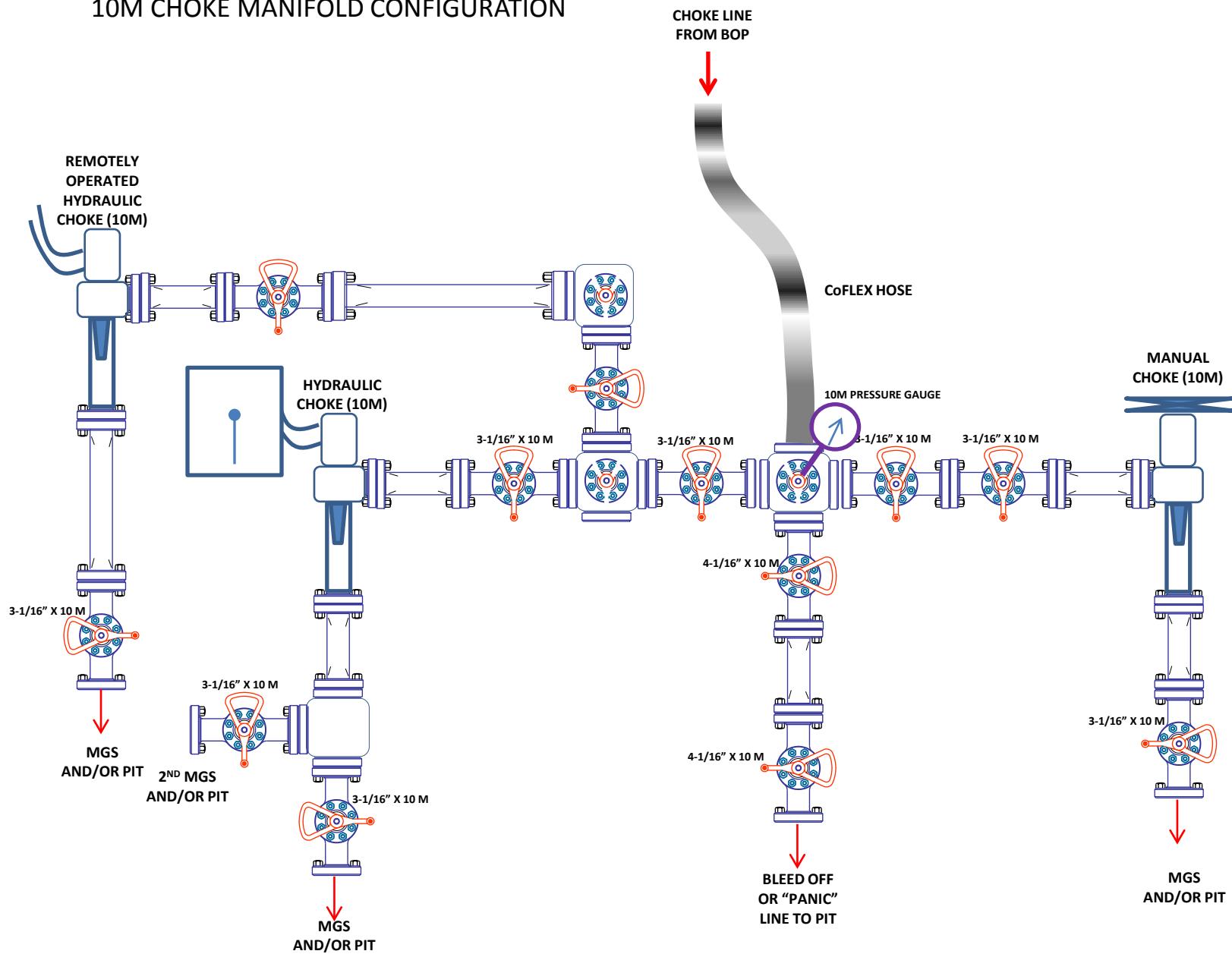
## 10M REMOTE KILL SCHEMATIC



## 10M BOP Stack (5M Annular)



## 10M CHOKE MANIFOLD CONFIGURATION



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 519742

**ACKNOWLEDGMENTS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 519742
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	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 519742

## COMMENTS

Operator:  COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137  Action Number: 519742  Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)
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## COMMENTS

Created By	Comment	Comment Date
jeffrey.harrison	Submitted as defining well	12/18/2025

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CONDITIONS

Action 519742

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 519742
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
mreyes4	Cement is required to circulate on both surface and intermediate1 strings of casing.	10/24/2025
mreyes4	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	10/24/2025
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/18/2025
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	12/18/2025
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.	12/18/2025
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.	12/18/2025
jeffrey.harrison	Any string of casing or liner that is not circulated to surface must have a minimum of 200' of cement tie-back into the previous string of casing.	12/18/2025