District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 305215

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

1. Operator Name and Address	2. OGRID Number
COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	229137
	3. API Number 30-025-49652

4. Property Code	5. Property Name	6. Well No.
312818	REDTAIL STATE COM	506H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	2	23S	32E	M	365	S	1070	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	2	23S	32E	4	50	N	330	W	Lea

9. Pool Information

RED TANK;BONE SPRING	51683

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3716
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	15908	Bone Spring		12/31/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1300	750	0
Int1	12.25	9.625	40	4800	1500	0
Prod	8.75	5.5	17	15908	2400	2000

Casing/Cement Program: Additional Comments

Drill 17-1/2" hole to 1,300' into the Rustler. Run 13-3/8" 54.5# J55 STC casing to TD and cement to surface in one stage. Will set in Rustler and cover water depth. Drill 12-1/4" hole to ~4,800' with Brine. Run 9-5/8" 40# J-55 casing to TD and cement to surface in one stage. Drill 8-3/4" vertical hole, curve & lateral to 15,908' with Cut Brine. Run 5-1/2" 17# P110 BTC casing to TD and cement to 2,000' in one stage.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		**OIL CONSERVATION DIVISION**	
Printed Name:	Electronically filed by Robyn Russell	Approved By:	Paul F Kautz
Title:	Supervisor Delaware Regulatory	Title:	Geologist
Email Address:	robyn.m.russell@conocophillips.com	Approved Date:	12/17/2021 Expiration Date: 12/17/2023
Date:	12/15/2021 Phone: 432-685-4385	Conditions of Approval Attached	

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	51683	Red Tank; Bone Spring

Property Code	Property Name	Well Number
312818	REDTAIL STATE COM	506H
OGRID No.	**Operator Name**	**Elevation**
229137	COG OPERATING, LLC	3716.3'

Surface Location

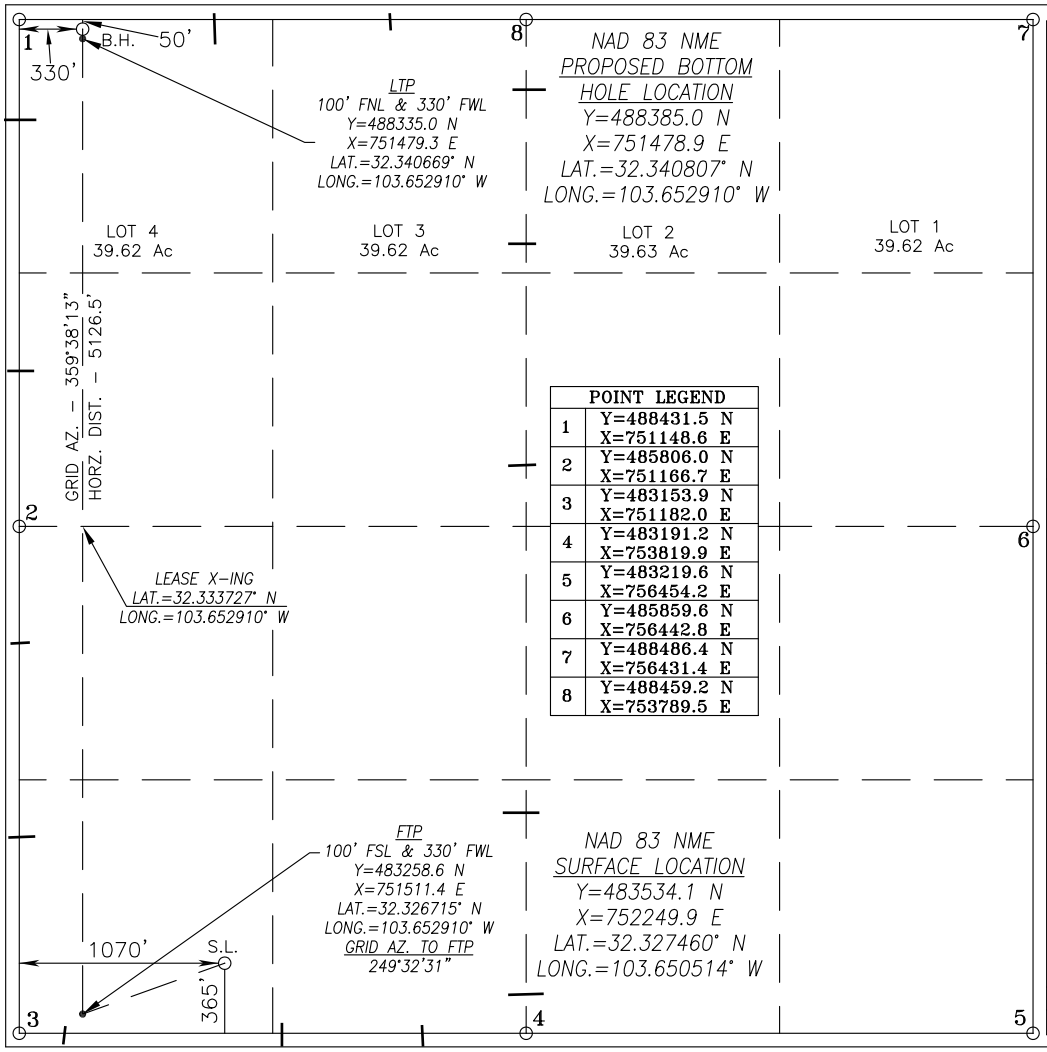
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	23-S	32-E		365	SOUTH	1070	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	2	23-S	32-E		50	NORTH	330	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
329.29			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Mayte Reyes 11/5/2021
Signature Date

Mayte Reyes
Printed Name

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

SURVEYOR CERTIFICATION

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

JUNE 17, 2020
Date of Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW
NEW MEXICO
17777
LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 8/2/21
Certificate No. CHAD HARCROW 17777
W.O. # 21-694 DRAWN BY: WN

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

Form APD Comments

Permit 305215

PERMIT COMMENTS

Operator Name and Address:	API Number:
COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	30-025-49652
	Well: REDTAIL STATE COM #506H

Created By	Comment	Comment Date
mreyes4	OIL: COG Operating 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 would be necessary.	12/15/2021

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

Form APD Conditions

Permit 305215

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	30-025-49652
	Well: REDTAIL STATE COM #506H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	1) SURFACE & INTERMEDIATE CASING - Cement must circulate to surface -- 2) PRODUCTION CASING - Cement must tie back into intermediate casing --
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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:** 229137 **Date:** 11 / 05 / 21

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
Redtail State Com 506H	30-025-	M-2-23S-32E	365 FSL & 1070 FWL	± 1633	± 2026	± 2336

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
Redtail State Com 506H	Pending	7/20/2022	± 25 days from spud	11/17/2022	11/27/2022	12/2/2022

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 Coodinator
E-mail Address:	mayte.x.reyes@conocophillips.com
Date:	11/05/2021
Phone:	575-748-6945

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

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

Redtail State Com #506H

Casing and Cement

String	Hole Size	Csg OD	PPF	Depth	Sx Cement	TOC
Surface	17-1/2”	13-3/8”	54.5#	1,300’	750	0’
Intermediate 2	12-1/4”	9-5/8”	40#	4,800’	1500	0’
Production	8-3/4”	5-1/2”	17#	15,908’	2,400	2,000’

Well Plan

Drill 17-1/2” hole to 1,300’ into the Rustler. Run 13-3/8” 54.5# J55 STC casing to TD and cement to surface in one stage. Will set in Rustler and cover water depth.

Drill 12-1/4” hole to ~4,800’ with Brine. Run 9-5/8” 40# J-55 casing to TD and cement to surface in one stage.

Drill 8-3/4” vertical hole, curve & lateral to 15,908’ with Cut Brine. Run 5-1/2” 17# P110 BTC casing to TD and cement to 2,000’ in one stage.

Well Control

After setting 13-3/8” casing and installing 3000 psi casing head, NU 13-5/8" Cameron BOP. Test annular and casing to 1500 psi and other BOP equipment to 3000 psi.

After setting 9-5/8” casing and installing 3000 psi casing spool, NU 13-5/8" Cameron BOP. Test annular to 1500 psi and other BOP equipment to 3000 psi.

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_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S 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 H2S 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_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S 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_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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 H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S 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.

W A R N I N G

YOU ARE ENTERING AN H_2S 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	MOBILE
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

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

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
REDTAIL FED COM PROJECT
REDTAIL STATE COM 506H

OWB

Plan: PWP1

Standard Survey Report

04 August, 2021

ConocoPhillips

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

Project	BULLDOG PROSPECT (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		

Well	REDTAIL STATE COM 506H				
Well Position	**+N/-S**	0.0 usft	**Northing:**	483,474.20 usft	**Latitude:**	32° 19' 38.411 N
	+E/-W	0.0 usft	**Easting:**	711,066.80 usft	**Longitude:**	103° 39' 0.106 W
Position Uncertainty		3.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,716.3 usft

Wellbore	OWB				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2021	8/4/2021	6.60	60.03	47,761.21895425

Design	PWP1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	350.97	

Survey Tool Program **Date** 8/4/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	15,908.2	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

ConocoPhillips

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

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)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	248.35	2,600.0	-0.6	-1.6	-0.4	2.00	2.00	0.00
2,700.0	4.00	248.35	2,699.8	-2.6	-6.5	-1.5	2.00	2.00	0.00
2,772.7	5.45	248.35	2,772.3	-4.8	-12.1	-2.8	2.00	2.00	0.00
Start 7718.8 hold at 2772.7 MD									
2,800.0	5.45	248.35	2,799.5	-5.7	-14.5	-3.4	0.00	0.00	0.00
2,900.0	5.45	248.35	2,899.0	-9.2	-23.3	-5.5	0.00	0.00	0.00
3,000.0	5.45	248.35	2,998.6	-12.8	-32.1	-7.6	0.00	0.00	0.00
3,100.0	5.45	248.35	3,098.1	-16.3	-41.0	-9.6	0.00	0.00	0.00
3,200.0	5.45	248.35	3,197.7	-19.8	-49.8	-11.7	0.00	0.00	0.00
3,300.0	5.45	248.35	3,297.2	-23.3	-58.6	-13.8	0.00	0.00	0.00
3,400.0	5.45	248.35	3,396.7	-26.8	-67.5	-15.9	0.00	0.00	0.00
3,500.0	5.45	248.35	3,496.3	-30.3	-76.3	-17.9	0.00	0.00	0.00
3,600.0	5.45	248.35	3,595.8	-33.8	-85.1	-20.0	0.00	0.00	0.00
3,700.0	5.45	248.35	3,695.4	-37.3	-94.0	-22.1	0.00	0.00	0.00
3,800.0	5.45	248.35	3,794.9	-40.8	-102.8	-24.2	0.00	0.00	0.00
3,900.0	5.45	248.35	3,894.5	-44.3	-111.6	-26.3	0.00	0.00	0.00
4,000.0	5.45	248.35	3,994.0	-47.8	-120.5	-28.3	0.00	0.00	0.00
4,100.0	5.45	248.35	4,093.6	-51.3	-129.3	-30.4	0.00	0.00	0.00
4,200.0	5.45	248.35	4,193.1	-54.8	-138.2	-32.5	0.00	0.00	0.00
4,300.0	5.45	248.35	4,292.7	-58.4	-147.0	-34.6	0.00	0.00	0.00
4,400.0	5.45	248.35	4,392.2	-61.9	-155.8	-36.6	0.00	0.00	0.00
4,500.0	5.45	248.35	4,491.8	-65.4	-164.7	-38.7	0.00	0.00	0.00
4,600.0	5.45	248.35	4,591.3	-68.9	-173.5	-40.8	0.00	0.00	0.00
4,700.0	5.45	248.35	4,690.9	-72.4	-182.3	-42.9	0.00	0.00	0.00
4,800.0	5.45	248.35	4,790.4	-75.9	-191.2	-44.9	0.00	0.00	0.00
4,900.0	5.45	248.35	4,890.0	-79.4	-200.0	-47.0	0.00	0.00	0.00
5,000.0	5.45	248.35	4,989.5	-82.9	-208.8	-49.1	0.00	0.00	0.00
5,100.0	5.45	248.35	5,089.1	-86.4	-217.7	-51.2	0.00	0.00	0.00
5,200.0	5.45	248.35	5,188.6	-89.9	-226.5	-53.3	0.00	0.00	0.00
5,300.0	5.45	248.35	5,288.1	-93.4	-235.3	-55.3	0.00	0.00	0.00
5,400.0	5.45	248.35	5,387.7	-96.9	-244.2	-57.4	0.00	0.00	0.00
5,500.0	5.45	248.35	5,487.2	-100.4	-253.0	-59.5	0.00	0.00	0.00

ConocoPhillips

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

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)
5,600.0	5.45	248.35	5,586.8	-103.9	-261.8	-61.6	0.00	0.00	0.00
5,700.0	5.45	248.35	5,686.3	-107.5	-270.7	-63.6	0.00	0.00	0.00
5,800.0	5.45	248.35	5,785.9	-111.0	-279.5	-65.7	0.00	0.00	0.00
5,900.0	5.45	248.35	5,885.4	-114.5	-288.3	-67.8	0.00	0.00	0.00
6,000.0	5.45	248.35	5,985.0	-118.0	-297.2	-69.9	0.00	0.00	0.00
6,100.0	5.45	248.35	6,084.5	-121.5	-306.0	-72.0	0.00	0.00	0.00
6,200.0	5.45	248.35	6,184.1	-125.0	-314.8	-74.0	0.00	0.00	0.00
6,300.0	5.45	248.35	6,283.6	-128.5	-323.7	-76.1	0.00	0.00	0.00
6,400.0	5.45	248.35	6,383.2	-132.0	-332.5	-78.2	0.00	0.00	0.00
6,500.0	5.45	248.35	6,482.7	-135.5	-341.4	-80.3	0.00	0.00	0.00
6,600.0	5.45	248.35	6,582.3	-139.0	-350.2	-82.3	0.00	0.00	0.00
6,700.0	5.45	248.35	6,681.8	-142.5	-359.0	-84.4	0.00	0.00	0.00
6,800.0	5.45	248.35	6,781.4	-146.0	-367.9	-86.5	0.00	0.00	0.00
6,900.0	5.45	248.35	6,880.9	-149.5	-376.7	-88.6	0.00	0.00	0.00
7,000.0	5.45	248.35	6,980.4	-153.0	-385.5	-90.6	0.00	0.00	0.00
7,100.0	5.45	248.35	7,080.0	-156.6	-394.4	-92.7	0.00	0.00	0.00
7,200.0	5.45	248.35	7,179.5	-160.1	-403.2	-94.8	0.00	0.00	0.00
7,300.0	5.45	248.35	7,279.1	-163.6	-412.0	-96.9	0.00	0.00	0.00
7,400.0	5.45	248.35	7,378.6	-167.1	-420.9	-99.0	0.00	0.00	0.00
7,500.0	5.45	248.35	7,478.2	-170.6	-429.7	-101.0	0.00	0.00	0.00
7,600.0	5.45	248.35	7,577.7	-174.1	-438.5	-103.1	0.00	0.00	0.00
7,700.0	5.45	248.35	7,677.3	-177.6	-447.4	-105.2	0.00	0.00	0.00
7,800.0	5.45	248.35	7,776.8	-181.1	-456.2	-107.3	0.00	0.00	0.00
7,900.0	5.45	248.35	7,876.4	-184.6	-465.0	-109.3	0.00	0.00	0.00
8,000.0	5.45	248.35	7,975.9	-188.1	-473.9	-111.4	0.00	0.00	0.00
8,100.0	5.45	248.35	8,075.5	-191.6	-482.7	-113.5	0.00	0.00	0.00
8,200.0	5.45	248.35	8,175.0	-195.1	-491.5	-115.6	0.00	0.00	0.00
8,300.0	5.45	248.35	8,274.6	-198.6	-500.4	-117.7	0.00	0.00	0.00
8,400.0	5.45	248.35	8,374.1	-202.1	-509.2	-119.7	0.00	0.00	0.00
8,500.0	5.45	248.35	8,473.7	-205.7	-518.0	-121.8	0.00	0.00	0.00
8,600.0	5.45	248.35	8,573.2	-209.2	-526.9	-123.9	0.00	0.00	0.00
8,700.0	5.45	248.35	8,672.7	-212.7	-535.7	-126.0	0.00	0.00	0.00
8,800.0	5.45	248.35	8,772.3	-216.2	-544.6	-128.0	0.00	0.00	0.00
8,900.0	5.45	248.35	8,871.8	-219.7	-553.4	-130.1	0.00	0.00	0.00
9,000.0	5.45	248.35	8,971.4	-223.2	-562.2	-132.2	0.00	0.00	0.00
9,100.0	5.45	248.35	9,070.9	-226.7	-571.1	-134.3	0.00	0.00	0.00
9,200.0	5.45	248.35	9,170.5	-230.2	-579.9	-136.3	0.00	0.00	0.00
9,300.0	5.45	248.35	9,270.0	-233.7	-588.7	-138.4	0.00	0.00	0.00
9,400.0	5.45	248.35	9,369.6	-237.2	-597.6	-140.5	0.00	0.00	0.00
9,500.0	5.45	248.35	9,469.1	-240.7	-606.4	-142.6	0.00	0.00	0.00
9,600.0	5.45	248.35	9,568.7	-244.2	-615.2	-144.7	0.00	0.00	0.00
9,700.0	5.45	248.35	9,668.2	-247.7	-624.1	-146.7	0.00	0.00	0.00
9,800.0	5.45	248.35	9,767.8	-251.2	-632.9	-148.8	0.00	0.00	0.00

ConocoPhillips

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,900.0	5.45	248.35	9,867.3	-254.8	-641.7	-150.9	0.00	0.00	0.00
10,000.0	5.45	248.35	9,966.9	-258.3	-650.6	-153.0	0.00	0.00	0.00
10,100.0	5.45	248.35	10,066.4	-261.8	-659.4	-155.0	0.00	0.00	0.00
10,200.0	5.45	248.35	10,166.0	-265.3	-668.2	-157.1	0.00	0.00	0.00
10,300.0	5.45	248.35	10,265.5	-268.8	-677.1	-159.2	0.00	0.00	0.00
10,400.0	5.45	248.35	10,365.1	-272.3	-685.9	-161.3	0.00	0.00	0.00
10,491.6	5.45	248.35	10,456.2	-275.5	-694.0	-163.2	0.00	0.00	0.00
Start DLS 12.00 TFO 111.11									
10,500.0	5.18	258.88	10,464.6	-275.7	-694.7	-163.3	12.00	-3.29	124.77
10,600.0	12.15	335.11	10,563.6	-267.0	-703.6	-153.3	12.00	6.97	76.23
10,700.0	23.57	347.77	10,658.7	-237.8	-712.3	-123.1	12.00	11.42	12.66
10,800.0	35.36	352.34	10,745.6	-189.4	-720.5	-74.0	12.00	11.80	4.57
10,900.0	47.25	354.82	10,820.6	-123.9	-727.7	-8.2	12.00	11.89	2.49
11,000.0	59.18	356.50	10,880.4	-44.2	-733.6	71.4	12.00	11.93	1.68
11,100.0	71.12	357.80	10,922.3	46.2	-738.1	161.5	12.00	11.94	1.30
11,200.0	83.07	358.92	10,944.6	143.5	-740.8	258.0	12.00	11.95	1.12
11,267.3	91.11	359.64	10,948.0	210.6	-741.7	324.4	12.00	11.95	1.07
Start 4641.1 hold at 11267.3 MD									
11,300.0	91.11	359.64	10,947.4	243.3	-741.9	356.7	0.00	0.00	0.00
11,400.0	91.11	359.64	10,945.5	343.3	-742.5	455.6	0.00	0.00	0.00
11,500.0	91.11	359.64	10,943.5	443.3	-743.1	554.4	0.00	0.00	0.00
11,600.0	91.11	359.64	10,941.6	543.3	-743.8	653.3	0.00	0.00	0.00
11,700.0	91.11	359.64	10,939.6	643.3	-744.4	752.1	0.00	0.00	0.00
11,800.0	91.11	359.64	10,937.7	743.2	-745.0	850.9	0.00	0.00	0.00
11,900.0	91.11	359.64	10,935.8	843.2	-745.6	949.8	0.00	0.00	0.00
12,000.0	91.11	359.64	10,933.8	943.2	-746.3	1,048.6	0.00	0.00	0.00
12,100.0	91.11	359.64	10,931.9	1,043.2	-746.9	1,147.5	0.00	0.00	0.00
12,200.0	91.11	359.64	10,929.9	1,143.1	-747.5	1,246.3	0.00	0.00	0.00
12,300.0	91.11	359.64	10,928.0	1,243.1	-748.2	1,345.1	0.00	0.00	0.00
12,400.0	91.11	359.64	10,926.1	1,343.1	-748.8	1,444.0	0.00	0.00	0.00
12,500.0	91.11	359.64	10,924.1	1,443.1	-749.4	1,542.8	0.00	0.00	0.00
12,600.0	91.11	359.64	10,922.2	1,543.1	-750.0	1,641.7	0.00	0.00	0.00
12,700.0	91.11	359.64	10,920.2	1,643.0	-750.7	1,740.5	0.00	0.00	0.00
12,800.0	91.11	359.64	10,918.3	1,743.0	-751.3	1,839.3	0.00	0.00	0.00
12,900.0	91.11	359.64	10,916.4	1,843.0	-751.9	1,938.2	0.00	0.00	0.00
13,000.0	91.11	359.64	10,914.4	1,943.0	-752.6	2,037.0	0.00	0.00	0.00
13,100.0	91.11	359.64	10,912.5	2,043.0	-753.2	2,135.8	0.00	0.00	0.00
13,200.0	91.11	359.64	10,910.5	2,142.9	-753.8	2,234.7	0.00	0.00	0.00
13,300.0	91.11	359.64	10,908.6	2,242.9	-754.4	2,333.5	0.00	0.00	0.00
13,400.0	91.11	359.64	10,906.7	2,342.9	-755.1	2,432.4	0.00	0.00	0.00
13,500.0	91.11	359.64	10,904.7	2,442.9	-755.7	2,531.2	0.00	0.00	0.00
13,600.0	91.11	359.64	10,902.8	2,542.9	-756.3	2,630.0	0.00	0.00	0.00
13,700.0	91.11	359.64	10,900.8	2,642.8	-756.9	2,728.9	0.00	0.00	0.00
13,800.0	91.11	359.64	10,898.9	2,742.8	-757.6	2,827.7	0.00	0.00	0.00

ConocoPhillips
Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,900.0	91.11	359.64	10,897.0	2,842.8	-758.2	2,926.6	0.00	0.00	0.00
14,000.0	91.11	359.64	10,895.0	2,942.8	-758.8	3,025.4	0.00	0.00	0.00
14,100.0	91.11	359.64	10,893.1	3,042.8	-759.5	3,124.2	0.00	0.00	0.00
14,200.0	91.11	359.64	10,891.1	3,142.7	-760.1	3,223.1	0.00	0.00	0.00
14,300.0	91.11	359.64	10,889.2	3,242.7	-760.7	3,321.9	0.00	0.00	0.00
14,400.0	91.11	359.64	10,887.3	3,342.7	-761.3	3,420.8	0.00	0.00	0.00
14,500.0	91.11	359.64	10,885.3	3,442.7	-762.0	3,519.6	0.00	0.00	0.00
14,600.0	91.11	359.64	10,883.4	3,542.7	-762.6	3,618.4	0.00	0.00	0.00
14,700.0	91.11	359.64	10,881.4	3,642.6	-763.2	3,717.3	0.00	0.00	0.00
14,800.0	91.11	359.64	10,879.5	3,742.6	-763.8	3,816.1	0.00	0.00	0.00
14,900.0	91.11	359.64	10,877.6	3,842.6	-764.5	3,914.9	0.00	0.00	0.00
15,000.0	91.11	359.64	10,875.6	3,942.6	-765.1	4,013.8	0.00	0.00	0.00
15,100.0	91.11	359.64	10,873.7	4,042.5	-765.7	4,112.6	0.00	0.00	0.00
15,200.0	91.11	359.64	10,871.7	4,142.5	-766.4	4,211.5	0.00	0.00	0.00
15,300.0	91.11	359.64	10,869.8	4,242.5	-767.0	4,310.3	0.00	0.00	0.00
15,400.0	91.11	359.64	10,867.9	4,342.5	-767.6	4,409.1	0.00	0.00	0.00
15,500.0	91.11	359.64	10,865.9	4,442.5	-768.2	4,508.0	0.00	0.00	0.00
15,600.0	91.11	359.64	10,864.0	4,542.4	-768.9	4,606.8	0.00	0.00	0.00
15,700.0	91.11	359.64	10,862.0	4,642.4	-769.5	4,705.7	0.00	0.00	0.00
15,800.0	91.11	359.64	10,860.1	4,742.4	-770.1	4,804.5	0.00	0.00	0.00
15,900.0	91.11	359.64	10,858.2	4,842.4	-770.7	4,903.3	0.00	0.00	0.00
15,908.4	91.11	359.64	10,858.0	4,850.8	-770.8	4,911.7	0.00	0.00	0.00
TD at 15908.4									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (REDTAIL ST C - plan hits target center - Rectangle (sides W100.0 H5,232.0 D20.0)	1.11	179.64	10,858.0	4,850.8	-770.8	488,325.00	710,296.00	32° 20' 26.461 N	103° 39' 8.729 W
LTP (REDTAIL ST CO - plan misses target center by 1.0usft at 15858.4usft MD (10859.0 TVD, 4800.8 N, -770.5 E) - Point	0.00	0.01	10,858.0	4,800.8	-770.5	488,275.00	710,296.30	32° 20' 25.966 N	103° 39' 8.729 W
FTP (REDTAIL ST CC - plan misses target center by 198.0usft at 10897.0usft MD (10818.6 TVD, -126.1 N, -727.5 E) - Circle (radius 50.0)	0.00	0.00	10,948.0	-275.5	-738.4	483,198.70	710,328.40	32° 19' 35.731 N	103° 39' 8.731 W

ConocoPhillips

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well REDTAIL STATE COM 506H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=30' @ 3746.3usft (TBD)
Site:	REDTAIL FED COM PROJECT	**MD Reference:**	KB=30' @ 3746.3usft (TBD)
Well:	REDTAIL STATE COM 506H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	EDT 15 Central Prod

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2500	2500	0	0	Start Build 2.00
2773	2772	-5	-12	Start 7718.8 hold at 2772.7 MD
10,492	10,456	-275	-694	Start DLS 12.00 TFO 111.11
11,267	10,948	211	-742	Start 4641.1 hold at 11267.3 MD
15,908	10,858	4851	-771	TD at 15908.4

Checked By: _____ Approved By: _____ Date: _____

ConocoPhillips

Project: BULLDOG PROSPECT (NM-E)
Site: REDTAIL FED COM PROJECT
Well: REDTAIL STATE COM 506H
Wellbore: OWB
Design: PWP1
GL: 3716.3
KB=30' @ 3746.3usft (TBD)

Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.24°

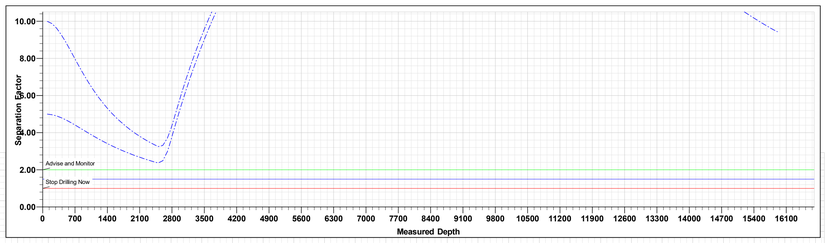
Magnetic Field
Strength: 47761.2nT
Dip Angle: 60.03°
Date: 8/4/2021
Model: BGGM2021

WELL DETAILS: REDTAIL STATE COM 506H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	483474.20	711066.80	32° 19' 38.411 N	103° 39' 0.106 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (REDTAIL ST COM 506H)	10858.0	4800.8	-770.5	488275.00	710296.30	32° 20' 25.966 N	103° 39' 8.729 W
PBHL (REDTAIL ST COM 506H)	10858.0	4850.8	-770.8	488325.00	710296.00	32° 20' 26.461 N	103° 39' 8.729 W
FTP (REDTAIL ST COM 506H)	10948.0	-275.5	-738.4	483198.70	710328.40	32° 19' 35.731 N	103° 39' 8.731 W



REDTAIL STATE COM 506H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2772.7	5.45	248.35	2772.3	-4.8	-12.1	2.00	248.35	-2.8	Start 7718.8 hold at 2772.7 MD
10491.6	5.45	248.35	10456.2	-275.5	-694.0	0.00	0.00	-163.2	Start DLS 12.00 TFO 111.11
11267.3	91.11	359.64	10948.0	210.6	-741.7	12.00	111.11	324.4	Start 4641.1 hold at 11267.3 MD
15908.4	91.11	359.64	10858.0	4850.8	-770.8	0.00	0.00	4911.7	TD at 15908.4