Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Gas Well Oil Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone [329742] 2. Name of Operator 9. API Well No. 30-025-49410 [229137] 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory [17980] 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 22. Approximate date work will start* 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 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 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. NGMP Rec 09/14/2021 APPROVED WITH CONDITIONS SL (Continued on page 2) *(Instructions on page 2)

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DISTRICT II 811 S. FIRST ST., ARTESIA, NM 88210 Phone: (575) 746-1263 Fax: (575) 746-9720

State of New Mexico DISTRICT I
1825 N. FRENCE DR., HOBBS, NM 88240
Phone: (575) 393-5161 Pax: (575) 393-0720

State of New Mexico

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

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-8178 Fax: (505) 334-8170

□ AMENDED REPORT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3482

	WELL LOCATION AND	ACREAGE DEDICATION PLAT				
API Number	Pool Code	Pool Name				
30-025-49410	17980	17980 Dogie Draw; Wolfcamp				
Property Code 329742		perty Name ET FEDERAL COM	Well Number 705H			
ogrid №. 229137		rator Name CRATING, LLC	Elevation 3307.3'			

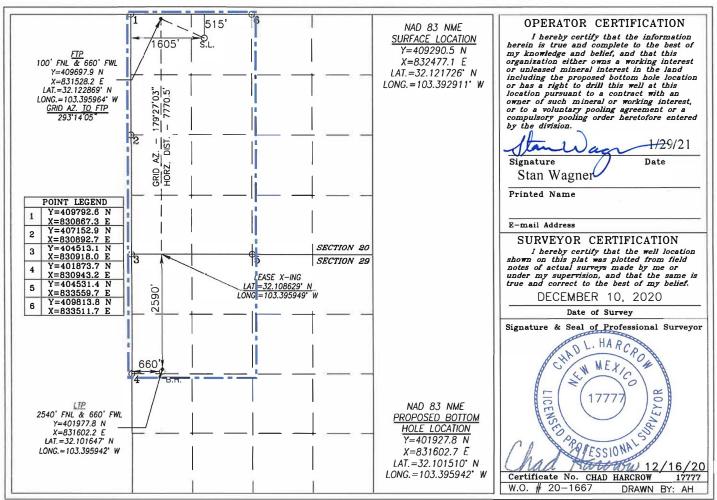
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	20	25-S	35-E		515	NORTH	1605	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
E	29	25-S	35-E		2590	NORTH	660	WEST	LEA
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.				
480									

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



Intent	X	As Drill	ed												
API #		5-49410													
	ator Nar	ne:				Pro	perty N	ame:						Well Number	
COC	G Opera	ating LLC	;			Gre	en Be	ret F	ede	ral C	om			705H	
Kick O	ff Point	(KOP)													
UL C	Section 20	Township 25S	Range 35E	Lot	Feet		From N	I/S	Feet		From	E/W	County Lea		
Latitu					Longitu	ide							NAD 83		
First T	ake Poin	it (FTP)													
UL D	Section 20	Township 25S	Range 35E	Lot	Feet 100	Elitable Committee Committ									
Latitu 32.1	de 22869)			Longitu		5964						NAD 8	NAD 83	
Last T	ake Poin	t (LTP)													
UL E	Section 29	Township 25S	Range 35E	Lot	Feet 2540	Fro	m N/S	Feet		From		Count Lea	Ty		
Latitu 32.1	_{de} 101647	7			Longitu		5942					NAD NAD	0 83		
Is this	well the	defining v	vell for th	e Horiz	zontal S _l	pacin	g Unit?	· [No]					
Is this	well an	infill well?		Yes											
	l is yes p ng Unit.	lease prov	ide API if	availab	ole, Ope	rator	Name	and v	vell n	umbe	r for I	Definir	ng well fo	r Horizontal	
API #															
	rator Na	me:	l			Pro	perty N	lame	:			1		Well Number	
cod	G Opera	ating LLC)			Gre	een Be	eret l	-ede	ral C	om			704H	

KZ 06/29/2018

I. Operator: COG Operating LLC

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date: 09/14/2021

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

OGRID: 239137

-			_	
II. Type: ⊠ Origina	al Amendment due to 19	9.15.27.9.D(6)(a) NMAC [□ 19.15.27.9.D(6)(b) NMA	AC □ Other.
If Other, please descr	ribe:			
	the following information fo a single well pad or connecte			osed to be drilled or proposed to

Well Name	API	ULSTR	Footages	Anticipated	Anticipated	Anticipated
				Oil BBL/D	Gas MCF/D	Produced Water
						BBL/D
Green Beret Fed Com 603H	30-025-	C-20-25S-35E	470 FNL & 1665 FWL	± 2304	± 1085	± 3571
Green Beret Fed Com 703H	30-025-	C-20-25S-35E	515 FNL & 1635 FWL	± 1167	± 1356	± 2880
Green Beret Fed Com 704H	30-025-	C-20-25S-35E	470 FNL & 1635 FWL	± 1167	± 1356	± 2880
Green Beret Fed Com 705H	30-025-49410	C-20-25S-35E	515 FNL & 1605 FWL	± 934	± 1085	± 2304
Green Beret Fed Com 802H	30-025-	C-20-25S-35E	470 FNL & 1605	+ 881	± 3403	± 3571

- IV. Central Delivery Point Name: Green Beret Fed Com 20 B CTB 570 FNL & 2624 FWL 20-25S-35E [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
Green Beret Fed Com	30-025-49410	± 5/1/2022	± 5/25/2022	±9/1/2022	±10/1/2022	±10/1/2022
603H, 703H, 704H, 705H, 802H						

- VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.
- 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 <u>EFFECTIVE APRIL 1, 2022</u>

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	Available Maximum Daily Capacity
			Start Date	of System Segment Tie-in

XI. Map. \square 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	\square will \square will not have	capacity to gather 100%	of the anticipated natural gas
production volume from the well prior to the date of first	st production.		

XIII. Line Pressure. Operator \square does \square does not anticipate	that its existing well(s) co	onnected to the same segment,	or portion, o	of the
natural gas gathering system(s) described above will continue	to meet anticipated increa	ases in line pressure caused by	the new wel	ll(s).

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

XIV. Confidentiality: \square Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provides	ded 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 of the	nation
for which confidentiality is asserted and the basis for such assertion.	

(h) (i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

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; power generation for grid; **(b)** (c) compression on lease; (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery;

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

fuel cell production; and

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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

Signature: Stan Wagn
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 09/14/2021
Phone: 432-253-9685
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

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
- 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

Additional Operator Remarks

Location of Well

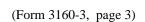
0. SHL: NENW / 515 FNL / 1605 FWL / TWSP: 25S / RANGE: 35E / SECTION: 20 / LAT: 32.121726 / LONG: -103.392911 (TVD: 0 feet, MD: 0 feet) PPP: NWNW / 100 FNL / 660 FWL / TWSP: 25S / RANGE: 35E / SECTION: 20 / LAT: 32.122869 / LONG: -103.395964 (TVD: 0 feet, MD: 0 feet) BHL: SWNW / 2590 FNL / 660 FWL / TWSP: 25S / RANGE: 35E / SECTION: 29 / LAT: 32.10151 / LONG: -103.395942 (TVD: 0 feet, MD: 0 feet)

BLM Point of Contact

Name: Deborah Ham

Title: Legal Landlaw Examiner

Phone: (575) 234-5965 Email: dham@blm.gov



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | COG

LEASE NO.: NMNM132951

LOCATION: Section 20, T.25 S., R.35 E., NMPM

COUNTY: Lea County, New Mexico

WELL NAME & NO.: Gre

Green Beret Fed Com 705H

SURFACE HOLE FOOTAGE: 51 BOTTOM HOLE FOOTAGE 25

515'/N & 1605'/W 2590'/N & 660'/W

COA

H2S	O Yes	⊙ No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	• Low	© Medium	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	Multibowl	© Both
Other	☐4 String Area	□ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	□ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 1170 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) 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.

- 3. The minimum required fill of cement behind the $5-1/2 \times 5$ inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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 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 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

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 CountyCall the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator 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
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
- BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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 intergrity 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-P 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 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:
 - 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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- e. 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.
 - a. 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 when specified), 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).
 - b. 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. 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.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. 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.
- 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.
- h. 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 Onshore Order No. 2.

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.

ZS061421

1. Geologic Formations

TVD of target	12,702' EOL	Pilot hole depth	NA
MD at TD:	20,157'	Deepest expected fresh water:	207'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1038	Water	
Top of Salt	1427	Salt	
Base of Salt	5139	Salt	
Lamar	5468	Salt Water	
Bell Canyon	5496	Salt Water	
Cherry Canyon	6431	Oil/Gas	
Brushy Canyon	8000	Oil/Gas	
Bone Spring Lime	9237	Oil/Gas	
1st Bone Spring Sand	10437	Oil/Gas	
2nd Bone Spring Sand	10962	Oil/Gas	
3rd Bone Spring Sand	12067	Oil/Gas	
Wolfcamp	12442	Target Oil/Gas	
Wolfcamp B	12802	Not Penetrated	

2. Casing Program

Hole Size	Casing	g Interval	Csg. Size	Weight	Grade	Conn.	SF	SF Burst	SF	SF
Tiole Size	From	То	Osg. Size	(lbs)	Grade	Com.	Collapse	3i Buist	Body	Joint
14.75"	0	1170	10.75"	45.5	N80	BTC	4.61	1.67	19.54	20.61
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.56	1.05	2.88	2.90
8.750''	8500	12100	7.625"	29.7	HCP110	TL-FJ	1.24	1.08	2.62	1.83
6.75"	0	11900	5.5"	23	P110	BTC	1.76	1.81	3.19	3.17
6.75"	11900	20,157	5"	18	P110	BTC	1.76	1.81	3.19	3.17
-				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 Onshore Oil and Gas Order #2 III.B.1.h

The 5" 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.

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

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/	H₂0 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	558	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
Suii.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	860	10.3	3.3	22	24	Halliburton tunded light
Stage 1	250	14.8	1.35	6.6	8	Tail: Class H
Prod	552	12.7	2	10.7	72	Lead: 50:50:10 H Blend
FIUU	1046	14.4	1.24	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 st Intermediate	0'	50%
Production	8,000'	35% OH in Lateral (KOP to EOL)

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		x	Tested to:				
			Ann	ular	Х	2500psi				
	13-5/8"	5M	E		Ram x		5000psi			
9-7/8"			Pipe Ram		Х					
							Double	e Ram	Х	5000psi
			Other*							
			5M Aı	nnular	Х	5000psi				
			Blind	Ram	Χ					
6-3/4"	13-5/8"	10M	13-5/8" 10M		Ram	Χ	10000pgi			
			Double	e Ram	Х	10000psi				
			Other*							

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 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.

	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 Onshore Oil and Gas Order #2 III.B.1.i.
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 Onshore Order #2 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.

5. Mud Program

	Depth	Туре	Weight	Viscosity	Water Loss	
From	То	туре	(ppg)	Viscosity	Water Loss	
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C	
Surf csg	9-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C	
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	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
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Υ	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.

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8260 psi at 12702' TVD
Abnormal Temperature	NO 180 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.

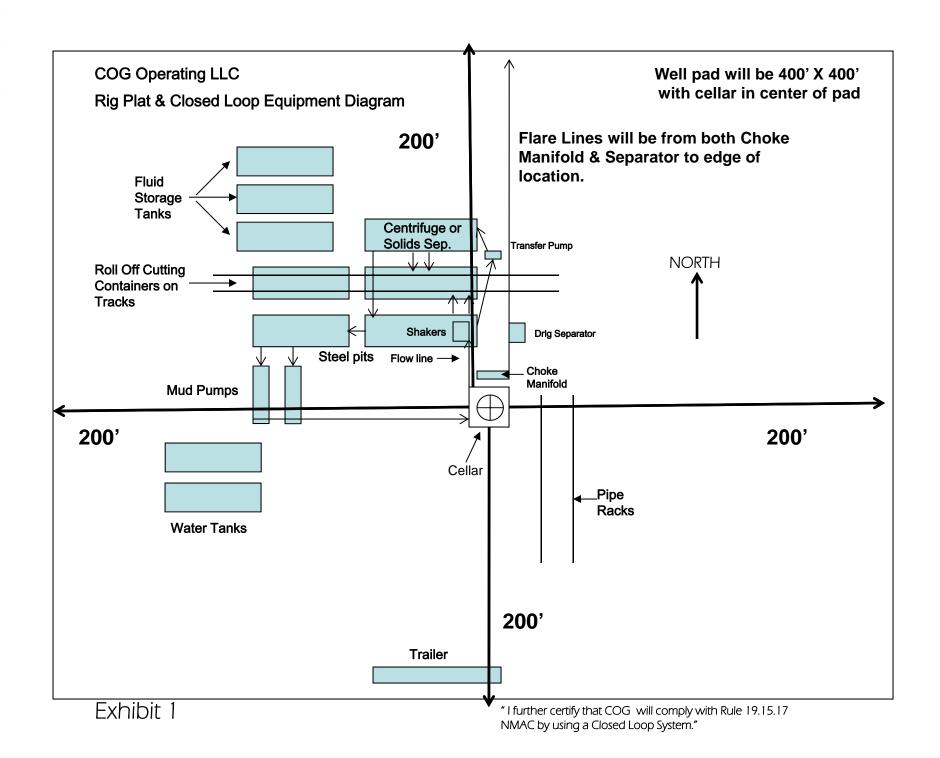
Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

х	H2S Plan.
х	BOP & Choke Schematics.
х	Directional Plan

Received by OCD: 9/14/2021 12:44:44 PM



DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
GREEN BERET FEDERAL PROJECT (BULLDOG 2535)
GREEN BERET FED COM #705H

OWB

Plan: PWP1

Standard Survey Report

04 January, 2021

Survey Report

Company: DELAWARE BASIN EAST Project: BULLDOG PROSPECT (NM-E) Site:

GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

Wellbore: **OWB** Design: PWP1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

North Reference: Grid

Survey Calculation Method:

Minimum Curvature

edm

Project BULLDOG PROSPECT (NM-E)

Map System: Geo Datum:

Map Zone:

US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Site GREEN BERET FEDERAL PROJECT (BULLDOG 2535)

Site Position: Northing: 409,770.71 usft Latitude: 32° 7' 22.767 N From: Мар Easting: 794,966.85 usft Longitude: 103° 22' 50.003 W **Position Uncertainty:** 3.0 usft Slot Radius: 13-3/16 " **Grid Convergence:** 0.51°

Well GREEN BERET FED COM #705H

0.0 usft **Well Position** +N/-S 409,232.40 usfl 32° 7' 17.760 N Northing: Latitude: +E/-W 0.0 usft 791,290.40 usft 103° 23' 32.804 W Easting: Longitude: **Position Uncertainty** 3.0 usft Wellhead Elevation: usf Ground Level: 3,307.3 usft

Wellbore **OWB** Field Strength Magnetics Model Name Sample Date Declination **Dip Angle** (°) (°) (nT) 47,498.44391173 **IGRF2020** 1/4/2021 6.51 59.85

Design PWP1

Audit Notes:

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

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 186.78

Survey Tool Program Date 1/4/2021 From To (usft) (usft) Survey (Wellbore) **Tool Name** Description 0.0 12,206.0 PWP1 (OWB) Standard Keeper 104 Standard Wireline Keeper ver 1.0.4 12,206.0 20,157.1 PWP1 (OWB) MWD+IFR1+FDIR OWSG MWD + IFR1 + FDIR Correction

Planned Survey Vertical Vertical Measured Dogleg Build Turn Depth Inclination Depth +E/-W Section Rate Rate Rate **Azimuth** +N/-S (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (usft) (usft) (°) (°) 0.0 0.0 0.0 0.0 0.00 0.00 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 0.00 0.00 0.0 0.0 0.00 700.0 0.00 0.00 700.0 0.00 0.0 0.0 0.0 0.00 0.00 800.0 0.008 0.00 0.00 0.00 0.0 0.0 0.0 0.00 0.00

Survey Report

Company: DELAWARE BASIN EAST

Project: BULLDOG PROSPECT (NM-E)
Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

Grid

Minimum Curvature

Jesigii		/F I			Database	•		sum .		
Planne	d 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)
	900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
	2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
	2,100.0	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		000.04	0.000.0	0.7	4.0	0.5	0.00	0.00	0.00
	2,600.0	2.00	293.24	2,600.0	0.7	-1.6	-0.5	2.00	2.00	0.00
	2,700.0	4.00 0 hold at 2700	293.24	2,699.8	2.8	-6.4	-2.0	2.00	2.00	0.00
	2,800.0	4.00	293.24	2,799.6	5.5	-12.8	-4.0	0.00	0.00	0.00
	2,800.0	4.00	293.24	2,799.6	8.3	-12.6 -19.2	-4.0 -5.9	0.00	0.00	0.00
	3,000.0	4.00	293.24	2,999.1	11.0	-25.6	-7.9	0.00	0.00	0.00
	3,100.0	4.00	293.24	3,098.9	13.8	-32.1	-9.9	0.00	0.00	0.00
	3,200.0	4.00	293.24	3,198.6	16.5	-38.5	-11.9	0.00	0.00	0.00
	3,300.0	4.00	293.24	3,298.4	19.3	-44.9	-13.8	0.00	0.00	0.00
	3,400.0	4.00	293.24	3,398.1	22.0	-51.3	-15.8	0.00	0.00	0.00
	3,500.0	4.00	293.24	3,497.9	24.8	-57.7	-17.8	0.00	0.00	0.00
	3,600.0	4.00	293.24	3,597.6	27.5	-64.1	-19.8	0.00	0.00	0.00
	3,700.0	4.00	293.24	3,697.4	30.3	-70.5	-21.7	0.00	0.00	0.00
	3,800.0	4.00	293.24	3,797.2	33.0	-76.9	-23.7	0.00	0.00	0.00
	3,900.0	4.00	293.24	3,896.9	35.8	-83.3	-25.7	0.00	0.00	0.00
	4,000.0	4.00	293.24	3,996.7	38.5	-89.7	-27.7	0.00	0.00	0.00
	4,100.0	4.00	293.24	4,096.4	41.3	-96.2	-29.6	0.00	0.00	0.00
	4,200.0	4.00	293.24	4,196.2	44.0	-102.6	-31.6	0.00	0.00	0.00
	4,300.0	4.00	293.24	4,295.9	46.8	-109.0	-33.6	0.00	0.00	0.00
	4,400.0	4.00	293.24	4,395.7	49.5	-115.4	-35.6	0.00	0.00	0.00
	4,500.0	4.00	293.24	4,495.5	52.3	-121.8	-37.6	0.00	0.00	0.00
	4,600.0	4.00	293.24	4,595.2	55.0	-128.2	-39.5	0.00	0.00	0.00
	4,700.0	4.00	293.24	4,695.0	57.8	-134.6	-41.5	0.00	0.00	0.00
	4,800.0	4.00	293.24	4,794.7	60.5	-141.0	-43.5	0.00	0.00	0.00
	4,900.0	4.00	293.24	4,894.5	63.3	-147.4	-45.5	0.00	0.00	0.00

Survey Report

Company: DELAWARE BASIN EAST

Project: BULLDOG PROSPECT (NM-E)
Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

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Wellbore: OWB
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Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

Grid

Minimum Curvature

r v	VFI			Database	•		eum		
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)
5,000.0	4.00	293.24	4,994.2	66.0	-153.8	-47.4	0.00	0.00	0.00
5,100.0	4.00	293.24	5,094.0	68.8	-160.2	-49.4	0.00	0.00	0.00
5,200.0	4.00	293.24	5,193.7	71.6	-166.7	-51.4	0.00	0.00	0.00
5,300.0	4.00	293.24	5,293.5	74.3	-173.1	-53.4	0.00	0.00	0.00
5,400.0	4.00	293.24	5,393.3	77.1	-179.5	-55.3	0.00	0.00	0.00
5,500.0	4.00	293.24	5,493.0	79.8	-185.9	-57.3	0.00	0.00	0.00
5,600.0	4.00	293.24	5,592.8	82.6	-192.3	-59.3	0.00	0.00	0.00
5,700.0	4.00	293.24	5,692.5	85.3	-198.7	-61.3	0.00	0.00	0.00
5,800.0	4.00	293.24	5,792.3	88.1	-205.1	-63.2	0.00	0.00	0.00
5,900.0	4.00	293.24	5,892.0	90.8	-211.5	-65.2	0.00	0.00	0.00
6,000.0	4.00	293.24	5,991.8	93.6	-217.9	-67.2	0.00	0.00	0.00
6,100.0	4.00	293.24	6,091.6	96.3	-224.3	-69.2	0.00	0.00	0.00
6,200.0	4.00	293.24	6,191.3	99.1	-230.8	-71.2	0.00	0.00	0.00
6,300.0	4.00	293.24	6,291.1	101.8	-237.2	-73.1	0.00	0.00	0.00
6,400.0	4.00	293.24	6,390.8	104.6	-243.6	-75.1	0.00	0.00	0.00
6,500.0	4.00	293.24	6,490.6	107.3	-250.0	-77.1	0.00	0.00	0.00
6,600.0	4.00	293.24	6,590.3	110.1	-256.4	-79.1	0.00	0.00	0.00
6,700.0	4.00	293.24	6,690.1	112.8	-262.8	-81.0	0.00	0.00	0.00
6,800.0	4.00	293.24	6,789.9	115.6	-269.2	-83.0	0.00	0.00	0.00
6,900.0	4.00	293.24	6,889.6	118.3	-275.6	-85.0	0.00	0.00	0.00
7,000.0	4.00	293.24	6,989.4	121.1	-282.0	-87.0	0.00	0.00	0.00
7,100.0	4.00	293.24	7,089.1	123.8	-288.4	-88.9	0.00	0.00	0.00
7,200.0	4.00	293.24	7,188.9	126.6	-294.9	-90.9	0.00	0.00	0.00
7,300.0	4.00	293.24	7,288.6	129.3	-301.3	-92.9	0.00	0.00	0.00
7,400.0	4.00	293.24	7,388.4	132.1	-307.7	-94.9	0.00	0.00	0.00
7,500.0	4.00	293.24	7,488.1	134.8	-314.1	-96.8	0.00	0.00	0.00
7,600.0	4.00	293.24	7,587.9	137.6	-320.5	-98.8	0.00	0.00	0.00
7,700.0	4.00	293.24	7,687.7	140.4	-326.9	-100.8	0.00	0.00	0.00
7,800.0	4.00	293.24	7,787.4	143.1	-333.3	-102.8	0.00	0.00	0.00
7,900.0	4.00	293.24	7,887.2	145.9	-339.7	-104.8	0.00	0.00	0.00
8,000.0	4.00	293.24	7,986.9	148.6	-346.1	-106.7	0.00	0.00	0.00
8,100.0	4.00	293.24	8,086.7	151.4	-352.5	-108.7	0.00	0.00	0.00
8,200.0	4.00	293.24	8,186.4	154.1	-359.0	-110.7	0.00	0.00	0.00
8,300.0	4.00	293.24	8,286.2	156.9	-365.4	-112.7	0.00	0.00	0.00
8,400.0	4.00	293.24	8,386.0	159.6	-371.8	-114.6	0.00	0.00	0.00
8,500.0	4.00	293.24	8,485.7	162.4	-378.2	-116.6	0.00	0.00	0.00
8,600.0	4.00	293.24	8,585.5	165.1	-384.6	-118.6	0.00	0.00	0.00
8,700.0	4.00	293.24	8,685.2	167.9	-391.0	-120.6	0.00	0.00	0.00
8,800.0	4.00	293.24	8,785.0	170.6	-397.4	-122.5	0.00	0.00	0.00
8,900.0	4.00	293.24	8,884.7	173.4	-403.8	-124.5	0.00	0.00	0.00
9,000.0	4.00	293.24	8,984.5	176.1	-410.2	-126.5	0.00	0.00	0.00
9,100.0	4.00	293.24	9,084.2	178.9	-416.6	-128.5	0.00	0.00	0.00

Survey Report

Company: DELAWARE BASIN EAST

Project: BULLDOG PROSPECT (NM-E)
Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

Grid

Minimum Curvature

esigii.				Database			cuiii		
anned 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)
9,200.0	4.00	293.24	9,184.0	181.6	-423.1	-130.4	0.00	0.00	0.00
9,300.0	4.00	293.24	9,283.8	184.4	- 429.5	-132.4	0.00	0.00	0.00
9,400.0	4.00	293.24	9,383.5	187.1	-435.9	-134.4	0.00	0.00	0.00
9,500.0	4.00	293.24	9,483.3	189.9	-442.3	-136.4	0.00	0.00	0.00
9,600.0	4.00	293.24	9,583.0	192.6	-448.7	-138.4	0.00	0.00	0.00
9,700.0	4.00	293.24	9,682.8	195.4	-455.1	-140.3	0.00	0.00	0.00
9,800.0	4.00	293.24	9,782.5	198.1	-461.5	-142.3	0.00	0.00	0.00
9,900.0	4.00	293.24	9,882.3	200.9	-467.9	-144.3	0.00	0.00	0.00
10,000.0	4.00	293.24	9,982.1	203.6	-474.3	-146.3	0.00	0.00	0.00
10,100.0	4.00	293.24	10,081.8	206.4	-480.7	-148.2	0.00	0.00	0.00
10,200.0	4.00	293.24	10,181.6	209.2	-487.2	-150.2	0.00	0.00	0.00
10,300.0	4.00	293.24	10,281.3	211.9	-493.6	-152.2	0.00	0.00	0.00
10,400.0	4.00	293.24	10,381.1	214.7	-500.0	-154.2	0.00	0.00	0.00
10,500.0	4.00	293.24	10,480.8	217.4	-506.4	-156.1	0.00	0.00	0.00
10,600.0	4.00	293.24	10,580.6	220.2	-512.8	-158.1	0.00	0.00	0.00
10,700.0	4.00	293.24	10,680.3	222.9	-512.0	-160.1	0.00	0.00	0.00
10,800.0	4.00	293.24	10,080.3	225.7	-519.2 -525.6	-162.1	0.00	0.00	0.00
10,800.0	4.00	293.24	10,780.1	228.4	-525.0 -532.0	-162.1 -164.0	0.00	0.00	0.00
11,000.0	4.00	293.24	10,979.6	231.2	-538.4	-166.0	0.00	0.00	0.00
11,100.0	4.00	293.24	11,079.4	233.9	-544.8	-168.0	0.00	0.00	0.00
11,200.0	4.00	293.24	11,179.1	236.7	-551.3	-170.0	0.00	0.00	0.00
		293.24					0.00	0.00	
11,300.0	4.00		11,278.9	239.4	-557.7	-172.0			0.00
11,400.0	4.00	293.24	11,378.6	242.2	-564.1	-173.9	0.00	0.00	0.00
11,500.0	4.00	293.24	11,478.4	244.9	- 570.5	-175.9	0.00	0.00	0.00
11,600.0	4.00	293.24	11,578.2	247.7	-576.9	-177.9	0.00	0.00	0.00
11,700.0	4.00	293.24	11,677.9	250.4	-583.3	-179.9	0.00	0.00	0.00
11,800.0	4.00	293.24	11,777.7	253.2	-589.7	-181.8	0.00	0.00	0.00
11,900.0	4.00	293.24	11,877.4	255.9	-596.1	-183.8	0.00	0.00	0.00
12,000.0	4.00	293.24	11,977.2	258.7	-602.5	-185.8	0.00	0.00	0.00
12,100.0	4.00	293.24	12,076.9	261.4	-608.9	-187.8	0.00	0.00	0.00
12,200.0	4.00	293.24	12,176.7	264.2	-615.3	-189.7	0.00	0.00	0.00
12,206.0	4.00	293.24	12,182.7	264.4	-615.7	-189.9	0.00	0.00	0.00
	12.00 TFO -95.								
12,300.0	11.61	217.79	12,275.9	258.2	-624.6	-182.7	12.00	8.09	-80.27
12,400.0	23.24	207.31	12,371.2	232.6	-639.8	-155.5	12.00	11.63	-10.48
12,500.0	35.11	203.66	12,458.3	188.6	-660.5	-109.3	12.00	11.87	-3.65
12,600.0	47.04	201.70	12,533.6	128.0	-685.7	-46.2	12.00	11.93	-1.97
12,700.0	58.99	200.38	12,593.6	53.6	-714.2	31.1	12.00	11.95	-1.32
12,800.0	70.96	199.35	12,635.9	-31.5	-744.9	119.2	12.00	11.96	-1.02
12,900.0	82.93	198.47	12,658.4	-123.5	-776.4	214.3	12.00	11.97	-0.88
12,956.4	89.68	198.00	12,662.0	-176.9	-794.0	269.4	12.00	11.97	-0.84
	2.00 TFO -90.0		,						
13,000.0	89.68	197.13	12,662.3	-218.5	-807.2	312.2	2.00	0.00	-2.00

Survey Report

Company: **DELAWARE BASIN EAST**

Project: BULLDOG PROSPECT (NM-E) Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

OWB Wellbore: Design: PWP1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

Grid

Minimum Curvature

Desig.										
Planne	ed 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)
	13,100.0	89.68	195.13	12,662.9	-314.6	-835.0	410.9	2.00	0.00	-2.00
	13,200.0	89.68	193.13	12,663.4	-411.5	-859.4	510.1	2.00	0.00	-2.00
	13,300.0	89.68	191.13	12,664.0	-509.3	-880.4	609.6	2.00	0.00	-2.00
	13,400.0	89.68	189.13	12,664.5	-607.7	-898.0	709.4	2.00	0.00	-2.00
	13,500.0	89.68	187.13	12,665.1	-706.7	-912.1	809.4	2.00	0.00	-2.00
	13,600.0	89.68	185.13	12,665.7	-806.1	-922.8	909.4	2.00	0.00	-2.00
	13,700.0	89.68	183.13	12,666.2	-905.9	-930.0	1,009.3	2.00	0.00	-2.00
	13,800.0	89.68	181.13	12,666.8	-1,005.8	-933.7	1,108.9	2.00	0.00	-2.00
	13,883.5	89.68	179.46	12,667.3	-1,089.3	-934.1	1,191.9	2.00	0.00	-2.00
	Start 6273.	.6 hold at 1388	3.5 MD							
	13,900.0	89.68	179.46	12,667.3	-1,105.8	-933.9	1,208.3	0.00	0.00	0.00
	14,000.0	89.68	179.46	12,667.9	-1,205.8	-933.0	1,307.5	0.00	0.00	0.00
	14,100.0	89.68	179.46	12,668.4	-1,305.8	-932.1	1,406.6	0.00	0.00	0.00
	14,200.0	89.68	179.46	12,669.0	-1,405.8	-931.1	1,505.8	0.00	0.00	0.00
	14,300.0	89.68	179.46	12,669.6	-1,505.8	-930.2	1,605.0	0.00	0.00	0.00
	14,400.0	89.68	179.46	12,670.1	-1,605.8	-929.2	1,704.2	0.00	0.00	0.00
	14,500.0	89.68	179.46	12,670.7	-1,705.8	-928.3	1,803.4	0.00	0.00	0.00
	14,600.0	89.68	179.46	12,671.2	-1,805.8	-927.3	1,902.6	0.00	0.00	0.00
	14,700.0	89.68	179.46	12,671.8	-1,905.7	-926.4	2,001.7	0.00	0.00	0.00
	14,800.0	89.68	179.46	12,672.3	-2,005.7	-925.4	2,100.9	0.00	0.00	0.00
	14,900.0	89.68	179.46	12,672.9	-2,105.7	-924.5	2,200.1	0.00	0.00	0.00
	15,000.0	89.68	179.46	12,673.4	-2,205.7	-923.5	2,299.3	0.00	0.00	0.00
	15,100.0	89.68	179.46	12,674.0	-2,305.7	-922.6	2,398.5	0.00	0.00	0.00
	15,200.0	89.68	179.46	12,674.5	-2,405.7	-921.7	2,497.7	0.00	0.00	0.00
	15,300.0	89.68	179.46	12,675.1	-2,505.7	-920.7	2,596.8	0.00	0.00	0.00
	15,400.0	89.68	179.46	12,675.7	-2,605.7	-919.8	2,696.0	0.00	0.00	0.00
	15,500.0	89.68	179.46	12,676.2	-2,705.7	-918.8	2,795.2	0.00	0.00	0.00
	15,600.0	89.68	179.46	12,676.8	-2,805.7	-917.9	2,894.4	0.00	0.00	0.00
	15,700.0	89.68	179.46	12,677.3	-2,905.7	-916.9	2,993.6	0.00	0.00	0.00
	15,800.0	89.68	179.46	12,677.9	-3,005.7	-916.0	3,092.8	0.00	0.00	0.00
	15,900.0	89.68	179.46	12,678.4	-3,105.7	-915.0	3,191.9	0.00	0.00	0.00
	16,000.0	89.68	179.46	12,679.0	-3,205.7	-914.1	3,291.1	0.00	0.00	0.00
	16,100.0	89.68	179.46	12,679.5	-3,305.7	-913.2	3,390.3	0.00	0.00	0.00
	16,200.0	89.68	179.46	12,680.1	-3,405.7	-912.2	3,489.5	0.00	0.00	0.00
	16,300.0	89.68	179.46	12,680.6	-3,505.7	-911.3	3,588.7	0.00	0.00	0.00
	16,400.0	89.68	179.46	12,681.2	-3,605.6	-910.3	3,687.9	0.00	0.00	0.00
	16,500.0	89.68	179.46	12,681.7	-3,705.6	-909.4	3,787.1	0.00	0.00	0.00
	16,600.0	89.68	179.46	12,682.3	-3,805.6	-908.4	3,886.2	0.00	0.00	0.00
	16,700.0	89.68	179.46	12,682.9	-3,905.6	-907.5	3,985.4	0.00	0.00	0.00
	16,800.0	89.68	179.46	12,683.4	-4,005.6	-906.5	4,084.6	0.00	0.00	0.00
	16,900.0	89.68	179.46	12,684.0	-4,005.6	-905.6	4,183.8	0.00	0.00	0.00
	17,000.0	89.68	179.46	12,684.5	-4,105.6 -4,205.6	-904.6	4,283.0	0.00	0.00	0.00
	17,000.0	89.68	179.46	12,685.1	-4,205.6	-904.0	4,382.2	0.00	0.00	0.00
	17,100.0	09.00	173.40	12,000.1	-4,505.0	-803.7	4 ,30∠.∠	0.00	0.00	0.00

Survey Report

Company: DELAWARE BASIN EAST

Project: BULLDOG PROSPECT (NM-E)
Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

Wellbore: OWB
Design: PWP1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

Grid

Minimum Curvature

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)
17,200.0	89.68	179.46	12,685.6	-4,405.6	-902.8	4,481.3	0.00	0.00	0.00
17,300.0	89.68	179.46	12,686.2	-4,505.6	-901.8	4,580.5	0.00	0.00	0.00
17,400.0	89.68	179.46	12,686.7	-4,605.6	-900.9	4,679.7	0.00	0.00	0.00
17,500.0	89.68	179.46	12,687.3	-4,705.6	-899.9	4,778.9	0.00	0.00	0.00
17,600.0	89.68	179.46	12,687.8	-4,805.6	-899.0	4,878.1	0.00	0.00	0.00
17,700.0	89.68	179.46	12,688.4	-4,905.6	-898.0	4,977.3	0.00	0.00	0.00
17,800.0	89.68	179.46	12,688.9	-5,005.6	-897.1	5,076.4	0.00	0.00	0.00
17,900.0	89.68	179.46	12,689.5	-5,105.6	-896.1	5,175.6	0.00	0.00	0.00
18,000.0	89.68	179.46	12,690.1	-5,205.6	-895.2	5,274.8	0.00	0.00	0.00
18,100.0	89.68	179.46	12,690.6	-5,305.5	-894.2	5,374.0	0.00	0.00	0.00
18,200.0	89.68	179.46	12,691.2	-5,405.5	-893.3	5,473.2	0.00	0.00	0.00
18,300.0	89.68	179.46	12,691.7	-5,505.5	-892.4	5,572.4	0.00	0.00	0.00
18,400.0	89.68	179.46	12,692.3	-5,605.5	-891.4	5,671.5	0.00	0.00	0.00
18,500.0	89.68	179.46	12,692.8	-5,705.5	-890.5	5,770.7	0.00	0.00	0.00
18,600.0	89.68	179.46	12,693.4	-5,805.5	-889.5	5,869.9	0.00	0.00	0.00
18,700.0	89.68	179.46	12,693.9	-5,905.5 -888	-888.6	-888.6 5,969.1	0.00	0.00	0.00
18,800.0	89.68	179.46	12,694.5	-6,005.5	-887.6	6,068.3	0.00	0.00	0.00
18,900.0	89.68	179.46	12,695.0	-6,105.5	-886.7	6,167.5	0.00	0.00	0.00
19,000.0	89.68	179.46	12,695.6	-6,205.5	-885.7	6,266.7	0.00	0.00	0.00
19,100.0	89.68	179.46	12,696.1	-6,305.5	-884.8	6,365.8	0.00	0.00	0.00
19,200.0	89.68	179.46	12,696.7	-6,405.5	-883.8	6,465.0	0.00	0.00	0.00
19,300.0	89.68	179.46	12,697.3	-6,505.5	-882.9	6,564.2	0.00	0.00	0.00
19,400.0	89.68	179.46	12,697.8	-6,605.5	-882.0	6,663.4	0.00	0.00	0.00
19,500.0	89.68	179.46	12,698.4	-6,705.5	-881.0	6,762.6	0.00	0.00	0.00
19,600.0	89.68	179.46	12,698.9	-6,805.5	-880.1	6,861.8	0.00	0.00	0.00
19,700.0	89.68	179.46	12,699.5	-6,905.4	-879.1	6,960.9	0.00	0.00	0.00
19,800.0	89.68	179.46	12,700.0	-7,005.4	-878.2	7,060.1	0.00	0.00	0.00
19,900.0	89.68	179.46	12,700.6	-7,105.4	-877.2	7,159.3	0.00	0.00	0.00
20,000.0	89.68	179.46	12,701.1	-7,205.4	-876.3	7,258.5	0.00	0.00	0.00
20,100.0	89.68	179.46	12,701.7	-7,305.4	-875.3	7,357.7	0.00	0.00	0.00
20,157.1	89.68	179.46	12,702.0	-7,362.5	-874.8	7,414.3	0.00	0.00	0.00

Survey Report

Company: **DELAWARE BASIN EAST** Project: BULLDOG PROSPECT (NM-E)

Site: GREEN BERET FEDERAL PROJECT

(BULLDOG 2535)

Well: GREEN BERET FED COM #705H

Wellbore: OWB PWP1

Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference:

Database:

Well GREEN BERET FED COM #705H

KB=26' @ 3333.3usft (MCVAY 8) KB=26' @ 3333.3usft (MCVAY 8)

North Reference: Grid

Survey Calculation Method:

Minimum Curvature

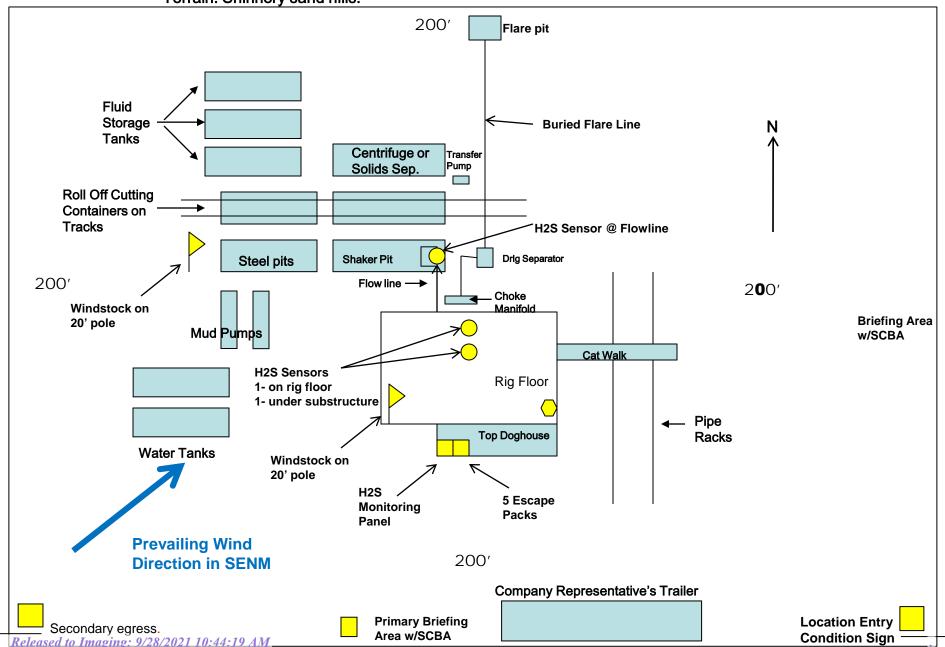
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (GREEN BERET - plan misses targ - Circle (radius 50	et center by		12,662.0 t 12593.6u	407.4 sft MD (1252	-948.9 9.2 TVD, 13	409,639.80 2.3 N, -684.0 E)	790,341.49	32° 7' 21.874 N	103° 23' 43.795 W
LTP (GREEN BERET - plan misses targ - Point			12,702.0 0100.0usft	-7,312.5 MD (12701.7	-875.2 7 TVD, -730	401,919.90 5.4 N, -875.3 E)	790,415.20	32° 6' 5.477 N	103° 23' 43.719 W
PBHL (GREEN BERE - plan hits target of - Rectangle (sides	center		12,702.0	-7,362.5	-874.8	401,869.90	790,415.60	32° 6' 4.982 N	103° 23' 43.720 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coord +N/-S (usft)	dinates +E/-W (usft)	Comment
2500	2500	0	0	Start Build 2.00
2700	2700	3	-6	Start 9506.0 hold at 2700.0 MD
12,206	12,183	264	-616	Start DLS 12.00 TFO -95.25
12,956	12,662	-177	-794	Start DLS 2.00 TFO -90.04
13,883	12,667	-1089	-934	Start 6273.6 hold at 13883.5 MD
20,157	12,702	-7363	-875	TD at 20157.1

Checked By:	Approved By:	Date:	
1			

Received by OCD: 9/14/2021 12:44:44 PM Project: BULLDOG PROSPECT (NM-E) Site: GREEN BERET FEDERAL PROJECT (BULLDOG 2535) Well: GREEN BERET FED COM #705H Wellbore: OWB CONCHO Design: PWP1 ĞL: 3307.3 KB=26' @ 3333.3usft (MCVAY 8) WELL DETAILS: GREEN BERET FED COM #705H +E/-W **Easting** Longitude 409232.40 791290.40 32° 7' 17.760 N 103° 23' 32.804 W 0.0 LEASE LINE FTP (GREEN BERET FED COM #705H) **DESIGN TARGET DETAILS** -200 +E/-W Northing Latitude Longitude Easting **Azimuths to Grid Nortl** GULF FEDERAL #1/AWP -948.9 409639.8**0** 790341.5**0** 32° 7' 21.874 N 103° 23' 43.795 W FTP (GREEN BERET FED COM #705H) True North: -0.50 125 LTP (GREEN BERET FED COM #705H) -875.2 401919.90 790415.20 103° 23' 43.719 W 32° 6' 5.477 N Magnetic North: 6.01 PBHL (GREEN BERET FED COM #705H) 12702.0 -7362.5 -874.8 401869.90 790415.60 103° 23' 43.720 W 32° 6' 4.982 N 200 Magnetic Fiel 400 Strength: 47498.4n Dip Angle: 59.85 Date: 1/4/202 600 Model: IGRF202 8.00 800 1000 1200 1400 Advise and Monitor Stop Drilling Now **1600** $\overline{}$ 1800 12145 12163 12180 12182.7 Start DLS 12.00 TFO -95.25 Start Build 2.00 2400 2500.0 **2600** 2699.8 Start 9506.0 hold at 2700.0 MD 2800 12233 12285 12303 **GREEN BERET FED COM #705H** 12355 4200 **Annotation** 4400-Start Build 2.00 Start 9506.0 hold at 2700.0 MD 0.00 0.00 -189.9 Start DLS 12.00 TFO -95.25 Start DLS 2.00 TFO -90.04 89.68 179.46 12667.3 -1089.3 Start 6273.6 hold at 13883.5 MD 89.68 179.46 12702.0 -7362.5 0.00 0.00 7414.3 TD at 20157.1 12478-12548-Start DLS 2.00 TFO -90.04 12670 -245 -228 -210 -193 -175 -158 -140 -123 -105 -88 -70 -53 -35 -18 0 18 35 53 70 88 105 123 140 158 175 193 210 228 245 263 280 298 315 333 350 368 385 403 420 438 455 473 490 **675**⁻ FTP (GREEN BERET FED COM #705H) LEASE LINE **525**-ARD LINE: 100' FN GREEN BERET FED COM #703H GREEN BERET ED COM #705H GREEN BERET FED COM #703H 1400 1600-LTP (GREEN BERET FED COM #705H HARD LINE: 2540' FNL P (GREEN BERET PED COM #705H TD at 20157.1 PBHL (GREEN BERET FED COM #705H) PBHL (GREEN BERET FED COM #705H) GREEN BERET FED COM #705H/PWPGREEN BERET FED COM #802H/PWPG GREEN BERET FED COM #704H/PWP1 GREEN BERET FED COM #603H/PWP1 GREEN BERET FED COM #704H/PWP1 GREEN BERET FED COM #705H/PWP -1625-1500-1375-1250-1125-1000 -875 -750 -625 -500 -375 -250 -125 0 125 250 375 500 625 750 875 1000 1125 1250 1375 Start DLS 12.00 TFO -95.25 -1200-1125-1050 -975 -900 -825 -750 -675 -600 -525 -450 -375 -300 -225 -150 -75 0 75 150 225 300 <u>-1050 -975 -900 -825 -750 -675 -600 -525 -450 -375 -300 -225 -150 -75 0 75 150 -225 3</u>00 West(-)/East(+) (150 usft/in) £12300-2375 <u>ක</u>2450-TRGT WNDW: ₹12525-Start DLS 2.00 TFO -90.04 LTP (GREEN BERET FED COM #705H) PBHL (GREEN BERET FED COM #705H 10 A/B Start 6273.6 hold at 13883.5 MD <u>2</u>12600-TD at 20157. FTP (GREEN BERET FED COM #705H) GREEN BERET FED COM #705H/PWP1 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 Vertical Section at 186.78° (200 usft/in)

H₂S Equipment Schematic Terrain: Shinnery sand hills.



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 (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S 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 H₂S 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. <u>H₂S SAFETY EQUIPMENT AND SYSTEMS</u>

Note: All H₂S 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.

WARNING

YOU ARE ENTERING AN H₂S 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

	<u>OFFICE</u>	<u>MOBILE</u>
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

	<u>OFFICE</u>
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

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 48600

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	48600
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created	Condition	Condition
Ву		Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/28/2021
	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	9/28/2021
	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	9/28/2021
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	9/28/2021