Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM031649

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.
ALTHEA 18 FED
762H

2. Name of Operator
MEWBOURNE OIL COMPANY

9. API Well No.
30-015-53491

3a. Address
P O BOX 5270, HOBBS, NM 88241

3b. Phone No. *(include area code)*
(575) 393-5905

10. Field and Pool, or Exploratory
~~BOBCAT DRAW~~;/PURPLE SAGE; WOLF

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

At surface TR O / 485 FSL / 1511 FEL / LAT 32.036526 / LONG -103.916914

At proposed prod. zone TR I / 2430 FSL / 1310 FEL / LAT 32.056485 / LONG -103.916235

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 18/T26S/R30E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
230 feet

16. No of acres in lease

17. Spacing Unit dedicated to this well
480.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
15 feet

19. Proposed Depth
11470 feet / 18986 feet

20. BLM/BIA Bond No. in file
FED:

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3099 feet

22. Approximate date work will start*
03/01/2021

23. Estimated duration
25 days

24. Attachments

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

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

25. Signature
(Electronic Submission)

Name *(Printed/Typed)*
STAR HARRELL / Ph: (575) 393-5905

Date
09/03/2020

Title
Regulatory Specialist

Approved by *(Signature)*
(Electronic Submission)

Name *(Printed/Typed)*
CODY LAYTON / Ph: (575) 234-5959

Date
01/25/2023

Title
Assistant Field Manager Lands & Minerals

Office
Carlsbad Field Office

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

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

(Continued on page 2)

APPROVED WITH CONDITIONS

Approval Date: 01/25/2023

*(Instructions on page 2)

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
30-015- 53491	98220	Purple Sage; Wolfcamp (Gas)

Property Code	Property Name	Well Number
333828	ALTHEA 18 FED	762H

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3099'

Surface Location

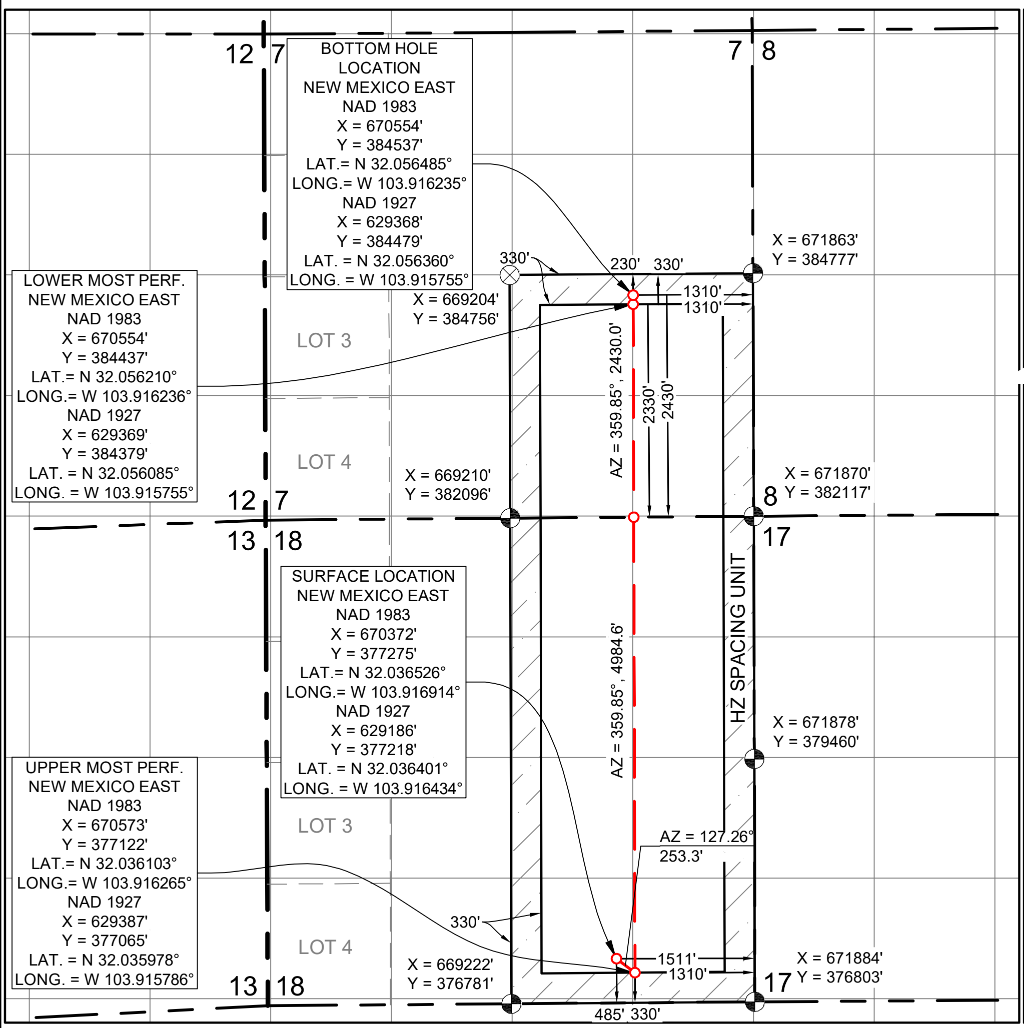
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	18	26 S	30 E		485	SOUTH	1511	EAST	EDDY

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
I	7	26 S	30 E		2430	SOUTH	1310	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
480.00			

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

Bradley C Bishop 2-28-23

Signature Date

BRADLEY BISHOP

Print Name

BBISHOP@MEWBOURNE.COM

E-mail Address

SURVEYORS CERTIFICATION

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

MAY 14, 2020

Date of Survey

07/02/20

Signature and Seal of Professional Surveyor:

CASEY WAYNE FAIRCLOTH
NEW MEXICO
21051
PROFESSIONAL SURVEYOR

Job No.: EOG_190035

CASEY WAYNE FAIRCLOTH, N.M.P.L.S.

Certificate Number 21051

\\agafs\projects\EOG_B190035\PROD\C102_Wellsite\0-Althea 18 Fed C102 Wellsite 762H.dwg KBRUCE 5/27/2020 8:51 PM

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: Mewbourne Oil Co. **OGRID:** 14744 **Date:** 5/2/22

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
Althea 18 Fed 762H		P 18 26S 30E	485' FSL x 1511' FEL	1500	5000	4000

IV. Central Delivery Point Name: Althea 18 Fed 762H [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
Althea 18 Fed 762H		7/2/22	8/2/22	9/2/22	9/17/22	9/17/22

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	Bradley Bishop
Printed Name:	BRADLEY BISHOP
Title:	REGULATORY MANAGER
E-mail Address:	BBISHOP@MEWBOURNE.COM
Date:	5/2/22
Phone:	575-393-5905

OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Mewbourne Oil Company

Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.

VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8 :

A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.

B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.

C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.

D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.

E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressureventing and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows thediversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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

Drilling Plan Data Report

02/10/2023

APD ID: 10400061247

Submission Date: 09/03/2020

Highlighted data reflects the most recent changes

Show Final Text

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED

Well Number: 762H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
850055	PERMIAN	3099	0	0	ALLUVIUM	NONE	N
850056	RUSTLER	2062	1037	1037	ANHYDRITE	NONE	N
850057	TOP SALT	1435	1664	1664	SALT	NONE	N
850059	BASE OF SALT	-70	3169	3169	SALT	NONE	N
850060	LAMAR	-265	3364	3364	LIMESTONE	NONE	N
850061	BELL CANYON	-293	3392	3392	SANDSTONE	NATURAL GAS, OIL	N
850062	CHERRY CANYON	-1242	4341	4341	SANDSTONE	NATURAL GAS, OIL	N
850063	BRUSHY CANYON	-2667	5766	5766	SANDSTONE	NATURAL GAS, OIL	N
850058	BONE SPRING LIME	-4111	7210	7210	LIMESTONE	NONE	N
850068	FIRST BONE SPRING SAND	-5024	8123	8123	SANDSTONE	NONE	N
850070	BONE SPRING 2ND	-5751	8850	8850	SANDSTONE	NONE	N
850071	BONE SPRING 3RD	-6691	9790	9790	SANDSTONE	NATURAL GAS, OIL	N
850072	WOLFCAMP	-7261	10360	10360	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Pressure Rating (PSI): 10M **Rating Depth:** 11470

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system. A multi-bowl wellhead system will be utilized. After running the 9-5/8 surface casing, a 9-5/8 BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2 The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi. The multi-bowl wellhead will be installed by vendors representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM. The wellhead will be installed by a third party welder while being monitored by WH vendors representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi. Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

Requesting Variance? YES

Variance request: Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement. EOG requests permission to allow deviation from the 0.422'' annulus clearance requirement from Onshore Order #2 under the following conditions: - Annular clearance to meet or exceed 0.422'' between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings. - Annular clearance less than 0.422'' is acceptable for the production open hole section. EOG Resources also requests approval to implement Casing Design B (pg. 8-9). BLM will be notified of elected design at spud. Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Testing Procedure: Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

Co_Flex_Hose_Certification_20191018081824.pdf

10_M_Choke_Manifold_20191018081828.pdf

Co_Flex_Hose_Test_Chart_20191018081824.pdf

BOP Diagram Attachment:

EOG_BLM_10M_Annular_Variance___9.625_in_20200819094833.pdf

10_M_BOP_Diagram_13.375_in_20200828064131.pdf

EOG_BLM_10M_Annular_Variance___13.375_in_20200828064145.pdf

10_M_BOP_Diagram_9.625_in_20200819094811.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.25	9.625	NEW	API	N	0	1065	0	1065	3099	2034	1065	J-55	40	LT&C	1.125	1.25	BUOY	1.6	BUOY	1.6
2	PRODUCTION	6.75	5.5	NEW	API	N	0	8905	0	8905	3652	-5806	8905	OTHER	20	OTHER - DWC/C-IS MS	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	N	8905	9405	8905	9405	-5806	-6306	500	OTHER	20	OTHER - VAM SFC	1.125	1.25	BUOY	1.6	BUOY	1.6
4	INTERMEDIATE	8.75	7.625	NEW	API	N	0	9405	0	9405		-6306	9405	HCP-110	29.7	OTHER - FXL	1.125	1.25	BUOY	1.6	BUOY	1.6
5	PRODUCTION	6.75	5.5	NEW	API	N	9405	18986	9405	11470	-6306	-8371	9581	OTHER	20	OTHER - DWC/C-IS MS	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Althea_18_Fed_762H_Permit_Info__Dual__20200902142557.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Casing Attachments

Casing ID: 2 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20200828064419.pdf

Please_see_previously_attached_drill_plan_20190429130053_20200819131223.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

7.625in_29.70_P110HC_FXL_20200828064338.pdf

Please_see_previously_attached_drill_plan_20190429130053_20200819121338.pdf

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.500in_20.00_VST_P110EC_VAM_SFC_20200902142711.pdf

See_previously_attached_Drill_Plan_20200902142720.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Casing Attachments

Casing ID: 5 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20200828085206.pdf

Please_see_previously_attached_drill_plan_20190429130053_20200819115655.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0		NA	NA
PRODUCTION	Lead		0	0	0	0	0	0		na	na
SURFACE	Lead		0	865	300	1.73	13.5	519	25	Class C	Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		865	1065	100	1.34	14.8	134	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 865’)
INTERMEDIATE	Lead		0	5600	1000	2.3	12.7	2300	25	Class C	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		5600	9405	460	1.11	14.2	510.6	25	Class C	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 5,600')
PRODUCTION	Lead		8905	18986	870	1.31	14.2	1139.7	25	Class H	Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 8,905')

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: ((A) A kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

Describe the mud monitoring system utilized: The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized. An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1065	9405	SALT SATURATED	10	10.2							
0	1065	WATER-BASED MUD	8.6	8.8							

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
9405	11018	OIL-BASED MUD	8.7	9.4							
11018	11470	OIL-BASED MUD	10	14							

Section 6 - Test, Logging, Coring

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

Open-hole logs are not planned for this well.

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

DIRECTIONAL SURVEY,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8350 **Anticipated Surface Pressure:** 5826

Anticipated Bottom Hole Temperature(F): 185

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Althea_18_Fed_762H_H2S_Plan_Summary_20200902143230.pdf

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Althea_18_Fed_762H_Planning_Report_20200902143251.pdf

Althea_18_Fed_762H_Wall_Plot_20200902143251.pdf

Other proposed operations facets description:

EOG requests to pump a two stage cement job on the 7-5/8 intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (5,766) and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

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

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

Cement integrity tests will be performed immediately following plug bump.

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

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

Other proposed operations facets attachment:

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20200819094707.pdf

5.500in_20.00_VST_P110EC_VAM_SFC_20200819094707.pdf

7.625in_29.70_P110HC_FXL_20200819094706.pdf

Wellhead_13.375_in_20200828065631.pdf

Wellhead_9.625_in_20200819094716.pdf

Althea_18_Fed_762H_Permit_Info__Dual__20200902143424.pdf

Althea_18_Fed_762H_Rig_Layout_20200902143424.pdf

Other Variance attachment:

10_M_BOP_Diagram_13.375_in_20200828065647.pdf

10_M_BOP_Diagram_9.625_in_20200819094607.pdf

10_M_Choke_Manifold_20200828065748.pdf

EOG_BLM_10M_Annular_Variance___13.375_in_20200828065700.pdf

EOG_BLM_10M_Annular_Variance___9.625_in_20200819094615.pdf

Co_Flex_Hose_Certification_20191018083029.pdf

Co_Flex_Hose_Test_Chart_20191018083029.pdf

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial

Hose Serial #	62429	**Date of Manufacture**	05/2012
Hose I.D.	3"	**Working Pressure**	10000PSI
Hose Type	Choke and Kill	**Test Pressure**	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/16" 10KPsi API Spec 6A Type 6BX Flange	**End B:** 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	**Material:** Carbon Steel
Seal Face: BX154	**Seal Face:** BX154
Length Before Hydro Test: 16'	**Length After Hydro test:** 16'

Conclusion: Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #62429 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 months (or during installation/removal)
Annual: In-situ pressure test
Initial 5 years service: Major inspection
2nd Major inspection: 8 / 10 years of service
(Detailed description of test regime available upon request, ISS-059 Rev 04)

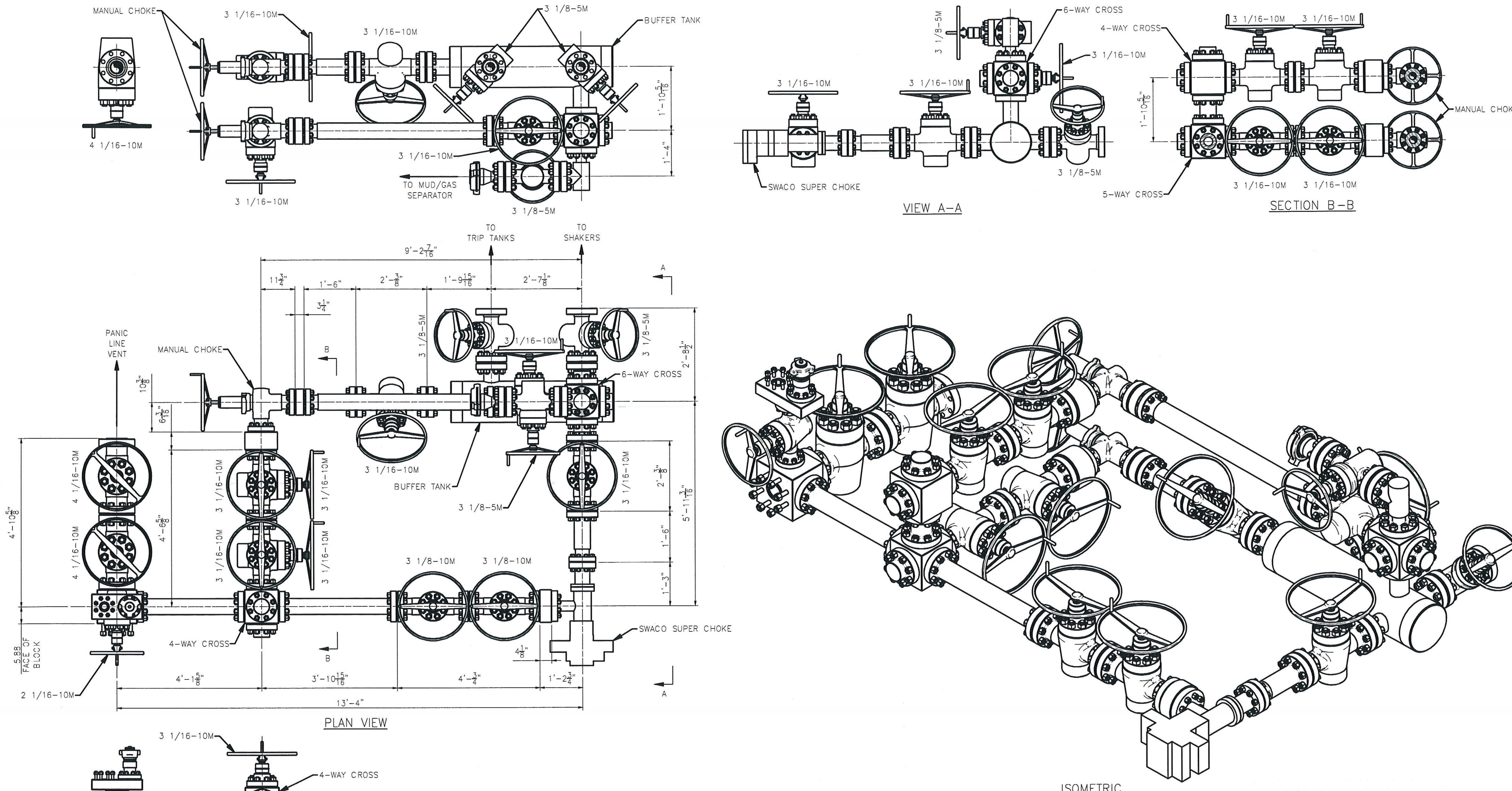
**NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

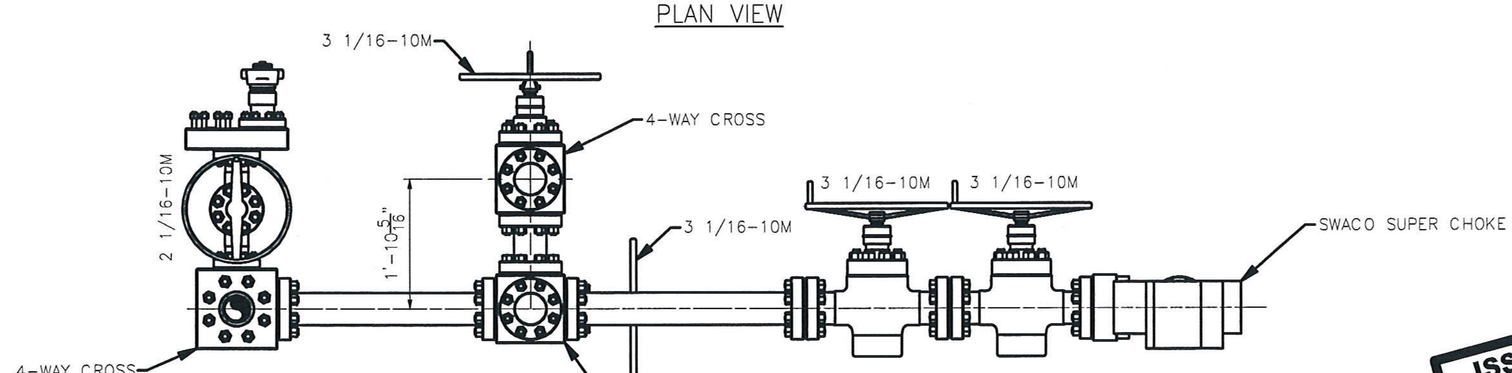
PASS

Issued By: Alejandro Jaimes
Date: 10/25/2016

Checked By: Jeremy Mckay
Date: 10/25/2016

Received by OCD: 2/28/2023 2:16:36 PM





PROPRIETARY

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ISSUED FOR FABRICATION
February-10-2014
DRAFTSMAN MWL
ENGINEER BRC

STANDARD TOLERANCES
(UNLESS NOTED)

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

REV	DATE	DESCRIPTION	BY
—			

HELMERICH & PAYNE INTERNATIONAL DRILLING CO.

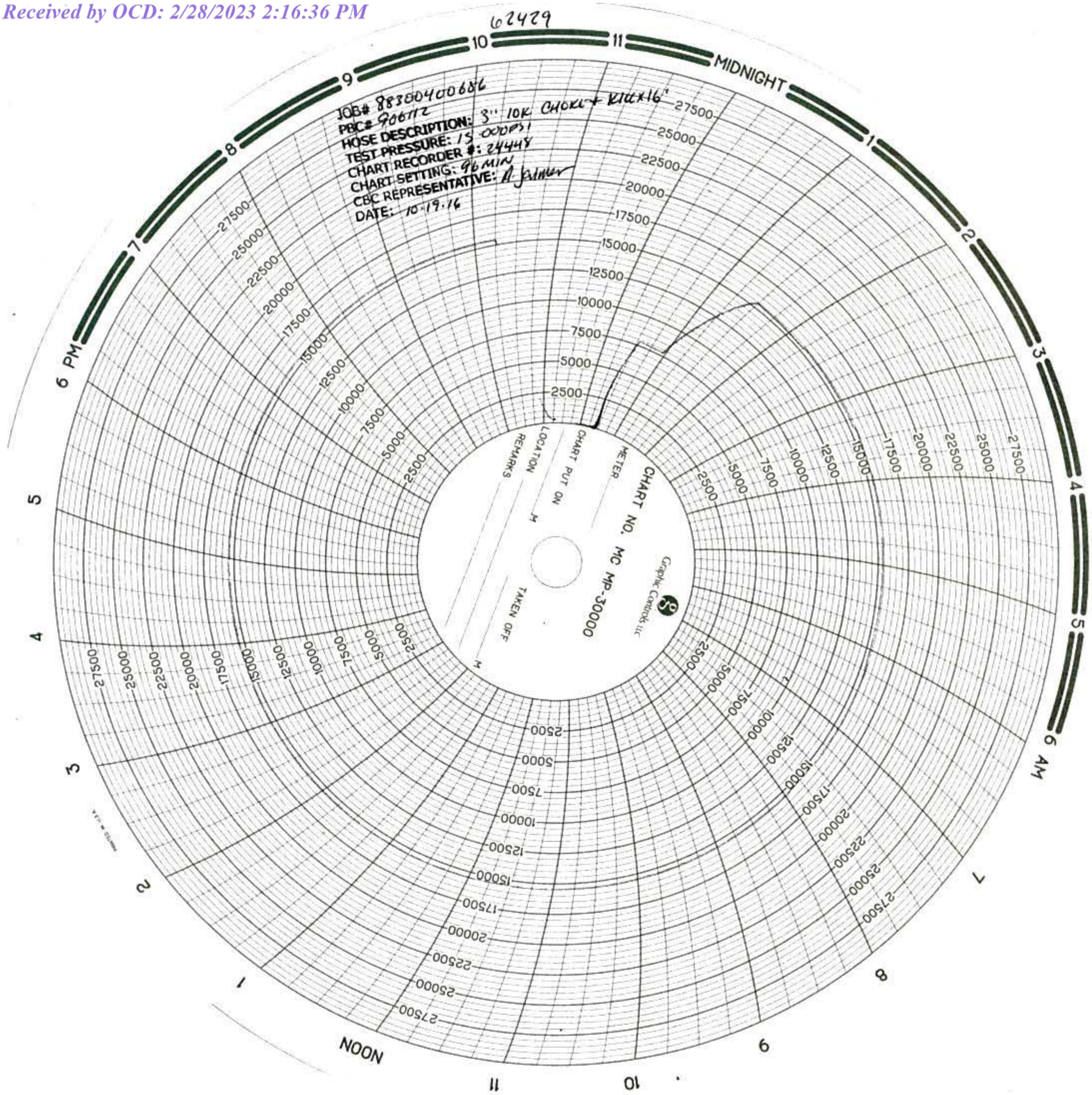
TITLE: 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.

CUSTOMER: H&P

PROJECT:

DRAWN: MWL	DATE: 2/10/2014	DWG. NO.: HP-D1254	REV: —
SCALE: 3/4"=1'-0"	SHEET: 1 OF 1		

Released to Imaging: 3/8/2023 10:07:01 AM


62429
JOB# 8830040068б
PBC# 906112
HOSE DESCRIPTION: 3" 10K CHOKE + KILL x16'
TEST PRESSURE: 15,000PSI
CHART RECORDER #: 24448
CHART SETTING: 96MIN
CBC REPRESENTATIVE: A Palmer
DATE: 10-19-16
CHART NO. MC MP-30000
Graphic Controls LLC
METER
CHART PUT ON
M
LOCATION
REMARKS
TAKEN OFF
M
MIDNIGHT
NOON
6 AM
6 PM
2500
5000
7500
10000
12500
15000
17500
20000
22500
25000
27500

10,000 PSI BOP Annular
Variance Request

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

1. Component and Preventer Compatibility Tables

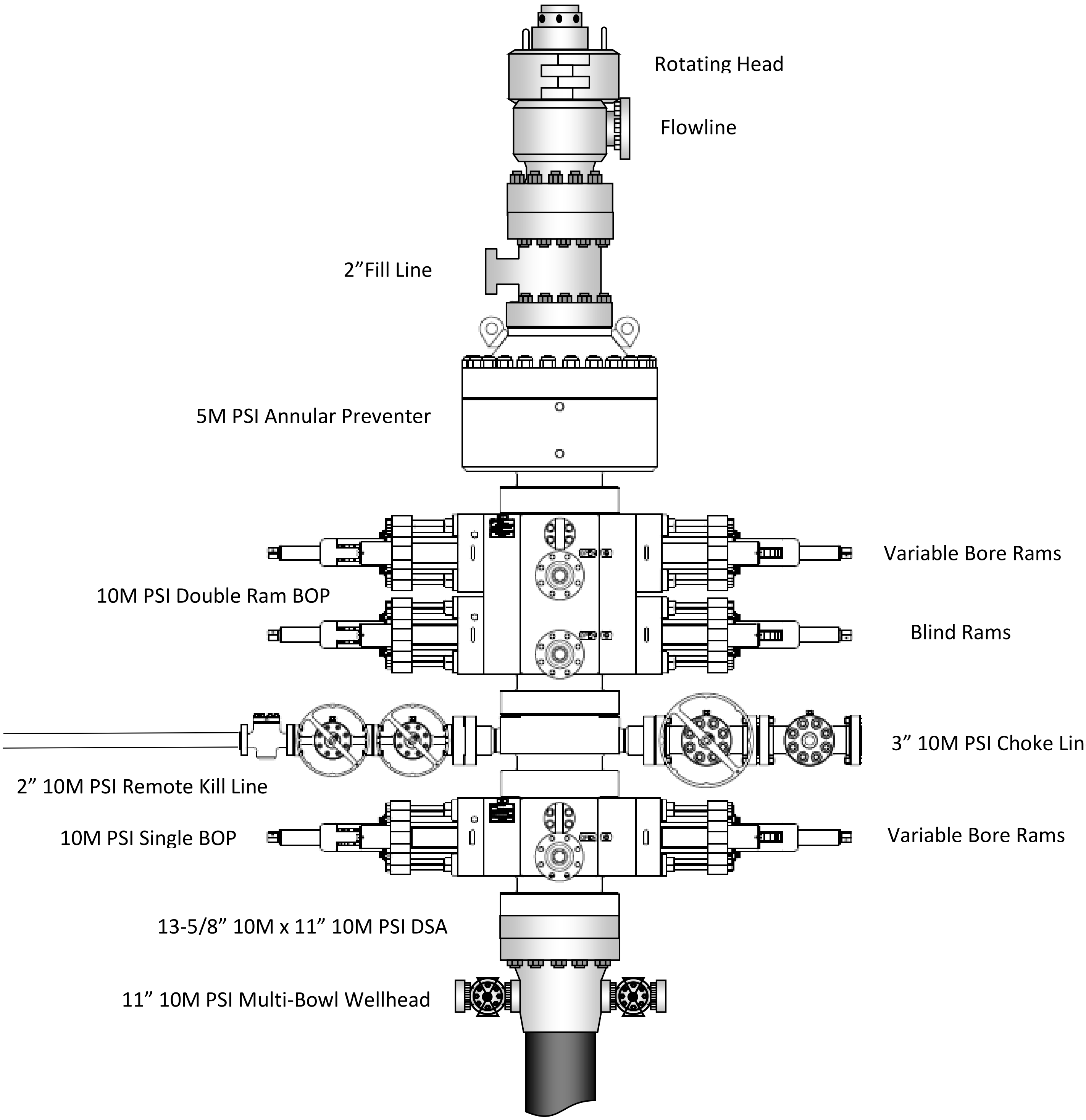
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

9-7/8" & 8-3/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500 – 8.000"	Annular	5M	-	-
Mud Motor	6.750 – 8.000"	Annular	5M	-	-
Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500 – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources
11” 10M PSI BOP Stack



2. Well Control Procedures

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

General Procedure While Drilling

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

General Procedure While Tripping

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

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

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

<u>General Procedure With No Pipe In Hole (Open Hole)</u>

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

<u>General Procedures While Pulling BHA thru Stack</u>

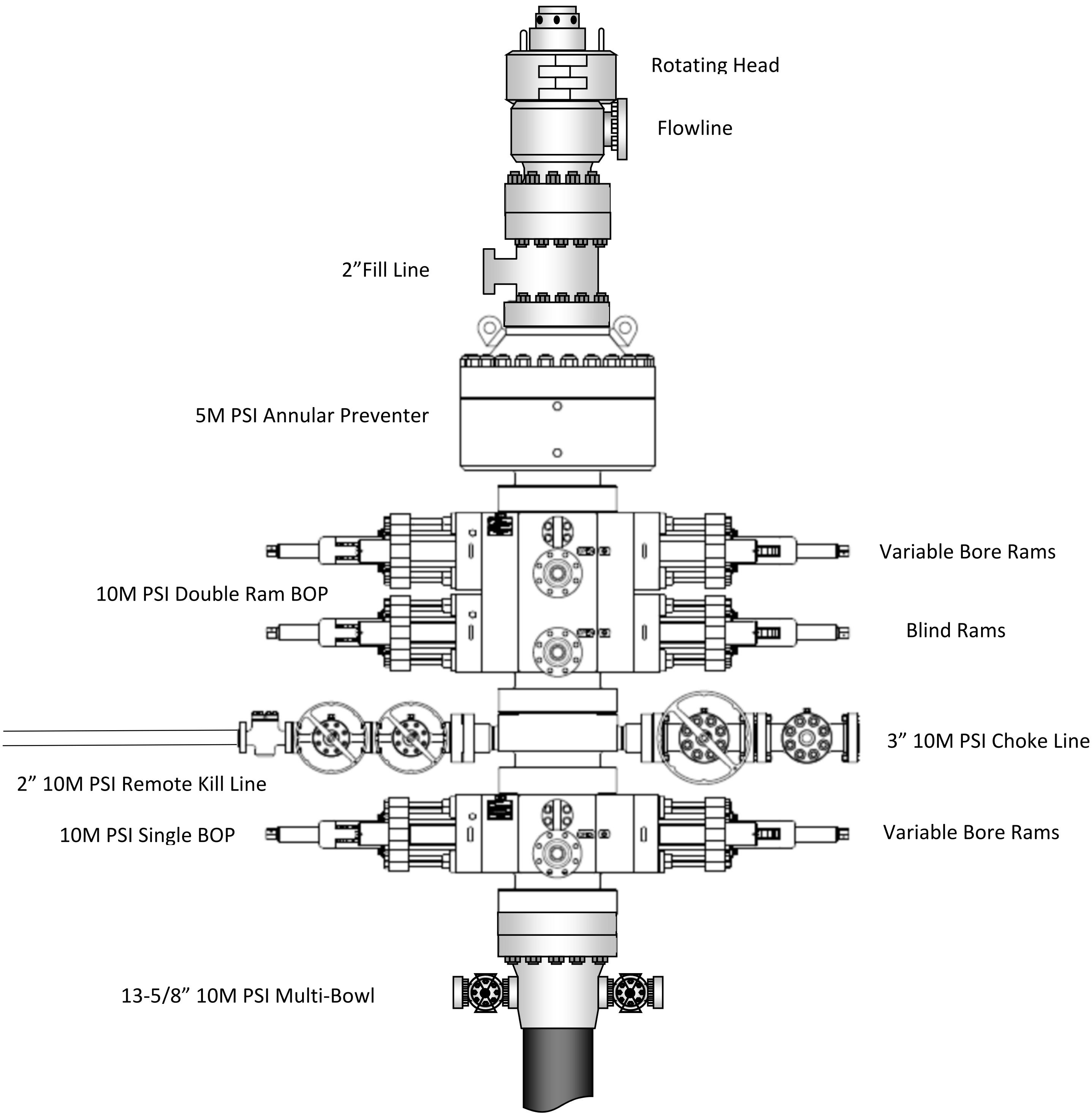
1. PRIOR to pulling last joint of drillpipe thru the stack.
   a. Perform flowcheck, if flowing:
   b. Sound alarm (alert crew)
   c. Stab full opening safety valve and close
   d. Space out drill string with tool joint just beneath the upper variable bore rams.
   e. Shut-in using upper variable bore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

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
   a. Sound alarm (alert crew)
   b. Stab crossover and full opening safety valve and close
   c. Space out drill string with upset just beneath the upper variable bore rams.
   d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
   e. Confirm shut-in
   f. Notify toolpusher/company representative
   g. Read and record the following:
      i. SIDPP and SICP

        ii. Pit gain
        iii. Time
    h. Regroup and identify forward plan

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

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



10,000 PSI BOP Annular
Variance Request

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

1. Component and Preventer Compatibility Tables

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

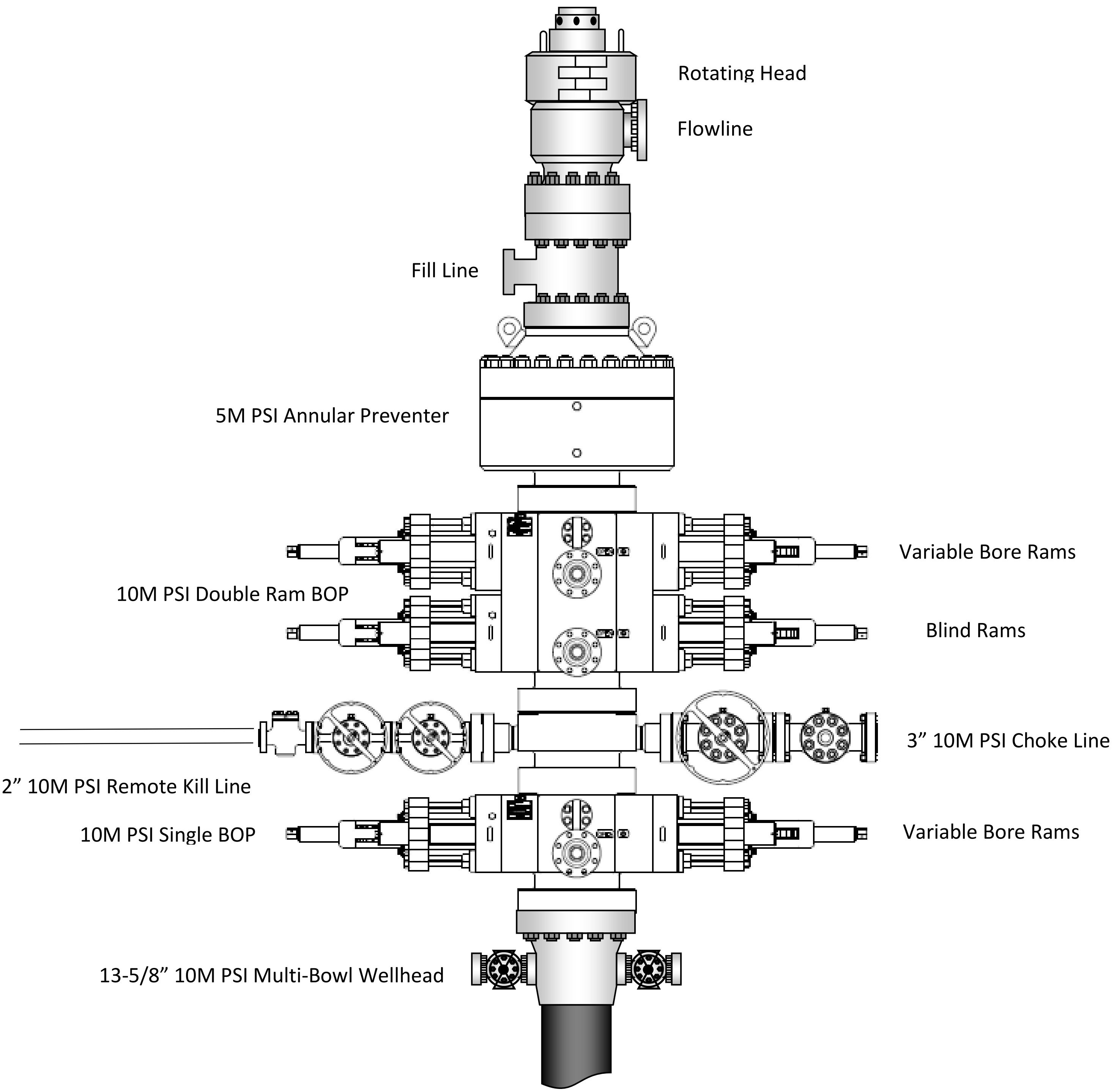
12-1/4" Intermediate Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR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

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

6-3/4" Production Hole Section 10M psi requirement					
Component	**OD**	**Primary Preventer**	**RWP**	**Alternate Preventer(s)**	**RWP**
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750" – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500" – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

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



2. Well Control Procedures

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

General Procedure While Drilling

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

General Procedure While Tripping

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

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

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

General Procedure With No Pipe In Hole (Open Hole)

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

General Procedures While Pulling BHA thru Stack

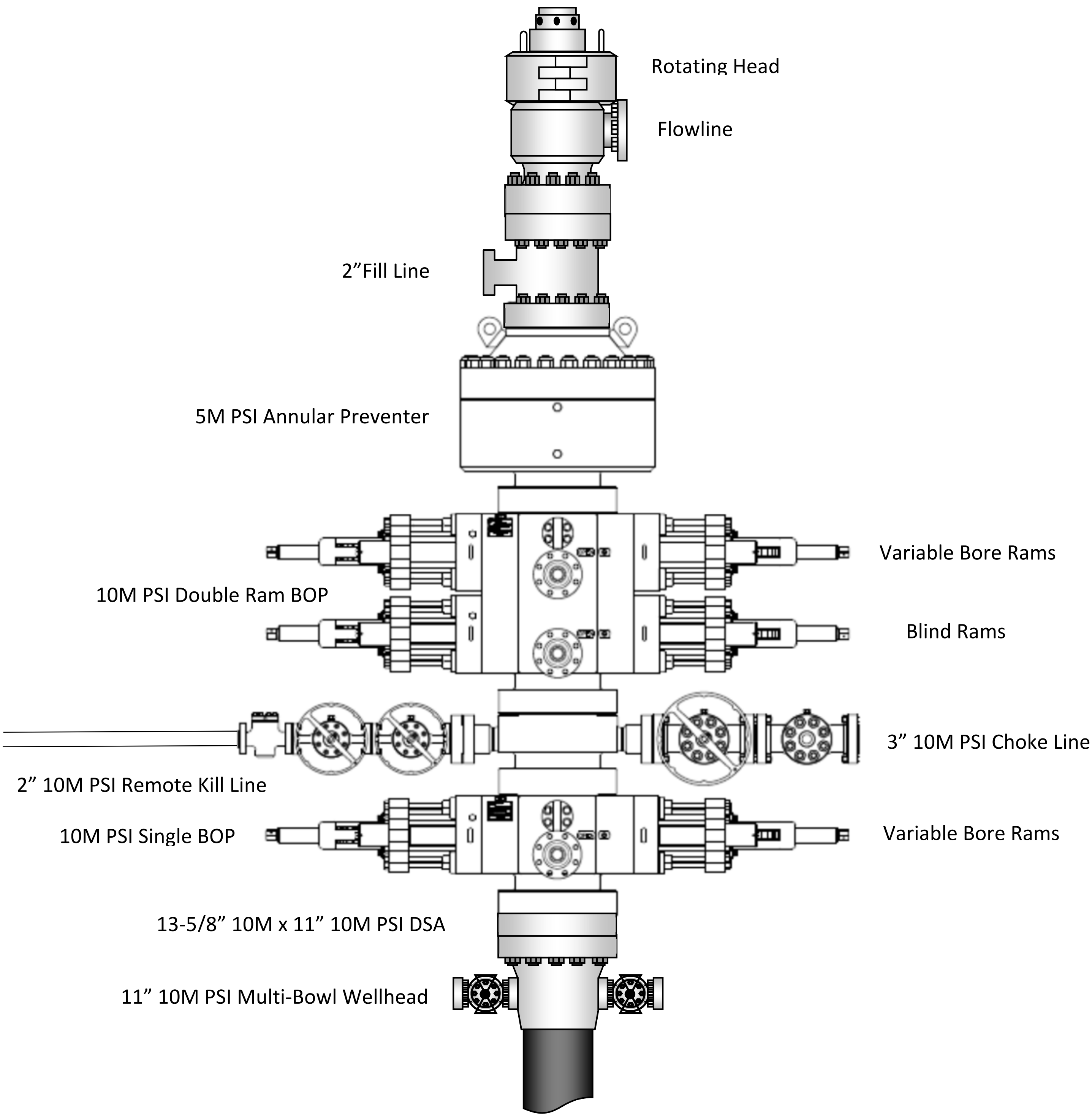
1. PRIOR to pulling last joint of drillpipe thru the stack.
    a. Perform flowcheck, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper variable bore rams.
    e. Shut-in using upper variable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

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the upper variable bore rams.
    d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP

        ii. Pit gain
        iii. Time
    h. Regroup and identify forward plan

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

Exhibit 1
EOG Resources
11" 10M PSI BOP Stack



Please see previously attached drill plan.

EOG RESOURCES, INC.
ALTHEA 18 FED #762H

1. GEOLOGIC NAME OF SURFACE FORMATION:
Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	977'
Tamarisk Anhydrite	1,037'
Top of Salt	1,664'
Base of Salt	3,169'
Lamar	3,364'
Bell Canyon	3,392'
Cherry Canyon	4,341'
Brushy Canyon	5,766'
Bone Spring Lime	7,210'
Leonard A Shale	7,381'
Leonard B Shale	7,770'
1st Bone Spring Sand	8,123'
2nd Bone Spring Shale	8,451'
2nd Bone Spring Sand	8,850'
3rd Bone Spring Carb	9,305'
3rd Bone Spring Sand	9,790'
Wolfcamp	10,360'
TD	11,470'

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

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	4,341'	Oil
Brushy Canyon	5,766'	Oil
Leonard A Shale	7,381'	Oil
Leonard B Shale	7,770'	Oil
1st Bone Spring Sand	8,123'	Oil
2nd Bone Spring Shale	8,451'	Oil
2nd Bone Spring Sand	8,850'	Oil
3rd Bone Spring Carb	9,305'	Oil
3rd Bone Spring Sand	9,790'	Oil
Wolfcamp	10,360'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9.625" casing at 1,065' and circulating cement back to surface.

EOG RESOURCES, INC.
ALTHEA 18 FED #762H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
12.25"	0' – 1,065'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 9,405'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 8,905'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	8,905'–9,405'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	9,405' – 18,986'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

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

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

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

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

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

EOG Resources also requests approval to implement Casing Design B (pg. 8-9). BLM will be notified of elected design at spud.

<u>Cementing Program</u>:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/sk	Slurry Description
1,065' 9-5/8"	300	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 865')
9,405' 7-5/8"	460	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 5,600')
	1,000	12.7	2.30	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
18,986' 5-1/2"	870	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 8,905')

EOG RESOURCES, INC.
ALTHEA 18 FED #762H

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

EOG requests to pump a two stage cement job on the 7-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (5,766') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

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

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

Cement integrity tests will be performed immediately following plug bump.

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

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

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

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

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

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

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

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

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

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

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

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,065’	Fresh - Gel	8.6-8.8	28-34	N/c
1,065’ – 9,405’	Brine	10.0-10.2	28-34	N/c
9,405’ – 11,018’	Oil Base	8.7-9.4	58-68	N/c - 6
11,018’ – 18,986’ Lateral	Oil Base	10.0-14.0	58-68	3 - 6

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

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

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

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

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

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

(C) H_2S monitoring and detection equipment will be utilized from surface casing point to TD.

EOG RESOURCES, INC.
ALTHEA 18 FED #762H

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

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

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

The estimated bottom-hole temperature (BHT) at TD is 185 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 8,350 psig and a maximum anticipated surface pressure of 5,827 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 5,766' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

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

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

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

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

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

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

EOG RESOURCES, INC.
ALTHEA 18 FED #762H

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

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

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

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

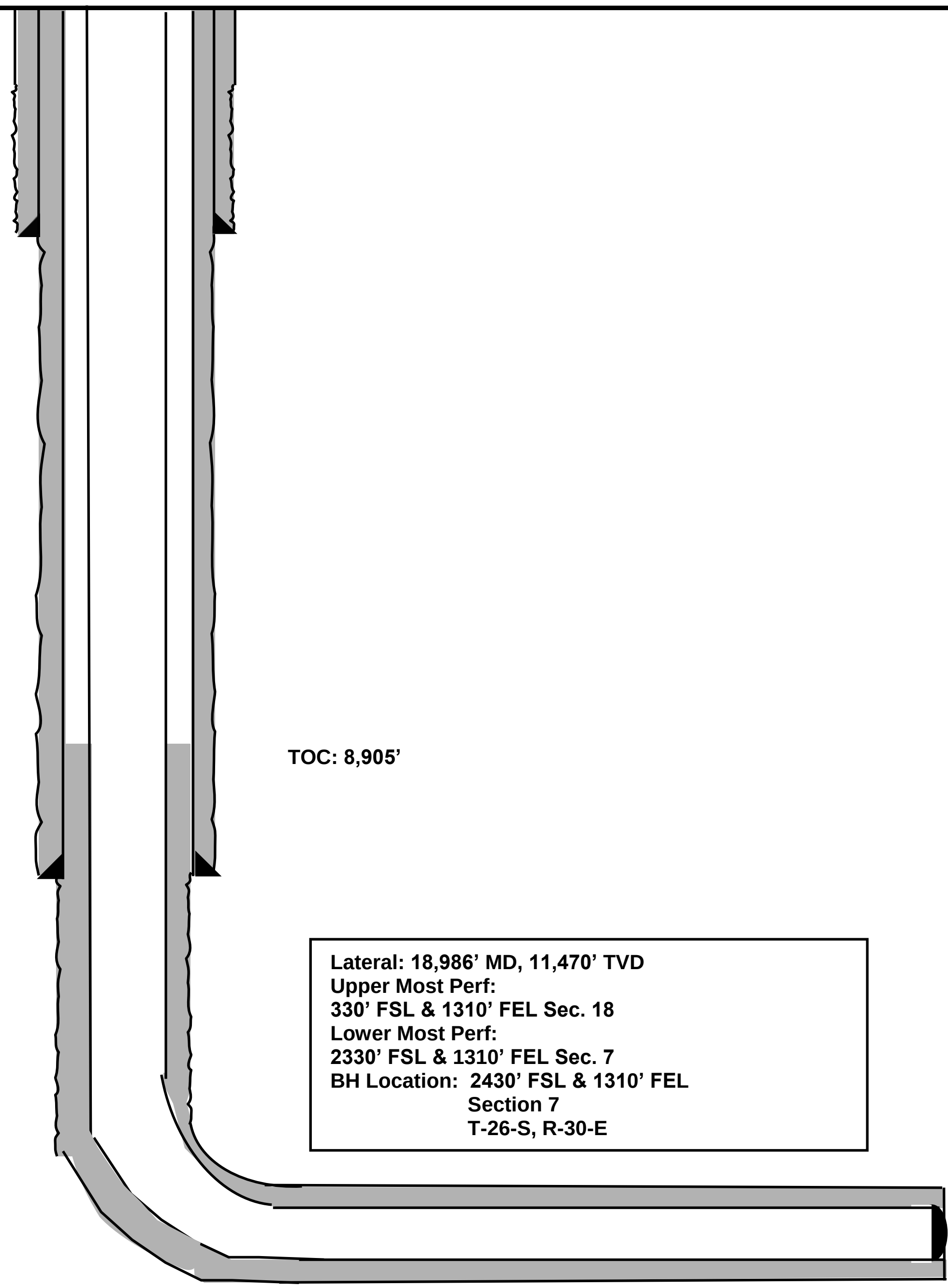
EOG RESOURCES, INC.
ALTHEA 18 FED #762H

485' FSL
1511' FEL
Section 18
T-26-S, R-30-E

Proposed Wellbore
Design A

API: 30-015-***

KB: 3,124'
GL: 3,099'



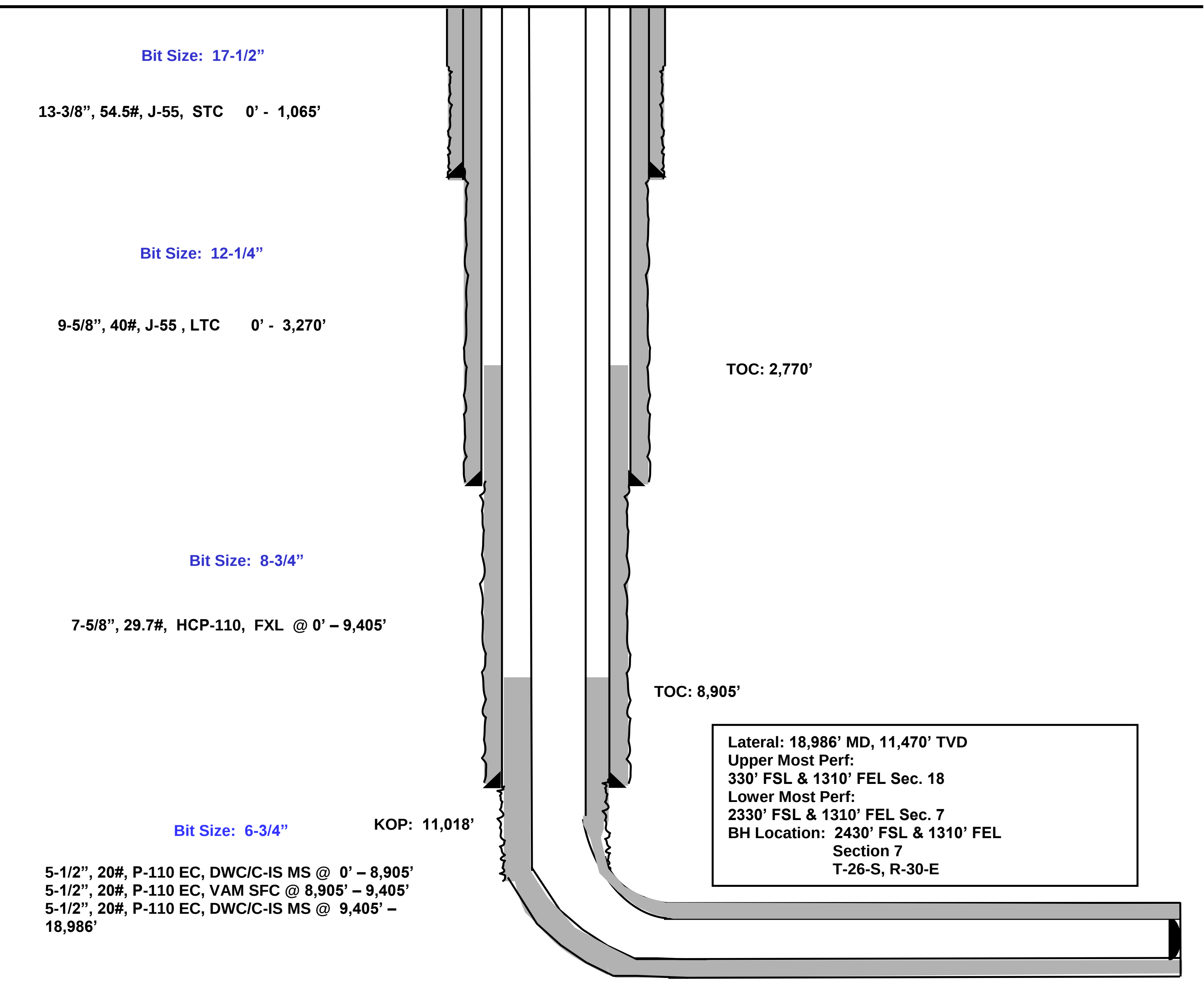
EOG RESOURCES, INC.
ALTHEA 18 FED #762H

530' FSL
1511' FEL
Section 18
T-26-S, R-30-E

Proposed Wellbore
Design B

API: 30-015-***

KB: 3,124'
GL: 3,099'



EOG RESOURCES, INC.
ALTHEA 18 FED #762H

Design B

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5”	0 – 1,065’	13.375”	54.5#	J-55	STC	1.125	1.25	1.60
12.25”	0 – 3,270’	9.625”	40#	J-55	LTC	1.125	1.25	1.60
8.75”	0 – 9,405’	7.625”	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75”	0’ – 8,905’	5.5”	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75”	8,905’–9,405’	5.5”	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75”	9,405’ – 18,986’	5.5”	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft^3/sk	Slurry Description
1,065’ 13-3/8”	470	13.5	1.74	Lead: Class C + 4.0% Bentonite Gel + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	150	14.8	1.35	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 865’)
3,270’ 9-5/8”	480	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	210	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 2,620’)
9,405’ 7-5/8”	200	10.8	3.67	Lead: Class C + 3% CaCl2 + 3% Microbond (TOC @ 2,770’)
	100	14.8	2.38	Tail: Class H + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,905’)
18,986’ 5-1/2”	870	14.8	1.31	Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 8,905’)

As a contingency, EOG requests to pump a two stage cement job on the 7-5/8’’ intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (5,766’) and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,065’	Fresh - Gel	8.6-8.8	28-34	N/c
1,065’ – 3,270’	Brine	10.0-10.2	28-34	N/c
3,270’– 9,405’	Oil Base	8.7-9.4	58-68	N/c - 6
9,405’– 18,986’ Lateral	Oil Base	10.0-14.0	58-68	3 - 6

Metal One Corp. Metal One	MO-FXL Connection Data Sheet	Page	MCTP
		Date	3-Nov-16
		Rev.	0

Geometry

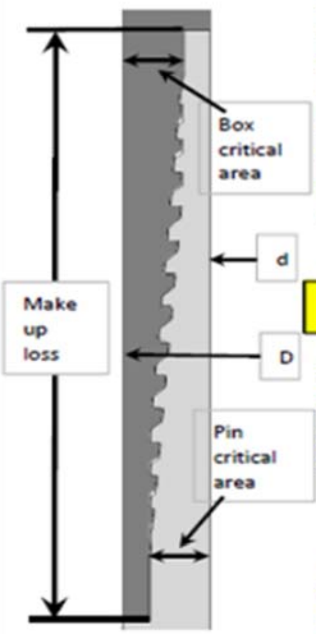
MO-FXL

Pipe Body

	Imperial		S.I.	
Grade	P110HC *1		P110HC *1	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in^2	5,508	mm^2
Drift Dia.	6.750	in	171.45	mm

Connection

Box OD (W)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make up Loss	4.219	in	107.16	mm
Box Critical Area	5.714	in^2	3686	mm^2
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			



Performance

Performance Properties for Pipe Body

S.M.Y.S. *1	1,067	kips	4,747	kN
M.I.Y.P. *1	10,760	psi	74.21	MPa
Collapse Strength *1	7,360	psi	50.76	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body
*1 Based on VSB P110HC (YS=125~140ksi)

Performance Properties for Connection

Tensile Yield load	747 kips (70% of S.M.Y.S.)
Min. Compression Yield	747 kips (70% of S.M.Y.S.)
Internal Pressure	8,610 psi (80% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	40

Recommended Torque

Min.	15,500	ft-lb	21,000	N-m
Opti.	17,200	ft-lb	23,300	N-m
Max.	18,900	ft-lb	25,600	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

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

MEWBOURNE OIL COMPANY

Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#762H

OH

Plan: Plan #0.1 RT

Standard Planning Report

10 July, 2020

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Project	Eddy County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Althea 18 Fed				
Site Position:		**Northing:**	377,381.00 usft	**Latitude:**	32° 2' 12.509 N
From:	Map	**Easting:**	671,184.00 usft	**Longitude:**	103° 54' 51.450 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.22 °

Well	#762H					
Well Position	**+N/-S**	-106.0 usft	**Northing:**	377,275.00 usft	**Latitude:**	32° 2' 11.491 N
	+E/-W	-812.0 usft	**Easting:**	670,372.00 usft	**Longitude:**	103° 55' 0.888 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,099.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/10/2020	6.80	59.71	47,446.02155185

Design	Plan #0.1 RT				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.44

Plan Survey Tool Program **Date** 7/10/2020

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,986.0	Plan #0.1 RT (OH)	EOG MWD+IFR1 MWD + IFR1	

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,162.0	0.00	0.00	1,162.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,479.8	6.36	155.10	1,479.1	-16.0	7.4	2.00	2.00	0.00	155.10	
5,474.1	6.36	155.10	5,448.9	-417.0	193.6	0.00	0.00	0.00	0.00	
5,791.9	0.00	0.00	5,766.0	-433.0	201.0	2.00	-2.00	0.00	180.00	
11,018.4	0.00	0.00	10,992.5	-433.0	201.0	0.00	0.00	0.00	0.00	KOP(Althea 18 Fed C
11,564.8	65.56	0.00	11,427.3	-153.0	201.0	12.00	12.00	0.00	0.00	FTP(Althea 18 Fed C
11,768.5	90.00	359.85	11,470.1	44.5	200.7	12.00	12.00	-0.07	-0.36	
18,986.0	90.00	359.85	11,470.0	7,262.0	182.0	0.00	0.00	0.00	0.00	PBHL(Althea 18 Fed (

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,162.0	0.00	0.00	1,162.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.76	155.10	1,200.0	-0.2	0.1	-0.2	2.00	2.00	0.00
1,300.0	2.76	155.10	1,299.9	-3.0	1.4	-3.0	2.00	2.00	0.00
1,400.0	4.76	155.10	1,399.7	-9.0	4.2	-8.9	2.00	2.00	0.00
1,479.8	6.36	155.10	1,479.1	-16.0	7.4	-15.8	2.00	2.00	0.00
1,500.0	6.36	155.10	1,499.2	-18.0	8.4	-17.8	0.00	0.00	0.00
1,600.0	6.36	155.10	1,598.6	-28.0	13.0	-27.7	0.00	0.00	0.00
1,700.0	6.36	155.10	1,698.0	-38.1	17.7	-37.6	0.00	0.00	0.00
1,800.0	6.36	155.10	1,797.4	-48.1	22.3	-47.5	0.00	0.00	0.00
1,900.0	6.36	155.10	1,896.8	-58.2	27.0	-57.5	0.00	0.00	0.00
2,000.0	6.36	155.10	1,996.2	-68.2	31.7	-67.4	0.00	0.00	0.00
2,100.0	6.36	155.10	2,095.5	-78.2	36.3	-77.3	0.00	0.00	0.00
2,200.0	6.36	155.10	2,194.9	-88.3	41.0	-87.2	0.00	0.00	0.00
2,300.0	6.36	155.10	2,294.3	-98.3	45.6	-97.2	0.00	0.00	0.00
2,400.0	6.36	155.10	2,393.7	-108.4	50.3	-107.1	0.00	0.00	0.00
2,500.0	6.36	155.10	2,493.1	-118.4	55.0	-117.0	0.00	0.00	0.00
2,600.0	6.36	155.10	2,592.5	-128.4	59.6	-126.9	0.00	0.00	0.00
2,700.0	6.36	155.10	2,691.8	-138.5	64.3	-136.8	0.00	0.00	0.00
2,800.0	6.36	155.10	2,791.2	-148.5	68.9	-146.8	0.00	0.00	0.00
2,900.0	6.36	155.10	2,890.6	-158.6	73.6	-156.7	0.00	0.00	0.00
3,000.0	6.36	155.10	2,990.0	-168.6	78.3	-166.6	0.00	0.00	0.00
3,100.0	6.36	155.10	3,089.4	-178.7	82.9	-176.5	0.00	0.00	0.00
3,200.0	6.36	155.10	3,188.8	-188.7	87.6	-186.4	0.00	0.00	0.00
3,300.0	6.36	155.10	3,288.2	-198.7	92.3	-196.4	0.00	0.00	0.00
3,400.0	6.36	155.10	3,387.5	-208.8	96.9	-206.3	0.00	0.00	0.00
3,500.0	6.36	155.10	3,486.9	-218.8	101.6	-216.2	0.00	0.00	0.00
3,600.0	6.36	155.10	3,586.3	-228.9	106.2	-226.1	0.00	0.00	0.00
3,700.0	6.36	155.10	3,685.7	-238.9	110.9	-236.0	0.00	0.00	0.00
3,800.0	6.36	155.10	3,785.1	-248.9	115.6	-246.0	0.00	0.00	0.00
3,900.0	6.36	155.10	3,884.5	-259.0	120.2	-255.9	0.00	0.00	0.00
4,000.0	6.36	155.10	3,983.9	-269.0	124.9	-265.8	0.00	0.00	0.00
4,100.0	6.36	155.10	4,083.2	-279.1	129.5	-275.7	0.00	0.00	0.00
4,200.0	6.36	155.10	4,182.6	-289.1	134.2	-285.6	0.00	0.00	0.00
4,300.0	6.36	155.10	4,282.0	-299.1	138.9	-295.6	0.00	0.00	0.00
4,400.0	6.36	155.10	4,381.4	-309.2	143.5	-305.5	0.00	0.00	0.00
4,500.0	6.36	155.10	4,480.8	-319.2	148.2	-315.4	0.00	0.00	0.00
4,600.0	6.36	155.10	4,580.2	-329.3	152.8	-325.3	0.00	0.00	0.00
4,700.0	6.36	155.10	4,679.6	-339.3	157.5	-335.3	0.00	0.00	0.00
4,800.0	6.36	155.10	4,778.9	-349.3	162.2	-345.2	0.00	0.00	0.00
4,900.0	6.36	155.10	4,878.3	-359.4	166.8	-355.1	0.00	0.00	0.00
5,000.0	6.36	155.10	4,977.7	-369.4	171.5	-365.0	0.00	0.00	0.00

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	6.36	155.10	5,077.1	-379.5	176.2	-374.9	0.00	0.00	0.00
5,200.0	6.36	155.10	5,176.5	-389.5	180.8	-384.9	0.00	0.00	0.00
5,300.0	6.36	155.10	5,275.9	-399.6	185.5	-394.8	0.00	0.00	0.00
5,400.0	6.36	155.10	5,375.3	-409.6	190.1	-404.7	0.00	0.00	0.00
5,474.1	6.36	155.10	5,448.9	-417.0	193.6	-412.0	0.00	0.00	0.00
5,500.0	5.84	155.10	5,474.7	-419.5	194.7	-414.5	2.00	-2.00	0.00
5,600.0	3.84	155.10	5,574.3	-427.2	198.3	-422.1	2.00	-2.00	0.00
5,700.0	1.84	155.10	5,674.2	-431.7	200.4	-426.5	2.00	-2.00	0.00
5,791.9	0.00	0.00	5,766.0	-433.0	201.0	-427.8	2.00	-2.00	0.00
5,800.0	0.00	0.00	5,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,100.0	0.00	0.00	6,074.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,174.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,274.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,374.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,474.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,574.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,674.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,100.0	0.00	0.00	7,074.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,174.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,274.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,374.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,474.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,574.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,674.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,074.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,174.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,274.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,374.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,474.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,574.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,674.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,100.0	0.00	0.00	9,074.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,200.0	0.00	0.00	9,174.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,274.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,374.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,474.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,600.0	0.00	0.00	9,574.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,700.0	0.00	0.00	9,674.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,800.0	0.00	0.00	9,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
9,900.0	0.00	0.00	9,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,000.0	0.00	0.00	9,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,100.0	0.00	0.00	10,074.1	-433.0	201.0	-427.8	0.00	0.00	0.00

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,200.0	0.00	0.00	10,174.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,300.0	0.00	0.00	10,274.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,400.0	0.00	0.00	10,374.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,500.0	0.00	0.00	10,474.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,600.0	0.00	0.00	10,574.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,700.0	0.00	0.00	10,674.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,800.0	0.00	0.00	10,774.1	-433.0	201.0	-427.8	0.00	0.00	0.00
10,900.0	0.00	0.00	10,874.1	-433.0	201.0	-427.8	0.00	0.00	0.00
11,000.0	0.00	0.00	10,974.1	-433.0	201.0	-427.8	0.00	0.00	0.00
11,018.4	0.00	0.00	10,992.5	-433.0	201.0	-427.8	0.00	0.00	0.00
11,025.0	0.80	0.00	10,999.1	-433.0	201.0	-427.8	12.00	12.00	0.00
11,050.0	3.80	0.00	11,024.1	-432.0	201.0	-426.8	12.00	12.00	0.00
11,075.0	6.80	0.00	11,049.0	-429.6	201.0	-424.5	12.00	12.00	0.00
11,100.0	9.80	0.00	11,073.8	-426.0	201.0	-420.9	12.00	12.00	0.00
11,125.0	12.79	0.00	11,098.3	-421.1	201.0	-416.0	12.00	12.00	0.00
11,150.0	15.79	0.00	11,122.5	-415.0	201.0	-409.8	12.00	12.00	0.00
11,175.0	18.79	0.00	11,146.4	-407.5	201.0	-402.4	12.00	12.00	0.00
11,200.0	21.79	0.00	11,169.8	-398.9	201.0	-393.7	12.00	12.00	0.00
11,225.0	24.79	0.00	11,192.8	-389.0	201.0	-383.8	12.00	12.00	0.00
11,250.0	27.79	0.00	11,215.2	-377.9	201.0	-372.8	12.00	12.00	0.00
11,275.0	30.79	0.00	11,237.0	-365.7	201.0	-360.5	12.00	12.00	0.00
11,300.0	33.79	0.00	11,258.1	-352.3	201.0	-347.2	12.00	12.00	0.00
11,325.0	36.79	0.00	11,278.5	-337.9	201.0	-332.7	12.00	12.00	0.00
11,350.0	39.79	0.00	11,298.1	-322.4	201.0	-317.3	12.00	12.00	0.00
11,375.0	42.79	0.00	11,316.9	-305.9	201.0	-300.8	12.00	12.00	0.00
11,400.0	45.79	0.00	11,334.8	-288.5	201.0	-283.3	12.00	12.00	0.00
11,425.0	48.78	0.00	11,351.8	-270.1	201.0	-265.0	12.00	12.00	0.00
11,450.0	51.78	0.00	11,367.7	-250.9	201.0	-245.7	12.00	12.00	0.00
11,475.0	54.78	0.00	11,382.7	-230.8	201.0	-225.7	12.00	12.00	0.00
11,500.0	57.78	0.00	11,396.6	-210.0	201.0	-204.9	12.00	12.00	0.00
11,525.0	60.78	0.00	11,409.3	-188.5	201.0	-183.4	12.00	12.00	0.00
11,550.0	63.78	0.00	11,421.0	-166.4	201.0	-161.3	12.00	12.00	0.00
11,564.8	65.56	0.00	11,427.3	-153.0	201.0	-147.9	12.00	12.00	0.00
11,575.0	66.78	359.99	11,431.4	-143.7	201.0	-138.6	12.00	12.00	-0.08
11,600.0	69.78	359.97	11,440.7	-120.5	201.0	-115.4	12.00	12.00	-0.08
11,625.0	72.78	359.95	11,448.7	-96.8	201.0	-91.7	12.00	12.00	-0.08
11,650.0	75.78	359.93	11,455.5	-72.7	201.0	-67.7	12.00	12.00	-0.07
11,675.0	78.78	359.92	11,461.0	-48.4	200.9	-43.3	12.00	12.00	-0.07
11,700.0	81.78	359.90	11,465.2	-23.7	200.9	-18.7	12.00	12.00	-0.07
11,725.0	84.78	359.88	11,468.1	1.1	200.8	6.1	12.00	12.00	-0.07
11,750.0	87.78	359.86	11,469.7	26.0	200.8	31.1	12.00	12.00	-0.07
11,768.5	90.00	359.85	11,470.1	44.5	200.7	49.6	12.00	12.00	-0.07
11,800.0	90.00	359.85	11,470.1	76.0	200.6	81.0	0.00	0.00	0.00
11,900.0	90.00	359.85	11,470.1	176.0	200.4	181.0	0.00	0.00	0.00
12,000.0	90.00	359.85	11,470.1	276.0	200.1	281.0	0.00	0.00	0.00
12,100.0	90.00	359.85	11,470.1	376.0	199.9	380.9	0.00	0.00	0.00
12,200.0	90.00	359.85	11,470.1	476.0	199.6	480.9	0.00	0.00	0.00
12,300.0	90.00	359.85	11,470.1	576.0	199.4	580.9	0.00	0.00	0.00
12,400.0	90.00	359.85	11,470.1	676.0	199.1	680.8	0.00	0.00	0.00
12,500.0	90.00	359.85	11,470.1	776.0	198.8	780.8	0.00	0.00	0.00
12,600.0	90.00	359.85	11,470.1	876.0	198.6	880.7	0.00	0.00	0.00
12,700.0	90.00	359.85	11,470.1	976.0	198.3	980.7	0.00	0.00	0.00
12,800.0	90.00	359.85	11,470.1	1,076.0	198.1	1,080.7	0.00	0.00	0.00

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,900.0	90.00	359.85	11,470.1	1,176.0	197.8	1,180.6	0.00	0.00	0.00
13,000.0	90.00	359.85	11,470.1	1,276.0	197.5	1,280.6	0.00	0.00	0.00
13,100.0	90.00	359.85	11,470.1	1,376.0	197.3	1,380.5	0.00	0.00	0.00
13,200.0	90.00	359.85	11,470.1	1,476.0	197.0	1,480.5	0.00	0.00	0.00
13,300.0	90.00	359.85	11,470.1	1,576.0	196.8	1,580.5	0.00	0.00	0.00
13,400.0	90.00	359.85	11,470.1	1,676.0	196.5	1,680.4	0.00	0.00	0.00
13,500.0	90.00	359.85	11,470.1	1,776.0	196.2	1,780.4	0.00	0.00	0.00
13,600.0	90.00	359.85	11,470.1	1,876.0	196.0	1,880.4	0.00	0.00	0.00
13,700.0	90.00	359.85	11,470.1	1,976.0	195.7	1,980.3	0.00	0.00	0.00
13,800.0	90.00	359.85	11,470.1	2,076.0	195.5	2,080.3	0.00	0.00	0.00
13,900.0	90.00	359.85	11,470.1	2,176.0	195.2	2,180.2	0.00	0.00	0.00
14,000.0	90.00	359.85	11,470.1	2,276.0	194.9	2,280.2	0.00	0.00	0.00
14,100.0	90.00	359.85	11,470.1	2,376.0	194.7	2,380.2	0.00	0.00	0.00
14,200.0	90.00	359.85	11,470.1	2,476.0	194.4	2,480.1	0.00	0.00	0.00
14,300.0	90.00	359.85	11,470.1	2,576.0	194.2	2,580.1	0.00	0.00	0.00
14,400.0	90.00	359.85	11,470.1	2,676.0	193.9	2,680.1	0.00	0.00	0.00
14,500.0	90.00	359.85	11,470.0	2,776.0	193.6	2,780.0	0.00	0.00	0.00
14,600.0	90.00	359.85	11,470.0	2,876.0	193.4	2,880.0	0.00	0.00	0.00
14,700.0	90.00	359.85	11,470.0	2,976.0	193.1	2,979.9	0.00	0.00	0.00
14,800.0	90.00	359.85	11,470.0	3,076.0	192.9	3,079.9	0.00	0.00	0.00
14,900.0	90.00	359.85	11,470.0	3,176.0	192.6	3,179.9	0.00	0.00	0.00
15,000.0	90.00	359.85	11,470.0	3,276.0	192.3	3,279.8	0.00	0.00	0.00
15,100.0	90.00	359.85	11,470.0	3,376.0	192.1	3,379.8	0.00	0.00	0.00
15,200.0	90.00	359.85	11,470.0	3,476.0	191.8	3,479.7	0.00	0.00	0.00
15,300.0	90.00	359.85	11,470.0	3,576.0	191.6	3,579.7	0.00	0.00	0.00
15,400.0	90.00	359.85	11,470.0	3,676.0	191.3	3,679.7	0.00	0.00	0.00
15,500.0	90.00	359.85	11,470.0	3,776.0	191.0	3,779.6	0.00	0.00	0.00
15,600.0	90.00	359.85	11,470.0	3,876.0	190.8	3,879.6	0.00	0.00	0.00
15,700.0	90.00	359.85	11,470.0	3,976.0	190.5	3,979.6	0.00	0.00	0.00
15,800.0	90.00	359.85	11,470.0	4,076.0	190.3	4,079.5	0.00	0.00	0.00
15,900.0	90.00	359.85	11,470.0	4,176.0	190.0	4,179.5	0.00	0.00	0.00
16,000.0	90.00	359.85	11,470.0	4,276.0	189.7	4,279.4	0.00	0.00	0.00
16,100.0	90.00	359.85	11,470.0	4,376.0	189.5	4,379.4	0.00	0.00	0.00
16,200.0	90.00	359.85	11,470.0	4,476.0	189.2	4,479.4	0.00	0.00	0.00
16,300.0	90.00	359.85	11,470.0	4,576.0	189.0	4,579.3	0.00	0.00	0.00
16,400.0	90.00	359.85	11,470.0	4,676.0	188.7	4,679.3	0.00	0.00	0.00
16,500.0	90.00	359.85	11,470.0	4,776.0	188.5	4,779.2	0.00	0.00	0.00
16,600.0	90.00	359.85	11,470.0	4,876.0	188.2	4,879.2	0.00	0.00	0.00
16,700.0	90.00	359.85	11,470.0	4,976.0	187.9	4,979.2	0.00	0.00	0.00
16,800.0	90.00	359.85	11,470.0	5,076.0	187.7	5,079.1	0.00	0.00	0.00
16,900.0	90.00	359.85	11,470.0	5,176.0	187.4	5,179.1	0.00	0.00	0.00
17,000.0	90.00	359.85	11,470.0	5,276.0	187.2	5,279.1	0.00	0.00	0.00
17,100.0	90.00	359.85	11,470.0	5,376.0	186.9	5,379.0	0.00	0.00	0.00
17,200.0	90.00	359.85	11,470.0	5,476.0	186.6	5,479.0	0.00	0.00	0.00
17,300.0	90.00	359.85	11,470.0	5,576.0	186.4	5,578.9	0.00	0.00	0.00
17,400.0	90.00	359.85	11,470.0	5,676.0	186.1	5,678.9	0.00	0.00	0.00
17,500.0	90.00	359.85	11,470.0	5,776.0	185.9	5,778.9	0.00	0.00	0.00
17,600.0	90.00	359.85	11,470.0	5,876.0	185.6	5,878.8	0.00	0.00	0.00
17,700.0	90.00	359.85	11,470.0	5,976.0	185.3	5,978.8	0.00	0.00	0.00
17,800.0	90.00	359.85	11,470.0	6,076.0	185.1	6,078.8	0.00	0.00	0.00
17,900.0	90.00	359.85	11,470.0	6,176.0	184.8	6,178.7	0.00	0.00	0.00
18,000.0	90.00	359.85	11,470.0	6,276.0	184.6	6,278.7	0.00	0.00	0.00
18,100.0	90.00	359.85	11,470.0	6,376.0	184.3	6,378.6	0.00	0.00	0.00

MEWBOURNE OIL COMPANY

Planning Report

Database:	EDM	**Local Co-ordinate Reference**	Well #762H
Company:	MEWBOURNE OIL COMPANY	**TVD Reference:**	kb = 25' @ 3124.0usft
Project:	Eddy County, NM (NAD 83 NME)	**MD Reference:**	kb = 25' @ 3124.0usft
Site:	Althea 18 Fed	**North Reference:**	Grid
Well:	#762H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1 RT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,200.0	90.00	359.85	11,470.0	6,476.0	184.0	6,478.6	0.00	0.00	0.00
18,300.0	90.00	359.85	11,470.0	6,576.0	183.8	6,578.6	0.00	0.00	0.00
18,400.0	90.00	359.85	11,470.0	6,676.0	183.5	6,678.5	0.00	0.00	0.00
18,500.0	90.00	359.85	11,470.0	6,776.0	183.3	6,778.5	0.00	0.00	0.00
18,600.0	90.00	359.85	11,470.0	6,876.0	183.0	6,878.4	0.00	0.00	0.00
18,700.0	90.00	359.85	11,470.0	6,976.0	182.7	6,978.4	0.00	0.00	0.00
18,800.0	90.00	359.85	11,470.0	7,076.0	182.5	7,078.4	0.00	0.00	0.00
18,900.0	90.00	359.85	11,470.0	7,176.0	182.2	7,178.3	0.00	0.00	0.00
18,986.0	90.00	359.85	11,470.0	7,262.0	182.0	7,264.3	0.00	0.00	0.00

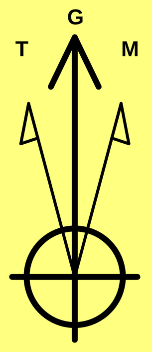
Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	10,992.5	-433.0	201.0	376,842.00	670,573.00	32° 2' 7.198 N	103° 54' 58.573 W
FTP(Althea 18 Fed Com - plan hits target center - Point	0.00	0.00	11,427.3	-153.0	201.0	377,122.00	670,573.00	32° 2' 9.969 N	103° 54' 58.560 W
PBHL(Althea 18 Fed Co - plan hits target center - Point	0.00	0.00	11,470.0	7,262.0	182.0	384,537.00	670,554.00	32° 3' 23.349 N	103° 54' 58.448 W

Eddy County, NM (NAD 83 NME)

Althea 18 Fed #762H

Plan #0.1 RT



Azimuths to Grid North
True North: -0.22°
Magnetic North: 6.58°

Magnetic Field
Strength: 47446.0nT
Dip Angle: 59.71°
Date: 7/10/2020
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.58°
To convert a Magnetic Direction to a True Direction, Add 6.80° East
To convert a True Direction to a Grid Direction, Subtract 0.22°

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

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

WELL DETAILS: #762H

3099.0
kb = 25' @ 3124.0usft

Northing	Easting	Latittude	Longitude
377275.00	670372.00	32° 2' 11.491 N	103° 55' 0.888 W

SECTION DETAILS

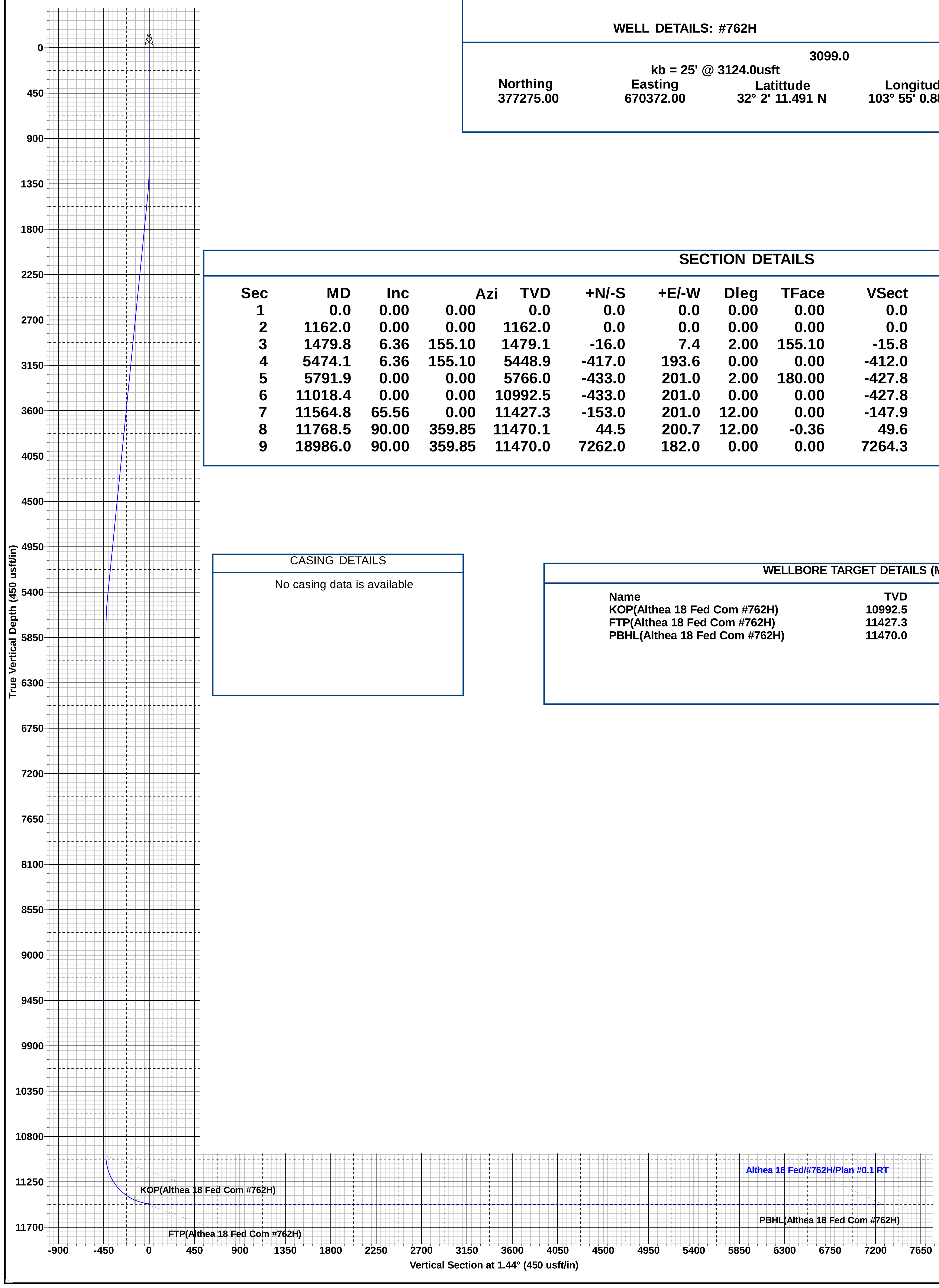
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1162.0	0.00	0.00	1162.0	0.0	0.0	0.00	0.00	0.0	
3	1479.8	6.36	155.10	1479.1	-16.0	7.4	2.00	155.10	-15.8	
4	5474.1	6.36	155.10	5448.9	-417.0	193.6	0.00	0.00	-412.0	
5	5791.9	0.00	0.00	5766.0	-433.0	201.0	2.00	180.00	-427.8	
6	11018.4	0.00	0.00	10992.5	-433.0	201.0	0.00	0.00	-427.8	KOP(Althea 18 Fed Com #762H)
7	11564.8	65.56	0.00	11427.3	-153.0	201.0	12.00	0.00	-147.9	FTP(Althea 18 Fed Com #762H)
8	11768.5	90.00	359.85	11470.1	44.5	200.7	12.00	-0.36	49.6	
9	18986.0	90.00	359.85	11470.0	7262.0	182.0	0.00	0.00	7264.3	PBHL(Althea 18 Fed Com #762H)

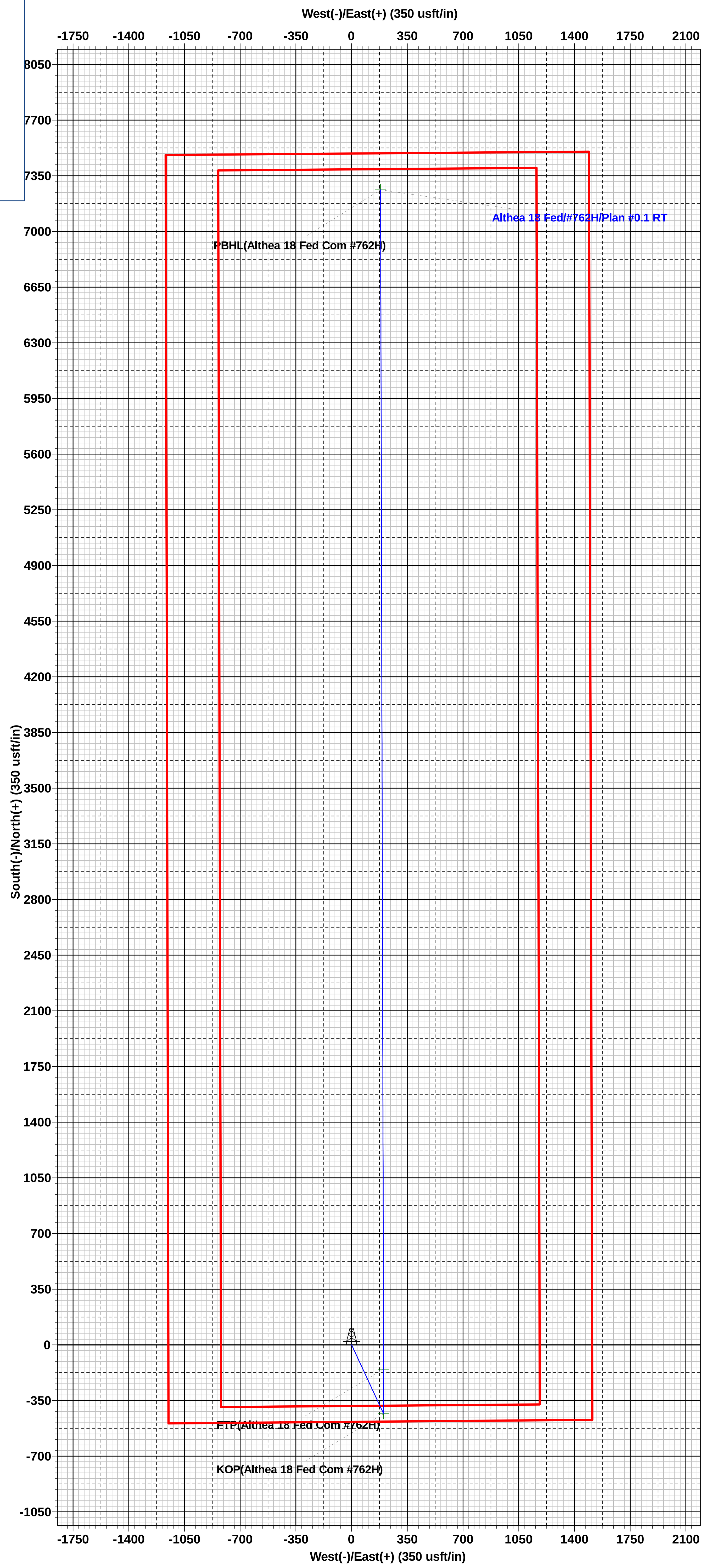
CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Althea 18 Fed Com #762H)	10992.5	-433.0	201.0	376842.00	670573.00
FTP(Althea 18 Fed Com #762H)	11427.3	-153.0	201.0	377122.00	670573.00
PBHL(Althea 18 Fed Com #762H)	11470.0	7262.0	182.0	384537.00	670554.00





Eddy County, NM (NAD 83 NME)
Althea 18 Fed
#762H
OH
Plan #0.1 RT
11:52, July 10 2020

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	ALTHEA 18 FED 762H
SURFACE HOLE FOOTAGE:	485'/S & 1511'/E
BOTTOM HOLE FOOTAGE	2430'/S & 1310'/E
LOCATION:	Section 18, T.26 S., R.30 E., NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	○ Yes	● No	
Potash	● None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	● Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ 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

Primary Casing Design:

1. The **9-5/8** inch surface casing shall be set at approximately **1,060** feet (a minimum of 70 feet (Eddy 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

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completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **<u>8 hours</u>** 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 **7-5/8** inch intermediate casing shall be set at approximately **9,405** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

<u>Option 1 (Single Stage):</u>

- 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.**

<u>Option 2:</u>

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In <u>Medium Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. <u>Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.</u>

3. The **5-1/2** inch production casing shall be set at approximately **18,986** feet The minimum required fill of cement behind the **5-1/2** inch production casing is:

   <u>Option 1 (Single Stage):</u>

   - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

   <u>Option 2:</u>

   Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

   a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool:

      - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

<u>Alternate Casing Design:</u>

1. The **13-3/8** inch surface casing shall be set at approximately **1,060** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

   e. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
   f. Wait on cement (WOC) time for a primary cement job will be a minimum of **<u>8 hours</u>** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
   g. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
   h. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch intermediate casing shall be set at approximately **3,270** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

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Option 1 (Single Stage):

- 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.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

d. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The **7-5/8** inch intermediate casing shall be set at approximately **9,405** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- 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.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

e. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

f. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

4. The **5-1/2** inch production casing shall be set at approximately **18,986** feet The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

d. Second stage above DV tool:

- 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 3500 (3.5M) psi.**

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

GENERAL REQUIREMENTS

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

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

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        - Notify the BLM when moving in and removing the Spudder Rig.

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- 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. <u>Wait on cement (WOC) for Potash Areas:</u> 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 <u>24 hours</u>. 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. <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. 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.

 Approval Date: 01/25/2023

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.

g. 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.

KPI – 1/20/2023

MEWBOURNE OIL COMPANY

ALTHEA 18 FED #762H

Hydrogen Sulfide Plan Summary

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

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

C. Required Emergency Equipment:

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

- Protective equipment for essential personnel.

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

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

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

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

MEWBOURNE OIL COMPANY

ALTHEA 18 FED #762H

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

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

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

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels

Waste disposal frequency : Daily

Safe containment description: Steel Tanks

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Operator Name: MEWBOURNE OIL COMPANY

Well Name: ALTHEA 18 FED **Well Number:** 762H

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

4_Althea_18_Fed_Wellsite_762H_20200902144835.pdf

5_Althea_18_Fed_Padsite_762H_20200902144849.pdf

Althea_18_Fed_762H_Rig_Layout_20200902144857.pdf

ALTHEA_18_FED_PAD_B_CUTFILL_20200902144913.pdf

Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4 Cut & Fill Exhibit 6, 6A & 6B

Section 10 - Plans for Surface

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: ALTHEA 18 FED

Multiple Well Pad Number: 762H/763H/773H/802H

Recontouring

6_Althea_18_Fed_Reclamation_Diagrams_762H_20200902144948.pdf

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

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

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

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

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an

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

CONDITIONS

Action 191658

CONDITIONS

Operator:	
MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 191658
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	3/7/2023
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/7/2023
kpickford	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	3/7/2023
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2023
kpickford	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	3/7/2023