Form 3160-3
(October 2024)

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2027

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM45236

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.: NMNM141242

8. Lease Name and Well No.: STERLING SILVER MDP1 33_4 FEDERA 46H

2. Name of Operator: OXY USA INCORPORATED

9. API Well No.: 30-015-57470

3a. Address: 5 GREENWAY PLAZA SUITE 110, HOUSTON, TX 77046

3b. Phone No. *(include area code)*: (713) 366-5716

10. Field and Pool, or Exploratory: WC-015 G-08 S233135D/PURPLE SAGE

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

At surface: SWSE / 794 FSL / 1566 FEL / LAT 32.2703651 / LONG -103.7792742

At proposed prod. zone: SESE / 20 FSL / 440 FEL / LAT 32.2391864 / LONG -103.7756548

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 28/T23S/R31E/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): 794 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 640.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 12508 feet / 23317 feet

20. BLM/BIA Bond No. in file: FED: ESB000226

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3385 feet

22. Approximate date work will start*: 06/01/2024

23. Estimated duration: 45 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)*: LESLIE REEVES / Ph: (713) 366-5716

Date: 09/12/2023

Title: Advisor Regulatory

Approved by *(Signature)*: (Electronic Submission)

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

Date: 10/23/2025

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.

Per 19.15.7.16 NMAC, OXY USA Inc. certifies that they will not introduce any additives that contain PFAS chemicals in the completion or recompletion of the subject well.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/23/2025

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

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

(Continued on page 3)

Approval Date: 10/23/2025

Additional Operator Remarks

Location of Well

0. SHL: SWSE / 794 FSL / 1566 FEL / TWSP: 23S / RANGE: 31E / SECTION: 28 / LAT: 32.2703651 / LONG: -103.7792742 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 440 FEL / TWSP: 23S / RANGE: 31E / SECTION: 33 / LAT: 32.2679073 / LONG: -103.7756299 (TVD: 12443 feet, MD: 12868 feet)

PPP: LOT 1 / 0 FNL / 446 FEL / TWSP: 24S / RANGE: 31E / SECTION: 4 / LAT: 32.2536635 / LONG: -103.7756421 (TVD: 12475 feet, MD: 18050 feet)

BHL: SESE / 20 FSL / 440 FEL / TWSP: 24S / RANGE: 31E / SECTION: 4 / LAT: 32.2391864 / LONG: -103.7756548 (TVD: 12508 feet, MD: 23317 feet)

BLM Point of Contact

Name: TENILLE C MOLINA
Title: Land Law Examiner
Phone: (575) 234-2224
Email: TCMOLINA@BLM.GOV

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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-57470	98236	WC-015 G-08 S233135D; WOLFCAMP

Property Code	Property Name	Well Number
322740	STERLING SILVER MDP1 33_4 FED COM	46H

OGRID No.	Operator Name	Ground Level Elevation
16696	OXY USA INC.	3385'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	28	23S	31E		794' FSL	1566' FEL	32.27036518	-103.77927429	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	4	24S	31E		20' FSL	440' FEL	32.23918643	-103.77565477	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320	INFILL	175H - 30-015-45388	N	C

Order Numbers. N | Well setbacks are under Common Ownership: ☐Yes ☑No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	28	23S	31E		300' FSL	440' FEL	32.26900690	-103.77563051	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	33	23S	31E		100' FNL	440' FEL	32.26790738	-103.77562992	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	4	24S	31E		100' FSL	440' FEL	32.23940633	-103.77565432	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☑ Horizontal ☐ Vertical	Ground Floor Elevation:
NMNM141242		3385'

OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Melissa Guidry 10/28/25

Signature Date

Melissa Guidry

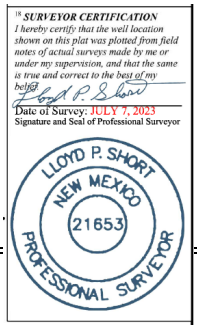
Printed Name

melissa_guidry@oxy.com

Email Address

SURVEYOR CERTIFICATIONS

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.



Signature and Seal of Professional Surveyor

Certificate Number

Date of Survey

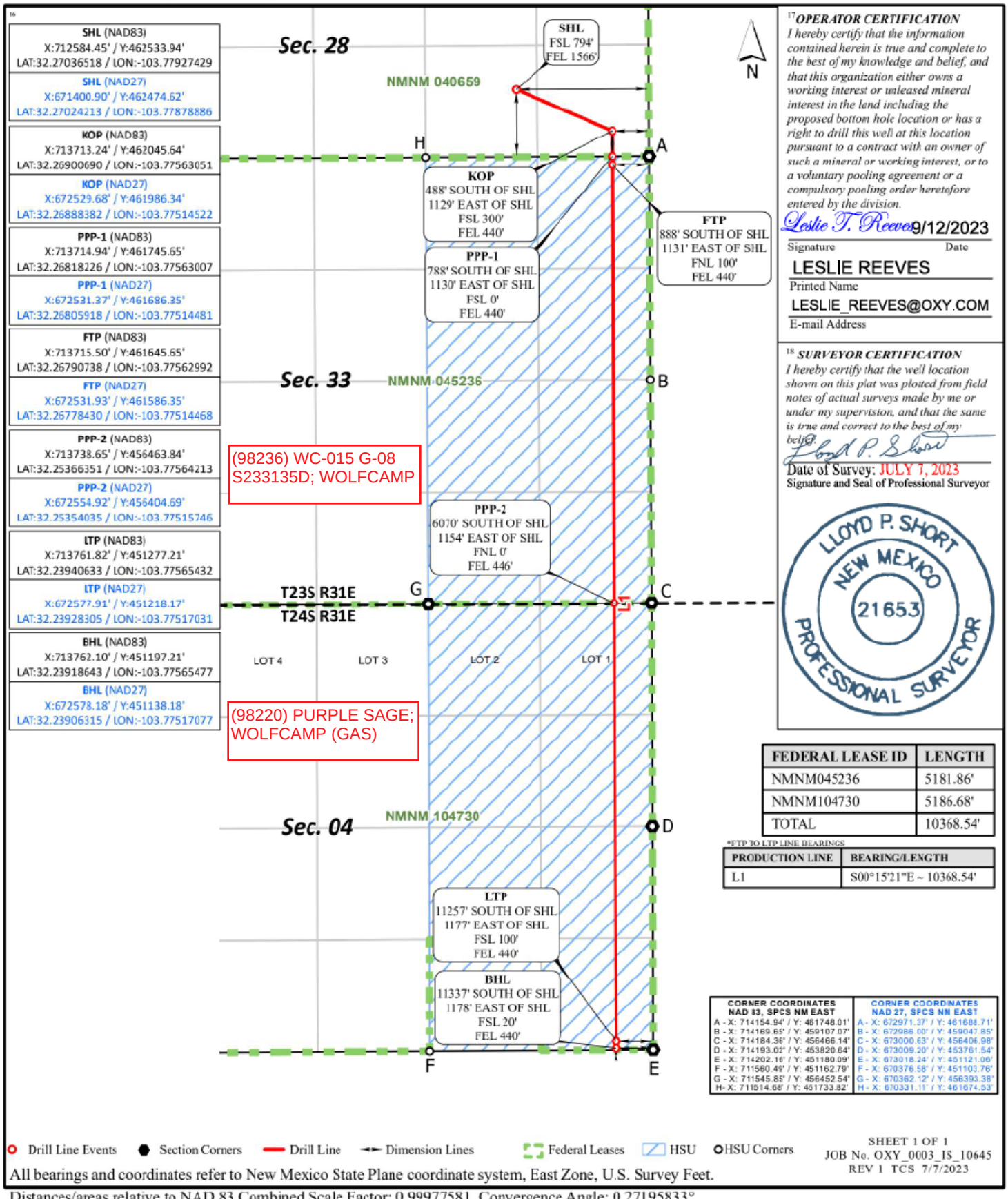
July 7, 2023

Note: 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.

ACREAGE DEDICATION PLATS

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

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



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

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name	
30-015-57470	98220	PURPLE SAGE; WOLFCAMP (GAS)	
Property Code	Property Name		Well Number
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OGRID No.	Operator Name		Ground Level Elevation
16696	OXY USA INC.		3385'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal	

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320.48	INFILL	175H - 30-015-45388	N	C
Order Numbers. N			Well setbacks are under Common Ownership: ☐Yes ☑No	

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Melissa Guidry 10/28/25

Signature Date

Melissa Guidry

Printed Name

melissa_guidry@oxy.com

Email Address

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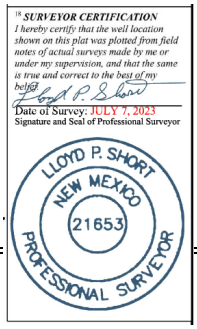

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Certificate Number

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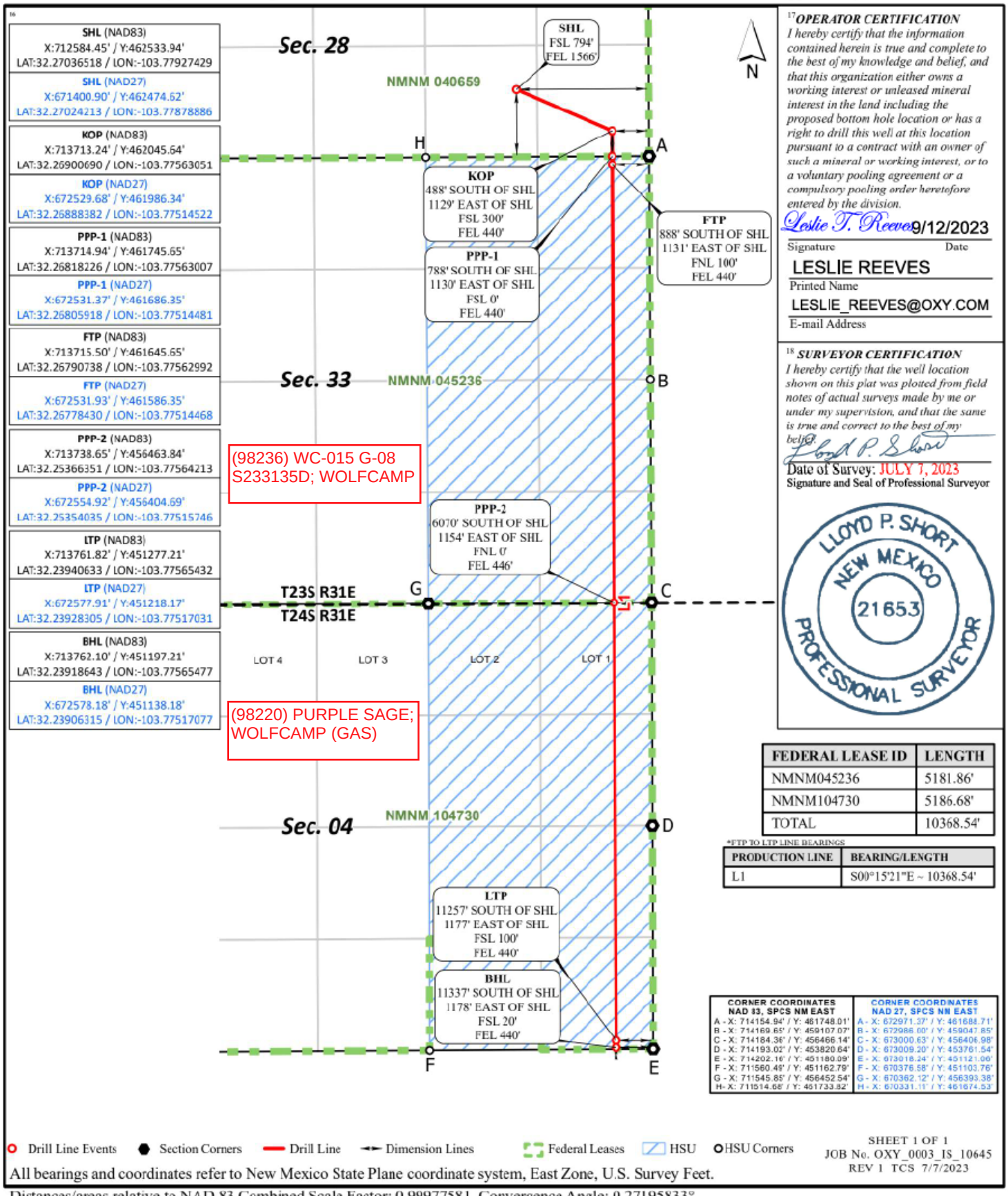


State of New Mexico
Energy, Minerals and Natural Resources Department

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: OXY USA INC. **OGRID:** 16696 **Date:** 12/22/23

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
SEE ATTACHED						

IV. Central Delivery Point Name: PURE GOLD CTB/IRIDIUM SAT/STERLING SILVER CTB [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
SEE ATTACHED						

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:	Roni Mathew
Printed Name:	Roni Mathew
Title:	Regulatory Advisor
E-mail Address:	roni_mathew@oxy.com
Date:	12/22/2023
Phone:	713-215-7827

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

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

III. Well(s)

Well Name	API	WELL LOCATION (ULSTR)	Footages	ANTICIPATED OIL BBL/D	ANTICIPATED GAS MCF/D	ANTICIPATED PROD WATER BBL/D
IRIDIUM MDP1 28_21 FED COM 12H	PENDING	O-28-23S-31E	671 FSL 1927 FEL	482	1685	1496
IRIDIUM MDP1 28_21 FED COM 13H	PENDING	O-28-23S-31E	671 FSL 1897 FEL	602	2106	1870
IRIDIUM MDP1 28_21 FED COM 14H	PENDING	O-28-23S-31E	671 FSL 1867 FEL	602	2106	1870
IRIDIUM MDP1 28_21 FED COM 22H	PENDING	N-28-23S-31E	610 FSL 1829 FWL	606	3882	1087
IRIDIUM MDP1 28_21 FED COM 23H	PENDING	N-28-23S-31E	610 FSL 1859 FWL	758	4852	1359
IRIDIUM MDP1 28_21 FED COM 24H	PENDING	O-28-23S-31E	671 FSL 1807 FEL	758	4852	1359
IRIDIUM MDP1 28_21 FED COM 25H	PENDING	O-28-23S-31E	670 FSL 1777 FEL	758	4852	1359
IRIDIUM MDP1 28_21 FED COM 26H	PENDING	O-28-23S-31E	670 FSL 1747 FEL	758	4852	1359
IRIDIUM MDP1 28_21 FED COM 42H	PENDING	N-28-23S-31E	609 FSL 1919 FWL	537	4285	2607
IRIDIUM MDP1 28_21 FED COM 43H	PENDING	N-28-23S-31E	609 FSL 1949 FWL	537	4285	2607
IRIDIUM MDP1 28_21 FED COM 44H	PENDING	O-28-23S-31E	670 FSL 1687 FEL	537	4285	2607
IRIDIUM MDP1 28_21 FED COM 45H	PENDING	O-28-23S-31E	670 FSL 1657 FEL	430	3428	2086
IRIDIUM MDP1 28_21 FED COM 46H	PENDING	O-28-23S-31E	669 FSL 1597 FEL	537	4285	2607
IRIDIUM MDP1 28_21 FED COM 47H	PENDING	O-28-23S-31E	669 FSL 1567 FEL	564	4499	2737
IRIDIUM MDP1 28-21 FED COM 71H	PENDING	N-28-23S-31E	610 FSL 1739 FWL	896	2118	1591
IRIDIUM MDP1 28-21 FED COM 72H	PENDING	N-28-23S-31E	610 FSL 1769 FWL	896	2118	1591
IRIDIUM MDP1 28-21 FED COM 73H	PENDING	O-28-23S-31E	672 FSL 2017 FEL	896	2118	1591
IRIDIUM MDP1 28-21 FED COM 74H	PENDING	O-28-23S-31E	672 FSL 1987 FEL	896	2118	1591
STERLING SILVER MDP1 33_4 FED COM 11H	PENDING	N-28-23S-31E	735 FSL 1800 FWL	602	2106	1870
STERLING SILVER MDP1 33_4 FED COM 12H	PENDING	N-28-23S-31E	735 FSL 1830 FWL	602	2106	1870
STERLING SILVER MDP1 33_4 FED COM 13H	PENDING	O-28-23S-31E	796 FSL 1836 FEL	602	2106	1870
STERLING SILVER MDP1 33_4 FED COM 14H	PENDING	O-28-23S-31E	796 FSL 1806 FEL	602	2106	1870
STERLING SILVER MDP1 33_4 FED COM 21H	PENDING	N-28-23S-31E	736 FSL 1680 FWL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 22H	PENDING	N-28-23S-31E	736 FSL 1710 FWL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 23H	PENDING	N-28-23S-31E	735 FSL 1740 FWL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 24H	PENDING	O-28-23S-31E	795 FSL 1746 FEL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 25H	PENDING	O-28-23S-31E	795 FSL 1716 FEL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 26H	PENDING	O-28-23S-31E	795 FSL 1686 FEL	758	4852	1359
STERLING SILVER MDP1 33_4 FED COM 41H	PENDING	N-28-23S-31E	735 FSL 1890 FWL	597	4761	2897
STERLING SILVER MDP1 33_4 FED COM 42H	PENDING	N-28-23S-31E	734 FSL 1920 FWL	597	4761	2897
STERLING SILVER MDP1 33_4 FED COM 43H	PENDING	N-28-23S-31E	734 FSL 1950 FWL	597	4761	2897
STERLING SILVER MDP1 33_4 FED COM 44H	PENDING	O-28-23S-31E	795 FSL 1626 FEL	597	4761	2897
STERLING SILVER MDP1 33_4 FED COM 45H	PENDING	O-28-23S-31E	794 FSL 1596 FEL	597	4761	2897
STERLING SILVER MDP1 33_4 FED COM 46H	PENDING	O-28-23S-31E	794 FSL 1566 FEL	597	4761	2897
STERLING SILVER MDP1 33-4 FED COM 71H	PENDING	C-33-23S-31E	105 FNL 1854 FWL	896	2118	1591
STERLING SILVER MDP1 33-4 FED COM 72H	PENDING	C-33-23S-31E	75 FNL 1854 FWL	896	2118	1591
STERLING SILVER MDP1 33-4 FED COM 73H	PENDING	C-33-23S-31E	45 FNL 1854 FWL	717	1694	1273

Values represent 6 Month Average

V. Anticipated Schedule

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
IRIDIUM MDP1 28_21 FED COM 12H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 13H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 14H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 22H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 23H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 24H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 25H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 26H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 42H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 43H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 44H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 45H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 46H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28_21 FED COM 47H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28-21 FED COM 71H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28-21 FED COM 72H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28-21 FED COM 73H	PENDING	TBD	TBD	TBD	TBD	TBD
IRIDIUM MDP1 28-21 FED COM 74H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 11H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 12H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 13H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 14H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 21H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 22H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 23H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 24H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 25H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 26H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 41H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 42H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 43H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 44H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 45H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33_4 FED COM 46H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33-4 FED COM 71H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33-4 FED COM 72H	PENDING	TBD	TBD	TBD	TBD	TBD
STERLING SILVER MDP1 33-4 FED COM 73H	PENDING	TBD	TBD	TBD	TBD	TBD

Part VI. Separation Equipment

Operator will size the flowback separator to handle 12,000 Bbls of fluid and 6-10MMscfd which is more than the expected peak rates for these wells. Each separator is rated to 1440psig, and pressure control valves and automated communication will cause the wells to shut in in the event of an upset at the facility, therefore no gas will be flared on pad during an upset. Current Oxy practices avoid use of flare or venting on pad, therefore if there is an upset or emergency condition at the facility, the wells will immediately shut down, and reassume production once the condition has cleared.

VII. Operational Practices

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to Enterprise Field Services, LLC ("Enterprise") and is connected to Enterprise low/high pressure gathering system located in Eddy County, New Mexico. OXY USA INC. ("OXY") provides (periodically) to Enterprise a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY and Enterprise have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise's Processing Plant located in Sec. 36, Twn. 24S, Rng. 30E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Enterprise system at that time. Based on current information, it is OXY's belief the system can take this gas upon completion of the well(s).

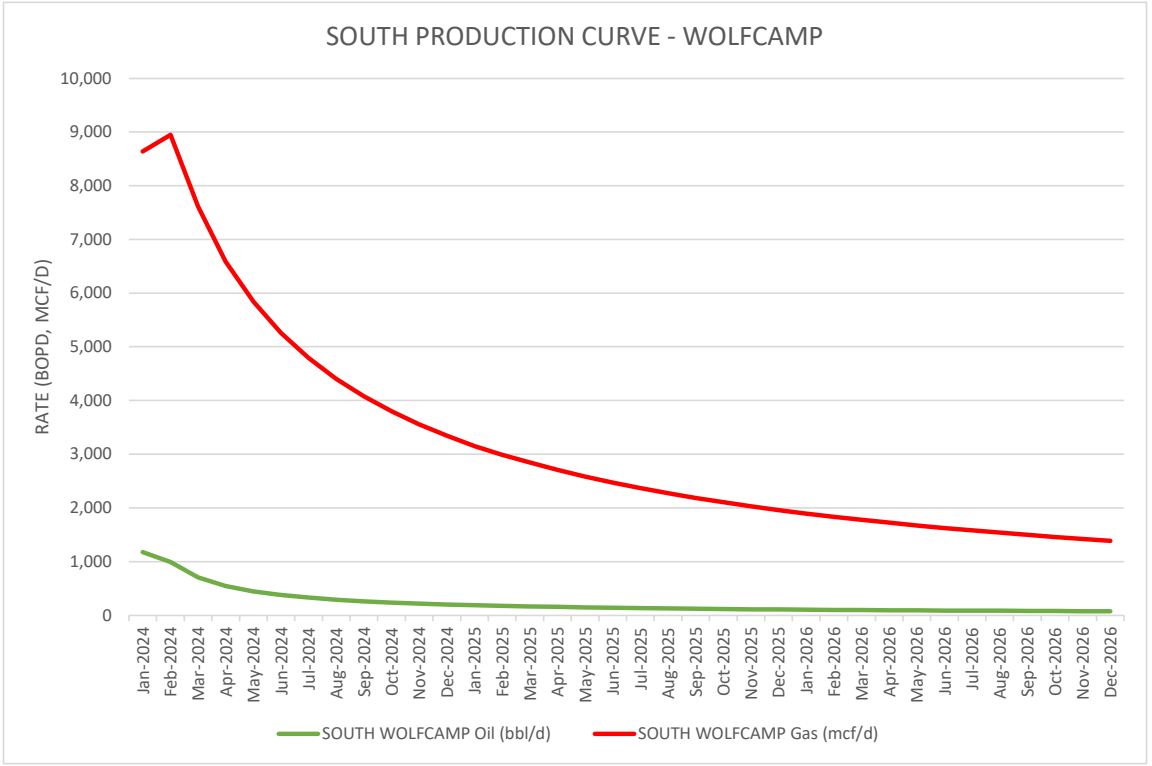
Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

VIII. Best Management Practices

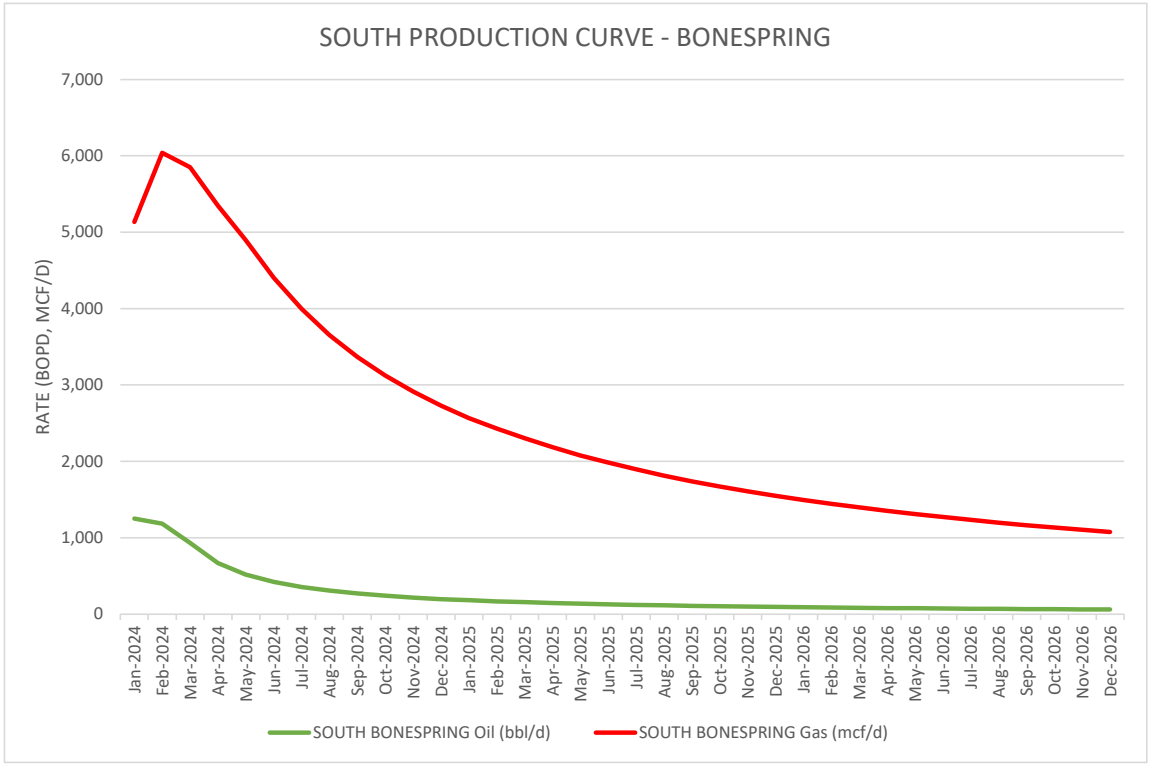
Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

	SOUTH WOLFCAMP	
	Oil (bbl/d)	Gas (mcf/d)
Jan-2024	1,178	8,636
Feb-2024	995	8,951
Mar-2024	706	7,614
Apr-2024	544	6,588
May-2024	445	5,841
Jun-2024	377	5,261
Jul-2024	328	4,794
Aug-2024	291	4,402
Sep-2024	261	4,076
Oct-2024	238	3,797
Nov-2024	218	3,555
Dec-2024	201	3,343
Jan-2025	187	3,152
Feb-2025	175	2,990
Mar-2025	165	2,844
Apr-2025	156	2,708
May-2025	148	2,584
Jun-2025	140	2,471
Jul-2025	133	2,368
Aug-2025	127	2,272
Sep-2025	122	2,184
Oct-2025	117	2,104
Nov-2025	112	2,029
Dec-2025	108	1,959
Jan-2026	104	1,893
Feb-2026	101	1,834
Mar-2026	97	1,778
Apr-2026	94	1,725
May-2026	91	1,674
Jun-2026	89	1,626
Jul-2026	86	1,581
Aug-2026	84	1,538
Sep-2026	81	1,498
Oct-2026	79	1,460
Nov-2026	77	1,423
Dec-2026	75	1,389



	SOUTH BONESPRING	
	Oil (bbl/d)	Gas (mcf/d)
Jan-2024	1,250	5,135
Feb-2024	1,184	6,041
Mar-2024	933	5,849
Apr-2024	670	5,349
May-2024	517	4,893
Jun-2024	421	4,401
Jul-2024	355	3,994
Aug-2024	306	3,652
Sep-2024	270	3,368
Oct-2024	240	3,125
Nov-2024	217	2,915
Dec-2024	197	2,731
Jan-2025	181	2,566
Feb-2025	167	2,426
Mar-2025	155	2,301
Apr-2025	145	2,184
May-2025	136	2,078
Jun-2025	127	1,982
Jul-2025	120	1,894
Aug-2025	114	1,812
Sep-2025	108	1,739
Oct-2025	102	1,670
Nov-2025	98	1,607
Dec-2025	93	1,549
Jan-2026	89	1,493
Feb-2026	85	1,444
Mar-2026	82	1,398
Apr-2026	79	1,353
May-2026	76	1,311
Jun-2026	73	1,271
Jul-2026	71	1,234
Aug-2026	68	1,198
Sep-2026	66	1,165
Oct-2026	64	1,133
Nov-2026	62	1,104
Dec-2026	60	1,075



Oxy USA Inc. - STERLING SILVER MDP1 33_4 FEDERAL COM 46H
Drill Plan

1. Geologic Formations

TVD of Target (ft):	12499	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	23308	Deepest Expected Fresh Water (ft):	481

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	481	481	
Salado	824	824	Salt
Castile	2747	2747	Salt
Delaware	4260	4260	Oil/Gas/Brine
Bell Canyon	4285	4285	Oil/Gas/Brine
Cherry Canyon	5182	5182	Oil/Gas/Brine
Brushy Canyon	6470	6461	Losses
Bone Spring	8113	8079	Oil/Gas
Bone Spring 1st	9194	9142	Oil/Gas
Bone Spring 2nd	9825	9764	Oil/Gas
Bone Spring 3rd	11021	10941	Oil/Gas
Wolfcamp	11491	11404	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

		MD		TVD					
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	17.5	0	541	0	541	13.375	54.5	J-55	BTC
Salt	12.25	0	4360	0	4360	9.625	40	L-80 HC	BTC
Intermediate	8.75	0	11892	0	11798	7.625	26.4	L-80 HC	Wedge 425
Production	6.75	0	23308	0	12499	5.5	20	P-110	Wedge 461

All casing strings will be tested in accordance with 43 CFR part 3170 Subpart 3172

All Casing SF Values will meet or exceed those below			
SF Collapse	**SF Burst**	**Body SF Tension**	**Joint SF Tension**
1.00	1.100	1.4	1.4

Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement. Please see Annular Clearance Variance attachment for further details.

	Y or N
Is casing new? If used, attach certification as required in 43 CFR 3160	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2nd string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	565	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	141	1.33	14.8	20%	3,860	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	1015	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	325	1.68	13.2	5%	6,720	Circulate	Class C+Ret., Disper.
Int. 2	2	Intermediate 2S - Tail BH	205	1.71	13.3	25%	3,860	Bradenhead Post-Frac	Class C+Accel.
Prod.	1	Production - Tail	675	1.84	13.3	25%	11,392	Circulate	Class C+Ret.

Offline Cementing Request

Oxy requests a variance to cement the 9.625” and/or 7.625” intermediate casing strings offline in accordance to the approved variance, EC Tran 461365. Please see Offline Cementing Variance attachment for further details.

Bradenhead CBL Request

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8” intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see Bradenhead CBL Variance attachment for further details.

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:	TVD Depth (ft) per Section:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	4360
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
8.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	11798
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	100% of working pressure	12499
		10M	Blind Ram	✓	250 psi / 10000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

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

5M Annular BOP Request

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see Annular BOP Variance attachment for further details.

	Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.
	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with 43 CFR part 3170 Subpart 3172.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	Y Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per 43 CFR part 3170 Subpart 3172 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

BOP Break Testing Request

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see BOP Break Testing Variance attachment for further details.

Oxy will use Cameron ADAPT wellhead system that uses an OEC top flange connection. This connection has been fully vetted and verified by API to Spec 6A and carries an API monogram.

5. Mud Program

Section	Depth		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	541	0	541	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	541	4360	541	4360	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	4360	11892	4360	11798	Water-Based or Oil-Based Mud	8.0 - 10.0	38-50	N/C
Production	11892	23308	11798	12499	Water-Based or Oil-Based Mud	9.5 - 13.5	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

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

6. Logging and Testing Procedures

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

Additional logs planned		Interval
No	Resistivity	
No	Density	
Yes	CBL	Production string
Yes	Mud log	Bone Spring – TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8775 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	180°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal

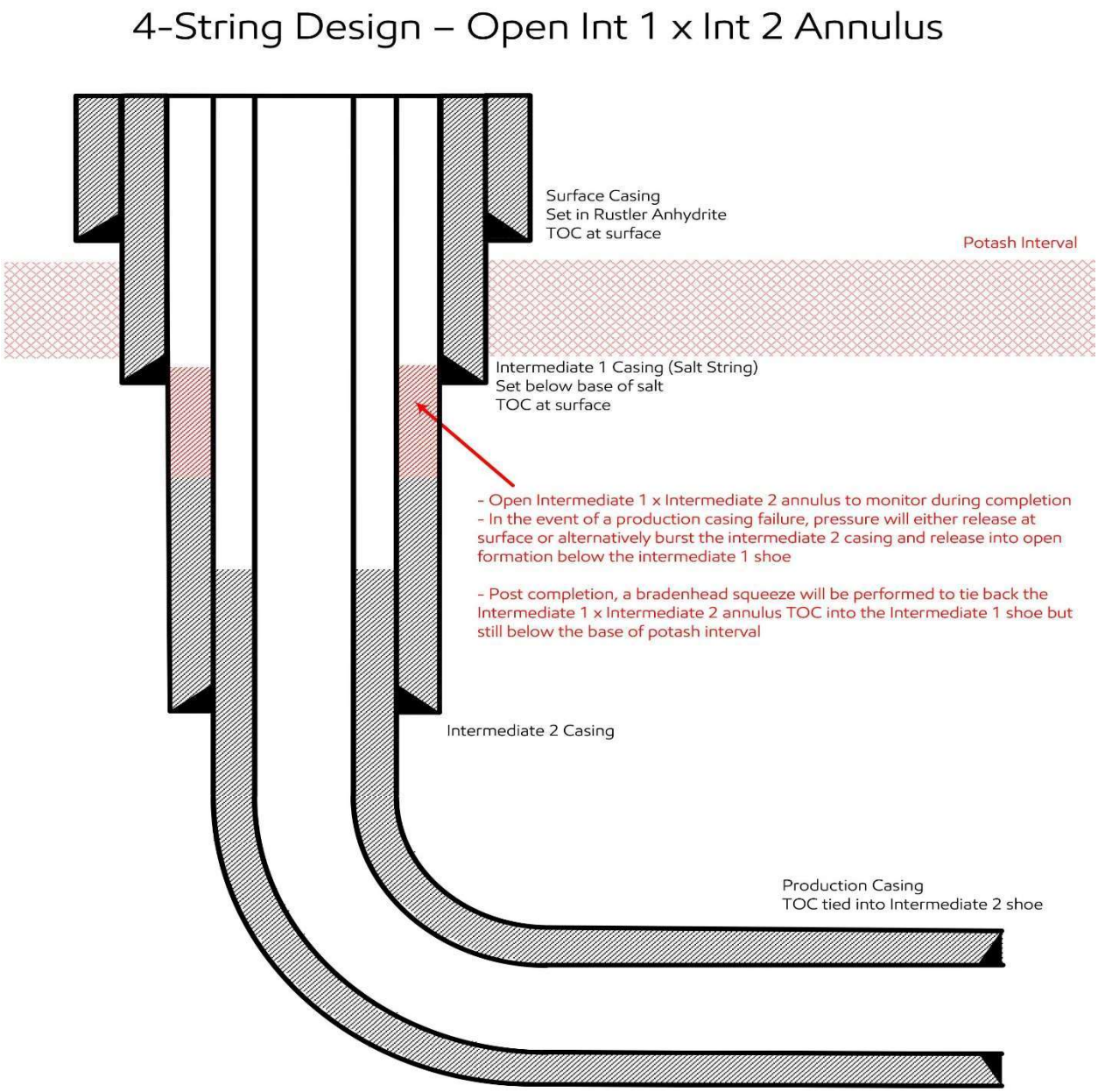
Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR part 3170 Subpart 3172. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 3 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

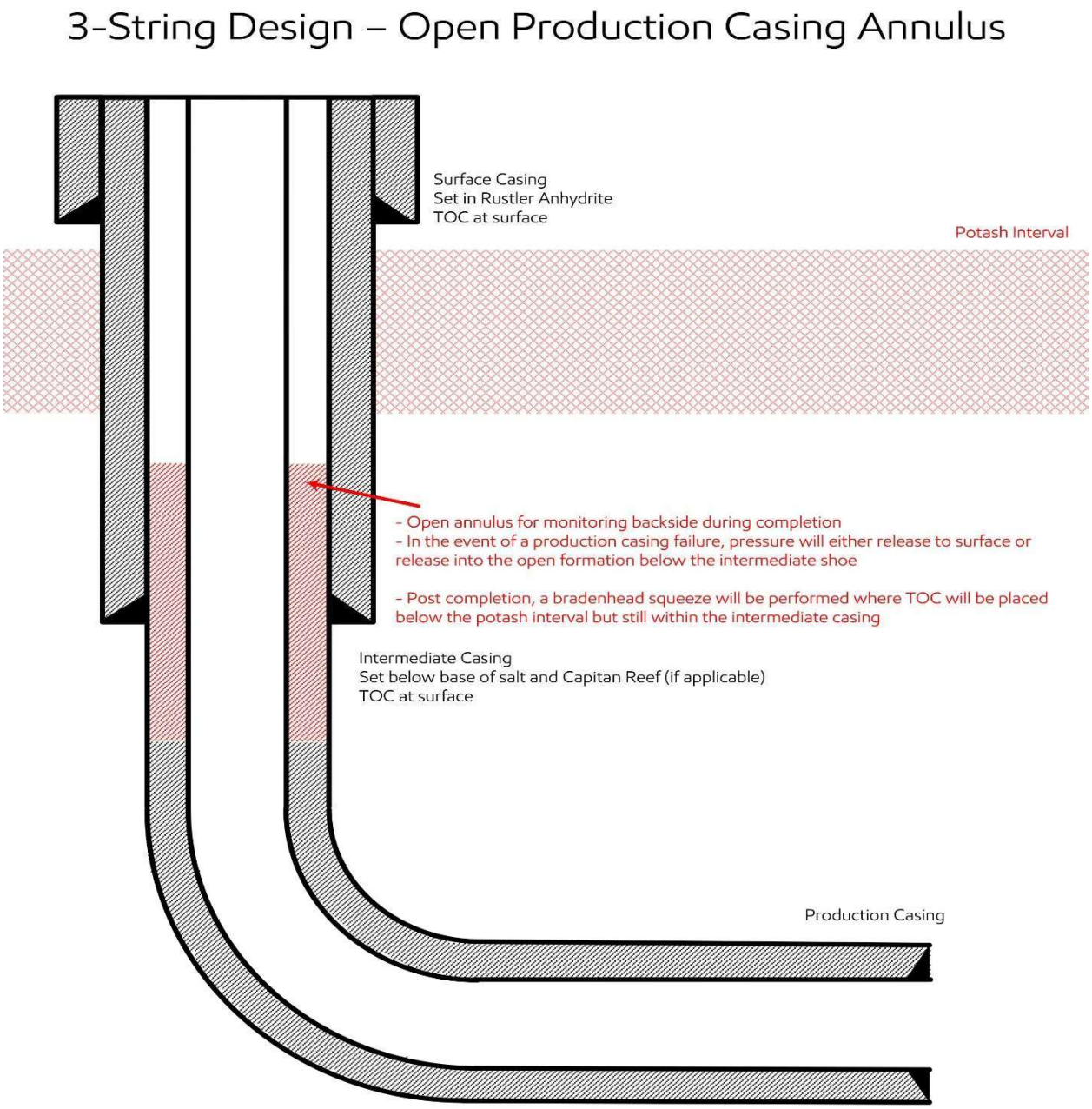
Total Estimated Cuttings Volume: 1784 bbls

Revision Date – May 21, 2024



Update May 2024:
OXY is aware of the R111-Q update and will comply with these requirements including (but not limited to):
1) Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
2) Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
3) Bradenhead squeeze to be completed within 180days to tie back TOC to salt string at least 500ft but with top below Marker Bed 126
4) Production cement to be tied back no less than 500ft inside previous casing shoe
5) While drilling salt interval, separation distance to any active/inactive producing offset well will be ensured such that SF > 1.0; Anti-Collision Reports will be provided with APD Packages for review where SF < 1.5 against any applicable offset well, or where center-to-center separation against a blind or inclination only surveyed offset well is less than 500ft

Revision Date – May 21, 2024



Update May 2024:
OXY is aware of the R111-Q update and will comply with these requirements including (but not limited to):
1) Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
2) Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
3) Bradenhead squeeze for Production cement to be completed within 180days to tie back TOC to previous casing string at least 500ft but with top below Marker Bed 126
4) While drilling salt interval, separation distance to any active/inactive producing offset well will be ensured such that SF > 1.0; Anti-Collision Reports will be provided with APD Packages for review where SF < 1.5 against any applicable offset well, or where center-to-center separation against a blind or inclination only surveyed offset well is less than 500ft

5M Annluar BOP Variance Request

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see Well Control Plan below.

Oxy Well Control Plan

A. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the >5M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Pilot hole and Lateral sections, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
HWDP	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Drill collars and MWD tools	4-3/4" – 5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Mud Motor	4-3/4"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Production casing	5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
ALL	0" - 13-5/8"	Annular	5M
Open-hole	6-3/4"	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.
HWDP = Heavy Weight Drill Pipe
MWD = Measurement While Drilling

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The pressure at which control is swapped from the annular to another compatible ram will occur when the anticipated pressure is approaching or envisioned to exceed 70% of the 5M annular Rated Working Pressure (RWP) or 3500 PSI.

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. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/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 expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

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. The HCR and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram

General Procedure While Running 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. The HCR and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan.
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
3. Confirm shut-in
4. Notify tool pusher/company representative
5. Read and record the following:
    a. SICP
    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 drill pipe thru the stack.
    a. Perform flow check, 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 pipe ram
    e. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
    f. Confirm shut-in
    g. Notify tool pusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. 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 compatible pipe ram
    d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify tool pusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. 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 drill pipe, and full opening safety valve and close
e. Space out drill string with tool joint just beneath the upper pipe ram
f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
g. Confirm shut-in
h. Notify tool pusher/company representative
i. Read and record the following:
    i. SIDPP and SICP
    ii. Pit gain
    iii. Time

j. Regroup and identify forward plan

BOP Break Testing Request

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:
- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.
- When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper.

If the kill line is broken prior to skid, two tests will be performed.
1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.
1)Wellhead flange, co-flex hose, check valve, upper pipe rams

See supporting information below:

Subject: Request for a Variance Allowing Break Testing of a Blowout Preventer Stack

OXY USA Inc. (OXY) requests a variance to allow break testing of the Blowout Preventer (BOP) stack when skidding a drilling rig between wells on multi-well pads. This practice entails retesting only the connections of the **BOP** stack that have been disconnected during this operation and not a complete **BOP** test.

Background

43 CFR part 3170 Subpart 3172 states that a **BOP** test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) is this requires a complete **BOP** test and not just a test of the affected component. 43 CFR part 3170 Subpart 3172, Section I.D.2. states, "Some situations may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this Order. This situation can be resolved by requesting a variance...". OXY feels the practice of break testing the **BOP** stack is such a situation. Therefore, as per 43 CFR part 3170 Subpart 3172, Section IV., OXY submits this request for the variance.

Supporting Rationale

43 CFR part 3170 Subpart 3172 became effective on December 19, 1988, and has remained the standard for regulating BLM onshore drilling operations for almost 30 years. During this time there have been significant changes in drilling technology. **BLM** continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since 43 CFR part 3170 Subpart 3172 was originally released. The drilling rig fleet OXY utilizes in New Mexico was built with many modern upgrades. One of which allows the rigs to skid between wells on multi-well pads. A part of this rig package is a hydraulic winch system which safely installs and removes the BOP from the wellhead and carries it during skidding operations. This technology has made break testing a safe and reliable procldure.

American Petroleum Institute (API) standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry. 43 CFR part 3170 Subpart 3172 recognized API Recommended Practices (RP) 53 in its original development. API Standard 53,

Blowout Prevention Equipment Systems for Drilling Wells (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 6.5.3.4.1.b states "Pressure tests on the well control equipment shall be conducted after the disconnection or repair of any pressure containment seal in the **BOP** stack, choke line, kill line, choke manifold, or wellhead assembly but limited to the affected component."

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specifications and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations. BSEE issued new offshore regulations under 30 CFR Part 250, *Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout Preventer Systems and Well Control,* which became effective on July 28, 2016. Section 250.737(d.1) states "Follow the testing requirements of API Standard 53". In addition, Section 250.737(d.8) has adopted language from **API** Standard 53 as it states "Pressure test affected **BOP** components following the disconnection or repair of any well-pressure containment seal in the wellhead or **BOP** stack assembly".

Break testing has been approved by the BLM in the past. See the Appendix for a Sundry Notice that was approved in 2015 by the Farmington Field Office. This approval granted permission for the operator to break test when skidding its Aztec 1000 rig on multi-well pads.

Oxy feels break testing and our current procedures meet the intent of 43 CFR part 3170 Subpart 3172 and often exceed it. We have not seen any evidence that break testing results in more components failing tests than seen on full BOP tests. As skidding operations take place within the 30-day full BOPE test window, the BOP shell and components such as the pipe rams and check valve get tested to the full rated working pressure more often. Therefore, there are more opportunities to ensure components are in good working order. Also, Oxy's standard requires complete BOP tests more often than that of 43 CFR part 3170 Subpart 3172. In addition to function testing the annular at least weekly and the pipe and blind rams on each trip, Oxy also performs a choke drill prior to drilling out every casing shoe. As a crew's training is a vital part of well control, this procedure to simulate step one of the Driller's Method exceeds the requirements of 43 CFR part 3170 Subpart 3172.

Procedures

1) OXY to submit the break testing plan in the APD or Sundry Notice (SN) and receive approval prior to implementing (See Appendix for examples)
2) OXY would perform BOP break testing on multi-well pads where multiple intermediate sections can be drilled and cased within the 30-day BOP test window
3) After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP.
   - Between the check valve and the kill line
   - Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
   - Between the BOP flange and the wellhead
4) The BOP is then lifted and removed from the wellhead by the hydraulic winch system
5) After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed
6) The choke line and kill line are reconnected
7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed
8) A shell teit is performed against the upper pipe rams testing all thl¯ee breaks
9) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
10) These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)
11) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
12) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated
13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window
14) If a second break test is performed, additional components that were not tested on the initial break test will be tested on this break test

Notes:

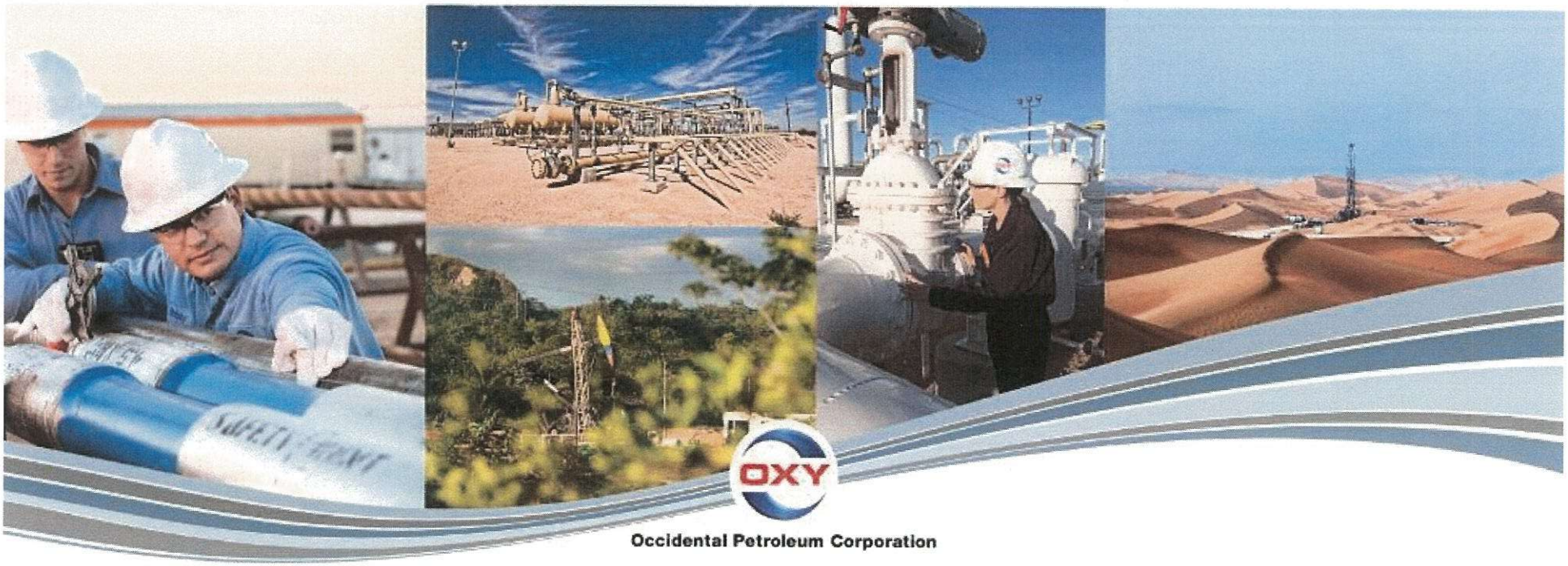
a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step 8 above, no further testing of the manifold is done until the next full BOP test.

Summary

OXY requests a variance to allow break testing of the BOP stack when skidding drilling rigs between wells on multi-well pads. API standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry and the BLM. API Standard 53 recognizes break testing as an acceptable practice and BSEE adopted language from this standard into its newly created 30 CFR Part 250 which also supports break testing. Due to this, OXY feels this request meets the intent of 43 CFR part 3170

REQUEST FOR A VARIANCE TO BREAK TEST THE BOP

Permian Resources New Mexico



Occidental Petroleum Corporation

Request for Variance

OXY USA Inc. (OXY) requests a variance to allow break testing of the Blowout Preventer (BOP) stack when skidding a drilling rig between wells on multi-well pads

- This practice entails retesting only the connections of the BOP stack that have been disconnected during this operation and not a complete BOP test.
- As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested, no further testing of the manifold is done until the next full BOP test.
- This request is being made as per Section IV of the *Onshore Oil and Gas Order (OOGO) No. 2*

Rationale for Allowing BOP Break Testing

American Petroleum Institute (API) standards, specifications and recommended practices are considered industry standards and are consistently utilized and referenced by the industry

- API Standard 53, *Blowout Prevention Equipment Systems for Drilling Wells* (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break testing as an acceptable practice.
- Specifically, API Standard 53, Section 6.5.3.4.1.b states "Pressure tests on the well control equipment shall be conducted after the disconnection or repair of any pressure containment seal in the BOP stack, choke line, kill line, choke manifold, or wellhead assembly but limited to the affected component."

Rationale for Allowing BOP Break Testing

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specifications and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

- BSEE issued new offshore regulations in July 2016 under 30 CFR Part 250, *Oil and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout Preventer Systems and Well Control.* Within these regulations is language adopted from API Standard 53 which also supports break testing.
- Specifically, Section 250.737(d.8) states "Pressure test affected BOP components following the disconnection or repair of any well-pressure containment seal in the wellhead or BOP stack assembly."

Rationale for Allowing BOP Break Testing

Break testing has been approved by the BLM in the past

- The Farmington Field Office approved a Sundry Notice (SN) to allow break testing in 2015
- This SN granted permission for the operator to break test when skidding its Aztec 1000 rig on multi-well pads

Oxy feels break testing and our current procedures meet or exceed the intent of OOGO No. 2

- As skidding operations take place within the 30-day full BOPE test window, the BOP shell and components such as the pipe rams and check valve get tested to the full rated working pressure more often
- Oxy's standard requires complete BOP tests more often than that of OOGO No. 2
- Oxy performs a choke drill prior to drilling out every casing shoe. As a crew's training is a vital part of well control, this procedure to simulate step one of the Driller's Method exceeds the requirements of OOGO No. 2

Break Testing Procedures

1) OXY to submit the break testing plan in the APD or Sundry Notice (SN) and receive approval prior to implementing

2) OXY would perform BOP break testing on multi-well pads where multiple intermediate sections can be drilled and cased within the full BOP test window

3) After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP.
   - Between the check valve and the kill line
   - Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
   - Between the BOP flange and the wellhead

4) The BOP is then lifted and removed from the wellhead by the hydraulic winch system

5) After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed

6) The choke line and kill line are reconnected

7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed

Break Testing Procedures

8) A shell test is performed against the upper pipe rams testing all three breaks

9) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them

10) These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)

11) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular

12) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated

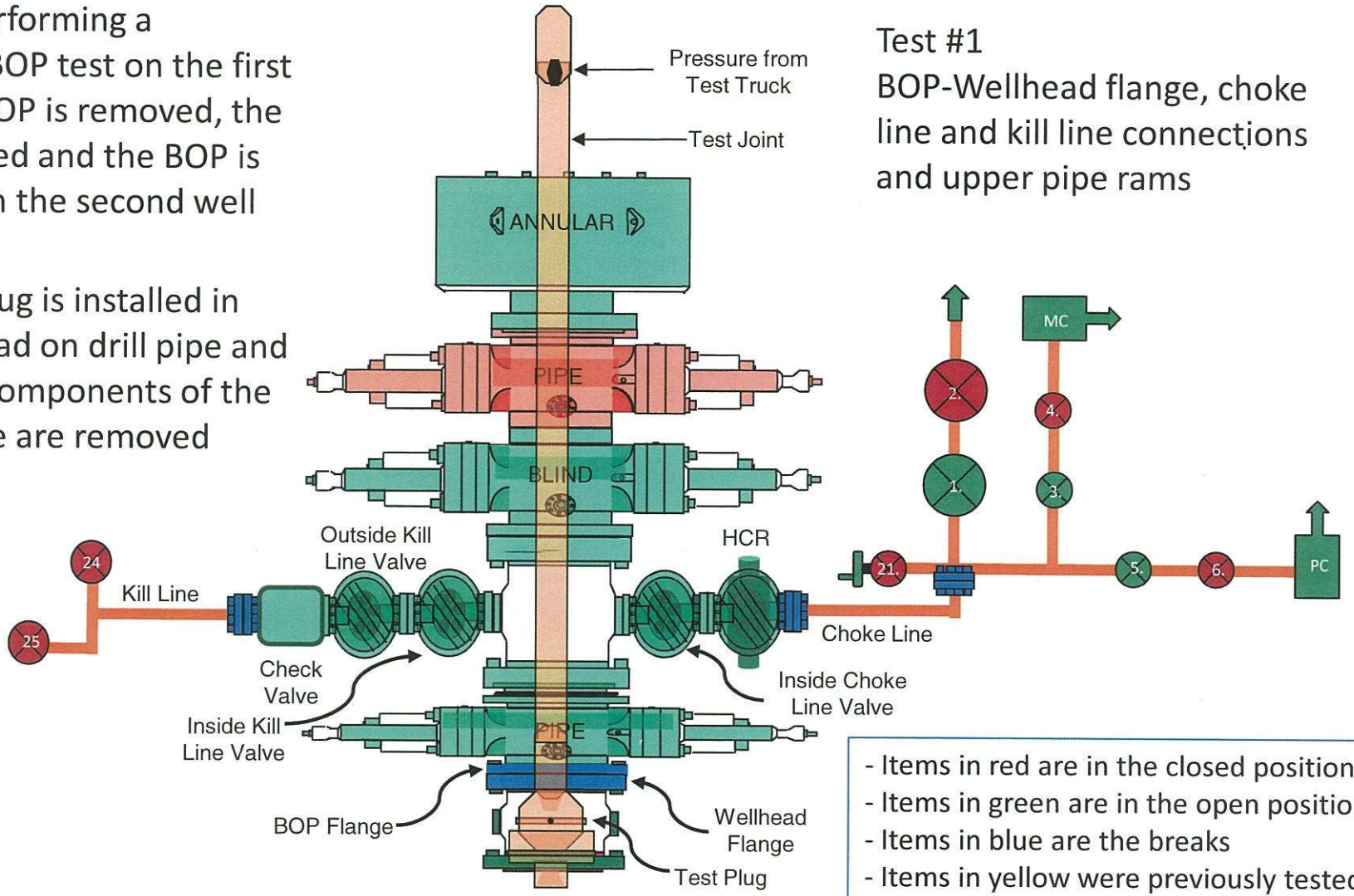
13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window

14) If a second break test is performed, additional components that were not tested on the first break test will be tested

Break Testing Procedures and Tests

1. After performing a complete BOP test on the first well, the BOP is removed, the rig is skidded and the BOP is installed on the second well

2. A test plug is installed in the wellhead on drill pipe and the inner components of the check valve are removed



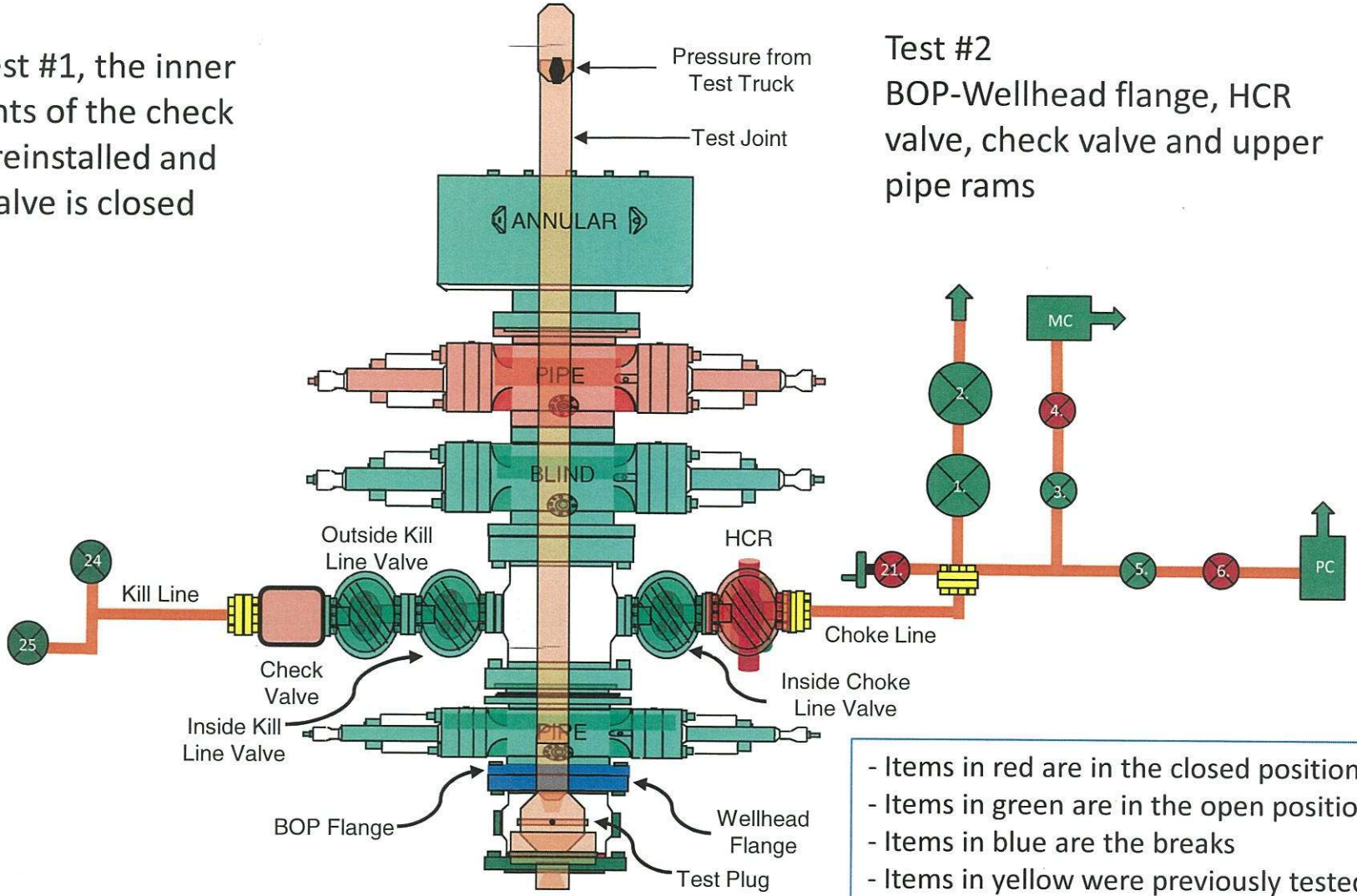
Test #1
BOP-Wellhead flange, choke line and kill line connections and upper pipe rams

- Items in red are in the closed position
- Items in green are in the open position
- Items in blue are the breaks
- Items in yellow were previously tested

Break Testing Procedures and Tests

3. After Test #1, the inner components of the check valve are reinstalled and the HCR valve is closed

Test #2
BOP-Wellhead flange, HCR valve, check valve and upper pipe rams

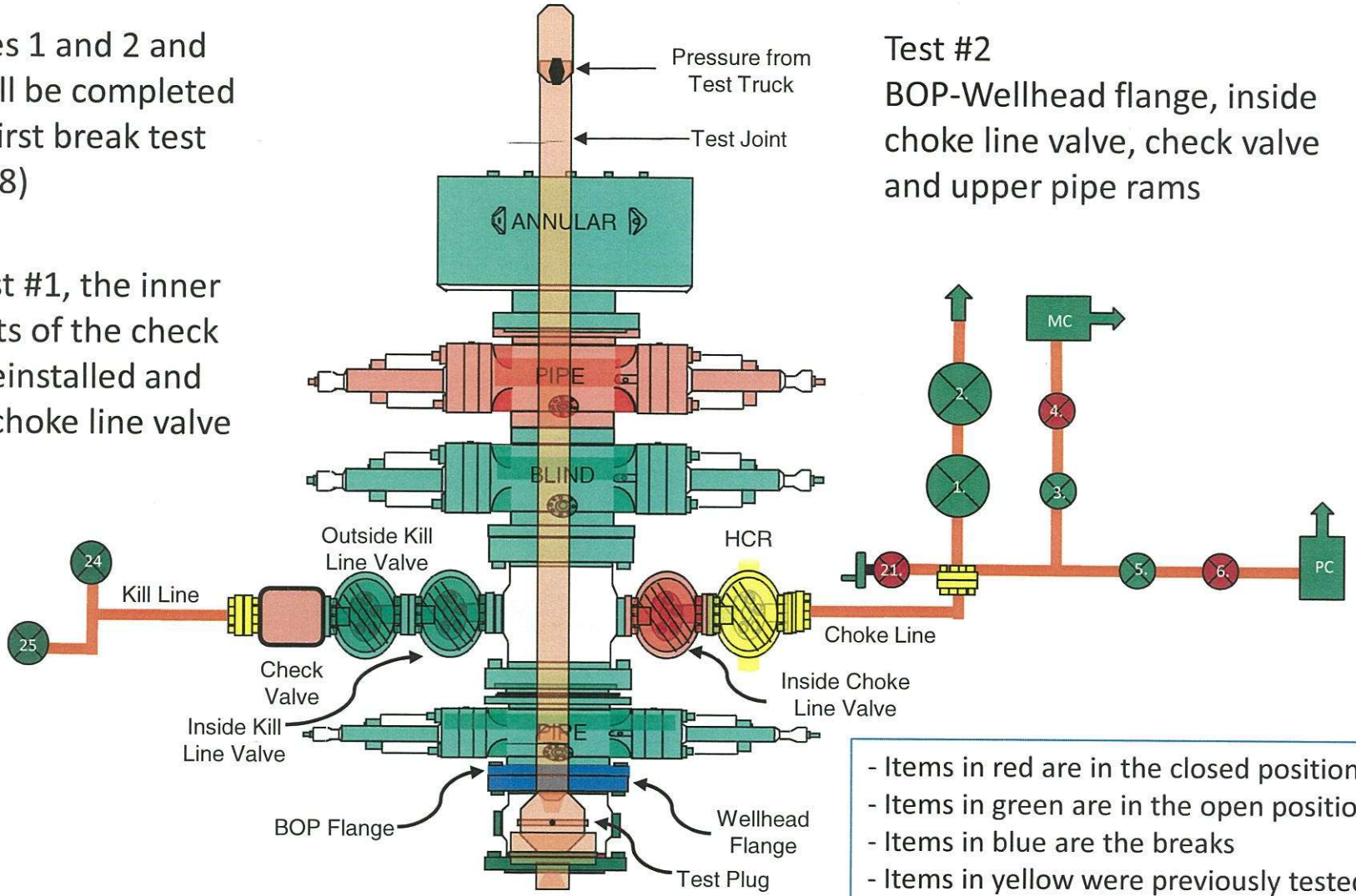


- Items in red are in the closed position
- Items in green are in the open position
- Items in blue are the breaks
- Items in yellow were previously tested

Second Break Testing Procedures and Tests

Procedures 1 and 2 and Test #1 will be completed as in the first break test (see slide 8)

3. After Test #1, the inner components of the check valve are reinstalled and the inside choke line valve is closed



Test #2
BOP-Wellhead flange, inside choke line valve, check valve and upper pipe rams

- Items in red are in the closed position
- Items in green are in the open position
- Items in blue are the breaks
- Items in yellow were previously tested

BOP Handling System

Hydraulic winch system which moves the BOP from its carrier to the wellhead

BOP standing in its carrier

BOP Handling System

Hydraulic winch system moving the BOP over to the wellhead

Wellhead

Summary for Variance Request for Break Testing

- API standards, specifications and recommended practices are considered industry standards
  - *OOGO No. 2* recognized API Recommended Practices (RP) 53 in its original development
  - API Standard 53 recognizes break testing as an acceptable practice
  - The Bureau of Safety and Environmental Enforcement has utilized API standards, specifications and best practices in the development of its offshore oil and gas regulations
  - API Standard 53 recognizes break testing as an acceptable practice

- OXY feels break testing meets the intent of *OOGO No. 2* to protect public health and safety and the environment

Bradenhead Cement CBL Variance Request

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

Three string wells:

- CBL will be required on one well per pad
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

Four string wells:

- CBL is not required
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

Offline Cementing Variance Request

Oxy requests a variance to cement the 9.625” and/or 7.625” intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

1. Cement Program

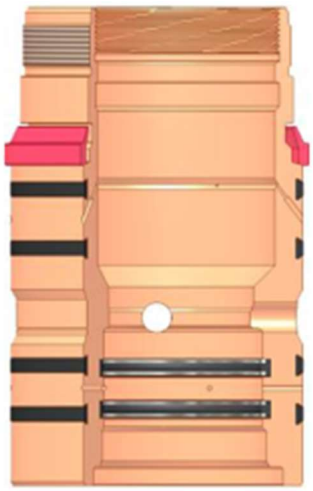
No changes to the cement program will take place for offline cementing.

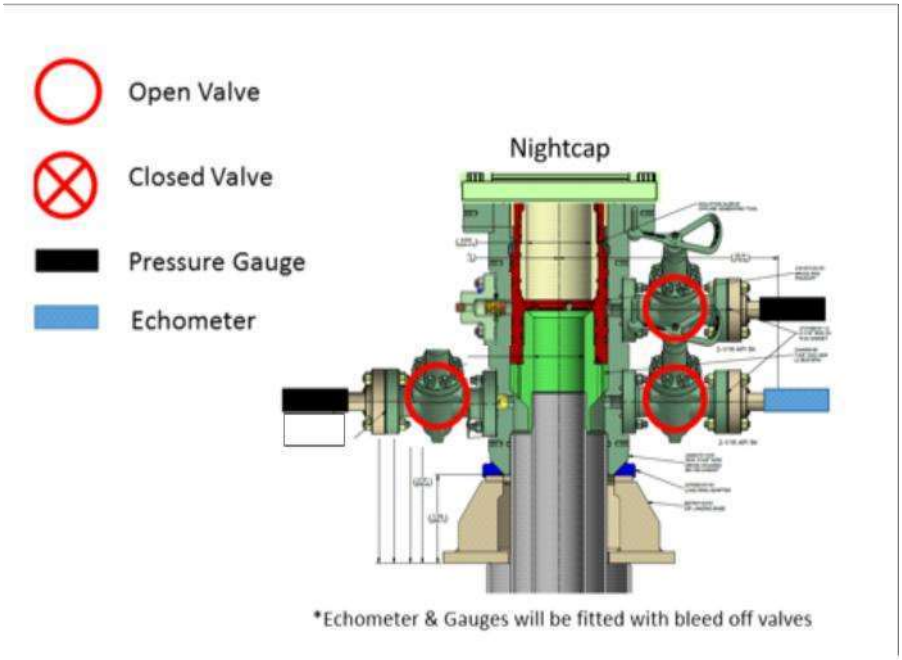
2. Offline Cementing Procedure

The operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi

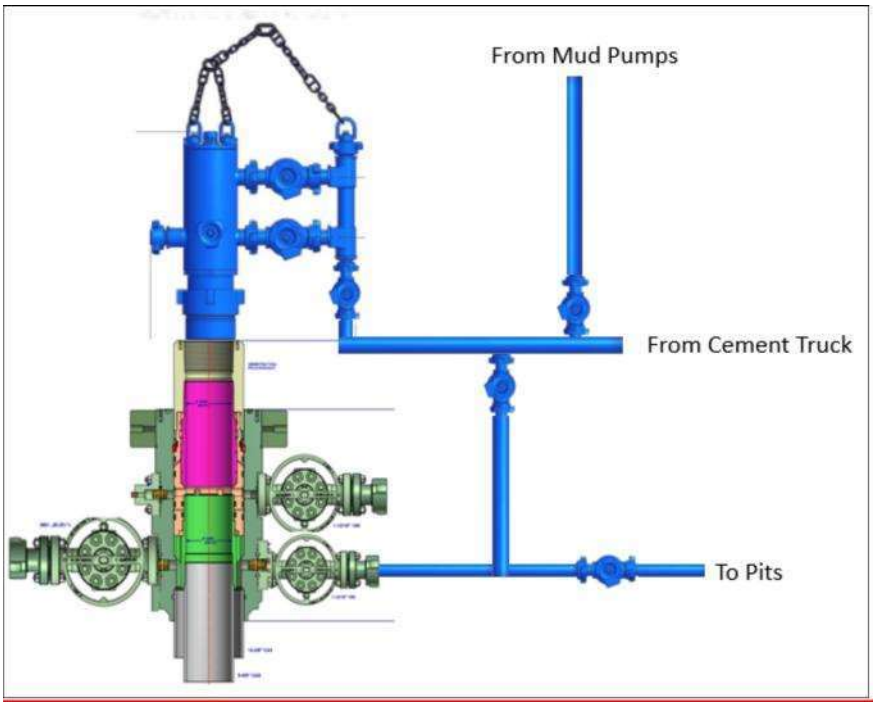
Annular packoff with both external and internal seals





Wellhead diagram during skidding operations

5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
    a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50 psi compressive strength if cannot be verified.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
    a. Well Control Plan
        i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
        ii. Rig pumps or a 3rd party pump will be tied into the upper casing valve to pump down the casing ID
        iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
        iv. Once influx is circulated out of the hole, kill weight mud will be circulated
        v. Well will be confirmed static
        vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment



Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
    a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
    b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

Production Casing Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422” annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422” between intermediate casing ID and production casing coupling only on the first 500’ overlap between both casings.
2. Annular clearance less than 0.422” is acceptable for the curve and lateral portions of the production open hole section.

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Sterling Silver MDP1 33_4 Federal Com
Sterling Silver MDP1 33_4 Federal Com 46H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

07 February, 2023

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site Sterling Silver MDP1 33_4 Federal Com

Site Position:		**Northing:**	461,634.30 usft	**Latitude:**	32.267933
From:	Map	**Easting:**	709,709.04 usft	**Longitude:**	-103.788592
Position Uncertainty:	49.91 ft	**Slot Radius:**	13.200 in		

Well Sterling Silver MDP1 33_4 Federal Com 46H

Well Position	**+N/-S**	0.00 ft	**Northing:**	462,533.94 usf	**Latitude:**	32.270365
	+E/-W	0.00 ft	**Easting:**	712,584.45 usf	**Longitude:**	-103.779275
Position Uncertainty		1.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,385.00 ft
Grid Convergence:		0.30 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/31/2019	6.72	59.95	47,900.50000000

Design Permitting Plan

Audit Notes:

Version:	**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	174.07

Plan Survey Tool Program **Date** 2/6/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	23,317.05	Permitting Plan (Wellbore #1)	B001Mb_MWD+HRGM OWSG MWD + HRGM	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,490.00	0.00	0.00	5,490.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,989.89	10.00	107.12	5,987.36	-12.81	41.58	2.00	2.00	0.00	107.12	
12,001.52	10.00	107.12	11,907.70	-320.08	1,039.00	0.00	0.00	0.00	0.00	
12,868.28	89.64	179.74	12,443.50	-888.34	1,131.12	10.00	9.19	8.38	72.93	FTP (Sterling Silver
23,317.65	89.64	179.74	12,508.50	-11,337.40	1,177.72	0.00	0.00	0.00	0.00	PBHL (Sterling

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,490.00	0.00	0.00	5,490.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.20	107.12	5,500.00	-0.01	0.02	0.01	2.00	2.00	0.00
5,600.00	2.20	107.12	5,599.97	-0.62	2.02	0.83	2.00	2.00	0.00
5,700.00	4.20	107.12	5,699.81	-2.27	7.35	3.01	2.00	2.00	0.00
5,800.00	6.20	107.12	5,799.40	-4.93	16.01	6.56	2.00	2.00	0.00
5,900.00	8.20	107.12	5,898.60	-8.62	27.99	11.47	2.00	2.00	0.00
5,989.89	10.00	107.12	5,987.36	-12.81	41.58	17.03	2.00	2.00	0.00
6,000.00	10.00	107.12	5,997.31	-13.32	43.25	17.72	0.00	0.00	0.00
6,100.00	10.00	107.12	6,095.80	-18.44	59.84	24.52	0.00	0.00	0.00
6,200.00	10.00	107.12	6,194.28	-23.55	76.44	31.32	0.00	0.00	0.00
6,300.00	10.00	107.12	6,292.76	-28.66	93.03	38.12	0.00	0.00	0.00
6,400.00	10.00	107.12	6,391.24	-33.77	109.62	44.91	0.00	0.00	0.00
6,500.00	10.00	107.12	6,489.72	-38.88	126.21	51.71	0.00	0.00	0.00
6,600.00	10.00	107.12	6,588.20	-43.99	142.80	58.51	0.00	0.00	0.00
6,700.00	10.00	107.12	6,686.68	-49.10	159.39	65.31	0.00	0.00	0.00
6,800.00	10.00	107.12	6,785.17	-54.21	175.99	72.11	0.00	0.00	0.00
6,900.00	10.00	107.12	6,883.65	-59.33	192.58	78.91	0.00	0.00	0.00
7,000.00	10.00	107.12	6,982.13	-64.44	209.17	85.70	0.00	0.00	0.00
7,100.00	10.00	107.12	7,080.61	-69.55	225.76	92.50	0.00	0.00	0.00
7,200.00	10.00	107.12	7,179.09	-74.66	242.35	99.30	0.00	0.00	0.00
7,300.00	10.00	107.12	7,277.57	-79.77	258.94	106.10	0.00	0.00	0.00
7,400.00	10.00	107.12	7,376.05	-84.88	275.54	112.90	0.00	0.00	0.00
7,500.00	10.00	107.12	7,474.54	-89.99	292.13	119.69	0.00	0.00	0.00
7,600.00	10.00	107.12	7,573.02	-95.10	308.72	126.49	0.00	0.00	0.00
7,700.00	10.00	107.12	7,671.50	-100.22	325.31	133.29	0.00	0.00	0.00
7,800.00	10.00	107.12	7,769.98	-105.33	341.90	140.09	0.00	0.00	0.00
7,900.00	10.00	107.12	7,868.46	-110.44	358.49	146.89	0.00	0.00	0.00
8,000.00	10.00	107.12	7,966.94	-115.55	375.09	153.69	0.00	0.00	0.00
8,100.00	10.00	107.12	8,065.42	-120.66	391.68	160.48	0.00	0.00	0.00
8,200.00	10.00	107.12	8,163.91	-125.77	408.27	167.28	0.00	0.00	0.00
8,300.00	10.00	107.12	8,262.39	-130.88	424.86	174.08	0.00	0.00	0.00
8,400.00	10.00	107.12	8,360.87	-135.99	441.45	180.88	0.00	0.00	0.00
8,500.00	10.00	107.12	8,459.35	-141.11	458.04	187.68	0.00	0.00	0.00
8,600.00	10.00	107.12	8,557.83	-146.22	474.64	194.47	0.00	0.00	0.00
8,700.00	10.00	107.12	8,656.31	-151.33	491.23	201.27	0.00	0.00	0.00
8,800.00	10.00	107.12	8,754.79	-156.44	507.82	208.07	0.00	0.00	0.00
8,900.00	10.00	107.12	8,853.28	-161.55	524.41	214.87	0.00	0.00	0.00
9,000.00	10.00	107.12	8,951.76	-166.66	541.00	221.67	0.00	0.00	0.00
9,100.00	10.00	107.12	9,050.24	-171.77	557.59	228.47	0.00	0.00	0.00
9,200.00	10.00	107.12	9,148.72	-176.88	574.19	235.26	0.00	0.00	0.00
9,300.00	10.00	107.12	9,247.20	-181.99	590.78	242.06	0.00	0.00	0.00
9,400.00	10.00	107.12	9,345.68	-187.11	607.37	248.86	0.00	0.00	0.00
9,500.00	10.00	107.12	9,444.16	-192.22	623.96	255.66	0.00	0.00	0.00
9,600.00	10.00	107.12	9,542.65	-197.33	640.55	262.46	0.00	0.00	0.00
9,700.00	10.00	107.12	9,641.13	-202.44	657.14	269.25	0.00	0.00	0.00
9,800.00	10.00	107.12	9,739.61	-207.55	673.73	276.05	0.00	0.00	0.00
9,900.00	10.00	107.12	9,838.09	-212.66	690.33	282.85	0.00	0.00	0.00
10,000.00	10.00	107.12	9,936.57	-217.77	706.92	289.65	0.00	0.00	0.00
10,100.00	10.00	107.12	10,035.05	-222.88	723.51	296.45	0.00	0.00	0.00
10,200.00	10.00	107.12	10,133.53	-228.00	740.10	303.25	0.00	0.00	0.00
10,300.00	10.00	107.12	10,232.02	-233.11	756.69	310.04	0.00	0.00	0.00
10,400.00	10.00	107.12	10,330.50	-238.22	773.28	316.84	0.00	0.00	0.00
10,500.00	10.00	107.12	10,428.98	-243.33	789.88	323.64	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.00	10.00	107.12	10,527.46	-248.44	806.47	330.44	0.00	0.00	0.00
10,700.00	10.00	107.12	10,625.94	-253.55	823.06	337.24	0.00	0.00	0.00
10,800.00	10.00	107.12	10,724.42	-258.66	839.65	344.03	0.00	0.00	0.00
10,900.00	10.00	107.12	10,822.90	-263.77	856.24	350.83	0.00	0.00	0.00
11,000.00	10.00	107.12	10,921.39	-268.89	872.83	357.63	0.00	0.00	0.00
11,100.00	10.00	107.12	11,019.87	-274.00	889.43	364.43	0.00	0.00	0.00
11,200.00	10.00	107.12	11,118.35	-279.11	906.02	371.23	0.00	0.00	0.00
11,300.00	10.00	107.12	11,216.83	-284.22	922.61	378.03	0.00	0.00	0.00
11,400.00	10.00	107.12	11,315.31	-289.33	939.20	384.82	0.00	0.00	0.00
11,500.00	10.00	107.12	11,413.79	-294.44	955.79	391.62	0.00	0.00	0.00
11,600.00	10.00	107.12	11,512.27	-299.55	972.38	398.42	0.00	0.00	0.00
11,700.00	10.00	107.12	11,610.76	-304.66	988.98	405.22	0.00	0.00	0.00
11,800.00	10.00	107.12	11,709.24	-309.78	1,005.57	412.02	0.00	0.00	0.00
11,900.00	10.00	107.12	11,807.72	-314.89	1,022.16	418.81	0.00	0.00	0.00
12,000.00	10.00	107.12	11,906.20	-320.00	1,038.75	425.61	0.00	0.00	0.00
12,001.52	10.00	107.12	11,907.70	-320.08	1,039.00	425.72	0.00	0.00	0.00
12,100.00	15.93	143.68	12,003.77	-333.52	1,055.22	440.76	10.00	6.03	37.12
12,200.00	24.63	158.27	12,097.54	-364.01	1,071.10	472.73	10.00	8.70	14.59
12,300.00	34.02	165.37	12,184.65	-410.55	1,085.92	520.56	10.00	9.39	7.10
12,400.00	43.66	169.65	12,262.47	-471.74	1,099.23	582.79	10.00	9.64	4.28
12,500.00	53.41	172.63	12,328.61	-545.70	1,110.61	657.53	10.00	9.75	2.98
12,600.00	63.22	174.93	12,381.08	-630.19	1,119.73	742.51	10.00	9.81	2.30
12,700.00	73.06	176.87	12,418.27	-722.64	1,126.31	835.15	10.00	9.84	1.93
12,800.00	82.91	178.61	12,439.07	-820.25	1,130.14	932.63	10.00	9.85	1.74
12,868.28	89.64	179.74	12,443.50	-888.34	1,131.12	1,000.46	10.00	9.86	1.67
12,900.00	89.64	179.74	12,443.70	-920.06	1,131.26	1,032.02	0.00	0.00	0.00
13,000.00	89.64	179.74	12,444.32	-1,020.05	1,131.70	1,131.53	0.00	0.00	0.00
13,100.00	89.64	179.74	12,444.94	-1,120.05	1,132.15	1,231.03	0.00	0.00	0.00
13,200.00	89.64	179.74	12,445.56	-1,220.05	1,132.60	1,330.54	0.00	0.00	0.00
13,300.00	89.64	179.74	12,446.19	-1,320.05	1,133.04	1,430.05	0.00	0.00	0.00
13,400.00	89.64	179.74	12,446.81	-1,420.04	1,133.49	1,529.56	0.00	0.00	0.00
13,500.00	89.64	179.74	12,447.43	-1,520.04	1,133.93	1,629.07	0.00	0.00	0.00
13,600.00	89.64	179.74	12,448.05	-1,620.04	1,134.38	1,728.57	0.00	0.00	0.00
13,700.00	89.64	179.74	12,448.67	-1,720.03	1,134.83	1,828.08	0.00	0.00	0.00
13,800.00	89.64	179.74	12,449.30	-1,820.03	1,135.27	1,927.59	0.00	0.00	0.00
13,900.00	89.64	179.74	12,449.92	-1,920.03	1,135.72	2,027.10	0.00	0.00	0.00
14,000.00	89.64	179.74	12,450.54	-2,020.02	1,136.16	2,126.61	0.00	0.00	0.00
14,100.00	89.64	179.74	12,451.16	-2,120.02	1,136.61	2,226.11	0.00	0.00	0.00
14,200.00	89.64	179.74	12,451.78	-2,220.02	1,137.06	2,325.62	0.00	0.00	0.00
14,300.00	89.64	179.74	12,452.41	-2,320.02	1,137.50	2,425.13	0.00	0.00	0.00
14,400.00	89.64	179.74	12,453.03	-2,420.01	1,137.95	2,524.64	0.00	0.00	0.00
14,500.00	89.64	179.74	12,453.65	-2,520.01	1,138.39	2,624.15	0.00	0.00	0.00
14,600.00	89.64	179.74	12,454.27	-2,620.01	1,138.84	2,723.65	0.00	0.00	0.00
14,700.00	89.64	179.74	12,454.89	-2,720.00	1,139.29	2,823.16	0.00	0.00	0.00
14,800.00	89.64	179.74	12,455.52	-2,820.00	1,139.73	2,922.67	0.00	0.00	0.00
14,900.00	89.64	179.74	12,456.14	-2,920.00	1,140.18	3,022.18	0.00	0.00	0.00
15,000.00	89.64	179.74	12,456.76	-3,020.00	1,140.62	3,121.69	0.00	0.00	0.00
15,100.00	89.64	179.74	12,457.38	-3,119.99	1,141.07	3,221.19	0.00	0.00	0.00
15,200.00	89.64	179.74	12,458.00	-3,219.99	1,141.52	3,320.70	0.00	0.00	0.00
15,300.00	89.64	179.74	12,458.63	-3,319.99	1,141.96	3,420.21	0.00	0.00	0.00
15,400.00	89.64	179.74	12,459.25	-3,419.98	1,142.41	3,519.72	0.00	0.00	0.00
15,500.00	89.64	179.74	12,459.87	-3,519.98	1,142.85	3,619.22	0.00	0.00	0.00
15,600.00	89.64	179.74	12,460.49	-3,619.98	1,143.30	3,718.73	0.00	0.00	0.00
15,700.00	89.64	179.74	12,461.11	-3,719.98	1,143.75	3,818.24	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,800.00	89.64	179.74	12,461.74	-3,819.97	1,144.19	3,917.75	0.00	0.00	0.00
15,900.00	89.64	179.74	12,462.36	-3,919.97	1,144.64	4,017.26	0.00	0.00	0.00
16,000.00	89.64	179.74	12,462.98	-4,019.97	1,145.08	4,116.76	0.00	0.00	0.00
16,100.00	89.64	179.74	12,463.60	-4,119.96	1,145.53	4,216.27	0.00	0.00	0.00
16,200.00	89.64	179.74	12,464.23	-4,219.96	1,145.98	4,315.78	0.00	0.00	0.00
16,300.00	89.64	179.74	12,464.85	-4,319.96	1,146.42	4,415.29	0.00	0.00	0.00
16,400.00	89.64	179.74	12,465.47	-4,419.95	1,146.87	4,514.80	0.00	0.00	0.00
16,500.00	89.64	179.74	12,466.09	-4,519.95	1,147.31	4,614.30	0.00	0.00	0.00
16,600.00	89.64	179.74	12,466.71	-4,619.95	1,147.76	4,713.81	0.00	0.00	0.00
16,700.00	89.64	179.74	12,467.34	-4,719.95	1,148.21	4,813.32	0.00	0.00	0.00
16,800.00	89.64	179.74	12,467.96	-4,819.94	1,148.65	4,912.83	0.00	0.00	0.00
16,900.00	89.64	179.74	12,468.58	-4,919.94	1,149.10	5,012.34	0.00	0.00	0.00
17,000.00	89.64	179.74	12,469.20	-5,019.94	1,149.54	5,111.84	0.00	0.00	0.00
17,100.00	89.64	179.74	12,469.82	-5,119.93	1,149.99	5,211.35	0.00	0.00	0.00
17,200.00	89.64	179.74	12,470.45	-5,219.93	1,150.44	5,310.86	0.00	0.00	0.00
17,300.00	89.64	179.74	12,471.07	-5,319.93	1,150.88	5,410.37	0.00	0.00	0.00
17,400.00	89.64	179.74	12,471.69	-5,419.93	1,151.33	5,509.88	0.00	0.00	0.00
17,500.00	89.64	179.74	12,472.31	-5,519.92	1,151.77	5,609.38	0.00	0.00	0.00
17,600.00	89.64	179.74	12,472.93	-5,619.92	1,152.22	5,708.89	0.00	0.00	0.00
17,700.00	89.64	179.74	12,473.56	-5,719.92	1,152.67	5,808.40	0.00	0.00	0.00
17,800.00	89.64	179.74	12,474.18	-5,819.91	1,153.11	5,907.91	0.00	0.00	0.00
17,900.00	89.64	179.74	12,474.80	-5,919.91	1,153.56	6,007.42	0.00	0.00	0.00
18,000.00	89.64	179.74	12,475.42	-6,019.91	1,154.00	6,106.92	0.00	0.00	0.00
18,100.00	89.64	179.74	12,476.04	-6,119.90	1,154.45	6,206.43	0.00	0.00	0.00
18,200.00	89.64	179.74	12,476.67	-6,219.90	1,154.90	6,305.94	0.00	0.00	0.00
18,300.00	89.64	179.74	12,477.29	-6,319.90	1,155.34	6,405.45	0.00	0.00	0.00
18,400.00	89.64	179.74	12,477.91	-6,419.90	1,155.79	6,504.96	0.00	0.00	0.00
18,500.00	89.64	179.74	12,478.53	-6,519.89	1,156.23	6,604.46	0.00	0.00	0.00
18,600.00	89.64	179.74	12,479.15	-6,619.89	1,156.68	6,703.97	0.00	0.00	0.00
18,700.00	89.64	179.74	12,479.78	-6,719.89	1,157.13	6,803.48	0.00	0.00	0.00
18,800.00	89.64	179.74	12,480.40	-6,819.88	1,157.57	6,902.99	0.00	0.00	0.00
18,900.00	89.64	179.74	12,481.02	-6,919.88	1,158.02	7,002.50	0.00	0.00	0.00
19,000.00	89.64	179.74	12,481.64	-7,019.88	1,158.46	7,102.00	0.00	0.00	0.00
19,100.00	89.64	179.74	12,482.26	-7,119.88	1,158.91	7,201.51	0.00	0.00	0.00
19,200.00	89.64	179.74	12,482.89	-7,219.87	1,159.36	7,301.02	0.00	0.00	0.00
19,300.00	89.64	179.74	12,483.51	-7,319.87	1,159.80	7,400.53	0.00	0.00	0.00
19,400.00	89.64	179.74	12,484.13	-7,419.87	1,160.25	7,500.04	0.00	0.00	0.00
19,500.00	89.64	179.74	12,484.75	-7,519.86	1,160.69	7,599.54	0.00	0.00	0.00
19,600.00	89.64	179.74	12,485.37	-7,619.86	1,161.14	7,699.05	0.00	0.00	0.00
19,700.00	89.64	179.74	12,486.00	-7,719.86	1,161.59	7,798.56	0.00	0.00	0.00
19,800.00	89.64	179.74	12,486.62	-7,819.86	1,162.03	7,898.07	0.00	0.00	0.00
19,900.00	89.64	179.74	12,487.24	-7,919.85	1,162.48	7,997.57	0.00	0.00	0.00
20,000.00	89.64	179.74	12,487.86	-8,019.85	1,162.92	8,097.08	0.00	0.00	0.00
20,100.00	89.64	179.74	12,488.48	-8,119.85	1,163.37	8,196.59	0.00	0.00	0.00
20,200.00	89.64	179.74	12,489.11	-8,219.84	1,163.82	8,296.10	0.00	0.00	0.00
20,300.00	89.64	179.74	12,489.73	-8,319.84	1,164.26	8,395.61	0.00	0.00	0.00
20,400.00	89.64	179.74	12,490.35	-8,419.84	1,164.71	8,495.11	0.00	0.00	0.00
20,500.00	89.64	179.74	12,490.97	-8,519.83	1,165.15	8,594.62	0.00	0.00	0.00
20,600.00	89.64	179.74	12,491.60	-8,619.83	1,165.60	8,694.13	0.00	0.00	0.00
20,700.00	89.64	179.74	12,492.22	-8,719.83	1,166.05	8,793.64	0.00	0.00	0.00
20,800.00	89.64	179.74	12,492.84	-8,819.83	1,166.49	8,893.15	0.00	0.00	0.00
20,900.00	89.64	179.74	12,493.46	-8,919.82	1,166.94	8,992.65	0.00	0.00	0.00
21,000.00	89.64	179.74	12,494.08	-9,019.82	1,167.38	9,092.16	0.00	0.00	0.00
21,100.00	89.64	179.74	12,494.71	-9,119.82	1,167.83	9,191.67	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,200.00	89.64	179.74	12,495.33	-9,219.81	1,168.28	9,291.18	0.00	0.00	0.00
21,300.00	89.64	179.74	12,495.95	-9,319.81	1,168.72	9,390.69	0.00	0.00	0.00
21,400.00	89.64	179.74	12,496.57	-9,419.81	1,169.17	9,490.19	0.00	0.00	0.00
21,500.00	89.64	179.74	12,497.19	-9,519.81	1,169.61	9,589.70	0.00	0.00	0.00
21,600.00	89.64	179.74	12,497.82	-9,619.80	1,170.06	9,689.21	0.00	0.00	0.00
21,700.00	89.64	179.74	12,498.44	-9,719.80	1,170.51	9,788.72	0.00	0.00	0.00
21,800.00	89.64	179.74	12,499.06	-9,819.80	1,170.95	9,888.23	0.00	0.00	0.00
21,900.00	89.64	179.74	12,499.68	-9,919.79	1,171.40	9,987.73	0.00	0.00	0.00
22,000.00	89.64	179.74	12,500.30	-10,019.79	1,171.84	10,087.24	0.00	0.00	0.00
22,100.00	89.64	179.74	12,500.93	-10,119.79	1,172.29	10,186.75	0.00	0.00	0.00
22,200.00	89.64	179.74	12,501.55	-10,219.78	1,172.74	10,286.26	0.00	0.00	0.00
22,300.00	89.64	179.74	12,502.17	-10,319.78	1,173.18	10,385.77	0.00	0.00	0.00
22,400.00	89.64	179.74	12,502.79	-10,419.78	1,173.63	10,485.27	0.00	0.00	0.00
22,500.00	89.64	179.74	12,503.41	-10,519.78	1,174.07	10,584.78	0.00	0.00	0.00
22,600.00	89.64	179.74	12,504.04	-10,619.77	1,174.52	10,684.29	0.00	0.00	0.00
22,700.00	89.64	179.74	12,504.66	-10,719.77	1,174.97	10,783.80	0.00	0.00	0.00
22,800.00	89.64	179.74	12,505.28	-10,819.77	1,175.41	10,883.31	0.00	0.00	0.00
22,900.00	89.64	179.74	12,505.90	-10,919.76	1,175.86	10,982.81	0.00	0.00	0.00
23,000.00	89.64	179.74	12,506.52	-11,019.76	1,176.30	11,082.32	0.00	0.00	0.00
23,100.00	89.64	179.74	12,507.15	-11,119.76	1,176.75	11,181.83	0.00	0.00	0.00
23,200.00	89.64	179.74	12,507.77	-11,219.76	1,177.20	11,281.34	0.00	0.00	0.00
23,300.00	89.64	179.74	12,508.39	-11,319.75	1,177.64	11,380.85	0.00	0.00	0.00
23,317.65	89.64	179.74	12,508.50	-11,337.40	1,177.72	11,398.41	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Sterling Silver - plan hits target center - Point	0.00	0.00	12,443.50	-888.34	1,131.12	461,645.65	713,715.50	32.267907	-103.775630
PBHL (Sterling Silver - plan hits target center - Point	0.00	0.00	12,508.50	-11,337.40	1,177.72	451,197.21	713,762.10	32.239187	-103.775655

OXY

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Sterling Silver MDP1 33_4 Federal Com 46H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3421.30ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3421.30ft
Site:	Sterling Silver MDP1 33_4 Federal Com	**North Reference:**	Grid
Well:	Sterling Silver MDP1 33_4 Federal Com 46H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
490.30	490.30	RUSTLER			
833.30	833.30	SALADO			
2,756.30	2,756.30	CASTILE			
4,269.30	4,269.30	DELAWARE			
4,294.30	4,294.30	BELL CANYON			
5,191.30	5,191.30	CHERRY CANYON			
6,480.28	6,470.30	BRUSHY CANYON			
8,123.23	8,088.30	BONE SPRING			
9,203.64	9,152.30	BONE SPRING 1ST			
9,835.23	9,774.30	BONE SPRING 2ND			
11,030.38	10,951.30	BONE SPRING 3RD			
11,500.52	11,414.30	WOLFCAMP			
11,651.81	11,563.30	WOLFCAMP A			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,490.00	5,490.00	0.00	0.00	Build 2°/100'
5,989.89	5,987.36	-12.81	41.58	Hold 10° Tangent
12,001.52	11,907.70	-320.08	1,039.00	KOP, Build & Turn 10°/100'
12,868.28	12,443.50	-888.34	1,131.12	Landing Point
23,317.65	12,508.50	-11,337.40	1,177.72	TD at 23317.65' MD

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Sterling Silver MDP1 33_4 Federal Com
Well: Sterling Silver MDP1 33_4 Federal Com 46H
Wellbore: Wellbore #1
Design: Permitting Plan

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: Sterling Silver MDP1 33_4 Federal Com 46H

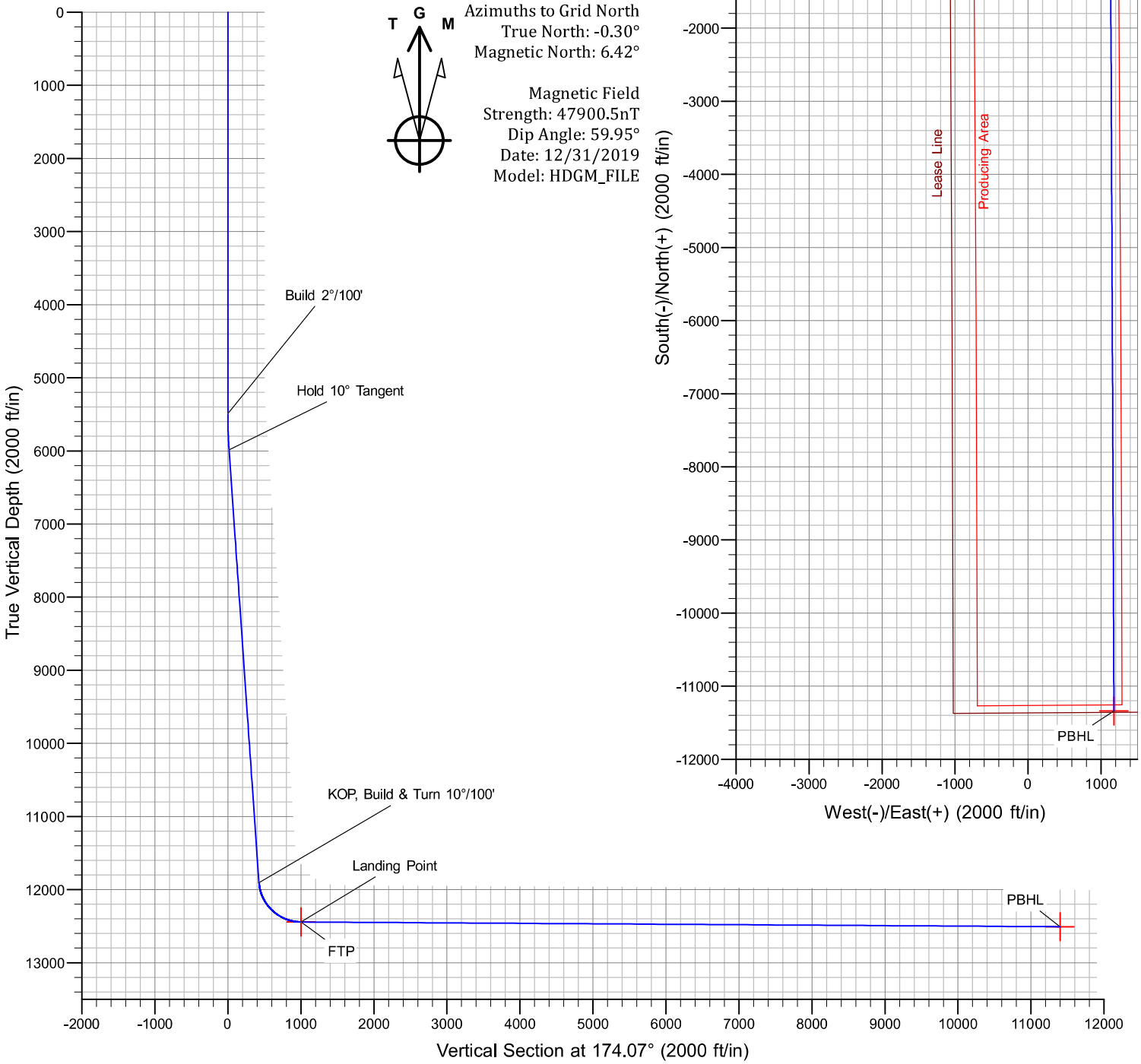
+N/-S	+E/-W	Northing	3385.00 Easting	Latitude	Longitude
0.00	0.00	462533.94	712584.45	32.270365	-103.779274

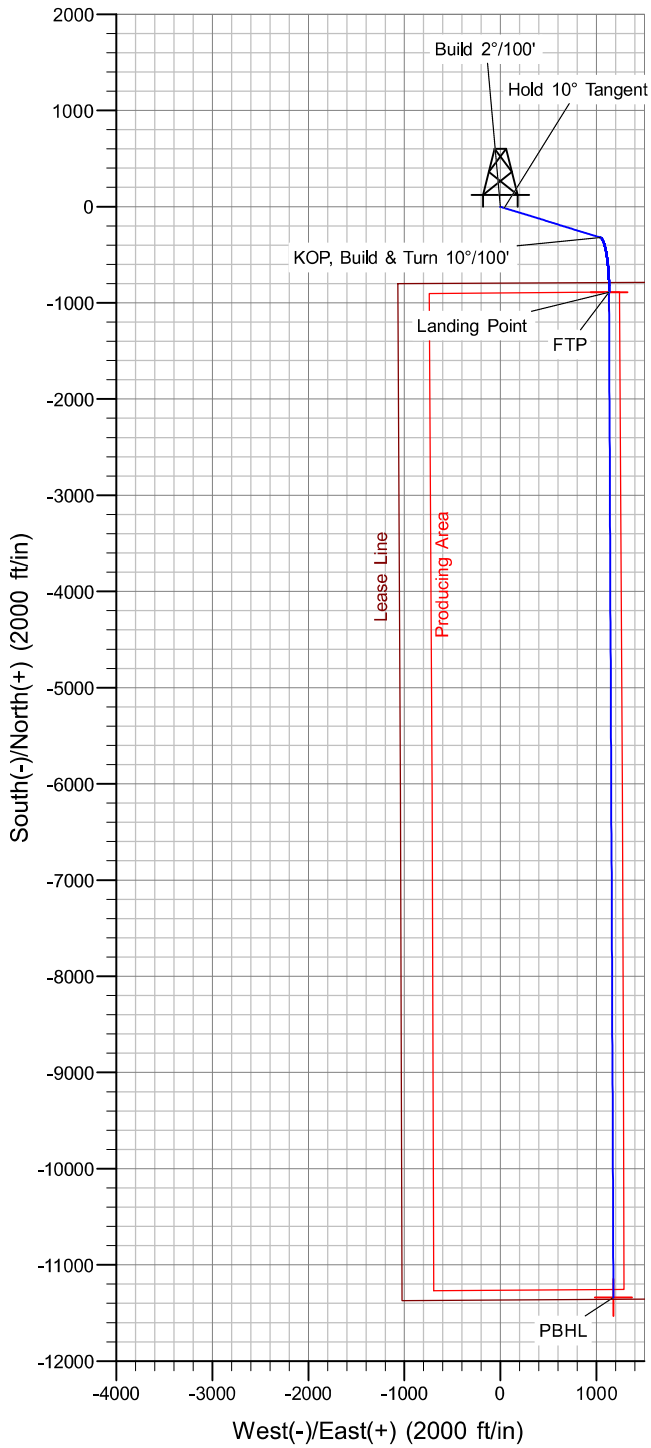
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5490.00	0.00	0.00	5490.00	0.00	0.00	0.00	0.00	0.00	Build 2°/100'
5989.89	10.00	107.12	5987.36	-12.81	41.58	2.00	107.12	17.03	Hold 10° Tangent
12001.52	10.00	107.12	11907.70	-320.08	1039.00	0.00	0.00	425.72	KOP, Build & Turn 10°/100'
12868.28	89.64	179.74	12443.50	-888.34	1131.12	10.00	72.93	1000.46	Landing Point
23317.65	89.64	179.74	12508.50	-11337.40	1177.72	0.00	0.00	11398.41	TD at 23317.65' MD

Azimuths to Grid North
True North: -0.30°
Magnetic North: 6.42°

Magnetic Field
Strength: 47900.5nT
Dip Angle: 59.95°
Date: 12/31/2019
Model: HDGM_FILE





PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Oxy USA Inc.
LEASE NO.:	NMNM038464, NMNM040659, NMNM045236, NMNM104730
COUNTY:	Eddy

Wells:

Proposed Well Name	Mineral Lease Number	Mineral Ownership
SNDDNS 2801 Sterling Silver MDP1 33-4 Fed Com 13H, 14H, 24H-26H, 44H-46H, and Iridium MDP1 28-21 Fed Com 12H-14H, 24H-26H, 44H-47H, 73H, and 74H		
Sterling Silver MDP1 33-4 Fed Com 13H	NMNM 040659 NMNM 045236 NMNM 104730	BLM CFO
Sterling Silver MDP1 33-4 Fed Com 14H		
Sterling Silver MDP1 33-4 Fed Com 24H		
Sterling Silver MDP1 33-4 Fed Com 25H		
Sterling Silver MDP1 33-4 Fed Com 26H		
Sterling Silver MDP1 33-4 Fed Com 44H		
Sterling Silver MDP1 33-4 Fed Com 45H		
Sterling Silver MDP1 33-4 Fed Com 46H		
Iridium MDP1 28-21 Fed Com 12H	NMNM 038464 NMNM 040659 NMNM 045236	
Iridium MDP1 28-21 Fed Com 13H		
Iridium MDP1 28-21 Fed Com 14H		
Iridium MDP1 28-21 Fed Com 24H		
Iridium MDP1 28-21 Fed Com 25H		
Iridium MDP1 28-21 Fed Com 26H		
Iridium MDP1 28-21 Fed Com 44H		
Iridium MDP1 28-21 Fed Com 45H		
Iridium MDP1 28-21 Fed Com 46H		
Iridium MDP1 28-21 Fed Com 47H		
Iridium MDP1 28-21 Fed Com 73H	NMNM 038464 NMNM 040659 NMNM 045236	
Iridium MDP1 28-21 Fed Com 74H	NMNM 040659 NMNM 045236 NMNM 104730	
SNDDNS 2803 Sterling Silver MDP1 33-4 Fed Com 11H, 12H, 21H-23H, 41H-43H, and Iridium MDP1 28-21 Fed Com 22H, 23H, 42H, 43H, 71H, and 72H		
Sterling Silver MDP1 33-4 Fed Com 11H	NMNM 040659 NMNM 045236	BLM CFO
Sterling Silver MDP1 33-4 Fed Com 12H		

Approval Date: 10/23/2025

Proposed Well Name	Mineral Lease Number	Mineral Ownership
Sterling Silver MDP1 33-4 Fed Com 21H	NMNM 104730	
Sterling Silver MDP1 33-4 Fed Com 22H		
Sterling Silver MDP1 33-4 Fed Com 23H		
Sterling Silver MDP1 33-4 Fed Com 41H		
Sterling Silver MDP1 33-4 Fed Com 42H		
Sterling Silver MDP1 33-4 Fed Com 43H		
Iridium MDP1 28-21 Fed Com 22H	NMNM 038464 NMNM 040659 NMNM 045236	
Iridium MDP1 28-21 Fed Com 23H		
Iridium MDP1 28-21 Fed Com 42H		
Iridium MDP1 28-21 Fed Com 43H		
Iridium MDP1 28-21 Fed Com 71H		
Iridium MDP1 28-21 Fed Com 72H		
SNDDNS 3304 Sterling Silver MDP1 33-4 Fed Com 71H-73H		
Sterling Silver MDP1 33-4 Fed Com 71H	NMNM 040659 NMNM 045236 NMNM 104730	BLM CFO
Sterling Silver MDP1 33-4 Fed Com 72H		
Sterling Silver MDP1 33-4 Fed Com 73H		

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Range:

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

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

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

Ground-level Abandoned Well Marker to avoid raptor perching:
Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed twenty (20) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

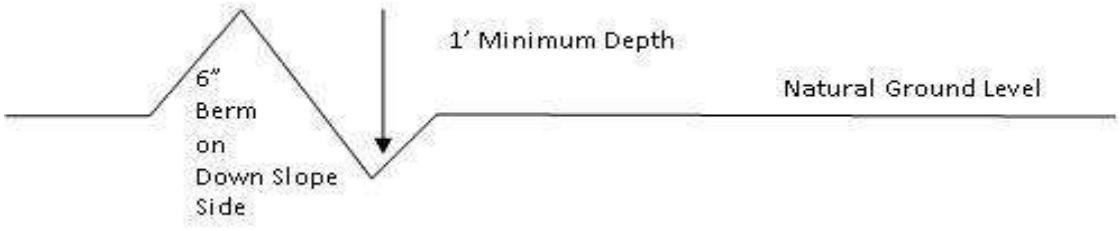
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be

determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

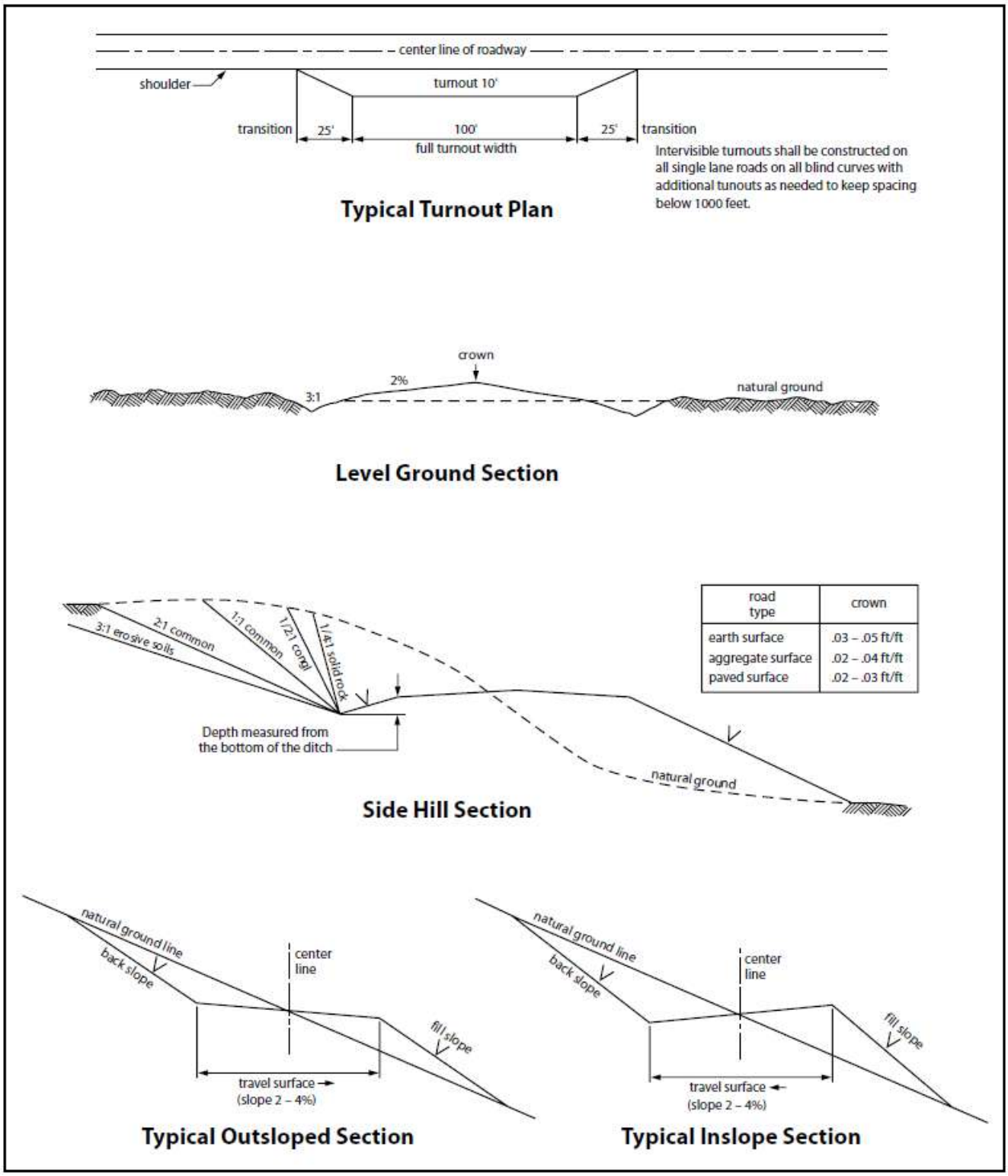


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the

Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

☐ **Seed Mixture 1**
☒ **X Seed Mixture 2**
☐ **Seed Mixture 2/LPC**
☐ **Seed Mixture 3**
☐ **Seed Mixture 4**
☐ **Seed Mixture Aplomado Falcon Mixture**

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

17. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An

evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

18. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

19. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq*. (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq*. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq*.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity

on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 30 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

16. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all

powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

11. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

12. Special Stipulations:
For reclamation remove poles, lines, transformer, etc. and dispose of properly.
Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INC.
WELL NAME & NO.:	STERLING SILVER MDP1 33-4 FED COM 46H
LOCATION:	SEC 28 T23S R31E
COUNTY:	Eddy County, New Mexico

Create COAs

H_2S	Cave / Karst	Waste Prevention Rule
Present	Low	APD Submitted Prior to 06/10/24
Potash	**R-111-Q Design**	
R-111-Q	4-String: Open 1st Int x 2nd Annulus (ICP 2 below Relief Zone)	
Wellhead	**Casing**	
Multibowl	4-String Well	
	☐ Liner ☐ Fluid ☑ Casing Clearance	
☑ Flex Hose	**Cementing**	
☑ Break Testing	☐ DV Tool ☑ Bradenhead ☐ Echometer	
	☑ Offline Cement ☑ Open Annulus ☐ Pilot Hole	
Special Requirements		
☐ Capitan Reef ☐ Water Disposal ☑ COM ☐ Unit		

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H_2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet all requirements from 43 CFR 3176, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **565** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. **Set depth adjusted per BLM geologist.**
    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified

 Approval Date: 10/23/2025

and a temperature survey utilizing an electronic-type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater (including lead cement.)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **9-5/8** inch surface casing shall be set at approximately **4210** feet (50' prior to entering the hydrocarbon bearing Delaware group.) The minimum required fill of cement behind the **9-5/8** inch intermediate casing is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.
   - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.

3. The minimum required fill of cement behind the **7-5/8** inch 2nd intermediate casing is **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126 (base of the McNutt Potash ore zone.)

   REVIEW CEMENT VOLUMES FOR THIS INTERVAL (PRIMARY AND BRADENHEAD.) REVIEW EXTERNAL PRESSURE FOR PT. KEEP CASING HALF FULL DURING RUN FOR COLLAPSE SF

   - Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. 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 the presence of cave/karst, Capitan Reef, or potash features.

   Bradenhead Squeeze: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.
   a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon**.
   b. **Second stage:** Operator to squeeze and top-out. Cement to meet requirements listed for this casing string. If cement does not circulate see B.1.a, c-d above.

   Operator has proposed to pump down **Intermediate 1 X Intermediate 2** annulus. Submit results to the BLM. If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

- Operator shall run a CBL from TD of the **Intermediate 2** casing to tieback requirements listed above after the second stage BH to verify TOC.
- **A monitored open annulus will be incorporated during completion by leaving the above annulus un-cemented and monitored.** Operator must follow **all** monitoring requirements listed within R-111-Q. Tieback shall be met within **180 days.**
- Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM.**
- Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.
- **In the event of a casing failure during completion,** the operator **must** contact the BLM at engineers (575-706-2779) and inspection staff (575-361-2822 Eddy County).

4. The minimum required fill of cement behind the **5-1/2** inch production casing is **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126 (base of the McNutt Potash ore zone.)
    - Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. 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 the presence of cave/karst, Capitan Reef, or potash features.

C. PRESSURE CONTROL

1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi and below the intermediate 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 43 CFR 3172 must be followed.

2. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

3. Break testing has been approved for this well ONLY on those intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)** If in the event break testing is not utilized, then a full BOPE test would be conducted.
    a. Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation. **BOPE Break Testing is NOT permitted to drilling the production hole section.**
    b. While in transfer between wells, BOPE shall be secured by the hydraulic carrier or cradle.
    c. A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
    d. As a minimum, a full BOPE test shall be performed at 21-day intervals.
    e. In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**. Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.

D. SPECIAL REQUIREMENT(S)

Communitization Agreement:

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

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

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

GENERAL REQUIREMENTS

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

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

Contact Lea County Petroleum Engineering Inspection Staff:

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

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM_NM_CFO_DrillingNotifications@BLM.GOV**; (575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    b. When the operator proposes to set surface casing with Spudder Rig
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e.

changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if

exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

v. The results of the test shall be reported to the appropriate BLM office.

vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

KPI 10/17/2025

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan

Open drill site. No homes or buildings are near the proposed location.

1. Escape

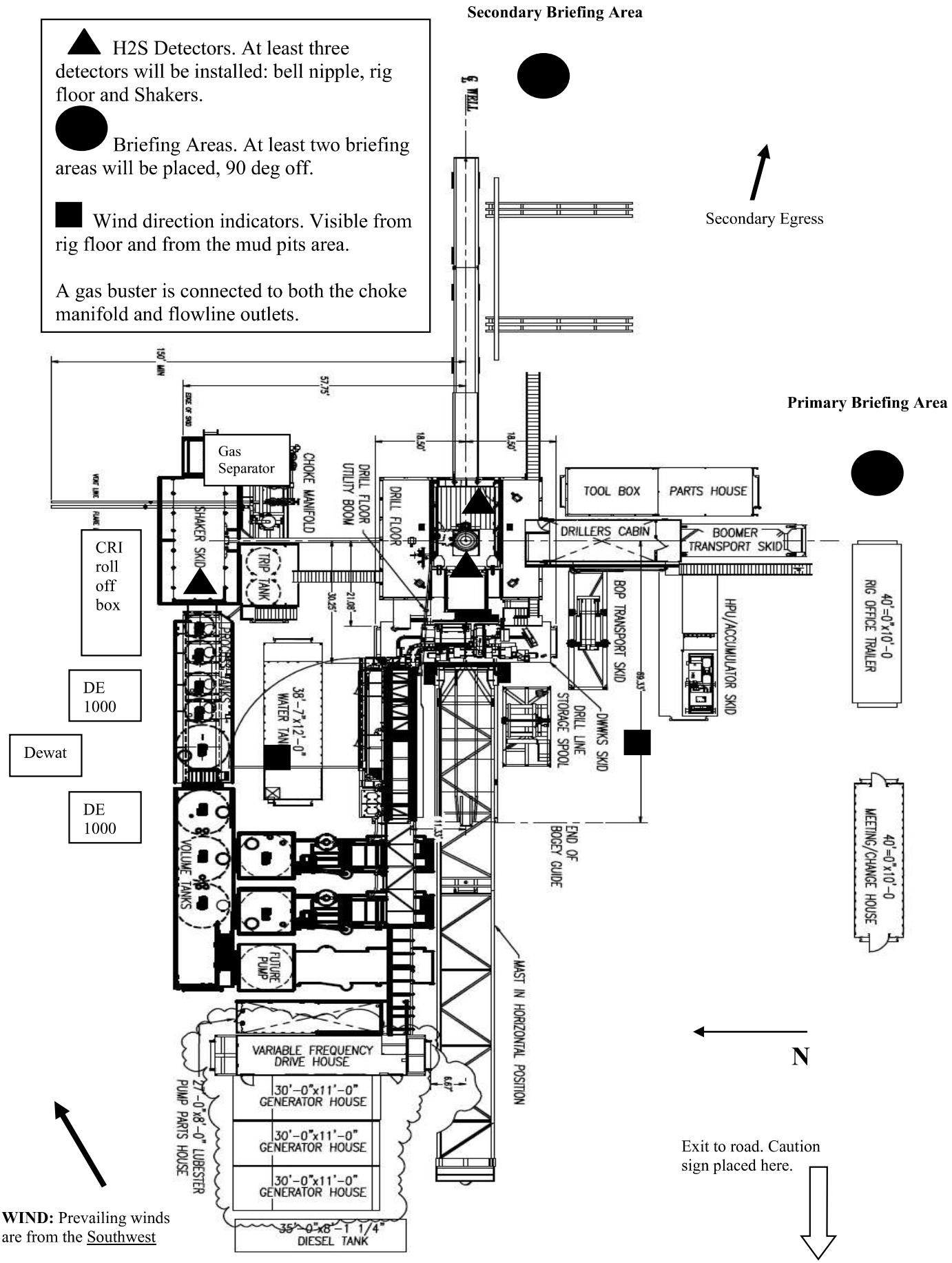
   Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

▲ H2S Detectors. At least three detectors will be installed: bell nipple, rig floor and Shakers.

● Briefing Areas. At least two briefing areas will be placed, 90 deg off.

■ Wind direction indicators. Visible from rig floor and from the mud pits area.

A gas buster is connected to both the choke manifold and flowline outlets.



WIND: Prevailing winds are from the Southwest

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan
New Mexico

Scope

This contingency plan establishes guidelines for the public, all company employees, and contract employees who's work activities may involve exposure to hydrogen sulfide (H2S) gas.
While drilling this well, it is possible to encounter H2S bearing formations. At all times, the first barrier to control H2S emissions will be the drilling fluid, which will have a density high enough to control influx.

Objective

1. Provide an immediate and predetermined response plan to any condition when H2S is detected. All H2S detections in excess of 10 parts per million (ppm) concentration are considered an Emergency.

2. Prevent any and all accidents, and prevent the uncontrolled release of hydrogen sulfide into the atmosphere.

3. Provide proper evacuation procedures to cope with emergencies.

4. Provide immediate and adequate medical attention should an injury occur.

Discussion

Implementation:	This plan with all details is to be fully implemented before drilling to commence.
Emergency response Procedure:	This section outlines the conditions and denotes steps to be taken in the event of an emergency.
Emergency equipment Procedure:	This section outlines the safety and emergency equipment that will be required for the drilling of this well.
Training provisions:	This section outlines the training provisions that must be adhered to prior to drilling.
Drilling emergency call lists:	Included are the telephone numbers of all persons to be contacted should an emergency exist.
Briefing:	This section deals with the briefing of all people involved in the drilling operation.
Public safety:	Public safety personnel will be made aware of any potential evacuation and any additional support needed.
Check lists:	Status check lists and procedural check lists have been included to insure adherence to the plan.
General information:	A general information section has been included to supply support information.

Hydrogen Sulfide Training

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

1. The hazards and characteristics of H2S.
2. Proper use and maintenance of personal protective equipment and life support systems.
3. H2S detection.
4. Proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
5. Proper techniques for first aid and rescue procedures.
6. Physical effects of hydrogen sulfide on the human body.
7. Toxicity of hydrogen sulfide and sulfur dioxide.
8. Use of SCBA and supplied air equipment.
9. First aid and artificial respiration.
10. Emergency rescue.

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

1. The effects of H2S on metal components. If high tensile strength tubular is to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling a well, blowout prevention and well control procedures.
3. The contents and requirements of the H2S Drilling Operations Plan.

H2S training refresher must have been taken within one year prior to drilling the well. Specifics on the well to be drilled will be discussed during the pre-spud meeting. H2S and well control (choke) drills will be performed while drilling the well, at least on a weekly basis. This plan shall be available in the well site. All personnel will be required to carry the documentation proving that the H2S training has been taken.

Service company and visiting personnel

A. Each service company that will be on this well will be notified if the zone contains H2S.

B. Each service company must provide for the training and equipment of their employees before they arrive at the well site.

C. Each service company will be expected to attend a well site

Emergency Equipment Requirements

1. Well control equipment

The well shall have hydraulic BOP equipment for the anticipated pressures. Equipment is to be tested on installation and follow Oxy Well Control standard, as well as 43 CFR part 3170 Subpart 3172.

Special control equipment:

A. Hydraulic BOP equipment with remote control on ground.
Remotely operated choke.
B. Rotating head
C. Gas buster equipment shall be installed before drilling out of surface pipe.

2. Protective equipment for personnel

A. Four (4) 30-minute positive pressure air packs (2 at each briefing area) on location.

B. Adequate fire extinguishers shall be located at strategic locations.

C. Radio / cell telephone communication will be available at the rig.

- Rig floor and trailers.
- Vehicle.

3. Hydrogen sulfide sensors and alarms

A. H2S sensor with alarms will be located on the rig floor, at the bell nipple, and at the flow line. These monitors will be set to alarm at 10 ppm with strobe light, and audible alarm.
B. Hand operated detectors with tubes.
C. H2S monitor tester (to be provided by contract Safety Company.)
D. There shall be one combustible gas detector on location at all times.

4. Visual Warning Systems

A. One sign located at each location entrance with the following language:

Caution – potential poison gas
Hydrogen sulfide
No admittance without authorization

Wind sock – wind streamers:

A. One 36" (in length) wind sock located at protection center, at height visible from rig floor.
B. One 36" (in length) wind sock located at height visible from pit areas.

Condition flags

A. One each condition flag to be displayed to denote conditions.

green – normal conditions
yellow – potential danger
red – danger, H2S present

B. Condition flag shall be posted at each location sign entrance.

5. Mud Program

The mud program is designed to minimize the risk of having H2S and other formation fluids at surface. Proper mud weight and safe drilling practices will be applied. H2S scavengers will be used to minimize the hazards while drilling. Below is a summary of the drilling program.

Mud inspection devices:

Garrett gas train or hatch tester for inspection of sulfide concentration in mud system.

6. Metallurgy

A. Drill string, casing, tubing, wellhead, blowout preventers, drilling spools or adapters, kill lines, choke manifold, lines and valves shall be suitable for the H2S service.
B. All the elastomers, packing, seals and ring gaskets shall be suitable for H2S service.

7. Well Testing

No drill stem test will be performed on this well.

8. Evacuation plan

Evacuation routes should be established prior to well spud for each well and discussed with all rig personnel.

9. Designated area

A. Parking and visitor area: all vehicles are to be parked at a predetermined safe distance from the wellhead.
B. There will be a designated smoking area.
C. Two briefing areas on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds perpendicularly, or at a 45-degree angle if wind direction tends to shift in the area.

Emergency procedures

A. In the event of any evidence of H2S level above 10 ppm, take the following steps:

1. The Driller will pick up off bottom, shut down the pumps, slow down the pipe rotation.

2. Secure and don escape breathing equipment, report to the upwind designated safe briefing / muster area.

3. All personnel on location will be accounted for and emergency search should begin for any missing, the Buddy System will be implemented.

4. Order non-essential personnel to leave the well site, order all essential personnel out of the danger zone and upwind to the nearest designated safe briefing / muster area.

5. Entrance to the location will be secured to a higher level than our usual "Meet and Greet" requirement, and the proper condition flag will be displayed at the entrance to the location.

6. Take steps to determine if the H2S level can be corrected or suppressed and, if so, proceed as required.

B. If uncontrollable conditions occur:

1. Take steps to protect and/or remove any public in the down-wind area from the rig – partial evacuation and isolation. Notify necessary public safety personnel and appropriate regulatory entities (i.e. BLM) of the situation.

2. Remove all personnel to the nearest upwind designated safe briefing / muster area or off location.

3. Notify public safety personnel of safe briefing / muster area.

4. An assigned crew member will blockade the entrance to the location. No unauthorized personnel will be allowed entry to the location.

5. Proceed with best plan (at the time) to regain control of the well. Maintain tight security and safety procedures.

C. Responsibility:

1. Designated personnel.

a. Shall be responsible for the total implementation of this plan.
b. Shall be in complete command during any emergency.
c. Shall designate a back-up.

All personnel:

1. On alarm, don escape unit and report to the nearest upwind designated safe briefing / muster area upw
2. Check status of personnel (buddy system).
3. Secure breathing equipment.
4. Await orders from supervisor.

Drill site manager:

1. Don escape unit if necessary and report to nearest upwind designated safe briefing / muster area.
2. Coordinate preparations of individuals to return to point of release with tool pusher and driller (using the buddy system).
3. Determine H2S concentrations.
4. Assess situation and take control measures.

Tool pusher:

1. Don escape unit Report to up nearest upwind designated safe briefing / muster area.
2. Coordinate preparation of individuals to return to point of release with tool pusher drill site manager (using the buddy system).
3. Determine H2S concentration.
4. Assess situation and take control measures.

Driller:

1. Don escape unit, shut down pumps, continue

rotating DP.
2. Check monitor for point of release.
3. Report to nearest upwind designated safe briefing / muster area.
4. Check status of personnel (in an attempt to rescue, use the buddy system).
5. Assigns least essential person to notify Drill Site Manager and tool pusher by quickest means in case of their absence.
6. Assumes the responsibilities of the Drill Site Manager and tool pusher until they arrive should they be absent.

Derrick man
Floor man #1
Floor man #2

1. Will remain in briefing / muster area until instructed by supervisor.

Mud engineer:

1. Report to nearest upwind designated safe briefing / muster area.
2. When instructed, begin check of mud for ph and H2S level. (Garett gas train.)

Safety personnel:

1. Mask up and check status of all personnel and secure operations as instructed by drill site manager.

Taking a kick

When taking a kick during an H2S emergency, all personnel will follow standard Well control procedures after reporting to briefing area and masking up.

Open-hole logging

All unnecessary personnel off floor. Drill Site Manager and safety personnel should monitor condition, advise status and determine need for use of air equipment.

Running casing or plugging

Following the same “tripping” procedure as above. Drill Site Manager and safety personnel should determine if all personnel have access to protective equipment.

Ignition procedures

The decision to ignite the well is the responsibility of the operator (Oxy Drilling Management). The decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope controlling the blowout under the prevailing conditions at the well.

Instructions for igniting the well

1. Two people are required for the actual igniting operation. They must wear self-contained breathing units and have a safety rope attached. One man (tool pusher or safety engineer) will check the atmosphere for explosive gases with the gas monitor. The other man is responsible for igniting the well.
2. Primary method to ignite: 25 mm flare gun with range of approximately 500 feet.
3. Ignite upwind and do not approach any closer than is warranted.
4. Select the ignition site best for protection, and which offers an easy escape route.
5. Before firing, check for presence of combustible gas.
6. After lighting, continue emergency action and procedure as before.
7. All unassigned personnel will remain in briefing area until instructed by supervisor or directed by the Drill Site Manager.

Remember: After well is ignited, burning hydrogen sulfide will convert to sulfur dioxide, which is also highly toxic. **Do not assume the area is safe after the well is ignited.**

Status check list

Note: All items on this list must be completed before drilling to production casing point.

1. H2S sign at location entrance.
2. Two (2) wind socks located as required.
3. Four (4) 30-minute positive pressure air packs (2 at each Briefing area) on location for all rig personnel and mud loggers.
4. Air packs inspected and ready for use.
5. Cascade system and hose line hook-up as needed.
6. Cascade system for refilling air bottles as needed.
7. Condition flag on location and ready for use.
8. H2S detection system hooked up and tested.
9. H2S alarm system hooked up and tested.
10. Hand operated H2S detector with tubes on location.
11. 1 – 100’ length of nylon rope on location.
12. All rig crew and supervisors trained as required.
13. All outside service contractors advised of potential H2S hazard on well.
14. No smoking sign posted and a designated smoking area identified.
15. Calibration of all H2S equipment shall be noted on the IADC report.

Checked by: _____ Date:

Procedural check list during H2S events

Perform each tour:

1. Check fire extinguishers to see that they have the proper charge.

2. Check breathing equipment to ensure that it in proper working order.

3. Make sure all the H2S detection system is operative.

Perform each week:

1. Check each piece of breathing equipment to make sure that demand or forced air regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you receive air or feel air flow.

2. BOP skills (well control drills).

3. Check supply pressure on BOP accumulator stand by source.

4. Check breathing equipment mask assembly to see that straps are loosened and turned back, ready to put on.

5. Check pressure on breathing equipment air bottles to make sure they are charged to full volume. (Air quality checked for proper air grade “D” before bringing to location)

6. Confirm pressure on all supply air bottles.

7. Perform breathing equipment drills with on-site personnel.

8. Check the following supplies for availability.

   A. Emergency telephone list.
   B. Hand operated H2S detectors and tubes.

General evacuation plan

1. When the company approved supervisor (Drill Site Manager, consultant, rig pusher, or driller) determines the H2S gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan.

2. Drill Site Manager or designee will notify local government agency that a hazardous condition exists and evacuation needs to be implemented.

3. Company or contractor safety personnel that have been trained in the use of H2S detection equipment and self-contained breathing equipment will monitor H2S concentrations, wind directions, and area of exposure. They will delineate the outer perimeter of the hazardous gas area. Extension to the evacuation area will be determined from information gathered.

4. Law enforcement personnel (state police, police dept., fire dept., and sheriff's dept.) Will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

5. After the discharge of gas has been controlled, company safety personnel will determine when the area is safe for re-entry.

Important: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

Emergency actions

Well blowout – if emergency

1. Evacuate all personnel to "Safe Briefing / Muster Areas" or off location if needed.
2. If sour gas – evacuate rig personnel.
3. If sour gas – evacuate public within 3000 ft radius of exposure.
4. Don SCBA and shut well in if possible using the buddy system.
5. Notify Drilling Superintendent and call 911 for emergency help (fire dept and ambulance) if needed.
6. Implement the Blowout Contingency Plan, and Drilling Emergency Action Plan.
6. Give first aid as needed.

Person down location/facility

1. If immediately possible, contact 911. Give location and wait for confirmation.
2. Don SCBA and perform rescue operation using buddy system.

Toxic effects of hydrogen sulfide

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 ppm, which is .001% by volume. Hydrogen sulfide is heavier than air (specific gravity – 1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen sulfide is almost as toxic as hydrogen cyanide and is between five and six times more toxic than carbon monoxide. Toxicity data for hydrogen sulfide and various other gases are compared in table i. Physical effects at various hydrogen sulfide exposure levels are shown in table ii.

Table i
Toxicity of various gases

Common name	Chemical formula	Specific gravity (sc=1)	Threshold limit (1)	Hazardous limit (2)	Lethal concentration (3)
Hydrogen Cyanide	Hcn	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H2S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	So2	2.21	5 ppm	-	1000 ppm
Chlorine	Cl2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	Co	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	Co2	1.52	5000 ppm	5%	10%
Methane	Ch4	0.55	90,000 ppm	Combustible above 5% in air	

1) threshold limit – concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.

2) hazardous limit – concentration that will cause death with short-term exposure.

3) lethal concentration – concentration that will cause death with short-term exposure.

Toxic effects of hydrogen sulfide

Table ii
Physical effects of hydrogen sulfide

Concentration			Physical effects
Percent (%)	Ppm	Grains 100 std. Ft3*	
0.001	<10	00.65	Obvious and unpleasant odor.

0.002	10	01.30	Safe for 8 hours of exposure.
0.010	100	06.48	Kill smell in 3 – 15 minutes. May sting eyes and throat.
0.020	200	12.96	Kills smell shortly; stings eyes and throat.
0.050	500	32.96	Dizziness; breathing ceases in a few minutes; needs prompt artificial respiration.
0.070	700	45.36	Unconscious quickly; death will result if not rescued promptly.
0.100	1000	64.30	Unconscious at once; followed by death within minutes.

*at 15.00 psia and 60’f.

Use of self-contained breathing equipment (SCBA)

1. Written procedures shall be prepared covering safe use of SCBA's in dangerous atmosphere, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available SCBA.

2 SCBA's shall be inspected frequently at random to insure that they are properly used, cleaned, and maintained.

3. Anyone who may use the SCBA's shall be trained in how to insure proper face-piece to face seal. They shall wear SCBA's in normal air and then wear them in a test atmosphere. (note: such items as facial hair {beard or sideburns} and eyeglasses will not allow proper seal.) Anyone that may be reasonably expected to wear SCBA's should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses or contact lenses.

4. Maintenance and care of SCBA's:

   a. A program for maintenance and care of SCBA's shall include the following:
      1. Inspection for defects, including leak checks.
      2. Cleaning and disinfecting.
      3. Repair.
      4. Storage.

   b. Inspection, self-contained breathing apparatus for emergency use shall be inspected monthly.
      1. Fully charged cylinders.
      2. Regulator and warning device operation.
      3. Condition of face piece and connections.
      4. Rubber parts shall be maintained to keep them pliable and prevent deterioration.

   c. Routinely used SCBA's shall be collected, cleaned and disinfected as frequently as necessary to insure proper protection is provided.

5. Persons assigned tasks that requires use of self-contained breathing equipment shall be certified physically fit (medically cleared) for breathing equipment usage at least annually.

6. SCBA's should be worn when:

   A. Any employee works near the top or on top of any tank unless test reveals less than 10 ppm of H2S.

B. When breaking out any line where H2S can reasonably be expected.

C. When sampling air in areas to determine if toxic concentrations of H2S exists.

D. When working in areas where over 10 ppm H2S has been detected.

E. At any time there is a doubt as to the H2S level in the area to be entered.

Rescue
First aid for H2S poisoning

Do not panic!

Remain calm – think!

1. Don SCBA breathing equipment.

2. Remove victim(s) utilizing buddy system to fresh air as quickly as possible. (go up-wind from source or at right angle to the wind. Not down wind.)

3. Briefly apply chest pressure – arm lift method of artificial respiration to clean the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs.

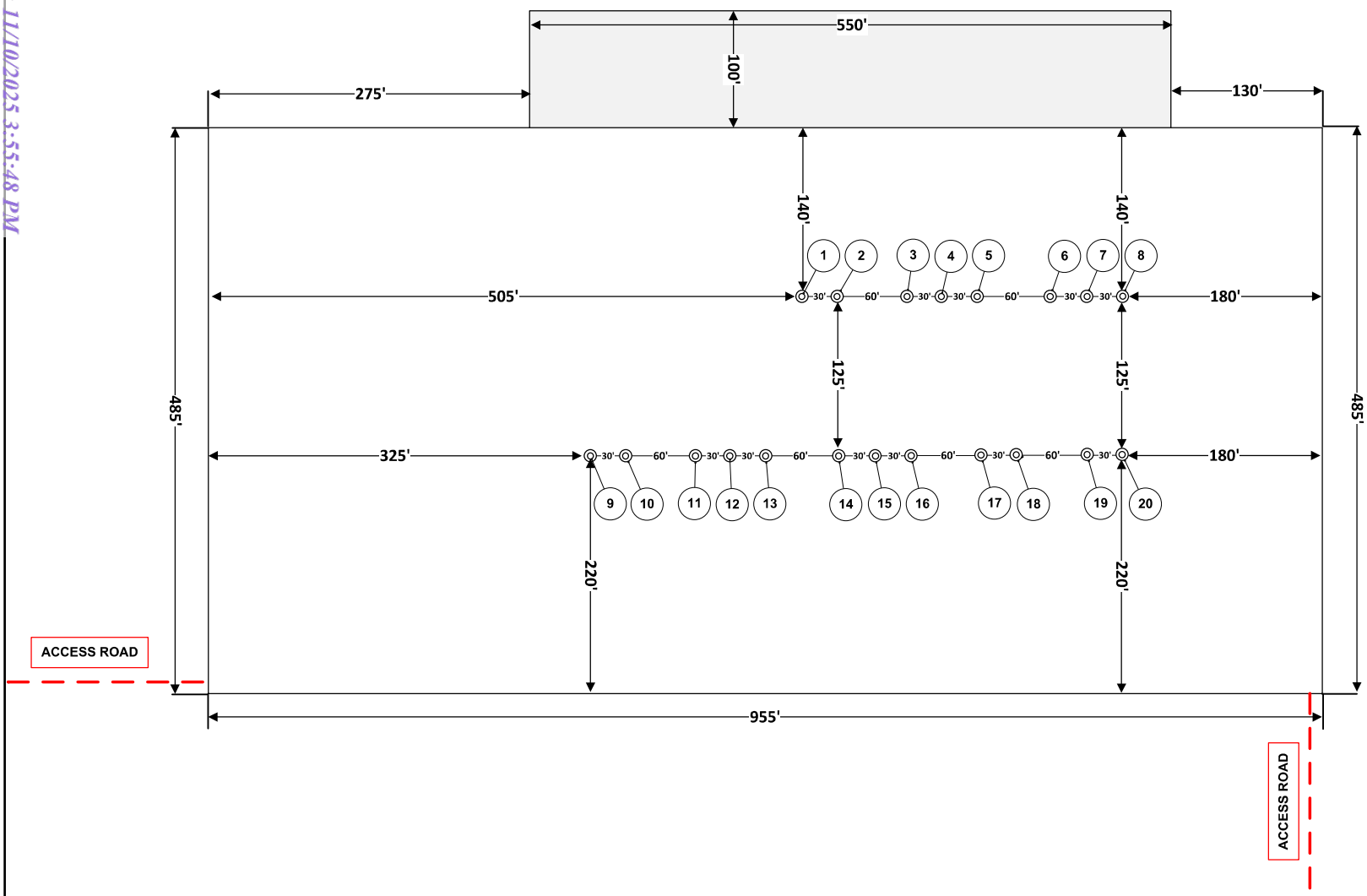
4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.

5. Hospital(s) or medical facilities need to be informed, before-hand, of the possibility of H2S gas poisoning – no matter how remote the possibility is.

6. Notify emergency room personnel that the victim(s) has been exposed to H2S gas.

Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration.

Revised CM 6/27/2012

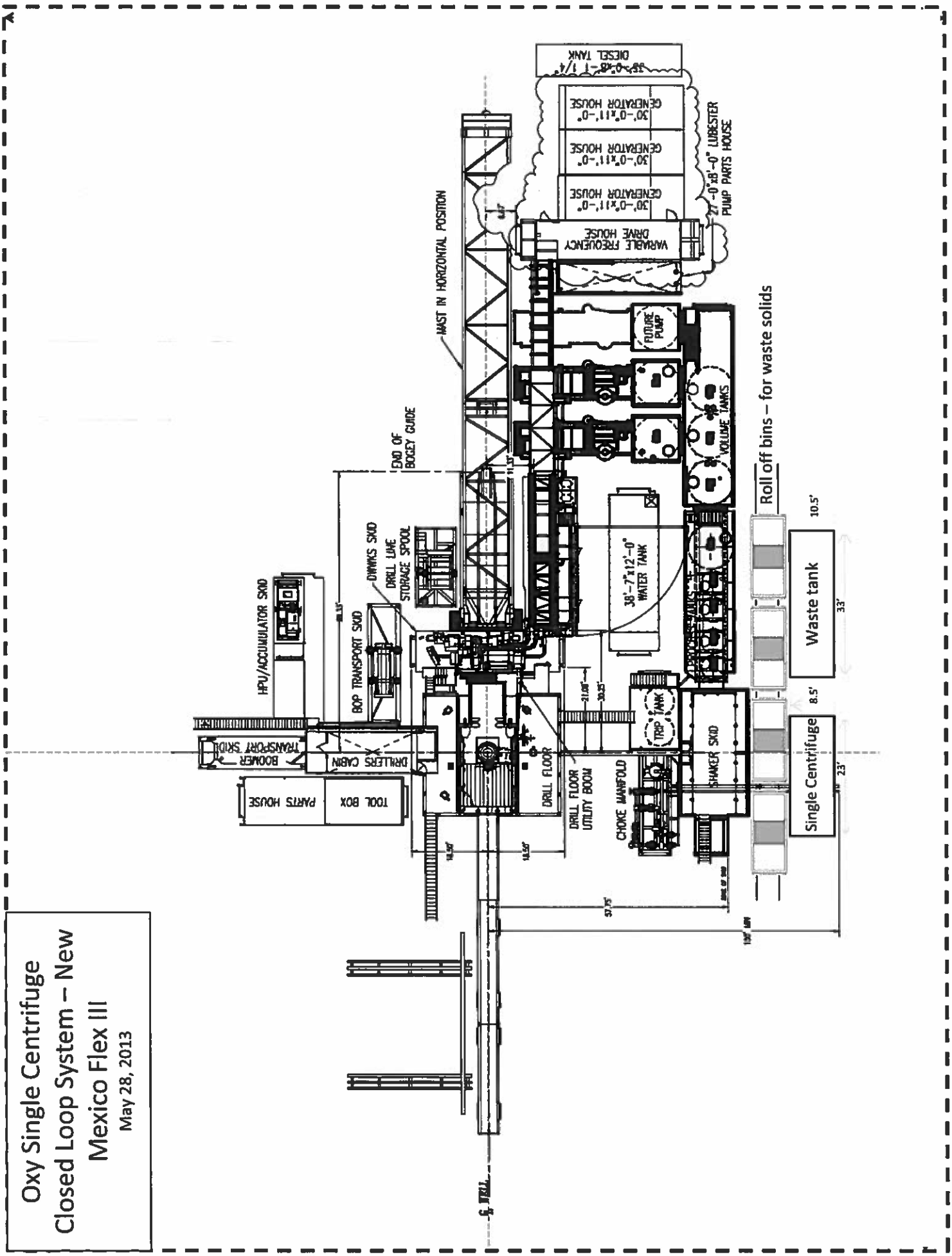


NORTH

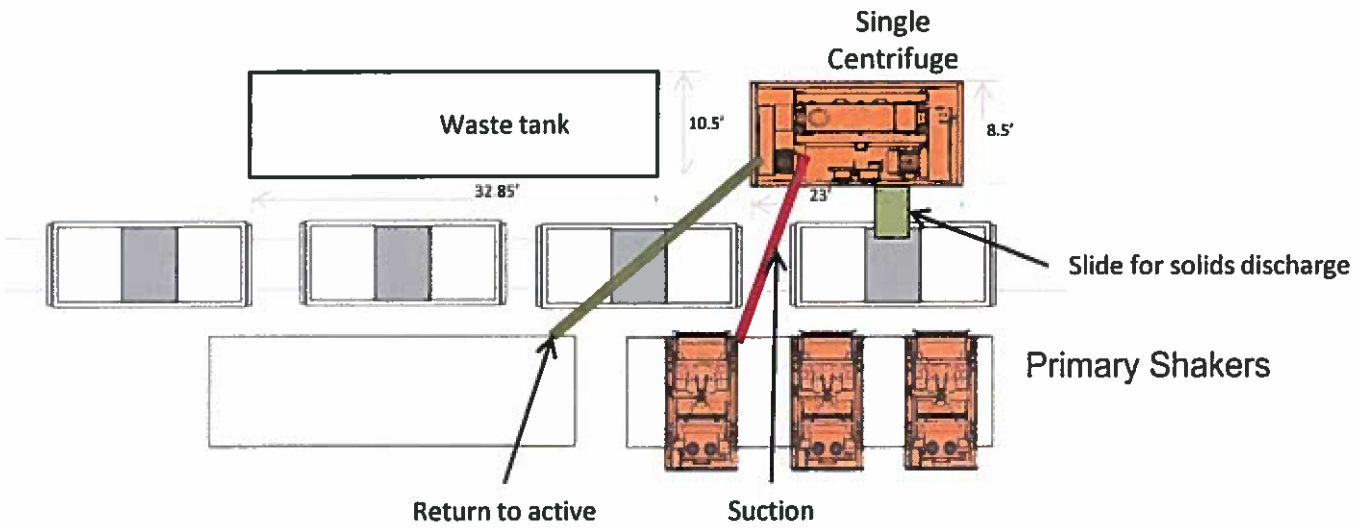
1. STERLING SILVER MDP1 33-4 FED COM 13H
2. STERLING SILVER MDP1 33-4 FED COM 14H
3. STERLING SILVER MDP1 33-4 FED COM 24H
4. STERLING SILVER MDP1 33-4 FED COM 25H
5. STERLING SILVER MDP1 33-4 FED COM 26H
6. STERLING SILVER MDP1 33-4 FED COM 44H
7. STERLING SILVER MDP1 33-4 FED COM 45H
8. STERLING SILVER MDP1 33-4 FED COM 46H
9. IRIDIUM MPD1 28-21 FED COM 73H
10. IRIDIUM MPD1 28-21 FED COM 74H
11. IRIDIUM MPD1 28-21 FED COM 12H
12. IRIDIUM MPD1 28-21 FED COM 13H
13. IRIDIUM MPD1 28-21 FED COM 14H
14. IRIDIUM MPD1 28-21 FED COM 24H
15. IRIDIUM MPD1 28-21 FED COM 25H
16. IRIDIUM MPD1 28-21 FED COM 26H
17. IRIDIUM MPD1 28-21 FED COM 44H
18. IRIDIUM MPD1 28-21 FED COM 45H
19. IRIDIUM MPD1 28-21 FED COM 46H
20. IRIDIUM MPD1 28-21 FED COM 47H

REVISION BLOCK						ENGINEERING RECORD	
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE
						KJS	2/23/2023

PAD 2801 RIG DIAGRAM V-DOOR EAST
STERLING SILVER MPD1 33-4 FED COM 13H, 14H, 24H, 25H, 26H, 44H, 45H, 46H
IRIDIUM MPD1 28-21 FED COM 73H, 74H, 12H, 13H, 14H, 24H, 25H, 26H, 44H, 45H, 46H, 47H
SECTION 28, TOWNSHIP 23S, RANGE 31E
LEA COUNTY, NEW MEXICO


Oxy Single Centrifuge
Closed Loop System – New Mexico Flex III
May 28, 2013
Roll off bins – for waste solids
Waste tank
Single Centrifuge
MAST IN HORIZONTAL POSITION
END OF BOGEY GUIDE
DRILL FLOOR
DRILL FLOOR UTILITY BOOM
CHOKE MANIFOLD
SHAKER SKID
TRIP TANK
VOLUME TANKS
FUTURE PUMP
38'-7"x12'-0" WATER TANK
BOP TRANSPORT SKID
DWKKS SKID
DRILL LINE STORAGE SPOOL
HPU/ACCUMULATOR SKID
BOOMER TRANSPORT SKID
DRILLERS CABIN
TOOL BOX
PARTS HOUSE
VARIABLE FREQUENCY DRIVE HOUSE
GENERATOR HOUSE
GENERATOR HOUSE
GENERATOR HOUSE
DIESEL TANK
27'-0"x8'-0" LUBESTER PUMP PARTS HOUSE

Oxy



Well Head

Oxy Single Centrifuge
Closed Loop System – New
Mexico Flex III
May 28, 2013

SITE PLAN

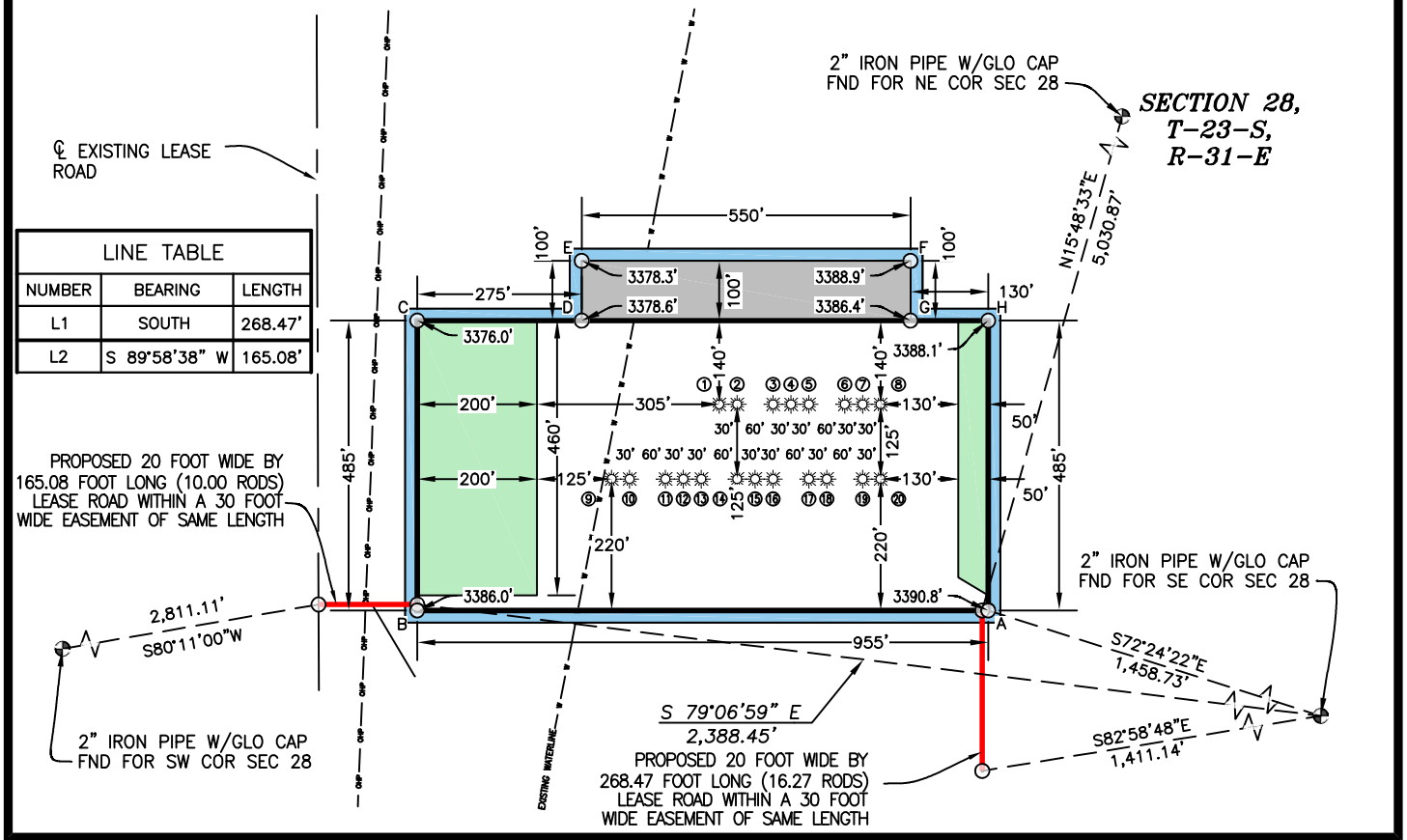
SNDDNS_T23S R31E_2801
SEC. 28 TWP. 23-S RGE. 31-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: LOS MEDANOS, N.M.
FAA PERMIT NEEDED: NO

TANK BATTERY
RECLAMATION
30' TOP SOIL
20' DISTURBANCE AREA

150' 0' 150' 300'
SCALE: 1" = 300'

NAD 83								
A	E:(X)712764.45 N:(Y)462188.94	LAT:32.26941430 LON:-103.77869770	D	E:(X)712084.45 N:(Y)462673.94	LAT:32.27075709 LON:-103.78088961	G	E:(X)712634.45 N:(Y)462673.94	LAT:32.27074930 LON:-103.77911019
B	E:(X)711809.45 N:(Y)462188.94	LAT:32.26942783 LON:-103.78178739	E	E:(X)712084.45 N:(Y)462773.94	LAT:32.27103197 LON:-103.78088795	H	E:(X)712764.45 N:(Y)462673.94	LAT:32.27074745 LON:-103.77868959
C	E:(X)711809.45 N:(Y)462673.94	LAT:32.27076098 LON:-103.78177933	F	E:(X)712634.45 N:(Y)462773.94	LAT:32.27102417 LON:-103.77910852			

NAD 27								
A	E:(X)671580.89 N:(Y)462129.63	LAT:32.26929124 LON:-103.77821232	D	E:(X)670900.91 N:(Y)462614.62	LAT:32.27063405 LON:-103.78040412	G	E:(X)671450.91 N:(Y)462614.62	LAT:32.27062625 LON:-103.77862474
B	E:(X)670625.88 N:(Y)462129.63	LAT:32.26930479 LON:-103.78130197	E	E:(X)670900.91 N:(Y)462714.62	LAT:32.27090893 LON:-103.78040245	H	E:(X)671580.91 N:(Y)462614.62	LAT:32.27062440 LON:-103.77820416
C	E:(X)670625.91 N:(Y)462614.62	LAT:32.27063794 LON:-103.78129382	F	E:(X)671450.91 N:(Y)462714.62	LAT:32.27090113 LON:-103.77862306			



LINE TABLE		
NUMBER	BEARING	LENGTH
L1	SOUTH	268.47'
L2	S 89°58'38" W	165.08'

10/24/2022	12/01/2022
DATE SURVEYED	DATE DRAWN

I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FUTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

REV.	DATE	BY

BASIS OF BEARING
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.99977642 CONVERGENCE ANGLE OF 0.32751111°.)

LEGEND

- EXISTING ROAD
- PROPOSED ROAD
- SURFACE SITE EDGE
- EXIST. PIPELINE
- MONUMENT
- QUARTER SPLIT
- OHP — OVERHEAD POWER
- x — x — FENCE
- SECTION LINE
- PL — PROPERTY LINE
- W — WATER LINE
- SWD — SALT WATER LINE

DECEMBER 1, 2022

DAVID W. MYERS 11403

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON STREET,
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. OXY_0003_IS
SHEET 1 OF 2

SITE PLAN

SNDDNS_T23S R31E_2801
SEC. 28 TWP. 23-S RGE. 31-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: LOS MEDANOS, N.M.
FAA PERMIT NEEDED: NO

TANK BATTERY
RECLAMATION
30' TOP SOIL
20' DISTURBANCE AREA

N

WELL 1
STERLING SILVER MDP1 33-4 FED COM 13H
OXY USA, INC.
796' FSL 1,836' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712314.45' / Y:462533.94'
LAT:32.27036901N / LON:103.78014783W
NAD 27, SPCS NM EAST
X:671130.90' / Y:462474.62'
LAT:32.27024596N / LON:103.77966237W
ELEVATION = 3,388'

WELL 2
STERLING SILVER MDP1 33-4 FED COM 14H
OXY USA, INC.
796' FSL 1,806' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712344.45' / Y:462533.94'
LAT:32.27036859N / LON:103.78005077W
NAD 27, SPCS NM EAST
X:671160.90' / Y:462474.62'
LAT:32.27024553N / LON:103.77956531W
ELEVATION = 3,389'

WELL 3
STERLING SILVER MDP1 33-4 FED COM 24H
OXY USA, INC.
795' FSL 1,746' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712404.45' / Y:462533.94'
LAT:32.27036773N / LON:103.77985665W
NAD 27, SPCS NM EAST
X:671220.90' / Y:462474.62'
LAT:32.27024468N / LON:103.77937120W
ELEVATION = 3,371'

WELL 4
STERLING SILVER MDP1 33-4 FED COM 25H
OXY USA, INC.
795' FSL 1,716' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712434.45' / Y:462533.94'
LAT:32.27036731N / LON:103.77975959W
NAD 27, SPCS NM EAST
X:671250.90' / Y:462474.62'
LAT:32.27024426N / LON:103.77927414W
ELEVATION = 3,373'

WELL 5
STERLING SILVER MDP1 33-4 FED COM 26H
OXY USA, INC.
795' FSL 1,686' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712464.45' / Y:462533.94'
LAT:32.27036688N / LON:103.77966253W
NAD 27, SPCS NM EAST
X:671280.90' / Y:462474.62'
LAT:32.27024383N / LON:103.77917709W
ELEVATION = 3,387'

WELL 6
STERLING SILVER MDP1 33-4 FED COM 44H
OXY USA, INC.
795' FSL 1,626' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712524.45' / Y:462533.94'
LAT:32.27036603N / LON:103.77946841W
NAD 27, SPCS NM EAST
X:671340.90' / Y:462474.62'
LAT:32.27024298N / LON:103.77898297W
ELEVATION = 3,388'

WELL 7
STERLING SILVER MDP1 33-4 FED COM 45H
OXY USA, INC.
794' FSL 1,596' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712554.45' / Y:462533.94'
LAT:32.27036561N / LON:103.77937135W
NAD 27, SPCS NM EAST
X:671370.90' / Y:462474.62'
LAT:32.27024255N / LON:103.77888591W
ELEVATION = 3,375

WELL 8
STERLING SILVER MDP1 33-4 FED COM 46H
OXY USA, INC.
794' FSL 1,566' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712584.45' / Y:462533.94'
LAT:32.27036518N / LON:103.77927429W
NAD 27, SPCS NM EAST
X:671400.90' / Y:462474.62'
LAT:32.27024213N / LON:103.77878886W
ELEVATION = 3,374'

WELL 9
IRIDIUM MDP1 28-21 FED COM 73H
OXY USA, INC.
672' FSL 2,017' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712134.45' / Y:462408.94'
LAT:32.27002796N / LON:103.78073226W
NAD 27, SPCS NM EAST
X:670950.90' / Y:462349.62'
LAT:32.26990491N / LON:103.78024681W
ELEVATION = 3,387'

WELL 10
IRIDIUM MDP1 28-21 FED COM 74H
OXY USA, INC.
672' FSL 1,987' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712164.45' / Y:462408.94'
LAT:32.27002754N / LON:103.78063520W
NAD 27, SPCS NM EAST
X:670980.90' / Y:462349.62'
LAT:32.26990449N / LON:103.78014975W
ELEVATION = 3,387'

WELL 11
IRIDIUM MDP1 28-21 FED COM 12H
OXY USA, INC.
671' FSL 1,927' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712224.45' / Y:462408.94'
LAT:32.27002669N / LON:103.78044109W
NAD 27, SPCS NM EAST
X:671040.90' / Y:462349.62'
LAT:32.26990364N / LON:103.77995564W
ELEVATION = 3,389'

WELL 12
IRIDIUM MDP1 28-21 FED COM 13H
OXY USA, INC.
671' FSL 1,897' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712254.45' / Y:462408.94'
LAT:32.27002627N / LON:103.78034403W
NAD 27, SPCS NM EAST
X:671070.90' / Y:462349.62'
LAT:32.26990321N / LON:103.77985858W
ELEVATION = 3,388'

WELL 13
IRIDIUM MDP1 28-21 FED COM 14H
OXY USA, INC.
671' FSL 1,867' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712284.45' / Y:462408.94'
LAT:32.27002584N / LON:103.78024697W
NAD 27, SPCS NM EAST
X:671100.90' / Y:462349.62'
LAT:32.26990279N / LON:103.77976153W
ELEVATION = 3,387'

WELL 14
IRIDIUM MDP1 28-21 FED COM 24H
OXY USA, INC.
671' FSL 1,807' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712344.45' / Y:462408.94'
LAT:32.27002499N / LON:103.78005285W
NAD 27, SPCS NM EAST
X:671160.90' / Y:462349.62'
LAT:32.26990194N / LON:103.77956741W
ELEVATION = 3,374'

WELL 15
IRIDIUM MDP1 28-21 FED COM 25H
OXY USA, INC.
670' FSL 1,777' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712374.45' / Y:462408.94'
LAT:32.27002456N / LON:103.77995579W
NAD 27, SPCS NM EAST
X:671190.90' / Y:462349.62'
LAT:32.26990151N / LON:103.77947036W
ELEVATION = 3,374'

WELL 16
IRIDIUM MDP1 28-21 FED COM 26H
OXY USA, INC.
670' FSL 1,747' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712404.45' / Y:462408.94'
LAT:32.27002414N / LON:103.77985873W
NAD 27, SPCS NM EAST
X:671220.90' / Y:462349.62'
LAT:32.26990108N / LON:103.77937330W
ELEVATION = 3,386'

WELL 17
IRIDIUM MDP1 28-21 FED COM 44H
OXY USA, INC.
670' FSL 1,687' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712464.45' / Y:462408.94'
LAT:32.27002329N / LON:103.77966462W
NAD 27, SPCS NM EAST
X:671280.90' / Y:462349.62'
LAT:32.26990023N / LON:103.77917919W
ELEVATION = 3,386'

WELL 18
IRIDIUM MDP1 28-21 FED COM 45H
OXY USA, INC.
670' FSL 1,657' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712494.45' / Y:462408.94'
LAT:32.27002286N / LON:103.77956756W
NAD 27, SPCS NM EAST
X:671310.90' / Y:462349.62'
LAT:32.26989981N / LON:103.77908213W
ELEVATION = 3,386'

WELL 19
IRIDIUM MDP1 28-21 FED COM 46H
OXY USA, INC.
669' FSL 1,597' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712554.45' / Y:462408.94'
LAT:32.27002201N / LON:103.77937344W
NAD 27, SPCS NM EAST
X:671370.90' / Y:462349.62'
LAT:32.26989896N / LON:103.77888802W
ELEVATION = 3,376'

WELL 20
IRIDIUM MDP1 28-21 FED COM 47H
OXY USA, INC.
669' FSL 1,567' FEL, SECTION 28
NAD 83, SPCS NM EAST
X:712584.45' / Y:462408.94'
LAT:32.27002159N / LON:103.77927638W
NAD 27, SPCS NM EAST
X:671400.90' / Y:462349.62'
LAT:32.26989853N / LON:103.77879096W
ELEVATION = 3,377'

10/05/2022	11/30/2022
DATE SURVEYED	DATE DRAWN

I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FUTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

REV.	DATE	BY

BASIS OF BEARING
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.99977642 CONVERGENCE ANGLE OF 0.32751111°.)

LEGEND

- EXISTING ROAD
- PROPOSED ROAD
- SURFACE SITE EDGE
- EXIST. PIPELINE
- MONUMENT
- QUARTER SPLIT
- OHP — OVERHEAD POWER
- x — x — FENCE
- SECTION LINE
- PL — PROPERTY LINE
- W — WATER LINE
- SWD — SALT WATER LINE

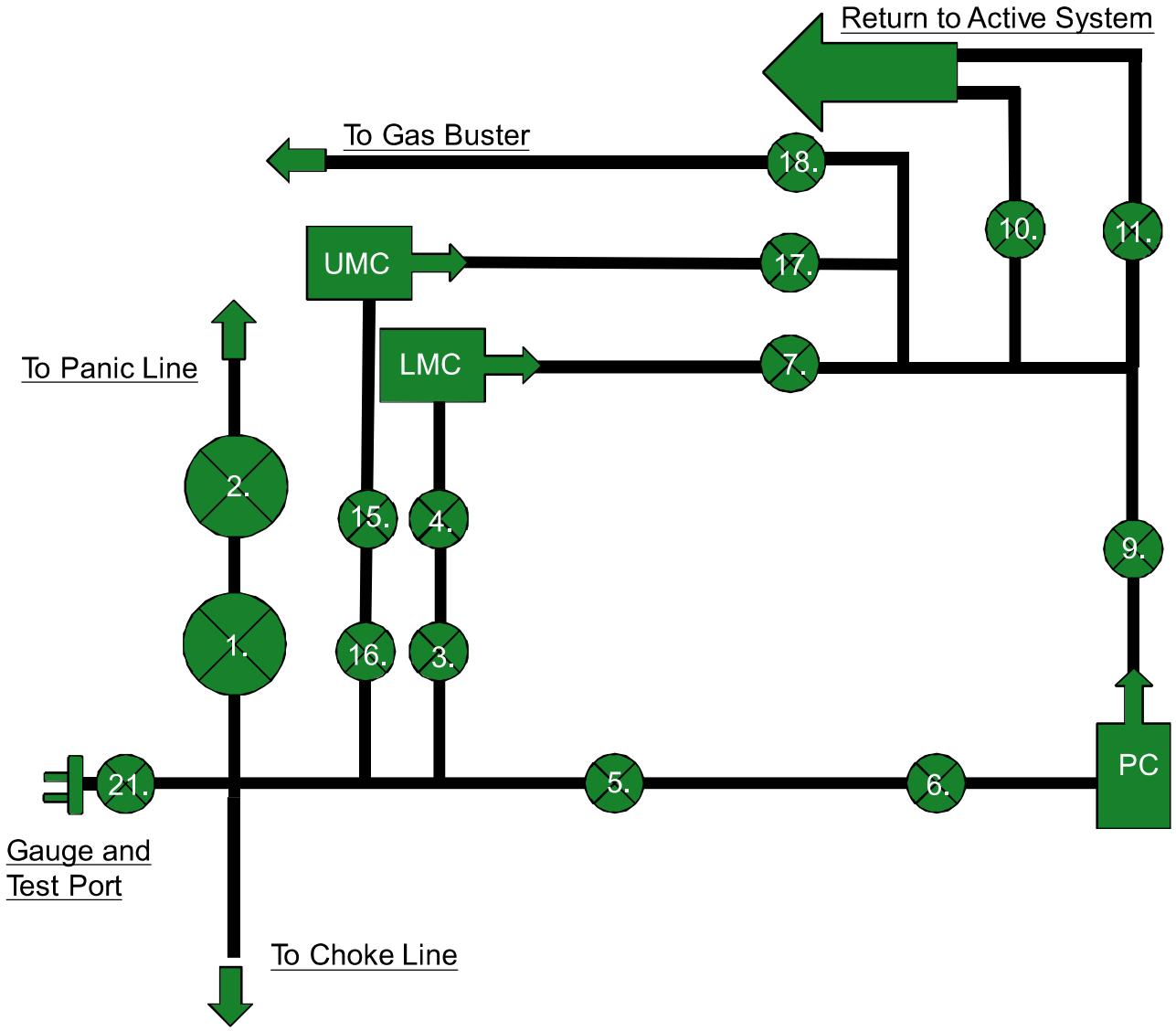
DECEMBER 1, 2022

DAVID W. MYERS 11403

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON STREET,
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. OXY_0003_IS
SHEET 2 OF 2

10M Choke Panel



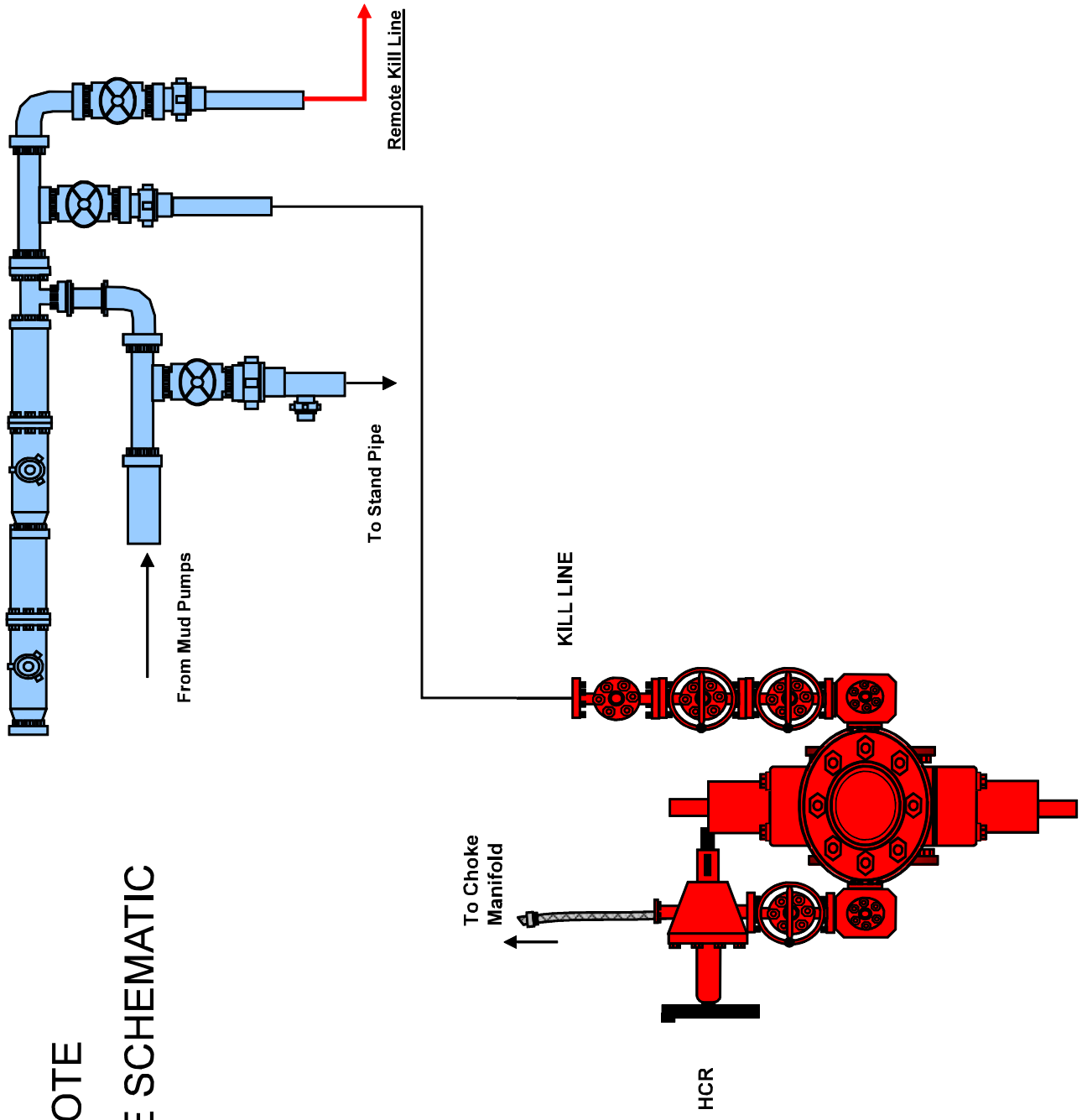
1. Choke Manifold Valve
2. Choke Manifold Valve
3. Choke Manifold Valve
4. Choke Manifold Valve
5. Choke Manifold Valve
6. Choke Manifold Valve
7. Choke Manifold Valve
8. PC – Power Choke
9. Choke Manifold Valve
10. Choke Manifold Valve
11. Choke Manifold Valve
12. LMC – Lower Manual Choke
13. UMC – Upper manual choke

15. Choke Manifold Valve
16. Choke Manifold Valve
17. Choke Manifold Valve
18. Choke Manifold Valve

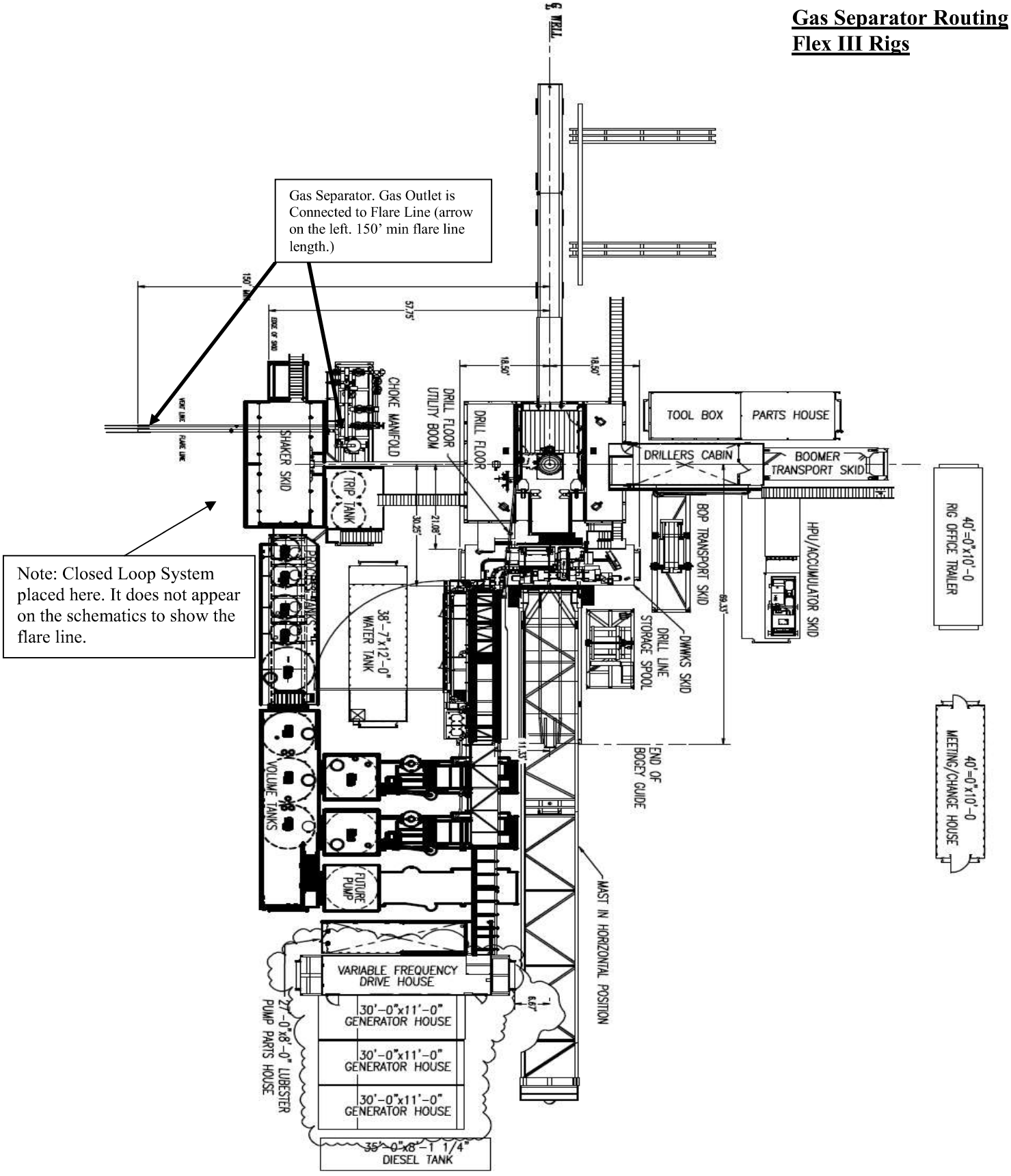
21. Vertical Choke Manifold Valve

***All Valves 3" minimum**

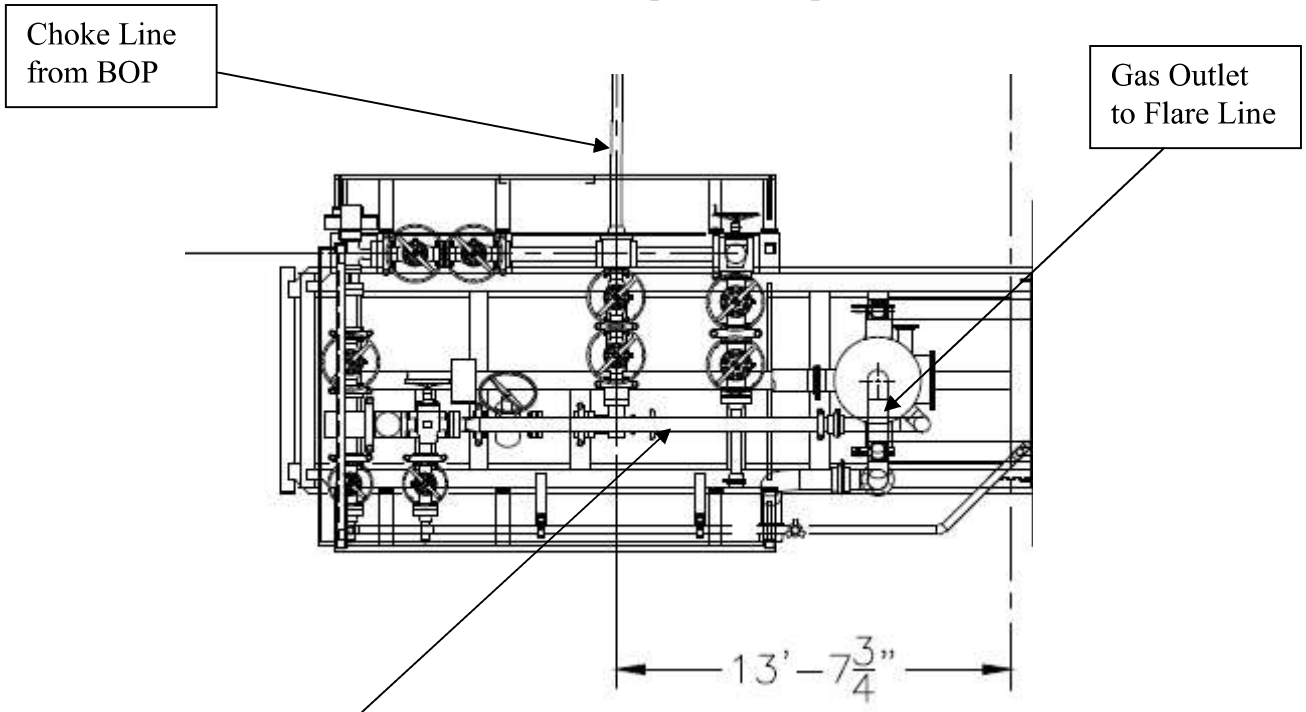
10M REMOTE KILL LINE SCHEMATIC



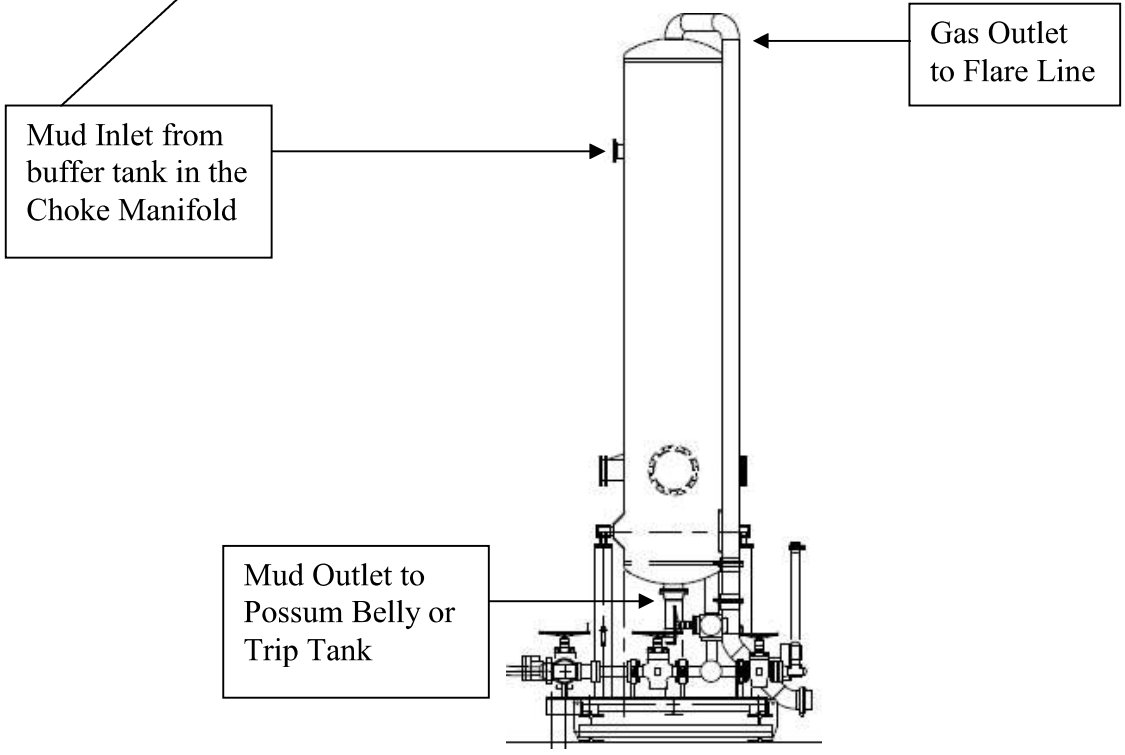
Gas Separator Routing
Flex III Rigs

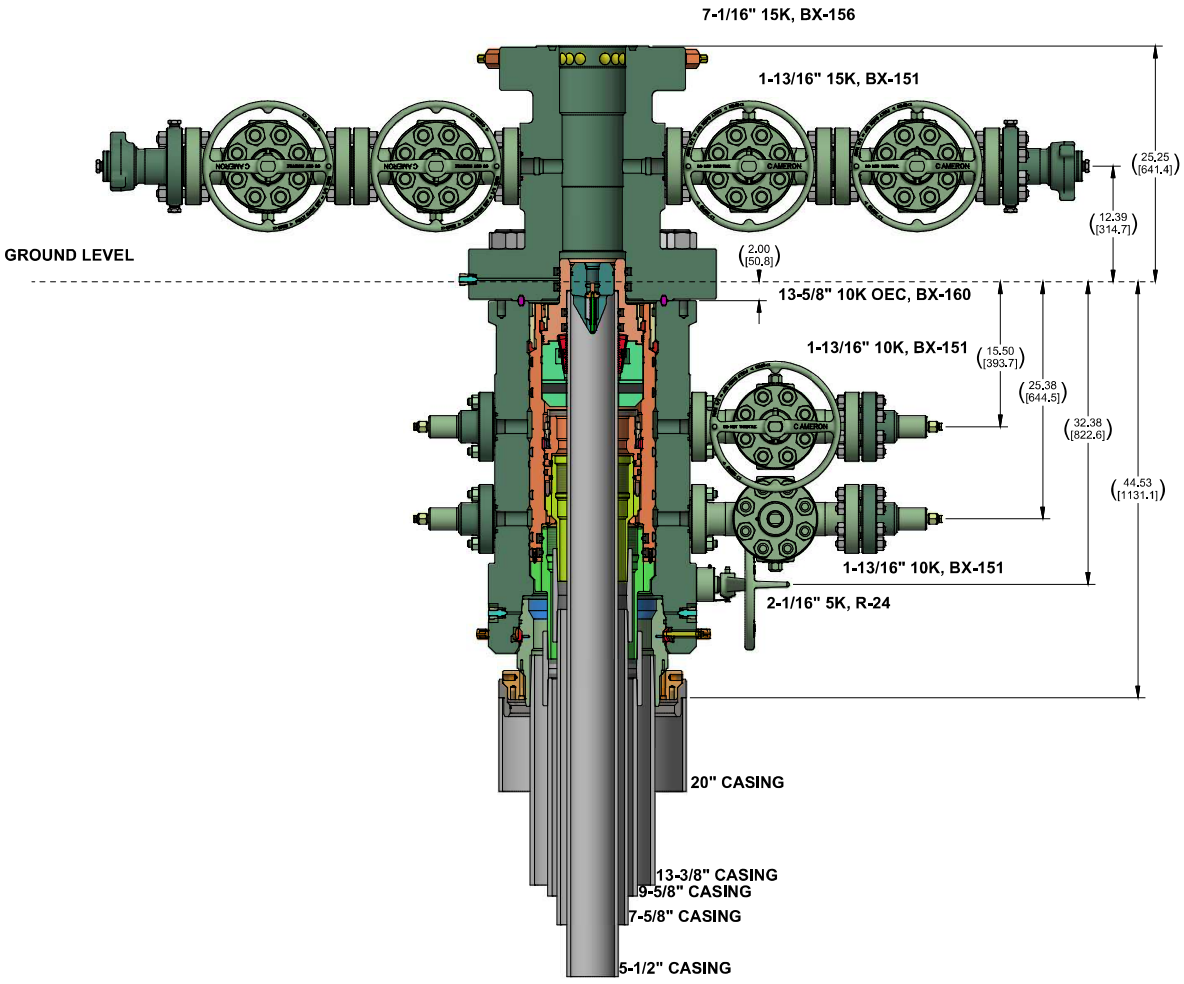


Choke Manifold – Gas Separator (Top View)



Choke Manifold – Gas Separator (Side View)





CONFIDENTIAL				
SURFACE TREATMENT:	DO NOT SCALE		CAMERON A Schlumberger Company	SURFACE SYSTEMS
	DRAWN BY: A. SKLENKA	DATE: 26 Apr 22		
MATERIAL & HEAT TREAT:	CHECKED BY: A. SKLENKA	DATE: 26 Apr 22	OXY ADAPT NST 10K 3 STAGE WELLHEAD STANDARD / EMERGENCY SYSTEM	
	APPROVED BY: A. SKLENKA	DATE: 26 Apr 22		
ESTIMATED WEIGHT:	7968.4 LBS [3614.4 KG]	INTIAL USE B/M: T# 7836394	SHEET: 1 of 1	LO-096232-62 REV: 01

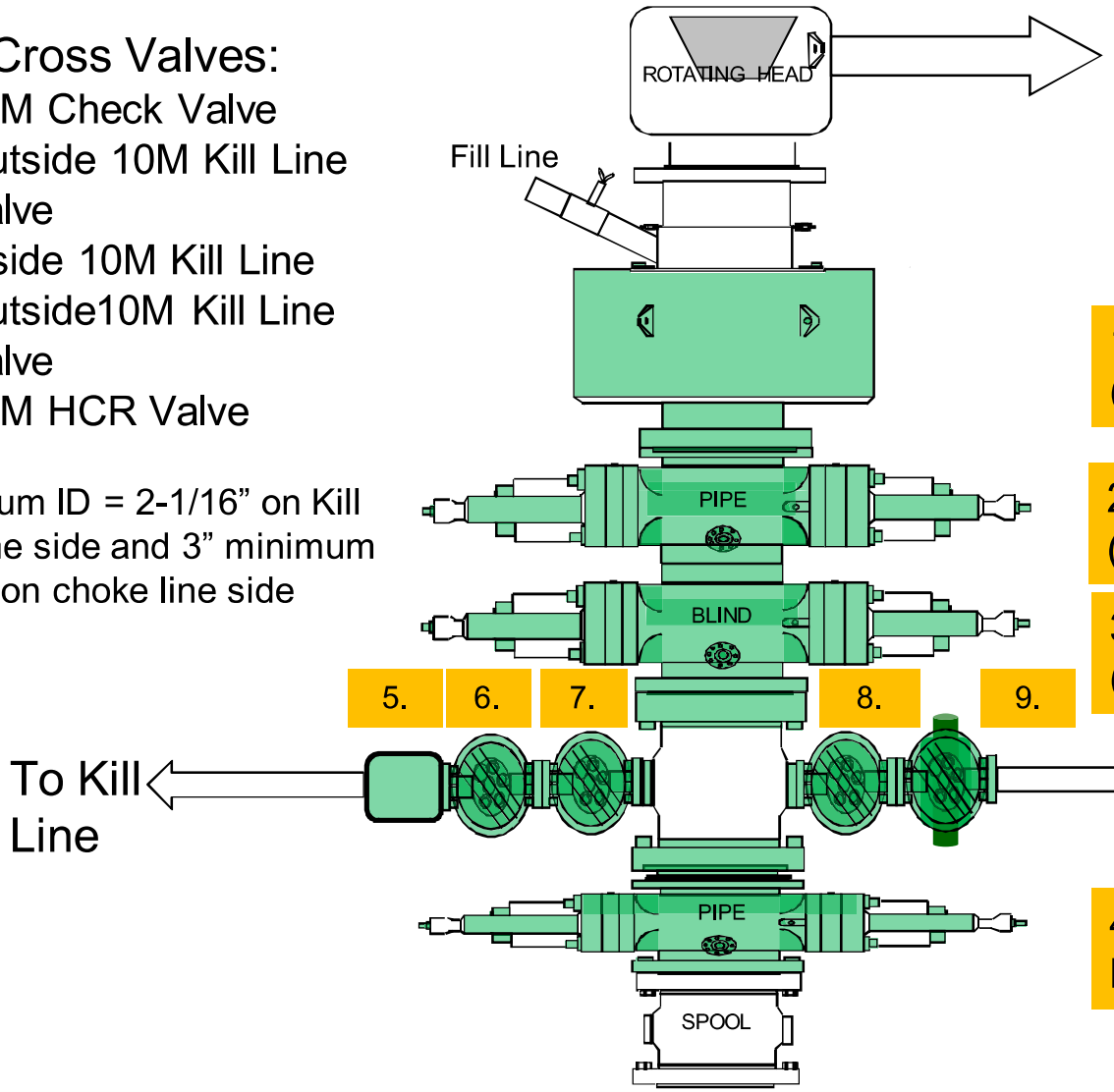
INVENTOR - D

5/10M BOP Stack

Mud Cross Valves:

5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line
8. Outside10M Kill Line Valve
9. 10M HCR Valve

*Minimum ID = 2-1/16” on Kill Line side and 3” minimum ID on choke line side



1. 5,000 psi Annular (13-5/8” ID)

2. 10,000 psi Upper Pipe Ram (13-5/8” ID)

3. 10,000 psi Blind Ram (13-5/8” ID)

4. 10,000 psi Lower Pipe Ram (13-5/8” ID)

Certificate of Conformity

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
H100161	1429702	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740382384	
Project:		

Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Gerson Mejia-Lazo Date: 06/27/22	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Part No.	Description	Qnty	Serial Number	Specifications
30	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70024	ContiTech Standard

Hydrostatic Test Certificate

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
H100161	1429702	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740382384	
Project:		

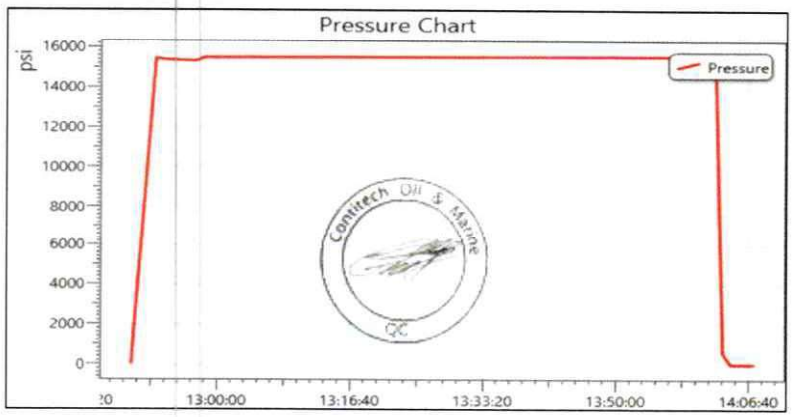
Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Gerson Mejia-Lazo Date: 06/27/22	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qnty	Serial Number	Work. Press. (psi)	Test Press. (psi)	Test Time (minutes)
30	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70024	10,000	15,000	60

Record Information	
Start Time	6/8/2022 12:49:19
End Time	6/8/2022 14:07:25
Interval	00:01:00
Number	79
MaxValue	15762
MinValue	-7
AvgValue	14395
RecordName	70024-sh
RecordNumber	235

Gauge Information	
Model	ADT680
SN	21817380014
Range	(0-40000)psi
Unit	psi



THIS WELL DEC 23/22
IN USE AS.

@ Rig
10021
2019
CHOKE
HOSE

Gates Engineering & Services North America
7603 Prairie Oak Dr.
Houston, TX. 77086
PHONE : (281) 602-4119
FAX:
EMAIL: Troy.Schmidt@gates.com

CERTIFICATE OF CONFORMANCE

This is to certify that all parts and materials included in this shipment have manufactured and/or processed in accordance with various Gates and API assembly and test specifications. Records of required tests are on-file and subject to examination. Test reports and subsequent test graphs have been made available with this shipment. Additional supporting documentation related to materials, welding, weld inspections, and heat-treatment activities are available upon request.

CUSTOMER:	A-7 AUSTIN INC DBA AUSTIN HOSE
CUSTOMERS P.O.#:	4128128 (RIG 1 PO 002773)
CUSTOMER P/N:	10KFR3.012.0CK411610KFIXXFLT SSA SC LE
PART DESCRIPTION:	3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL ARMOR C/W 4 1/16 10K FIX X FLOAT H2S SUITED FLANGES WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS & LIFT EYE CLAMPS
SALES ORDER #:	516982
QUANTITY:	1
SERIAL #:	H2-112019-4

SIGNATURE: Norma Aba

TITLE: QUALITY ASSURANCE

DATE: 11/20/2019

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX 77086

PHONE: (281) 602 - 4119
FAX:
EMAIL: Troy.Schmidt@gates.com
WEB: www.gates.com

PRESSURE TEST CERTIFICATE

Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	11/20/2019
Customer Ref.:	4128128 (RIG 1 PO 002773)	Hose Serial No.:	H2-112019-4
Invoice No.:	516982	Created By:	Norma Cabrera

Product Description:	3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL ARMOR C/W 4 1/16 10K FIX X FLOAT H2S SUITED FLANGES WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS & LIFT EYE CLAMPS

End Fitting 1:	4 1/16 10K FLANGES FIXED	End Fitting 2:	4 1/16 10K FLANGES FLOAT
Oracle Star No.:	68903010-9879429	Assembly Code:	L41242 113018
CUSTOMER P/N:	10KFR3.012.0CK411610KFIXXFLT SSA SC LE	Test Pressure:	15,000 PSI.
		Working Pressure:	10,000 PSI.

Gates Engineering & Services North America certifies that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

Quality:	QUALITY	Production:	PRODUCTION
Date :	11/20/2019	Date :	11/20/2019
Signature :	Norma Cabrera	Signature :	

F-PRD-005

Revision 1_022819

H2-1987

11/20/2019 12:13:07 PM

TEST REPORT

CUSTOMER

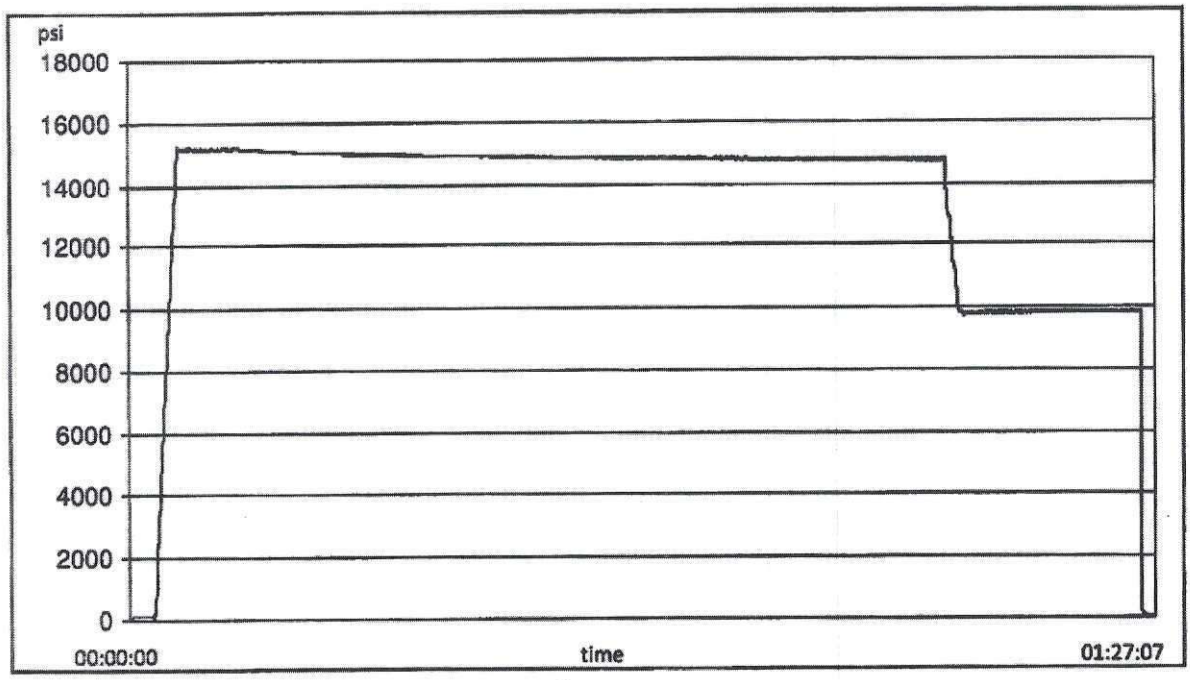
Company:	Austin Hose
Production description:	
Sales order #:	516982
Customer reference:	

TEST INFORMATION

Test procedure:	GTS-04-053	
Test pressure:	15000.00	psi
Test pressure hold:	3600.00	sec
Work pressure:	9750.00	psi
Work pressure hold:	900.00	sec
Length difference:	0.00	%
Length difference:	0.24	inch
Visual check:		
Pressure test result:	PASS	
Length measurement result:		
Test operator:	Roderick Shambra	

TEST OBJECT

Serial number:	H2-112019-4
Lot number:	L41242113018
Description:	
Hose ID:	3.0 10k MS C&K
Part number:	
Fitting 1:	3.0 x 4-1/16 10K
Part number:	
Description:	
Fitting 2:	3.0 x 4-1/16 10K
Part number:	
Description:	
Length:	12 feet



Filename: D:\Certificates\Report_112019-H2-112019-4.pdf

H2-1987

11/20/2019 12:13:07 PM

TEST REPORT

GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110AMCL0	2019-03-17	2020-03-15
S-25-A-W	110AP02K	2019-04-16	2020-04-14

Comment

Certificate of Conformance

COPY

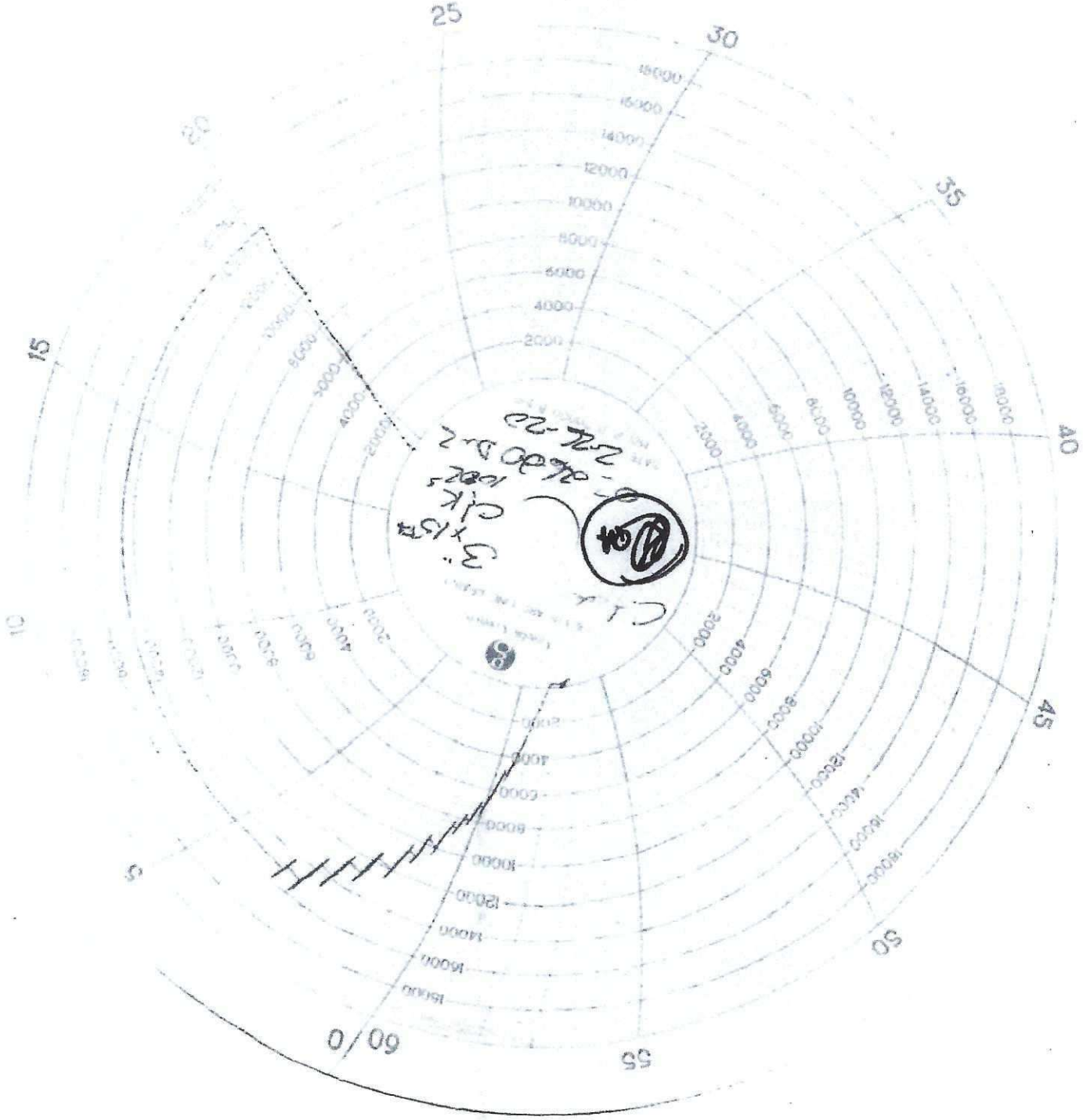
DW INDUSTRIES INC.
6287 Long Drive
Houston, TX 77087
Tel. 713 644-8372 Fax 713-644-4947

Customer Name:	CITADEL DRILLING		**Customer Contact:**	PAUL HOFFMAN 432-241-5360	
Purchase Order Information	**Customer Purchase Order Number:**	CONTACT PAUL HOFFMAN FOR INFO		**DW Industries Work Order Number:**	20020163
	DW Industries Part Number:	OA-5640-4815-1002-4		**Serial Number:**	022620DW-2
	QTY Ordered:	1		**Assembly Date:**	02/26/2020
	Customer Part Number:	OA-5640-4815-1002-4	**Part Description:**	3" 10,000 psi WP CHOKE HOSE M X F 4" 1002 HAMMER UNIONS C/W CLAMPS	

I DO HEREBY CERTIFY, AS THE AUTHORIZED REPRESENTATIVE OF DW INDUSTRIES, THAT THE PRODUCT LISTED ABOVE ARE OF THE QUALITY SPECIFIED AND CONFORM TO ALL REQUIREMENTS OF THE PURCHASE ORDER, INCLUDING: QUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, PRESERVATION, PACKAGING, PACKING, MARKING, AND PHYSICAL IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE WITH ISO-9001:2015, API Q1 AND API SPEC 7K.

Certificate Issue Date: 2/27/2020

Garrett Crawford, Director of Quality
DW Industries Inc.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10000
12000
14000
16000
18000

Certificate of Conformance

COPY

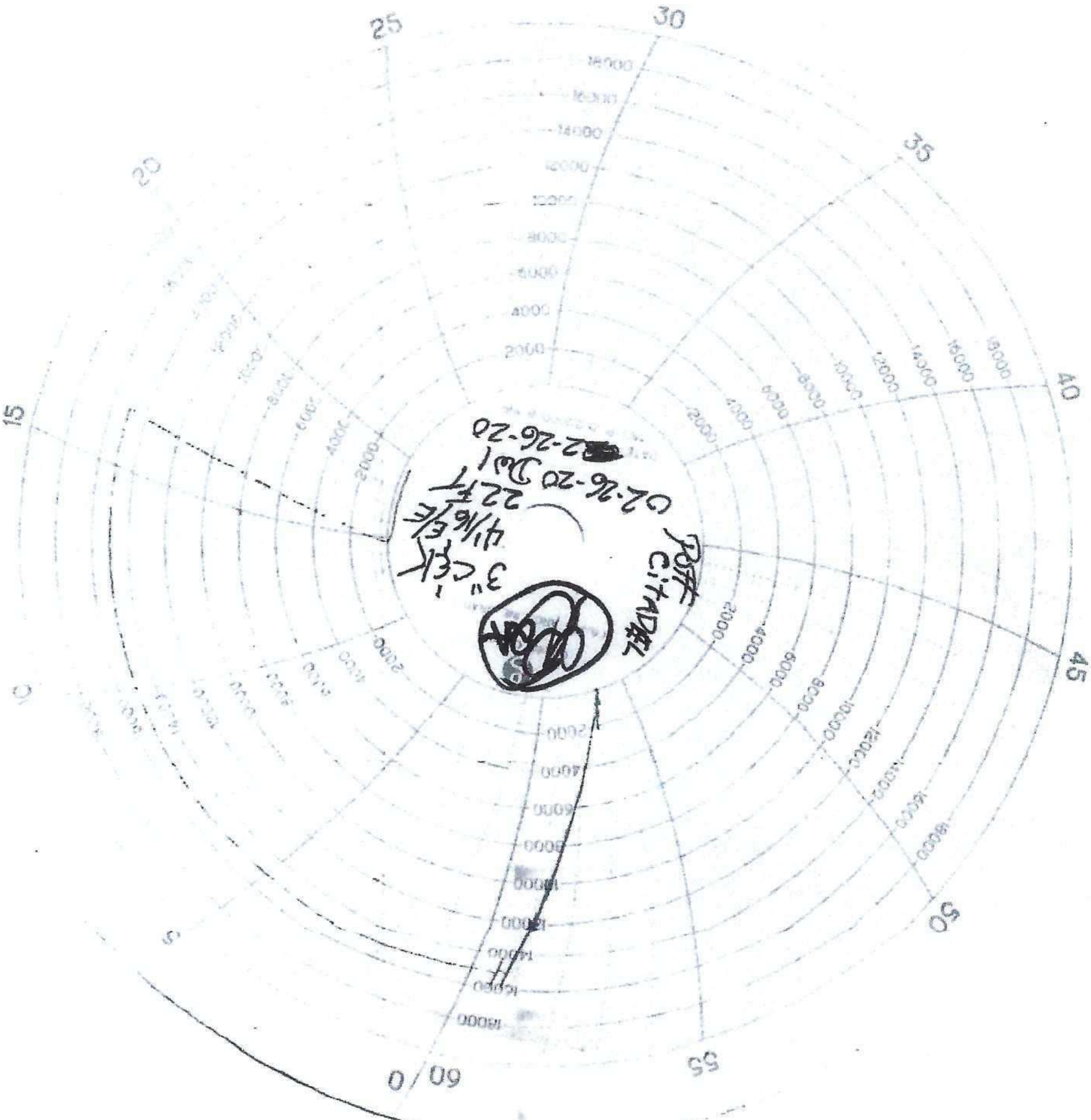
DW INDUSTRIES INC.
6287 Long Drive
Houston, TX 77087
Tel. 713 644-8372 Fax 713-644-4947

Customer Name:	CITADEL DRILLING		**Customer Contact:**	PAUL HOFFMAN 432-241-5360	
Purchase Order Information	**Customer Purchase Order Number:**	CONTACT PAUL HOFFMAN FOR INFO		**DW Industries Work Order Number:**	20020164
	DW Industries Part Number:	OA-5640-4822-4-1/16FXFL-ALE		**Serial Number:**	022620DW-1
	QTY Ordered:	1		**Assembly Date:**	02/26/2020
	Customer Part Number:	OA-5640-4822-4-1/16FXFL-ALE	**Part Description:**	3" 10,000 psi WP CHOKE HOSE 4-1/16" FIXED BY FLOAT FLANGES C/W SS ARMOR & LIFTING EYES	

I DO HEREBY CERTIFY, AS THE AUTHORIZED REPRESENTATIVE OF DW INDUSTRIES, THAT THE PRODUCT LISTED ABOVE ARE OF THE QUALITY SPECIFIED AND CONFORM TO ALL REQUIREMENTS OF THE PURCHASE ORDER, INCLUDING: QUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, PRESERVATION, PACKAGING, PACKING, MARKING, AND PHYSICAL IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE WITH ISO-9001:2015, API Q1 AND API SPEC 7K.

Certificate Issue Date: 2/27/2020

Garrett Crawford, Director of Quality
DW Industries Inc.


3" CEK
4 1/16 E/E
22 FT
02-26-20
Citadel
60 / 0
5
10
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25
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55

COPY

Certificate of Conformance

DW INDUSTRIES INC.
6287 Long Drive
Houston, TX 77087
Tel. 713 644-8372 Fax 713-644-4947

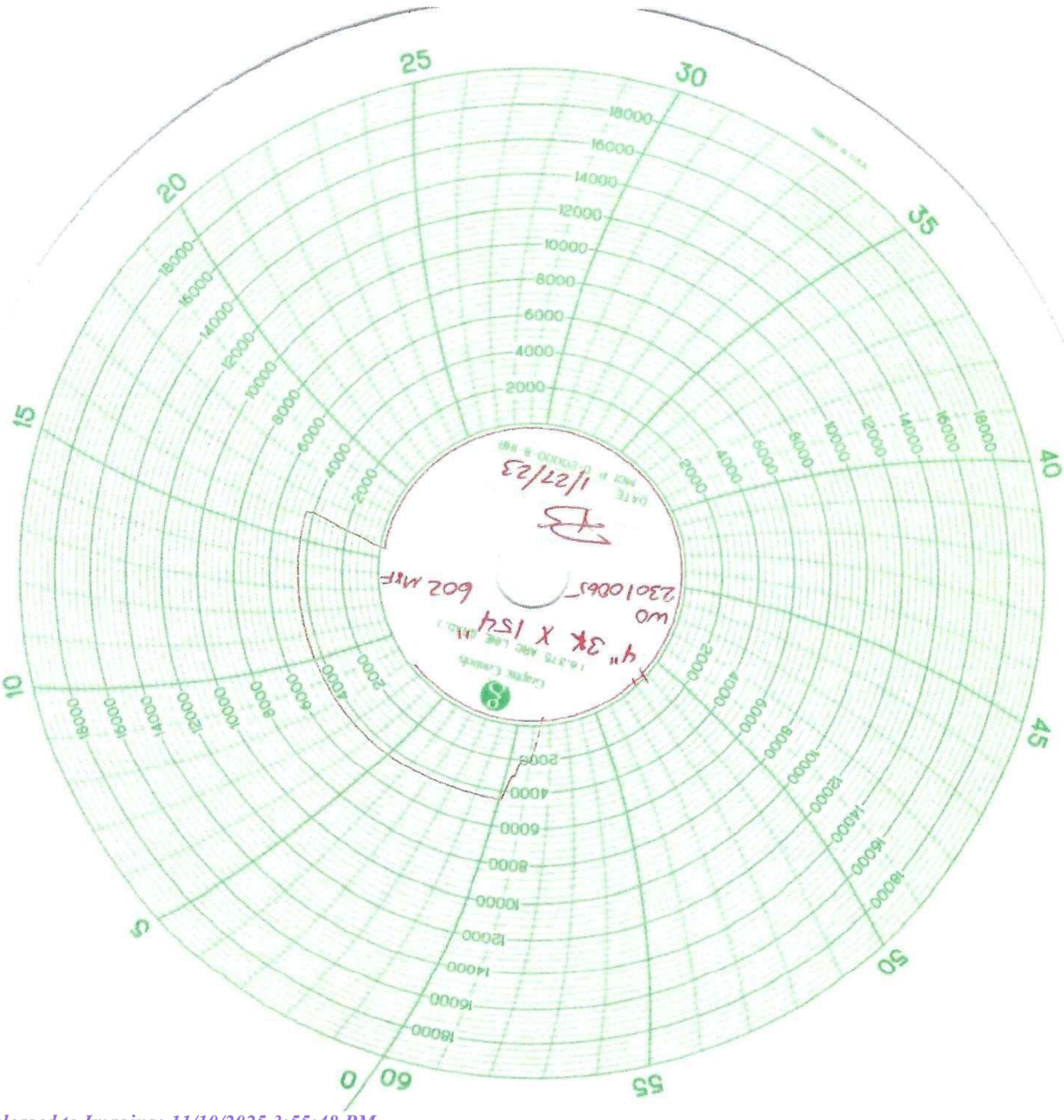
Customer Name:	ASUTIN HOSE		**Customer Contact:**	JUDY LOERA	
Purchase Order Information	**Customer Purchase Order Number:**	00704977		**DW Industries Work Order Number:**	23010065
	DW Industries Part Number:	OA-PS5038-64154"-602		**Serial Number:**	23010065
	QTY Ordered:	1		**Assembly Date:**	1/27/2023
	Customer Part Number:		**Part Description:**	4"X154" 3K W/4" FIG 602 MXF	

I DO HEREBY CERTIFY, AS THE AUTHORIZED REPRESENTATIVE OF DW INDUSTRIES, THAT THE PRODUCT LISTED ABOVE ARE OF THE QUALITY SPECIFIED AND CONFORM TO ALL REQUIREMENTS OF THE PURCHASE ORDER, INCLUDING: QUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, PRESERVATION, PACKAGING, PACKING, MARKING, AND PHYSICAL IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE WITH ISO-9001:2015, API Q1 AND API SPEC 7K.

Certificate Issue Date: 1/27/2023

Quality Assurance,
DW Industries, Inc.

QF-018-OF, Rev New
Rev Date: 12/17/2019



IN SERVICE
12-20-21

Gates BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr. Suite 190
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

PRESSURE TEST CERTIFICATE

Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	10/15/2021
Customer Ref.:	00595477	Hose Serial No.:	H3-101521-2
Invoice No.:	521925	Created By:	Micky Mhina

Product Description:	3" X 35' GATES FIRE RATED CHOKE & KILL HOSE ASSEMBLY SUITED FOR H2S SERVICE C/W 4 1/16 10K FIXED X FLOAT HEAT TREATED FLANGES SUPPLIED WITH STAINLESS STEEL ARMOR SAFETY CLAMPS & LIFT EYES

End Fitting 1:	4 1/16 10K FIXED FLANGE	End Fitting 2:	4 1/16 10K FLOAT HEAT TREATED FLANGES
Oracle Star No.:	68703010-10074881	Assembly Code:	L41975 091719
CUSTOMER P/N:	10K3.035.0CK411610KFIXXFLTW/SSA/SC/LE	Test Pressure:	15,000 PSI.
		Working Pressure:	10,000 PSI.

Gates Engineering & Services North America certifies that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies) or GTS-04-048 (15K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

Quality:	QUALITY	Production:	PRODUCTION
Date :	10/15/2021	Date :	10/15/2021
Signature :	Micky Mhina	Signature :	

F-PRD-005B

Revision 6_05032021

BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

CERTIFICATE OF CONFORMANCE

This is to certify that all parts and materials included in this shipment have manufactured and/or processed in accordance with various Gates and API assembly and test specifications. Records of required tests are on-file and subject to examination. Test reports and subsequent test graphs have been made available with this shipment. Additional supporting documentation related to materials, welding, weld inspections, and heat-treatment activities are available upon request.

CUSTOMER:	A-7 AUSTIN INC DBA AUSTIN HOSE
CUSTOMER P.O.#:	00595477
CUSTOMER P./N.#:	10K3.035.0CK411610KFIXXFLTW/SSA/SC/LE
PART DESCRIPTION:	3" X 35' GATES FIRE RATED CHOKE & KILL HOSE ASSEMBLY SUITED FOR H2S SERVICE C/W 4 1/16 10K FIXED X FLOAT HEAT TREATED FLANGES SUPPLIED WITH STAINLESS STEEL ARMOR SAFETY CLAMPS & LIFT EYES
SALES ORDER #:	521925
QUANTITY:	1
SERIAL #:	H3-101521-2

SIGNATURE: _____

TITLE: QUALITY ASSURANCE

DATE: 10/15/2021

H3-6963

10/15/2021 10:15:57 AM

TEST REPORT

CUSTOMER

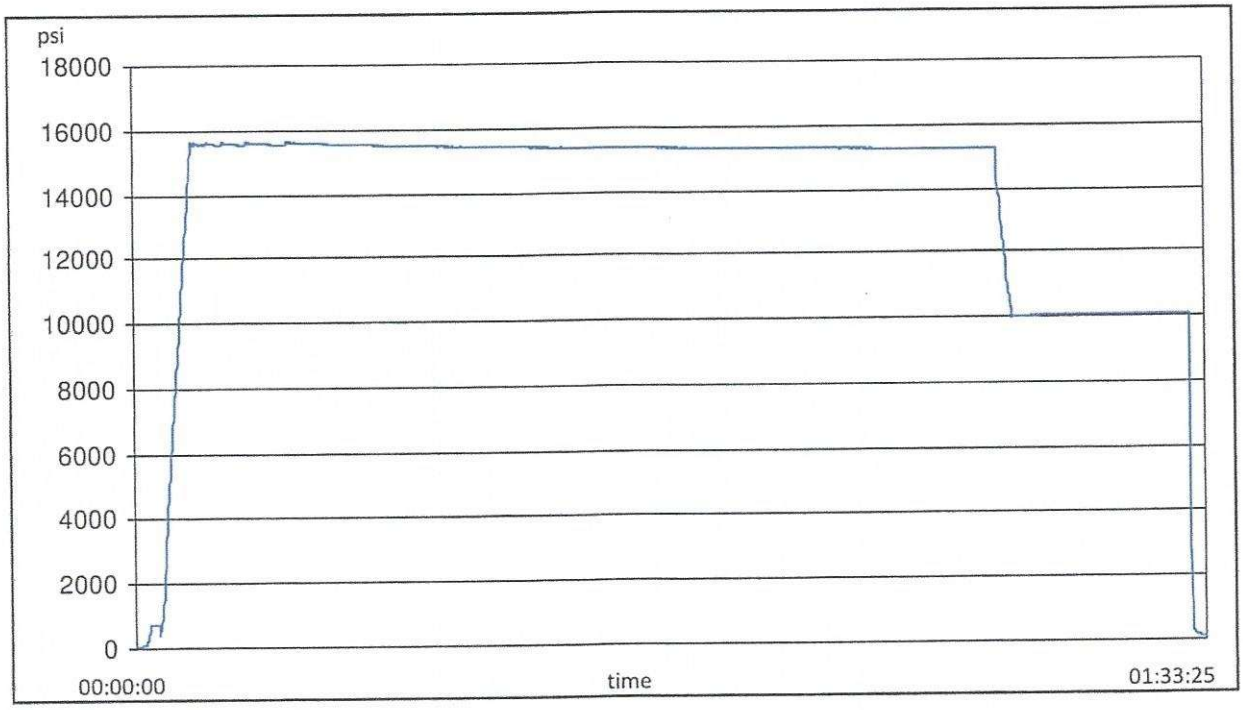
Company:	Austin Distributing
Production description:	
Sales order #:	521925
Customer reference:	

TEST INFORMATION

Test procedure:	GTS-04-053	
Test pressure:	15000.00	psi
Test pressure hold:	3600.00	sec
Work pressure:	10000.00	psi
Work pressure hold:	900.00	sec
Length difference:	0.00	%
Length difference:	0.00	inch
Visual check:		
Pressure test result:	PASS	
Length measurement result:		
Test operator:	francisco	

TEST OBJECT

Serial number:	H3-101521-2
Lot number:	L41975091719
Description:	
Hose ID:	3" 10k ck
Part number:	
Fitting 1:	3.0 x 4-1/16 10K
Part number:	
Description:	
Fitting 2:	3.0 x 4-1/16 10K
Part number:	
Description:	
Length:	35 feet



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H3-6963

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TEST REPORT

GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110AQA1S	2021-02-24	2022-02-24
S-25-A-W	110D3PHQ	2021-03-11	2022-03-11

Comment

Hydrostatic Test Certificate

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
H100163	1429702	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740382384	
Project:		

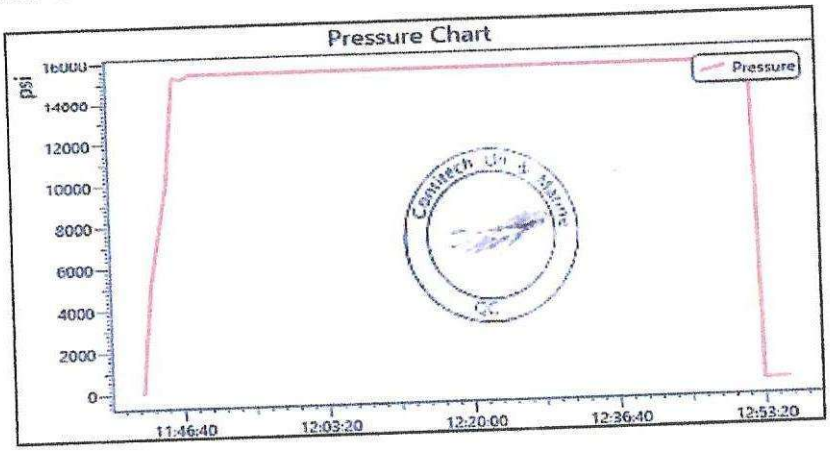
Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Gerson Mejia-Lazo Date: 07/14/22	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qnty	Serial Number	Work. Press. (psi)	Test Press. (psi)	Test Time (minutes)
50	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70025	10,000	15,000	60

Record Information	
Start Time	6/14/2022 11:42:08
End Time	6/14/2022 12:56:14
Interval	00:01:00
Number	75
MaxValue	15888
MinValue	-8
AvgValue	14184
RecordName	70025-sh
RecordNumber	237

Gauge Information	
Model	ADT680
SN	21817380014
Range	(0-40000)psi
Unit	psi



Continental

Certificate of Conformity

ContiTech

Certificate Number	COM Order Reference	Customer Name & Address
H100163	1429702	HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No:	740382384	
Project:		

Test Center Address	Accepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Gerson Mejia-Lazo Date: 07/14/22	

We certify that the items detailed below meet the requirements of the customer's Purchase Order referenced above, and are in conformance with the specifications given below.

Item	Part No.	Description	Qnty	Serial Number	Specifications
50	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70025	ContiTech Standard

ARMORED CHOKE HOSE

Installed

4-29-22

Continental

ContiTech

CONTITECH RUBBER Industrial Kft.	No: QC-DB- 120 / 2019
	Page: 16 / 91

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE

CERT. N°: 75819

PURCHASER:	ContiTech Oil & Marine Corp.	P.O. N°:	4501225327
CONTITECH RUBBER order N°:	1127442	HOSE TYPE:	3" ID Choke and Kill Hose
HOSE SERIAL N°:	75819	NOMINAL / ACTUAL LENGTH:	10,67 m / 10,68 m
W.P. 69,0 MPa 10000 psi		T.P. 103,5 MPa 15000 psi	Duration: 60 min.

Pressure test with water at ambient temperature

See attachment (1 page)

COUPLINGS Type	Serial N°	Quality	Heat N°
3" coupling with	6026	AISI 4130	A0607J
4 1/16" 10K API Swivel Flange end		AISI 4130	040841
Hub		AISI 4130	54194
3" coupling with	6016	AISI 4130	A0607J
4 1/16" 10K API b.w. Flange end		AISI 4130	040431

Not Designed For Well Testing

API Spec 16 C 2nd Edition– FSL2

Temperature rate: "B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
08. April 2019.		ContiTech Rubber Industrial Kft. Quality Control Dept. (1)

ContiTech Rubber Industrial Kft. | Budapesti út 10. H-6728 Szeged | H-6701 P.O.Box 152 Szeged, Hungary
Phone: +36 62 566 737 | e-mail: info@fluid.contitech.hu | Internet: www.contitech-rubber.hu; www.contitech-oil-gas.com
The Court of Csongrád County as Registry Court | Registry Court No: Cg.06-09-002502 | EU VAT No: HU11087209
Bank data Commerzbank Zrt., Budapest | 14220108-26830003

Hose Assembly Evaluation Sheet

Prepared by	Cristian Rivera		Date:	8/27/2022		QIN:	N/A
Customer:	HELMERICH & PAYNE, INC		Location:	H&P INT'L DRILLING CO 210 MAGNOLIA DR GALENA PARK,TX,77547-2738			
User contact:	MITCH MCKINNIS		Phone:			e-mail:	mitch.mckinnis@hpinc.com

	Parameters	Hose Details	Test Status
Application Information	PO	740398454 (88000240 | SN:70035)	PASS
	Gates SO	525035	
	Serial #:	88000240 | SN:70035	
	As Tested Serial:	H2-082722-1 RE-TEST	
	Hose ID:	3 IN	
	Hose type:	INSPECT AND RETEST CUSTOMER HOSE 3IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16 FLANGES BX155 RING GROOVE EACH END	
	Working pressure:	10000 PSI.	

1. Visual Examination

An API 16C, IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16 FLANGES BX155 RING GROOVE EACH END received from HELMERICH & PAYNE, INC for inspection, testing and external cosmetic repairs. The hydrostatic pressure testing was requested to 15000 PSI., by the customer HELMERICH & PAYNE, INC

Visual inspection and examination of external hose assembly showed some cosmetic dents and repairabledamages to the external armor at distance 32ft 9in. from EF2. (Need to fix a part of the hose.)

Both external & internal hose body and couplings of the hose were examined. Visual Inspection photos are in Table 2, while post inspection/testing pictures are in Table 4.

The hose was hydrostatically tested at 15000 PSI. test pressure with an hour-long hold. On completion of hydrostatic testing, an internal baroscopic examination was carried out, to check the condition of internal hose areas, mainly hose tube and coupling hose interface.

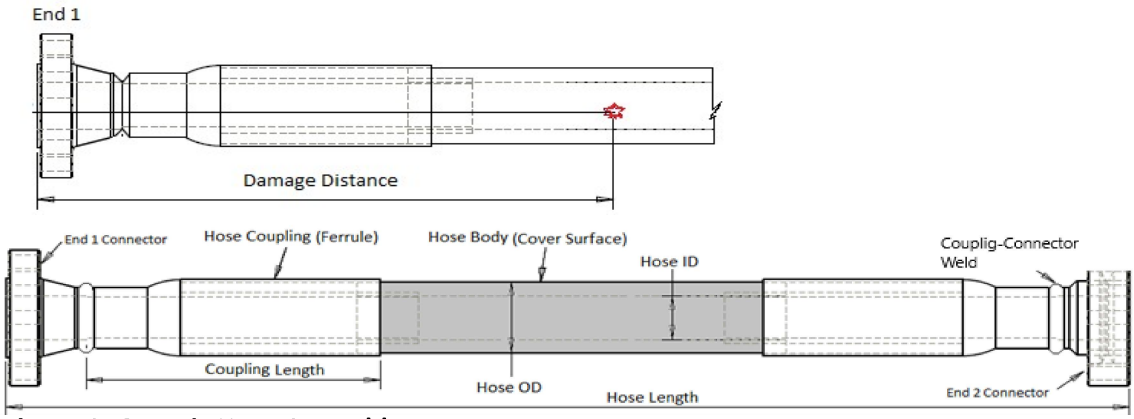


Figure 1: Generic Hose Assembly

Hose Assembly Evaluation Sheet

1.0 Observations and comments

	Comments
1	 Photos: ID.
2	 Photo: Damaged armor areas

Hose Assembly Evaluation Sheet

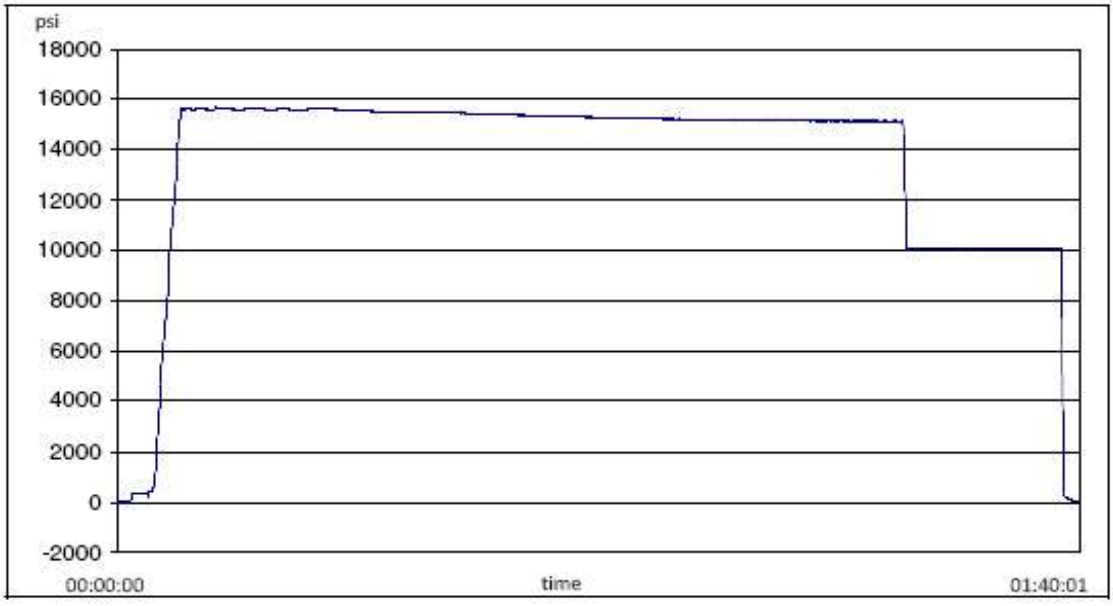
3	 **Photos: At Shipping.**
4	 **Photos: Armor and Engraving.**

Hose Assembly Evaluation Sheet

5	

Photo: In the Crate

2. Hydro Static Pressure test



2.1 Hydrostatic Pressure test Procedures

	Hose Type	Test Specification	Test Date	Technician
1	IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16	3 10K C&K	2022-08-27	Martin Orozco

2.2 Gates Hydrostatic Pressure tester

	Test Equipment	Serial No	Last Cal Date	Cal Due Date
1	S-25-A-W	110AMCLO	2022-01-10	2023-01-10
2	S-25-A-W	110BSEUZ	2022-03-09	2023-03-09

Hose Assembly Evaluation Sheet

2.3 Hydro Static Test Pressure results

	Details	Results	
1	Hydrostatic Test Results [1]	Pass	~~Fail~~
2	Failure Mode	None	
3	Hose Dispatched to the customer?	Yes	~~No~~

Note:

1. Hydrostatic Pressure report is given in Appendix 1

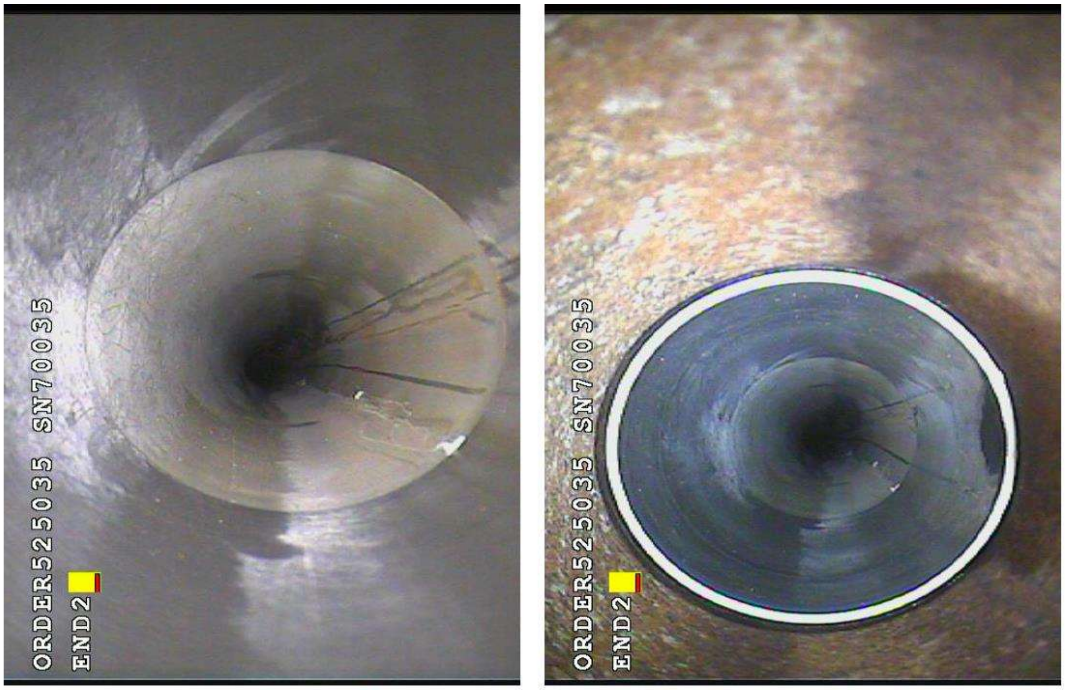
3. Hose borescope inspection

3.2 Internal Failure Details

	Type of Failure	Location of Defect	Ref. Photo	Defect Details
1	Liner breach/ collapse	None		None
2	Bulges/ Blisters	None		None
3	Other breach/failures	None		None

Photos: Liner/Coupling Interface END 1

Hose Assembly Evaluation Sheet



Photos: Liner/Coupling Interface END 2

Note

Borescope completed? *Yes*

4. Summary

Hose assembly successfully tested to requested test pressure of 15000 PSI. with an hour hold. It was then serialized and stamped, as H2-082722-1 RE-TEST. The bore scope showed no blisters or delamination in the internal lining/tube area. External damages were repaired as agreed with the customer.

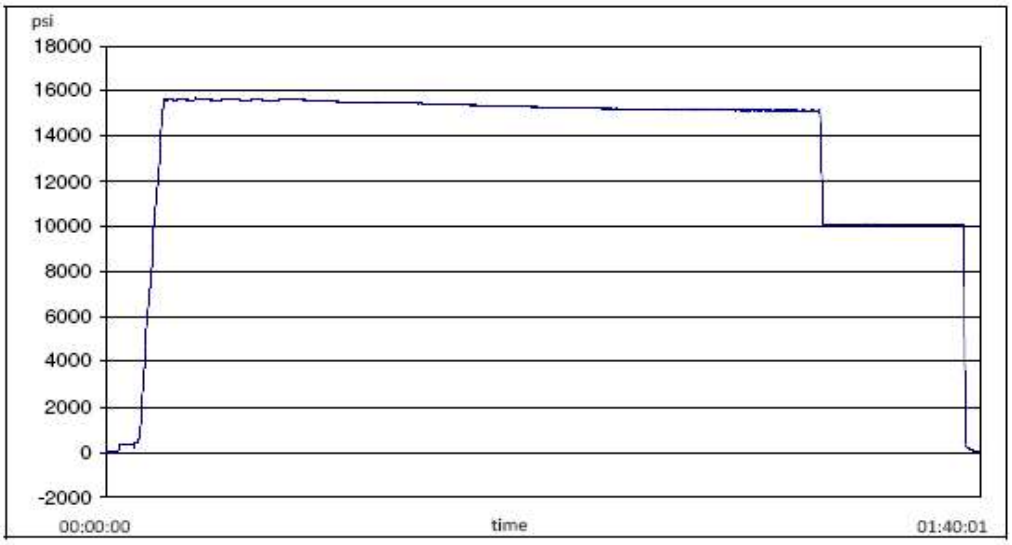
Hose Assembly Evaluation Sheet

APPENDIX 1:
Pressure Chart

H2-8316
8/27/2022 8:51:22 AM

TEST REPORT

CUSTOMER			**TEST OBJECT**		
Company:			Serial number:	H2-082722-1	
			Lot number:		
Production description:			Description:		
Sales order #:	525035				
Customer reference:	740398454 (88000240 | SN:70035)		Hose ID:	3 10k C&K	
			Part number:		
TEST INFORMATION					
Test procedure:	3 10K C&K		Fitting 1:	3.0 x 4-1/16 10K	
Test pressure:	15000.00	psi	Part number:		
Test pressure hold:	3600.00	sec	Description:		
Work pressure:	10000.00	psi			
Work pressure hold:	900.00	sec	Fitting 2:	3.0 x 4-1/16 10K	
Length difference:	0.00	%	Part number:		
Length difference:	0.00	inch	Description:		
Visual check:			Length:	35	feet
Pressure test result:	PASS				
Length measurement result:					
Test operator:	Martin				



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Hose Assembly Evaluation Sheet

H2-8316

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TEST REPORT

GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110AMCLO	2022-01-10	2023-01-10
S-25-A-W	110BSEUZ	2022-03-09	2023-03-09

Comment

Filename: D:\Certificates\Report_082722-H2-082722-1.pdf

Page 2/2

Hose Assembly Evaluation Sheet

APPENDIX 2:
Certificate of Conformance

BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER:	HELMERICH & PAYNE, INC
CUSTOMER P.O.#:	740398454 (88000240 | SN:70035)
CUSTOMER P/N:	88000240 | SN:70035
PART DESCRIPTION:	INSPECT AND RETEST CUSTOMER HOSE 3IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16 FLANGES BX155 RING GROOVE EACH END
SALES ORDER #:	525035
QUANTITY:	1
SERIAL #:	H2-082722-1 RE-TEST

SIGNATURE: _____

TITLE: QUALITY ASSURANCE

DATE: 8/27/2022

OXY's Minimum Design Criteria

Burst, Collapse, and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software. A sundry will be requested if any lesser grade or different size casing is substituted.

1) Casing Design Assumptions

a) Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Pore pressure in open hole.

CSG Test (Intermediate)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

CSG Test (Production)

- Internal:
  - For Drilling: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
  - For Production: The design pressure test should be the greater of (1) the planned test pressure prior to stimulation down the casing. (2) the regulatory test pressure, and (3) the expected gas lift system pressure. The design test fluid should be the fluid associated with pressure test having the greatest pressure.
- External:
  - For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
  - For Production: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Column (Surface)

- Internal: Assumes a full column of gas in the casing with a Gas/Oil Gradient of 0.1 psi/ft in the absence of better information. It is limited to the controlling pressure based on the fracture pressure at the shoe or the maximum expected pore pressure within the next drilling interval, whichever results in a lower surface pressure.
- External: Fluid gradient below TOC, pore pressure from the TOC to the Intermediate CSG shoe (if applicable), and MW of the drilling mud that was in the hole when the CSG was run from Intermediate CSG shoe to surface.

Bullheading (Surface / Intermediate)

- Internal: The string must be designed to withstand a pressure profile based on the fracture pressure at the casing shoe with a column of water above the shoe plus an additional surface pressure (in psi) of 0.02 X MD of the shoe to account for pumping friction pressure.
- External: Mud weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Kick (Intermediate)

- The string must be designed to at least a gas kick load case unless the rig is unable to detect a kick. For the gas kick load case, the internal pressure profile must be based on a minimum volume of 50 bbl or the minimum kick detection capability of the rig, whichever is greater, and a kick intensity of 2.0 ppg for Class 1, 1.0 ppg of Class 2, and 0.5 ppg for Class 3 and 4 wells.
- Internal: Influx depth of the maximum pore pressure of 0.55 “gas kick gravity” of gas to surface while drilling the next hole section.
- External: Mud weight to the TOC, cement mix water gradient below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Producing (Production)

- Internal: SITP plus a packer fluid gradient to the shoe or top of packer.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Stimulating (Production)

- Internal: Surface pressure or pressure-relief system pressure, whichever is lower plus packer fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Injection / Stimulation Down Casing (Production)

- Internal: Surface pressure plus injection fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

b) Collapse Loads

Lost Circulation (Surface / Intermediate)

- Internal: Lost circulation at the TD of the next hole section, and the fluid level falls to a depth where the hydrostatic of the mud equals pore pressure at the depth of the lost circulation zone.
- External: MW of the drilling mud that was in the hole when the casing was run. Cementing (Surface / Intermediate / Production)
- Internal: Displacement fluid density.
- External: Mud weight from TOC to surface and cement slurry weight from TOC to casing shoe.

Full Evacuation (Production)

- Internal: Full void pipe.
- External: MW of drilling mud in the hole when the casing was run.

c) Tension Loads

Running Casing (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus the lesser of 100,000 lb or the string weight in air.

Green Cement (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus cement plug bump pressure load.

TenarisHydril

5.500" 20.00 lb/ft P110-CY TenarisHydril Wedge 461™ Matched Strength

Special Data Sheet
TH DS-20.0359
12 August 2020
Rev 00

Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-CY
Min Wall Thickness	87.5%	**Type**	CASING	**Connection OD Option**	MATCHED STRENGTH

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Nominal ID**	4.778 in.	**Body Yield Strength**	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	**Wall Thickness**	0.361 in.	**Internal Yield**	12640 psi
Standard Drift Diameter	4.653 in.	**Plain End Weight**	19.83 lbs/ft	**SMYS**	110000 psi
Special Drift Diameter	N/A	**OD Tolerance**	API	**Collapse Pressure**	11110 psi

Connection Data

Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	**Tension Efficiency**	100%	**Minimum**	17000 ft-lbs
Make-up Loss	3.775 in.	**Joint Yield Strength**	641 x 1000 lbs	**Optimum**	18000 ft-lbs
Threads per in.	3.40	**Internal Yield**	12640 psi	**Maximum**	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	**Compression Efficiency**	100%	Operational Limit Torques	
Coupling Length	7.714 in.	**Compression Strength**	641 x 1000 lbs	**Operating Torque**	32000 ft-lbs
		Bending	92 °/100 ft	**Yield Torque**	38000 ft-lbs
		Collapse	11110 psi	Buck-On Torques	
				Minimum	21600 ft-lbs
				Maximum	23100 ft-lbs

Notes

*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

OXY's Minimum Design Criteria

Burst, Collapse, and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software. A sundry will be requested if any lesser grade or different size casing is substituted.

1) Casing Design Assumptions

a) Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Pore pressure in open hole.

CSG Test (Intermediate)

- Internal: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
- External: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

CSG Test (Production)

- Internal:
  - For Drilling: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
  - For Production: The design pressure test should be the greater of (1) the planned test pressure prior to stimulation down the casing. (2) the regulatory test pressure, and (3) the expected gas lift system pressure. The design test fluid should be the fluid associated with pressure test having the greatest pressure.
- External:
  - For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
  - For Production: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Column (Surface)

- Internal: Assumes a full column of gas in the casing with a Gas/Oil Gradient of 0.1 psi/ft in the absence of better information. It is limited to the controlling pressure based on the fracture pressure at the shoe or the maximum expected pore pressure within the next drilling interval, whichever results in a lower surface pressure.
- External: Fluid gradient below TOC, pore pressure from the TOC to the Intermediate CSG shoe (if applicable), and MW of the drilling mud that was in the hole when the CSG was run from Intermediate CSG shoe to surface.

Bullheading (Surface / Intermediate)

- Internal: The string must be designed to withstand a pressure profile based on the fracture pressure at the casing shoe with a column of water above the shoe plus an additional surface pressure (in psi) of 0.02 X MD of the shoe to account for pumping friction pressure.
- External: Mud weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Gas Kick (Intermediate)

- The string must be designed to at least a gas kick load case unless the rig is unable to detect a kick. For the gas kick load case, the internal pressure profile must be based on a minimum volume of 50 bbl or the minimum kick detection capability of the rig, whichever is greater, and a kick intensity of 2.0 ppg for Class 1, 1.0 ppg of Class 2, and 0.5 ppg for Class 3 and 4 wells.
- Internal: Influx depth of the maximum pore pressure of 0.55 “gas kick gravity” of gas to surface while drilling the next hole section.
- External: Mud weight to the TOC, cement mix water gradient below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Producing (Production)

- Internal: SITP plus a packer fluid gradient to the shoe or top of packer.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Tubing Leak Near Surface While Stimulating (Production)

- Internal: Surface pressure or pressure-relief system pressure, whichever is lower plus packer fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

Injection / Stimulation Down Casing (Production)

- Internal: Surface pressure plus injection fluid gradient.
- External: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

b) Collapse Loads

Lost Circulation (Surface / Intermediate)

- Internal: Lost circulation at the TD of the next hole section, and the fluid level falls to a depth where the hydrostatic of the mud equals pore pressure at the depth of the lost circulation zone.
- External: MW of the drilling mud that was in the hole when the casing was run. Cementing (Surface / Intermediate / Production)
- Internal: Displacement fluid density.
- External: Mud weight from TOC to surface and cement slurry weight from TOC to casing shoe.

Full Evacuation (Production)

- Internal: Full void pipe.
- External: MW of drilling mud in the hole when the casing was run.

c) Tension Loads

Running Casing (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus the lesser of 100,000 lb or the string weight in air.

Green Cement (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus cement plug bump pressure load.

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  - For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
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- Internal: Assumes a full column of gas in the casing with a Gas/Oil Gradient of 0.1 psi/ft in the absence of better information. It is limited to the controlling pressure based on the fracture pressure at the shoe or the maximum expected pore pressure within the next drilling interval, whichever results in a lower surface pressure.
- External: Fluid gradient below TOC, pore pressure from the TOC to the Intermediate CSG shoe (if applicable), and MW of the drilling mud that was in the hole when the CSG was run from Intermediate CSG shoe to surface.

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- Internal: Full void pipe.
- External: MW of drilling mud in the hole when the casing was run.

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- Axial: Buoyant weight of the string plus the lesser of 100,000 lb or the string weight in air.

Green Cement (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus cement plug bump pressure load.

Tenaris

TenarisHydril Wedge 425™

Coupling	Pipe Body
Grade: **L80-IC**	Grade: **L80-IC**
Body: **Red**	1st Band: **Red**
1st Band: **Brown**	2nd Band: **Brown**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	7.625 in.	**Wall Thickness**	0.328 in.	**Grade**	L80-IC
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	**Wall Thickness**	0.328 in.	**Body Yield Strength**	602 x1000 lb
Nominal Weight	26.40 lb/ft	**Plain End Weight**	25.59 lb/ft	**Min. Internal Yield Pressure**	6020 psi
Drift	6.844 in.	**OD Tolerance**	API	**SMYS**	80,000 psi
Nominal ID	6.969 in.			**Collapse Pressure**	4500 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.835 in.	**Tension Efficiency**	90 %	**Minimum**	21,600 ft-lb
Connection ID	6.925 in.	**Joint Yield Strength**	542 x1000 lb	**Optimum**	24,000 ft-lb
Make-up Loss	5.564 in.	**Internal Pressure Capacity**	6020 psi	**Maximum**	26,400 ft-lb
Threads per inch	3.77	**Compression Efficiency**	90 %		
Connection OD Option	Regular	**Compression Strength**	542 x1000 lb	**Operation Limit Torques**	
		Max. Allowable Bending	43 °/100 ft	**Operating Torque**	46,500 ft-lb
		External Pressure Capacity	4500 psi	**Yield Torque**	58,000 ft-lb

Notes

This connection is fully interchangeable with:
TORQ® SFW™ - 7.625 in. - 0.328 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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Green Cement (Surface / Intermediate / Production)

- Axial: Buoyant weight of the string plus cement plug bump pressure load.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 520676
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

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

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1220 S. St Francis Dr.
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CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 520676
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
melissaguidry	Cement is required to circulate on both surface and intermediate1 strings of casing.	10/28/2025
melissaguidry	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	10/28/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	11/10/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	11/10/2025
ward.rikala	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.	11/10/2025
ward.rikala	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.	11/10/2025
ward.rikala	Operator must comply with all of the R-111-Q requirements.	11/10/2025