Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM2379

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: TUNA NUT 24 13 FED COM 11H

2. Name of Operator: OXY USA INCORPORATED

9. API Well No.: 30-025-54082

3a. Address: P.O. BOX 1002, TUPMAN, CA 93276-1002

3b. Phone No. *(include area code)*: (661) 763-6046

10. Field and Pool, or Exploratory: RED TANK/Bone Spring

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

At surface: NENW / 300 FNL / 1450 FWL / LAT 32.3692264 / LONG -103.6322083

At proposed prod. zone: NWNW / 20 FNL / 490 FWL / LAT 32.3990195 / LONG -103.6353436

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 25/T22S/R32E/NMP

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

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 300 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: 9462 feet / 20083 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3767 feet

22. Approximate date work will start*: 06/30/2025

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	Name *(Printed/Typed)*	Date
(Electronic Submission)	MELISSA GUIDRY / Ph: (713) 366-5716	02/07/2024

Title: Advisor Regulatory Sr.

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	11/26/2024

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/26/2024

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
30-025-54082	51683	RED TANK, BONE SPRING

Property Code	Property Name	Well Number
336558	TUNA NUT 24_13 FED COM	11H

OGRID No.	Operator Name	Ground Level Elevation
16696	OXY USA INC.	3767'

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
C	25	22S	32E		300' FNL	1450' FWL	32.36922645	-103.63220836	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	13	22S	32E		20' FNL	490' FWL	32.39901956	-103.63534367	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	INFILL	1H - pending	N	

Order Numbers. | 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
D	25	22S	32E		300' FNL	490' FWL	32.36921426	-103.63531761	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
M	24	22S	32E		100' FSL	490' FWL	32.37031375	-103.63531841	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	13	22S	32E		100' FNL	490' FWL	32.39879966	-103.63534343	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☑ Horizontal ☐ Vertical	Ground Floor Elevation:
		3767'

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 12/03/24

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

February 5, 2024

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.

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.

BHL (NAD83)
X:756765.98' / Y:509597.80'
LAT:32.39901956 / LON:-103.63534367
BHL (NAD27)
X:715583.58' / Y:509537.19'
LAT:32.39889649 / LON:-103.63485716

LTP (NAD83)
X:756766.57' / Y:509517.80'
LAT:32.39879966 / LON:-103.63534343
LTP (NAD27)
X:715584.17' / Y:509457.19'
LAT:32.39867659 / LON:-103.63485693

PI-1/PPP-3 (NAD83)
X:756809.03' / Y:504335.14'
LAT:32.38455370 / LON:-103.63531545
PI-1/PPP-3 (NAD27)
X:715626.50' / Y:504274.68'
LAT:32.38443058 / LON:-103.63482945

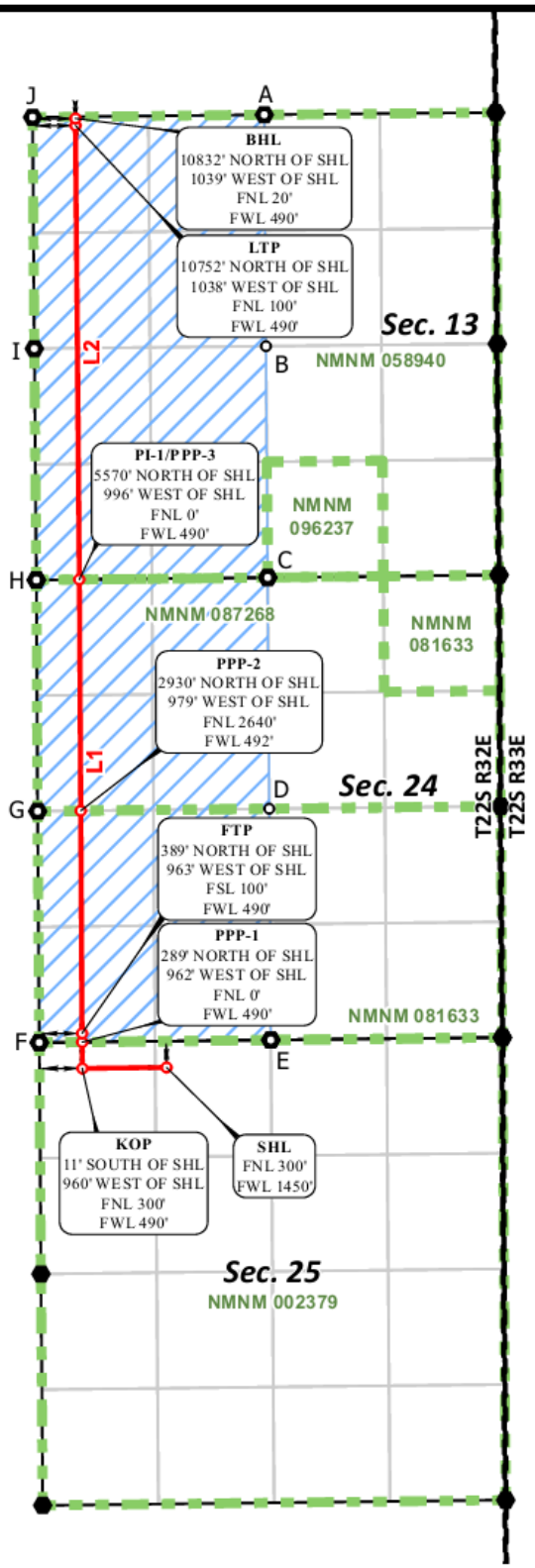
PPP-2 (NAD83)
X:756825.79' / Y:501695.31'
LAT:32.37729747 / LON:-103.63531696
PPP-2 (NAD27)
X:715643.19' / Y:501634.93'
LAT:32.37717432 / LON:-103.63483122

FTP (NAD83)
X:756841.92' / Y:499154.62'
LAT:32.37031375 / LON:-103.63531841
FTP (NAD27)
X:715659.25' / Y:499094.31'
LAT:32.37019058 / LON:-103.63483291

PPP-1 (NAD83)
X:756842.63' / Y:499054.63'
LAT:32.37003888 / LON:-103.63531821
PPP-1 (NAD27)
X:715659.96' / Y:498994.31'
LAT:32.36991571 / LON:-103.63483272

KOP (NAD83)
X:756844.78' / Y:498754.63'
LAT:32.36921426 / LON:-103.63531761
KOP (NAD27)
X:715662.10' / Y:498694.33'
LAT:32.36909109 / LON:-103.63483215

SHL (NAD83)
X:757804.72' / Y:498765.34'
LAT:32.36922645 / LON:-103.63220836
SHL (NAD27)
X:716622.04' / Y:498705.04'
LAT:32.36910326 / LON:-103.63172300



17 OPERATOR CERTIFICATION

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

Melissa Guidry 02/06/24
Signature Date

Melissa Guidry
Printed Name

melissa_guidry@oxy.com
E-mail Address

18 SURVEYOR CERTIFICATION

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

Date of Survey: FEBRUARY 05, 2024
Signature and Seal of Professional Surveyor

LLOYD P. SHORT NEW MEXICO 21653 PROFESSIONAL SURVEYOR

FEDERAL LEASE ID	LENGTH
NMNM081633	2540.74'
NMNM087268	2639.88'
NMNM058940	5182.83'
TOTAL	10363.45'

*FTP TO LTP LINE BEARINGS

PRODUCTION LINE	BEARING/LENGTH
L1	N 00°21'49" W ~ 5180.62'
L2	N 00°28'10" W ~ 5182.83'

CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 758919.12' / Y: 509640.71'	A - X: 717736.71' / Y: 509580.10'
B - X: 758938.76' / Y: 506998.56'	B - X: 717756.28' / Y: 506938.02'
C - X: 758958.38' / Y: 504358.45'	C - X: 717775.83' / Y: 504297.99'
D - X: 758976.00' / Y: 501718.62'	D - X: 717793.39' / Y: 501658.23'
E - X: 758993.62' / Y: 499078.62'	E - X: 717810.94' / Y: 499018.31'
F - X: 756352.66' / Y: 499049.16'	F - X: 715169.99' / Y: 498988.85'
G - X: 756333.80' / Y: 501689.98'	G - X: 715151.20' / Y: 501629.59'
H - X: 756319.04' / Y: 504329.83'	H - X: 715136.51' / Y: 504269.37'
I - X: 756295.56' / Y: 506970.96'	I - X: 715113.10' / Y: 506910.43'
J - X: 756275.91' / Y: 509612.69'	J - X: 715093.52' / Y: 509552.08'

Drill Line Events | Section Corners | Drill Line | Dimension Lines | Federal Leases | HSU | HSU Corners

SHEET 1 OF 1
JOB No. R4195_002_12168
REV 1 TCS 2/1/2024

All bearings and coordinates refer to New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet.

Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.99975697 and a Convergence Angle: 0.070667°

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:** 06/07/23

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: Red Tank 26 CPF and Red Tank 19 CTB (Pending NSHSU Approval) [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:	6/7/2023
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
TUNA NUT 24_13 FED COM 11H	Pending	C-25-22S-32E	300 FNL 1450 FWL	1200	4600	3000
TUNA NUT 24_13 FED COM 12H	Pending	C-25-22S-32E	300 FNL 1510 FWL	1200	4600	3000
TUNA NUT 24_13 FED COM 13H	Pending	C-25-22S-32E	300 FNL 1570 FWL	1200	4600	3000
TUNA NUT 24_13 FED COM 14H	Pending	A-25-22S-32E	1096 FNL 1245 FEL	1200	4600	3000
TUNA NUT 24_13 FED COM 15H	Pending	A-25-22S-32E	1089 FNL 1186 FEL	1200	4600	3000
TUNA NUT 24_13 FED COM 16H	Pending	A-25-22S-32E	1082 FNL 1126 FEL	1200	4600	3000
TUNA NUT 24_13 FED COM 1H	Pending	C-25-22S-32E	300 FNL 1480 FWL	700	3100	2600
TUNA NUT 24_13 FED COM 21H	Pending	N-24-22S-32E	275 FSL 1365 FWL	2000	4200	7000
TUNA NUT 24_13 FED COM 22H	Pending	N-24-22S-32E	275 FSL 1395 FWL	2000	4200	7000
TUNA NUT 24_13 FED COM 23H	Pending	N-24-22S-32E	275 FSL 1425 FWL	2000	4200	7000
TUNA NUT 24_13 FED COM 24H	Pending	B-25-22S-32E	210 FNL 1569 FEL	2000	4200	7000
TUNA NUT 24_13 FED COM 25H	Pending	B-25-22S-32E	210 FNL 1539 FEL	2000	4200	7000
TUNA NUT 24_13 FED COM 26H	Pending	B-25-22S-32E	210 FNL 1509 FEL	2000	4200	7000
TUNA NUT 24_13 FED COM 2H	Pending	C-25-22S-32E	300 FNL 1540 FWL	700	3100	2600
TUNA NUT 24_13 FED COM 311H	Pending	F-25-22S-32E	1650 FNL 1405 FWL	3100	5500	8500
TUNA NUT 24_13 FED COM 312H	Pending	A-25-22S-32E	1207 FNL 1201 FEL	3100	5500	8500
TUNA NUT 24_13 FED COM 313H	Pending	A-25-22S-32E	1200 FNL 1142 FEL	3100	5500	8500
TUNA NUT 24_13 FED COM 31H	Pending	F-25-22S-32E	1650 FNL 1375 FWL	3100	5500	8500
TUNA NUT 24_13 FED COM 32H	Pending	F-25-22S-32E	1650 FNL 1435 FWL	3100	5500	8500
TUNA NUT 24_13 FED COM 33H	Pending	F-25-22S-32E	1650 FNL 1465 FWL	3100	5500	8500
TUNA NUT 24_13 FED COM 34H	Pending	A-25-22S-32E	1203 FNL 1171 FEL	3100	5500	8500
TUNA NUT 24_13 FED COM 35H	Pending	A-25-22S-32E	1196 FNL 1112 FEL	3100	5500	8500
TUNA NUT 24_13 FED COM 3H	Pending	A-25-22S-32E	1093 FNL 1215 FEL	700	3100	2600
TUNA NUT 24_13 FED COM 4H	Pending	A-25-22S-32E	1085 FNL 1156 FEL	700	3100	2600
TUNA NUT 24_13 FED COM 71H	Pending	C-25-22S-32E	300 FNL 1360 FWL	1300	4200	1750
TUNA NUT 24_13 FED COM 72H	Pending	C-25-22S-32E	300 FNL 1390 FWL	1300	4200	1750
TUNA NUT 24_13 FED COM 73H	Pending	B-25-22S-32E	1221 FNL 1320 FEL	1300	4200	1750
TUNA NUT 24_13 FED COM 74H	Pending	A-25-22S-32E	1218 FNL 1290 FEL	1300	4200	1750

V. Anticipated Schedule

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
TUNA NUT 24_13 FED COM 11H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 12H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 13H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 14H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 15H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 16H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 1H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 21H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 22H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 23H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 24H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 25H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 26H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 2H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 311H	Pending	Dec-2024	Feb-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 312H	Pending	Dec-2024	Feb-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 313H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 31H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 32H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 33H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 34H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 35H	Pending	Dec-2024	Jan-2024	Feb-2024	3/10/2025	3/11/2025
TUNA NUT 24_13 FED COM 3H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 4H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 71H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 72H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 73H	Pending	Pending	Pending	Pending	Pending	Pending
TUNA NUT 24_13 FED COM 74H	Pending	Pending	Pending	Pending	Pending	Pending

Central Delivery Point Name : Red Tank 26 CPF and Red Tank 19 CTB (Pending NSHSU Approval)

Part VI. Separation Equipment

Operator will size the flowback separator to handle 11,000 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 and fluids will be sent to the facility after initial flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility will be dedicated to MarkWest Energy West Texas Gas Company LLC ("MarkWest") and will be connected to MarkWest's high pressure gathering system located in Lea and Eddy Counties, New Mexico and Loving and Culberson Counties, TX. OXY USA INC. ("OXY") will provide (periodically) to MarkWest a production forecast for wells being sent to their system. In addition, OXY and MarkWest will have periodic conference calls to discuss changes to production forecasts arising out of changes to drilling and completion schedules. Gas from these wells will be processed at MarWest's Preakness and Tornado Processing Plants located in Culberson County, TX and Loving County, Texas respectively. 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 MarkWest's 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

Alternatives to Reduce Flaring

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

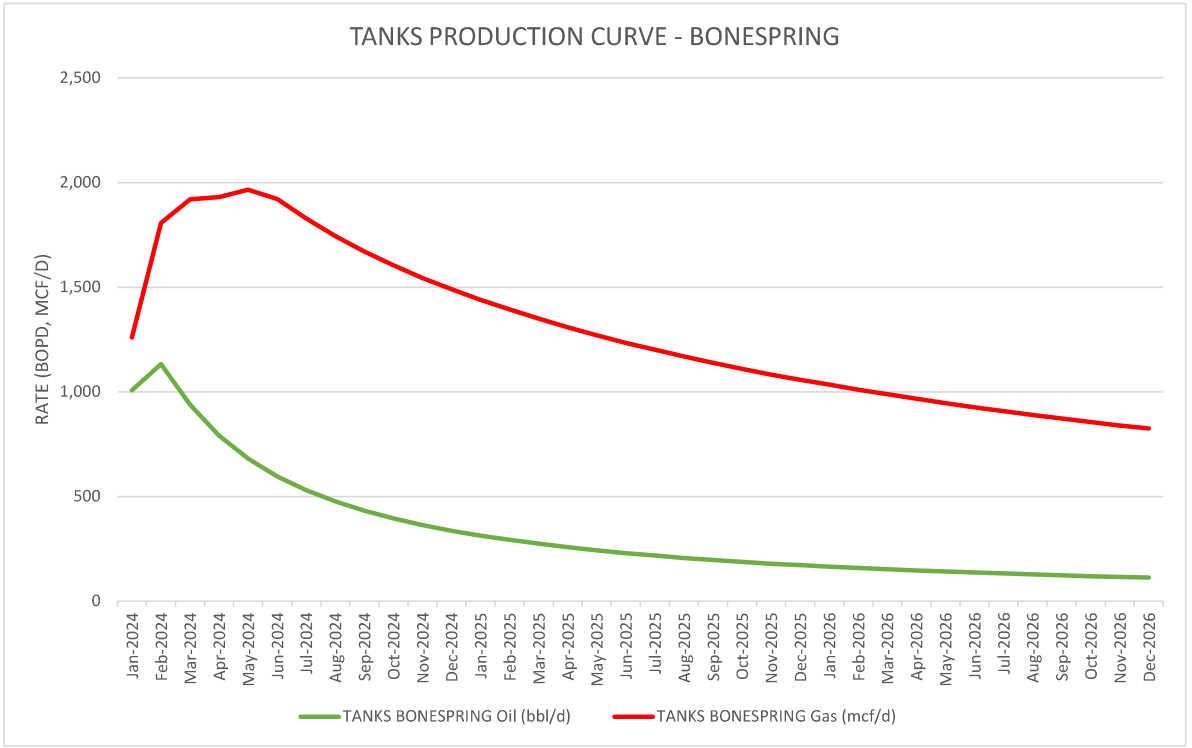
Compressed Natural Gas – On lease

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

	TANKS BONESPRING	
	Oil (bbl/d)	Gas (mcf/d)
Jan-2024	1,006	1,259
Feb-2024	1,133	1,807
Mar-2024	938	1,919
Apr-2024	790	1,931
May-2024	681	1,965
Jun-2024	596	1,922
Jul-2024	530	1,827
Aug-2024	477	1,744
Sep-2024	432	1,671
Oct-2024	395	1,604
Nov-2024	363	1,543
Dec-2024	337	1,490
Jan-2025	314	1,441
Feb-2025	293	1,393
Mar-2025	274	1,350
Apr-2025	258	1,309
May-2025	243	1,271
Jun-2025	229	1,234
Jul-2025	218	1,200
Aug-2025	207	1,169
Sep-2025	197	1,139
Oct-2025	188	1,110
Nov-2025	179	1,083
Dec-2025	172	1,058
Jan-2026	165	1,034
Feb-2026	159	1,011
Mar-2026	152	988
Apr-2026	147	967
May-2026	141	947
Jun-2026	136	927
Jul-2026	132	908
Aug-2026	127	890
Sep-2026	123	873
Oct-2026	120	856
Nov-2026	116	840
Dec-2026	112	825



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BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

12/03/2024

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: MELISSA GUIDRY **Signed on:** 02/07/2024

Title: Advisor Regulatory Sr.

Street Address: 5 GREENWAY PLAZA SUITE 110

City: HOUSTON **State:** TX **Zip:** 77026

Phone: (713)497-2481

Email address: MELISSA_GUIDRY@OXY.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data
12/03/2024

APD ID: 10400096981
Submission Date: 02/07/2024
Operator Name: OXY USA INCORPORATED
Well Name: TUNA NUT 24_13 FED COM
Well Number: 11H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - General

APD ID: 10400096981
Tie to previous NOS? N
Submission Date: 02/07/2024
BLM Office: Carlsbad
User: MELISSA GUIDRY
Title: Advisor Regulatory Sr.
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM2379
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? N
Permitting Agent? NO
APD Operator: OXY USA INCORPORATED
Operator letter of

Operator Info

Operator Organization Name: OXY USA INCORPORATED
Operator Address: P.O. BOX 1002
Zip: 93276-1002
Operator PO Box:
Operator City: TUPMAN
State: CA
Operator Phone: (661)763-6046
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: TUNA NUT 24_13 FED COM
Well Number: 11H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: RED TANK
Pool Name: Bone Spring

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL,POTASH

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** REDTNK_T22SR32E **Number:** 2503

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 30 FT **Distance to lease line:** 300 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: TunaNut24_13FedCom11H_SITE_PLAN_20240205120601.pdf

TunaNut24_13FedCom11H_C102_20240206135154.pdf

Well work start Date: 06/30/2025 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	300	FNL	1450	FWL	22S	32E	25	Aliquot NENW	32.3692264	-103.6322083	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 2379	3767	0	0	N
KOP Leg #1	300	FNL	490	FWL	22S	32E	25	Aliquot NWNW	32.3692142	-103.6353176	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 2379	-5075	8941	8842	N

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	100	FSL	490	FWL	22S	32E	24	Aliquot SWSW	32.3703137	-103.6353184	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 81633	-5625	9833	9392	Y
PPP Leg #1-2	2640	FNL	492	FWL	22S	32E	24	Aliquot SWNW	32.3703137	-103.6353184	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 87268	-5641	12180	9408	Y
PPP Leg #1-3	0	FNL	490	FWL	22S	32E	13	Aliquot SWSW	32.3845537	-103.6353154	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 58940	-5659	14820	9426	Y
EXIT Leg #1	100	FNL	490	FWL	22S	32E	13	Aliquot NWNW	32.3987996	-103.6353434	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 58940	-5695	20002	9462	Y
BHL Leg #1	20	FNL	490	FWL	22S	32E	13	Aliquot NWNW	32.3990195	-103.6353436	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 58940	-5695	20083	9462	N

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BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

12/03/2024

APD ID: 10400096981 **Submission Date:** 02/07/2024

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Well Type: OIL WELL **Well Work Type:** Drill

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14572890	RUSTLER	3767	1046	1046	ANHYDRITE, DOLOMITE, SHALE	USEABLE WATER	N
14572891	SALADO	2090	1677	1677	ANHYDRITE, DOLOMITE, HALITE, SHALE	OTHER : SALT	N
14572892	CASTILE	324	3443	3443	ANHYDRITE	OTHER : SALT	N
14572893	DELAWARE	-1126	4893	4893	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
14572894	BELL CANYON	-1218	4985	4985	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
14572895	CHERRY CANYON	-2022	5789	5791	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
14572896	BRUSHY CANYON	-3318	7085	7122	SANDSTONE, SILTSTONE	OTHER : LOSSES	N
14572897	BONE SPRING	-4955	8722	8816	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 9462

Equipment: 13-5/8" 5M Annular, 5M Blind Ram, 5M Double Ram

Requesting Variance? YES

Variance request: Request for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR part 3170 Subpart 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. 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. OXY requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. See the attached BOP Break Testing variance.

Choke Diagram Attachment:

TunaNut24_13FedCom11H_ChkManifolds_20240205144829.pdf

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

TunaNut24_13FedCom11H_ChkManifolds_20240205144829.pdf

BOP Diagram Attachment:

TunaNut24_13FedCom11H_BOP_20240205144841.pdf

TunaNut24_13FedCom11H_FlexHoseCert_20240205144932.pdf

TunaNut24_13FedCom11H_13inADAPT_10.75in_7.827in_10x10_20240205144951.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1106	0	1106	3767	2661	1106	J-55	54.5	BUTT	1	1.1	BUOY	1.4	BUOY	1.4
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	8841	0	8742	3698	-4975	8841	HCL-80	26.4	BUTT	1	1.1	BUOY	1.4	BUOY	1.4
3	PRODUCTION	6.75	5.5	NEW	API	N	0	20083	0	9462	3767	-5695	20083	P-110	20	OTHER - Sprint-SF	1	1.1	BUOY	1.4	BUOY	1.4

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

TunaNut24_13FedCom11H_CsgCriteria_20240205145329.pdf

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Casing Attachments

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

TunaNut24_13FedCom11H_CsgCriteria_20240205145639.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

TunaNut24_13FedCom11H_CsgCriteria_20240205145738.pdf

TunaNut24_13FedCom11H_TNSWedge425_5.500in_20.00ppf_P110CY_20240205145821.pdf

TunaNut24_13FedCom11H_TNSWedge441_5.500in_20.00ppf_P110CY_20240205145826.pdf

TunaNut24_13FedCom11H_TNSWedge461_5.500in_20.00ppf_P110CY_20240205145833.pdf

TunaNut24_13FedCom11H_TNSWedge461_7.827in_39.30ppf_P110S_20240205145839.pdf

TunaNut24_13FedCom11H_TNSWedge463_7.827in_39.30ppf_P110S_20240205145845.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1106	1155	1.33	14.8	1536	100	Class C	Accelerator

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead	2	0	7372	1340	1.71	13.3	2291	25	Class C	Accelerator
INTERMEDIATE	Lead	1	7372	8841	197	1.68	13.2	331	5	Class C	Retarder, Dispersant
PRODUCTION	Lead		8341	20083	665	1.84	13.3	1224	25	Class C	Retarder

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: 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.

Describe the mud monitoring system utilized: PVT/MD Totco/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1106	WATER-BASED MUD	8.6	8.8							
1106	8841	OTHER : SATURATED BRINE-BASED	8	10							

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
		OR OIL-BASED MUD									
8841	20083	OTHER : WATER-BASED MUD OR OIL-BASED MUD	8	9.6							

Section 6 - Test, Logging, Coring

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

GR from TD to surface (horizontal well vertical portion of hole)
Mud Log from Bone Spring - TD
CBL (production string) - to be ran by completions.

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

GAMMA RAY LOG,CEMENT BOND LOG,DIRECTIONAL SURVEY,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring is planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4724 **Anticipated Surface Pressure:** 2642

Anticipated Bottom Hole Temperature(F): 156

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

TunaNut24_13FedCom11H_H2S1_20240205151146.pdf
TunaNut24_13FedCom11H_H2S2_20240205151152.pdf

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

TunaNut24_13FedCom11H_DirectPlan_20240205151231.pdf

TunaNut24_13FedCom11H_DirectPlot_20240205151239.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

TunaNut24_13FedCom11H_SpudRigData_20240205151309.pdf

TunaNut24_13FedCom11H_DrillPlan_10day_20240827100016.pdf

TunaNut24_13FedCom11H_OXY_Blanket_Design_A_Pad_Cover_Sheet_REDTNK_T22SR32E_2503_20240827100023.pd

Other Variance attachment:

TunaNut24_13FedCom11H_5MAnnBOPVariance_20240827100137.pdf

TunaNut24_13FedCom11H_BOPBreakTestingVariance_20240827100142.pdf

TunaNut24_13FedCom11H_BradenheadCBLVariance_20240827100146.pdf

TunaNut24_13FedCom11H_OfflineCementVariance_20240827100152.pdf

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SUPO Data Report
12/03/2024

APD ID: 10400096981
Submission Date: 02/07/2024
Operator Name: OXY USA INCORPORATED
Well Name: TUNA NUT 24_13 FED COM
Well Number: 11H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
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Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

TunaNut24_13FedCom11H_ExistRoads_20240205120736.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

TunaNut24_13FedCom11H_NewRoads_20240205152323.pdf

New road type: LOCAL

Length: 7525 Feet

Width (ft.): 30

Max slope (%): 0

Max grade (%): 0

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: Watershed diversion every 200', if needed.

New road access plan or profile prepared? N

New road access plan

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: CALICHE

Access onsite topsoil source depth: 0

Offsite topsoil source description:

Onsite topsoil removal process: If available

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: Watershed diversion every 200', if needed.

Road Drainage Control Structures (DCS) description: Watershed diversion every 200', if needed.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

TunaNut24_13FedCom11H_ExistWells_20240205152406.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

TunaNut24_13FedCom11H_LeaseFacilityInfo_20240206070331.pdf

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: SURFACE CASING

OTHER **Describe use type:** DRILLING

INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

PIPELINE

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2000 **Source volume (acre-feet):** 0.25778619

Source volume (gal): 84000

Water source and transportation

TunaNut24_13FedCom11H_GRRWtrSrc_20240205153125.pdf

TunaNut24_13FedCom11H_MesqWtrSrc_20240205153134.pdf

TunaNut24_13FedCom11H_WaterCalicheMap_20240205153142.pdf

Water source comments: This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations (Gregory Rockhouse, Mesquite) in the area and will be hauled to location by transport truck using existing and proposed roads.
New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Primary All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available. Secondary The secondary way of obtaining caliche to build locations and roads will be by turning over the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel: a. The top 6 of topsoil is pushed off and stockpiled along the side of the location. b. An approximate 120 X 120 area is used within the proposed well site to remove caliche. c. Subsoil is removed and piled alongside the 120 X 120 within the pad site. d. When caliche is found, material will be stockpiled within the pad site to build the location and road. e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road. f. Once the well is drilled the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the site plan included with this APD.

Construction Materials source location

TunaNut24_13FedCom11H_WaterCalicheMap_20240205153204.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Water-Based Cuttings, Water-Based Mud, Oil-Based Cuttings, Oil-Based Mud, Produced Water

Amount of waste: 1560 barrels

Waste disposal frequency : Daily

Safe containment description: Haul-Off Bins

Safe containmant attachment:

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

Disposal type description:

Disposal location description: An approved facility that can process drill cuttings, drill fluids, flowback water, produced water, contaminated soils, and other non-hazardous wastes. Methods of Handling Waste Material: a. A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins.

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility. Solids-CRI, Liquids-Laguna b. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill. c. The supplier, including broken sacks, will pickup slats remaining after completion of well. d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete. e. Disposal of fluids to be transported will be by the following companies. TFH Ltd, Laguna SWD Facility

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility.

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Section 9 - Well Site

Well Site Layout Diagram:

TunaNut24_13FedCom11H_ClosedLoop_20240205153356.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** REDTNK_T22SR32E

Multiple Well Pad Number: 2503

Recontouring

TunaNut24_13FedCom11H_CUT_AND_FILL_REDTNK_20240827100337.pdf

TunaNut24_13FedCom11H_SITE_PLAN_20240827100343.pdf

Drainage/Erosion control construction: Reclamation to be wind rowed as needed to control erosion.

Drainage/Erosion control reclamation: Reclamation to be wind rowed as needed to control erosion.

Well pad proposed disturbance (acres): 7.52	**Well pad interim reclamation (acres):** 1.01	**Well pad long term disturbance (acres):** 6.51
Road proposed disturbance (acres): 5.18	**Road interim reclamation (acres):** 1.73	**Road long term disturbance (acres):** 3.46
Powerline proposed disturbance (acres): 6.28	**Powerline interim reclamation (acres):** 6.28	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 72.27	**Pipeline interim reclamation (acres):** 48.18	**Pipeline long term disturbance (acres):** 24.09
Other proposed disturbance (acres): 0.71	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0.71
Total proposed disturbance: 91.96	**Total interim reclamation:** 57.2	**Total long term disturbance:** 34.77

Disturbance Comments:

Reconstruction method: If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the are will be seeded with an approved BLM mixture to re-establish vegetation. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. the original topsoil will again be returned to the pad and contoured, as close as possible, to the original topography and the area will be seeded with an approved BLM mixture to re-establish vegetation.

Topsoil redistribution: The original topsoil will be returned to the area of the drill pad not necessary to operate the well.

Soil treatment: To be determined by BLM.

Existing Vegetation at the well pad: To be determined by BLM at onsite.

Existing Vegetation at the well pad

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Existing Vegetation Community at the road: To be determined by BLM at onsite.

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: To be determined by BLM at onsite.

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: To be determined by BLM at onsite.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: Mike **Last Name:** Wilson

Phone: (575)631-6618 **Email:** michael_wilson@oxy.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Existing invasive species treatment

Weed treatment plan description: To be determined by BLM.

Weed treatment plan

Monitoring plan description: To be determined by BLM.

Monitoring plan

Success standards: To be determined by BLM.

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Disturbance type: OTHER

Describe: ELECTRIC LINES

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other

Right of Way needed? Y **Use APD as ROW?** Y

ROW Type(s): 281001 ROW - ROADS,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW- O&G Well Pad

ROW

SUPO Additional Information: Permian Basin MOA : To be submitted after APD acceptance. GIS shapefiles available for BLM.

Use a previously conducted onsite? N

Previous Onsite information:

Other SUPO

TunaNut24_13FedCom11H_Staking_Sheet_20240205153641.pdf

TunaNut24_13FedCom11H_NGMP___WMP_20240827100556.pdf

AFMSS

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

PWD Data Report

12/03/2024

APD ID: 10400096981 **Submission Date:** 02/07/2024

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: OXY USA INCORPORATED

Well Name: TUNA NUT 24_13 FED COM **Well Number:** 11H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

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

Bond Info Data
12/03/2024

APD ID: 10400096981
Submission Date: 02/07/2024
Operator Name: OXY USA INCORPORATED
Well Name: TUNA NUT 24_13 FED COM
Well Number: 11H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: ESB000226

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

Oxy USA Inc. - Tuna Nut 24_13 Fed Com 11H
Drill Plan

1. Geologic Formations

TVD of Target (ft):	9462	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20083	Deepest Expected Fresh Water (ft):	1046

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	1046	1046	
Salado	1677	1677	Salt
Castile	3443	3443	Salt
Delaware	4893	4893	Oil/Gas/Brine
Bell Canyon	4985	4985	Oil/Gas/Brine
Cherry Canyon	5791	5789	Oil/Gas/Brine
Brushy Canyon	7122	7085	Losses
Bone Spring	8816	8722	Oil/Gas
Bone Spring 1st			Oil/Gas
Bone Spring 2nd			Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			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	1106	0	1106	13.375	54.5	J-55	BTC
Intermediate	9.875	0	8841	0	8742	7.625	26.4	L-80 HC	BTC
Production	6.75	0	20083	0	9462	5.5	20	P-110	Sprint-SF

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

*Oxy requests the option to run the 10.75” Intermediate I as a contingency string to be run only if severe hole conditions dictate an additional casing string necessary. This would make the planned 7.625" / 7.827" Casing the Intermediate II.
**If 4S Contingency is not required, Oxy requests permission to transition from 12.25" to 9.875" Intermediate I at 1st trip point below Brushy top (estimated top in formation table above). Cement volumes will be updated on C103 submission.

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

	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?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	1155	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	197	1.68	13.2	5%	7,372	Circulate	Class C+Ret., Disper.
Int.	2	Intermediate 2S - Tail BH	1340	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	665	1.84	13.3	25%	8,341	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:	Deepest TVD Depth (ft) per Section:
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	8742
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9462
		5M	Blind Ram	✓	250 psi / 5000 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.

	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 - MD		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	1106	0	1106	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	1106	8841	1106	8742	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	8841	20083	8742	9462	Water-Based or Oil-Based Mud	8.0 - 9.6	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	4724 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	156°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 5 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: 1560 bbls

Oxy USA Inc. - Blanket Design Pad Document

OXY - Blanket Design A

Pad Name: REDTNK_T22SR32E_2503

SHL: 300' FNL 1480' FWL, Sec 25, T22S-R32E

Oxy requests for the bellow wells to be approved for the two designs listed in the Blanket Design document (**Blanket Design A – OXY – 3S Slim v7**.) The MDs and TVDs for all intervals are within the boundary conditions. The max inclination and DLS are also withing the boundary conditions (directional plans attached separately for review.)

1. Blanket Design - Wells

Well Name	API #	Surface		Intermediate		Production	
		MD	TVD	MD	TVD	MD	TVD
Tuna Nut 24_13 Fed Com 1H	n/a - New Permit	1105	1105	9540	9494	20775	10332
Tuna Nut 24_13 Fed Com 2H	n/a - New Permit	1098	1098	9576	9534	20813	10332
Tuna Nut 24_13 Fed Com 11H	n/a - New Permit	1106	1106	8841	8742	20083	9462
Tuna Nut 24_13 Fed Com 12H	n/a - New Permit	1102	1102	8944	8944	20269	9652
Tuna Nut 24_13 Fed Com 13H	n/a - New Permit	1099	1099	8886	8837	20130	9522

2. Review Criteria Table

	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?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Geologic Formations

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	1045	1045	
Salado	1684	1684	Salt
Castile	3460	3460	Salt
Delaware	4901	4901	Oil/Gas/Brine
Bell Canyon	4992	4992	Oil/Gas/Brine
Cherry Canyon	5791	5791	Oil/Gas/Brine
Brushy Canyon	7098	7091	Losses
Bone Spring	8761	8728	Oil/Gas
Bone Spring 1st	9893	9835	Oil/Gas
Bone Spring 2nd			Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Tuna Nut 24_13 Fed Com
Tuna Nut 24_13 Fed Com 11H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

28 November, 2022

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**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 Tuna Nut 24_13 Fed Com

Site Position:		**Northing:**	497,414.86 usft	**Latitude:**	32.365515
From:	Map	**Easting:**	757,769.29 usft	**Longitude:**	-103.632352
Position Uncertainty:	2.00 ft	**Slot Radius:**	13.200 in		

Well Tuna Nut 24_13 Fed Com 11H

Well Position	**+N/-S**	0.00 ft	**Northing:**	498,765.34 usf	**Latitude:**	32.369227
	+E/-W	0.00 ft	**Easting:**	757,804.72 usf	**Longitude:**	-103.632209
Position Uncertainty		2.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,767.00 ft
Grid Convergence:		0.38 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	11/28/2022	6.32	59.98	47,691.20000000

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	354.52

Plan Survey Tool Program **Date** 11/28/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,083.17	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	
5,050.00	0.00	0.00	5,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,549.92	15.00	271.08	6,532.85	3.67	-195.18	1.00	1.00	0.00	271.08	
8,940.80	15.00	271.08	8,842.27	15.30	-813.84	0.00	0.00	0.00	0.00	
9,833.17	89.61	359.58	9,392.23	583.39	-964.25	10.00	8.36	9.92	88.66	
20,083.17	89.61	359.58	9,462.00	10,832.89	-1,038.78	0.00	0.00	0.00	0.00	PBHL (Tuna Nut

OXY

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**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
5,050.00	0.00	0.00	5,050.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.50	271.08	5,100.00	0.00	-0.22	0.02	1.00	1.00	0.00
5,200.00	1.50	271.08	5,199.98	0.04	-1.96	0.22	1.00	1.00	0.00
5,300.00	2.50	271.08	5,299.92	0.10	-5.45	0.62	1.00	1.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**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	3.50	271.08	5,399.78	0.20	-10.68	1.22	1.00	1.00	0.00
5,500.00	4.50	271.08	5,499.54	0.33	-17.66	2.02	1.00	1.00	0.00
5,600.00	5.50	271.08	5,599.16	0.50	-26.37	3.01	1.00	1.00	0.00
5,700.00	6.50	271.08	5,698.61	0.69	-36.82	4.20	1.00	1.00	0.00
5,800.00	7.50	271.08	5,797.86	0.92	-49.01	5.59	1.00	1.00	0.00
5,900.00	8.50	271.08	5,896.89	1.18	-62.92	7.18	1.00	1.00	0.00
6,000.00	9.50	271.08	5,995.65	1.48	-78.56	8.97	1.00	1.00	0.00
6,100.00	10.50	271.08	6,094.13	1.80	-95.93	10.95	1.00	1.00	0.00
6,200.00	11.50	271.08	6,192.29	2.16	-115.00	13.13	1.00	1.00	0.00
6,300.00	12.50	271.08	6,290.11	2.55	-135.79	15.50	1.00	1.00	0.00
6,400.00	13.50	271.08	6,387.54	2.97	-158.28	18.07	1.00	1.00	0.00
6,500.00	14.50	271.08	6,484.57	3.43	-182.47	20.83	1.00	1.00	0.00
6,549.92	15.00	271.08	6,532.85	3.67	-195.18	22.28	1.00	1.00	0.00
6,600.00	15.00	271.08	6,581.22	3.91	-208.13	23.76	0.00	0.00	0.00
6,700.00	15.00	271.08	6,677.81	4.40	-234.01	26.72	0.00	0.00	0.00
6,800.00	15.00	271.08	6,774.41	4.88	-259.89	29.67	0.00	0.00	0.00
6,900.00	15.00	271.08	6,871.00	5.37	-285.76	32.62	0.00	0.00	0.00
7,000.00	15.00	271.08	6,967.59	5.86	-311.64	35.58	0.00	0.00	0.00
7,100.00	15.00	271.08	7,064.19	6.34	-337.51	38.53	0.00	0.00	0.00
7,200.00	15.00	271.08	7,160.78	6.83	-363.39	41.49	0.00	0.00	0.00
7,300.00	15.00	271.08	7,257.37	7.32	-389.27	44.44	0.00	0.00	0.00
7,400.00	15.00	271.08	7,353.96	7.80	-415.14	47.39	0.00	0.00	0.00
7,500.00	15.00	271.08	7,450.56	8.29	-441.02	50.35	0.00	0.00	0.00
7,600.00	15.00	271.08	7,547.15	8.77	-466.89	53.30	0.00	0.00	0.00
7,700.00	15.00	271.08	7,643.74	9.26	-492.77	56.26	0.00	0.00	0.00
7,800.00	15.00	271.08	7,740.34	9.75	-518.65	59.21	0.00	0.00	0.00
7,900.00	15.00	271.08	7,836.93	10.23	-544.52	62.16	0.00	0.00	0.00
8,000.00	15.00	271.08	7,933.52	10.72	-570.40	65.12	0.00	0.00	0.00
8,100.00	15.00	271.08	8,030.11	11.21	-596.27	68.07	0.00	0.00	0.00
8,200.00	15.00	271.08	8,126.71	11.69	-622.15	71.03	0.00	0.00	0.00
8,300.00	15.00	271.08	8,223.30	12.18	-648.03	73.98	0.00	0.00	0.00
8,400.00	15.00	271.08	8,319.89	12.67	-673.90	76.93	0.00	0.00	0.00
8,500.00	15.00	271.08	8,416.49	13.15	-699.78	79.89	0.00	0.00	0.00
8,600.00	15.00	271.08	8,513.08	13.64	-725.66	82.84	0.00	0.00	0.00
8,700.00	15.00	271.08	8,609.67	14.12	-751.53	85.80	0.00	0.00	0.00
8,800.00	15.00	271.08	8,706.26	14.61	-777.41	88.75	0.00	0.00	0.00
8,900.00	15.00	271.08	8,802.86	15.10	-803.28	91.70	0.00	0.00	0.00
8,940.80	15.00	271.08	8,842.27	15.30	-813.84	92.91	0.00	0.00	0.00
9,000.00	16.23	292.73	8,899.33	18.64	-829.14	97.70	10.00	2.08	36.57
9,100.00	21.99	318.15	8,993.94	38.03	-854.59	119.43	10.00	5.77	25.42
9,200.00	29.99	332.03	9,083.83	74.15	-878.87	157.70	10.00	8.00	13.89
9,300.00	38.86	340.27	9,166.28	125.88	-901.23	211.33	10.00	8.87	8.24
9,400.00	48.12	345.79	9,238.78	191.66	-921.01	278.70	10.00	9.26	5.52
9,500.00	57.57	349.89	9,299.13	269.50	-937.60	357.76	10.00	9.45	4.10
9,600.00	67.13	353.20	9,345.49	357.01	-950.50	446.11	10.00	9.56	3.31
9,700.00	76.76	356.07	9,376.45	451.56	-959.30	541.06	10.00	9.62	2.87
9,800.00	86.41	358.72	9,391.08	550.25	-963.76	639.73	10.00	9.65	2.65
9,833.17	89.61	359.58	9,392.23	583.39	-964.25	672.77	10.00	9.66	2.59
9,900.00	89.61	359.58	9,392.69	650.22	-964.74	739.34	0.00	0.00	0.00
10,000.00	89.61	359.58	9,393.37	750.22	-965.46	838.95	0.00	0.00	0.00
10,100.00	89.61	359.58	9,394.05	850.21	-966.19	938.55	0.00	0.00	0.00
10,200.00	89.61	359.58	9,394.73	950.21	-966.92	1,038.16	0.00	0.00	0.00
10,300.00	89.61	359.58	9,395.41	1,050.20	-967.64	1,137.77	0.00	0.00	0.00
10,400.00	89.61	359.58	9,396.09	1,150.20	-968.37	1,237.38	0.00	0.00	0.00
10,500.00	89.61	359.58	9,396.77	1,250.19	-969.10	1,336.99	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**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	89.61	359.58	9,397.45	1,350.19	-969.83	1,436.59	0.00	0.00	0.00
10,700.00	89.61	359.58	9,398.13	1,450.18	-970.55	1,536.20	0.00	0.00	0.00
10,800.00	89.61	359.58	9,398.81	1,550.18	-971.28	1,635.81	0.00	0.00	0.00
10,900.00	89.61	359.58	9,399.49	1,650.17	-972.01	1,735.42	0.00	0.00	0.00
11,000.00	89.61	359.58	9,400.17	1,750.17	-972.73	1,835.03	0.00	0.00	0.00
11,100.00	89.61	359.58	9,400.85	1,850.16	-973.46	1,934.63	0.00	0.00	0.00
11,200.00	89.61	359.58	9,401.53	1,950.16	-974.19	2,034.24	0.00	0.00	0.00
11,300.00	89.61	359.58	9,402.22	2,050.15	-974.92	2,133.85	0.00	0.00	0.00
11,400.00	89.61	359.58	9,402.90	2,150.15	-975.64	2,233.46	0.00	0.00	0.00
11,500.00	89.61	359.58	9,403.58	2,250.14	-976.37	2,333.06	0.00	0.00	0.00
11,600.00	89.61	359.58	9,404.26	2,350.14	-977.10	2,432.67	0.00	0.00	0.00
11,700.00	89.61	359.58	9,404.94	2,450.13	-977.82	2,532.28	0.00	0.00	0.00
11,800.00	89.61	359.58	9,405.62	2,550.13	-978.55	2,631.89	0.00	0.00	0.00
11,900.00	89.61	359.58	9,406.30	2,650.12	-979.28	2,731.50	0.00	0.00	0.00
12,000.00	89.61	359.58	9,406.98	2,750.12	-980.01	2,831.10	0.00	0.00	0.00
12,100.00	89.61	359.58	9,407.66	2,850.11	-980.73	2,930.71	0.00	0.00	0.00
12,200.00	89.61	359.58	9,408.34	2,950.11	-981.46	3,030.32	0.00	0.00	0.00
12,300.00	89.61	359.58	9,409.02	3,050.10	-982.19	3,129.93	0.00	0.00	0.00
12,400.00	89.61	359.58	9,409.70	3,150.10	-982.91	3,229.54	0.00	0.00	0.00
12,500.00	89.61	359.58	9,410.38	3,250.09	-983.64	3,329.14	0.00	0.00	0.00
12,600.00	89.61	359.58	9,411.06	3,350.09	-984.37	3,428.75	0.00	0.00	0.00
12,700.00	89.61	359.58	9,411.74	3,450.08	-985.10	3,528.36	0.00	0.00	0.00
12,800.00	89.61	359.58	9,412.43	3,550.08	-985.82	3,627.97	0.00	0.00	0.00
12,900.00	89.61	359.58	9,413.11	3,650.07	-986.55	3,727.57	0.00	0.00	0.00
13,000.00	89.61	359.58	9,413.79	3,750.07	-987.28	3,827.18	0.00	0.00	0.00
13,100.00	89.61	359.58	9,414.47	3,850.06	-988.00	3,926.79	0.00	0.00	0.00
13,200.00	89.61	359.58	9,415.15	3,950.06	-988.73	4,026.40	0.00	0.00	0.00
13,300.00	89.61	359.58	9,415.83	4,050.05	-989.46	4,126.01	0.00	0.00	0.00
13,400.00	89.61	359.58	9,416.51	4,150.05	-990.18	4,225.61	0.00	0.00	0.00
13,500.00	89.61	359.58	9,417.19	4,250.04	-990.91	4,325.22	0.00	0.00	0.00
13,600.00	89.61	359.58	9,417.87	4,350.04	-991.64	4,424.83	0.00	0.00	0.00
13,700.00	89.61	359.58	9,418.55	4,450.03	-992.37	4,524.44	0.00	0.00	0.00
13,800.00	89.61	359.58	9,419.23	4,550.03	-993.09	4,624.05	0.00	0.00	0.00
13,900.00	89.61	359.58	9,419.91	4,650.02	-993.82	4,723.65	0.00	0.00	0.00
14,000.00	89.61	359.58	9,420.59	4,750.02	-994.55	4,823.26	0.00	0.00	0.00
14,100.00	89.61	359.58	9,421.27	4,850.01	-995.27	4,922.87	0.00	0.00	0.00
14,200.00	89.61	359.58	9,421.96	4,950.01	-996.00	5,022.48	0.00	0.00	0.00
14,300.00	89.61	359.58	9,422.64	5,050.00	-996.73	5,122.08	0.00	0.00	0.00
14,400.00	89.61	359.58	9,423.32	5,150.00	-997.46	5,221.69	0.00	0.00	0.00
14,500.00	89.61	359.58	9,424.00	5,249.99	-998.18	5,321.30	0.00	0.00	0.00
14,600.00	89.61	359.58	9,424.68	5,349.99	-998.91	5,420.91	0.00	0.00	0.00
14,700.00	89.61	359.58	9,425.36	5,449.98	-999.64	5,520.52	0.00	0.00	0.00
14,800.00	89.61	359.58	9,426.04	5,549.98	-1,000.36	5,620.12	0.00	0.00	0.00
14,900.00	89.61	359.58	9,426.72	5,649.97	-1,001.09	5,719.73	0.00	0.00	0.00
15,000.00	89.61	359.58	9,427.40	5,749.97	-1,001.82	5,819.34	0.00	0.00	0.00
15,100.00	89.61	359.58	9,428.08	5,849.96	-1,002.55	5,918.95	0.00	0.00	0.00
15,200.00	89.61	359.58	9,428.76	5,949.96	-1,003.27	6,018.56	0.00	0.00	0.00
15,300.00	89.61	359.58	9,429.44	6,049.95	-1,004.00	6,118.16	0.00	0.00	0.00
15,400.00	89.61	359.58	9,430.12	6,149.95	-1,004.73	6,217.77	0.00	0.00	0.00
15,500.00	89.61	359.58	9,430.80	6,249.94	-1,005.45	6,317.38	0.00	0.00	0.00
15,600.00	89.61	359.58	9,431.48	6,349.94	-1,006.18	6,416.99	0.00	0.00	0.00
15,700.00	89.61	359.58	9,432.17	6,449.93	-1,006.91	6,516.60	0.00	0.00	0.00
15,800.00	89.61	359.58	9,432.85	6,549.93	-1,007.64	6,616.20	0.00	0.00	0.00
15,900.00	89.61	359.58	9,433.53	6,649.92	-1,008.36	6,715.81	0.00	0.00	0.00
16,000.00	89.61	359.58	9,434.21	6,749.92	-1,009.09	6,815.42	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**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)
16,100.00	89.61	359.58	9,434.89	6,849.91	-1,009.82	6,915.03	0.00	0.00	0.00
16,200.00	89.61	359.58	9,435.57	6,949.91	-1,010.54	7,014.63	0.00	0.00	0.00
16,300.00	89.61	359.58	9,436.25	7,049.90	-1,011.27	7,114.24	0.00	0.00	0.00
16,400.00	89.61	359.58	9,436.93	7,149.90	-1,012.00	7,213.85	0.00	0.00	0.00
16,500.00	89.61	359.58	9,437.61	7,249.89	-1,012.73	7,313.46	0.00	0.00	0.00
16,600.00	89.61	359.58	9,438.29	7,349.89	-1,013.45	7,413.07	0.00	0.00	0.00
16,700.00	89.61	359.58	9,438.97	7,449.88	-1,014.18	7,512.67	0.00	0.00	0.00
16,800.00	89.61	359.58	9,439.65	7,549.88	-1,014.91	7,612.28	0.00	0.00	0.00
16,900.00	89.61	359.58	9,440.33	7,649.87	-1,015.63	7,711.89	0.00	0.00	0.00
17,000.00	89.61	359.58	9,441.01	7,749.87	-1,016.36	7,811.50	0.00	0.00	0.00
17,100.00	89.61	359.58	9,441.69	7,849.86	-1,017.09	7,911.11	0.00	0.00	0.00
17,200.00	89.61	359.58	9,442.38	7,949.86	-1,017.82	8,010.71	0.00	0.00	0.00
17,300.00	89.61	359.58	9,443.06	8,049.85	-1,018.54	8,110.32	0.00	0.00	0.00
17,400.00	89.61	359.58	9,443.74	8,149.85	-1,019.27	8,209.93	0.00	0.00	0.00
17,500.00	89.61	359.58	9,444.42	8,249.84	-1,020.00	8,309.54	0.00	0.00	0.00
17,600.00	89.61	359.58	9,445.10	8,349.84	-1,020.72	8,409.14	0.00	0.00	0.00
17,700.00	89.61	359.58	9,445.78	8,449.83	-1,021.45	8,508.75	0.00	0.00	0.00
17,800.00	89.61	359.58	9,446.46	8,549.83	-1,022.18	8,608.36	0.00	0.00	0.00
17,900.00	89.61	359.58	9,447.14	8,649.82	-1,022.91	8,707.97	0.00	0.00	0.00
18,000.00	89.61	359.58	9,447.82	8,749.82	-1,023.63	8,807.58	0.00	0.00	0.00
18,100.00	89.61	359.58	9,448.50	8,849.81	-1,024.36	8,907.18	0.00	0.00	0.00
18,200.00	89.61	359.58	9,449.18	8,949.81	-1,025.09	9,006.79	0.00	0.00	0.00
18,300.00	89.61	359.58	9,449.86	9,049.80	-1,025.81	9,106.40	0.00	0.00	0.00
18,400.00	89.61	359.58	9,450.54	9,149.80	-1,026.54	9,206.01	0.00	0.00	0.00
18,500.00	89.61	359.58	9,451.22	9,249.79	-1,027.27	9,305.62	0.00	0.00	0.00
18,600.00	89.61	359.58	9,451.90	9,349.79	-1,028.00	9,405.22	0.00	0.00	0.00
18,700.00	89.61	359.58	9,452.59	9,449.78	-1,028.72	9,504.83	0.00	0.00	0.00
18,800.00	89.61	359.58	9,453.27	9,549.78	-1,029.45	9,604.44	0.00	0.00	0.00
18,900.00	89.61	359.58	9,453.95	9,649.77	-1,030.18	9,704.05	0.00	0.00	0.00
19,000.00	89.61	359.58	9,454.63	9,749.77	-1,030.90	9,803.65	0.00	0.00	0.00
19,100.00	89.61	359.58	9,455.31	9,849.76	-1,031.63	9,903.26	0.00	0.00	0.00
19,200.00	89.61	359.58	9,455.99	9,949.76	-1,032.36	10,002.87	0.00	0.00	0.00
19,300.00	89.61	359.58	9,456.67	10,049.75	-1,033.09	10,102.48	0.00	0.00	0.00
19,400.00	89.61	359.58	9,457.35	10,149.75	-1,033.81	10,202.09	0.00	0.00	0.00
19,500.00	89.61	359.58	9,458.03	10,249.74	-1,034.54	10,301.69	0.00	0.00	0.00
19,600.00	89.61	359.58	9,458.71	10,349.74	-1,035.27	10,401.30	0.00	0.00	0.00
19,700.00	89.61	359.58	9,459.39	10,449.73	-1,035.99	10,500.91	0.00	0.00	0.00
19,800.00	89.61	359.58	9,460.07	10,549.73	-1,036.72	10,600.52	0.00	0.00	0.00
19,900.00	89.61	359.58	9,460.75	10,649.72	-1,037.45	10,700.13	0.00	0.00	0.00
20,000.00	89.61	359.58	9,461.43	10,749.72	-1,038.18	10,799.73	0.00	0.00	0.00
20,083.17	89.61	359.58	9,462.00	10,832.89	-1,038.78	10,882.58	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 (Tuna Nut 24_13 - plan misses target center by 32.98ft at 9646.13ft MD (9361.75 TVD, 399.92 N, -955.09 E) - Point	0.00	0.00	9,392.00	389.30	-962.84	499,154.62	756,841.92	32.370314	-103.635319
PBHL (Tuna Nut - plan hits target center - Point	0.00	0.00	9,462.00	10,832.89	-1,038.78	509,597.80	756,765.98	32.399020	-103.635344

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Tuna Nut 24_13 Fed Com 11H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=25' @ 3792.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=25' @ 3792.00ft
Site:	Tuna Nut 24_13 Fed Com	**North Reference:**	Grid
Well:	Tuna Nut 24_13 Fed Com 11H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,046.00	1,046.00	RUSTLER			
1,677.00	1,677.00	SALADO			
3,443.00	3,443.00	CASTILE			
4,893.00	4,893.00	DELAWARE			
4,985.00	4,985.00	BELL CANYON			
5,791.06	5,789.00	CHERRY CANYON			
7,121.55	7,085.00	BRUSHY CANYON			
8,816.29	8,722.00	BONE SPRING			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,050.00	5,050.00	0.00	0.00	Build 1°/100'
6,549.92	6,532.85	3.67	-195.18	Hold 15° Tangent
8,940.80	8,842.27	15.30	-813.84	KOP, Build & Turn 10°/100'
9,833.17	9,392.23	583.39	-964.25	Landing Point
20,083.17	9,462.00	10,832.89	-1,038.78	TD at 20083.17' MD

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INCORPORATED
WELL NAME & NO.:	TUNA NUT 24_13 FED COM 11H
LOCATION:	Section 25, T.22 S., R.32 E.
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[x] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[x] Break Testing	[x] Offline Cementing	[x] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Both A1 and A2 designs in Blanket Designs approved. Parameters of the pad within boundary conditions. Please contact BLM Engineering if 4 string design is needed and sundry as needed. Please review cement volumes to ensure tieback is achieved as required below(25% excess required.)

Approval Date: 11/26/2024

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1099** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **7-5/8** inch intermediate casing shall be set at approximately **8841** feet TVD. **KEEP CASING 1/2 FULL FOR COLLAPSE SF. PRESSURE TEST NEEDS EXTERNAL PRESSURE REVIEW AS WELL.** The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

    Option 2 (Bradenhead):

    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 will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified

3. The **5-1/2** inch production casing shall be set at approximately **20,083** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

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

Alternate Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **1099** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
   b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
   c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
   d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **7-5/8** inch intermediate casing shall be set at approximately **8841** feet. **KEEP CASING 1/2 FULL FOR COLLAPSE SF. PRESSURE TEST NEEDS EXTERNAL PRESSURE REVIEW AS WELL.** The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

   Option 1 (Single Stage):

   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

   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 will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified

❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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

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.

Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.

3. The **5-1/2** inch production casing shall be set at approximately **20,083** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

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

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on surface casing. 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. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.**

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

D. SPECIAL REQUIREMENT (S)

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 Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)
BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.

- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing
Offline cementing OK for surface and intermediate intervals. Notify the BLM prior to the commencement of any offline cementing procedure.

Casing Clearance
Overlap clearance OK

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 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

Contact Lea County Petroleum Engineering Inspection Staff:
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      i. Notify the BLM when moving in and removing the Spudder Rig.
      ii. Notify the BLM when moving in the 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 11/25/2024

Approval Date: 11/26/2024

Permian Drilling
Hydrogen Sulfide Drilling Operations Plan

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

1. Escape

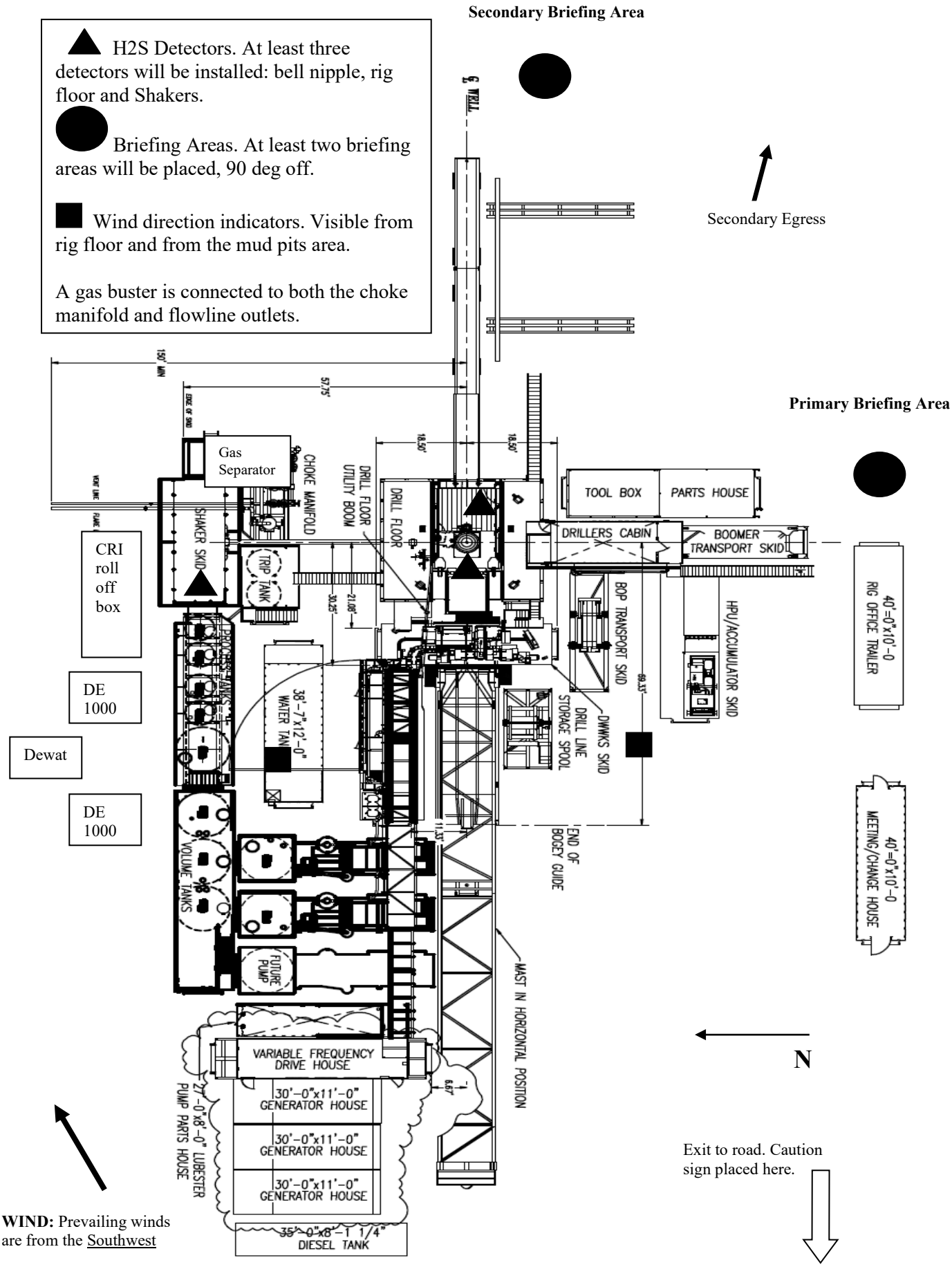
   Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction,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



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 briefing

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 BLM Onshore Order #2.

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

Percent (%)	Ppm	Concentration Grains 100 std. Ft3*	Physical effects
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.

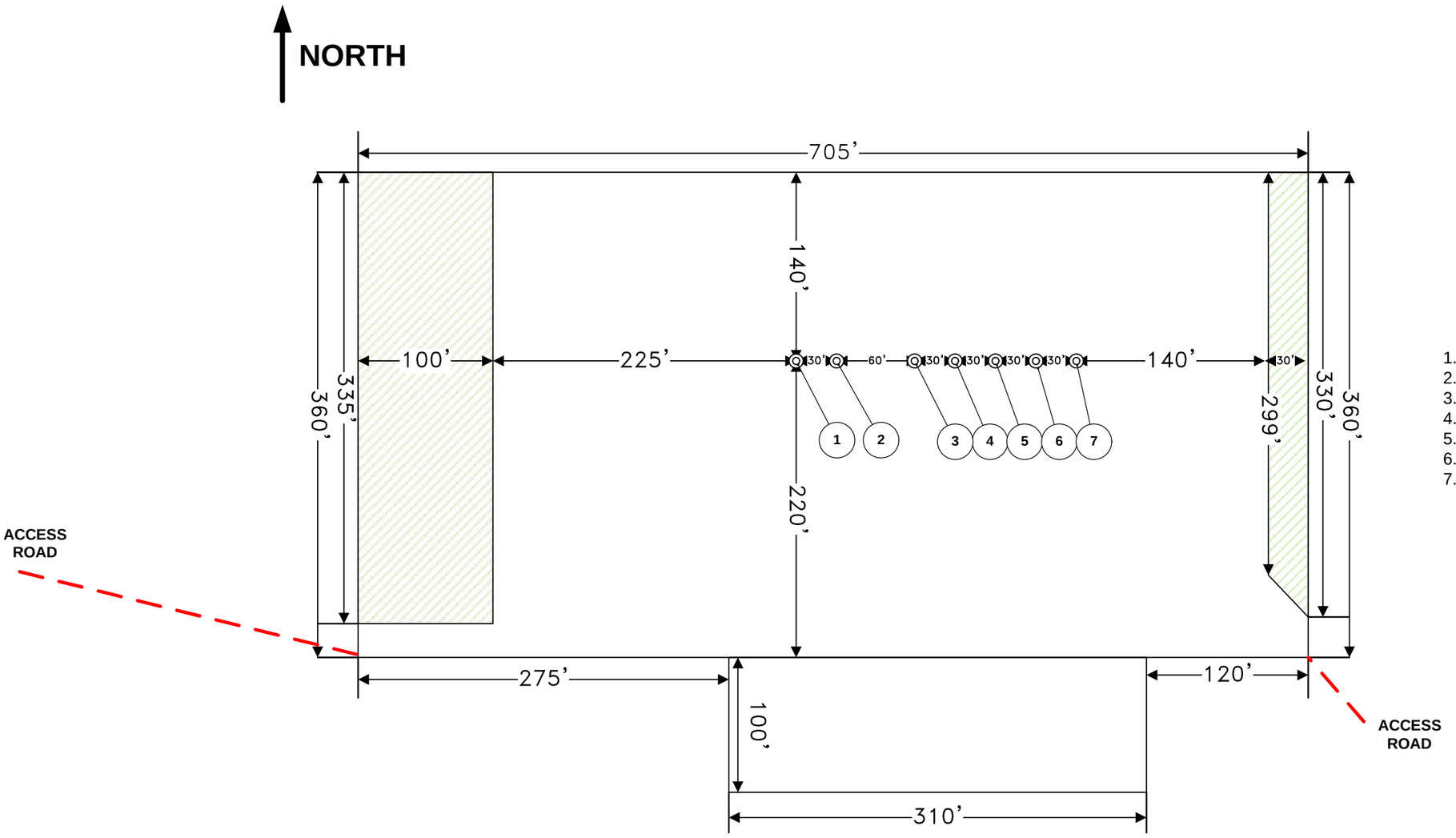
4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.

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

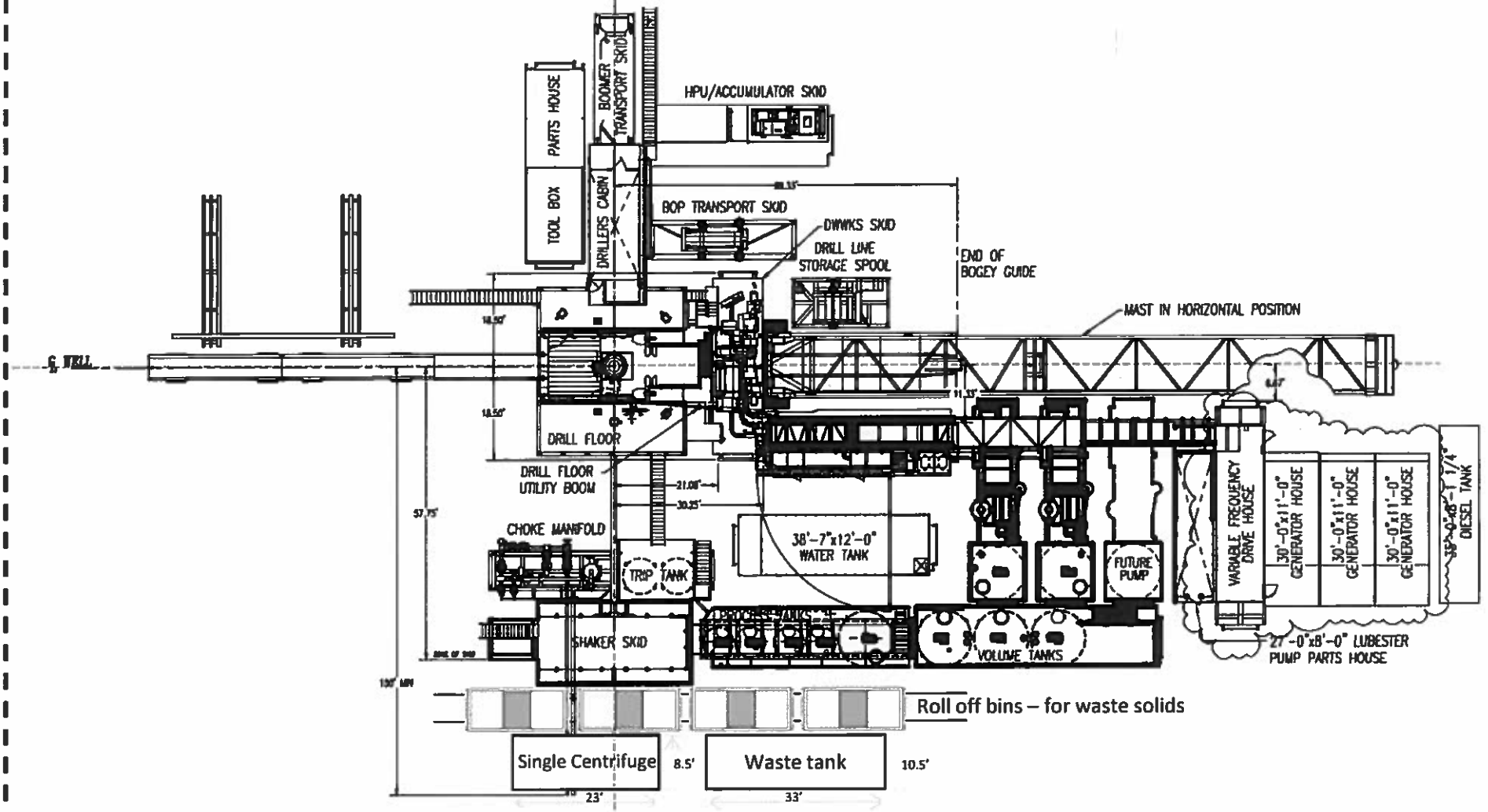


1. TUNA NUT 25-36 FED COM 71H
2. TUNA NUT 25-36 FED COM 72H
3. TUNA NUT 25-36 FED COM 11H
4. TUNA NUT 25-36 FED COM 1H
5. TUNA NUT 25-36 FED COM 12H
6. TUNA NUT 25-36 FED COM 2H
7. TUNA NUT 25-36 FED COM 13H

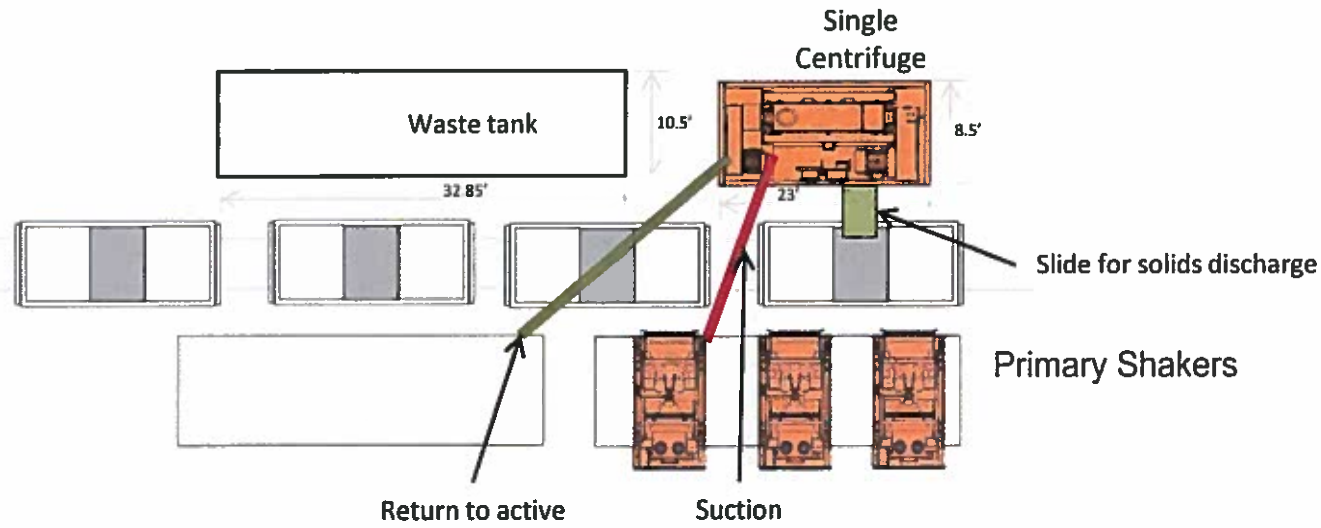
REVISION BLOCK						ENGINEERING RECORD		RIG DIAGRAM V-DOOR EAST PAD REDTNK-T22SR32E-2403 TUNA NUT 24-13 FED COM 71H, 72H, 11H, 1H, 12H, 2H, 13H SECTION 24, TOWNSHIP 22S, RANGE 32E LEA COUNTY, NEW MEXICO
NO.	DATE	DESCRIPTION	BY	CHK	APP	BY	DATE	
						LP	12/13/2021	

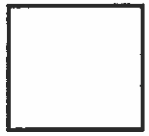
Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

May 28, 2013



Oxy





Oxy Single Centrifuge Closed Loop System – New Mexico Flex III

May 28, 2013

WELL PAD CONTOURS

REDTNK_T22SR32E_2503
SEC. 25 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: BOOTLEG RIDGE, N.M.
FAA PERMIT NEEDED: NO

100' 0' 100' 200'
SCALE: 1" = 200'

WELL	REDTNK_T22SR32E_2503
1	TUNA NUT 24_13 FED COM 71H
2	TUNA NUT 24_13 FED COM 72H
3	TUNA NUT 24_13 FED COM 11H
4	TUNA NUT 24_13 FED COM 1H
5	TUNA NUT 24_13 FED COM 12H
6	TUNA NUT 24_13 FED COM 2H
7	TUNA NUT 24_13 FED COM 13H

REDTNK_T22SR32E_2401

℄ PROPOSED LEASE ROAD

SECTION 24, T-22-S, R-32-E

SECTION 25, T-22-S, R-32-E

STAKED OXY GAS LINE

PROPOSED TOPSOIL RESERVE 30'X705'

SILT FENCE TYP. AT TOE OF FILL SLOPES

STORMWATER DIVERSION FLOW LINE = EL. 3766.60'

STORMWATER DIVERSION FLOW LINE = EL. 3766.70'

STORMWATER DIVERSION FLOW LINE = EL. 3766.80'

STORMWATER DIVERSION FLOW LINE = EL. 3770.00'

COVINGTON A FED #2 WELL PAD

CUT 3.17'
FILL 0.96'
CUT 2.44'
CUT 3.54'
CUT 3.66'
CUT 2.29'
FILL 5.59'
FILL 2.32'
FILL 2.18'
FILL 1.52'
FILL 1.03'
CUT 1.83'
CUT 1.87'
CUT 0.08'
FILL 2.52'
FILL 2.03'

2' CONTAINMENT BERM
2' CONTAINMENT BERM

705'
325'
170'
360'
140'
140'
220'
220'
30' 60' 30' 30' 30' 30'
① ② ③ ④ ⑤ ⑥ ⑦
FILL SIDE
CUT SIDE
36'
22'
20'
14'
8'
17'

PROPOSED 20 FOOT WIDE BY 63.24 FOOT LONG (3.83 RODS) LEASE ROAD WITHIN A 30 FOOT WIDE EASEMENT OF SAME LENGTH.

PROPOSED 20 FOOT WIDE BY 267.83 FOOT LONG (16.23 RODS) LEASE ROAD WITHIN A 30 FOOT WIDE EASEMENT OF SAME LENGTH.

STORMWATER DIVERSION FLOW LINE = EL. 3766.80'
STORMWATER DIVERSION FLOW LINE = EL. 3766.75'
STORMWATER DIVERSION FLOW LINE = EL. 3766.70'
STORMWATER DIVERSION FLOW LINE = EL. 3766.65'
STORMWATER DIVERSION FLOW LINE = EL. 3766.60'

EXISTING LEASE ROAD

PROPOSED SHORT-TERM DISTURBANCE AREA = 7.52 ACRES
TOTAL CUT VOLUME: 13,628.05 cu yd
TOTAL FILL VOLUME: 13,536.80 cu yd

10/18/2021	10/28/2021
DATE SURVEYED	DATE DRAWN

LEGEND

- PROP. PAD SURFACE
- PROPERTY LINE
- PROP. LEASE ROAD
- EXIST. 1' CTR. LINES
- EXIST. 5' CTR. LINES
- ROAD CENTERLINE
- EDGE OF ROAD
- SWD — SALT WATER DISP.
- PROP. 1' CTR. LINES
- PROP. 5' CTR. LINES
- ECF — EROSION CON. FENCE
- OHP — OVERHEAD POWER
- FENCE
- PIPELINE

THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALE OR THE BASIS FOR THE ISSUANCE OF A PERMIT.

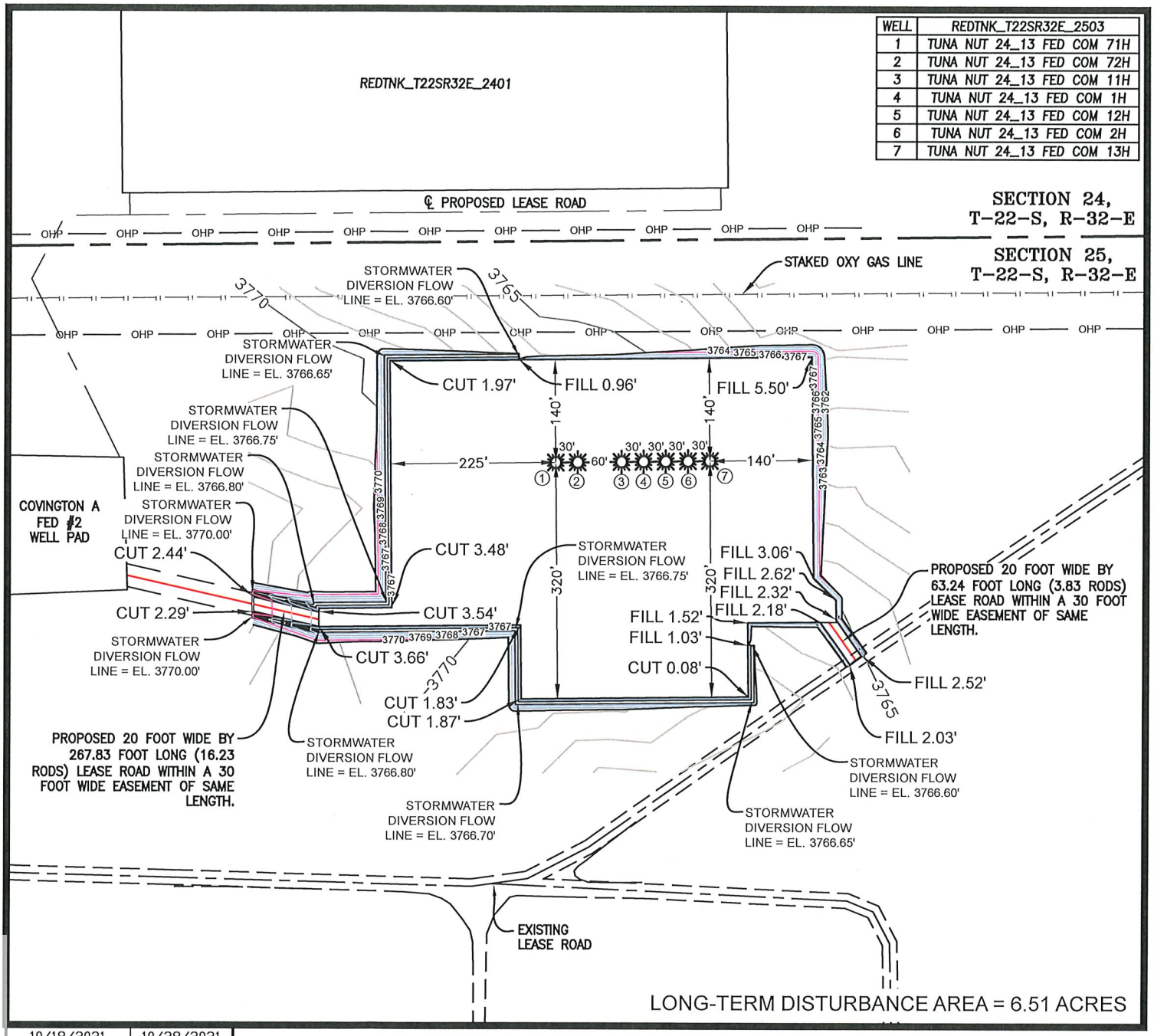
PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON ST. UNIT B
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R4195_007
PAGE 1 OF 2

INTERIM RECLAMATION PLAT

REDTNK_T22SR32E_2503
SEC. 25 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: BOOTLEG RIDGE, N.M.
FAA PERMIT NEEDED: NO

100' 0' 100' 200'
SCALE: 1" = 200'

WELL	REDTNK_T22SR32E_2503
1	TUNA NUT 24_13 FED COM 71H
2	TUNA NUT 24_13 FED COM 72H
3	TUNA NUT 24_13 FED COM 11H
4	TUNA NUT 24_13 FED COM 1H
5	TUNA NUT 24_13 FED COM 12H
6	TUNA NUT 24_13 FED COM 2H
7	TUNA NUT 24_13 FED COM 13H



10/18/2021	10/28/2021
DATE SURVEYED	DATE DRAWN

LEGEND

- PROP. PAD SURFACE
- PROPERTY LINE
- PROP. LEASE ROAD
- EXIST. 1' CTR. LINES
- EXIST. 5' CTR. LINES
- ROAD CENTERLINE
- EDGE OF ROAD
- SWD — SALT WATER DISP.
- PROP. 1' CTR. LINES
- PROP. 5' CTR. LINES
- ECF — EROSION CON. FENCE
- OHP — OVERHEAD POWER
- x — x — FENCE
- PIPELINE

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PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON ST. UNIT B
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R4195_007
PAGE 2 OF 2

SITE PLAN

REDTNK_T22SR32E_2503
SEC. 25 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: BOOTLEG RIDGE, N.M.
FAA PERMIT NEEDED: NO

TANK BATTERY
RECLAMATION
30' TOP SOIL
20' DISTURBANCE AREA

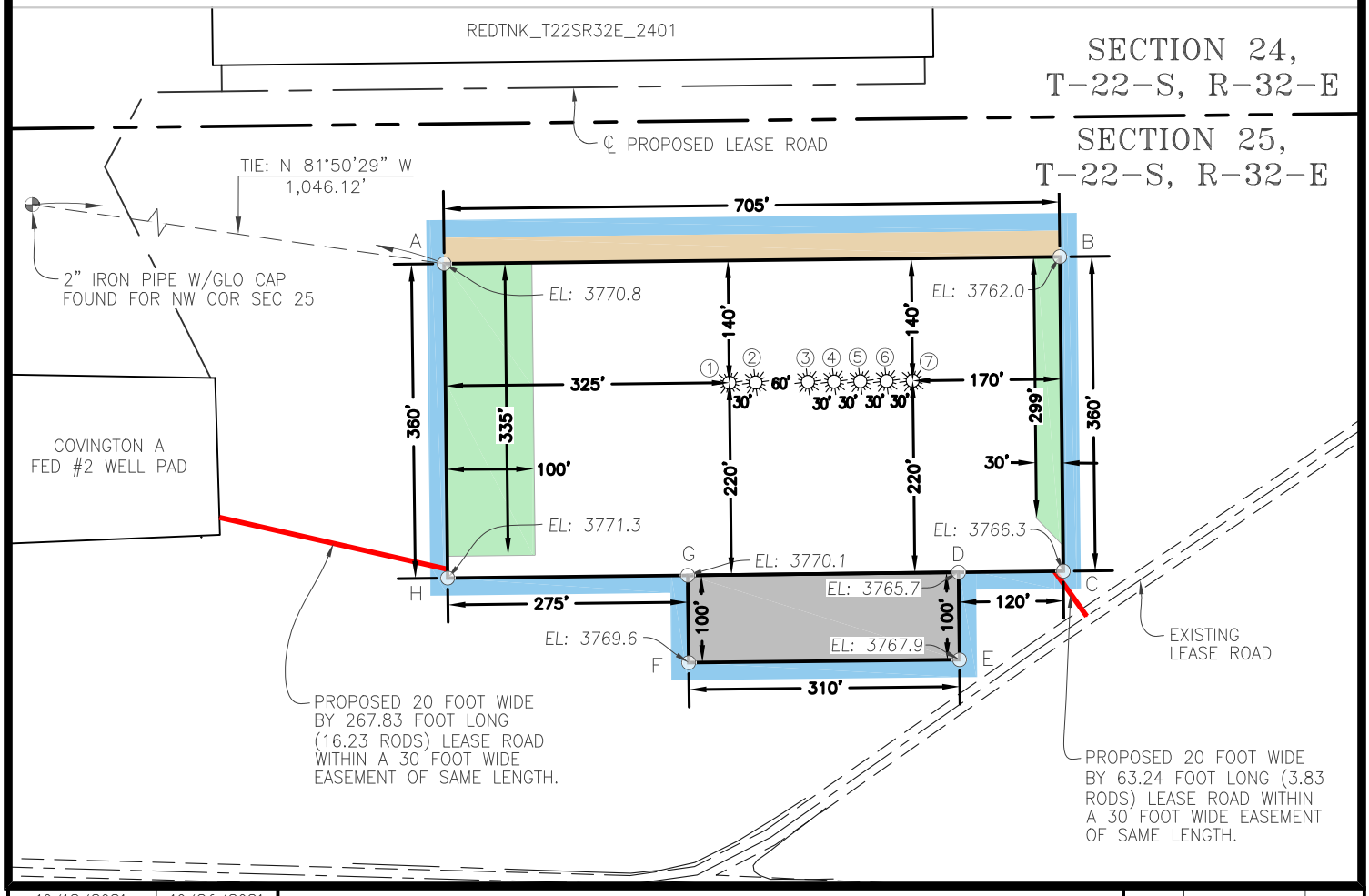
100' 0' 100' 200'
SCALE: 1" = 200'

NAD 83		
A	E:(X)757388.19 N:(Y)498900.70	LAT:32.36960600 LON:-103.63355455
B	E:(X)758093.14 N:(Y)498908.57	LAT:32.36961492 LON:-103.63127120
C	E:(X)758097.16 N:(Y)498548.59	LAT:32.36862540 LON:-103.63126585
D	E:(X)757977.24 N:(Y)498547.25	LAT:32.36862405 LON:-103.63165427

NAD 83		
E	E:(X)757978.35 N:(Y)498447.20	LAT:32.36834885 LON:-103.63165280
F	E:(X)757668.20 N:(Y)498443.82	LAT:32.36834516 LON:-103.63265733
G	E:(X)757667.10 N:(Y)498543.79	LAT:32.36862012 LON:-103.63265880
H	E:(X)757392.20 N:(Y)498540.72	LAT:32.36861648 LON:-103.63354916

NAD 27		
A	E:(X)716205.51 N:(Y)498840.39	LAT:32.36948282 LON:-103.63306912
B	E:(X)716910.46 N:(Y)498848.26	LAT:32.36949175 LON:-103.63078586
C	E:(X)716914.47 N:(Y)498488.29	LAT:32.36850222 LON:-103.63078053
D	E:(X)716794.55 N:(Y)498487.01	LAT:32.36850086 LON:-103.63116893

NAD 27		
E	E:(X)716795.66 N:(Y)498386.9	LAT:32.36822567 LON:-103.63116747
F	E:(X)716485.51 N:(Y)498383.53	LAT:32.36822197 LON:-103.632172
G	E:(X)716484.4 N:(Y)498483.54	LAT:32.36849691 LON:-103.63217346
H	E:(X)716209.51 N:(Y)498480.42	LAT:32.36849329 LON:-103.63306379



10/18/2021	10/26/2021
DATE SURVEYED	DATE DRAWN

REV.	DATE	BY

NOVEMBER 12, 2021

DAVID W. MYERS 11403

DAVID W. MYERS NEW MEXICO 11403 PROFESSIONAL SURVEYOR

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 0.99975697 CONVERGENCE ANGLE OF 0.07066669°.)

LEGEND

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

SHEET 1 OF 2
PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON ST. UNIT B
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R4195_002

SITE PLAN

REDTNK_T22SR32E_2503
SEC. 25 TWP. 22-S RGE. 32-E
SURVEY: N.M.P.M.
COUNTY: LEA
OPERATOR: OXY USA, INC.
U.S.G.S. TOPOGRAPHIC MAP: BOOTLEG RIDGE, N.M.
FAA PERMIT NEEDED: NO

WELL 1
TUNA NUT 24_13 FED COM 71H
OXY USA, INC.
300' FNL 1360' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757714.73' / Y:498764.34'
LAT:32.36922531N / LON:103.63249985W
NAD 27, SPCS NM EAST
X:716532.05' / Y:498704.03'
LAT:32.36910212N / LON:103.63201448W
ELEVATION = 3767'

WELL 2
TUNA NUT 24_13 FED COM 72H
OXY USA, INC.
300' FNL 1390' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757744.73' / Y:498764.67'
LAT:32.36922569N / LON:103.63240269W
NAD 27, SPCS NM EAST
X:716562.05' / Y:498704.37'
LAT:32.36910250N / LON:103.63191732W
ELEVATION = 3768'

WELL 3
TUNA NUT 24_13 FED COM 11H
OXY USA, INC.
300' FNL 1450' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757804.72' / Y:498765.34'
LAT:32.36922645N / LON:103.63220836W
NAD 27, SPCS NM EAST
X:716622.04' / Y:498705.04'
LAT:32.36910326N / LON:103.63172300W
ELEVATION = 3767'

WELL 4
TUNA NUT 24_13 FED COM 1H
OXY USA, INC.
300' FNL 1480' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757834.72' / Y:498765.67'
LAT:32.36922682N / LON:103.63211120W
NAD 27, SPCS NM EAST
X:716652.04' / Y:498705.37'
LAT:32.36910364N / LON:103.63162584W
ELEVATION = 3767'

WELL 5
TUNA NUT 24_13 FED COM 12H
OXY USA, INC.
300' FNL 1510' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757864.72' / Y:498766.01'
LAT:32.36922720N / LON:103.63201404W
NAD 27, SPCS NM EAST
X:716682.04' / Y:498705.70'
LAT:32.36910401N / LON:103.63152868W
ELEVATION = 3767'

WELL 6
TUNA NUT 24_13 FED COM 2H
OXY USA, INC.
300' FNL 1540' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757894.72' / Y:498766.34'
LAT:32.36922758N / LON:103.63191687W
NAD 27, SPCS NM EAST
X:716712.04' / Y:498706.04'
LAT:32.36910439N / LON:103.63143152W
ELEVATION = 3767'

WELL 7
TUNA NUT 24_13 FED COM 13H
OXY USA, INC.
300' FNL 1570' FWL, SECTION 25
NAD 83, SPCS NM EAST
X:757924.72' / Y:498766.68'
LAT:32.36922796N / LON:103.63181971W
NAD 27, SPCS NM EAST
X:716742.03' / Y:498706.37'
LAT:32.36910477N / LON:103.63133436W
ELEVATION = 3767'

10/18/2021	10/26/2021
DATE SURVEYED	DATE DRAWN

REV.	DATE	BY

NOVEMBER 12, 2021

DAVID W. MYERS 11403

DAVID W. MYERS
NEW MEXICO
11403
PROFESSIONAL SURVEYOR

BASIS OF BEARING
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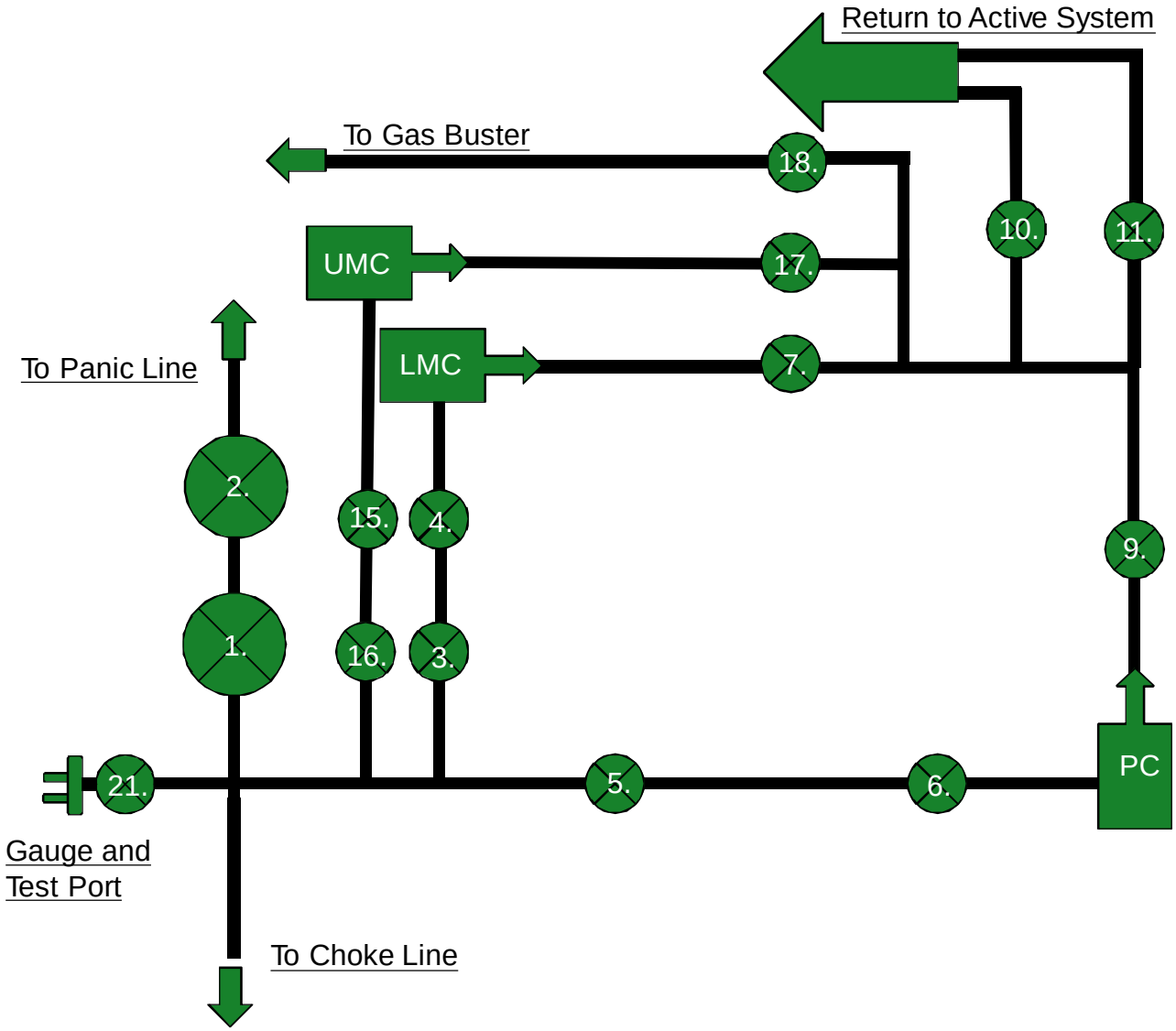
LEGEND

- 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

SHEET 2 OF 2
PREPARED BY:
R-SQUARED GLOBAL, LLC
510 TRENTON ST. UNIT B
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB No. R4195_002

10M Choke Panel



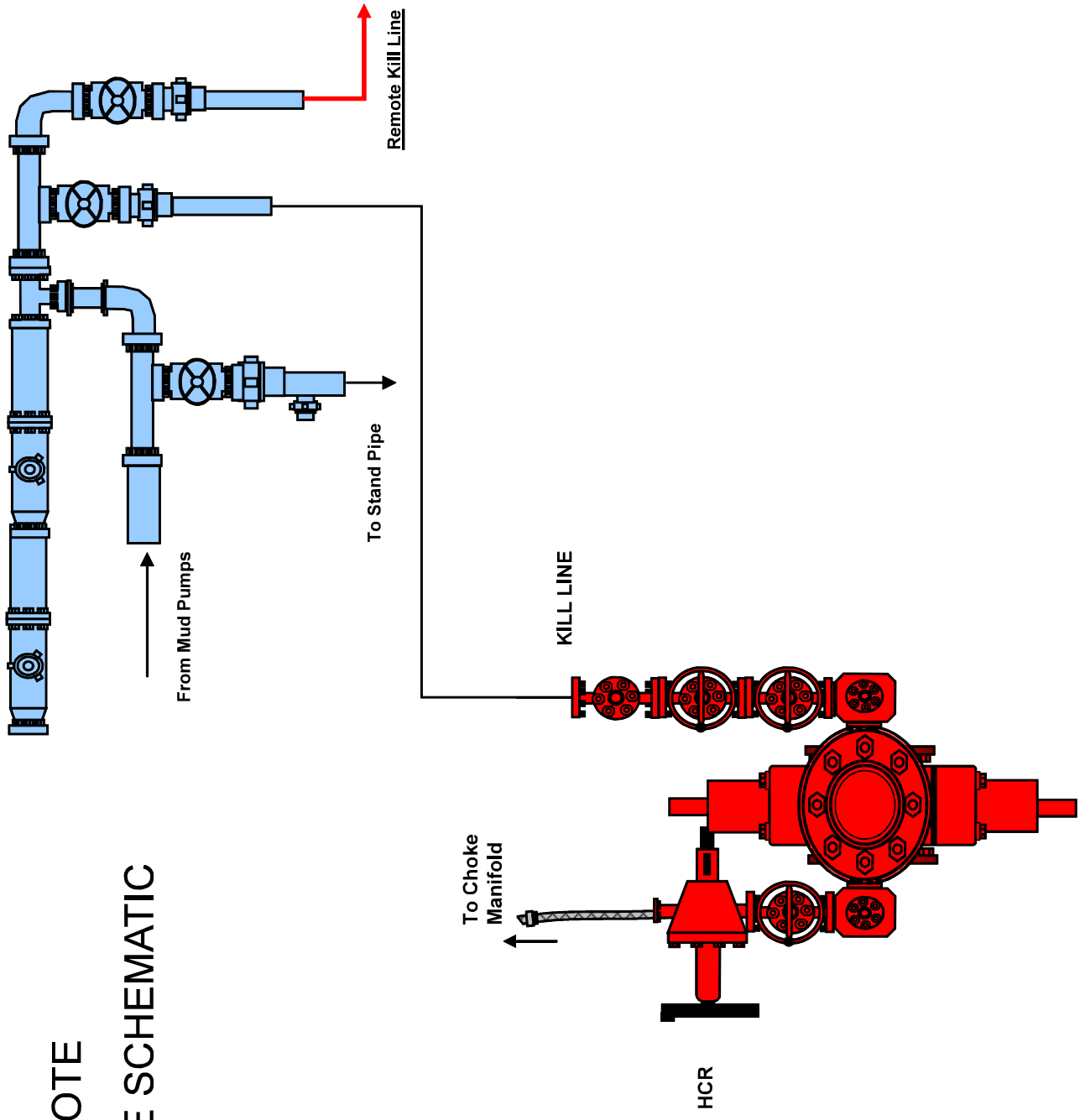
1. Choke Manifold Valve
2. Choke Manifold Valve
3. Choke Manifold Valve
4. Choke Manifold Valve
5. Choke Manifold Valve
6. Choke Manifold Valve
7. Choke Manifold Valve
8. PC – Power Choke
9. Choke Manifold Valve
10. Choke Manifold Valve
11. Choke Manifold Valve
12. LMC – Lower Manual Choke
13. UMC –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

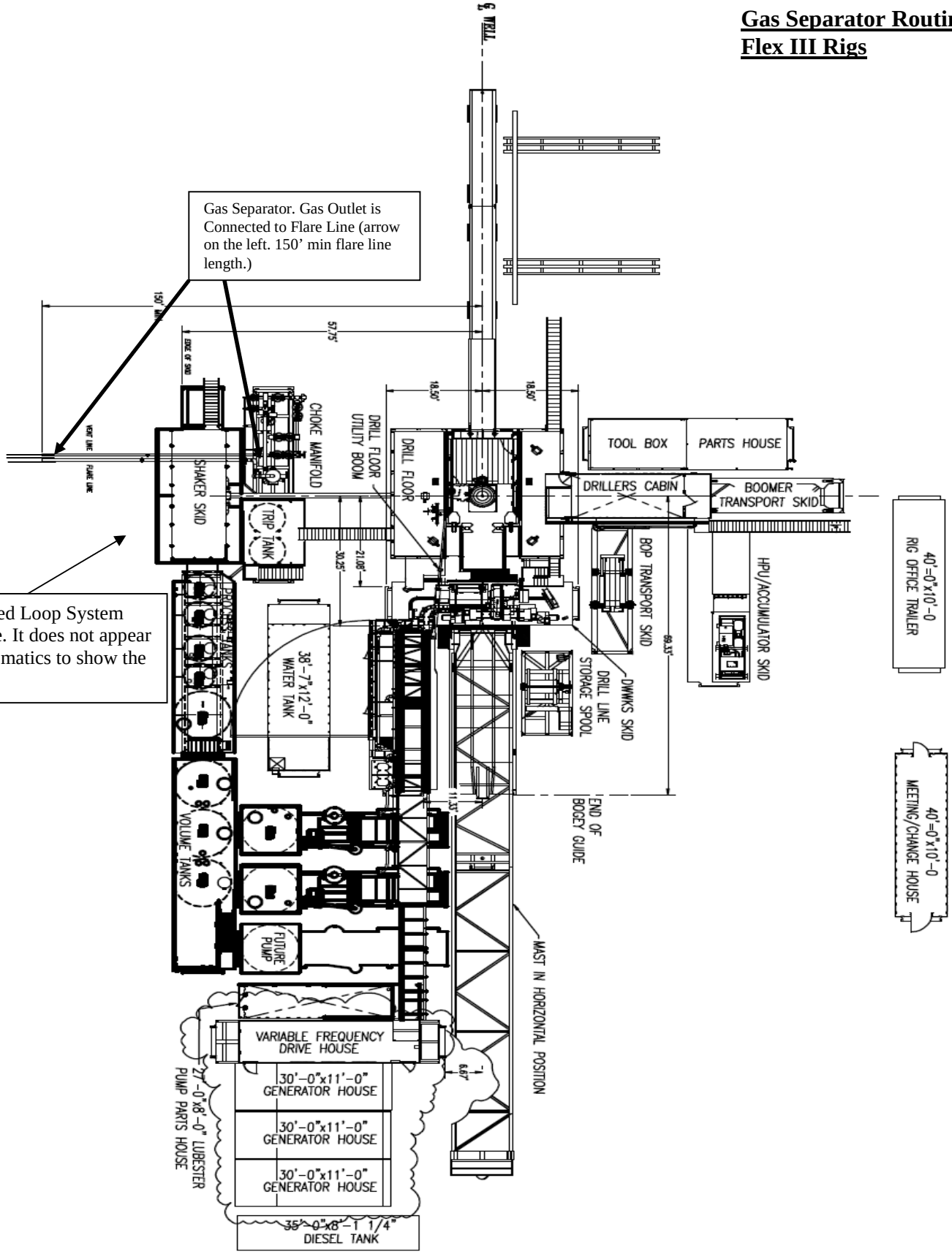
10M REMOTE KILL LINE SCHEMATIC



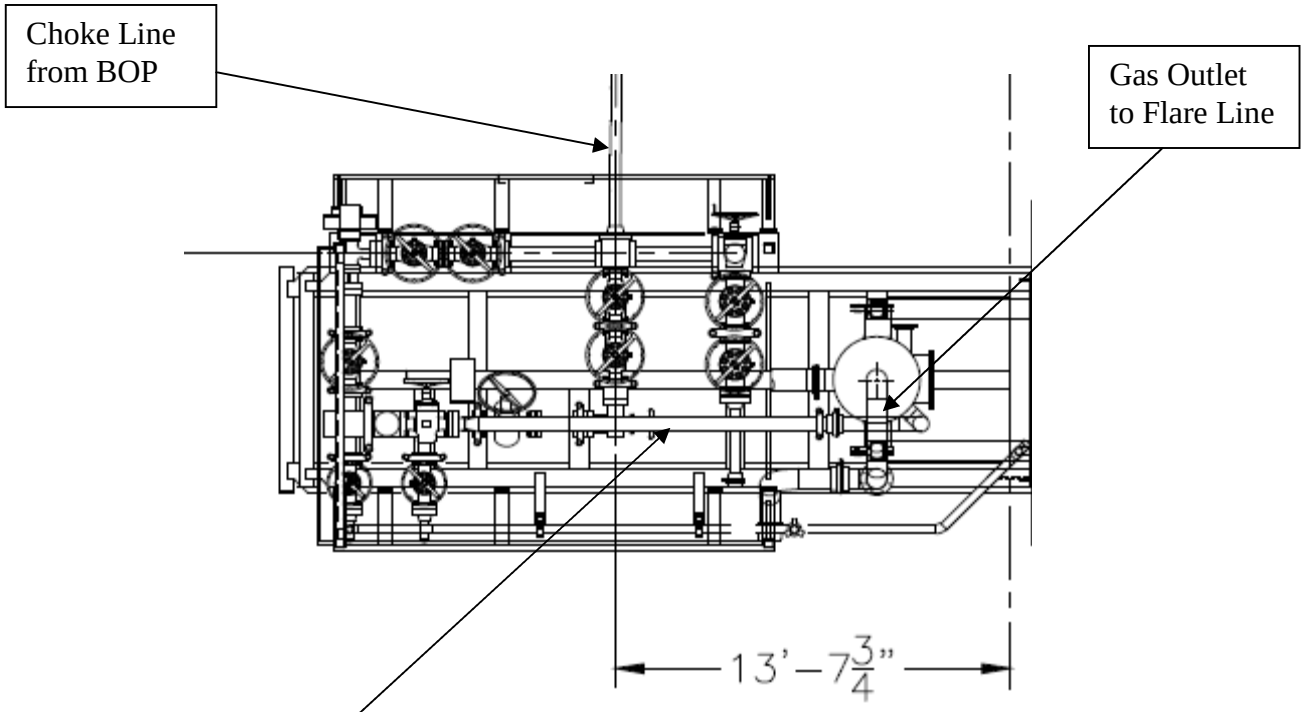
Gas Separator Routing
Flex III Rigs

Gas Separator. Gas Outlet is Connected to Flare Line (arrow on the left. 150' min flare line length.)

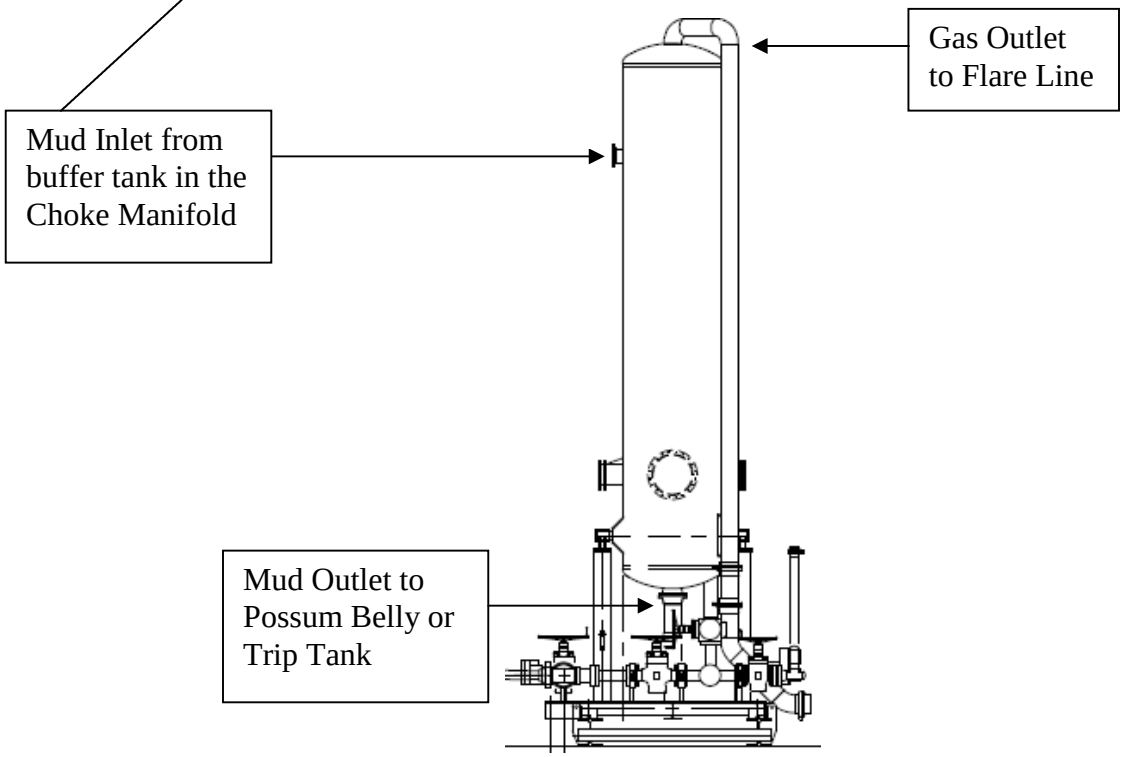
Note: Closed Loop System placed here. It does not appear on the schematics to show the flare line.



Choke Manifold – Gas Separator (Top View)



Choke Manifold – Gas Separator (Side View)

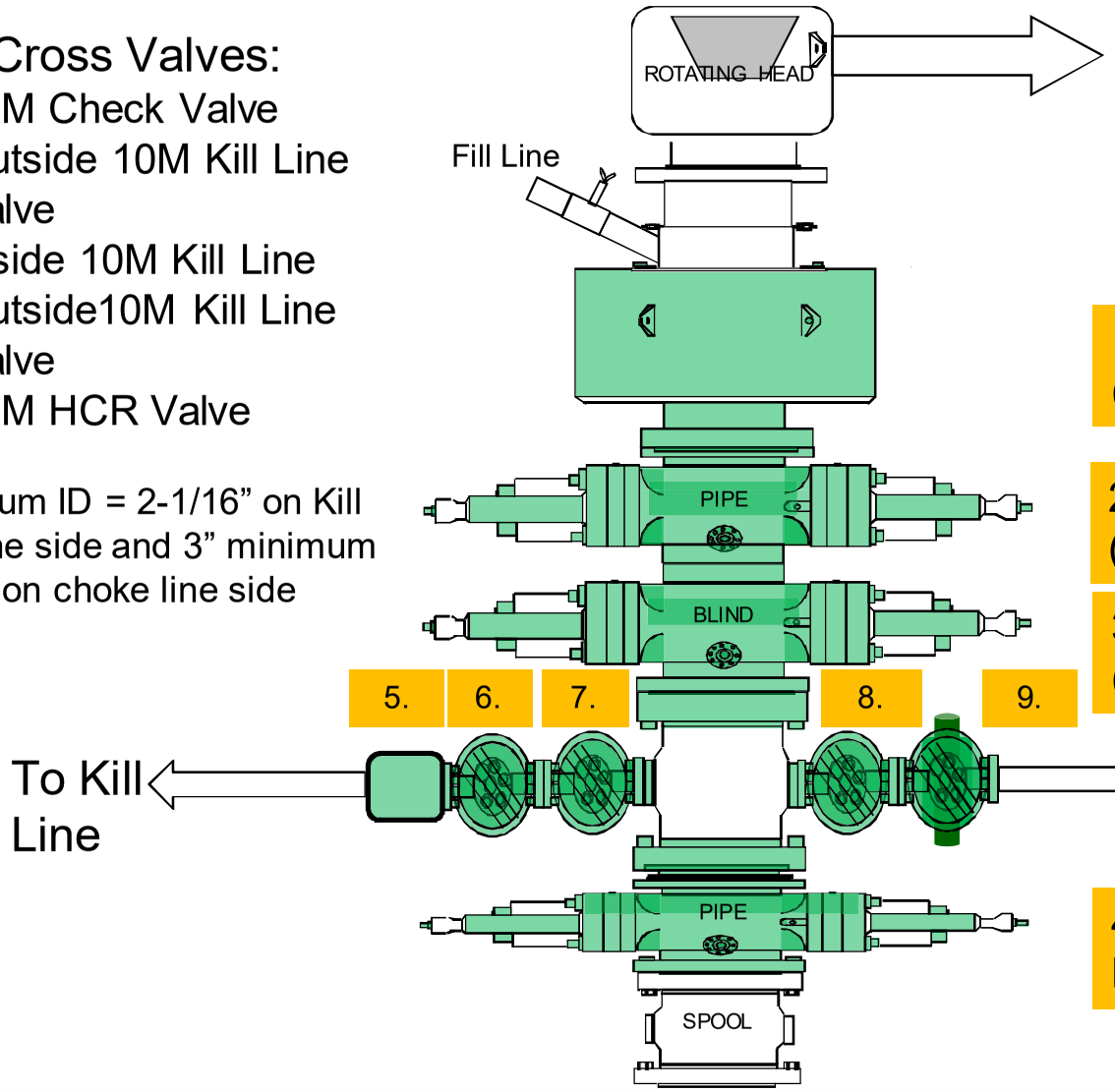


5/10M BOP Stack

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)

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

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 408215
	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.	12/3/2024
melissaguidry	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	12/3/2024
pkautz	Administrative order required for non-standard spacing unit prior to production.	12/13/2024
pkautz	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/13/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	12/13/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	12/13/2024