

Well Name: STACK CATS 25-36 FEDERAL COM	Well Location: T22S / R32E / SEC 24 / SWSE /	County or Parish/State:
Well Number: 24H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM002379	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002551754	Well Status: Approved Application for Permit to Drill	Operator: OXY USA INCORPORATED

Notice of Intent

Sundry ID: 2756257

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 10/12/2023	Time Sundry Submitted: 12:04
Date proposed operation will begin: 12/01/2023	

Procedure Description: OXY USA INC. Respectfully requests approval to make changes to our approved APD, see the following change requests below: Update Bottom Hole: from Section 36 T22S, R32E, 20' from the South and 2250' from the East, to the new location of Section 36, T22S, R32E, 20' From the South and 2555' From the West. Update the production casing from 5.5" casing, to a tapered casing 7" to 5.5". See the changes on the attached drill plan.

NOI Attachments

Procedure Description

- StackCats25_36FedCom24H_TNSWedge461_7.000in_32.00ppf_P110CY_20231012120353.pdf
- StackCats25_36FedCom24H_TNSWedge461_5.500in_20.00ppf_P110CY_20231012120347.pdf
- StackCats25_36FedCom24H_CsgCriteria_20231012120347.pdf
- StackCats25_36FedCom24H_DrillPlan_20231012120347.pdf
- StackCats25_36FedCom24H_DirectPlan_20231012120347.pdf
- StackCats25_36FedCom24H_OfflineCementVariance_20231012120347.pdf
- I10858WEL00NM_C102_STACK_CATS_25_36_FED_COM_24H_20230809_20231012120347.pdf

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Well Number: 24H	Type of Well: OIL WELL	Allottee or Tribe Name:
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Conditions of Approval

Additional

STACK_CATS_25_36_FEDERAL_COM_24H___SUNDRY_COA_20231128150143.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SARAH MCKINNEY	Signed on: OCT 12, 2023 12:04 PM
Name: OXY USA INCORPORATED	
Title: Regulatory Analyst Sr	
Street Address: 5 GREENWAY PLAZA SUITE 110	
City: HOUSTON	State: TX
Phone: (713) 215-7295	
Email address: SARAH_MCKINNEY@OXY.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY	BLM POC Title: ENGINEER
BLM POC Phone: 5759884722	BLM POC Email Address: KIMMATTY@BLM.GOV
Disposition: Approved	Disposition Date: 11/28/2023
Signature: Keith Immatty	

☐ AMENDED REPORT

OXY's Minimum Design Criteria

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

1) Casing Design Assumptions

a) Burst Loads

CSG Test (Surface)

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

CSG Test (Intermediate)

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

CSG Test (Production)

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

Gas Column (Surface)

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

Bullheading (Surface / Intermediate)

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

Gas Kick (Intermediate)

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

Tubing Leak Near Surface While Producing (Production)

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

Tubing Leak Near Surface While Stimulating (Production)

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

Injection / Stimulation Down Casing (Production)

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

b) Collapse Loads**Lost Circulation (Surface / Intermediate)**

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

- Internal: Displacement fluid density.
- External: Mud weight from TOC to surface and cement slurry weight from TOC to casing shoe.

Full Evacuation (Production)

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

c) Tension Loads**Running Casing (Surface / Intermediate / Production)**

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

Green Cement (Surface / Intermediate / Production)

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

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)

Stack Cats 25_36

Stack Cats 25_36 Fed Com 24H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

26 September, 2023

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Stack Cats 25_36 Fed Com 24H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3778.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3778.00ft
Site:	Stack Cats 25_36	North Reference:	Grid
Well:	Stack Cats 25_36 Fed Com 24H	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	Stack Cats 25_36		
Site Position:		Northing:	499,452.71 usft
From:	Map	Easting:	757,564.76 usft
Position Uncertainty:	1.00 ft	Slot Radius:	13.200 in
		Latitude:	32.371120
		Longitude:	-103.632971

Well	Stack Cats 25_36 Fed Com 24H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	2.00 ft	Wellhead Elevation:	ft
Grid Convergence:	0.38 °		
		Latitude:	32.372517
		Longitude:	-103.627353
		Ground Level:	3,753.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/16/2021	6.38	60.02	47,781.90000000

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	181.56

Plan Survey Tool Program	Date	9/26/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,523.07	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	
6,627.00	0.00	0.00	6,627.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,626.57	10.00	218.36	7,621.50	-68.20	-53.97	1.00	1.00	0.00	218.36	
10,258.58	10.00	218.36	10,213.57	-426.45	-337.46	0.00	0.00	0.00	0.00	
11,080.81	90.00	179.58	10,706.00	-994.52	-387.65	10.00	9.73	-4.72	-39.20	FTP (Stack Cats
21,523.07	90.00	179.58	10,706.00	-11,436.50	-311.11	0.00	0.00	0.00	0.00	PBHL (Stack Cats

OXY

Planning Report

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Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3778.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3778.00ft
Site:	Stack Cats 25_36	North Reference:	Grid
Well:	Stack Cats 25_36 Fed Com 24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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

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Well:	Stack Cats 25_36 Fed Com 24H	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)
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,627.00	0.00	0.00	6,627.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.73	218.36	6,700.00	-0.36	-0.29	0.37	1.00	1.00	0.00
6,800.00	1.73	218.36	6,799.97	-2.05	-1.62	2.09	1.00	1.00	0.00
6,900.00	2.73	218.36	6,899.90	-5.10	-4.04	5.21	1.00	1.00	0.00
7,000.00	3.73	218.36	6,999.74	-9.52	-7.53	9.72	1.00	1.00	0.00
7,100.00	4.73	218.36	7,099.46	-15.30	-12.11	15.63	1.00	1.00	0.00
7,200.00	5.73	218.36	7,199.05	-22.45	-17.77	22.92	1.00	1.00	0.00
7,300.00	6.73	218.36	7,298.45	-30.96	-24.50	31.61	1.00	1.00	0.00
7,400.00	7.73	218.36	7,397.66	-40.83	-32.31	41.69	1.00	1.00	0.00
7,500.00	8.73	218.36	7,496.63	-52.05	-41.19	53.15	1.00	1.00	0.00
7,600.00	9.73	218.36	7,595.33	-64.63	-51.14	66.00	1.00	1.00	0.00
7,626.57	10.00	218.36	7,621.50	-68.20	-53.97	69.64	1.00	1.00	0.00
7,700.00	10.00	218.36	7,693.82	-78.19	-61.88	79.85	0.00	0.00	0.00
7,800.00	10.00	218.36	7,792.30	-91.81	-72.65	93.75	0.00	0.00	0.00
7,900.00	10.00	218.36	7,890.79	-105.42	-83.42	107.65	0.00	0.00	0.00
8,000.00	10.00	218.36	7,989.27	-119.03	-94.19	121.55	0.00	0.00	0.00
8,100.00	10.00	218.36	8,087.75	-132.64	-104.96	135.44	0.00	0.00	0.00
8,200.00	10.00	218.36	8,186.23	-146.25	-115.73	149.34	0.00	0.00	0.00
8,300.00	10.00	218.36	8,284.72	-159.86	-126.50	163.24	0.00	0.00	0.00
8,400.00	10.00	218.36	8,383.20	-173.47	-137.28	177.14	0.00	0.00	0.00
8,500.00	10.00	218.36	8,481.68	-187.08	-148.05	191.04	0.00	0.00	0.00
8,600.00	10.00	218.36	8,580.16	-200.70	-158.82	204.94	0.00	0.00	0.00
8,700.00	10.00	218.36	8,678.64	-214.31	-169.59	218.84	0.00	0.00	0.00
8,800.00	10.00	218.36	8,777.13	-227.92	-180.36	232.74	0.00	0.00	0.00
8,900.00	10.00	218.36	8,875.61	-241.53	-191.13	246.64	0.00	0.00	0.00
9,000.00	10.00	218.36	8,974.09	-255.14	-201.90	260.54	0.00	0.00	0.00
9,100.00	10.00	218.36	9,072.57	-268.75	-212.67	274.43	0.00	0.00	0.00
9,200.00	10.00	218.36	9,171.05	-282.36	-223.44	288.33	0.00	0.00	0.00
9,300.00	10.00	218.36	9,269.54	-295.97	-234.21	302.23	0.00	0.00	0.00
9,400.00	10.00	218.36	9,368.02	-309.58	-244.98	316.13	0.00	0.00	0.00
9,500.00	10.00	218.36	9,466.50	-323.20	-255.76	330.03	0.00	0.00	0.00
9,600.00	10.00	218.36	9,564.98	-336.81	-266.53	343.93	0.00	0.00	0.00
9,700.00	10.00	218.36	9,663.46	-350.42	-277.30	357.83	0.00	0.00	0.00
9,800.00	10.00	218.36	9,761.95	-364.03	-288.07	371.73	0.00	0.00	0.00
9,900.00	10.00	218.36	9,860.43	-377.64	-298.84	385.63	0.00	0.00	0.00
10,000.00	10.00	218.36	9,958.91	-391.25	-309.61	399.53	0.00	0.00	0.00
10,100.00	10.00	218.36	10,057.39	-404.86	-320.38	413.43	0.00	0.00	0.00
10,200.00	10.00	218.36	10,155.88	-418.47	-331.15	427.32	0.00	0.00	0.00
10,258.58	10.00	218.36	10,213.57	-426.45	-337.46	435.47	0.00	0.00	0.00
10,300.00	13.46	207.04	10,254.12	-433.56	-341.89	442.70	10.00	8.36	-27.31
10,400.00	22.76	194.83	10,349.09	-462.70	-352.16	472.11	10.00	9.30	-12.21
10,500.00	32.47	189.57	10,437.61	-507.99	-361.60	517.64	10.00	9.71	-5.26
10,600.00	42.30	186.55	10,516.97	-568.05	-369.92	577.89	10.00	9.83	-3.02

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Stack Cats 25_36 Fed Com 24H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3778.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3778.00ft
Site:	Stack Cats 25_36	North Reference:	Grid
Well:	Stack Cats 25_36 Fed Com 24H	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)
10,700.00	52.19	184.49	10,584.78	-641.04	-376.87	651.06	10.00	9.89	-2.05
10,800.00	62.10	182.93	10,638.96	-724.77	-382.23	734.90	10.00	9.91	-1.56
10,900.00	72.03	181.63	10,677.88	-816.68	-385.85	826.87	10.00	9.93	-1.30
11,000.00	81.97	180.47	10,700.35	-913.97	-387.62	924.18	10.00	9.94	-1.16
11,080.81	90.00	179.58	10,706.00	-994.52	-387.65	1,004.69	10.00	9.94	-1.10
11,100.00	90.00	179.58	10,706.00	-1,013.71	-387.51	1,023.87	0.00	0.00	0.00
11,200.00	90.00	179.58	10,706.00	-1,113.71	-386.78	1,123.81	0.00	0.00	0.00
11,300.00	90.00	179.58	10,706.00	-1,213.70	-386.05	1,223.75	0.00	0.00	0.00
11,400.00	90.00	179.58	10,706.00	-1,313.70	-385.32	1,323.69	0.00	0.00	0.00
11,500.00	90.00	179.58	10,706.00	-1,413.70	-384.58	1,423.63	0.00	0.00	0.00
11,600.00	90.00	179.58	10,706.00	-1,513.70	-383.85	1,523.57	0.00	0.00	0.00
11,700.00	90.00	179.58	10,706.00	-1,613.69	-383.12	1,623.51	0.00	0.00	0.00
11,800.00	90.00	179.58	10,706.00	-1,713.69	-382.38	1,723.45	0.00	0.00	0.00
11,900.00	90.00	179.58	10,706.00	-1,813.69	-381.65	1,823.40	0.00	0.00	0.00
12,000.00	90.00	179.58	10,706.00	-1,913.68	-380.92	1,923.34	0.00	0.00	0.00
12,100.00	90.00	179.58	10,706.00	-2,013.68	-380.18	2,023.28	0.00	0.00	0.00
12,200.00	90.00	179.58	10,706.00	-2,113.68	-379.45	2,123.22	0.00	0.00	0.00
12,300.00	90.00	179.58	10,706.00	-2,213.68	-378.72	2,223.16	0.00	0.00	0.00
12,400.00	90.00	179.58	10,706.00	-2,313.67	-377.99	2,323.10	0.00	0.00	0.00
12,500.00	90.00	179.58	10,706.00	-2,413.67	-377.25	2,423.04	0.00	0.00	0.00
12,600.00	90.00	179.58	10,706.00	-2,513.67	-376.52	2,522.98	0.00	0.00	0.00
12,700.00	90.00	179.58	10,706.00	-2,613.67	-375.79	2,622.92	0.00	0.00	0.00
12,800.00	90.00	179.58	10,706.00	-2,713.66	-375.05	2,722.86	0.00	0.00	0.00
12,900.00	90.00	179.58	10,706.00	-2,813.66	-374.32	2,822.80	0.00	0.00	0.00
13,000.00	90.00	179.58	10,706.00	-2,913.66	-373.59	2,922.74	0.00	0.00	0.00
13,100.00	90.00	179.58	10,706.00	-3,013.66	-372.85	3,022.68	0.00	0.00	0.00
13,200.00	90.00	179.58	10,706.00	-3,113.65	-372.12	3,122.62	0.00	0.00	0.00
13,300.00	90.00	179.58	10,706.00	-3,213.65	-371.39	3,222.56	0.00	0.00	0.00
13,400.00	90.00	179.58	10,706.00	-3,313.65	-370.66	3,322.50	0.00	0.00	0.00
13,500.00	90.00	179.58	10,706.00	-3,413.64	-369.92	3,422.44	0.00	0.00	0.00
13,600.00	90.00	179.58	10,706.00	-3,513.64	-369.19	3,522.38	0.00	0.00	0.00
13,700.00	90.00	179.58	10,706.00	-3,613.64	-368.46	3,622.32	0.00	0.00	0.00
13,800.00	90.00	179.58	10,706.00	-3,713.64	-367.72	3,722.26	0.00	0.00	0.00
13,900.00	90.00	179.58	10,706.00	-3,813.63	-366.99	3,822.20	0.00	0.00	0.00
14,000.00	90.00	179.58	10,706.00	-3,913.63	-366.26	3,922.14	0.00	0.00	0.00
14,100.00	90.00	179.58	10,706.00	-4,013.63	-365.52	4,022.08	0.00	0.00	0.00
14,200.00	90.00	179.58	10,706.00	-4,113.63	-364.79	4,122.02	0.00	0.00	0.00
14,300.00	90.00	179.58	10,706.00	-4,213.62	-364.06	4,221.96	0.00	0.00	0.00
14,400.00	90.00	179.58	10,706.00	-4,313.62	-363.32	4,321.91	0.00	0.00	0.00
14,500.00	90.00	179.58	10,706.00	-4,413.62	-362.59	4,421.85	0.00	0.00	0.00
14,600.00	90.00	179.58	10,706.00	-4,513.62	-361.86	4,521.79	0.00	0.00	0.00
14,700.00	90.00	179.58	10,706.00	-4,613.61	-361.13	4,621.73	0.00	0.00	0.00
14,800.00	90.00	179.58	10,706.00	-4,713.61	-360.39	4,721.67	0.00	0.00	0.00
14,900.00	90.00	179.58	10,706.00	-4,813.61	-359.66	4,821.61	0.00	0.00	0.00
15,000.00	90.00	179.58	10,706.00	-4,913.60	-358.93	4,921.55	0.00	0.00	0.00
15,100.00	90.00	179.58	10,706.00	-5,013.60	-358.19	5,021.49	0.00	0.00	0.00
15,200.00	90.00	179.58	10,706.00	-5,113.60	-357.46	5,121.43	0.00	0.00	0.00
15,300.00	90.00	179.58	10,706.00	-5,213.60	-356.73	5,221.37	0.00	0.00	0.00
15,400.00	90.00	179.58	10,706.00	-5,313.59	-355.99	5,321.31	0.00	0.00	0.00
15,500.00	90.00	179.58	10,706.00	-5,413.59	-355.26	5,421.25	0.00	0.00	0.00
15,600.00	90.00	179.58	10,706.00	-5,513.59	-354.53	5,521.19	0.00	0.00	0.00
15,700.00	90.00	179.58	10,706.00	-5,613.59	-353.80	5,621.13	0.00	0.00	0.00
15,800.00	90.00	179.58	10,706.00	-5,713.58	-353.06	5,721.07	0.00	0.00	0.00
15,900.00	90.00	179.58	10,706.00	-5,813.58	-352.33	5,821.01	0.00	0.00	0.00
16,000.00	90.00	179.58	10,706.00	-5,913.58	-351.60	5,920.95	0.00	0.00	0.00

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Stack Cats 25_36 Fed Com 24H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3778.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3778.00ft
Site:	Stack Cats 25_36	North Reference:	Grid
Well:	Stack Cats 25_36 Fed Com 24H	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	90.00	179.58	10,706.00	-6,013.57	-350.86	6,020.89	0.00	0.00	0.00
16,200.00	90.00	179.58	10,706.00	-6,113.57	-350.13	6,120.83	0.00	0.00	0.00
16,300.00	90.00	179.58	10,706.00	-6,213.57	-349.40	6,220.77	0.00	0.00	0.00
16,400.00	90.00	179.58	10,706.00	-6,313.57	-348.66	6,320.71	0.00	0.00	0.00
16,500.00	90.00	179.58	10,706.00	-6,413.56	-347.93	6,420.65	0.00	0.00	0.00
16,600.00	90.00	179.58	10,706.00	-6,513.56	-347.20	6,520.59	0.00	0.00	0.00
16,700.00	90.00	179.58	10,706.00	-6,613.56	-346.47	6,620.53	0.00	0.00	0.00
16,800.00	90.00	179.58	10,706.00	-6,713.56	-345.73	6,720.48	0.00	0.00	0.00
16,900.00	90.00	179.58	10,706.00	-6,813.55	-345.00	6,820.42	0.00	0.00	0.00
17,000.00	90.00	179.58	10,706.00	-6,913.55	-344.27	6,920.36	0.00	0.00	0.00
17,100.00	90.00	179.58	10,706.00	-7,013.55	-343.53	7,020.30	0.00	0.00	0.00
17,200.00	90.00	179.58	10,706.00	-7,113.55	-342.80	7,120.24	0.00	0.00	0.00
17,300.00	90.00	179.58	10,706.00	-7,213.54	-342.07	7,220.18	0.00	0.00	0.00
17,400.00	90.00	179.58	10,706.00	-7,313.54	-341.33	7,320.12	0.00	0.00	0.00
17,500.00	90.00	179.58	10,706.00	-7,413.54	-340.60	7,420.06	0.00	0.00	0.00
17,600.00	90.00	179.58	10,706.00	-7,513.53	-339.87	7,520.00	0.00	0.00	0.00
17,700.00	90.00	179.58	10,706.00	-7,613.53	-339.14	7,619.94	0.00	0.00	0.00
17,800.00	90.00	179.58	10,706.00	-7,713.53	-338.40	7,719.88	0.00	0.00	0.00
17,900.00	90.00	179.58	10,706.00	-7,813.53	-337.67	7,819.82	0.00	0.00	0.00
18,000.00	90.00	179.58	10,706.00	-7,913.52	-336.94	7,919.76	0.00	0.00	0.00
18,100.00	90.00	179.58	10,706.00	-8,013.52	-336.20	8,019.70	0.00	0.00	0.00
18,200.00	90.00	179.58	10,706.00	-8,113.52	-335.47	8,119.64	0.00	0.00	0.00
18,300.00	90.00	179.58	10,706.00	-8,213.52	-334.74	8,219.58	0.00	0.00	0.00
18,400.00	90.00	179.58	10,706.00	-8,313.51	-334.00	8,319.52	0.00	0.00	0.00
18,500.00	90.00	179.58	10,706.00	-8,413.51	-333.27	8,419.46	0.00	0.00	0.00
18,600.00	90.00	179.58	10,706.00	-8,513.51	-332.54	8,519.40	0.00	0.00	0.00
18,700.00	90.00	179.58	10,706.00	-8,613.51	-331.81	8,619.34	0.00	0.00	0.00
18,800.00	90.00	179.58	10,706.00	-8,713.50	-331.07	8,719.28	0.00	0.00	0.00
18,900.00	90.00	179.58	10,706.00	-8,813.50	-330.34	8,819.22	0.00	0.00	0.00
19,000.00	90.00	179.58	10,706.00	-8,913.50	-329.61	8,919.16	0.00	0.00	0.00
19,100.00	90.00	179.58	10,706.00	-9,013.49	-328.87	9,019.10	0.00	0.00	0.00
19,200.00	90.00	179.58	10,706.00	-9,113.49	-328.14	9,119.04	0.00	0.00	0.00
19,300.00	90.00	179.58	10,706.00	-9,213.49	-327.41	9,218.99	0.00	0.00	0.00
19,400.00	90.00	179.58	10,706.00	-9,313.49	-326.67	9,318.93	0.00	0.00	0.00
19,500.00	90.00	179.58	10,706.00	-9,413.48	-325.94	9,418.87	0.00	0.00	0.00
19,600.00	90.00	179.58	10,706.00	-9,513.48	-325.21	9,518.81	0.00	0.00	0.00
19,700.00	90.00	179.58	10,706.00	-9,613.48	-324.48	9,618.75	0.00	0.00	0.00
19,800.00	90.00	179.58	10,706.00	-9,713.48	-323.74	9,718.69	0.00	0.00	0.00
19,900.00	90.00	179.58	10,706.00	-9,813.47	-323.01	9,818.63	0.00	0.00	0.00
20,000.00	90.00	179.58	10,706.00	-9,913.47	-322.28	9,918.57	0.00	0.00	0.00
20,100.00	90.00	179.58	10,706.00	-10,013.47	-321.54	10,018.51	0.00	0.00	0.00
20,200.00	90.00	179.58	10,706.00	-10,113.46	-320.81	10,118.45	0.00	0.00	0.00
20,300.00	90.00	179.58	10,706.00	-10,213.46	-320.08	10,218.39	0.00	0.00	0.00
20,400.00	90.00	179.58	10,706.00	-10,313.46	-319.34	10,318.33	0.00	0.00	0.00
20,500.00	90.00	179.58	10,706.00	-10,413.46	-318.61	10,418.27	0.00	0.00	0.00
20,600.00	90.00	179.58	10,706.00	-10,513.45	-317.88	10,518.21	0.00	0.00	0.00
20,700.00	90.00	179.58	10,706.00	-10,613.45	-317.15	10,618.15	0.00	0.00	0.00
20,800.00	90.00	179.58	10,706.00	-10,713.45	-316.41	10,718.09	0.00	0.00	0.00
20,900.00	90.00	179.58	10,706.00	-10,813.45	-315.68	10,818.03	0.00	0.00	0.00
21,000.00	90.00	179.58	10,706.00	-10,913.44	-314.95	10,917.97	0.00	0.00	0.00
21,100.00	90.00	179.58	10,706.00	-11,013.44	-314.21	11,017.91	0.00	0.00	0.00
21,200.00	90.00	179.58	10,706.00	-11,113.44	-313.48	11,117.85	0.00	0.00	0.00
21,300.00	90.00	179.58	10,706.00	-11,213.44	-312.75	11,217.79	0.00	0.00	0.00
21,400.00	90.00	179.58	10,706.00	-11,313.43	-312.01	11,317.73	0.00	0.00	0.00
21,500.00	90.00	179.58	10,706.00	-11,413.43	-311.28	11,417.67	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Stack Cats 25_36 Fed Com 24H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3778.00ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3778.00ft
Site:	Stack Cats 25_36	North Reference:	Grid
Well:	Stack Cats 25_36 Fed Com 24H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,523.07	90.00	179.58	10,706.00	-11,436.50	-311.11	11,440.73	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
KOP (Stack Cats	0.00	0.00	10,213.56	-594.51	-390.52	499,377.65	758,905.38	32.370890	-103.628631
- plan misses target center by 173.40ft at 10313.41ft MD (10267.13 TVD, -436.50 N, -343.30 E)									
- Point									
PBHL (Stack Cats	0.00	0.00	10,706.00	-11,436.50	-311.11	488,536.08	758,984.78	32.341089	-103.628605
- plan hits target center									
- Point									
FTP (Stack Cats	0.00	0.01	10,706.00	-994.52	-387.65	498,977.66	758,908.24	32.369790	-103.628630
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,014.00	1,014.00	RUSTLER				
1,696.00	1,696.00	SALADO				
3,436.00	3,436.00	CASTILE				
4,943.00	4,943.00	DELAWARE				
4,998.00	4,998.00	BELL CANYON				
5,784.00	5,784.00	CHERRY CANYON				
7,105.56	7,105.00	BRUSHY CANYON				
8,766.36	8,744.00	BONE SPRING				
9,886.36	9,847.00	BONE SPRING 1ST				
10,622.06	10,533.00	BONE SPRING 2ND				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,627.00	6,627.00	0.00	0.00	Build 1°/100'
7,626.57	7,621.50	-68.20	-53.97	Hold 10° Tangent
10,258.58	10,213.57	-426.45	-337.46	KOP, Build 10°/100'
11,080.81	10,706.00	-994.52	-387.65	Landing Point
21,523.07	10,706.00	-11,436.50	-311.11	TD at 21523.07' MD

Oxy USA Inc. - Stack Cats 25_36 Fed Com 24H Drill Plan

1. Geologic Formations

TVD of Target (ft):	10706	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	21523	Deepest Expected Fresh Water (ft):	1023

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	1023	1023	
Salado	1703	1703	Salt
Castile	3414	3414	Salt
Delaware	4958	4958	Oil/Gas/Brine
Bell Canyon	5018	5018	Oil/Gas/Brine
Cherry Canyon	5785	5785	Oil/Gas/Brine
Brushy Canyon	7112	7112	Losses
Bone Spring	8767	8749	Oil/Gas
Bone Spring 1st	9889	9854	Oil/Gas
Bone Spring 2nd	10596	10541	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

Section	Hole Size (in)	MD		TVD		Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
		From (ft)	To (ft)	From (ft)	To (ft)				
Surface	17.5	0	1083	0	1083	13.375	54.5	J-55	BTC
Salt	12.25	0	6612	0	6612	9.625	40	L-80 HC	BTC
Production	8.5	0	10709	0	10460	7	32	P-110	Wedge 461
Production	8.5	10709	21523	10460	10706	5.5	20	P-110	Wedge 461

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

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

Annular Clearance Variance Request

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

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

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft ³ /ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	1131	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate - Tail	141	1.33	14.8	20%	6,112	Circulate	Class C+Accel.
Int.	1	Intermediate - Lead	1593	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Prod.	1	Production - Tail	2418	1.38	13.2	15%	7,362	Circulate	Class H+Ret., Disper., Salt
Prod.	2	Production 2S - Tail BH	696	1.71	13.3	50%	-	Bradenhead	Class C+Accel.

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.

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type		✓	Tested to:	TVD Depth (ft) per Section:
12.25" Hole	13-5/8"	5M	Annular		✓	70% of working pressure	6612
		5M	Blind Ram		✓	250 psi / 5000 psi	
			Pipe Ram				
			Double Ram		✓		
			Other*				
8.5" Hole	13-5/8"	5M	Annular		✓	70% of working pressure	10706
		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		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	1083	0	1083	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	1083	6612	1083	6612	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	6612	21523	6612	10706	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	5345 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	166°F

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

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

N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 3 well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes
Total Estimated Cuttings Volume: 2175 bbls	

Offline Cementing Variance Request

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

1. Cement Program

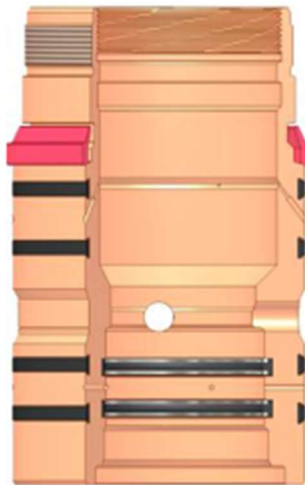
No changes to the cement program will take place for offline cementing.

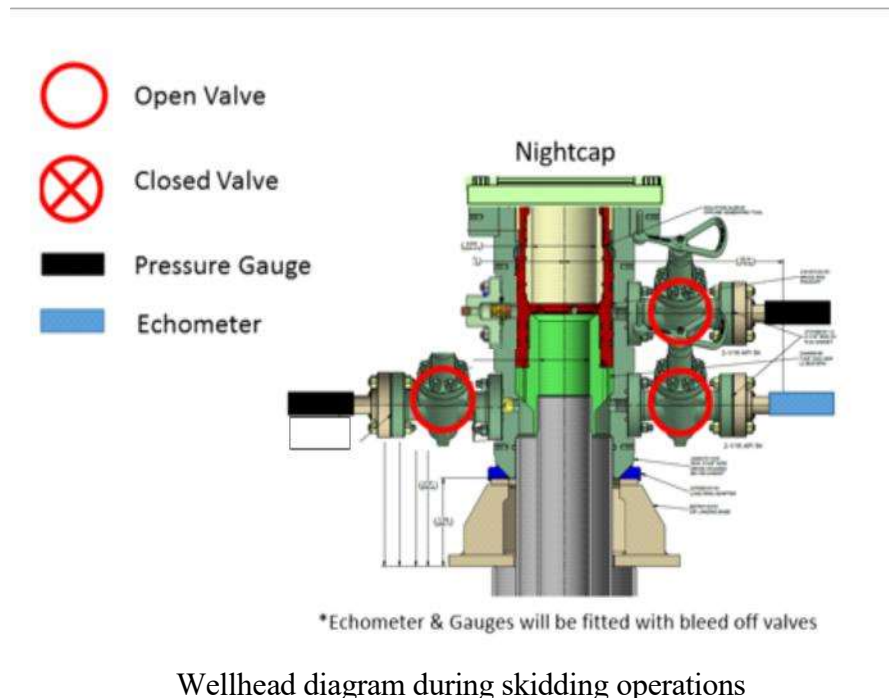
2. Offline Cementing Procedure

The operational sequence will be as follows:

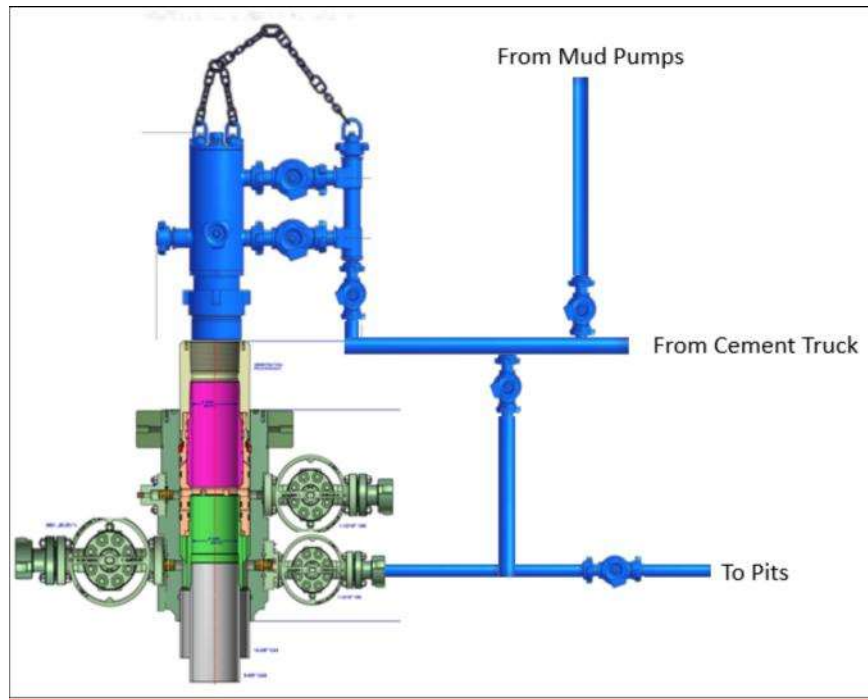
1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular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

Annular packoff with both external and internal seals





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



Wellhead diagram during offline cementing operations

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

Production Casing Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from 43 CFR part 3170 Subpart 3172 under the following conditions:

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



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



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

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

Pipe Body Data

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

Connection Data

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

Notes

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



TenarisHydril Wedge 461®



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.000 in.	Wall Thickness	0.453 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.000 in.	Wall Thickness	0.453 in.	Body Yield Strength	1025 x1000 lb
Nominal Weight	32 lb/ft	Plain End Weight	31.70 lb/ft	Min. Internal Yield Pressure	12,460 psi
Drift	5.969 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	6.094 in.			Collapse Pressure	10,780 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.750 in.	Tension Efficiency	100 %	Minimum	20,000 ft-lb
Coupling Length	8.914 in.	Joint Yield Strength	1025 x1000 lb	Optimum	21,000 ft-lb
Connection ID	6.094 in.	Internal Pressure Capacity	12,460 psi	Maximum	25,200 ft-lb
Make-up Loss	4.375 in.	Compression Efficiency	100 %	Operation Limit Torques	
Threads per inch	3.40	Compression Strength	1025 x1000 lb	Operating Torque	61,000 ft-lb
Connection OD Option	Regular	Max. Allowable Bending	72 °/100 ft	Yield Torque	72,000 ft-lb
		External Pressure Capacity	10,780 psi	Buck-On	
		Coupling Face Load	269,000 lb	Minimum	25,200 ft-lb
				Maximum	26,700 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 461® - 7 in. - 0.317 / 0.362 / 0.408 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version
In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable

For the latest performance data, always visit our website: www.tenaris.com

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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CONDITIONS

Action 289699

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 289699
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/17/2024