Well Name	Well Number	US Well Number	Lease Number	Case Number	Operator
KESTREL 1_12	33H	3002548972	NMNM077090	NMNM077090	OXY USA
KESTREL 1_12	31H	3002548970	NMNM077090	NMNM077090	OXY USA
SAKER 6-7	35H	3002548936	NMNM14164	NMNM14164	OXY USA
KESTREL 1_12	32H	3002548971	NMNM077090	NMNM077090	OXY USA
SAKER 6-7	31H	3002548932	NMNM14164	NMNM14164	OXY USA
SAKER 6-7	36H	3002548937	NMNM14164	NMNM14164	OXY USA

Notice of Intent

Sundry ID: 2711944

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/20/2023

Time Sundry Submitted: 01:40

Date proposed operation will begin: 05/01/2023

Procedure Description: OXY USA Inc. respectfully requests approval for the 2-string w/ liner (OXY Falcon) casing design on the subject well(s) AAPD(s). The well with the deepest TVD is the Saker 6-7 Fed Com 31H at 12341'TVD. The attachments included are for that well. (remaining well info provided upon request) Note: Kestrel 1-12 Fed Com 31H is also requesting to run wireline logs in the intermediate so that drill plan is also included.

NOI Attachments

Procedure Description

SpecSheets_20230120133810.pdf

Saker6_7FedCom31H_OxyWellControlPlan_20230120133801.pdf

Saker6_7FedCom31H_BOP_WH_20230120133749.pdf

Saker6_7FedCom31H_DirectPlanPlot_20230120133737.pdf

Saker6_7FedCom31H_FalconSL1ContingencyTiebackDetails_20230120133721.pdf

Kestrel1_12FedCom31H_DrillPlan_20230120133017.pdf

Saker6_7FedCom31H_DrillPlan_20230120132957.pdf

Conditions of Approval

Authorized

FALCON_DESIGN__KESTREL_AND_SAKER_SUNDRY_COA_20230203155535.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: LESLIE REEVES **Signed on:** JAN 20, 2023 01:37 PM

Name: OXY USA INCORPORATED

Title: Advisor Regulatory

Street Address: 5 GREENWAY PLAZA, SUITE 110

City: HOUSTON **State:** TX

Phone: (713) 497-2492

Email address: LESLIE_REEVES@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:** 02/03/2023

Signature: KEITH IMMATTY

OXY USA WTP LP

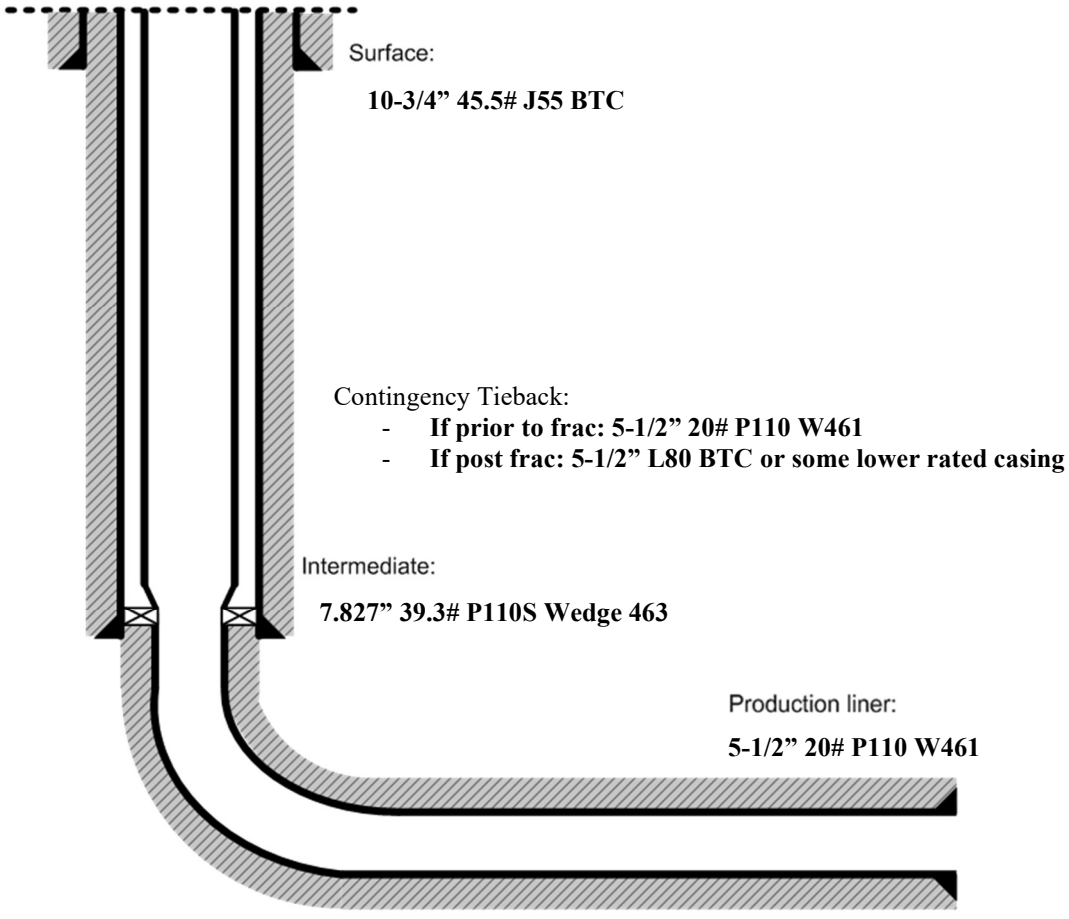
Falcon SL1 Contingnecy Tieback Details

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 14-3/4” hole x 10-3/4” casing for surface section. Cement to surface.
- Drill 9-7/8” hole x 7.827” casing for intermediate section. Cement to surface.
- Drill 6-3/4” hole x 5-1/2” liner for production section. Cement to top of liner, 100’ inside 7.827” shoe.
- Release drilling rig from location.

- If contingency tieback required pre-frac:
    - Move in workover rig and run a 5-1/2” 20# P110 Wedge 461 tie-back frac string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
    - Pump hydraulic fracture job.
    - Flowback and produce well.
- If contingency tieback required post-frac:
    - Move in workover rig and run a 5-1/2” L80 BTC or lesser rated tie-back string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
    - Return well to production.

General well schematic:



TenarisHydril

7.827" 39.30 lb/ft P110-S TenarisHydril Wedge 461®

Preliminary
Special Data Sheet
TH DS-22.5154.01
04 May 2022

Customer: OXY

Nominal OD	7.827 in.	**Wall Thickness**	0.500 in.	**Grade**	P110-S
Min Wall Thickness	87.5%	**Type**	CASING	**Connection OD Option**	REGULAR

Pipe Body Data

Geometry				Performance	
Nominal OD	7.827 in.	**Nominal ID**	6.827 in.	**Body Yield Strength**	1266 x 1000 lbs
Nominal Weight	39.30 lbs/ft	**Wall Thickness**	0.500 in.	**Internal Yield**	12300 psi
Special Drift Diameter	6.750 in.	**Plain End Weight**	39.16 lbs/ft	**SMYS**	110000 psi
		OD Tolerance	API	**Collapse Pressure**	10490 psi

Connection Data

Geometry		Performance		Make-up Torques	
Connection OD	8.500 in.	**Tension Efficiency**	100%	**Minimum**	22000 ft-lbs
Connection ID	6.827 in.	**Joint Yield Strength**	1266 x 1000 lbs	**Optimum**	23000 ft-lbs
Make-up Loss	4.380 in.	**Internal Yield**	12300 psi	**Maximum**	27000 ft-lbs
Threads per in.	3.40	**Compression Efficiency**	100%	Operational Limit Torques	
Connection OD Option	REGULAR	**Compression Strength**	1266 x 1000 lbs	**Operating Torque**	48000 ft-lbs
Coupling Length	8.872 in.	**Bending**	64 °/100 ft	**Yield Torque**	57000 ft-lbs
		Collapse	10490 psi	Buck-On Torques	
		Coupling Face Load	528000 lbs	**Minimum**	26000 ft-lbs
				Maximum	27000 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

1. Important Note: 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.

TenarisHydril

7.827" 39.30 lb/ft P110-S TenarisHydril Wedge 463®

Preliminary
Special Data Sheet
TH DS-22.6519.00
21 December 2022

Nominal OD	7.827 in.	**Wall Thickness**	0.500 in.	**Grade**	P110-S
Min Wall Thickness	87.5%	**Type**	CASING	**Connection OD Option**	REGULAR

Pipe Body Data

Geometry				Performance	
Nominal OD	7.827 in.	**Nominal ID**	6.827 in.	**Body Yield Strength**	1266 x 1000 lbs
Nominal Weight	39.30 lbs/ft	**Wall Thickness**	0.500 in.	**Internal Yield**	12300 psi
Standard Drift Diameter	6.702 in.	**Plain End Weight**	39.16 lbs/ft	**SMYS**	110000 psi
		OD Tolerance	API	**Collapse Pressure**	10490 psi

Connection Data

Geometry		Performance		Make-up Torques	
Connection OD	8.650 in.	**Tension Efficiency**	100%	**Minimum**	21000 ft-lbs
Connection ID	6.827 in.	**Joint Yield Strength**	1266 x 1000 lbs	**Optimum**	22000 ft-lbs
Make-up Loss	4.480 in.	**Internal Yield**	12300 psi	**Maximum**	26400 ft-lbs
Threads per in.	3.25	**Compression Efficiency**	100%	**Operational Limit Torques**	
Connection OD Option	REGULAR	**Compression Strength**	1266 x 1000 lbs	**Operating Torque**	61600 ft-lbs
Coupling Length	10.950 in.	**Bending**	64 °/100 ft	**Yield Torque**	72500 ft-lbs
		Collapse	10490 psi	**Buck-On Torques**	
				Minimum	26400 ft-lbs
				Maximum	27900 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

1. Important Note: In October 2019, TenarisHydril Wedge XP® 2.0 GT® was renamed TenarisHydril Wedge 463®. Product dimensions and properties remain identical and both connections are fully interchangeable.

Tenaris

TenarisHydril Wedge 425®

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	5.500 in.	**Wall Thickness**	0.361 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	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	641 x1000 lb
Nominal Weight	20 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	12,640 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	11,100 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.777 in.	**Tension Efficiency**	90 %	**Minimum**	15,700 ft-lb
Connection ID	4.734 in.	**Joint Yield Strength**	577 x1000 lb	**Optimum**	19,600 ft-lb
Make-up Loss	5.823 in.	**Internal Pressure Capacity**	12,640 psi	**Maximum**	21,600 ft-lb
Threads per inch	3.77	**Compression Efficiency**	90 %		
Connection OD Option	Regular	**Compression Strength**	577 x1000 lb	**Operation Limit Torques**	
		Max. Allowable Bending	82 °/100 ft	**Operating Torque**	29,000 ft-lb
		External Pressure Capacity	11,100 psi	**Yield Torque**	36,000 ft-lb

Notes

This connection is fully interchangeable with:
TORQ® SFW™ - 5.5 in. - 0.361 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

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

Tenaris

TenarisHydril Wedge 441®

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	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-CY
Min. Wall Thickness	87.50 %	**Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	641 x1000 lb
Nominal Weight	20 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	12,640 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	11,100 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.852 in.	**Tension Efficiency**	81.50 %	**Minimum**	15,000 ft-lb
Coupling Length	8.714 in.	**Joint Yield Strength**	522 x1000 lb	**Optimum**	16,000 ft-lb
Connection ID	4.778 in.	**Internal Pressure Capacity**	12,640 psi	**Maximum**	19,200 ft-lb
Make-up Loss	3.780 in.	**Compression Efficiency**	81.50 %		
Threads per inch	3.40	**Compression Strength**	522 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	71 °/100 ft	**Operating Torque**	32,000 ft-lb
		External Pressure Capacity	11,100 psi	**Yield Torque**	38,000 ft-lb
				Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

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

TenarisHydril

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

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

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

Pipe Body Data

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

Connection Data

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

Notes

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

Oxy USA Inc. - Saker 6_7 Fed Com 31H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	12341	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	22447	Deepest Expected Fresh Water (ft):	864

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	864	864	
Salado	1112	1112	Salt
Castile	3453	3453	Salt
Delaware	5245	5245	Oil/Gas/Brine
Bell Canyon	5297	5297	Oil/Gas/Brine
Cherry Canyon	6170	6168	Oil/Gas/Brine
Brushy Canyon	7578	7536	Losses
Bone Spring	8822	8732	Oil/Gas
Bone Spring 1st	9962	9828	Oil/Gas
Bone Spring 2nd	10463	10309	Oil/Gas
Bone Spring 3rd	11489	11296	Oil/Gas
Wolfcamp	11742	11538	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	14.75	0	924	0	924	10.75	45.5	J-55	BTC
Intermediate	9.875	0	11507	0	11309	7.827	39.3	P110S	Wedge 463
Production	6.75	11407	22447	11209	12341	5.5	20	P-110	Wedge 461

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

*Oxy requests the option to run production casing with DQX, TORQ DQW, Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

All Casing SF Values will meet or exceed those below			
SF Collapse	**SF Burst**	**Body SF Tension**	**Joint SF Tension**
1.125	1.2	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 from Onshore Order #2 under the following conditions:

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	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	773	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	463	1.65	13.2	5%	7,828	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	1115	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	834	1.38	13.2	25%	11,407	Circulate	Class H+Ret., Disper., Salt

Cement Top and Liner Overlap

- Oxy is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 100 ft into previous casing string
  - The reason for this is so that we can come back and develop shallower benches from the same 7.625" mainbore in the future
- Cement will be brought to the top of this liner hanger

Offline Cementing

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.

The summarized operational sequence will be as follows:
Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
Land casing.
Fill pipe with kill weight fluid, and confirm well is static.
If well 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.

The summarized 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.
3. Fill pipe with kill weight fluid, and confirm well is static.
   a. If well is not static notify BLM and kill well.
   b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
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.

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

Three string wells:

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

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	11309
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	100% of working pressure	12341
		10M	Blind Ram	✓	250 psi / 10000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

	Formation integrity test will be performed per Onshore Order #2.	
	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
	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 Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. 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.

BOP break test under the following conditions:
- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.

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

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

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	924	0	924	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	924	11507	924	11309	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	11507	22447	11309	12341	Water-Based or Oil-Based Mud	9.5 - 12.5	38-50	N/C

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

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

6. Logging and Testing Procedures

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

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8022 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	179°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 Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	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: 1683 bbls

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Flex III Attachments
_x__ Spudder Rig Attachment
_x__ Premium Connection Specs

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Derek Adam	Drilling Engineer Supervisor	713-366-5170	916-802-8873
Casey Martin	Drilling Superintendent	713-497-2530	337-764-4278
Kevin Threadgill	Drilling Manager	713-366-5958	361-815-0788

Oxy USA Inc. - Kestrel 1-12 Fed Com 31H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	12286	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	22331	Deepest Expected Fresh Water (ft):	901

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	901	901	
Salado	1195	1195	Salt
Castile	3535	3535	Salt
Delaware	5268	5268	Oil/Gas/Brine
Bell Canyon	5321	5321	Oil/Gas/Brine
Cherry Canyon	6185	6183	Oil/Gas/Brine
Brushy Canyon	7586	7558	Losses
Bone Spring	8805	8750	Oil/Gas
Bone Spring 1st	9928	9848	Oil/Gas
Bone Spring 2nd	10443	10352	Oil/Gas
Bone Spring 3rd	11429	11317	Oil/Gas
Wolfcamp	11692	11574	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	14.75	0	961	0	961	10.75	45.5	J-55	BTC
Intermediate	9.875	0	11316	0	11204	7.827	39.3	P110S	Wedge 463
Production	6.75	11216	22331	11104	12286	5.5	20	P-110	Wedge 461

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

*Oxy requests the option to run production casing with DQX, TORQ DQW, Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

All Casing SF Values will meet or exceed those below			
SF Collapse	**SF Burst**	**Body SF Tension**	**Joint SF Tension**
1.125	1.2	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 from Onshore Order #2 under the following conditions:

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	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	804	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	438	1.65	13.2	5%	7,836	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	1116	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	840	1.38	13.2	25%	11,216	Circulate	Class H+Ret., Disper., Salt

Cement Top and Liner Overlap

- Oxy is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 100 ft into previous casing string
  - The reason for this is so that we can come back and develop shallower benches from the same 7.625" mainbore in the future
- Cement will be brought to the top of this liner hanger

Offline Cementing

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.

The summarized operational sequence will be as follows:
Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
Land casing.
Fill pipe with kill weight fluid, and confirm well is static.
If well 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.

The summarized 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.
3. Fill pipe with kill weight fluid, and confirm well is static.
   a. If well is not static notify BLM and kill well.
   b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
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.

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

Three string wells:

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

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	11204
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	100% of working pressure	12286
		10M	Blind Ram	✓	250 psi / 10000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

	Formation integrity test will be performed per Onshore Order #2.	
	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
	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 Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. 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.

BOP break test under the following conditions:
- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.

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

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

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	961	0	961	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	961	11316	961	11204	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	11316	22331	11204	12286	Water-Based or Oil-Based Mud	9.5 - 12.5	38-50	N/C

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

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

6. Logging and Testing Procedures

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

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7986 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	179°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 Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	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: 1672 bbls

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Flex III Attachments
_x__ Spudder Rig Attachment
_x__ Premium Connection Specs

9. Company Personnel

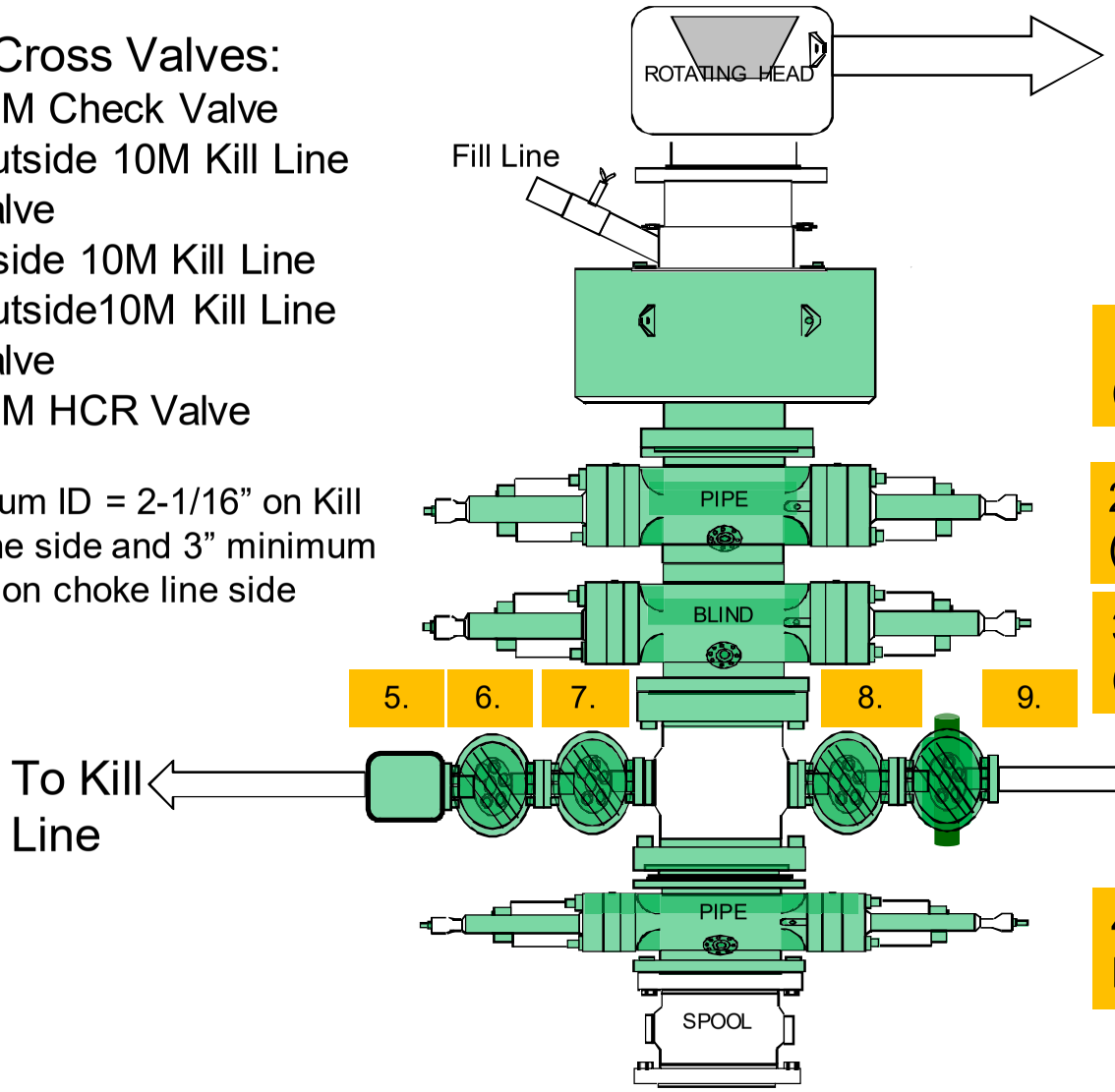
Name	Title	Office Phone	Mobile Phone
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Derek Adam	Drilling Engineer Supervisor	713-366-5170	916-802-8873
Casey Martin	Drilling Superintendent	713-497-2530	337-764-4278
Kevin Threadgill	Drilling Manager	713-366-5958	361-815-0788

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

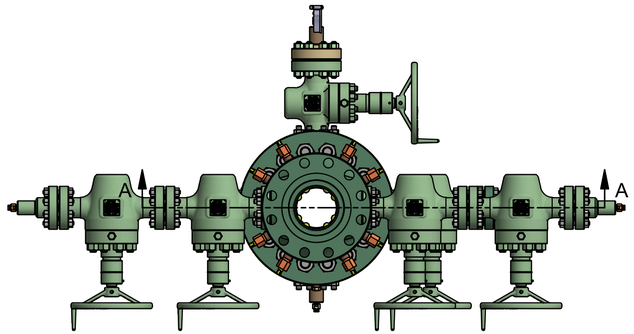


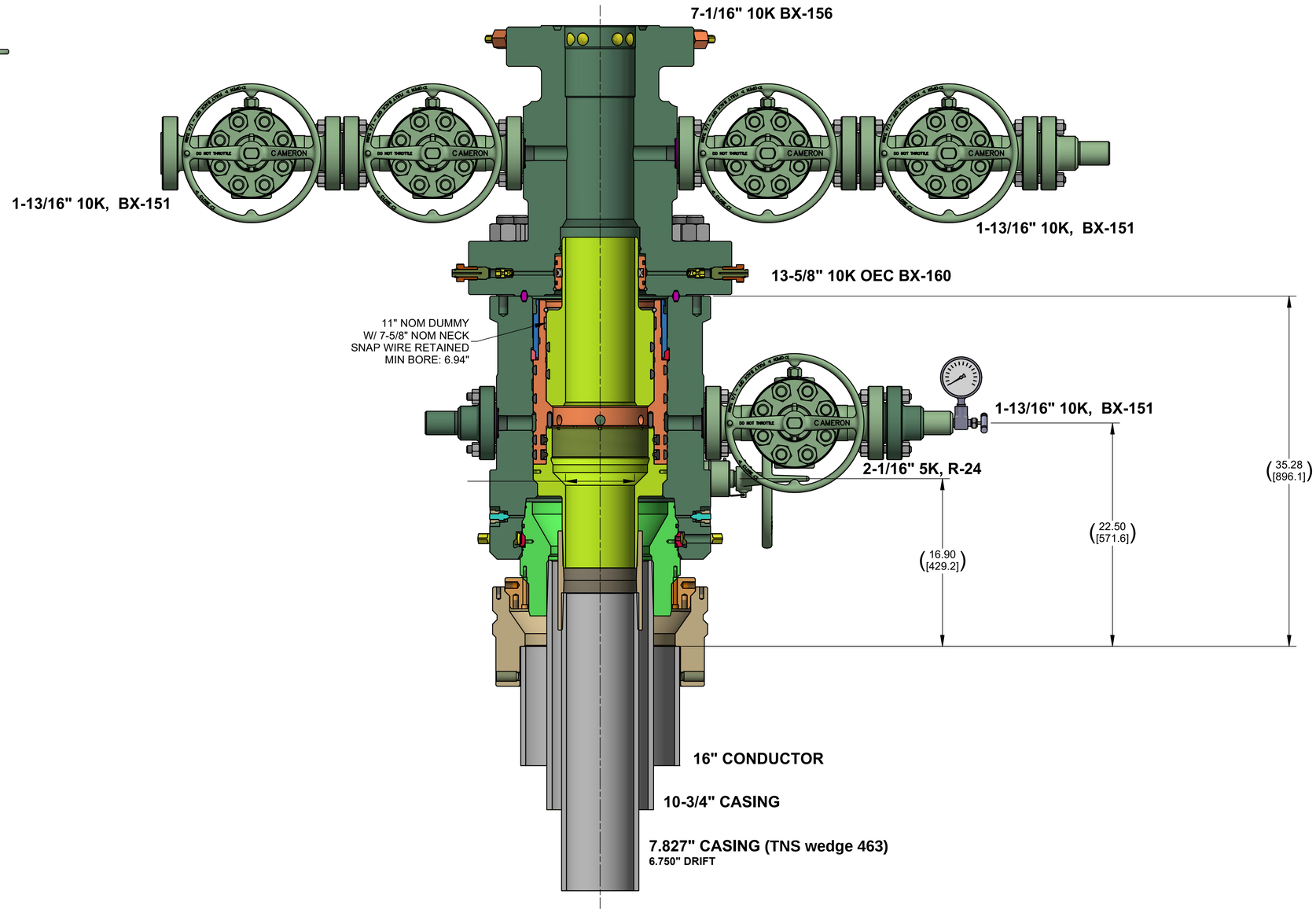
1. 5,000 psi Annular (13-5/8” ID)

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)





Notes:

1. THIS IS A PROPOSAL DRAWING AND DIMENSIONS SHOWN ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.

2. DIGITALLY ENABLED SOLUTIONS, CHOKES AND ESD'S AVAILABLE ON REQUEST

CONFIDENTIAL

SURFACE TREATMENT	DO NOT SCALE		CAMERON A Schlumberger Company	SURFACE SYSTEMS
	DRAWN BY: JC GONZALEZ	DATE 27 Jan 22		
MATERIAL & HEAT TREAT	CHECKED BY: JC GONZALEZ	DATE 27 Jan 22	OXY 13-5/8" 10K ADAPT 16" X 10-3/4" X 7.788" X DUMMY	
	APPROVED BY: Z WALTERS	DATE 27 Jan 22		
ESTIMATED WEIGHT:	6302.5 LBS 2858.8 KG	INITIAL USE B/M: EWR 650531668	SHEET 1 OF 1	SD-053847-52-02 REV: 01

INVENTOR - D

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Saker 6_7
Saker 6_7 Fed Com 31H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

11 December, 2022

OXY

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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 Saker 6_7

Site Position:		**Northing:**	457,094.74 usft	**Latitude:**	32.253262
From:	Map	**Easting:**	826,474.44 usft	**Longitude:**	-103.410974
Position Uncertainty:	1.00 ft	**Slot Radius:**	13.200 in		

Well Saker 6_7 Fed Com 31H

Well Position	**+N/-S**	0.00 ft	**Northing:**	457,101.07 usf	**Latitude:**	32.253264
	+E/-W	0.00 ft	**Easting:**	827,129.31 usf	**Longitude:**	-103.408856
Position Uncertainty		1.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,449.70 ft
Grid Convergence:		0.49 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	12/31/2019	6.60	59.87	47,828.60000000

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	188.44

Plan Survey Tool Program **Date** 12/11/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,446.77	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	
5,440.00	0.00	0.00	5,440.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,040.39	16.00	275.23	7,019.66	20.25	-221.14	1.00	1.00	0.00	275.23	
11,607.13	16.00	275.23	11,409.41	135.08	-1,474.95	0.00	0.00	0.00	0.00	
12,502.77	87.90	179.48	11,976.82	-418.83	-1,625.93	10.00	8.03	-10.69	-96.11	
22,446.77	87.90	179.48	12,341.20	-10,355.74	-1,536.13	0.00	0.00	0.00	0.00	PBHL (Saker 6_7

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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)
5,440.00	0.00	0.00	5,440.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.60	275.23	5,500.00	0.03	-0.31	0.02	1.00	1.00	0.00
5,600.00	1.60	275.23	5,599.98	0.20	-2.22	0.12	1.00	1.00	0.00
5,700.00	2.60	275.23	5,699.91	0.54	-5.87	0.33	1.00	1.00	0.00
5,800.00	3.60	275.23	5,799.76	1.03	-11.26	0.63	1.00	1.00	0.00
5,900.00	4.60	275.23	5,899.51	1.68	-18.38	1.03	1.00	1.00	0.00
6,000.00	5.60	275.23	5,999.11	2.49	-27.23	1.53	1.00	1.00	0.00
6,100.00	6.60	275.23	6,098.54	3.46	-37.81	2.12	1.00	1.00	0.00
6,200.00	7.60	275.23	6,197.77	4.59	-50.12	2.81	1.00	1.00	0.00
6,300.00	8.60	275.23	6,296.77	5.88	-64.15	3.60	1.00	1.00	0.00
6,400.00	9.60	275.23	6,395.51	7.32	-79.90	4.48	1.00	1.00	0.00
6,500.00	10.60	275.23	6,493.96	8.92	-97.37	5.47	1.00	1.00	0.00
6,600.00	11.60	275.23	6,592.09	10.67	-116.54	6.54	1.00	1.00	0.00
6,700.00	12.60	275.23	6,689.87	12.58	-137.41	7.71	1.00	1.00	0.00
6,800.00	13.60	275.23	6,787.27	14.65	-159.98	8.98	1.00	1.00	0.00
6,900.00	14.60	275.23	6,884.25	16.87	-184.24	10.34	1.00	1.00	0.00
7,000.00	15.60	275.23	6,980.80	19.25	-210.18	11.80	1.00	1.00	0.00
7,040.39	16.00	275.23	7,019.66	20.25	-221.14	12.41	1.00	1.00	0.00
7,100.00	16.00	275.23	7,076.96	21.75	-237.50	13.33	0.00	0.00	0.00
7,200.00	16.00	275.23	7,173.08	24.27	-264.96	14.87	0.00	0.00	0.00
7,300.00	16.00	275.23	7,269.21	26.78	-292.41	16.41	0.00	0.00	0.00
7,400.00	16.00	275.23	7,365.33	29.29	-319.87	17.95	0.00	0.00	0.00
7,500.00	16.00	275.23	7,461.46	31.81	-347.32	19.49	0.00	0.00	0.00
7,600.00	16.00	275.23	7,557.58	34.32	-374.78	21.04	0.00	0.00	0.00
7,700.00	16.00	275.23	7,653.71	36.84	-402.23	22.58	0.00	0.00	0.00
7,800.00	16.00	275.23	7,749.83	39.35	-429.69	24.12	0.00	0.00	0.00
7,900.00	16.00	275.23	7,845.95	41.87	-457.15	25.66	0.00	0.00	0.00
8,000.00	16.00	275.23	7,942.08	44.38	-484.60	27.20	0.00	0.00	0.00
8,100.00	16.00	275.23	8,038.20	46.90	-512.06	28.74	0.00	0.00	0.00
8,200.00	16.00	275.23	8,134.33	49.41	-539.51	30.28	0.00	0.00	0.00
8,300.00	16.00	275.23	8,230.45	51.92	-566.97	31.82	0.00	0.00	0.00
8,400.00	16.00	275.23	8,326.58	54.44	-594.42	33.36	0.00	0.00	0.00
8,500.00	16.00	275.23	8,422.70	56.95	-621.88	34.91	0.00	0.00	0.00
8,600.00	16.00	275.23	8,518.82	59.47	-649.33	36.45	0.00	0.00	0.00
8,700.00	16.00	275.23	8,614.95	61.98	-676.79	37.99	0.00	0.00	0.00
8,800.00	16.00	275.23	8,711.07	64.50	-704.24	39.53	0.00	0.00	0.00
8,900.00	16.00	275.23	8,807.20	67.01	-731.70	41.07	0.00	0.00	0.00
9,000.00	16.00	275.23	8,903.32	69.53	-759.16	42.61	0.00	0.00	0.00
9,100.00	16.00	275.23	8,999.45	72.04	-786.61	44.15	0.00	0.00	0.00
9,200.00	16.00	275.23	9,095.57	74.55	-814.07	45.69	0.00	0.00	0.00
9,300.00	16.00	275.23	9,191.69	77.07	-841.52	47.23	0.00	0.00	0.00
9,400.00	16.00	275.23	9,287.82	79.58	-868.98	48.77	0.00	0.00	0.00
9,500.00	16.00	275.23	9,383.94	82.10	-896.43	50.32	0.00	0.00	0.00
9,600.00	16.00	275.23	9,480.07	84.61	-923.89	51.86	0.00	0.00	0.00
9,700.00	16.00	275.23	9,576.19	87.13	-951.34	53.40	0.00	0.00	0.00
9,800.00	16.00	275.23	9,672.32	89.64	-978.80	54.94	0.00	0.00	0.00
9,900.00	16.00	275.23	9,768.44	92.16	-1,006.25	56.48	0.00	0.00	0.00
10,000.00	16.00	275.23	9,864.56	94.67	-1,033.71	58.02	0.00	0.00	0.00
10,100.00	16.00	275.23	9,960.69	97.18	-1,061.16	59.56	0.00	0.00	0.00
10,200.00	16.00	275.23	10,056.81	99.70	-1,088.62	61.10	0.00	0.00	0.00
10,300.00	16.00	275.23	10,152.94	102.21	-1,116.08	62.64	0.00	0.00	0.00
10,400.00	16.00	275.23	10,249.06	104.73	-1,143.53	64.19	0.00	0.00	0.00
10,500.00	16.00	275.23	10,345.19	107.24	-1,170.99	65.73	0.00	0.00	0.00
10,600.00	16.00	275.23	10,441.31	109.76	-1,198.44	67.27	0.00	0.00	0.00
10,700.00	16.00	275.23	10,537.43	112.27	-1,225.90	68.81	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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)
10,800.00	16.00	275.23	10,633.56	114.78	-1,253.35	70.35	0.00	0.00	0.00
10,900.00	16.00	275.23	10,729.68	117.30	-1,280.81	71.89	0.00	0.00	0.00
11,000.00	16.00	275.23	10,825.81	119.81	-1,308.26	73.43	0.00	0.00	0.00
11,100.00	16.00	275.23	10,921.93	122.33	-1,335.72	74.97	0.00	0.00	0.00
11,200.00	16.00	275.23	11,018.06	124.84	-1,363.17	76.51	0.00	0.00	0.00
11,300.00	16.00	275.23	11,114.18	127.36	-1,390.63	78.05	0.00	0.00	0.00
11,400.00	16.00	275.23	11,210.30	129.87	-1,418.09	79.60	0.00	0.00	0.00
11,500.00	16.00	275.23	11,306.43	132.39	-1,445.54	81.14	0.00	0.00	0.00
11,600.00	16.00	275.23	11,402.55	134.90	-1,473.00	82.68	0.00	0.00	0.00
11,607.13	16.00	275.23	11,409.41	135.08	-1,474.95	82.79	0.00	0.00	0.00
11,700.00	17.56	243.11	11,498.51	129.90	-1,500.26	91.63	10.00	1.68	-34.59
11,800.00	23.51	219.82	11,592.26	107.70	-1,526.55	117.44	10.00	5.95	-23.29
11,900.00	31.49	206.62	11,680.97	68.93	-1,551.09	159.39	10.00	7.98	-13.21
12,000.00	40.31	198.52	11,761.94	14.77	-1,573.12	216.20	10.00	8.82	-8.10
12,100.00	49.52	192.97	11,832.71	-53.14	-1,591.97	286.14	10.00	9.21	-5.55
12,200.00	58.93	188.78	11,891.13	-132.72	-1,607.08	367.08	10.00	9.41	-4.19
12,300.00	68.44	185.35	11,935.42	-221.57	-1,617.97	456.56	10.00	9.52	-3.43
12,400.00	78.02	182.35	11,964.24	-316.99	-1,624.33	551.88	10.00	9.58	-3.00
12,500.00	87.63	179.56	11,976.71	-416.06	-1,625.96	650.12	10.00	9.61	-2.79
12,502.77	87.90	179.48	11,976.82	-418.83	-1,625.93	652.85	10.00	9.62	-2.75
12,600.00	87.90	179.48	11,980.38	-515.99	-1,625.05	748.84	0.00	0.00	0.00
12,700.00	87.90	179.48	11,984.04	-615.92	-1,624.15	847.55	0.00	0.00	0.00
12,800.00	87.90	179.48	11,987.71	-715.85	-1,623.25	946.27	0.00	0.00	0.00
12,900.00	87.90	179.48	11,991.37	-815.78	-1,622.35	1,044.98	0.00	0.00	0.00
13,000.00	87.90	179.48	11,995.04	-915.71	-1,621.44	1,143.70	0.00	0.00	0.00
13,100.00	87.90	179.48	11,998.70	-1,015.64	-1,620.54	1,242.41	0.00	0.00	0.00
13,200.00	87.90	179.48	12,002.36	-1,115.57	-1,619.64	1,341.13	0.00	0.00	0.00
13,300.00	87.90	179.48	12,006.03	-1,215.49	-1,618.73	1,439.84	0.00	0.00	0.00
13,400.00	87.90	179.48	12,009.69	-1,315.42	-1,617.83	1,538.56	0.00	0.00	0.00
13,500.00	87.90	179.48	12,013.36	-1,415.35	-1,616.93	1,637.27	0.00	0.00	0.00
13,600.00	87.90	179.48	12,017.02	-1,515.28	-1,616.02	1,735.99	0.00	0.00	0.00
13,700.00	87.90	179.48	12,020.69	-1,615.21	-1,615.12	1,834.70	0.00	0.00	0.00
13,800.00	87.90	179.48	12,024.35	-1,715.14	-1,614.22	1,933.41	0.00	0.00	0.00
13,900.00	87.90	179.48	12,028.02	-1,815.07	-1,613.31	2,032.13	0.00	0.00	0.00
14,000.00	87.90	179.48	12,031.68	-1,915.00	-1,612.41	2,130.84	0.00	0.00	0.00
14,100.00	87.90	179.48	12,035.34	-2,014.92	-1,611.51	2,229.56	0.00	0.00	0.00
14,200.00	87.90	179.48	12,039.01	-2,114.85	-1,610.61	2,328.27	0.00	0.00	0.00
14,300.00	87.90	179.48	12,042.67	-2,214.78	-1,609.70	2,426.99	0.00	0.00	0.00
14,400.00	87.90	179.48	12,046.34	-2,314.71	-1,608.80	2,525.70	0.00	0.00	0.00
14,500.00	87.90	179.48	12,050.00	-2,414.64	-1,607.90	2,624.42	0.00	0.00	0.00
14,600.00	87.90	179.48	12,053.67	-2,514.57	-1,606.99	2,723.13	0.00	0.00	0.00
14,700.00	87.90	179.48	12,057.33	-2,614.50	-1,606.09	2,821.85	0.00	0.00	0.00
14,800.00	87.90	179.48	12,060.99	-2,714.43	-1,605.19	2,920.56	0.00	0.00	0.00
14,900.00	87.90	179.48	12,064.66	-2,814.35	-1,604.28	3,019.28	0.00	0.00	0.00
15,000.00	87.90	179.48	12,068.32	-2,914.28	-1,603.38	3,117.99	0.00	0.00	0.00
15,100.00	87.90	179.48	12,071.99	-3,014.21	-1,602.48	3,216.71	0.00	0.00	0.00
15,200.00	87.90	179.48	12,075.65	-3,114.14	-1,601.57	3,315.42	0.00	0.00	0.00
15,300.00	87.90	179.48	12,079.32	-3,214.07	-1,600.67	3,414.14	0.00	0.00	0.00
15,400.00	87.90	179.48	12,082.98	-3,314.00	-1,599.77	3,512.85	0.00	0.00	0.00
15,500.00	87.90	179.48	12,086.65	-3,413.93	-1,598.86	3,611.57	0.00	0.00	0.00
15,600.00	87.90	179.48	12,090.31	-3,513.86	-1,597.96	3,710.28	0.00	0.00	0.00
15,700.00	87.90	179.48	12,093.97	-3,613.78	-1,597.06	3,809.00	0.00	0.00	0.00
15,800.00	87.90	179.48	12,097.64	-3,713.71	-1,596.16	3,907.71	0.00	0.00	0.00
15,900.00	87.90	179.48	12,101.30	-3,813.64	-1,595.25	4,006.43	0.00	0.00	0.00
16,000.00	87.90	179.48	12,104.97	-3,913.57	-1,594.35	4,105.14	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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	87.90	179.48	12,108.63	-4,013.50	-1,593.45	4,203.86	0.00	0.00	0.00
16,200.00	87.90	179.48	12,112.30	-4,113.43	-1,592.54	4,302.57	0.00	0.00	0.00
16,300.00	87.90	179.48	12,115.96	-4,213.36	-1,591.64	4,401.29	0.00	0.00	0.00
16,400.00	87.90	179.48	12,119.62	-4,313.29	-1,590.74	4,500.00	0.00	0.00	0.00
16,500.00	87.90	179.48	12,123.29	-4,413.21	-1,589.83	4,598.72	0.00	0.00	0.00
16,600.00	87.90	179.48	12,126.95	-4,513.14	-1,588.93	4,697.43	0.00	0.00	0.00
16,700.00	87.90	179.48	12,130.62	-4,613.07	-1,588.03	4,796.15	0.00	0.00	0.00
16,800.00	87.90	179.48	12,134.28	-4,713.00	-1,587.12	4,894.86	0.00	0.00	0.00
16,900.00	87.90	179.48	12,137.95	-4,812.93	-1,586.22	4,993.57	0.00	0.00	0.00
17,000.00	87.90	179.48	12,141.61	-4,912.86	-1,585.32	5,092.29	0.00	0.00	0.00
17,100.00	87.90	179.48	12,145.27	-5,012.79	-1,584.42	5,191.00	0.00	0.00	0.00
17,200.00	87.90	179.48	12,148.94	-5,112.72	-1,583.51	5,289.72	0.00	0.00	0.00
17,300.00	87.90	179.48	12,152.60	-5,212.64	-1,582.61	5,388.43	0.00	0.00	0.00
17,400.00	87.90	179.48	12,156.27	-5,312.57	-1,581.71	5,487.15	0.00	0.00	0.00
17,500.00	87.90	179.48	12,159.93	-5,412.50	-1,580.80	5,585.86	0.00	0.00	0.00
17,600.00	87.90	179.48	12,163.60	-5,512.43	-1,579.90	5,684.58	0.00	0.00	0.00
17,700.00	87.90	179.48	12,167.26	-5,612.36	-1,579.00	5,783.29	0.00	0.00	0.00
17,800.00	87.90	179.48	12,170.93	-5,712.29	-1,578.09	5,882.01	0.00	0.00	0.00
17,900.00	87.90	179.48	12,174.59	-5,812.22	-1,577.19	5,980.72	0.00	0.00	0.00
18,000.00	87.90	179.48	12,178.25	-5,912.15	-1,576.29	6,079.44	0.00	0.00	0.00
18,100.00	87.90	179.48	12,181.92	-6,012.07	-1,575.38	6,178.15	0.00	0.00	0.00
18,200.00	87.90	179.48	12,185.58	-6,112.00	-1,574.48	6,276.87	0.00	0.00	0.00
18,300.00	87.90	179.48	12,189.25	-6,211.93	-1,573.58	6,375.58	0.00	0.00	0.00
18,400.00	87.90	179.48	12,192.91	-6,311.86	-1,572.68	6,474.30	0.00	0.00	0.00
18,500.00	87.90	179.48	12,196.58	-6,411.79	-1,571.77	6,573.01	0.00	0.00	0.00
18,600.00	87.90	179.48	12,200.24	-6,511.72	-1,570.87	6,671.73	0.00	0.00	0.00
18,700.00	87.90	179.48	12,203.90	-6,611.65	-1,569.97	6,770.44	0.00	0.00	0.00
18,800.00	87.90	179.48	12,207.57	-6,711.58	-1,569.06	6,869.16	0.00	0.00	0.00
18,900.00	87.90	179.48	12,211.23	-6,811.50	-1,568.16	6,967.87	0.00	0.00	0.00
19,000.00	87.90	179.48	12,214.90	-6,911.43	-1,567.26	7,066.59	0.00	0.00	0.00
19,100.00	87.90	179.48	12,218.56	-7,011.36	-1,566.35	7,165.30	0.00	0.00	0.00
19,200.00	87.90	179.48	12,222.23	-7,111.29	-1,565.45	7,264.02	0.00	0.00	0.00
19,300.00	87.90	179.48	12,225.89	-7,211.22	-1,564.55	7,362.73	0.00	0.00	0.00
19,400.00	87.90	179.48	12,229.56	-7,311.15	-1,563.64	7,461.45	0.00	0.00	0.00
19,500.00	87.90	179.48	12,233.22	-7,411.08	-1,562.74	7,560.16	0.00	0.00	0.00
19,600.00	87.90	179.48	12,236.88	-7,511.01	-1,561.84	7,658.88	0.00	0.00	0.00
19,700.00	87.90	179.48	12,240.55	-7,610.93	-1,560.93	7,757.59	0.00	0.00	0.00
19,800.00	87.90	179.48	12,244.21	-7,710.86	-1,560.03	7,856.30	0.00	0.00	0.00
19,900.00	87.90	179.48	12,247.88	-7,810.79	-1,559.13	7,955.02	0.00	0.00	0.00
20,000.00	87.90	179.48	12,251.54	-7,910.72	-1,558.23	8,053.73	0.00	0.00	0.00
20,100.00	87.90	179.48	12,255.21	-8,010.65	-1,557.32	8,152.45	0.00	0.00	0.00
20,200.00	87.90	179.48	12,258.87	-8,110.58	-1,556.42	8,251.16	0.00	0.00	0.00
20,300.00	87.90	179.48	12,262.53	-8,210.51	-1,555.52	8,349.88	0.00	0.00	0.00
20,400.00	87.90	179.48	12,266.20	-8,310.44	-1,554.61	8,448.59	0.00	0.00	0.00
20,500.00	87.90	179.48	12,269.86	-8,410.36	-1,553.71	8,547.31	0.00	0.00	0.00
20,600.00	87.90	179.48	12,273.53	-8,510.29	-1,552.81	8,646.02	0.00	0.00	0.00
20,700.00	87.90	179.48	12,277.19	-8,610.22	-1,551.90	8,744.74	0.00	0.00	0.00
20,800.00	87.90	179.48	12,280.86	-8,710.15	-1,551.00	8,843.45	0.00	0.00	0.00
20,900.00	87.90	179.48	12,284.52	-8,810.08	-1,550.10	8,942.17	0.00	0.00	0.00
21,000.00	87.90	179.48	12,288.19	-8,910.01	-1,549.19	9,040.88	0.00	0.00	0.00
21,100.00	87.90	179.48	12,291.85	-9,009.94	-1,548.29	9,139.60	0.00	0.00	0.00
21,200.00	87.90	179.48	12,295.51	-9,109.87	-1,547.39	9,238.31	0.00	0.00	0.00
21,300.00	87.90	179.48	12,299.18	-9,209.79	-1,546.49	9,337.03	0.00	0.00	0.00
21,400.00	87.90	179.48	12,302.84	-9,309.72	-1,545.58	9,435.74	0.00	0.00	0.00
21,500.00	87.90	179.48	12,306.51	-9,409.65	-1,544.68	9,534.46	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Saker 6_7 Fed Com 31H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3476.20ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3476.20ft
Site:	Saker 6_7	**North Reference:**	Grid
Well:	Saker 6_7 Fed Com 31H	**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)
21,600.00	87.90	179.48	12,310.17	-9,509.58	-1,543.78	9,633.17	0.00	0.00	0.00
21,700.00	87.90	179.48	12,313.84	-9,609.51	-1,542.87	9,731.89	0.00	0.00	0.00
21,800.00	87.90	179.48	12,317.50	-9,709.44	-1,541.97	9,830.60	0.00	0.00	0.00
21,900.00	87.90	179.48	12,321.16	-9,809.37	-1,541.07	9,929.32	0.00	0.00	0.00
22,000.00	87.90	179.48	12,324.83	-9,909.30	-1,540.16	10,028.03	0.00	0.00	0.00
22,100.00	87.90	179.48	12,328.49	-10,009.23	-1,539.26	10,126.75	0.00	0.00	0.00
22,200.00	87.90	179.48	12,332.16	-10,109.15	-1,538.36	10,225.46	0.00	0.00	0.00
22,300.00	87.90	179.48	12,335.82	-10,209.08	-1,537.45	10,324.18	0.00	0.00	0.00
22,400.00	87.90	179.48	12,339.49	-10,309.01	-1,536.55	10,422.89	0.00	0.00	0.00
22,446.77	87.90	179.48	12,341.20	-10,355.74	-1,536.13	10,469.06	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 (Saker 6_7 Fed - plan misses target center by 202.33ft at 12100.00ft MD (11832.71 TVD, -53.14 N, -1591.97 E) - Point	0.00	0.00	11,976.20	84.22	-1,630.48	457,185.29	825,498.83	32.253534	-103.414128
PBHL (Saker 6_7 Fed - plan hits target center - Point	0.00	0.00	12,341.20	-10,355.74	-1,536.13	446,745.32	825,593.18	32.224837	-103.414111

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
864.20	864.20	RUSTLER			
1,112.20	1,112.20	SALADO			
3,453.20	3,453.20	CASTILE			
5,245.20	5,245.20	DELAWARE			
5,297.20	5,297.20	BELL CANYON			
6,170.17	6,168.20	CHERRY CANYON			
7,577.76	7,536.20	BRUSHY CANYON			
8,821.98	8,732.20	BONE SPRING			
9,962.17	9,828.20	BONE SPRING 1ST			
10,462.56	10,309.20	BONE SPRING 2ND			
11,489.36	11,296.20	BONE SPRING 3RD			
11,741.87	11,538.20	WOLFCAMP			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,440.00	5,440.00	0.00	0.00	Build 1°/100'
7,040.39	7,019.66	20.25	-221.14	Hold 16° Tangent
11,607.13	11,409.41	135.08	-1,474.95	KOP, Build & Turn 10°/100'
12,502.77	11,976.82	-418.83	-1,625.93	Landing Point
22,446.77	12,341.20	-10,355.74	-1,536.13	TD at 22446.77' MD

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: Saker 6_7
Well: Saker 6_7 Fed Com 31H
Wellbore: Wellbore #1
Design: Permitting Plan

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

System Datum: Mean Sea Level

WELL DETAILS: Saker 6_7 Fed Com 31H

3449.70

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	457101.07	827129.31	32.253264	-103.408856

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5440.00	0.00	0.00	5440.00	0.00	0.00	0.00	0.00	0.00	Build 1°/100'
7040.39	16.00	275.23	7019.66	20.25	-221.14	1.00	275.23	12.41	Hold 16° Tangent
11607.13	16.00	275.23	11409.41	135.08	-1474.95	0.00	0.00	82.79	KOP, Build & Turn 10°/100'
12502.77	87.90	179.48	11976.81	-418.83	-1625.93	10.00	-96.11	652.85	Landing Point
22446.77	87.90	179.48	12341.20	-10355.74	-1536.13	0.00	0.00	10469.06	TD at 22446.77' MD

Azimuths to Grid North
True North: -0.49°
Magnetic North: 6.11°

Magnetic Field
Strength: 47828.6nT
Dip Angle: 59.87°
Date: 12/31/2019
Model: HDGM_FILE

Oxy Well Control Plan

A. Component and Preventer Compatibility Table

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

Pilot hole and Lateral sections, 10M requirement

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

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

B. Well Control Procedures

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

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative

7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

General Procedure While Tripping

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

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan.
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
3. Confirm shut-in
4. Notify tool pusher/company representative

5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

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

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the compatible pipe ram
    d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify tool pusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario
    c. If impossible to pick up high enough to pull the string clear of the stack
    d. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
    e. Space out drill string with tool joint just beneath the upper pipe ram

f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
g. Confirm shut-in
h. Notify tool pusher/company representative
i. Read and record the following:
    i. SIDPP and SICP
    ii. Pit gain
    iii. Time

j. Regroup and identify forward plan

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

ALL PREVIOUS COAs STILL APPLY

Operator: Oxy USA Incorporated				
Batch Sundry ID: 2711944				
Well Name	Well Number	USWN	Lease Number	ULSTR
Saker 6-7 Federal Com	31H	3002548932	NMNM14164	C-6-24S-35E
Saker 6-7 Federal Com	36H	3002548937	NMNM14164	C-6-24S-35E
Saker 6-7 Federal Com	35H	3002548936	NMNM14164	C-6-24S-35E
Kestrel 1_12 Federal Com	31H	3002548970	NMNM077090	A-1-24S-34E
Kestrel 1_12 Federal Com	32H	3002548971	NMNM077090	A-1-24S-34E
Kestrel 1_12 Federal Com	33H	3002548972	NMNM077090	A-1-24S-34E

COA

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

Logs and data gathered should be attached with the Subsequent Report for the interval.

A. CASING

Alternate casing design COA is written for the deepest well in the batch which represents the worst case scenario. COA applies to wells in the sundry with the same casing specs, drilling fluids program and appropriate cement programs.

COA for the proposed Falcon Design (2-string + production liner):

- Tie Back of the liner should be a minimum of 200' into the previous casing
- Surface and Intermediate cement to surface should be verified visually. If cement fallback is suspected, an Echo-meter can be run to verify cement top in the intermediate and a temp log may be run in the surface interval. CBL should be run if confidence is lacking in the surface or intermediate cement job. The proposed falcon design (2-string +

production liner) is only approved when surface and intermediate sections are cemented to surface. Operator to revert to 3-string design when surface or intermediate cementing is of poor quality or not verified to surface
- Region 2 NACE certified intermediate casing must be used
- A third-party verification (such as thread rep or torque turn) must be conducted to ensure the connection makeups are to spec for the intermediate casing string exposed to frac pressures
- Corrosion inhibitors must be used in areas with corrosive production fluids
- Operator should actively monitor annulus during the completion phase. Wells should be monitored in a manner capable of identifying a casing leak or liner top packer leak, within an acceptable time frame while on production. Remedial work may be required to restore intermediate casing integrity or liner top packer integrity in a failure event
- BLM should be notified if cement is not verified to the liner top
- Surface location must NOT be located within SOPA, KPLA, Capitan Reef or High Cave Karst

Alternate Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **961** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

2. The **7.827** inch intermediate casing shall be set at approximately **11,316** feet The minimum required fill of cement behind the **7.827** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

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

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

b. Second stage above DV tool:

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

Operator has proposed to pump down 7.827" X 5-1/2" 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 7.827" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

3. The **5-1/2** inch production liner shall be set at approximately **22,331** feet. **The proposal tie-back is only a 100'. A minimum 200' tie back of production liner into the intermediate casing is required.** The minimum required fill of cement behind the **5-1/2** inch production liner is:

- Cement should tie-back **200 feet** into the previous casing. Operator shall provide method of verification.
- Operator has proposed 10% excess instead of 25% excess recommendation for the liner design and this is acceptable. Losses may need to be cured and pump rates may need to be modified to achieve cement tieback when losses occur or are anticipated in the production interval

GENERAL REQUIREMENTS

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

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

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

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

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the

requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

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

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead 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).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the 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.)

c. 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 Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

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

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

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

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KPI – 02/03/2023

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 182928

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 182928
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	2/22/2023