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

Sundry Print Report

03/07/2024

Well Name: CORRAL GORGE 12-13 FEDERAL COM

Well Location: T25S / R29E / SEC 12 / NENW / 32.150496 / -103.940183

County or Parish/State: EDDY / NM

Well Number: 71H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM15303

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547186

Well Status: Unapproved Application for Permit to Drill

Operator: OXY USA INCORPORATED

Notice of Intent

Sundry ID: 2765065

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 12/07/2023

Time Sundry Submitted: 01:55

Date proposed operation will begin: 08/21/2024

Procedure Description: PLEASE SEE ATTACHED OXY APD CHANGE SUNDRY LIST THAT HIGHLIGHTS CHANGES AND ATTACHMENTS. GENERAL CHANGE DOCUMENTS ARE COMBINED INTO 1 PDF FILE AND WELL SPECIFIC DOCUMENTS ARE INDIVIDUAL ATTACHMENTS. SHL moving by 109' to the south 49' to the west and there is no additional surface disturbance related to this sundry.

NOI Attachments

Procedure Description

OXY_APD_CHANGE_SUNDRY_LIST_71h_20231211071757.pdf

I10817WEL01NM_CORRAL_GORGE_12_13_FED_COM_71H_SITE_PLAN_20231207135451.pdf

GENERAL_ATTACHEMENTS_20231207135448.pdf

CorralGorge12_13FedCom71H_DrillPlan_20231207135446.pdf

I10817WEL00NM_CORRAL_GORGE_12_13_FED_COM_71H_C_102_20231207135446.pdf

CorralGorge12_13FedCom71H_TNSWedge463_7.827in_39.30ppf_P110S_20231207135445.pdf

CorralGorge12_13FedCom71H_DirectPlan_20231207135445.pdf

CorralGorge12_13FedCom71H_TNSWedge461_5.500in_20.00ppf_P110CY_20231207135445.pdf

Well Name: CORRAL GORGE 12-13 FEDERAL COM

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Operator: OXY USA INCORPORATED

Conditions of Approval

Additional

FALCON_DESIGN___CORRAL_GORGE_12_13_FED_COM_71H___SUNDRY_COA_20240302112054.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: FEB 27, 2024 08:13 AM

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: 03/04/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Office

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.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Location of Well

0. SHL: NENW / 540 FNL / 1987 FWL / TWSP: 25S / RANGE: 29E / SECTION: 12 / LAT: 32.150496 / LONG: -103.940183 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 5 FNL / 929 FWL / TWSP: 25S / RANGE: 29E / SECTION: 13 / LAT: 32.137364 / LONG: -103.943547 (TVD: 9485 feet, MD: 15229 feet)

PPP: NWNW / 100 FNL / 940 FWL / TWSP: 25S / RANGE: 29E / SECTION: 12 / LAT: 32.151684 / LONG: -103.943573 (TVD: 9493 feet, MD: 10020 feet)

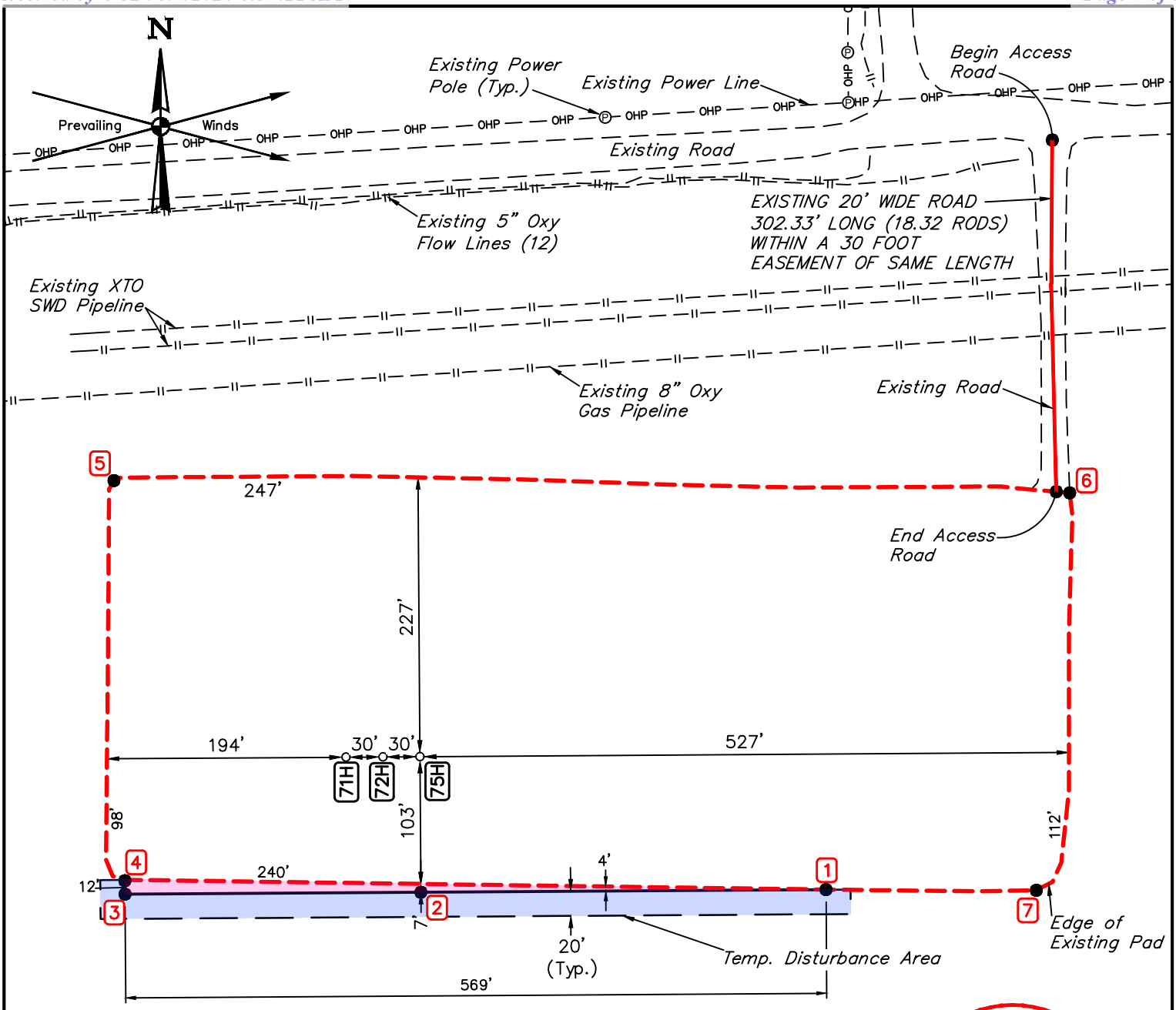
BHL: SWSW / 20 FSL / 940 FWL / TWSP: 25S / RANGE: 29E / SECTION: 13 / LAT: 32.122812 / LONG: -103.94352 (TVD: 9476 feet, MD: 20524 feet)

OXY APD CHANGE SUNDRY LIST

DATE	12/7/2023
WELL NAME	CORRAL GORGE 12_13 FED COM 71H
API NUMBER	30-015-47186
SPUD DATE	8/21/2024

ITEM	PREVIOUS	UPDATE
NAME	NA	
NSL	NA	
SHL	540 FNL, 1987 FWL	649 FNL, 1938 FWL
PAD	NA	
BHL	20 FSL, 940 FWL	20 FSL, 450 FWL
HSU SIZE, ACRES	640	320
POOL	NA	
TARGET FORMATION	NA	
TVD	9493'	9489'
SURFACE CASING	40.5#	45.5#
INTERMEDIATE CASING	7.625" 26.4# L-80 HC, BTC	7.875" 39.3# P110S, WEDGE 463
INTERMEDIATE 2 CASING	NA	
PRODUCTION CASING	CASING TO SURFACE, DQX	PRODUCTION LINER, WEDGE 461
LINER OR TIE BACK	NA	NEW
CEMENT	NA	
FACILITIES	NA	
OTHER	NA	

OTHER COMMENTS
THE SHL, BHL, HSU, TVD, SURF CSG, INT CSG, AND PRODUCTION CSG ARE CHANGING. A PRODUCTION LINER WILL BE INSTALLED INSTEAD OF A FULL PRODUCTION CASING STRING TO SURFACE.
ATTACHEMENTS
The C-102, SITE PLAN, DRILL PLAN, CASING CONNECTIONS, DIRECTIONAL PLAN AND A CONTINGENCY TIE BACK ARE ATTACHED. GENERAL ATTACHEMENTS SUCH AS THE UPDATED VARIANCE REQUESTS FOR BOP BREAK TESTING, BRADENHEAD CBL, AND OFFLINE CEMENT ARE ATTACHED.



CORRAL GORGE 12-13 FED COM 71H 649' FNL 1938' FWL
CORRAL GORGE 12-13 FED COM 72H 649' FNL 1968' FWL
CORRAL GORGE 12-13 FED COM 75H 649' FNL 1998' FWL

Temporary Disturbance	
Pad Expansion	

PAUL BUCHELE
NEW MEXICO
23782
09-26-23
PROFESSIONAL SURVEYOR

Sheet 1 of 2

FAA PERMIT: NO

REV: 1 09-26-23 D.J.S. (CORRECT WELL NAME)

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

OXY USA INC.

CEDCAN_25S29E_1206
NE 1/4 NW 1/4, SECTION 12, T25S, R29E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	C.T., K.H.	08-10-23	SCALE
DRAWN BY	T.J.S.	09-06-23	1" = 120'

SITE PLAN

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

71H - EL: 3122.4'
NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.70" (32.150196°)
LONGITUDE = -103°56'25.23" (-103.940341°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.26" (32.150072°)
LONGITUDE = -103°56'23.48" (-103.939856°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418598.50' E: 662961.90'
STATE PLANE NAD 27 (N.M. EAST)
N: 418540.12' E: 621777.23'

72H - EL: 3122.4'
NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.71" (32.150196°)
LONGITUDE = -103°56'24.88" (-103.940244°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.26" (32.150072°)
LONGITUDE = -103°56'23.13" (-103.939759°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418598.83' E: 662991.89'
STATE PLANE NAD 27 (N.M. EAST)
N: 418540.45' E: 621807.22'

75H - EL: 3122.5'
NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.71" (32.150197°)
LONGITUDE = -103°56'24.53" (-103.940147°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'00.26" (32.150073°)
LONGITUDE = -103°56'22.78" (-103.939662°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418599.15' E: 663021.88'
STATE PLANE NAD 27 (N.M. EAST)
N: 418540.77' E: 621837.21'

1 - EL: 3125.0'
NAD 83
LATITUDE = 32°08'59.64" (32.149901°)
LONGITUDE = -103°56'20.70" (-103.939082°)
NAD 27
LATITUDE = 32°08'59.20" (32.149777°)
LONGITUDE = -103°56'18.95" (-103.938598°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418492.71' E: 663351.73'
STATE PLANE NAD 27 (N.M. EAST)
N: 418434.34' E: 622167.06'

2 - EL: 3123.3'
NAD 83
LATITUDE = 32°08'59.62" (32.149894°)
LONGITUDE = -103°56'24.52" (-103.940144°)
NAD 27
LATITUDE = 32°08'59.17" (32.149771°)
LONGITUDE = -103°56'22.77" (-103.939659°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418489.18' E: 663023.14'
STATE PLANE NAD 27 (N.M. EAST)
N: 418430.80' E: 621838.47'

3 - EL: 3120.3'
NAD 83
LATITUDE = 32°08'59.60" (32.149890°)
LONGITUDE = -103°56'27.31" (-103.940920°)
NAD 27
LATITUDE = 32°08'59.16" (32.149766°)
LONGITUDE = -103°56'25.57" (-103.940435°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418486.60' E: 662783.13'
STATE PLANE NAD 27 (N.M. EAST)
N: 418428.22' E: 621598.46'

4 - EL: 3122.7'
NAD 83
LATITUDE = 32°08'59.72" (32.149922°)
LONGITUDE = -103°56'27.31" (-103.940920°)
NAD 27
LATITUDE = 32°08'59.27" (32.149798°)
LONGITUDE = -103°56'25.57" (-103.940435°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418498.27' E: 662783.00'
STATE PLANE NAD 27 (N.M. EAST)
N: 418439.89' E: 621598.33'

5 - EL: 3123.3'
NAD 83
LATITUDE = 32°09'02.93" (32.150813°)
LONGITUDE = -103°56'27.42" (-103.940949°)
NAD 27
LATITUDE = 32°09'02.48" (32.150689°)
LONGITUDE = -103°56'25.67" (-103.940464°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418822.29' E: 662772.75'
STATE PLANE NAD 27 (N.M. EAST)
N: 418763.90' E: 621588.09'

6 - EL: 3130.2'
NAD 83
LATITUDE = 32°09'02.83" (32.150786°)
LONGITUDE = -103°56'18.40" (-103.938444°)
NAD 27
LATITUDE = 32°09'02.39" (32.150663°)
LONGITUDE = -103°56'16.65" (-103.937959°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418815.56' E: 663548.09'
STATE PLANE NAD 27 (N.M. EAST)
N: 418757.18' E: 622363.42'

7 - EL: 3134.6'
NAD 83
LATITUDE = 32°08'59.64" (32.149899°)
LONGITUDE = -103°56'18.71" (-103.938531°)
NAD 27
LATITUDE = 32°08'59.19" (32.149776°)
LONGITUDE = -103°56'16.97" (-103.938046°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418492.83' E: 663522.33'
STATE PLANE NAD 27 (N.M. EAST)
N: 418434.45' E: 622337.66'

BEGIN ACCESS ROAD - EL: 3124.5'
NAD 83
LATITUDE = 32°09'05.66" (32.151573°)
LONGITUDE = -103°56'18.56" (-103.938490°)
NAD 27
LATITUDE = 32°09'05.22" (32.151450°)
LONGITUDE = -103°56'16.82" (-103.938005°)
STATE PLANE NAD 83 (N.M. EAST)
N: 419101.84' E: 663532.81'
STATE PLANE NAD 27 (N.M. EAST)
N: 419043.45' E: 622348.16'

END ACCESS ROAD - EL: 3129.8'
NAD 83
LATITUDE = 32°09'02.84" (32.150789°)
LONGITUDE = -103°56'18.53" (-103.938480°)
NAD 27
LATITUDE = 32°09'02.39" (32.150665°)
LONGITUDE = -103°56'16.78" (-103.937995°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418816.42' E: 663537.14'
STATE PLANE NAD 27 (N.M. EAST)
N: 418758.04' E: 622352.47'

Sheet 2 of 2

NOTES:

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

OXY USA INC.

CEDCAN_25S29E_1206
NE 1/4 NW 1/4, SECTION 12, T25S, R29E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	C.T., K.H.	08-10-23	SCALE
DRAWN BY	T.J.S.	09-06-23	1" = 120'

SITE PLAN

OXY's Minimum Design Criteria

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

1) Casing Design Assumptions

a) Burst Loads

CSG Test (Surface)

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

CSG Test (Intermediate)

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

CSG Test (Production)

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

Gas Column (Surface)

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

Bullheading (Surface / Intermediate)

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

Gas Kick (Intermediate)

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

Tubing Leak Near Surface While Producing (Production)

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

Tubing Leak Near Surface While Stimulating (Production)

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

Injection / Stimulation Down Casing (Production)

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

b) Collapse Loads

Lost Circulation (Surface / Intermediate)

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

Full Evacuation (Production)

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

c) Tension Loads

Running Casing (Surface / Intermediate / Production)

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

Green Cement (Surface / Intermediate / Production)

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

Falcon SL1 Production Casing Annular Clearance Variance Request

If Production Casing Connection OD does not meet 0.422" annular clearance inside casing:

- Cement excess will be circulated from Top of Liner to surface (Cement Confirmation)
- Liner Top will be tested to confirm seal.
- If ICP in Bone Spring Pool and lateral landed in Wolfcamp Pool, a CBL will be ran.

Offline Cementing Variance Request

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

1. Cement Program

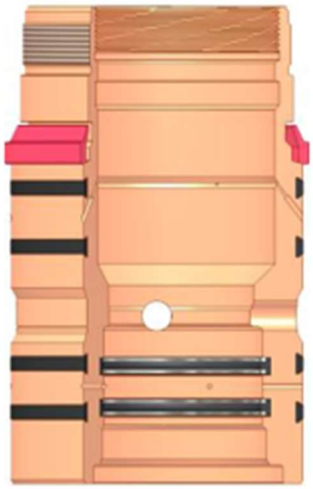
No changes to the cement program will take place for offline cementing.

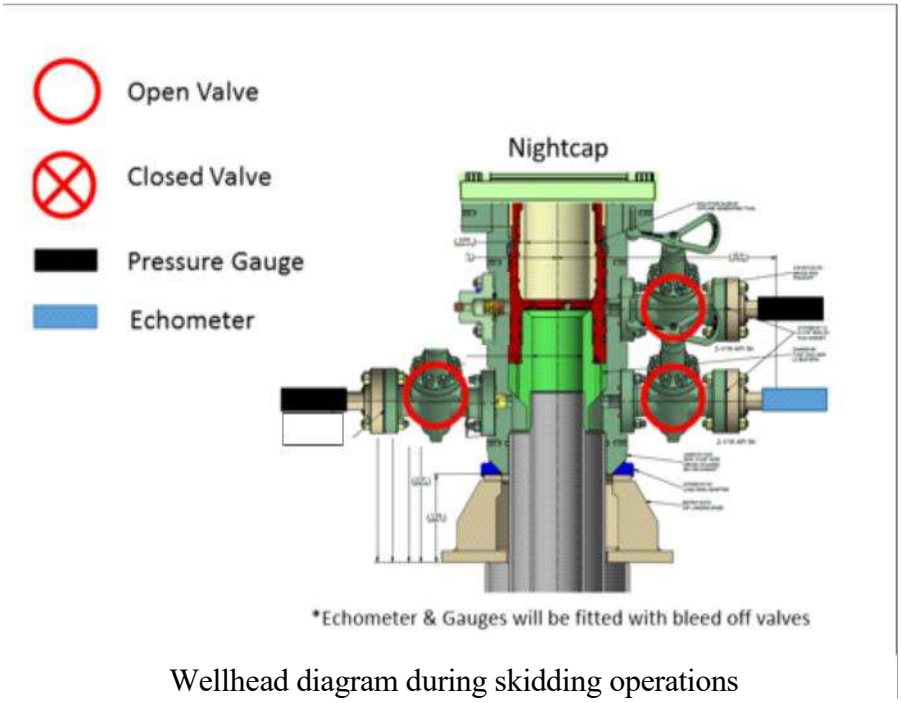
2. Offline Cementing Procedure

The operational sequence will be as follows:

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

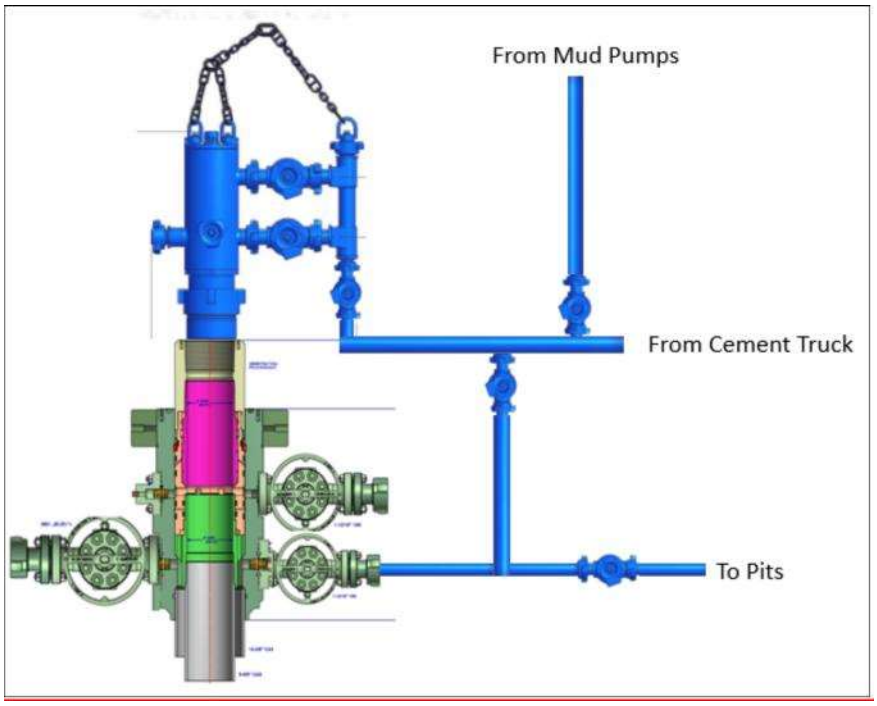
Annular packoff with both external and internal seals





Wellhead diagram during skidding operations

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



Wellhead diagram during offline cementing operations

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

OXY USA Inc
APD ATTACHMENT: SPUDDER RIG DATA

OPERATOR NAME / NUMBER: OXY USA Inc

1. SUMMARY OF REQUEST:

Oxy USA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
   a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR part 3170 Subpart 3172, all COAs and NMOCD regulations).
   b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.

2. The wellhead will be installed and tested as soon as the surface casing is cut off and the WOC time has been reached.

3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
   a. A means for intervention will be maintained while the drilling rig is not over the well.

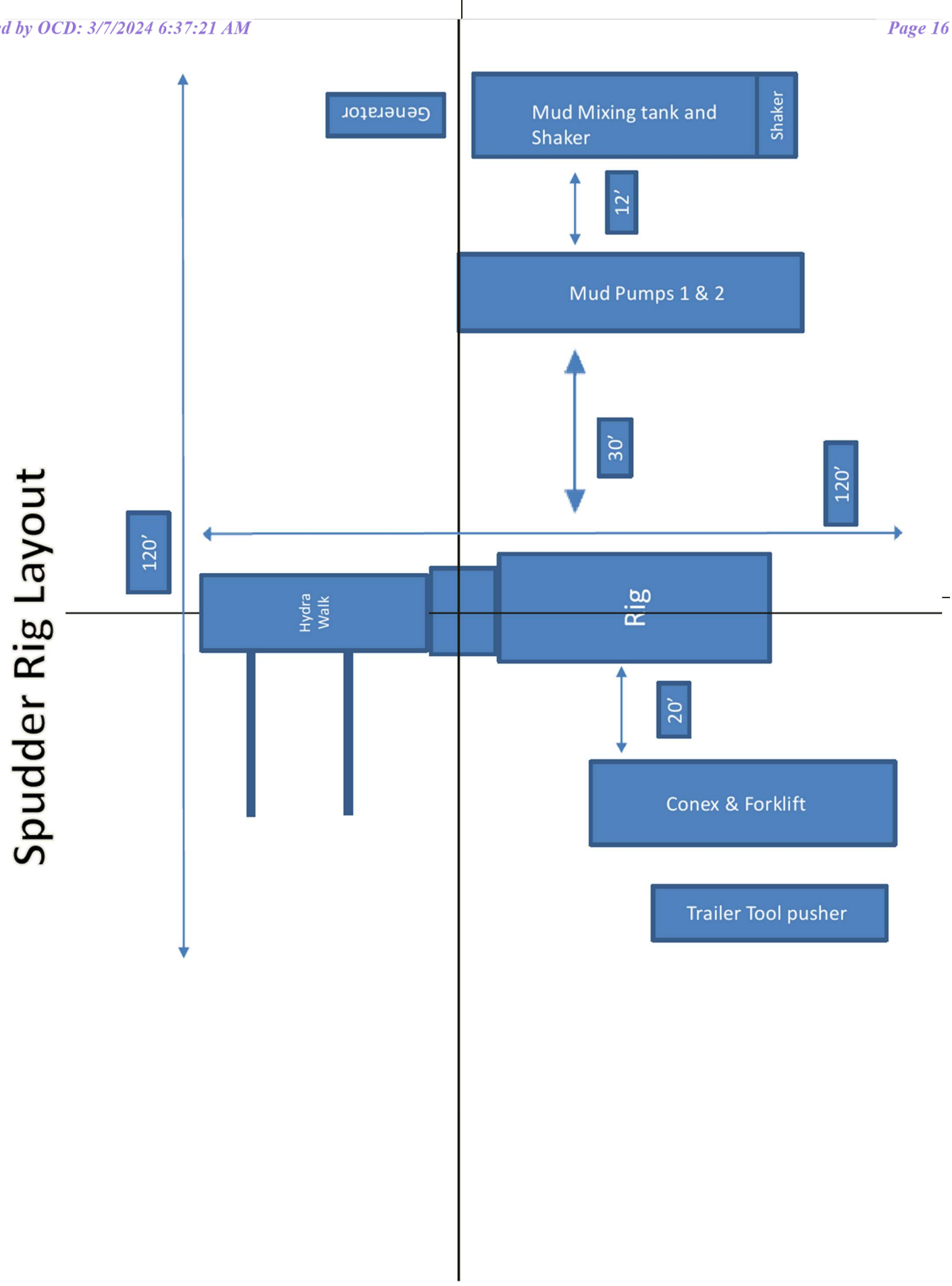
4. Spudder rig operations are expected to take 2-3 days per well on the pad.

5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.

6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
   a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
   b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.

7. Oxy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.

8. Once the rig is removed, Oxy will secure the wellhead area by placing a guard rail around the cellar area.


Spudder Rig Layout
Generator
Mud Mixing tank and Shaker
Shaker
12'
Mud Pumps 1 & 2
30'
120'
120'
Hydra Walk
Rig
20'
Conex & Forklift
Trailer Tool pusher

OXY USA WTP LP

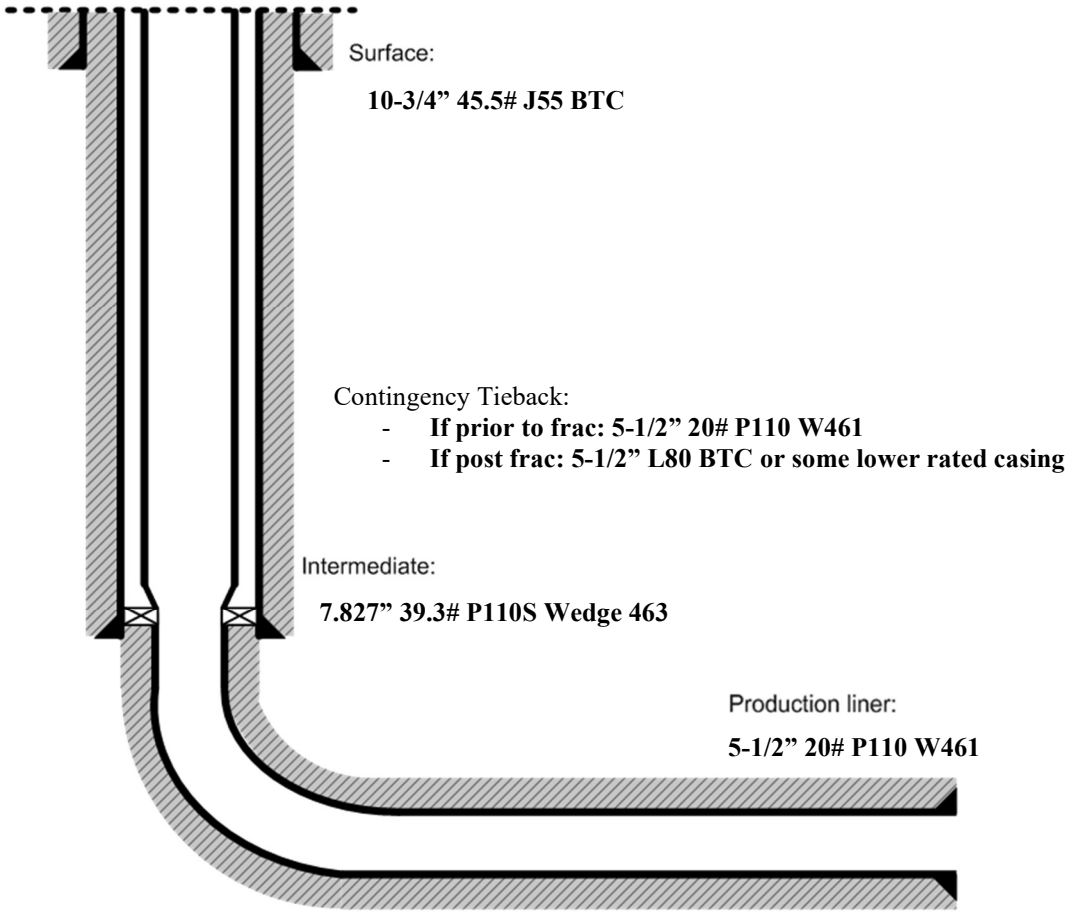
Falcon SL1 Contingnecy Tieback Details

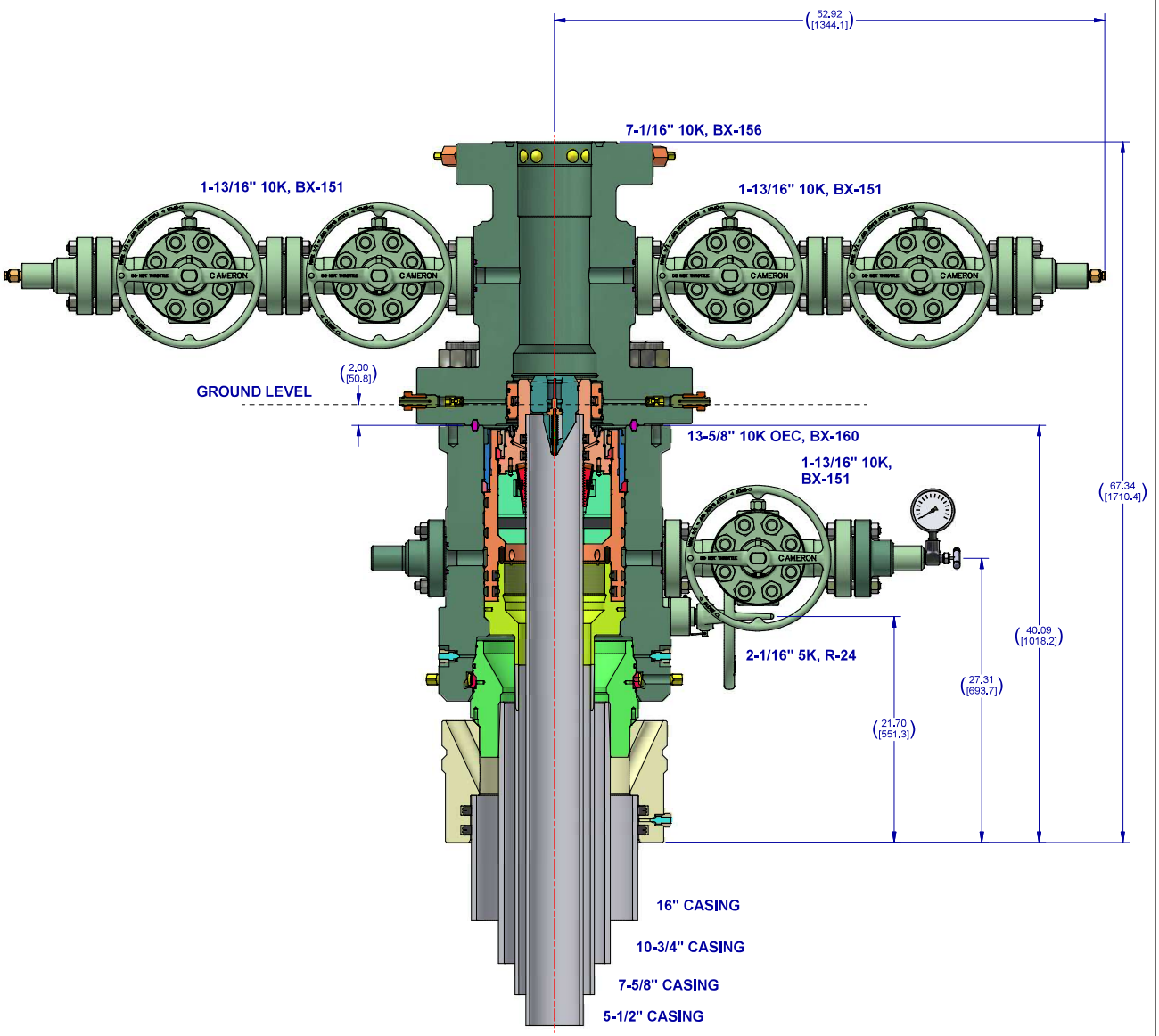
Below is a summary that describes the general operational steps to drill and complete the well.

- 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:





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: D. GOTTUNG	DATE 2 Dec 21		
MATERIAL & HEAT TREAT	CHECKED BY: D. GOTTUNG	DATE 2 Dec 21	OXY 13-5/8" 10K ADAPT 16" X 10-3/4" X 7-5/8" X 5-1/2"	
	APPROVED BY: D. GOTTUNG	DATE 2 Dec 21		
ESTIMATED WEIGHT:	8515,617 LBS [3955,434 KG]	INITIAL USE B/M:	SHEET 4 OF 4	SD-053434-94-05 REV: 01

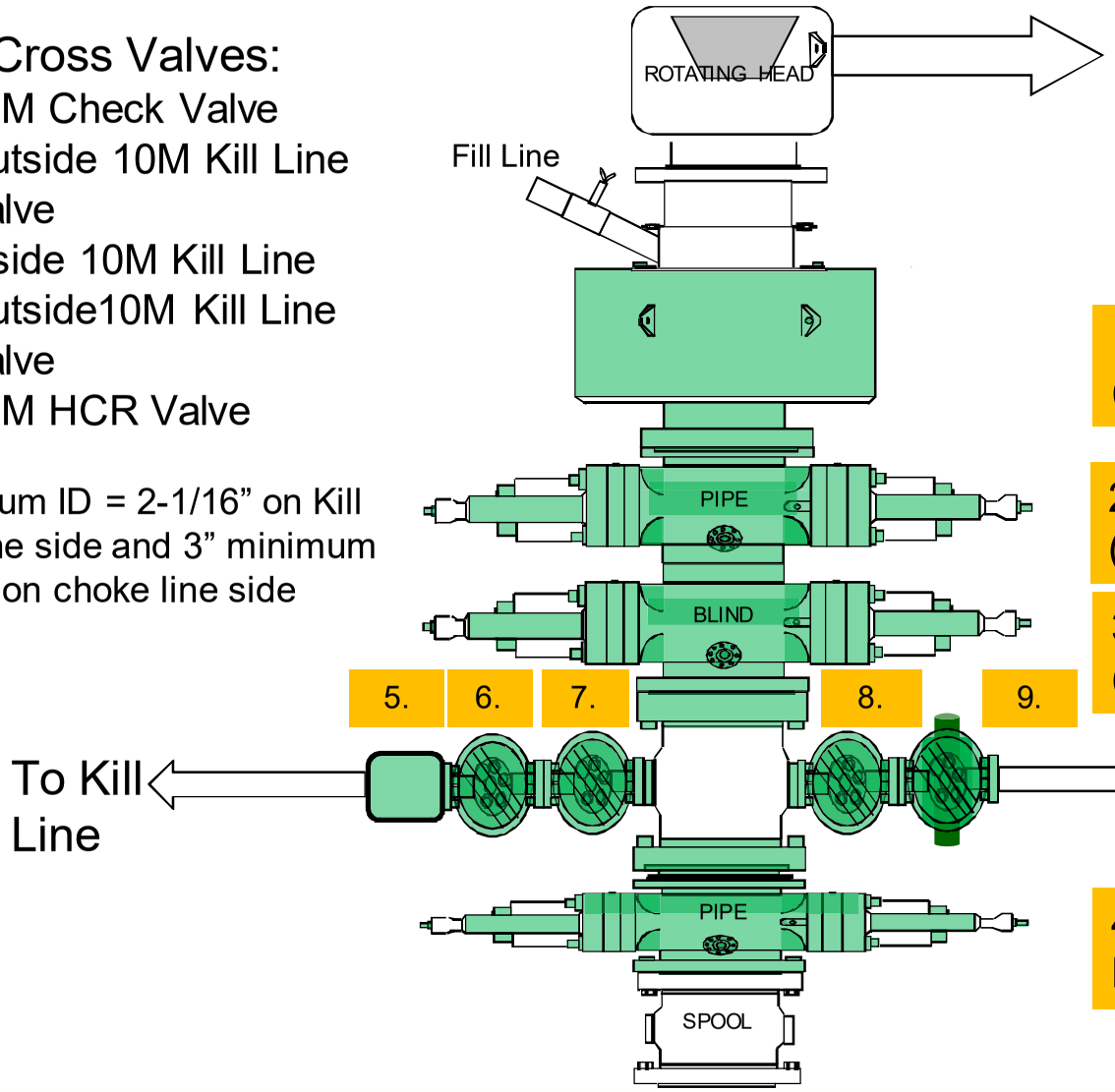
INVENTOR - D

5/10M BOP Stack

Mud Cross Valves:

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

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



1. 5,000 psi Annular (13-5/8” ID)

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

3. 10,000 psi Blind Ram (13-5/8” ID)

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

BOP Break Testing Request

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

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

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

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

See supporting information below:

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

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

Background

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

Supporting Rationale

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

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

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

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

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

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

Procedures

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

Notes:

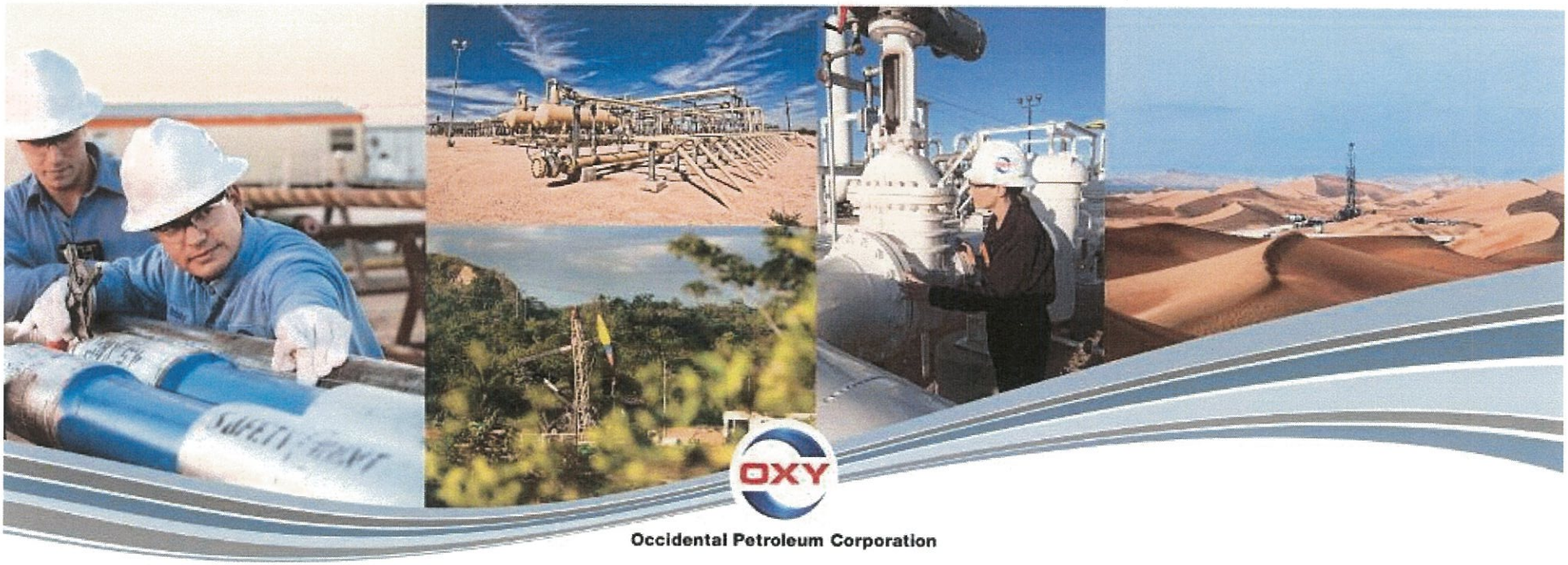
a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step 8 above,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

Summary

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

REQUEST FOR A VARIANCE TO BREAK TEST THE BOP

Permian Resources New Mexico



Occidental Petroleum Corporation

Request for Variance

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

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

Rationale for Allowing BOP Break Testing

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

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

Rationale for Allowing BOP Break Testing

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

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

Rationale for Allowing BOP Break Testing

Break testing has been approved by the BLM in the past

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

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

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

Break Testing Procedures

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

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

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

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

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

6) The choke line and kill line are reconnected

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

Break Testing Procedures

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

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

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

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

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

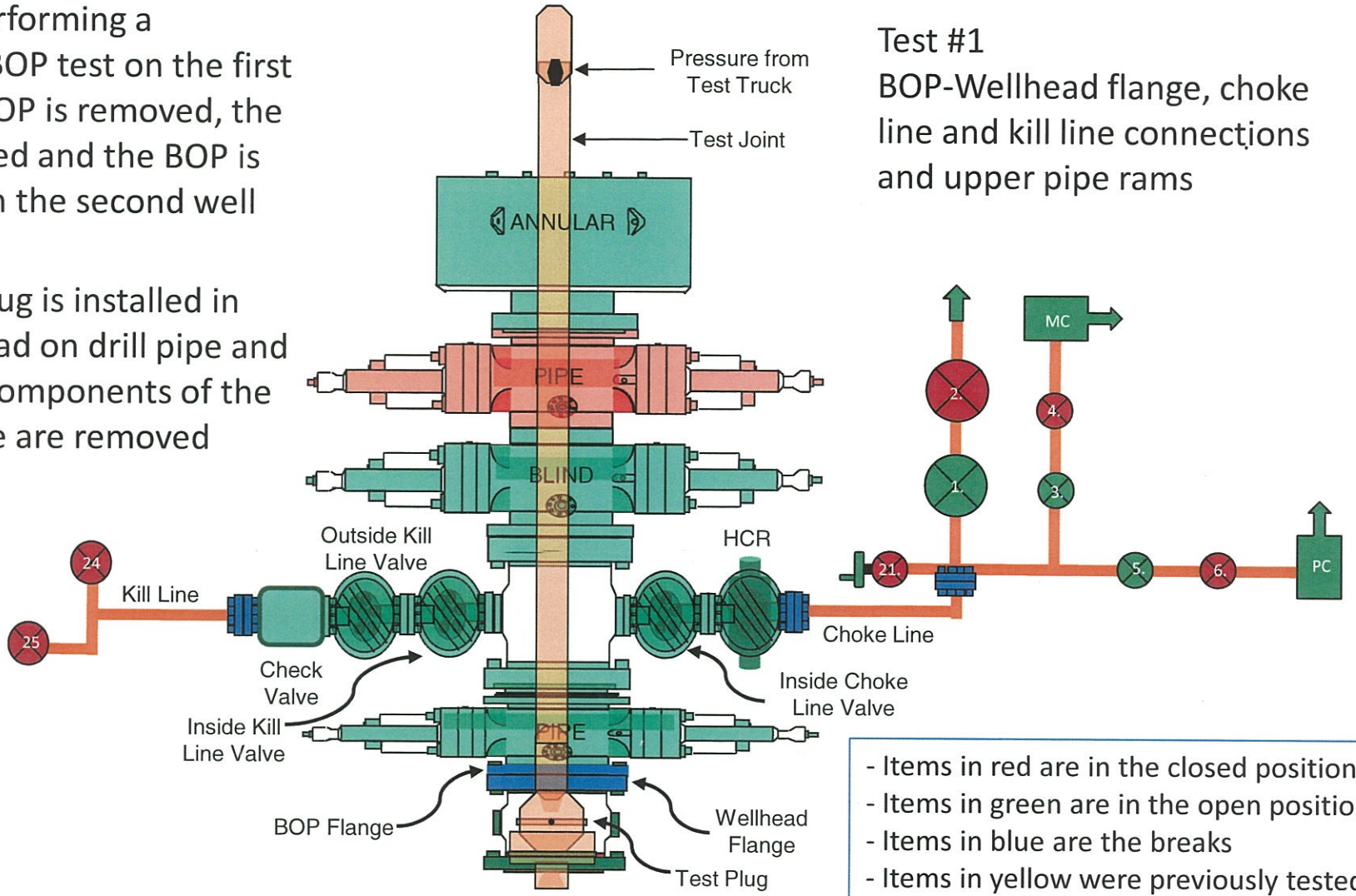
13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window

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

Break Testing Procedures and Tests

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

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



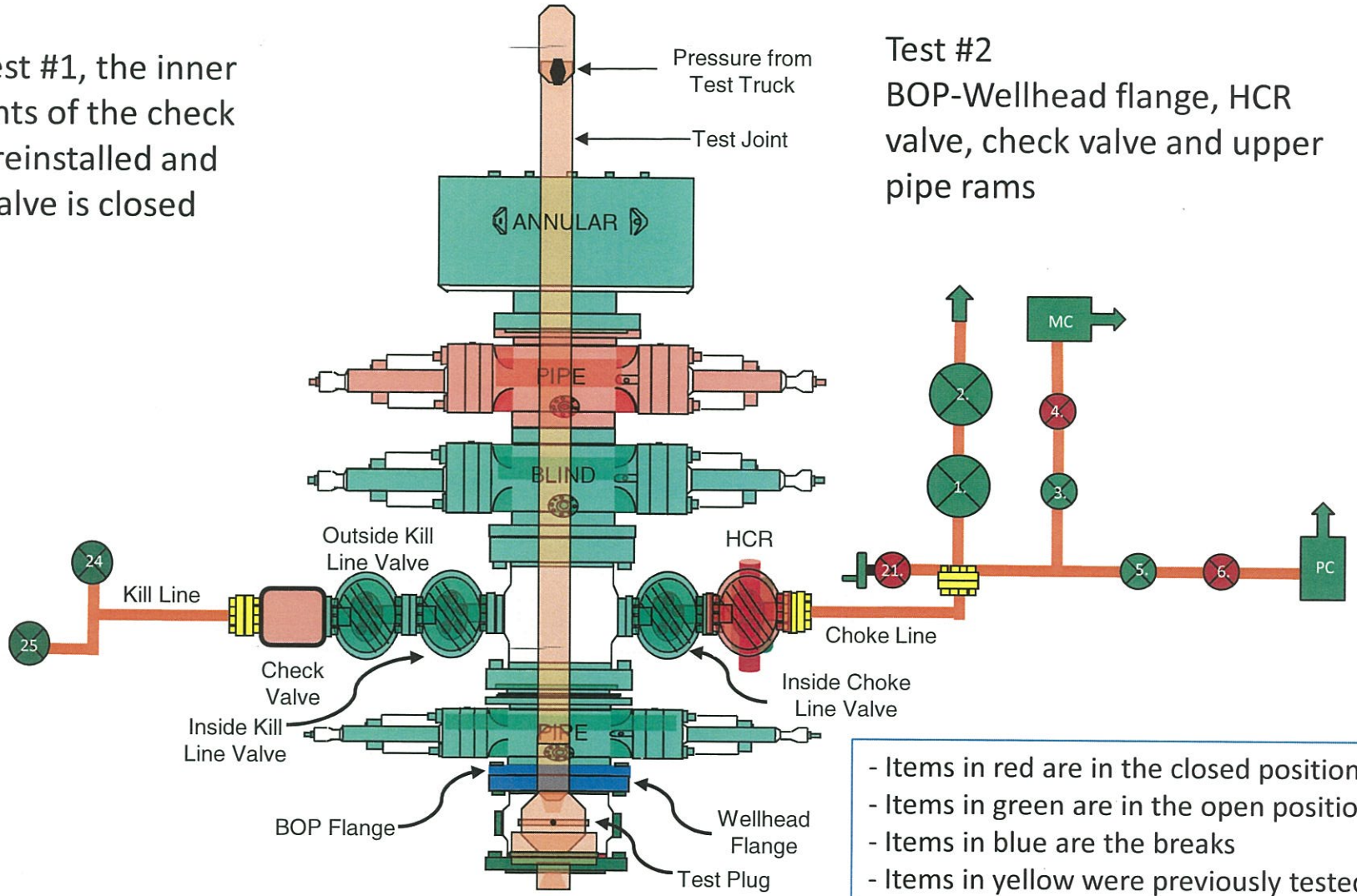
Test #1
BOP-Wellhead flange, choke line and kill line connections and upper pipe rams

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

Break Testing Procedures and Tests

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

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

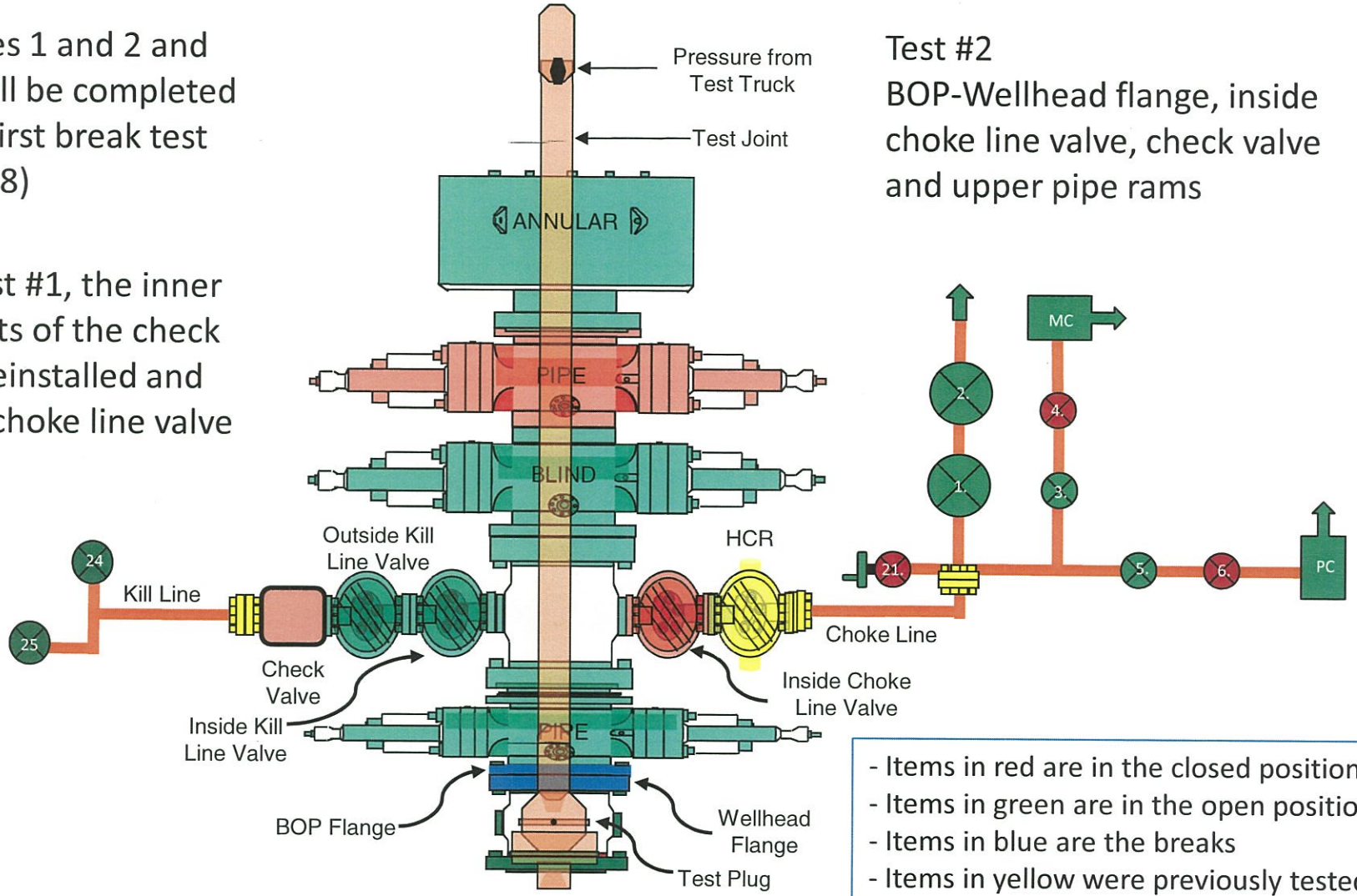


- Items in red are in the closed position
- Items in green are in the open position
- Items in blue are the breaks
- Items in yellow were previously tested

Second Break Testing Procedures and Tests

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

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



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

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

BOP Handling System

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

BOP standing in its carrier

BOP Handling System

Hydraulic winch system moving the BOP over to the wellhead

Wellhead

Summary for Variance Request for Break Testing

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

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

Bradenhead Cement CBL Variance Request

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

Three string wells:

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

Four string wells:

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

Oxy USA Inc. - Corral Gorge 12_13 Fed Com 71H
Drill Plan

1. Geologic Formations

TVD of Target (ft):	9489	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20607	Deepest Expected Fresh Water (ft):	393

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	393	393	
Salado	789	789	Salt
Castile	1760	1760	Salt
Delaware	3317	3316	Oil/Gas/Brine
Bell Canyon	3306	3305	Oil/Gas/Brine
Cherry Canyon	4235	4207	Oil/Gas/Brine
Brushy Canyon	5676	5577	Losses
Bone Spring	7269	7092	Oil/Gas
Bone Spring 1st	8233	8009	Oil/Gas
Bone Spring 2nd	9128	8861	Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

		MD		TVD					
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	14.75	0	729	0	729	10.75	45.5	J-55	BTC
Intermediate	9.875	0	8989	0	8724	7.827	39.3	P110S	Wedge 463
Production	6.75	8789	20607	8524	9489	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

*If Production Casing Connection OD does not meet 0.422" annular clearance inside casing:
- Cement excess will be circulated from Top of Liner to surface (Cement Confirmation)
- Liner Top will be tested to confirm seal
- If ICP in Bone Spring Pool and lateral landed in Wolfcamp Pool, a CBL will be ran.

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

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	610	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	385	1.65	13.2	5%	5,926	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	844	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	892	1.38	13.2	25%	8,789	Circulate	Class H+Ret., Disper., Salt

Offline Cementing Request

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

Bradenhead CBL Request

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

Cement Top and Liner Overlap

- Oxy is requesting permission to have minimum fill of cement behind the 5-1/2” production liner to be 200 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”/7.827" mainbore in the future
- Cement will be brought to the top of this liner hanger

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	8724
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9489
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

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

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

BOP Break Testing Request

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

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

5. Mud Program

Section	Depth - MD		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	729	0	729	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	729	8989	729	8724	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	8989	20607	8724	9489	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	6168 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	156°F

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

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

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. We plan to drill the 2 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: 1451 bbls

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

XXXX AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-47186	96473	PIERCE CROSSING; BONE SPRING, EAST

[4] Property Code	[5] Property Name	[6] Well Number
	CORRAL GORGE 12-13 FED COM	71H
[7] OGRID No. 16696	[8] Operator Name	[9] Elevation
	OXY USA INC.	3122.4'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	12	25S	29E		649	NORTH	1938	WEST	EDDY

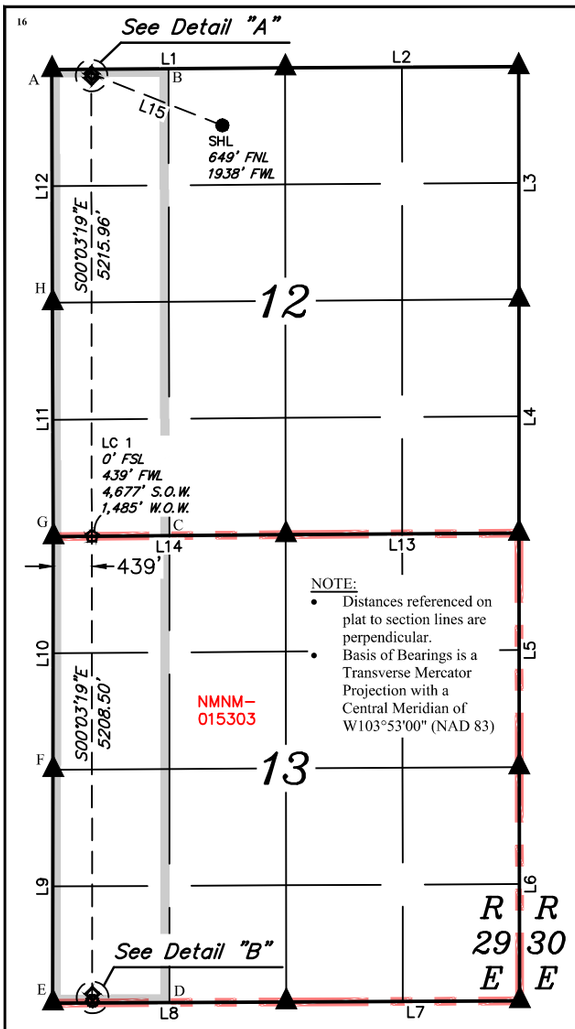
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	25S	29E		20	SOUTH	450	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

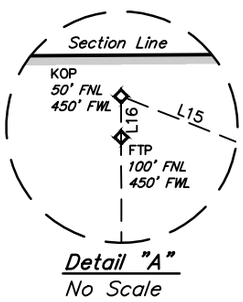
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°37'24"W	2657.23'
L2	S89°39'34"W	2658.17'
L3	N00°04'46"W	2646.95'
L4	N00°02'30"E	2662.95'
L5	N00°06'33"W	2661.12'
L6	N00°05'17"W	2660.88'
L7	S89°43'54"W	2658.35'
L8	S89°43'46"W	2657.66'
L9	N00°03'31"E	2654.12'
L10	N00°03'48"E	2652.67'
L11	N00°10'06"W	2662.50'
L12	N00°10'27"W	2654.36'
L13	S89°37'52"W	2654.54'
L14	S89°30'00"W	2646.75'
L15	N68°25'16"W	1602.08'
L16	S00°10'27"E	50.00'
L17	S00°03'31"W	80.00'



Detail "A"
No Scale

[17] OPERATOR CERTIFICATION

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

Signature — Date: 12/7/2023

STEPHEN JANACEK
Printed Name

STEPHEN_JANACEK@OXY.COM
E-mail Address

[18] SURVEYOR CERTIFICATION

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

August 10, 2023
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

SCALE
DRAWN BY: T.J.S. 09-07-23

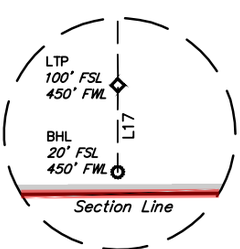
HSU COORDINATES				
	NAD 27 N.M. STATE PLANE, EAST ZONE		NAD 83 N.M. STATE PLANE, EAST ZONE	
POINT	NORTHING	EASTING	NORTHING	EASTING
A	419168.12'	619835.08'	419226.52'	661019.71'
B	419182.41'	621163.33'	419240.80'	662347.97'
C	413869.69'	621196.01'	413927.98'	662380.80'
D	408558.88'	621217.89'	408617.05'	662402.83'
E	408547.05'	619889.41'	408605.23'	661074.33'
F	411200.56'	619881.11'	411258.79'	661065.97'
G	413852.62'	619873.03'	413910.90'	661057.81'
H	416514.44'	619854.16'	416572.78'	661038.87'

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/TAKE POINTS
☆ = LEASE CROSSING
○ = BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
= LEASE LINE
= HORIZONTAL SPACING UNIT
S.O.W. = SOUTH OF WELL
W.O.W. = WEST OF WELL

NAD 83 (SURFACE HOLE LOCATION)	NAD 83 (KICK OFF POINT)
LATITUDE = 32°09'00.70" (32.150196°)	LATITUDE = 32°09'06.53" (32.151813°)
LONGITUDE = -103°56'25.23" (-103.940341°)	LONGITUDE = -103°56'42.56" (-103.945155°)
NAD 27 (SURFACE HOLE LOCATION)	**NAD 27 (KICK OFF POINT)**
LATITUDE = 32°09'00.26" (32.150072°)	LATITUDE = 32°09'06.08" (32.151689°)
LONGITUDE = -103°56'23.48" (-103.939856°)	LONGITUDE = -103°56'40.81" (-103.944670°)
STATE PLANE NAD 83 (N.M. EAST)	**STATE PLANE NAD 83 (N.M. EAST)**
N: 418598.50' E: 662961.90'	N: 419181.37' E: 661469.96'
STATE PLANE NAD 27 (N.M. EAST)	**STATE PLANE NAD 27 (N.M. EAST)**
N: 418540.12' E: 621777.23'	N: 419122.97' E: 620285.32'

NAD 83 (FIRST TAKE POINT)	NAD 83 (LEASE CROSSING)
LATITUDE = 32°09'06.03" (32.151675°)	LATITUDE = 32°08'14.42" (32.137340°)
LONGITUDE = -103°56'42.55" (-103.945154°)	LONGITUDE = -103°56'42.46" (-103.945128°)
NAD 27 (FIRST TAKE POINT)	**NAD 27 (LEASE CROSSING)**
LATITUDE = 32°09'05.59" (32.151552°)	LATITUDE = 32°08'13.98" (32.137216°)
LONGITUDE = -103°56'40.81" (-103.944669°)	LONGITUDE = -103°56'40.72" (-103.944644°)
STATE PLANE NAD 83 (N.M. EAST)	**STATE PLANE NAD 83 (N.M. EAST)**
N: 419131.38' E: 661470.32'	N: 413916.57' E: 661497.14'
STATE PLANE NAD 27 (N.M. EAST)	**STATE PLANE NAD 27 (N.M. EAST)**
N: 419072.99' E: 620285.68'	N: 413858.29' E: 620312.35'

NAD 83 (LAST TAKE POINT)	NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°07'22.89" (32.123025°)	LATITUDE = 32°07'22.10" (32.122806°)
LONGITUDE = -103°56'42.37" (-103.945102°)	LONGITUDE = -103°56'42.37" (-103.945102°)
NAD 27 (LAST TAKE POINT)	**NAD 27 (BOTTOM HOLE LOCATION)**
LATITUDE = 32°07'22.45" (32.122901°)	LATITUDE = 32°07'21.65" (32.122682°)
LONGITUDE = -103°56'40.63" (-103.944618°)	LONGITUDE = -103°56'40.63" (-103.944618°)
STATE PLANE NAD 83 (N.M. EAST)	**STATE PLANE NAD 83 (N.M. EAST)**
N: 408709.21' E: 661523.91'	N: 408629.23' E: 661524.16'
STATE PLANE NAD 27 (N.M. EAST)	**STATE PLANE NAD 27 (N.M. EAST)**
N: 408651.04' E: 620338.99'	N: 408571.05' E: 620339.23'



Detail "B"
No Scale

Printed on: 4/5/2023

Tenaris

TenarisHydril Wedge 463®

Coupling	Pipe Body
Grade: **P110-S**	Grade: **P110-S**
Body: **White**	1st Band: **White**
1st Band: **Orange**	2nd Band: **Orange**
2nd Band: **-**	3rd Band: **-**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	7.827 in.	**Wall Thickness**	0.500 in.	**Grade**	P110-S
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	Special Drift	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.827 in.	**Wall Thickness**	0.500 in.	**Body Yield Strength**	1266 x1000 lb
Nominal Weight	39.30 lb/ft	**Plain End Weight**	39.16 lb/ft	**Min. Internal Yield Pressure**	12,300 psi
Drift	6.750 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	6.827 in.			**Collapse Pressure**	10,490 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	8.500 in.	**Tension Efficiency**	100 %	**Minimum**	22,000 ft-lb
Coupling Length	10.950 in.	**Joint Yield Strength**	1266 x1000 lb	**Optimum**	23,000 ft-lb
Connection ID	6.814 in.	**Internal Pressure Capacity**	12,300 psi	**Maximum**	27,000 ft-lb
Make-up Loss	4.520 in.	**Compression Efficiency**	100 %		
Threads per inch	3.25	**Compression Strength**	1266 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	64.42 °/100 ft	**Operating Torque**	61,000 ft-lb
		External Pressure Capacity	10,490 psi	**Yield Torque**	70,000 ft-lb
		Coupling Face Load	414,177 lb	**Buck-On**	
				Minimum	26,000 ft-lb
				Maximum	29,000 ft-lb

Notes

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

PII/CII

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
Corral Gorge 12_13
Corral Gorge 12_13 Fed Com 71H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

31 October, 2023

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**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 Corral Gorge 12_13

Site Position:		**Northing:**	418,266.21 usft	**Latitude:**	32.149287
From:	Map	**Easting:**	662,457.18 usft	**Longitude:**	-103.941976
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in		

Well Corral Gorge 12_13 Fed Com 71H

Well Position	**+N/-S**	0.00 ft	**Northing:**	418,598.50 usf	**Latitude:**	32.150196
	+E/-W	0.00 ft	**Easting:**	662,961.90 usf	**Longitude:**	-103.940341
Position Uncertainty		2.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,122.40 ft
Grid Convergence:		0.21 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	10/31/2023	6.43	59.68	47,407.90000000

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	188.21

Plan Survey Tool Program **Date** 10/31/2023

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,606.80	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	
3,070.00	0.00	0.00	3,070.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,970.04	18.00	309.53	3,955.31	89.26	-108.15	2.00	2.00	0.00	309.53	
9,088.80	18.00	309.53	8,823.52	1,096.13	-1,328.18	0.00	0.00	0.00	0.00	
10,103.70	90.08	179.71	9,489.40	532.92	-1,491.69	10.00	7.10	-12.79	-128.40	FTP (Corral Gorge
20,606.80	90.08	179.71	9,475.40	-9,970.03	-1,437.85	0.00	0.00	0.00	0.00	PBHL (Corral Gorge

OXY

Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**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
3,070.00	0.00	0.00	3,070.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.60	309.53	3,100.00	0.10	-0.12	-0.08	2.00	2.00	0.00
3,200.00	2.60	309.53	3,199.96	1.88	-2.27	-1.53	2.00	2.00	0.00
3,300.00	4.60	309.53	3,299.75	5.87	-7.12	-4.80	2.00	2.00	0.00
3,400.00	6.60	309.53	3,399.27	12.08	-14.64	-9.87	2.00	2.00	0.00
3,500.00	8.60	309.53	3,498.39	20.50	-24.84	-16.75	2.00	2.00	0.00
3,600.00	10.60	309.53	3,596.98	31.12	-37.70	-25.42	2.00	2.00	0.00
3,700.00	12.60	309.53	3,694.93	43.92	-53.21	-35.87	2.00	2.00	0.00
3,800.00	14.60	309.53	3,792.13	58.88	-71.35	-48.09	2.00	2.00	0.00
3,900.00	16.60	309.53	3,888.44	76.00	-92.09	-62.08	2.00	2.00	0.00
3,970.04	18.00	309.53	3,955.31	89.26	-108.15	-72.90	2.00	2.00	0.00
4,000.00	18.00	309.53	3,983.80	95.15	-115.29	-77.72	0.00	0.00	0.00
4,100.00	18.00	309.53	4,078.91	114.82	-139.13	-93.78	0.00	0.00	0.00
4,200.00	18.00	309.53	4,174.01	134.49	-162.96	-109.85	0.00	0.00	0.00
4,300.00	18.00	309.53	4,269.12	154.16	-186.79	-125.92	0.00	0.00	0.00
4,400.00	18.00	309.53	4,364.22	173.83	-210.63	-141.98	0.00	0.00	0.00
4,500.00	18.00	309.53	4,459.33	193.50	-234.46	-158.05	0.00	0.00	0.00
4,600.00	18.00	309.53	4,554.43	213.17	-258.30	-174.12	0.00	0.00	0.00
4,700.00	18.00	309.53	4,649.54	232.84	-282.13	-190.18	0.00	0.00	0.00
4,800.00	18.00	309.53	4,744.64	252.51	-305.97	-206.25	0.00	0.00	0.00
4,900.00	18.00	309.53	4,839.75	272.18	-329.80	-222.32	0.00	0.00	0.00
5,000.00	18.00	309.53	4,934.85	291.85	-353.64	-238.38	0.00	0.00	0.00
5,100.00	18.00	309.53	5,029.96	311.52	-377.47	-254.45	0.00	0.00	0.00
5,200.00	18.00	309.53	5,125.06	331.19	-401.30	-270.52	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**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)
5,300.00	18.00	309.53	5,220.17	350.86	-425.14	-286.59	0.00	0.00	0.00
5,400.00	18.00	309.53	5,315.27	370.53	-448.97	-302.65	0.00	0.00	0.00
5,500.00	18.00	309.53	5,410.38	390.20	-472.81	-318.72	0.00	0.00	0.00
5,600.00	18.00	309.53	5,505.48	409.87	-496.64	-334.79	0.00	0.00	0.00
5,700.00	18.00	309.53	5,600.59	429.54	-520.48	-350.85	0.00	0.00	0.00
5,800.00	18.00	309.53	5,695.69	449.21	-544.31	-366.92	0.00	0.00	0.00
5,900.00	18.00	309.53	5,790.80	468.88	-568.14	-382.99	0.00	0.00	0.00
6,000.00	18.00	309.53	5,885.90	488.55	-591.98	-399.05	0.00	0.00	0.00
6,100.00	18.00	309.53	5,981.01	508.22	-615.81	-415.12	0.00	0.00	0.00
6,200.00	18.00	309.53	6,076.11	527.89	-639.65	-431.19	0.00	0.00	0.00
6,300.00	18.00	309.53	6,171.22	547.57	-663.48	-447.25	0.00	0.00	0.00
6,400.00	18.00	309.53	6,266.33	567.24	-687.32	-463.32	0.00	0.00	0.00
6,500.00	18.00	309.53	6,361.43	586.91	-711.15	-479.39	0.00	0.00	0.00
6,600.00	18.00	309.53	6,456.54	606.58	-734.99	-495.45	0.00	0.00	0.00
6,700.00	18.00	309.53	6,551.64	626.25	-758.82	-511.52	0.00	0.00	0.00
6,800.00	18.00	309.53	6,646.75	645.92	-782.65	-527.59	0.00	0.00	0.00
6,900.00	18.00	309.53	6,741.85	665.59	-806.49	-543.65	0.00	0.00	0.00
7,000.00	18.00	309.53	6,836.96	685.26	-830.32	-559.72	0.00	0.00	0.00
7,100.00	18.00	309.53	6,932.06	704.93	-854.16	-575.79	0.00	0.00	0.00
7,200.00	18.00	309.53	7,027.17	724.60	-877.99	-591.85	0.00	0.00	0.00
7,300.00	18.00	309.53	7,122.27	744.27	-901.83	-607.92	0.00	0.00	0.00
7,400.00	18.00	309.53	7,217.38	763.94	-925.66	-623.99	0.00	0.00	0.00
7,500.00	18.00	309.53	7,312.48	783.61	-949.49	-640.05	0.00	0.00	0.00
7,600.00	18.00	309.53	7,407.59	803.28	-973.33	-656.12	0.00	0.00	0.00
7,700.00	18.00	309.53	7,502.69	822.95	-997.16	-672.19	0.00	0.00	0.00
7,800.00	18.00	309.53	7,597.80	842.62	-1,021.00	-688.25	0.00	0.00	0.00
7,900.00	18.00	309.53	7,692.90	862.29	-1,044.83	-704.32	0.00	0.00	0.00
8,000.00	18.00	309.53	7,788.01	881.96	-1,068.67	-720.39	0.00	0.00	0.00
8,100.00	18.00	309.53	7,883.11	901.63	-1,092.50	-736.45	0.00	0.00	0.00
8,200.00	18.00	309.53	7,978.22	921.30	-1,116.34	-752.52	0.00	0.00	0.00
8,300.00	18.00	309.53	8,073.32	940.97	-1,140.17	-768.59	0.00	0.00	0.00
8,400.00	18.00	309.53	8,168.43	960.64	-1,164.00	-784.65	0.00	0.00	0.00
8,500.00	18.00	309.53	8,263.54	980.31	-1,187.84	-800.72	0.00	0.00	0.00
8,600.00	18.00	309.53	8,358.64	999.98	-1,211.67	-816.79	0.00	0.00	0.00
8,700.00	18.00	309.53	8,453.75	1,019.65	-1,235.51	-832.85	0.00	0.00	0.00
8,800.00	18.00	309.53	8,548.85	1,039.32	-1,259.34	-848.92	0.00	0.00	0.00
8,900.00	18.00	309.53	8,643.96	1,058.99	-1,283.18	-864.99	0.00	0.00	0.00
9,000.00	18.00	309.53	8,739.06	1,078.66	-1,307.01	-881.05	0.00	0.00	0.00
9,088.80	18.00	309.53	8,823.52	1,096.13	-1,328.18	-895.32	0.00	0.00	0.00
9,100.00	17.33	306.59	8,834.19	1,098.23	-1,330.85	-897.01	10.00	-6.02	-26.32
9,200.00	14.02	270.93	8,930.67	1,107.32	-1,354.98	-902.57	10.00	-3.31	-35.66
9,300.00	16.99	234.49	9,027.25	1,099.01	-1,379.04	-890.91	10.00	2.98	-36.44
9,400.00	24.02	213.79	9,120.97	1,073.54	-1,402.32	-862.38	10.00	7.03	-20.70
9,500.00	32.57	202.72	9,209.00	1,031.68	-1,424.09	-817.84	10.00	8.55	-11.06
9,600.00	41.72	195.98	9,288.66	974.72	-1,443.70	-758.67	10.00	9.15	-6.74
9,700.00	51.14	191.33	9,357.52	904.38	-1,460.55	-686.64	10.00	9.42	-4.65
9,800.00	60.70	187.78	9,413.50	822.79	-1,474.14	-603.95	10.00	9.56	-3.55
9,900.00	70.34	184.84	9,454.90	732.44	-1,484.04	-513.11	10.00	9.64	-2.94
10,000.00	80.02	182.24	9,480.46	636.08	-1,489.96	-416.89	10.00	9.68	-2.60
10,100.00	89.72	179.80	9,489.39	536.62	-1,491.71	-318.20	10.00	9.70	-2.45
10,103.70	90.08	179.71	9,489.40	532.92	-1,491.69	-314.54	10.00	9.70	-2.42
10,200.00	90.08	179.71	9,489.27	436.62	-1,491.20	-219.30	0.00	0.00	0.00
10,300.00	90.08	179.71	9,489.14	336.62	-1,490.69	-120.40	0.00	0.00	0.00
10,400.00	90.08	179.71	9,489.01	236.62	-1,490.17	-21.49	0.00	0.00	0.00
10,500.00	90.08	179.71	9,488.87	136.63	-1,489.66	77.41	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,600.00	90.08	179.71	9,488.74	36.63	-1,489.15	176.31	0.00	0.00	0.00
10,700.00	90.08	179.71	9,488.61	-63.37	-1,488.64	275.21	0.00	0.00	0.00
10,800.00	90.08	179.71	9,488.47	-163.37	-1,488.12	374.11	0.00	0.00	0.00
10,900.00	90.08	179.71	9,488.34	-263.37	-1,487.61	473.01	0.00	0.00	0.00
11,000.00	90.08	179.71	9,488.21	-363.37	-1,487.10	571.92	0.00	0.00	0.00
11,100.00	90.08	179.71	9,488.07	-463.37	-1,486.59	670.82	0.00	0.00	0.00
11,200.00	90.08	179.71	9,487.94	-563.36	-1,486.07	769.72	0.00	0.00	0.00
11,300.00	90.08	179.71	9,487.81	-663.36	-1,485.56	868.62	0.00	0.00	0.00
11,400.00	90.08	179.71	9,487.67	-763.36	-1,485.05	967.52	0.00	0.00	0.00
11,500.00	90.08	179.71	9,487.54	-863.36	-1,484.54	1,066.42	0.00	0.00	0.00
11,600.00	90.08	179.71	9,487.41	-963.36	-1,484.02	1,165.32	0.00	0.00	0.00
11,700.00	90.08	179.71	9,487.27	-1,063.36	-1,483.51	1,264.23	0.00	0.00	0.00
11,800.00	90.08	179.71	9,487.14	-1,163.36	-1,483.00	1,363.13	0.00	0.00	0.00
11,900.00	90.08	179.71	9,487.01	-1,263.35	-1,482.48	1,462.03	0.00	0.00	0.00
12,000.00	90.08	179.71	9,486.87	-1,363.35	-1,481.97	1,560.93	0.00	0.00	0.00
12,100.00	90.08	179.71	9,486.74	-1,463.35	-1,481.46	1,659.83	0.00	0.00	0.00
12,200.00	90.08	179.71	9,486.61	-1,563.35	-1,480.95	1,758.73	0.00	0.00	0.00
12,300.00	90.08	179.71	9,486.47	-1,663.35	-1,480.43	1,857.63	0.00	0.00	0.00
12,400.00	90.08	179.71	9,486.34	-1,763.35	-1,479.92	1,956.54	0.00	0.00	0.00
12,500.00	90.08	179.71	9,486.21	-1,863.35	-1,479.41	2,055.44	0.00	0.00	0.00
12,600.00	90.08	179.71	9,486.07	-1,963.34	-1,478.90	2,154.34	0.00	0.00	0.00
12,700.00	90.08	179.71	9,485.94	-2,063.34	-1,478.38	2,253.24	0.00	0.00	0.00
12,800.00	90.08	179.71	9,485.81	-2,163.34	-1,477.87	2,352.14	0.00	0.00	0.00
12,900.00	90.08	179.71	9,485.67	-2,263.34	-1,477.36	2,451.04	0.00	0.00	0.00
13,000.00	90.08	179.71	9,485.54	-2,363.34	-1,476.85	2,549.94	0.00	0.00	0.00
13,100.00	90.08	179.71	9,485.41	-2,463.34	-1,476.33	2,648.85	0.00	0.00	0.00
13,200.00	90.08	179.71	9,485.27	-2,563.34	-1,475.82	2,747.75	0.00	0.00	0.00
13,300.00	90.08	179.71	9,485.14	-2,663.33	-1,475.31	2,846.65	0.00	0.00	0.00
13,400.00	90.08	179.71	9,485.01	-2,763.33	-1,474.79	2,945.55	0.00	0.00	0.00
13,500.00	90.08	179.71	9,484.87	-2,863.33	-1,474.28	3,044.45	0.00	0.00	0.00
13,600.00	90.08	179.71	9,484.74	-2,963.33	-1,473.77	3,143.35	0.00	0.00	0.00
13,700.00	90.08	179.71	9,484.61	-3,063.33	-1,473.26	3,242.25	0.00	0.00	0.00
13,800.00	90.08	179.71	9,484.47	-3,163.33	-1,472.74	3,341.16	0.00	0.00	0.00
13,900.00	90.08	179.71	9,484.34	-3,263.33	-1,472.23	3,440.06	0.00	0.00	0.00
14,000.00	90.08	179.71	9,484.21	-3,363.32	-1,471.72	3,538.96	0.00	0.00	0.00
14,100.00	90.08	179.71	9,484.07	-3,463.32	-1,471.21	3,637.86	0.00	0.00	0.00
14,200.00	90.08	179.71	9,483.94	-3,563.32	-1,470.69	3,736.76	0.00	0.00	0.00
14,300.00	90.08	179.71	9,483.81	-3,663.32	-1,470.18	3,835.66	0.00	0.00	0.00
14,400.00	90.08	179.71	9,483.67	-3,763.32	-1,469.67	3,934.56	0.00	0.00	0.00
14,500.00	90.08	179.71	9,483.54	-3,863.32	-1,469.16	4,033.47	0.00	0.00	0.00
14,600.00	90.08	179.71	9,483.41	-3,963.32	-1,468.64	4,132.37	0.00	0.00	0.00
14,700.00	90.08	179.71	9,483.27	-4,063.32	-1,468.13	4,231.27	0.00	0.00	0.00
14,800.00	90.08	179.71	9,483.14	-4,163.31	-1,467.62	4,330.17	0.00	0.00	0.00
14,900.00	90.08	179.71	9,483.01	-4,263.31	-1,467.11	4,429.07	0.00	0.00	0.00
15,000.00	90.08	179.71	9,482.87	-4,363.31	-1,466.59	4,527.97	0.00	0.00	0.00
15,100.00	90.08	179.71	9,482.74	-4,463.31	-1,466.08	4,626.87	0.00	0.00	0.00
15,200.00	90.08	179.71	9,482.61	-4,563.31	-1,465.57	4,725.78	0.00	0.00	0.00
15,300.00	90.08	179.71	9,482.47	-4,663.31	-1,465.05	4,824.68	0.00	0.00	0.00
15,400.00	90.08	179.71	9,482.34	-4,763.31	-1,464.54	4,923.58	0.00	0.00	0.00
15,500.00	90.08	179.71	9,482.21	-4,863.30	-1,464.03	5,022.48	0.00	0.00	0.00
15,600.00	90.08	179.71	9,482.07	-4,963.30	-1,463.52	5,121.38	0.00	0.00	0.00
15,700.00	90.08	179.71	9,481.94	-5,063.30	-1,463.00	5,220.28	0.00	0.00	0.00
15,800.00	90.08	179.71	9,481.81	-5,163.30	-1,462.49	5,319.18	0.00	0.00	0.00
15,900.00	90.08	179.71	9,481.67	-5,263.30	-1,461.98	5,418.09	0.00	0.00	0.00
16,000.00	90.08	179.71	9,481.54	-5,363.30	-1,461.47	5,516.99	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**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	90.08	179.71	9,481.41	-5,463.30	-1,460.95	5,615.89	0.00	0.00	0.00
16,200.00	90.08	179.71	9,481.27	-5,563.29	-1,460.44	5,714.79	0.00	0.00	0.00
16,300.00	90.08	179.71	9,481.14	-5,663.29	-1,459.93	5,813.69	0.00	0.00	0.00
16,400.00	90.08	179.71	9,481.01	-5,763.29	-1,459.42	5,912.59	0.00	0.00	0.00
16,500.00	90.08	179.71	9,480.87	-5,863.29	-1,458.90	6,011.50	0.00	0.00	0.00
16,600.00	90.08	179.71	9,480.74	-5,963.29	-1,458.39	6,110.40	0.00	0.00	0.00
16,700.00	90.08	179.71	9,480.61	-6,063.29	-1,457.88	6,209.30	0.00	0.00	0.00
16,800.00	90.08	179.71	9,480.47	-6,163.29	-1,457.36	6,308.20	0.00	0.00	0.00
16,900.00	90.08	179.71	9,480.34	-6,263.28	-1,456.85	6,407.10	0.00	0.00	0.00
17,000.00	90.08	179.71	9,480.21	-6,363.28	-1,456.34	6,506.00	0.00	0.00	0.00
17,100.00	90.08	179.71	9,480.07	-6,463.28	-1,455.83	6,604.90	0.00	0.00	0.00
17,200.00	90.08	179.71	9,479.94	-6,563.28	-1,455.31	6,703.81	0.00	0.00	0.00
17,300.00	90.08	179.71	9,479.81	-6,663.28	-1,454.80	6,802.71	0.00	0.00	0.00
17,400.00	90.08	179.71	9,479.67	-6,763.28	-1,454.29	6,901.61	0.00	0.00	0.00
17,500.00	90.08	179.71	9,479.54	-6,863.28	-1,453.78	7,000.51	0.00	0.00	0.00
17,600.00	90.08	179.71	9,479.41	-6,963.27	-1,453.26	7,099.41	0.00	0.00	0.00
17,700.00	90.08	179.71	9,479.27	-7,063.27	-1,452.75	7,198.31	0.00	0.00	0.00
17,800.00	90.08	179.71	9,479.14	-7,163.27	-1,452.24	7,297.21	0.00	0.00	0.00
17,900.00	90.08	179.71	9,479.01	-7,263.27	-1,451.73	7,396.12	0.00	0.00	0.00
18,000.00	90.08	179.71	9,478.87	-7,363.27	-1,451.21	7,495.02	0.00	0.00	0.00
18,100.00	90.08	179.71	9,478.74	-7,463.27	-1,450.70	7,593.92	0.00	0.00	0.00
18,200.00	90.08	179.71	9,478.61	-7,563.27	-1,450.19	7,692.82	0.00	0.00	0.00
18,300.00	90.08	179.71	9,478.48	-7,663.26	-1,449.68	7,791.72	0.00	0.00	0.00
18,400.00	90.08	179.71	9,478.34	-7,763.26	-1,449.16	7,890.62	0.00	0.00	0.00
18,500.00	90.08	179.71	9,478.21	-7,863.26	-1,448.65	7,989.52	0.00	0.00	0.00
18,600.00	90.08	179.71	9,478.08	-7,963.26	-1,448.14	8,088.43	0.00	0.00	0.00
18,700.00	90.08	179.71	9,477.94	-8,063.26	-1,447.62	8,187.33	0.00	0.00	0.00
18,800.00	90.08	179.71	9,477.81	-8,163.26	-1,447.11	8,286.23	0.00	0.00	0.00
18,900.00	90.08	179.71	9,477.68	-8,263.26	-1,446.60	8,385.13	0.00	0.00	0.00
19,000.00	90.08	179.71	9,477.54	-8,363.25	-1,446.09	8,484.03	0.00	0.00	0.00
19,100.00	90.08	179.71	9,477.41	-8,463.25	-1,445.57	8,582.93	0.00	0.00	0.00
19,200.00	90.08	179.71	9,477.28	-8,563.25	-1,445.06	8,681.83	0.00	0.00	0.00
19,300.00	90.08	179.71	9,477.14	-8,663.25	-1,444.55	8,780.74	0.00	0.00	0.00
19,400.00	90.08	179.71	9,477.01	-8,763.25	-1,444.04	8,879.64	0.00	0.00	0.00
19,500.00	90.08	179.71	9,476.88	-8,863.25	-1,443.52	8,978.54	0.00	0.00	0.00
19,600.00	90.08	179.71	9,476.74	-8,963.25	-1,443.01	9,077.44	0.00	0.00	0.00
19,700.00	90.08	179.71	9,476.61	-9,063.24	-1,442.50	9,176.34	0.00	0.00	0.00
19,800.00	90.08	179.71	9,476.48	-9,163.24	-1,441.99	9,275.24	0.00	0.00	0.00
19,900.00	90.08	179.71	9,476.34	-9,263.24	-1,441.47	9,374.14	0.00	0.00	0.00
20,000.00	90.08	179.71	9,476.21	-9,363.24	-1,440.96	9,473.05	0.00	0.00	0.00
20,100.00	90.08	179.71	9,476.08	-9,463.24	-1,440.45	9,571.95	0.00	0.00	0.00
20,200.00	90.08	179.71	9,475.94	-9,563.24	-1,439.93	9,670.85	0.00	0.00	0.00
20,300.00	90.08	179.71	9,475.81	-9,663.24	-1,439.42	9,769.75	0.00	0.00	0.00
20,400.00	90.08	179.71	9,475.68	-9,763.24	-1,438.91	9,868.65	0.00	0.00	0.00
20,500.00	90.08	179.71	9,475.54	-9,863.23	-1,438.40	9,967.55	0.00	0.00	0.00
20,600.00	90.08	179.71	9,475.41	-9,963.23	-1,437.88	10,066.45	0.00	0.00	0.00
20,606.80	90.08	179.71	9,475.40	-9,970.03	-1,437.85	10,073.18	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well Corral Gorge 12_13 Fed Com 71H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB = 26' @ 3148.40ft (H&P 423)
Site:	Corral Gorge 12_13	**North Reference:**	Grid
Well:	Corral Gorge 12_13 Fed Com 71H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

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
KOP (Corral Gorge - plan misses target center by 1601.88ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	582.91	-1,492.05	419,181.37	661,469.96	32.151813	-103.945155
PBHL (Corral Gorge - plan hits target center - Point	0.00	0.00	9,475.40	-9,970.03	-1,437.85	408,629.23	661,524.16	32.122806	-103.945103
FTP (Corral Gorge - plan hits target center - Point	0.00	0.00	9,489.40	532.92	-1,491.69	419,131.38	661,470.32	32.151675	-103.945154

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
393.40	393.40	RUSTLER			
789.40	789.40	SALADO			
1,762.40	1,762.40	CASTILE			
3,305.67	3,305.40	BELL CANYON			
3,316.70	3,316.40	DELAWARE			
4,235.11	4,207.40	CHERRY CANYON			
5,677.72	5,579.40	BRUSHY CANYON			
7,268.59	7,092.40	BONE SPRING			
8,232.79	8,009.40	BONE SPRING 1ST			
9,128.39	8,861.40	BONE SPRING 2ND			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,070.00	3,070.00	0.00	0.00	Build 2°/100'
3,970.04	3,955.31	89.26	-108.15	Hold 18° Tangent
9,088.80	8,823.52	1,096.13	-1,328.18	KOP, Build & Turn 10°/100'
10,103.70	9,489.40	532.92	-1,491.69	Landing Point
20,606.80	9,475.40	-9,970.03	-1,437.85	TD at 20606.80' MD

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

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 321020

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 321020
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	3/12/2024