

Well Name: TOP SPOT 12_13 FED COM	Well Location: T22S / R31E / SEC 13 / SESW / 32.385551 / -103.733197	County or Parish/State: EDDY / NM
Well Number: 33H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM29233	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001547953	Operator: OXY USA INCORPORATED	

Notice of Intent

Sundry ID: 2782000

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/27/2024

Time Sundry Submitted: 01:24

Date proposed operation will begin: 07/01/2024

Procedure Description: Oxy USA Inc., respectfully requests to amend the subject APD with the following information: 3S SLIM BASE PLAN W/ 4S FALCON CONTINGENCY PLAN - THE SHL, BHL, POOL, HSU SIZE, WELL PAD, TVD, SURFACE CASING, INTERMEDIATE CASING, AND PRODUCTION CASING ARE CHANGING. The C-102, DRILL PLAN, CASING CONNECTIONS, DIRECTIONAL PLAN AND A CONTINGENCY TIE BACK ARE ATTACHED. UPDATED VARIANCE REQUESTS FOR BOP BREAK TESTING, BRADENHEAD CBL, AND OFFLINE CEMENT ARE ATTACHED. "SHL MOVING BY 163' TO THE SOUTH AND 1972' TO THE EAST. THERE IS NO ADDITIONAL SURFACE DISTURBANCE RELATED TO THIS SUNDRY"

NOI Attachments

Procedure Description

TOPSPOT12_13FEDCOM33H_OXY_APD_CHANGE_SUNDRY_LIST__03.27.24_20240528133426.pdf

TOPSPOT12_13FEDCOM33H_FalconSL1AnnClearanceVariance_20240327132300.pdf

TOPSPOT12_13FEDCOM33H_API_BTC_SC_10.750in_45.50ppf_L80IC_20240327132253.pdf

TOPSPOT12_13FEDCOM33H_TNSWedge463_7.827in_39.30ppf_P110S_20240327132246.pdf

TOPSPOT12_13FEDCOM33H_4SFalconSL1ContingencyTiebackDetails_20240327132239.pdf

TOPSPOT12_13FEDCOM33H_DrillPlan_4S_Cont_20240327132232.pdf

TOPSPOT12_13FEDCOM33H_FlexHoseCert_20240327132218.pdf

TOPSPOT12_13FEDCOM33H_ProdCsgAnnClearanceVariance_20240327131747.pdf

Well Name: TOPSPOT12_13 FED
COMWell Location: T22S / R31E / SEC 13 /
SESW / 32.385551 / -103.733197County or Parish/State: EDDY /
NM

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TOPSPOT12_13FEDCOM33H_OfflineCementVariance_20240327131736.pdf

TOPSPOT12_13FEDCOM33H_BradenheadCBLVariance_20240327131724.pdf

TOPSPOT12_13FEDCOM33H_BOPBreakTestingVariance_20240327131715.pdf

TOPSPOT12_13FEDCOM33H_TNSWedge461_5.500in_20.00ppf_P110CY_20240327131700.pdf

TOPSPOT12_13FEDCOM33H_DirectPlan_20240327131644.pdf

TOPSPOT12_13FEDCOM33H_DrillPlan_Sundry_20240327131626.pdf

TOPSPOT12_13FEDCOM33H_C102_20240327131618.pdf

Conditions of Approval**Additional**

TOP_SPOT_12_13_FED_COM_33H___SUNDRY_COA_20240521085221.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: MELISSA GUIDRY**Signed on:** MAY 28, 2024 01:33 PM**Name:** OXY USA INCORPORATED**Title:** Advisor Regulatory Sr.**Street Address:** 5 GREENWAY PLAZA SUITE 110**City:** HOUSTON**State:** TX**Phone:** (713) 497-2481**Email address:** MELISSA_GUIDRY@OXY.COM**Field****Representative Name:****Street Address:****City:****State:****Zip:****Phone:****Email address:****BLM Point of Contact****BLM POC Name:** CHRISTOPHER WALLS**BLM POC Title:** Petroleum Engineer**BLM POC Phone:** 5752342234**BLM POC Email Address:** cwalls@blm.gov**Disposition:** Approved**Disposition Date:** 06/03/2024**Signature:** Chris Walls

Well Name: T22S / R31E / SEC 13 /
COM

Well Location: T22S / R31E / SEC 13 /
SESW / 32.385551 / -103.733197

County or Parish/State: EDDY /
NM

Well Number: 33H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM29233

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001547953

Operator: OXY USA INCORPORATED

CONFIDENTIAL

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 <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM29233
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. TOP SPOT 12_13 FED COM/33H
2. Name of Operator OXY USA INCORPORATED		9. API Well No. 3001547953
3a. Address P.O. BOX 1002, TUPMAN, CA 93276-1002	3b. Phone No. (include area code) (661) 763-6046	10. Field and Pool or Exploratory Area WC-025 G-09 S223332A
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 13/T22S/R31E/NMP		11. Country or Parish, State EDDY/NM

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	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ 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 recompleate 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.)

Oxy USA Inc., respectfully requests to amend the subject APD with the following information:

3S SLIM BASE PLAN W/ 4S FALCON CONTINGENCY PLAN - THE SHL, BHL, POOL, HSU SIZE, WELL PAD, TVD, SURFACE CASING, INTERMEDIATE CASING, AND PRODUCTION CASING ARE CHANGING.

The C-102, DRILL PLAN, CASING CONNECTIONS, DIRECTIONAL PLAN AND A CONTINGENCY TIE BACK ARE ATTACHED. UPDATED VARIANCE REQUESTS FOR BOP BREAK TESTING, BRADENHEAD CBL, AND OFFLINE CEMENT ARE ATTACHED.

"SHL MOVING BY 163' TO THE SOUTH AND 1972' TO THE EAST. THERE IS NO ADDITIONAL SURFACE DISTURBANCE RELATED TO THIS SUNDRY"

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) MELISSA GUIDRY / Ph: (713) 497-2481	Title Advisor Regulatory Sr.
Signature (Electronic Submission)	Date 05/28/2024

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 06/03/2024
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 CARLSBAD	

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 of this form to U.S. Department of the Interior, Bureau of Land 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: SESW / 473 FSL / 2122 FWL / TWSP: 22S / RANGE: 31E / SECTION: 13 / LAT: 32.385551 / LONG: -103.733197 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 100 FSL / 2540 FWL / TWSP: 22S / RANGE: 31E / SECTION: 13 / LAT: 32.38452 / LONG: -103.731844 (TVD: 11851 feet, MD: 12267 feet)

BHL: NENW / 20 FNL / 2540 FWL / TWSP: 22S / RANGE: 31E / SECTION: 12 / LAT: 32.413232 / LONG: -103.731832 (TVD: 11851 feet, MD: 22712 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INCORPORATED
WELL NAME & NO.:	TOP SPOT 12-13 FED COM 33H
SURFACE HOLE FOOTAGE:	310'/S & 1186'/E
BOTTOM HOLE FOOTAGE:	20'/N & 545'/E
LOCATION:	Section 13, T.22 S., R.31 E.
COUNTY:	Eddy County, New Mexico

COA

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

A. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **893** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The 7-5/8 inch intermediate casing shall be set at approximately 9,237. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
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 to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
 - b. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 13-3/8" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

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

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

3. The 5-1/2 inch production casing shall be set at approximately **20,591**. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Contingency 4S Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately **893** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface
 - e. 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.
 - f. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - g. 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.
 - h. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **10-3/4** inch intermediate casing(salt string) shall be set at approximately **4,620**. The minimum required fill of cement behind the **10-3/4** 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.

3. The **7.827** inch intermediate casing shall be set at approximately **9,237**. 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 to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- c. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
 - d. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 10-3/4" X 7.827" 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.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

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

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

4. The 5-1/2 inch production liner shall be set at approximately **20,591**. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

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

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Eddy County: 575-361-2822**.

Casing Clearance:

- Overlap clearance OK in design A
- Casing clearance variance in place for liner overlap in design B. Clearance only not met at connections. Successfully pressure tested liner top will serve as zonal isolation barrier. CBL required if pool top is across liner interval.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate “coffee ground or less” before cementing.

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)
 - If well located in Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822
 - If well located in 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 **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. 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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-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 **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
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 **43 CFR part 3170 Subpart 3172** 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 **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 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 **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

KPI 5/21/2024

OXY APD CHANGE SUNDRY LIST

DATE	3/27/2024	
WELL NAME	TOP SPOT 12 13 FEDERAL COM 33H	
API NUMBER	30-015-47953	
SPUD DATE	7/1/2024	

ITEM	PREVIOUS	UPDATE
NAME	TOP SPOT 12 13 FEDERAL COM 33H	N/A
NSL	NA	N/A
SHL	473' FSL, 2122' FWL	310' FSL, 1186' FEL
PAD	LSTTNK 1301	LSTTNK 1302
BHL	20' FNL, 2540' FWL	20' FNL, 545' FEL
HSU SIZE, ACRES	640	320
POOL	Wolf Camp	Bone Spring
TARGET FORMATION	WCS31E13; Wolfcamp	Bilbrey Basin;Bone Spring
TVD	11851'	9911'
SURFACE CASING	869' MD, 17.5 (in), 54.5 LBS, 13.375 (in), J-55, BTC	893' MD, 17.5 (in), 54.5 LBS, 13.375 (in), J-55, BTC
INTERMEDIATE CASING	4511' MD, 12.25 (in), 40 lbs, 9.625 (in), L-80, BTC	9237' MD, 9.875 (in), 26.4 lbs, 7.625 (in), L-80 HC, BTC
INTERMEDIATE 2 CASING	11174' MD, 8.5 (in), 26.4 lbs, 7.625 (in), L-80 HC	Removed
PRODUCTION CASING	22712' MD, 6.75 (in), 20 lbs, 5.5 (in), P-110, DQX	20591' MD, 6.75 (in), 20 lbs, 5.5 (in), P-110, Wedge 461
LINER OR TIE BACK	N/A	N/A
CEMENT	Surface (Tail)- 919 sxs, 14.8 wt, 1.33 yld, Class C, Accel	933 sxs, 14.8 wt, 1.33 yld., Class C+Accel
	Interm (Lead) - 953 sxs, 12.9 wt, 1.88 yld, Pozz Cement, Retarder	Tail BH - 1235 sxs, 13.3 wt, 1.71 yld, Class C+Accel
	Interm, (Tail) - 155 sxs, 14.8 wt, 1.33 yld, Class C, Accel	316 sxs, 13.2 wt, 1.65 yld, Class H+Accel, Disper, Salt
	Interm, II 1st Stage (Tail), 212 sxs, 13.2 wt, 1.65 yld, Class H, Ret, Disp, Salt	Removed
	Interm, II 2nd Stage (Tail), 379 sxs, 12.9 wt, 1.92 yld, Class C, Accel	Removed
	Prod (Tail) - 882 sxs, 13.2 wt, 1.38 yld, Class H, Ret, Dispers, Salt	Prod (Tail) - 671 sxs, 13.3 wt, 1.84 yld, Class C, Ret
FACILITIES	NA	N/A
OTHER	NA	N/A

OTHER COMMENTS

3S SLIM BASE PLAN W/ 4S FALCON CONTINGENCY PLAN - THE SHL, BHL, POOL, HSU SIZE, WELL PAD, TVD, SURFACE CASING, INTERMEDIATE CASING, AND PRODUCTION CASING ARE CHANGING.

ATTACHMENTS

The C-102, DRILL PLAN, CASING CONNECTIONS, DIRECTIONAL PLAN AND A CONTINGENCY TIE BACK ARE ATTACHED. UPDATED VARIANCE REQUESTS FOR BOP BREAK TESTING, BRADENHEAD CBL, AND OFFLINE CEMENT ARE ATTACHED. "SHL MOVING BY 163' TO THE SOUTH AND 1972' TO THE EAST. THERE IS NO ADDITIONAL SURFACE DISTURBANCE RELATED TO THIS SUNDRY"

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.



API BTC -Special Clearance

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

Outside Diameter	10.750 in.	Wall Thickness	0.400 in.	Grade	L80-IC
Min. Wall Thickness	87.50 %	Pipe Body Drift	Alternative Drift	Type	Casing
Connection OD Option	Special Clearance				

Pipe Body Data

Geometry		Performance	
Nominal OD	10.750 in.	Drift	9.875 in.
Wall Thickness	0.400 in.	SMYS	80,000 psi
Nominal Weight	45.500 lb/ft	Plain End Weight	44.26 lb/ft
Nominal ID	9.950 in.	Min UTS	95,000 psi
		OD Tolerance	API
		Body Yield Strength	1040 x1000 lb
		Min. Internal Yield Pressure	5210 psi
		Collapse Pressure	2950 psi
		Max. Allowed Bending	34 °/100 ft

Connection Data

Geometry		Performance	
Thread per In	5	Joint Strength	1041 x1000 lb
Connection OD	11.250 in.	Coupling Face Load	478 x1000 lb
Hand Tight Stand Off	1 in.	Internal Pressure Capacity	4150 psi

Notes

For products according to API Standards 5CT & 5B; Performance calculated considering API Technical Report 5C3 (Sections 9 & 10) equations.
For geometrical and steel grades combinations not considered in the API Standards 5CT and/or 5B; Performance calculations indirectly derived from API Technical Report 5C3 (Sections 9 & 10) equations.
Couplings OD are shown according to current API 5CT 10th Edition.

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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 %	Operation Limit Torques	
Threads per inch	3.25	Compression Strength	1266 x1000 lb	Operating Torque	61,000 ft-lb
Connection OD Option	Regular	Max. Allowable Bending	64.42 °/100 ft	Yield Torque	70,000 ft-lb
		External Pressure Capacity	10,490 psi	Buck-On	
		Coupling Face Load	414,177 lb	Minimum	26,000 ft-lb
				Maximum	29,000 ft-lb

Notes

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

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PII/CII

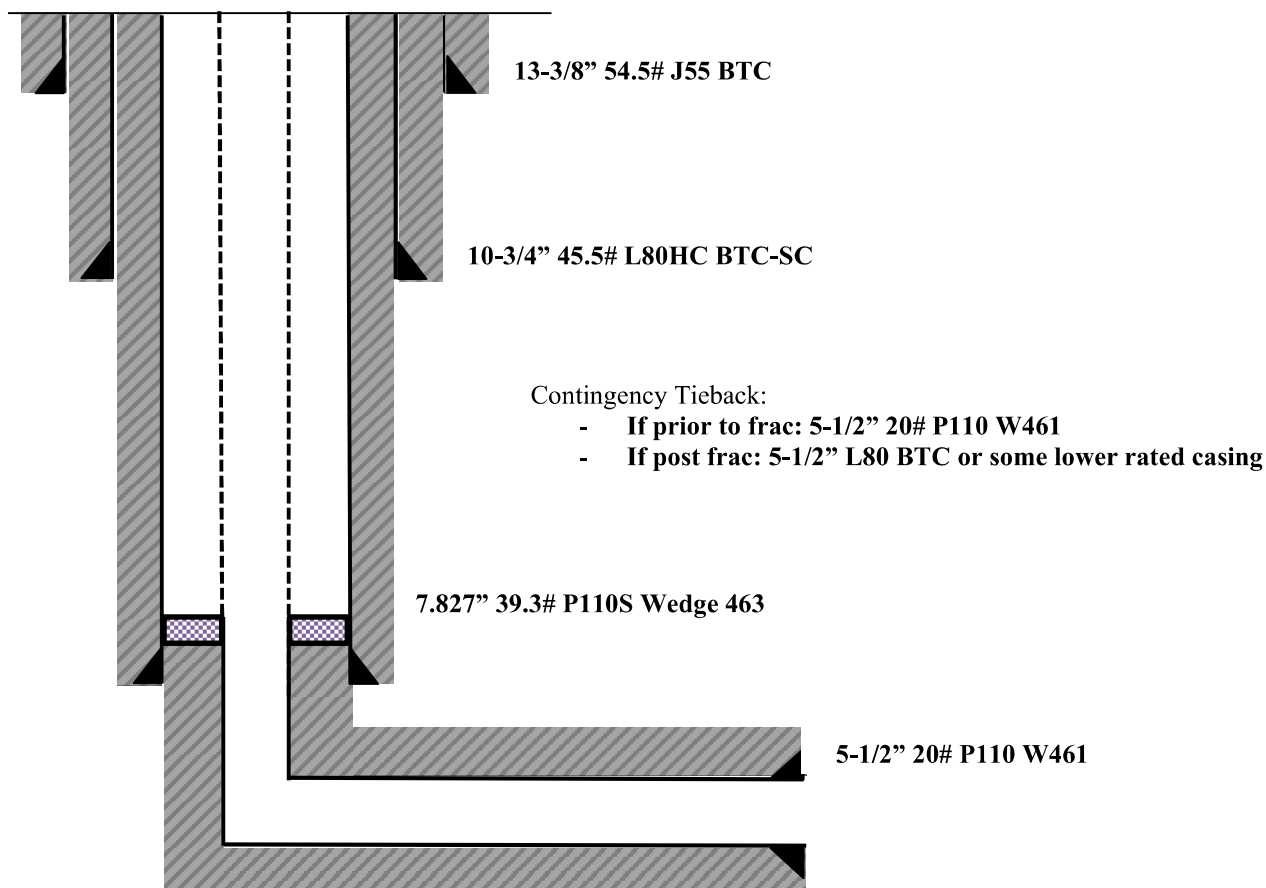
OXY USA WTP LP

4S Falcon SL1 Contingency Tieback Details

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

- Drill 17-1/2" hole x 13-3/8" casing for surface section. Cement to surface.
- Drill 12-1/4" hole x 10-3/4" casing for intermediate #1 section. Cement to surface.
- Drill 9-7/8" hole x 7.827" casing for intermediate #2 section. Cement to surface.
- Drill 6-3/4" hole x 5-1/2" liner for production section. Cement to top of liner, 200' 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:



Oxy USA Inc. - TOP SPOT 12_13 FED COM 33H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	9911	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20591	Deepest Expected Fresh Water (ft):	833

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	833	833	
Salado	1129	1129	Salt
Castile	2866	2866	Salt
Delaware	4520	4520	Oil/Gas/Brine
Bell Canyon	4600	4600	Oil/Gas/Brine
Cherry Canyon	5429	5428	Oil/Gas/Brine
Brushy Canyon	6677	6654	Losses
Bone Spring	8476	8414	Oil/Gas
Bone Spring 1st	9609	9522	Oil/Gas
Bone Spring 2nd			Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

Section	Hole Size (in)	MD		TVD		Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
		From (ft)	To (ft)	From (ft)	To (ft)				
Surface	17.5	0	893	0	893	13.375	54.5	J-55	BTC
Salt	12.25	0	4620	0	4620	10.75	45.5	L-80 HC	BTC-SC
Intermediate	9.875	0	9237	0	9156	7.827	39.3	P110S	Wedge 463
Production	6.75	9037	20591	8956	9911	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?	Y
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	Y
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft ³ /ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	933	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	85	1.33	14.8	20%	4,120	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	649	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	291	1.65	13.2	5%	6,927	Circulate	Class H+Accel., Disper., Salt
Int. 2	2	Intermediate 2S - Tail BH	890	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	654	1.84	13.3	25%	9,037	Circulate	Class C+Ret.

Offline Cementing Request

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

Bradenhead CBL Request

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

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:	TVD Depth (ft) per Section:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	4620
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9156
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9911
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			

*Specify if additional ram is utilized

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

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

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

BOP Break Testing Request

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

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

5. Mud Program

Section	Depth		Depth - TVD		Type	Weight (ppg)	Viscosity	Water Loss
	From (ft)	To (ft)	From (ft)	To (ft)				
Surface	0	893	0	893	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	893	4620	893	4620	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	4620	9237	4620	9156	Water-Based or Oil-Based Mud	8.0 - 10.0	38-50	N/C
Production	9237	20591	9156	9911	Water-Based or Oil-Based Mud	8.0 - 9.6	38-50	N/C

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

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

6. Logging and Testing Procedures

Logging, Coring and Testing.		
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).	
	Stated logs run will be in the Completion Report and submitted to the BLM.	
No	Logs are planned based on well control or offset log information.	
No	Drill stem test? If yes, explain	
No	Coring? If yes, explain	
Additional logs planned		
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	4948 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	160°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 6 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: 1749 bbls	

**Certificate of Conformity**

ContiTech

Certificate Number H100161	COM Order Reference 1429702	Customer Name & Address HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA	
Customer Purchase Order No: 740382384			
Project:			
Test Center Address ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Accepted by COM Inspection Signed: Gerson Mejia-Lazo Date: 06/27/22	Accepted by Client Inspection	

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

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

ContiTech Oil Marine Corp.

11535 Brittmoore Park Drive Houston, TX 77041, USA

Internal



Hydrostatic Test Certificate

ContiTech

Certificate Number H100161	COM Order Reference 1429702	Customer Name & Address HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA
Customer Purchase Order No: 740382384		
Project:		
Test Center Address ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Accepted by COM Inspection Signed: Gerson Mejia-Lazo Date: 06/27/22	Accepted by Client Inspection

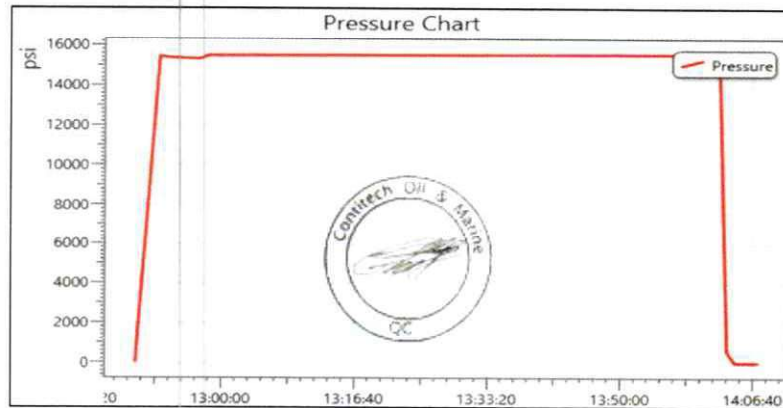
We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine Corporation.

Item	Part No.	Description	Qty	Serial Number	Work. Press. (psi)	Test Press. (psi)	Test Time (minutes)
------	----------	-------------	-----	---------------	--------------------	-------------------	---------------------

30	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70024	10,000	15,000	60
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Record Information	
Start Time	6/8/2022 12:49:19
End Time	6/8/2022 14:07:25
Interval	00:01:00
Number	79
MaxValue	15762
MinValue	-7
AvgValue	14395
RecordName	70024-sh
RecordNumber	235

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



ContiTech Oil Marine Corp.

11535 Brittmoore Park Drive Houston, TX 77041, USA

Internal

SIGNATURE: *Mona Dobb*
 TITLE: QUALITY ASSURANCE
 DATE: 11/20/2019

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

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

CERTIFICATE OF CONFORMANCE

EMAIL: Troy.Schmidt@gates.com

FAX:

PHONE : (281) 602-4119

Houston, TX. 77086

7603 Prairie Oak Dr.

Gates Engineering & Services North America



THIS WROTE 23/22
 IN USE
 AS

02.9
 10021
 2019
 CHOKES
 HOT



Revision 1_022819

PRODUCTION
11/20/2019
<i>[Signature]</i>

Production:
Date :
Signature :

QUALITY
11/20/2019
<i>[Signature]</i>

F-PRD-005

Quality:
Date :
Signature :

Gates Engineering & Services North America certifies that:

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

4 1/16 10K FLANGES FLOAT
L41242 113018
15,000 PSI.
10,000 PSI.

End Fitting 2:
Assembly Code:
Test Pressure:
Working Pressure:

4 1/16 10K FLANGES FIXED
68903010-9879429
10KFR3.012.0CK411610KFIXFLT 55A 5C LE

End Fitting 1:
Grade Star No.:
CUSTOMER P/N:

3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL ARMOR C/W 4 1/16 10K FIX X FLOAT H25 SUITED FLANGES WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS & LIFT EYE CLAMPS

Product Description:

11/20/2019
H2-112019-4
Norma Cabrera

Test Date:
Hose Serial No.:
Created By:

A-7 AUSTIN INC DBA AUSTIN HOSE
4128128 (RIG 1 PO 002773)
516982

Customer:
Customer Ref.:
Invoice No.:

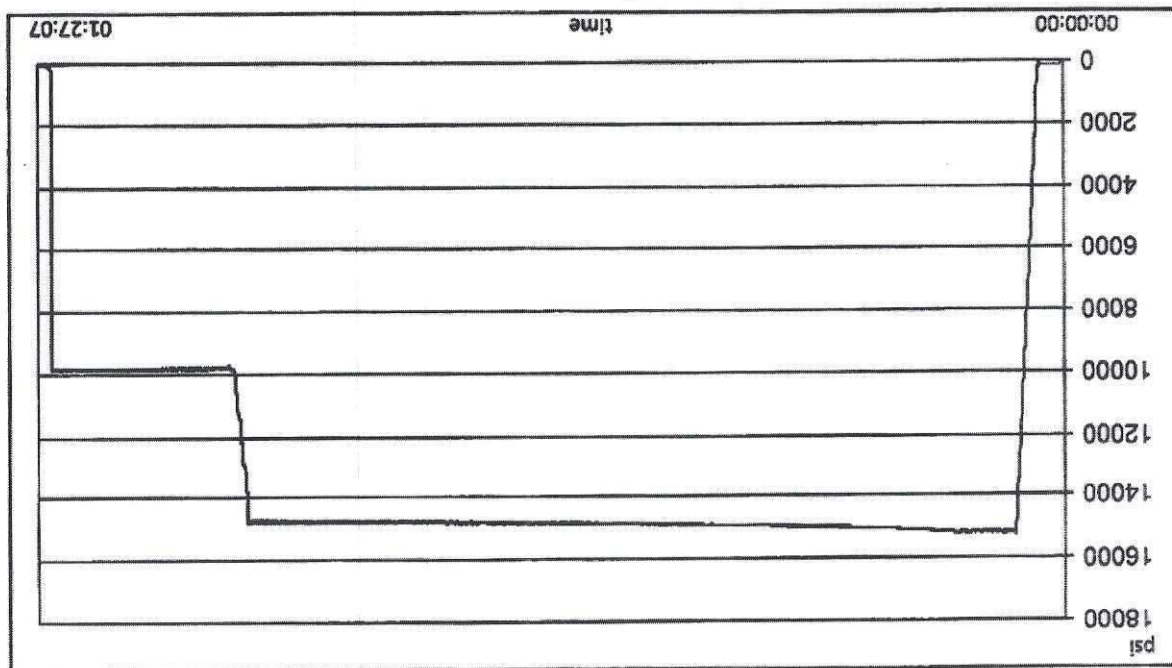
PRESSURE TEST CERTIFICATE

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

GATES ENGINEERING & SERVICES NORTH AMERICA

7603 Prairie Oak Dr.
Houston, TX 77086





Test operator: Roderick Shambra

Length measurement result:

Pressure test result: PASS

Visual check:

Length difference:

0.24 inch

Length difference:

0.00 %

Work pressure hold:

900.00 sec

Work pressure:

9750.00 psi

Test pressure hold:

3600.00 sec

Test pressure:

15000.00 psi

Test procedure:

GTS-04-053

TEST INFORMATION

Customer reference:

516982

Production description:

Austin Hose

Company:

TEST OBJECT

Serial number:

H2-112019-4

Lot number:

L41242113018

Description:

3.0 10K MS C&K

Part number:

3.0 x 4-1/16 10K

Fitting 1:

Description:

3.0 x 4-1/16 10K

Fitting 2:

Part number:

12 feet

Length:

11/20/2019 12:13:07 PM

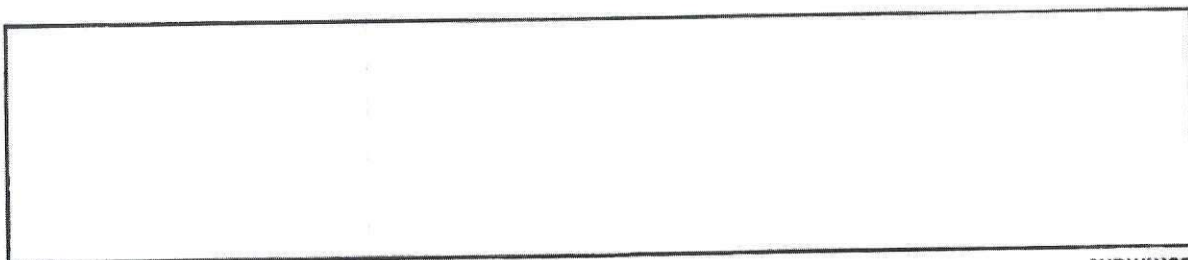
H2-1987

TEST REPORT



Page 2/2

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



Comment

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

GAUGE TRACEABILITY

TEST REPORT



11/20/2019 12:13:07 PM

H2-1987

Rev Date: 12/17/2019
Rev Date: 12/17/2019Garrett Crawford, Director of Quality
DW Industries Inc.

Certificate Issue Date: 2/27/2020

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

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

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

COPY
Certificate of Performance



QP-018-OF, Rev Nov
Rev Date: 12/17/2019Garrett Crawford, Director of Quality
DW Industries Inc.

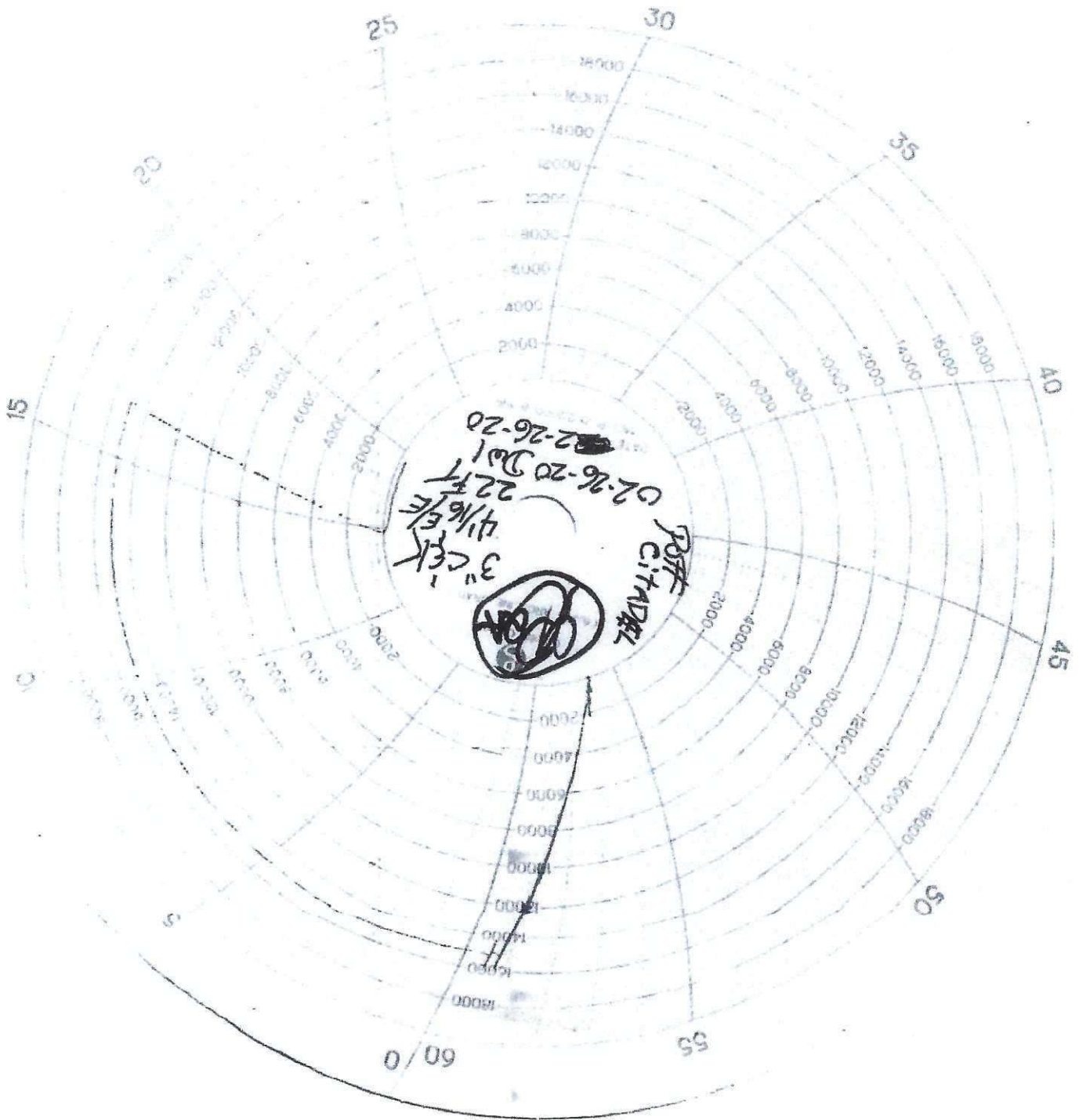
Certificate Issue Date: 2/27/2020

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

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

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

COPY
Certificate of Conformance



COPY

QF-018-OF, Rev New
Rev Date: 12/17/2019Quality Assurance,
DW Industries, Inc.

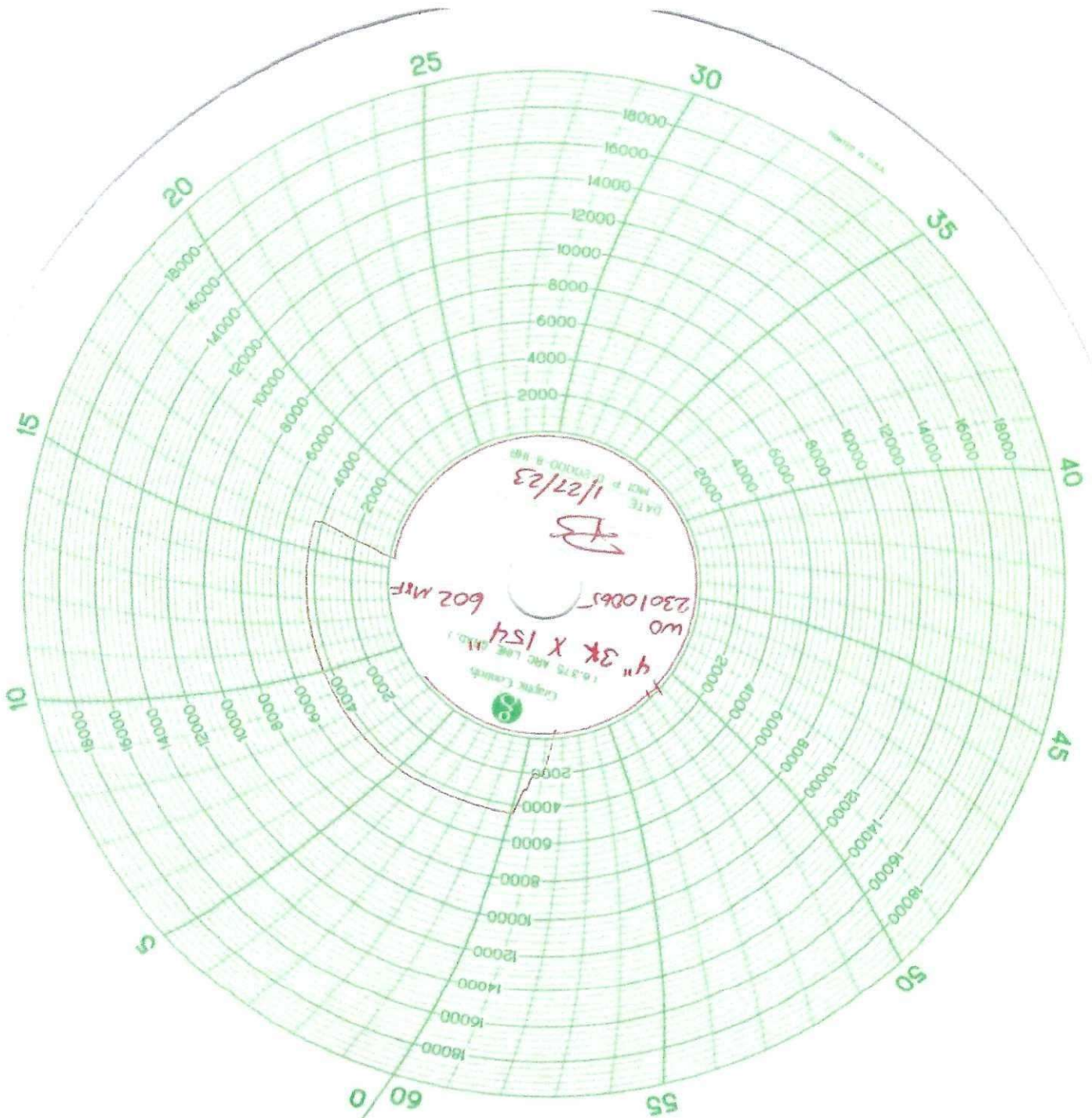
Certificate Issue Date: 1/27/2023

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

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

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

Certificate of Performance



IN SERVICE
12-20-21**BLACK GOLD®**

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

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

PRESSURE TEST CERTIFICATE

Customer:

A-7 AUSTIN INC DBA AUSTIN HOSE

Test Date:

10/15/2021

Customer Ref.:

00595477

Hose Serial No.:

H3-101521-2

Invoice No.:

521925

Created By:

Micky Mhina

Product Description:

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

End Fitting 1:

4 1/16 10K FIXED FLANGE

End Fitting 2:

4 1/16 10K FLOAT HEAT TREATED FLANGES

Oracle Star No.:

68703010-10074881

Assembly Code:

L41975 091719

CUSTOMER P/N:

10K3.035.0CK411610KFIXXFLTW/SSA/SC/LE

Test Pressure:

15,000 PSI.

Working Pressure:

10,000 PSI.

Gates Engineering & Services North America certifies that:

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

Quality:

QUALITY

Date :

10/15/2021

Signature :

Micky Mhina

Production:

PRODUCTION

Date :

10/15/2021

Signature :

[Signature]

F-PRD-005B

Revision 6_05032021

**BLACK GOLD®**

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

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

CERTIFICATE OF CONFORMANCE

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

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

SIGNATURE: *Allyce Winer*
TITLE: QUALITY ASSURANCE
DATE: 10/15/2021



H3-6963

10/15/2021 10:15:57 AM

TEST REPORT

CUSTOMER

Company: Austin Distributing

Production description:

Sales order #: 521925

Customer reference:

TEST OBJECT

Serial number: H3-101521-2

Lot number: L41975091719

Description:

Hose ID: 3" 10k ck

Part number:

TEST INFORMATION

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2: 3.0 x 4-1/16 10K

Part number:

Description:

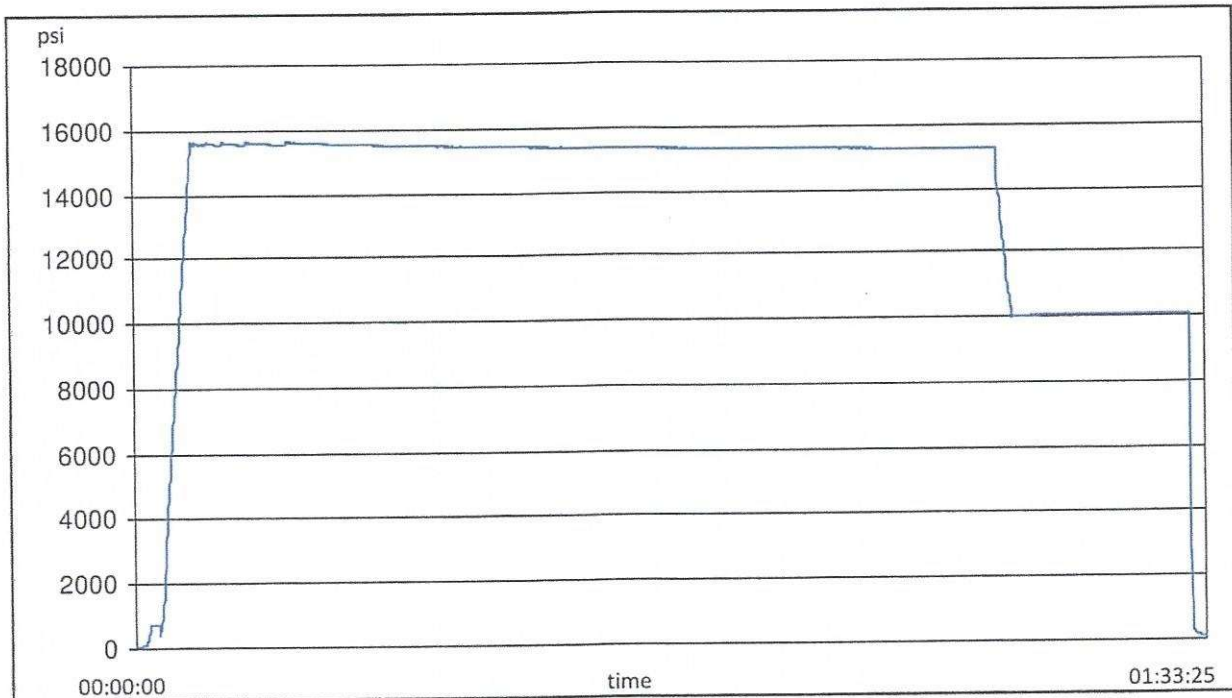
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 35 feet

Test operator: francisco





10/15/2021 10:15:57 AM

TEST REPORT

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

Comment

--

Hydrostatic Test Certificate

ContiTech

Certificate Number H100163		COM Order Reference 1429702		Customer Name & Address HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA	
Customer Purchase Order No: 740382384					
Project:					
Test Center Address ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA		Accepted by COM Inspection Signed: Gerson Mejia-Lazo Date: 07/14/22		Accepted by Client Inspection	

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

Item	Part No.	Description	Qty	Serial Number	Work. Press. (psi)	Test Press. (psi)	Test Time (minutes)
------	----------	-------------	-----	---------------	--------------------	-------------------	---------------------

50 RECERTIFICATION

3" ID 10K Choke and Kill Hose x 35ft OAL

1

70025

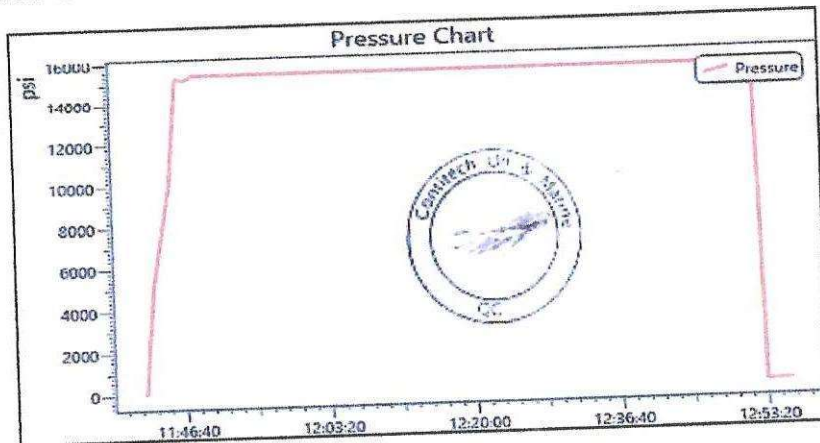
10,000

15,000

60

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

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





Certificate of Conformity

ContiTech

Certificate Number H100163	COM Order Reference 1429702	Customer Name & Address HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE TULSA, OK 74119 USA	
Customer Purchase Order No: 740382384			
Project:			
Test Center Address ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Accepted by COM Inspection Signed: Gerson Mejia-Lazo Date: 07/14/22 	Accepted by Client Inspection	

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

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

ARMORED CHOKE HOSE

Installed

4-29-22



ContiTech

 CONTITECH RUBBER
Industrial Kft.

No: QC-DB- 120 / 2019

Page: 16 / 91

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 75819	
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4501225327	
CONTITECH RUBBER order N°: 1127442		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 75819		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,68 m			
W.P. 69,0 MPa 10000 psi		T.P. 103,5 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature					
See attachment (1 page)					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		6026		AISI 4130	
4 1/16" 10K API Swivel Flange end				AISI 4130	
Hub				AISI 4130	
3" coupling with		6016		AISI 4130	
4 1/16" 10K API b.w. Flange end				AISI 4130	
Not Designed For Well Testing API Spec 16 C 2nd Edition– FSL2					
Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:	Inspector		Quality Control		
08. April 2019.			ContiTech Rubber Industrial Kft. Quality Control Dept. (1)		



Hose Assembly Evaluation Sheet

Prepared by:	Cristian Rivera	Date:	8/27/2022	QIN:	N/A
Customer:	HELMERICH & PAYNE, INC	Location:	H&P INT'L DRILLING CO 210 MAGNOLIA DR GALENA PARK, TX, 77547-2738		
User contact:	MITCH MCKINNIS	Phone:		e-mail:	mitch.mckinnis@hpinc.com
	Parameters	Hose Details			Test Status
Application Information	PO	740398454 (88000240 SN:70035)			PASS
	Gates SO	525035			
	Serial #:	88000240 SN:70035			
	As Tested Serial:	H2-082722-1 RE-TEST			
	Hose ID:	3 IN			
	Hose type:	INSPECT AND RETEST CUSTOMER HOSE 3IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16 FLANGES BX155 RING GROOVE EACH END			
	Working pressure:	10000 PSI.			

1. Visual Examination

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

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

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

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

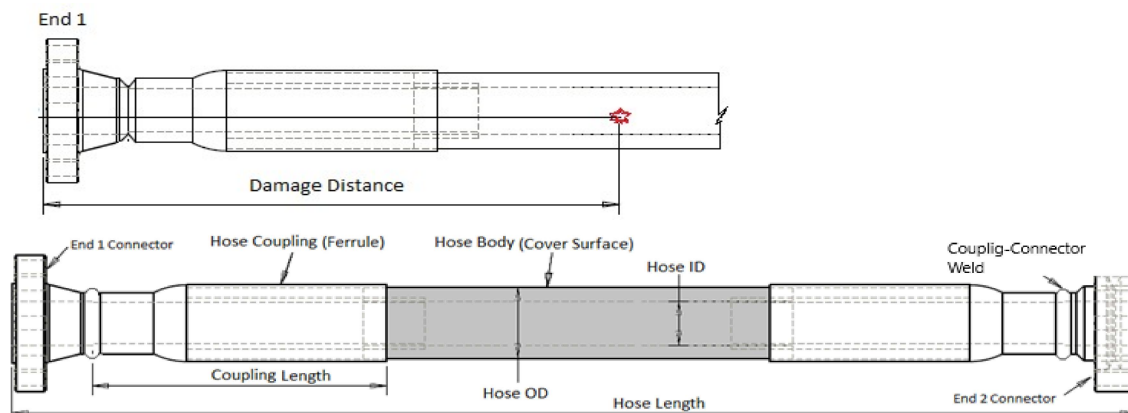


Figure 1: Generic Hose Assembly

Hose Assembly Evaluation Sheet

1.0 Observations and comments

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



Hose Assembly Evaluation Sheet

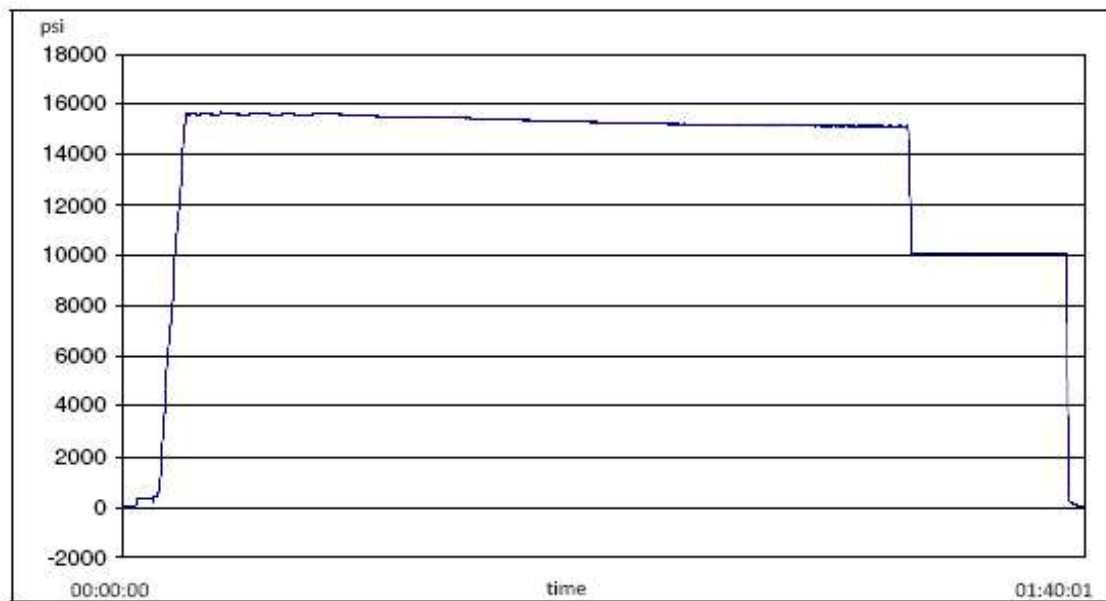
3	 Photos: At Shipping.
4	 Photos: Armor and Engraving.



Hose Assembly Evaluation Sheet

5	 Photo: In the Crate
---	---

2. Hydro Static Pressure test



2.1 Hydrostatic Pressure test Procedures

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

2.2 Gates Hydrostatic Pressure tester

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

Hose Assembly Evaluation Sheet

2.3 Hydro Static Test Pressure results

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

Note:

1. Hydrostatic Pressure report is given in Appendix 1

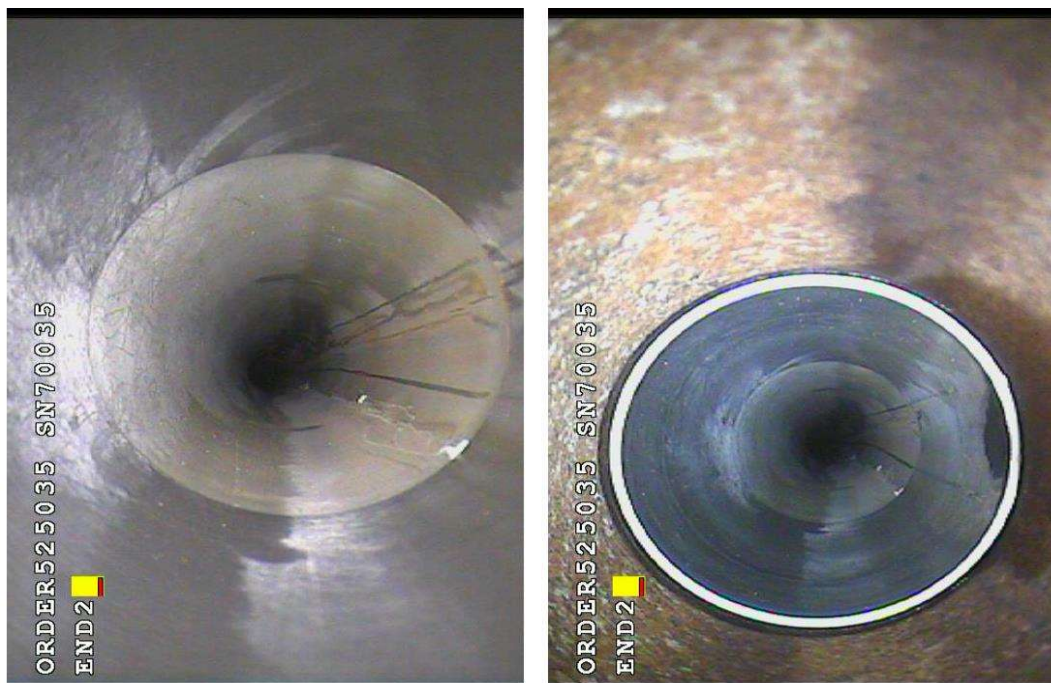
3. Hose borescope inspection

3.2 Internal Failure Details

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



Photos: Liner/Coupling Interface END 1

**Hose Assembly Evaluation Sheet**

Photos: Liner/Coupling Interface END 2

Note

Borescope completed? Yes

4. Summary

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



Hose Assembly Evaluation Sheet

APPENDIX 1:
Pressure Chart

H2-8316

8/27/2022 8:51:22 AM

TEST REPORT

CUSTOMER

Company:

Production description:

Sales order #:

525035

Customer reference:

740398454 (88000240 |
SN:70035)

TEST OBJECT

Serial number:

H2-082722-1

Lot number:

Description:

Hose ID:

3 10k C&K

Part number:

TEST INFORMATION

Test procedure:

3 10K C&K

Test pressure:

15000.00 psi

Test pressure hold:

3600.00 sec

Work pressure:

10000.00 psi

Work pressure hold:

900.00 sec

Length difference:

0.00 %

Length difference:

0.00 inch

Fitting 1:

3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2:

3.0 x 4-1/16 10K

Part number:

Description:

Visual check:

Pressure test result:

PASS

Length measurement result:

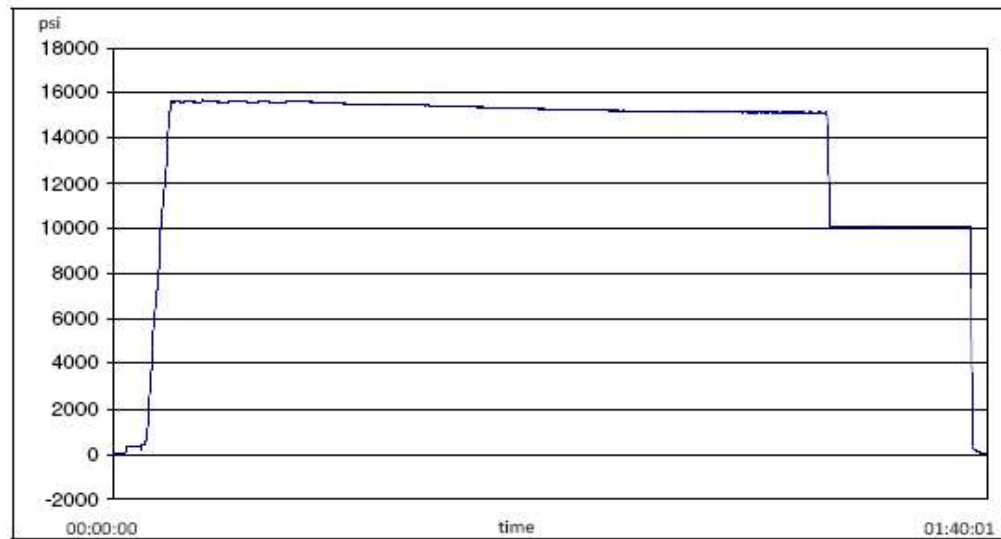
Length:

35

feet

Test operator:

Martin



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

Page 1/2



Hose Assembly Evaluation Sheet



H2-8316

8/27/2022 8:51:22 AM

TEST REPORT

GAUGE TRACEABILITY

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

Comment



Hose Assembly Evaluation Sheet

APPENDIX 2:
Certificate of Conformance

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

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

CERTIFICATE OF CONFORMANCE

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

CUSTOMER: HELMERICH & PAYNE, INC
CUSTOMER P.O.#: 740398454 (88000240 | SN:70035)
CUSTOMER P/N: 88000240 | SN:70035

PART DESCRIPTION: INSPECT AND RETEST CUSTOMER HOSE 3IN X 35FT CHOKE & KILL ASSEMBLY C/W 4-1/16
FLANGES BX155 RING GROOVE EACH END

SALES ORDER #: 525035
QUANTITY: 1
SERIAL #: H2-082722-1 RE-TEST

SIGNATURE: 
TITLE: QUALITY ASSURANCE
DATE: 8/27/2022

Production Casing Annular Clearance Variance Request

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

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

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

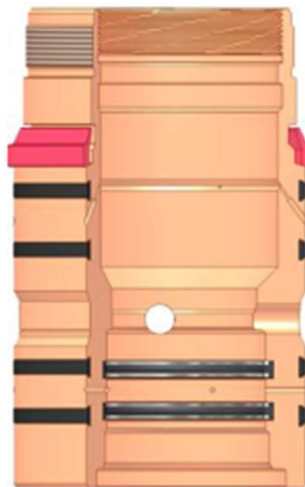
No changes to the cement program will take place for offline cementing.

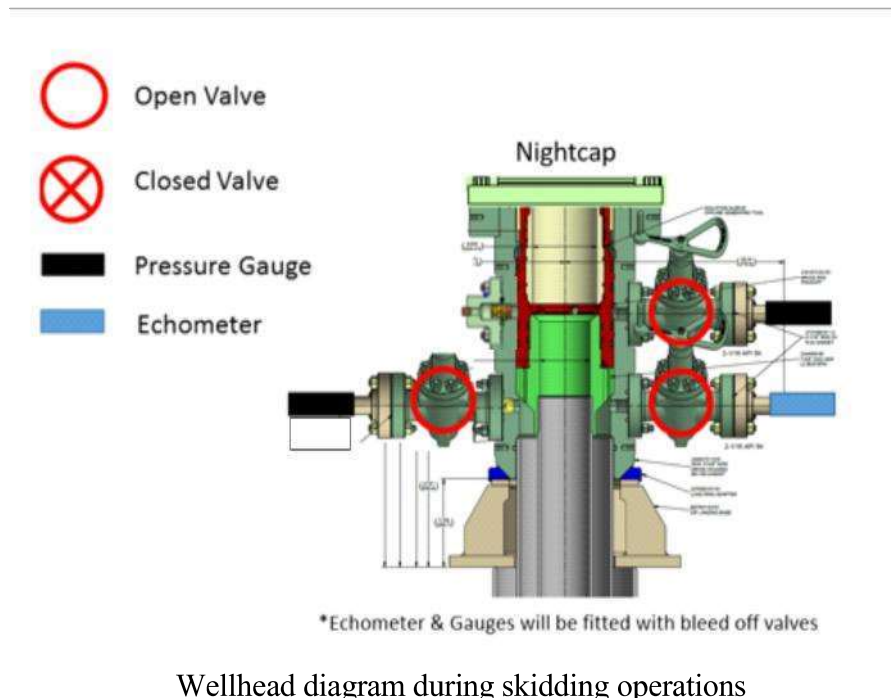
2. Offline Cementing Procedure

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

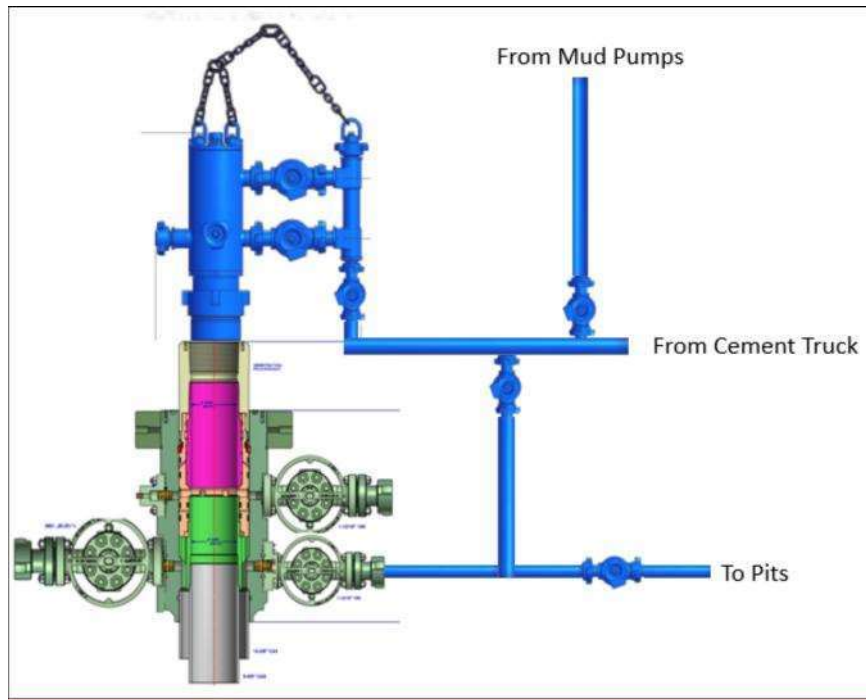
Annular packoff with both external and internal seals





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



Wellhead diagram during offline cementing operations

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

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

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 procedure.

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 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 initial break test will be tested on this break test

Notes:

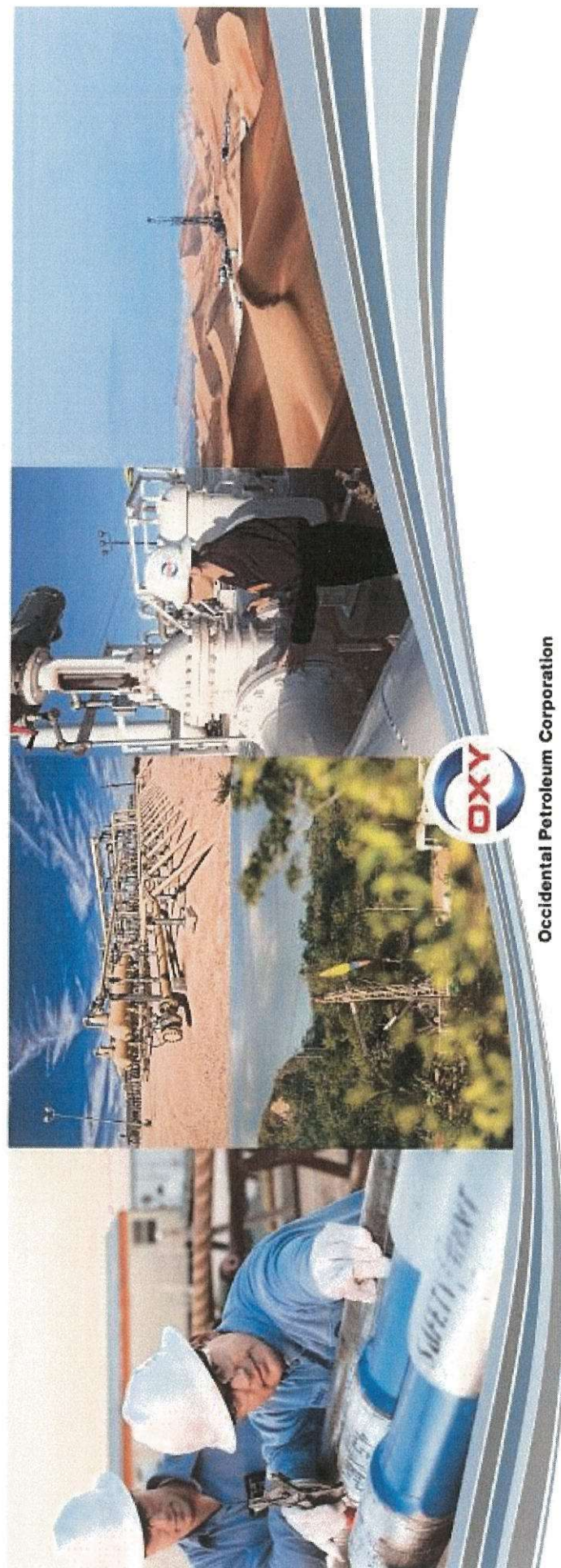
- a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
- b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step 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

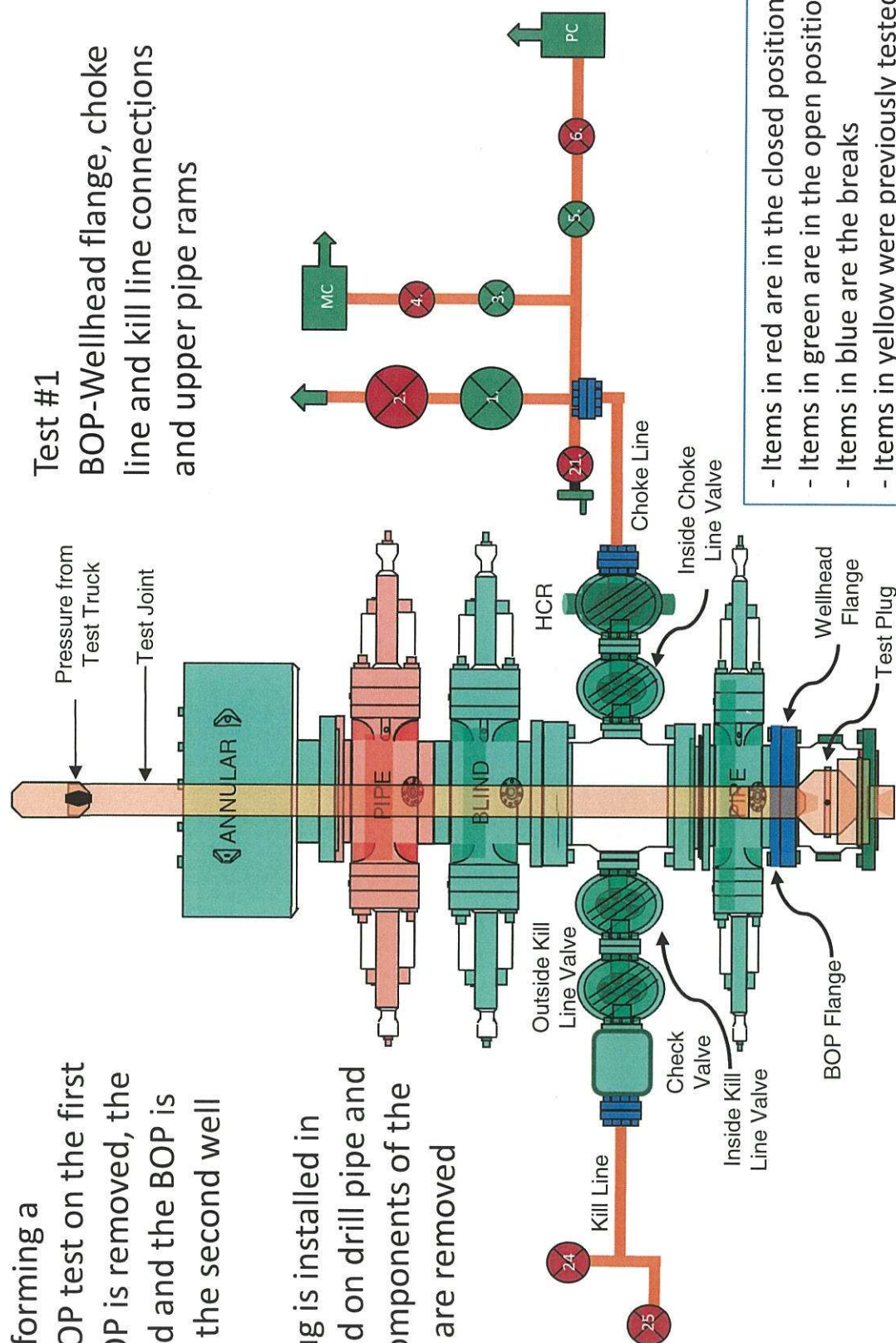
- 8) A shell test is performed against the upper pipe rams testing all three breaks
- 9) The internal parts of the check valve are reinstalled and the HCR valve is closed.
A second test is performed on them
- 10) These tests consist of a 250 psi low test and a high test to the valve submitted in the 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

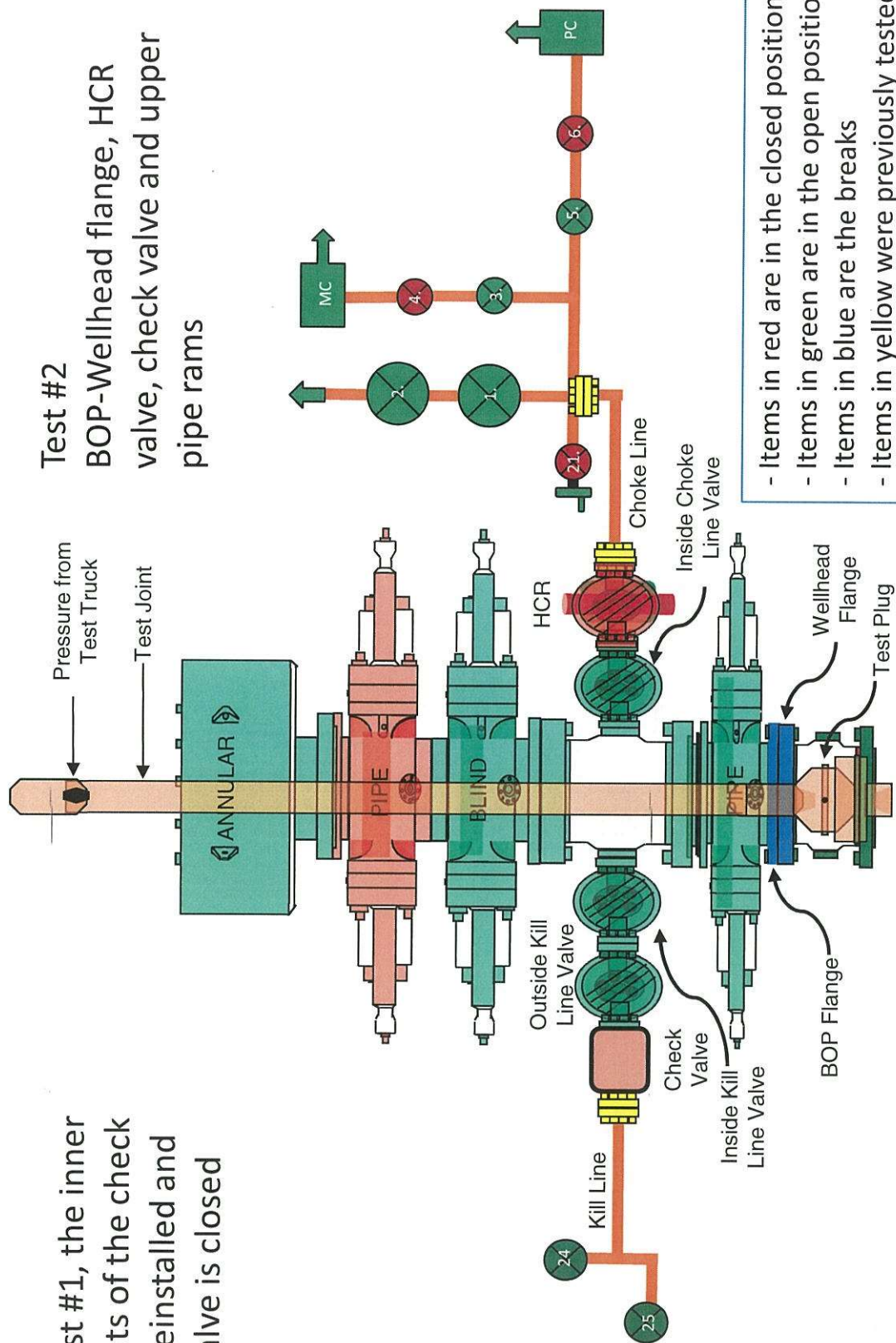
1. After performing a complete BOP test on the first well, the BOP is removed, the rig is skidded and the BOP is installed on the second well

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



Break Testing Procedures and Tests

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



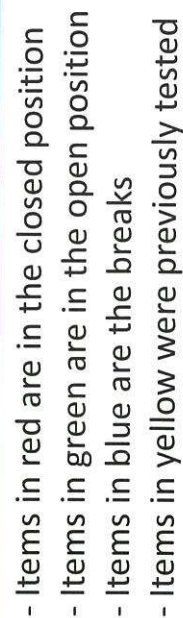
Test #2
BOP-Wellhead flange, HCR
valve, check valve and upper
pipe rams

- 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



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

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



BOP Handling System



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

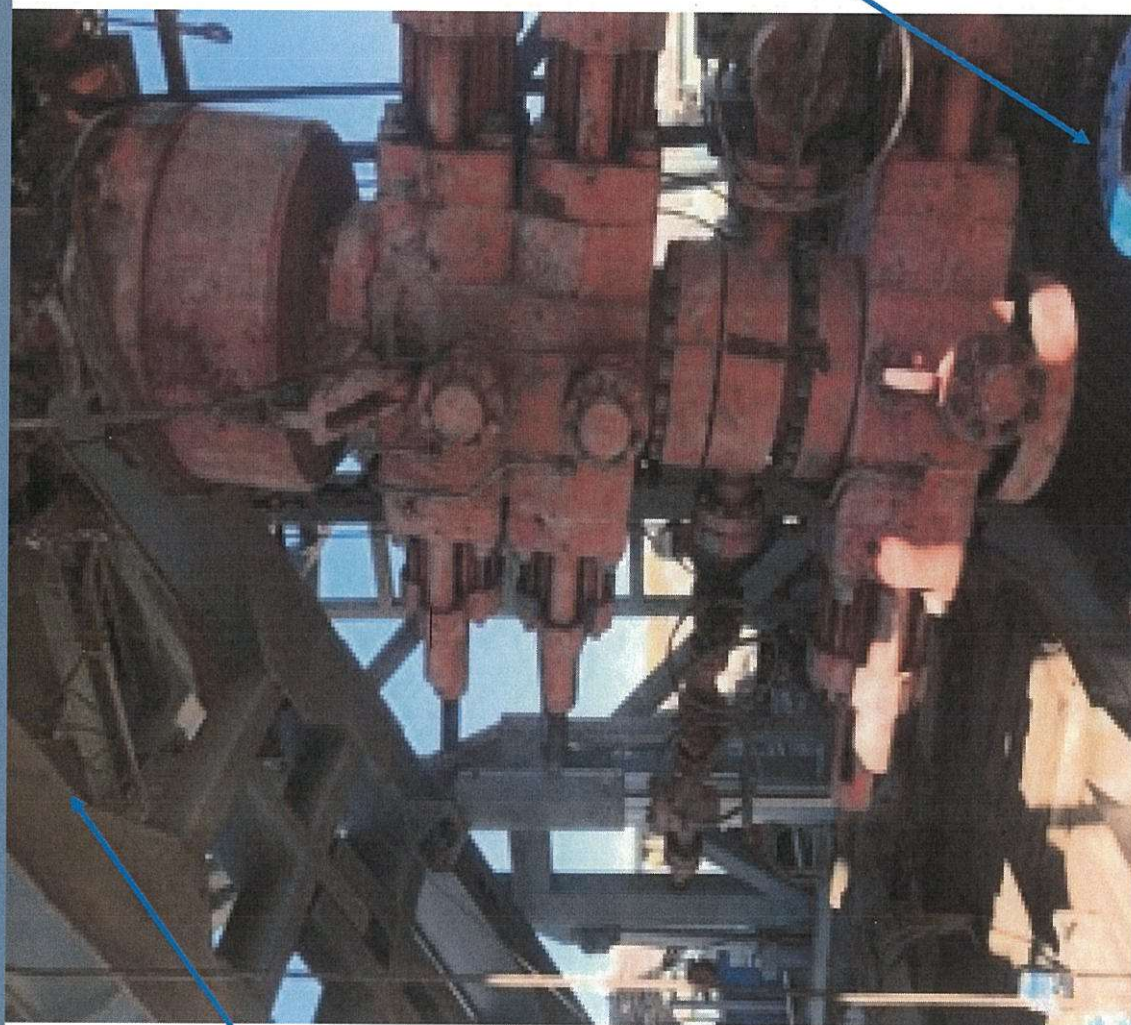
BOP standing in its carrier





12

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



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

PRD NM DIRECTIONAL PLANS (NAD 1983)

Top Spot 12_13 Fed Com

Top Spot 12_13 Fed Com 33H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

25 March, 2024

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	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	Top Spot 12_13 Fed Com		
Site Position:		Northing:	514,494.39 usft
From:	Map	Easting:	725,461.56 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32.413000
		Longitude:	-103.736677

Well	Top Spot 12_13 Fed Com 33H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.89 ft	Wellhead Elevation:	0.00 ft
Grid Convergence:	0.32 °		
		Latitude:	32.385099
		Longitude:	-103.726788
		Ground Level:	3,583.60 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	11/7/2019	6.73	60.12	48,028,30000000

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 (°)
	15.40	0.00	0.00	3.28

Plan Survey Tool Program	Date	3/25/2024		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,590.84	Permitting Plan (Wellbore #1)	B001Mc_MWD+HRGM_R5
				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	
4,825.00	0.00	0.00	4,825.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,024.75	12.00	137.46	6,016.00	-92.21	84.62	1.00	1.00	0.00	137.46	
9,337.32	12.00	137.46	9,256.21	-599.54	550.19	0.00	0.00	0.00	0.00	
10,325.84	90.00	359.70	9,910.70	-32.91	640.68	10.00	7.89	-13.94	-137.13	
20,590.84	90.00	359.70	9,910.70	10,231.94	586.07	0.00	0.00	0.00	0.00	PBHL (Top Spot

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	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
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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
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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
4,825.00	0.00	0.00	4,825.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.75	137.46	4,900.00	-0.36	0.33	-0.34	1.00	1.00	0.00
5,000.00	1.75	137.46	4,999.97	-1.97	1.81	-1.86	1.00	1.00	0.00
5,100.00	2.75	137.46	5,099.89	-4.86	4.46	-4.60	1.00	1.00	0.00
5,200.00	3.75	137.46	5,199.73	-9.04	8.29	-8.55	1.00	1.00	0.00
5,300.00	4.75	137.46	5,299.46	-14.50	13.31	-13.71	1.00	1.00	0.00

OXY

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	5.75	137.46	5,399.04	-21.24	19.49	-20.09	1.00	1.00	0.00
5,500.00	6.75	137.46	5,498.44	-29.26	26.85	-27.68	1.00	1.00	0.00
5,600.00	7.75	137.46	5,597.64	-38.56	35.39	-36.47	1.00	1.00	0.00
5,700.00	8.75	137.46	5,696.60	-49.13	45.09	-46.47	1.00	1.00	0.00
5,800.00	9.75	137.46	5,795.30	-60.97	55.96	-57.67	1.00	1.00	0.00
5,900.00	10.75	137.46	5,893.70	-74.08	67.99	-70.07	1.00	1.00	0.00
6,000.00	11.75	137.46	5,991.78	-88.46	81.18	-83.67	1.00	1.00	0.00
6,024.75	12.00	137.46	6,016.00	-92.21	84.62	-87.22	1.00	1.00	0.00
6,100.00	12.00	137.46	6,089.61	-103.73	95.20	-98.12	0.00	0.00	0.00
6,200.00	12.00	137.46	6,187.42	-119.05	109.25	-112.61	0.00	0.00	0.00
6,300.00	12.00	137.46	6,285.24	-134.36	123.31	-127.09	0.00	0.00	0.00
6,400.00	12.00	137.46	6,383.06	-149.68	137.36	-141.58	0.00	0.00	0.00
6,500.00	12.00	137.46	6,480.87	-165.00	151.42	-156.07	0.00	0.00	0.00
6,600.00	12.00	137.46	6,578.69	-180.31	165.47	-170.55	0.00	0.00	0.00
6,700.00	12.00	137.46	6,676.50	-195.63	179.53	-185.04	0.00	0.00	0.00
6,800.00	12.00	137.46	6,774.32	-210.94	193.58	-199.53	0.00	0.00	0.00
6,900.00	12.00	137.46	6,872.13	-226.26	207.64	-214.01	0.00	0.00	0.00
7,000.00	12.00	137.46	6,969.95	-241.57	221.69	-228.50	0.00	0.00	0.00
7,100.00	12.00	137.46	7,067.76	-256.89	235.74	-242.99	0.00	0.00	0.00
7,200.00	12.00	137.46	7,165.58	-272.20	249.80	-257.47	0.00	0.00	0.00
7,300.00	12.00	137.46	7,263.40	-287.52	263.85	-271.96	0.00	0.00	0.00
7,400.00	12.00	137.46	7,361.21	-302.83	277.91	-286.44	0.00	0.00	0.00
7,500.00	12.00	137.46	7,459.03	-318.15	291.96	-300.93	0.00	0.00	0.00
7,600.00	12.00	137.46	7,556.84	-333.46	306.02	-315.42	0.00	0.00	0.00
7,700.00	12.00	137.46	7,654.66	-348.78	320.07	-329.90	0.00	0.00	0.00
7,800.00	12.00	137.46	7,752.47	-364.09	334.13	-344.39	0.00	0.00	0.00
7,900.00	12.00	137.46	7,850.29	-379.41	348.18	-358.88	0.00	0.00	0.00
8,000.00	12.00	137.46	7,948.11	-394.72	362.24	-373.36	0.00	0.00	0.00
8,100.00	12.00	137.46	8,045.92	-410.04	376.29	-387.85	0.00	0.00	0.00
8,200.00	12.00	137.46	8,143.74	-425.35	390.35	-402.34	0.00	0.00	0.00
8,300.00	12.00	137.46	8,241.55	-440.67	404.40	-416.82	0.00	0.00	0.00
8,400.00	12.00	137.46	8,339.37	-455.98	418.46	-431.31	0.00	0.00	0.00
8,500.00	12.00	137.46	8,437.18	-471.30	432.51	-445.80	0.00	0.00	0.00
8,600.00	12.00	137.46	8,535.00	-486.61	446.57	-460.28	0.00	0.00	0.00
8,700.00	12.00	137.46	8,632.82	-501.93	460.62	-474.77	0.00	0.00	0.00
8,800.00	12.00	137.46	8,730.63	-517.25	474.68	-489.25	0.00	0.00	0.00
8,900.00	12.00	137.46	8,828.45	-532.56	488.73	-503.74	0.00	0.00	0.00
9,000.00	12.00	137.46	8,926.26	-547.88	502.79	-518.23	0.00	0.00	0.00
9,100.00	12.00	137.46	9,024.08	-563.19	516.84	-532.71	0.00	0.00	0.00
9,200.00	12.00	137.46	9,121.89	-578.51	530.90	-547.20	0.00	0.00	0.00
9,300.00	12.00	137.46	9,219.71	-593.82	544.95	-561.69	0.00	0.00	0.00
9,337.32	12.00	137.46	9,256.21	-599.54	550.19	-567.09	0.00	0.00	0.00
9,400.00	8.53	107.40	9,317.93	-605.73	559.04	-572.77	10.00	-5.53	-47.95
9,500.00	10.99	47.07	9,416.71	-601.45	573.13	-567.69	10.00	2.46	-60.33
9,600.00	19.17	23.96	9,513.26	-579.90	586.81	-545.40	10.00	8.18	-23.11
9,700.00	28.51	14.95	9,604.66	-541.75	599.67	-506.57	10.00	9.34	-9.02
9,800.00	38.16	10.17	9,688.13	-488.15	611.30	-452.39	10.00	9.66	-4.78
9,900.00	47.94	7.10	9,761.12	-420.73	621.37	-384.51	10.00	9.78	-3.07
10,000.00	57.78	4.86	9,821.42	-341.54	629.57	-304.98	10.00	9.84	-2.24
10,100.00	67.65	3.06	9,867.20	-252.99	635.63	-216.22	10.00	9.87	-1.80
10,200.00	77.54	1.50	9,897.07	-157.76	639.39	-120.94	10.00	9.89	-1.56
10,300.00	87.44	0.06	9,910.12	-58.75	640.73	-22.01	10.00	9.90	-1.44
10,325.84	90.00	359.70	9,910.70	-32.91	640.68	3.78	10.00	9.90	-1.42
10,400.00	90.00	359.70	9,910.70	41.24	640.28	77.79	0.00	0.00	0.00
10,500.00	90.00	359.70	9,910.70	141.24	639.75	177.59	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	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	90.00	359.70	9,910.70	241.24	639.22	277.40	0.00	0.00	0.00
10,700.00	90.00	359.70	9,910.70	341.24	638.69	377.20	0.00	0.00	0.00
10,800.00	90.00	359.70	9,910.70	441.23	638.15	477.01	0.00	0.00	0.00
10,900.00	90.00	359.70	9,910.70	541.23	637.62	576.81	0.00	0.00	0.00
11,000.00	90.00	359.70	9,910.70	641.23	637.09	676.61	0.00	0.00	0.00
11,100.00	90.00	359.70	9,910.70	741.23	636.56	776.42	0.00	0.00	0.00
11,200.00	90.00	359.70	9,910.70	841.23	636.03	876.22	0.00	0.00	0.00
11,300.00	90.00	359.70	9,910.70	941.23	635.49	976.03	0.00	0.00	0.00
11,400.00	90.00	359.70	9,910.70	1,041.23	634.96	1,075.83	0.00	0.00	0.00
11,500.00	90.00	359.70	9,910.70	1,141.22	634.43	1,175.64	0.00	0.00	0.00
11,600.00	90.00	359.70	9,910.70	1,241.22	633.90	1,275.44	0.00	0.00	0.00
11,700.00	90.00	359.70	9,910.70	1,341.22	633.37	1,375.25	0.00	0.00	0.00
11,800.00	90.00	359.70	9,910.70	1,441.22	632.84	1,475.05	0.00	0.00	0.00
11,900.00	90.00	359.70	9,910.70	1,541.22	632.30	1,574.86	0.00	0.00	0.00
12,000.00	90.00	359.70	9,910.70	1,641.22	631.77	1,674.66	0.00	0.00	0.00
12,100.00	90.00	359.70	9,910.70	1,741.22	631.24	1,774.46	0.00	0.00	0.00
12,200.00	90.00	359.70	9,910.70	1,841.21	630.71	1,874.27	0.00	0.00	0.00
12,300.00	90.00	359.70	9,910.70	1,941.21	630.18	1,974.07	0.00	0.00	0.00
12,400.00	90.00	359.70	9,910.70	2,041.21	629.64	2,073.88	0.00	0.00	0.00
12,500.00	90.00	359.70	9,910.70	2,141.21	629.11	2,173.68	0.00	0.00	0.00
12,600.00	90.00	359.70	9,910.70	2,241.21	628.58	2,273.49	0.00	0.00	0.00
12,700.00	90.00	359.70	9,910.70	2,341.21	628.05	2,373.29	0.00	0.00	0.00
12,800.00	90.00	359.70	9,910.70	2,441.21	627.52	2,473.10	0.00	0.00	0.00
12,900.00	90.00	359.70	9,910.70	2,541.21	626.98	2,572.90	0.00	0.00	0.00
13,000.00	90.00	359.70	9,910.70	2,641.20	626.45	2,672.71	0.00	0.00	0.00
13,100.00	90.00	359.70	9,910.70	2,741.20	625.92	2,772.51	0.00	0.00	0.00
13,200.00	90.00	359.70	9,910.70	2,841.20	625.39	2,872.31	0.00	0.00	0.00
13,300.00	90.00	359.70	9,910.70	2,941.20	624.86	2,972.12	0.00	0.00	0.00
13,400.00	90.00	359.70	9,910.70	3,041.20	624.32	3,071.92	0.00	0.00	0.00
13,500.00	90.00	359.70	9,910.70	3,141.20	623.79	3,171.73	0.00	0.00	0.00
13,600.00	90.00	359.70	9,910.70	3,241.20	623.26	3,271.53	0.00	0.00	0.00
13,700.00	90.00	359.70	9,910.70	3,341.19	622.73	3,371.34	0.00	0.00	0.00
13,800.00	90.00	359.70	9,910.70	3,441.19	622.20	3,471.14	0.00	0.00	0.00
13,900.00	90.00	359.70	9,910.70	3,541.19	621.66	3,570.95	0.00	0.00	0.00
14,000.00	90.00	359.70	9,910.70	3,641.19	621.13	3,670.75	0.00	0.00	0.00
14,100.00	90.00	359.70	9,910.70	3,741.19	620.60	3,770.55	0.00	0.00	0.00
14,200.00	90.00	359.70	9,910.70	3,841.19	620.07	3,870.36	0.00	0.00	0.00
14,300.00	90.00	359.70	9,910.70	3,941.19	619.54	3,970.16	0.00	0.00	0.00
14,400.00	90.00	359.70	9,910.70	4,041.18	619.00	4,069.97	0.00	0.00	0.00
14,500.00	90.00	359.70	9,910.70	4,141.18	618.47	4,169.77	0.00	0.00	0.00
14,600.00	90.00	359.70	9,910.70	4,241.18	617.94	4,269.58	0.00	0.00	0.00
14,700.00	90.00	359.70	9,910.70	4,341.18	617.41	4,369.38	0.00	0.00	0.00
14,800.00	90.00	359.70	9,910.70	4,441.18	616.88	4,469.19	0.00	0.00	0.00
14,900.00	90.00	359.70	9,910.70	4,541.18	616.34	4,568.99	0.00	0.00	0.00
15,000.00	90.00	359.70	9,910.70	4,641.18	615.81	4,668.80	0.00	0.00	0.00
15,100.00	90.00	359.70	9,910.70	4,741.17	615.28	4,768.60	0.00	0.00	0.00
15,200.00	90.00	359.70	9,910.70	4,841.17	614.75	4,868.40	0.00	0.00	0.00
15,300.00	90.00	359.70	9,910.70	4,941.17	614.22	4,968.21	0.00	0.00	0.00
15,400.00	90.00	359.70	9,910.70	5,041.17	613.68	5,068.01	0.00	0.00	0.00
15,500.00	90.00	359.70	9,910.70	5,141.17	613.15	5,167.82	0.00	0.00	0.00
15,600.00	90.00	359.70	9,910.70	5,241.17	612.62	5,267.62	0.00	0.00	0.00
15,700.00	90.00	359.70	9,910.70	5,341.17	612.09	5,367.43	0.00	0.00	0.00
15,800.00	90.00	359.70	9,910.70	5,441.16	611.56	5,467.23	0.00	0.00	0.00
15,900.00	90.00	359.70	9,910.70	5,541.16	611.02	5,567.04	0.00	0.00	0.00
16,000.00	90.00	359.70	9,910.70	5,641.16	610.49	5,666.84	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,100.00	90.00	359.70	9,910.70	5,741.16	609.96	5,766.65	0.00	0.00	0.00
16,200.00	90.00	359.70	9,910.70	5,841.16	609.43	5,866.45	0.00	0.00	0.00
16,300.00	90.00	359.70	9,910.70	5,941.16	608.90	5,966.25	0.00	0.00	0.00
16,400.00	90.00	359.70	9,910.70	6,041.16	608.36	6,066.06	0.00	0.00	0.00
16,500.00	90.00	359.70	9,910.70	6,141.15	607.83	6,165.86	0.00	0.00	0.00
16,600.00	90.00	359.70	9,910.70	6,241.15	607.30	6,265.67	0.00	0.00	0.00
16,700.00	90.00	359.70	9,910.70	6,341.15	606.77	6,365.47	0.00	0.00	0.00
16,800.00	90.00	359.70	9,910.70	6,441.15	606.24	6,465.28	0.00	0.00	0.00
16,900.00	90.00	359.70	9,910.70	6,541.15	605.70	6,565.08	0.00	0.00	0.00
17,000.00	90.00	359.70	9,910.70	6,641.15	605.17	6,664.89	0.00	0.00	0.00
17,100.00	90.00	359.70	9,910.70	6,741.15	604.64	6,764.69	0.00	0.00	0.00
17,200.00	90.00	359.70	9,910.70	6,841.14	604.11	6,864.50	0.00	0.00	0.00
17,300.00	90.00	359.70	9,910.70	6,941.14	603.58	6,964.30	0.00	0.00	0.00
17,400.00	90.00	359.70	9,910.70	7,041.14	603.05	7,064.10	0.00	0.00	0.00
17,500.00	90.00	359.70	9,910.70	7,141.14	602.51	7,163.91	0.00	0.00	0.00
17,600.00	90.00	359.70	9,910.70	7,241.14	601.98	7,263.71	0.00	0.00	0.00
17,700.00	90.00	359.70	9,910.70	7,341.14	601.45	7,363.52	0.00	0.00	0.00
17,800.00	90.00	359.70	9,910.70	7,441.14	600.92	7,463.32	0.00	0.00	0.00
17,900.00	90.00	359.70	9,910.70	7,541.13	600.39	7,563.13	0.00	0.00	0.00
18,000.00	90.00	359.70	9,910.70	7,641.13	599.85	7,662.93	0.00	0.00	0.00
18,100.00	90.00	359.70	9,910.70	7,741.13	599.32	7,762.74	0.00	0.00	0.00
18,200.00	90.00	359.70	9,910.70	7,841.13	598.79	7,862.54	0.00	0.00	0.00
18,300.00	90.00	359.70	9,910.70	7,941.13	598.26	7,962.35	0.00	0.00	0.00
18,400.00	90.00	359.70	9,910.70	8,041.13	597.73	8,062.15	0.00	0.00	0.00
18,500.00	90.00	359.70	9,910.70	8,141.13	597.19	8,161.95	0.00	0.00	0.00
18,600.00	90.00	359.70	9,910.70	8,241.12	596.66	8,261.76	0.00	0.00	0.00
18,700.00	90.00	359.70	9,910.70	8,341.12	596.13	8,361.56	0.00	0.00	0.00
18,800.00	90.00	359.70	9,910.70	8,441.12	595.60	8,461.37	0.00	0.00	0.00
18,900.00	90.00	359.70	9,910.70	8,541.12	595.07	8,561.17	0.00	0.00	0.00
19,000.00	90.00	359.70	9,910.70	8,641.12	594.53	8,660.98	0.00	0.00	0.00
19,100.00	90.00	359.70	9,910.70	8,741.12	594.00	8,760.78	0.00	0.00	0.00
19,200.00	90.00	359.70	9,910.70	8,841.12	593.47	8,860.59	0.00	0.00	0.00
19,300.00	90.00	359.70	9,910.70	8,941.11	592.94	8,960.39	0.00	0.00	0.00
19,400.00	90.00	359.70	9,910.70	9,041.11	592.41	9,060.20	0.00	0.00	0.00
19,500.00	90.00	359.70	9,910.70	9,141.11	591.87	9,160.00	0.00	0.00	0.00
19,600.00	90.00	359.70	9,910.70	9,241.11	591.34	9,259.80	0.00	0.00	0.00
19,700.00	90.00	359.70	9,910.70	9,341.11	590.81	9,359.61	0.00	0.00	0.00
19,800.00	90.00	359.70	9,910.70	9,441.11	590.28	9,459.41	0.00	0.00	0.00
19,900.00	90.00	359.70	9,910.70	9,541.11	589.75	9,559.22	0.00	0.00	0.00
20,000.00	90.00	359.70	9,910.70	9,641.10	589.21	9,659.02	0.00	0.00	0.00
20,100.00	90.00	359.70	9,910.70	9,741.10	588.68	9,758.83	0.00	0.00	0.00
20,200.00	90.00	359.70	9,910.70	9,841.10	588.15	9,858.63	0.00	0.00	0.00
20,300.00	90.00	359.70	9,910.70	9,941.10	587.62	9,958.44	0.00	0.00	0.00
20,400.00	90.00	359.70	9,910.70	10,041.10	587.09	10,058.24	0.00	0.00	0.00
20,500.00	90.00	359.70	9,910.70	10,141.10	586.55	10,158.04	0.00	0.00	0.00
20,590.84	90.00	359.70	9,910.70	10,231.94	586.07	10,248.71	0.00	0.00	0.00

OXY
Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well Top Spot 12_13 Fed Com 33H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=25' @ 3608.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=25' @ 3608.60ft
Site:	Top Spot 12_13 Fed Com	North Reference:	Grid
Well:	Top Spot 12_13 Fed Com 33H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
KOP (Top Spot 12_13 - plan misses target center by 884.88ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-607.09	643.78	503,754.35	729,214.67	32.383421	-103.724713
PBHL (Top Spot - plan hits target center - Point	0.00	0.00	9,910.70	10,231.94	586.07	514,592.81	729,156.96	32.413213	-103.724701
FTP (Top Spot 12_13 - plan misses target center by 25.91ft at 10157.01ft MD (9886.25 TVD, -199.33 N, 638.07 E) - Point	0.00	0.00	9,910.70	-207.15	641.60	504,154.27	729,212.49	32.384520	-103.724713

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
832.60	832.60	RUSTLER			
1,128.60	1,128.60	SALADO			
2,865.60	2,865.60	CASTILE			
4,519.60	4,519.60	DELAWARE			
4,599.60	4,599.60	BELL CANYON			
5,428.72	5,427.60	CHERRY CANYON			
6,676.59	6,653.60	BRUSHY CANYON			
8,475.89	8,413.60	BONE SPRING			
9,608.85	9,521.60	BONE SPRING 1ST			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,825.00	4,825.00	0.00	0.00	Build 1°/100'
6,024.75	6,016.00	-92.21	84.62	Hold 12° Tangent
9,337.32	9,256.21	-599.54	550.19	KOP, Build & Turn 10°/100'
10,325.84	9,910.70	-32.91	640.68	Landing Point
20,590.84	9,910.70	10,231.94	586.07	TD at 20590.84' MD

Oxy USA Inc. - TOP SPOT 12_13 FED COM 33H

Drill Plan

1. Geologic Formations

TVD of Target (ft):	9911	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	20591	Deepest Expected Fresh Water (ft):	833

Delaware Basin

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	833	833	
Salado	1129	1129	Salt
Castile	2866	2866	Salt
Delaware	4520	4520	Oil/Gas/Brine
Bell Canyon	4600	4600	Oil/Gas/Brine
Cherry Canyon	5429	5428	Oil/Gas/Brine
Brushy Canyon	6677	6654	Losses
Bone Spring	8476	8414	Oil/Gas
Bone Spring 1st	9609	9522	Oil/Gas
Bone Spring 2nd			Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

2. Casing Program

Section	Hole Size (in)	MD		TVD		Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
		From (ft)	To (ft)	From (ft)	To (ft)				
Surface	17.5	0	893	0	893	13.375	54.5	J-55	BTC
Intermediate	9.875	0	9237	0	9156	7.625	26.4	L-80 HC	BTC
Production	6.75	0	20591	0	9911	5.5	20	P-110	Wedge 461

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

*Oxy requests the option to run the 10.75" Intermediate I as a contingency string to be run only if severe hole conditions dictate an additional casing string necessary. This would make the planned 7.625" / 7.827" Casing the Intermediate II.

**If 4S Contingency is not required, Oxy requests permission to transition from 12.25" to 9.875" Intermediate I at 1st trip point below Brushy top (estimated top in formation table above). Cement volumes will be updated on C103 submission.

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

Annular Clearance Variance Request

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

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

3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft ³ /ft)	Density (lb/gal)	Excess:	TOC	Placement	Description
Surface	1	Surface - Tail	933	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	316	1.65	13.2	5%	6,927	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	1235	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	671	1.84	13.3	25%	8,737	Circulate	Class C+Ret.

Offline Cementing Request

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

Bradenhead CBL Request

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

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:	Deepest TVD Depth (ft) per Section:
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9156
		5M	Blind Ram	✓	250 psi / 5000 psi	
			Pipe Ram			
			Double Ram	✓		
			Other*			
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure	9911
		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	893	0	893	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	893	9237	893	9156	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	9237	20591	9156	9911	Water-Based or Oil-Based Mud	8.0 - 9.6	38-50	N/C

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

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

6. Logging and Testing Procedures

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4948 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	160°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 6 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: 1559 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

☐ AMENDED REPORT

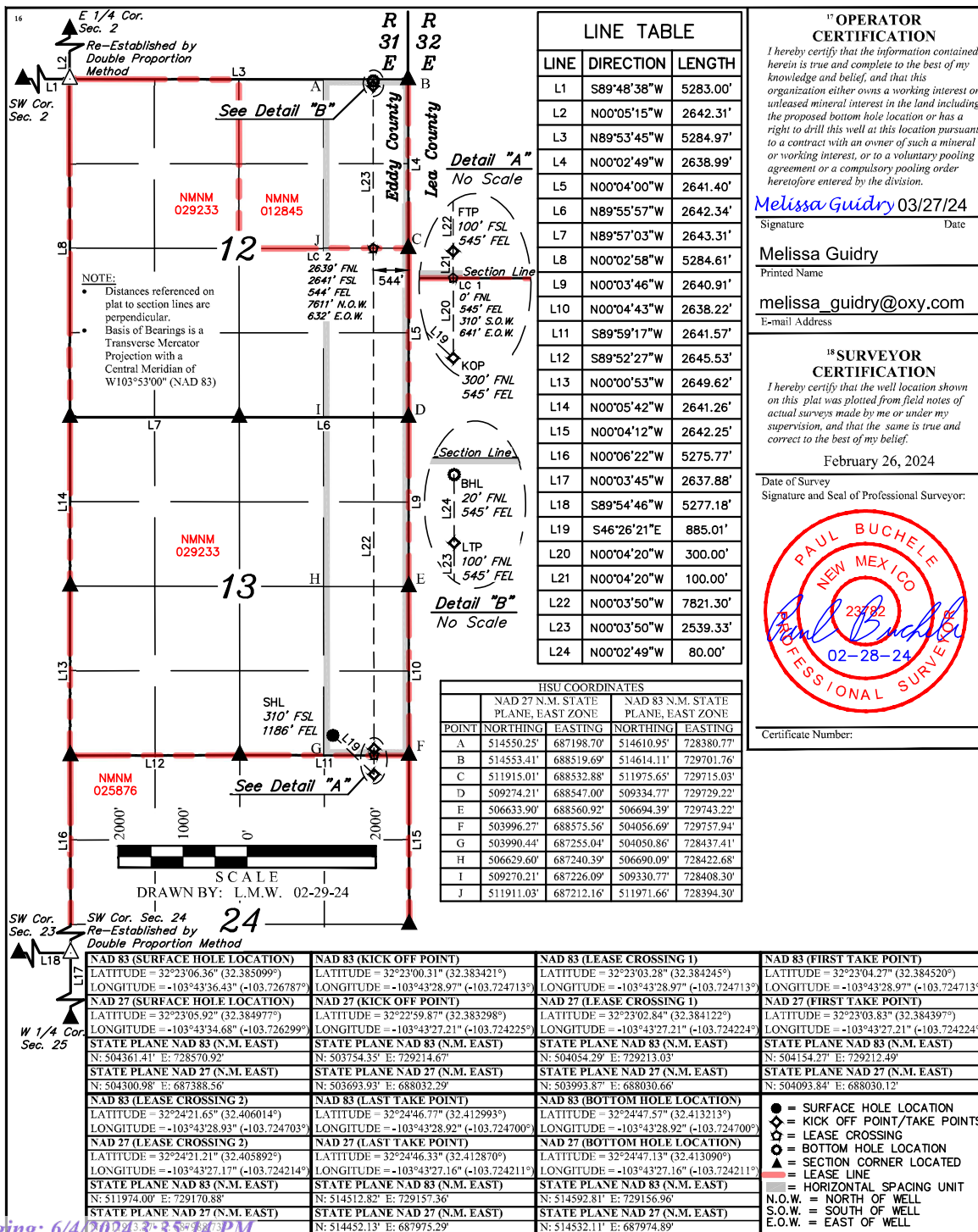
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47953	² Pool Code 5695	³ Pool Name BILBREY BASIN; BONE SPRING
⁴ Property Code	⁵ Property Name TOP SPOT 12 13 FED COM	⁶ Well Number 33H
⁷ OGRID No.	⁸ Operator Name OXY USA INC.	⁹ Elevation 3583.6'

¹⁰ Surface Location									
UL or lot no. P	Section 13	Township 22S	Range 31E	Lot Idn	Feet from the 310	North/South line SOUTH	Feet from the 1186	East/West line EAST	County EDDY

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. A	Section 12	Township 22S	Range 31E	Lot Idn	Feet from the 20	North/South line NORTH	Feet from the 545	East/West line EAST	County EDDY
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.



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

CONDITIONS

Action 350296

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 350296
	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.	6/4/2024