Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-015-56856 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction



(Continued on page 2)

\*(Instructions on page 2)

#### **Additional Operator Remarks**

#### **Location of Well**

0. SHL: NESW / 2463 FSL / 1776 FWL / TWSP: 21S / RANGE: 31E / SECTION: 36 / LAT: 32.4345594 / LONG: -103.7343008 ( TVD: 0 feet, MD: 0 feet ) PPP: NESW / 2543 FSL / 2050 FWL / TWSP: 21S / RANGE: 31E / SECTION: 36 / LAT: 32.434779 / LONG: -103.7334113 ( TVD: 9150 feet, MD: 9501 feet ) PPP: NESW / 2632 FNL / 2049 FWL / TWSP: 22S / RANGE: 31E / SECTION: 1 / LAT: 32.420554 / LONG: -103.7334174 ( TVD: 9150 feet, MD: 14150 feet ) BHL: SESW / 20 FSL / 2050 FWL / TWSP: 22S / RANGE: 31E / SECTION: 1 / LAT: 32.4133492 / LONG: -103.7334207 ( TVD: 9150 feet, MD: 16771 feet )

#### **BLM Point of Contact**

Name: TENILLE C MOLINA Title: Land Law Examiner Phone: (575) 234-2224

Email: TCMOLINA@BLM.GOV

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Submit Electronically Via OCD Permitting

# State of New Mexico Energy, Minerals, & Natural Resources Department OIL CONSERVATION DIVISION

Revised July 9,	2024
PAGE 1 OF 2	

Submittal Type:

X Initial Submittal Amended Report As Drilled

					WELL LOCATIO	N INFORMATION			
API Number Pool Code <b>5697</b>			56	95	Pool Name BILBREY B	ASIN: BON	JE SPRING		
Property Code Property Name						Well Number			
1 -	37357		' '		CTDECCED DECCE	RTS 36 1 FED COM		12H	Г
OGRID			Operator Na	ame	STRESSED DESSE	KIS 30_I TED COM		Ground Level Elevati	
OGIGE	1669	6	operator 1 to		OVVII	SA INC.		3565	
C C			<del></del>	$\Box$					
Surface	e Owner:	State	Fee Tr	ibal 🔃	Federal	Mineral Owner:	State Fee 7	Tribal 🔽 Federal	
					Surface	Location			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
K	36	21S	31E		2463' FSL	1776' FWL	32.43455942	-103.73430080	EDDY
					Bottom Ho	ole Location			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
N	01	22S	31E		20' FSL	2050' FWL	32.41334925	-103.73342072	EDDY
	•	•				•			
Dedicated Acres Infill or Defining Well			Definin	g Well API	Overlapping Spacing Unit (Y/N)		Consolidation Code		
9:	59.24	INFILL	_			N			
Order l	Numbers:	•				Well setbacks are under	Common Ownership:	Yes No	)
					Kick Off P	Point (KOP)			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
K	36	21S	31E		2593' FSL	2050' FWL	32.43491652	-103.73341130	EDDY
					First Take	Point (FTP)			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
K	36	21S	31E		2543' FSL	2050' FWL	32.43477909	-103.73341125	EDDY
	•	•	•		Last Take	Point (LTP)			
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude (NAD83)	Longitude (NAD83)	County
N	01	22S	31E		100' FSL	2050' FWL	32.41356914	-103.73342053	EDDY
		•	•		<u> </u>	•			
Unitized	d Area or Area	of Uniform Inter	est				Ground Floor E	levation	
				Spacin	g Unit Type: X Horiz	ontal Vertical		3565'	
				,					

#### OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the  $consent\ of\ at\ least\ one\ lessee\ or\ owner\ of\ a\ working\ interest\ or\ unleased\ mineral\ interest\ in$ each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Leslie T. Reeves 3/24/2025 Signature

LESLIE REEVES

Printed Name

LESLIE\_REEVES@OXY.COM

**Email Address** 

#### SURVEYOR CERTIFICATIONS

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



Signature and Seal of Professional Surveyor

Certificate Number

Date of Survey

21653

JANUARY 09, 2025

-- Dimension Lines

Federal Leases

JOB No. OXY 0037 SD04\_14283

REV 1 NDS 1/8/2025

O HSU Corners

✓ HSU

Section Corners

Drill Line

O Drill Line Events

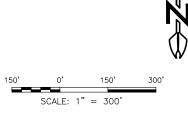


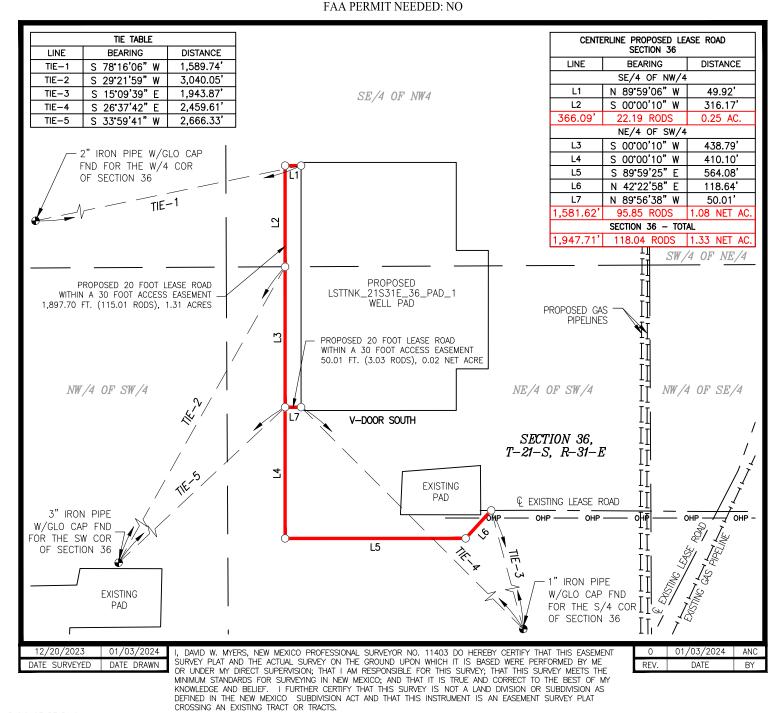
STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 36 TWP. 21-S RGE. 31-E SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: OXY USA, INC.

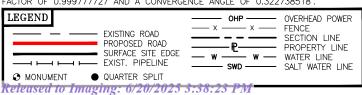
U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.





BASIS OF BEARING

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518°.









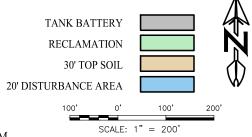
STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 21 TWP. 21-S RGE. 31-E

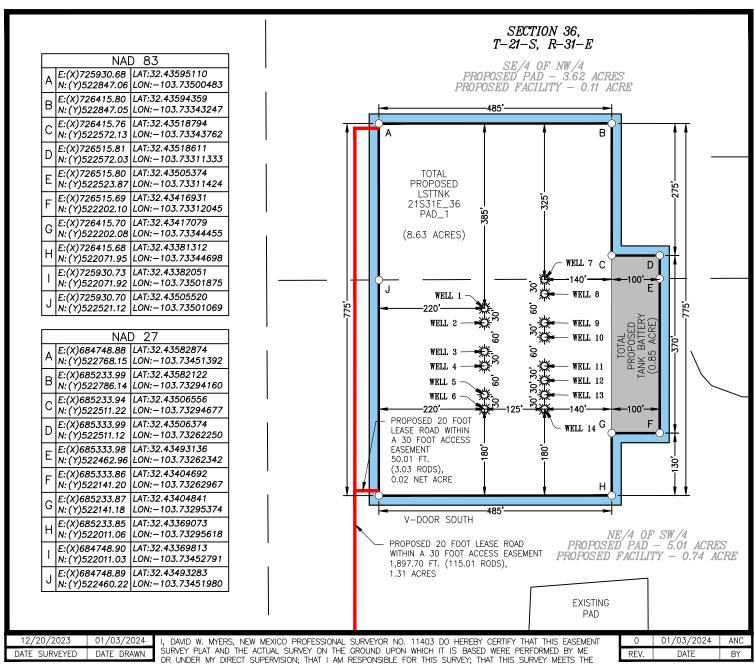
SURVEY: N.M.P.M. COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

FAA PERMIT NEEDED: NO

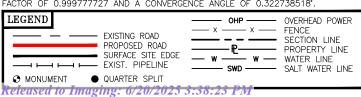


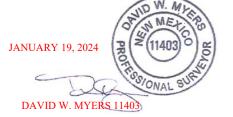


I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403 DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO. SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

BASIS OF BEARING

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518°.









STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD

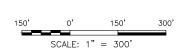
SEC. 36 TWP. 21-S RGE. 31-E SURVEY: N.M.P.M.

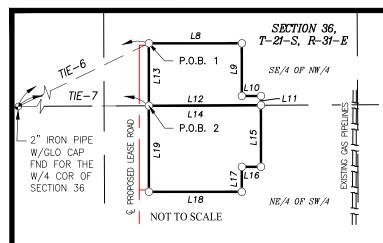
COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

FAA PERMIT NEEDED: NO





	PAD TABLE					
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	
	SE/4 OF NW	/4		NE/4 OF SW	/4	
L8	S 89*59'55" E	485.12'	L14	N 89°43'50" E	585.10'	
L9	S 00'00'33" W	274.91'	L15	S 00°01'06" W	321.76'	
L10	S 89*56'20" E	100.05'	L16	S 89*59'10" W	100.00'	
L11	S 00°01'06" W	48.16'	L17	S 00°00'33" W	130.13'	
L12	S 89°43'50" W	585.10'	L18	S 89°59'47" W	484.95'	
L13	N 00°00'13" W	325.94'	L19	N 00°00'13" W	449.19'	
SE/4 OF NW/4 AREA - 3.73 AC. NE/4 OF SW/4 AREA - 5.75 AC.						
TOTAL AREA — 9.48 AC.						

TIE TABLE					
LINE	BEARING	DISTANCE			
TIE-6	S 77*54'54" W	1,591.81			
TIE-7	S 89°43'50" W	1,556.57			

A tract of land being 9.48 acres of land. Said easement being located in Section 36, Township 21 South, Range 31 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described as the following:

#### (SE/4 OF NW/4)

BEGINNING (PLACE OF BEGINNING 1) at a point from which a 2 inch iron pipe with GLO cap found for the West quarter corner of said Section 36 bears S 77°54′54″ W a distance of 1,591.81 feet.

THENCE across the said Southeast quarter of the Northwest quarter of Section 36 the following courses and distances:

S 89°59'55" E a distance of 485.12 feet, S  $00^{\circ}00'33$ " W a distance of 274.91 feet, S  $89^{\circ}56'20$ " E a distance of 100.05 feet, S  $00^{\circ}01'06$ " W a distance of 48.16 feet, S  $89^{\circ}43'50$ " W a distance of 585.10 feet and N  $00^{\circ}00'13$ " W a distance of 325.94 feet to the PLACE OF BEGINNING 1.

The area of the above described proposed permanent easement in the said Southeast quarter of the Northwest quarter of Section 36 containing 3.73 acres of land.

#### (NE/4 OF SW/4)

BEGINNING (PLACE OF BEGINNING 2) at a point from which a 2 inch iron pipe with GLO cap found for the West quarter corner of said Section 36 bears S 89°43'50" W a distance of 1,556.57 feet.

THENCE continuing across the said Northeast quarter of the Southwest quarter of Section 36 the following courses and distances:

N 89°43'50" E a distance of 585.10 feet, S 00°01'06" W a distance of 321.76 feet, S 89°59'10" W a distance of 100.00 feet, S 00°00'33" W a distance of 130.13 feet, S 89°59'47" W a distance of 484.95 feet and N 00°00'13" W a distance of 449.19 feet to the PLACE OF BEGINNING 2.

The area of the above described proposed permanent easement in the said Northeast quarter of the Southwest quarter of Section 36 containing 5.75 acres of land.

The total area of the above described permanent easement in said Section 36 containing 9.48 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. All bearings, distances, coordinates and areas are grid measurements utilizing a combined scale factor of 0.999777727 and a convergence angle of 0.322738518°.

Title information furnished by OXY USA INC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

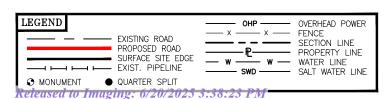
#### STATE OF NEW MEXICO

#### COUNTY OF EDDY

I, David W. Myers, New Mexico Professional Surveyor No. 11403 do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.

12/20/2023	01/03/2024
DATE SURVEYED	DATE DRAWN

AND W. MAR	,		
	REV.	DATE	BY
	U	01/03/2024	ANC









STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 36 TWP. 21-S RGE. 31-E SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

FAA PERMIT NEEDED: NO



#### WELL 1 STRESSED DESSERTS 36\_1 FED COM 21H OXY USA, INC.

2,583' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.83' / Y:522461.97' LAT:32.43488923N / LON:103.73429829W NAD 27, SPCS NM EAST X:684969.01' / Y:522401.07' LAT:32.43476686N / LON:103.73380744W ELEVATION = 3561'

#### WELL 2 STRESSED DESSERTS 36\_1 FED COM 22H OXY USA, INC.

2,553' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.75' / Y:522432.05' LAT:32.43480697N / LON:103.73429908W NAD 27, SPCS NM EAST X:684968.94' / Y:522371.14' LAT:32.43468460N / LON:103.73380823W FI EVAITON = 3561'

#### WELL 3 STRESSED DESSERTS 36\_1 FED COM 11H OXY USA, INC.

2,493' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.66' / Y:522372.00' LAT:32.43464192N / LON:103.73430047W NAD 27, SPCS NM EAST X:684968.84' / Y:522311.09' LAT:32.43451955N / LON:103.73380962W ELEVATION = 3563'

#### WELL 4 STRESSED DESSERTS 36\_1 FED COM 12H OXY USA, INC.

2,463' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.73' / Y:522341.98' LAT:32.43455942N / LON:103.73430080W NAD 27, SPCS NM EAST X:684968.91' / Y:522281.08' LAT:32.43443705N / LON:103.73380996W ELEVATION = 3565'

# WELL 5 STRESSED DESSERTS 36\_1 FED COM 1H OXY USA, INC. 2.403' FSL 1.775' FWL SECTION 36

2,403' FSL 1,775' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726150.73' / Y:522281.91'

LAT:32.43439431N / LON:103.73430190W

NAD 27, SPCS NM EAST

X:684968.90' / Y:522221.01'

LAT:32.43427194N / LON:103.73381106W

ELEVATION = 3570'

# WELL 6 STRESSED DESSERTS 36\_1 FED COM 2H OXY USA, INC. 2,373' FSL 1,775' FWL, SECTION 36

2,373' FSL 1,775' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.76' / Y:522252.11' LAT:32.43431239N / LON:103.73430234W NAD 27, SPCS NM EAST X:684968.93' / Y:522191.21' LAT:32.43419002N / LON:103.73381150W ELEVATION = 3576'

#### WELL 7 STRESSED DESSERTS 36\_1 FED COM 41H OXY USA, INC. 2,642' FSL 1,902' FWL, SECTION 36

2,642' FSL 1,902' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.77' / Y:522522.03' LAT:32.43505239N / LON:103.73389226W NAD 27, SPCS NM EAST X:685093.95' / Y:522461.13' LAT:32.43493002N / LON:103.73340141W ELEVATION = 3563'

# WELL 8 STRESSED DESSERTS 36\_1 FED COM 42H OXY USA, INC. 2612' FSL 1,902' FWL, SECTION 36

2612' FSL 1,902' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726275.87' / Y:522492.03'

LAT:32.43496992N / LON:103.73389247W

NAD 27, SPCS NM EAST

X:685094.05' / Y:522431.12'

LAT:32.43484755N / LON:103.73340163W

ELEVATION = 3564'

#### WELL 9 STRESSED DESSERTS 36\_1 FED COM 71H OXY USA. INC.

OXY USA, INC.
2,552' FS1, 1,901' FWL, SECTION 36
NAD 83, SPCS NM EAST
X:726275.80' / Y:522431.96'
LAT:32.43480480N / LON:103.73389380W
NAD 27, SPCS NM EAST
X:685093.98' / Y:522371.05'
LAT:32.43468243N / LON:103.73340296W

FIFVATION = 3565

#### WELL 10 STRESSED DESSERTS 36\_1 FED COM 72H OXY USA, INC.

2,522' FSL 1,901' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.83' / Y:522402.01' LAT:32.43472250N / LON:103.73389422W NAD 27, SPCS NM EAST X:685094.01' / Y:522341.11' LAT:32.43460012N / LON:103.73340339W FI FVATION = 3566'

#### WELL 11 STRESSED DESSERTS 36\_1 FED COM 31H OXY USA, INC.

2,462' FSL 1,901' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.74' / Y:522341.86' LAT:32.43455717N / LON:103.73389561W NAD 27, SPCS NM EAST X:685093.92' / Y:522280.96' LAT:32.43443479N / LON:103.73340478W ELEVATION = 3565'

#### WELL 12 STRESSED DESSERTS 36\_1 FED COM 32H OXY USA, INC.

2,432' FSL 1,900' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.84' / Y:522312.05' LAT:32.43447521N / LON:103.73389585W NAD 27, SPCS NM EAST X:685094.01' / Y:522251.15' LAT:32.43435284N / LON:103.73340502W FI FVATION = 3566'

#### WELL 13 STRESSED DESSERTS 36\_1 FED COM 33H OXY USA, INC.

2,402' FSL 1,900' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.80' / Y:522281.93' LAT:32.43439242N / LON:103.73389650W NAD 27, SPCS NM EAST X:685093.98' / Y:522221.03' LAT:32.43427004N / LON:103.73340568W ELEVATION = 3566'

#### WELL 14 STRESSED DESSERTS 36\_1 FED COM 34H OXY USA, INC.

2,372' FSL 1,900' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726275.80' / Y:522251.98'

LAT:32.43431011N / LON:103.73389706W

NAD 27, SPCS NM EAST

X:685093.98' / Y:522191.08'

LAT:32.43418773N / LON:103.73340624W

ELEVATION = 3567'

12/20/2023 01/03/2024

DATE SURVEYED DATE DRAWN

I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403 DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO. SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

0	01/03/2024	ANC
0	01/00/2021	AIVO
חבע/	DATE	

BASIS OF BEARING
ALL BEARINGS AND COORT

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518\*.

FACTOR OF 0.999777	727 AND A CONVERGE	ENCE ANGLE OF 0.322	738518°.
LEGEND	- EXISTING ROAD - PROPOSED ROAD - SURFACE SITE EDGE - EXIST. PIPELINE	X X X X	FENCE SECTION LINE PROPERTY LINE
♠ MONUMENT	<ul><li>QUARTER SPLIT</li></ul>		

Released to Imaging: 6/20/2025 3:38:23 PM



DAVID W. MYERS 11403

W. MYERO



PREPARED BY:
DELTA FIELD SERVICES, LLC
510 TRENTON ST.
WEST MONROE, LA 71291
318-323-6900 OFFICE
JOB NO. OXY\_0037\_SD04
SHEET 4 OF 4

## State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 — Plan Description  Effective May 25, 2021								
I. Operator: OXY US	A INC.		OGRID: <u>16</u>	6696		Date: _	1 0/	1 4/ 2 4
II. Type: ☑ Original □	☐ Amendment	due to □ 19.15.27.	9.D(6)(a) NMA	C □ 19.15.27.9.D(	(6)(b) NI	МАС □ С	other.	
If Other, please describe	::							
III. Well(s): Provide the be recompleted from a s					wells pro	oposed to	be dril	led or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		cipated MCF/D		Anticipated roduced Water BBL/D
SEE ATTACHED								DDL, D
IV. Central Delivery Po V. Anticipated Schedul proposed to be recomple	le: Provide the	following informat	tion for each nev	v or recompleted w	vell or se			7.9(D)(1) NMAC] sed to be drilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial F Back D		First Production Date
SEE ATTACHED								
VI. Separation Equipment: ✓ Attach a complete description of how Operator will size separation equipment to optimize gas capture.  VII. Operational Practices: ✓ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.  VIII. Best Management Practices: ✓ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.								

## Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

✓ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### IX. Anticipated Natural Gas Production:

We	11	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas Gat	hering System (NC	GGS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

•	•		Start Date	of System Segment Tie-in
	_	_		_

XI. Map. $\square$ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system [	$\square$ will $\square$ will not have	capacity to gather 100	)% of the anticipated n	atural gas
production volume from the well prior to the date of first	st production.			

XIII. Line Pressure. Operator $\square$ does $\square$ does not anticipate that its existing well(s) connected to the same segment, or portion,	of the
natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new we	ell(s).

☐ Attach Operator	's plan to manage	production in respons	se to the increase	ed line pressure

XIV. Co	onfidentiality: 🗆 🤇	Operator asserts	confidentiality	pursuant to	Section	71-2-8	NMSA	1978 1	for the	information	provided in
Section 2	2 as provided in Par	agraph (2) of Sub	osection D of 1	9.15.27.9 NN	MAC, and	d attache	es a full	descrij	otion o	f the specific	information
for whic	h confidentiality is	asserted and the l	basis for such a	ssertion.							

# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

Departor will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. 

Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan. 

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) power generation for grid; **(b)** compression on lease; (c) (d) liquids removal on lease: reinjection for underground storage; (e) reinjection for temporary storage; **(f)** reinjection for enhanced oil recovery; (g) fuel cell production; and (h) other alternative beneficial uses approved by the division. (i)

#### **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- **(b)** Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Melissa Guidry
Printed Name: Melissa Guidry
Title: Regulatory Advisor Sr.
E-mail Address: melissa_guidry@oxy.com
Date: 10/14/2024
Phone: 713-497-2481
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

#### V. Anticipated Schedule

Well Name	API	WELL LOCATION (ULSTR)	Footages	ANTICIPATED OIL BBL/D	ANTICIPATED GAS MCF/D	ANTICIPATED PROD WATER BBL/D
STRESSED DESSERTS 36_1 FED COM 1H	Pending	K-36-T21S-R31E	2403 FSL 1775 FWL	2200	3300	4700
STRESSED DESSERTS 36_1 FED COM 2H	Pending	K-36-T21S-R31E	2373 FSL 1775 FWL	2200	3300	4700
STRESSED DESSERTS 36_1 FED COM 3H	Pending	J-36-T21S-R31E	2498 FSL 1675 FEL	2200	3300	4700
STRESSED DESSERTS 36_1 FED COM 4H	Pending	J-36-T21S-R31E	2528 FSL 1674 FEL	2200	3300	4700
STRESSED DESSERTS 36_1 FED COM 11H	Pending	K-36-T21S-R31E	2493 FSL 1776 FWL	2000	8000	2500
STRESSED DESSERTS 36_1 FED COM 12H	Pending	K-36-T21S-R31E	2453 FSL 1776 FWL	2000	8000	2500
STRESSED DESSERTS 36_1 FED COM 13H	Pending	J-36-T21S-R31E	2408 FSL 1675 FEL	2000	8000	2500
STRESSED DESSERTS 36_1 FED COM 14H	Pending	J-36-T21S-R31E	2438 FSL 1675 FEL	2000	8000	2500
STRESSED DESSERTS 36_1 FED COM 21H	Pending	K-36-T21S-R31E	2583 FSL 1776 FWL	1800	3500	3700
STRESSED DESSERTS 36_1 FED COM 22H	Pending	K-36-T21S-R31E	2553 FSL 1776 FWL	1800	3500	3700
STRESSED DESSERTS 36_1 FED COM 23H	Pending	J-36-T21S-R31E	2318 FSL 1675 FEL	1800	3500	3700
STRESSED DESSERTS 36_1 FED COM 24H	Pending	J-36-T21S-R31E	2346 FSL 1675 FEL	1800	3500	3700
STRESSED DESSERTS 36_1 FED COM 38H	Pending	J-36-T21S-R31E	2527 FSL 1549 FEL	2000	3800	3200
STRESSED DESSERTS 36_1 FED COM 71H	Pending	K-36-T21S-R31E	2552 FSL 1901 FWL	1000	3500	2300
STRESSED DESSERTS 36_1 FED COM 72H	Pending	K-36-T21S-R31E	2522 FSL 1901 FWL	1000	3500	2300
STRESSED DESSERTS 36_1 FED COM 73H	Pending	J-36-T21S-R31E	2347 FSL 1550 FWL	1000	3500	2300
STRESSED DESSERTS 36_1 FED COM 74H	Pending	J-36-T21S-R31E	2377 FSL 1550 FEL	1000	3500	2300

## V. Anticipated Schedule

Well Name	API	Spud Date	TD Reached Date	<b>Completion Commencement Date</b>	Initial Flow Back Date	First Production Date
STRESSED DESSERTS 36_1 FED COM 1H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 2H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 3H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 4H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 11H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 12H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 13H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 14H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 21H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 22H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 23H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 24H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 38H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 71H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 72H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 73H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026
STRESSED DESSERTS 36_1 FED COM 74H	Pending	12/1/2025	01/01/2026	02/01/2026	03/15/2026	03/16/2026

Central Delivery Point Name: Lost Tank 35 Central Processing Facility

#### Part VI. Separation Equipment

Operator will size the flowback separator to handle 12,000 Bbls of fluid and 6-10MMscfd which is more than the expected peak rates for these wells. Each separator is rated to 1440psig, and pressure control valves and automated communication will cause the wells to shut in in the event of an upset at the facility, therefore no gas will be flared on pad during an upset. Current Oxy practices avoid use of flare or venting on pad, therefore if there is an upset or emergency condition at the facility, the wells will immediately shut down, and reassume production once the condition has cleared.

#### **VII. Operational Practices**

#### **Gathering System and Pipeline Notification**

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

#### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on MPLX system at that time. Based on current information, it is OXY's belief the system can take this gas upon completion of the well(s). Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

#### **VIII. Best Management Practices**

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

Power Generation – On lease

Only a portion of gas is consumed operating the generator, remainder of gas will be flared

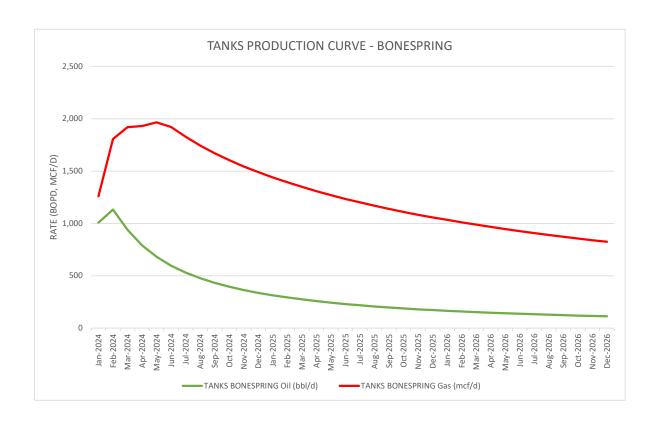
Compressed Natural Gas - On lease

Gas flared would be minimal, but might be uneconomical to operate when gas volume declines

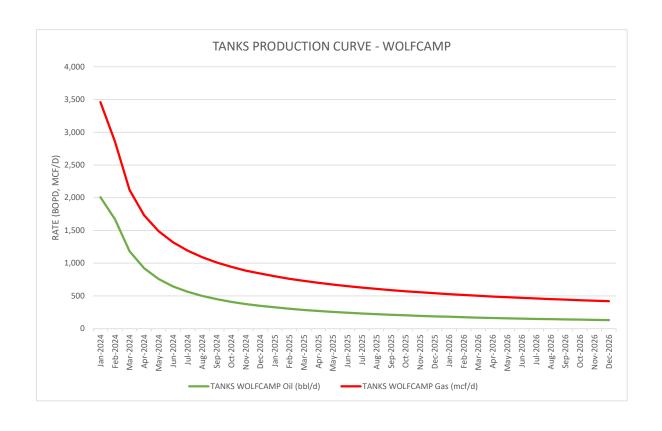
NGL Removal - On lease

Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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



	TANKS WOLFCAMP			
	Oil (bbl/d)	Gas (mcf/d)		
Jan-2024	2,008	3,461		
Feb-2024	1,671	2,856		
Mar-2024	1,182	2,118		
Apr-2024	921	1,733		
May-2024	758	1,490		
Jun-2024	644	1,317		
Jul-2024	562	1,190		
Aug-2024	500	1,091		
Sep-2024	450	1,011		
Oct-2024	410	944		
Nov-2024	376	887		
Dec-2024	349	841		
Jan-2025	325	800		
Feb-2025	304	763		
Mar-2025	286	730		
Apr-2025	270	700		
May-2025	256	674		
Jun-2025	243	649		
Jul-2025	231	627		
Aug-2025	221	607		
Sep-2025	211	589		
Oct-2025	203	571		
Nov-2025	194	555		
Dec-2025	187	541		
Jan-2026	181	528		
Feb-2026	175	515		
Mar-2026	169	502		
Apr-2026	163	491		
May-2026	158	480		
Jun-2026	153	470		
Jul-2026	149	460		
Aug-2026	145	451		
Sep-2026	141	442		
Oct-2026	137	434		
Nov-2026	133	426		
Dec-2026	130	419		



# Oxy USA Inc. - STRESSED DESSERTS 36\_1 FED COM 12H Drill Plan

## 1. Geologic Formations

TVD of Target (ft):	9150	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	16771	Deepest Expected Fresh Water (ft):	735

#### **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	Expected Fluids
Rustler	735	735	
Salado	1021	1021	Salt
Castile	2602	2602	Salt
Delaware	4380	4380	Oil/Gas/Brine
Bell Canyon	4465	4465	Oil/Gas/Brine
Cherry Canyon	5332	5332	Oil/Gas/Brine
Brushy Canyon	6659	6659	Losses
Bone Spring	8367	8352	Oil/Gas
Bone Spring 1st			Oil/Gas
Bone Spring 2nd			Oil/Gas
Bone Spring 3rd			Oil/Gas
Wolfcamp			Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

#### 2. Casing Program

		N	1D	T\	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	17.5	0	795	0	795	13.375	54.5	J-55	BTC
Salt	12.25	0	4480	0	4480	10.75	45.5	L-80 HC	BTC-SC
Intermediate	9.875	0	8446	0	8428	7.625	26.4	L-80 HC	BTC
Production	6.75	0	16771	0	9150	5.5	20	P-110	Sprint-SF

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

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

	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?	Y
If not provide justification (loading assumptions, casing design criteria).	1
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	1
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	Y
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?	
	1
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

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3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	830	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	85	1.33	14.8	20%	3,980	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	629	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	206	1.68	13.2	5%	6,909	Circulate	Class C+Ret., Disper.
Int. 2	2	Intermediate 2S - Tail BH	446	1.71	13.3	25%	3,980	Bradenhead Post-Frac	Class C+Accel.
Prod.	1	Production - Tail	499	1.84	13.3	25%	7,946	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

#### **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.

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#### 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	1	Tested to:	TVD Depth (ft) per Section:
		5M		Annular	✓	70% of working pressure	
				Blind Ram	✓		
12.25" Hole	13-5/8"	5M		Pipe Ram		250 psi / 5000 psi	4480
		SIVI		Double Ram	<b>\</b>	250 psi / 5000 psi	
			Other*				
	13-5/8"	5M		Annular	<b>✓</b>	70% of working pressure	8428
		5M		Blind Ram	✓		
9.875" Hole				Pipe Ram		250 psi / 5000 psi	
				Double Ram	<b>\</b>	250 psi / 5000 psi	
			Other*				
		5M		Annular	✓	70% of working pressure	
6.75" Hole				Blind Ram	<b>✓</b>		
	13-5/8"	514		Pipe Ram		250 mai / 5000 mai	9150
		5M		Double Ram	<b>√</b>	250 psi / 5000 psi	
			Other*				

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

<sup>\*</sup>Specify if additional ram is utilized

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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.

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.

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#### 5. Mud Program

Section	Depth		Depth - TVD		Tema	Weight	Vigagity	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	795	0	795	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	795	4480	795	4480	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	4480	8446	4480	8428	Water-Based or Oil- Based Mud	8.0 - 10.0	38-50	N/C
Production	8446	16771	8428	9150	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	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	1 V 1/1VID TOCCO/ VISUAL WIGHTONING

## **6. Logging and Testing Procedures**

Loggi	Logging, Coring and Testing.				
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).				
res	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				

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

Occidental - Permian New Mexico

#### 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4568 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	154°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

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.

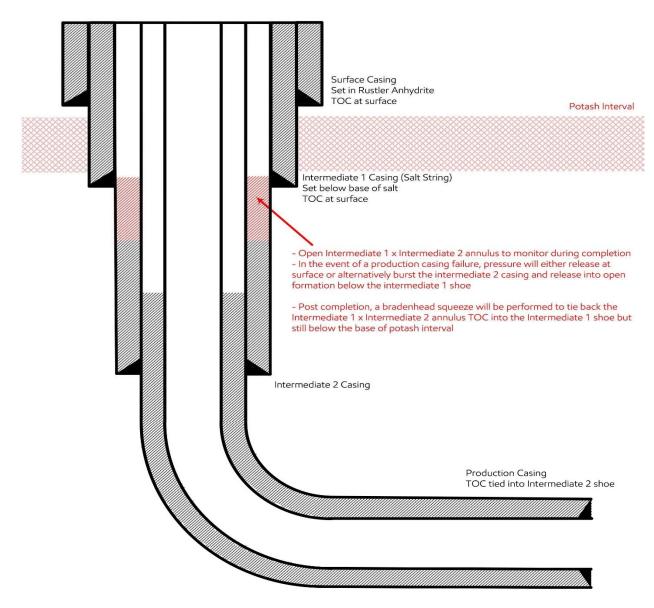
N	H2S is present
Υ	H2S Plan attached

## 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 4 well pad in batch by section: all surface sections, intermediate	Yes
sections and production sections. The wellhead will be secured with a night cap whenever	1 68
the rig is not over the well.	
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,	Yes
the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the	
attached document for information on the soudder rig	
Total Estimated Cuttings Volume: 1518 bbls	

Revision Date – May 21, 2024

# 4-String Design - Open Int 1 x Int 2 Annulus



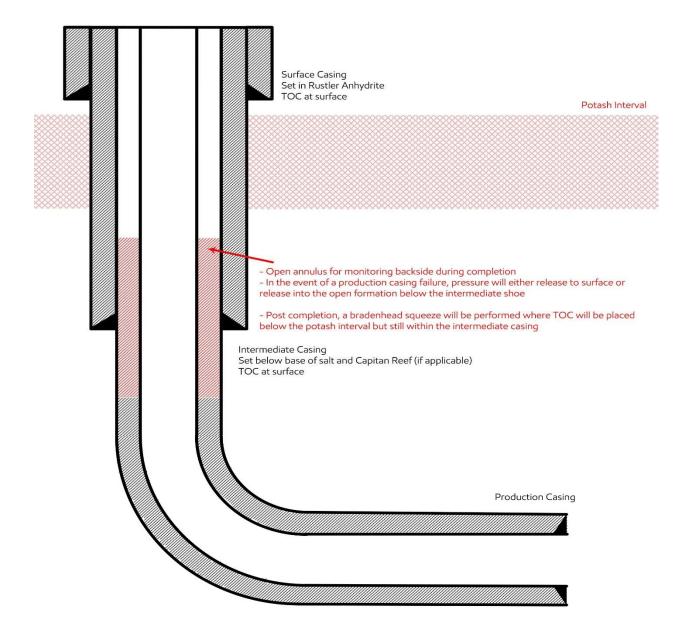
#### Update May 2024:

OXY is aware of the R111-Q update and will comply with these requirements including (but not limited to):

- 1) Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
- 2) Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
- 3) Bradenhead squeeze to be completed within 180days to tie back TOC to salt string at least 500ft but with top below Marker Bed 126
- 4) Production cement to be tied back no less than 500ft inside previous casing shoe
- 5) While drilling salt interval, separation distance to any active/inactive producing offset well will be ensured such that SF > 1.0; Anti-Collision Reports will be provided with APD Packages for review where SF < 1.5 against any applicable offset well, or where center-to-center separation against a blind or inclination only surveyed offset well is less than 500ft

Revision Date – May 21, 2024

# 3-String Design – Open Production Casing Annulus



#### Update May 2024:

OXY is aware of the R111-Q update and will comply with these requirements including (but not limited to):

- 1) Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
- 2) Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
- 3) Bradenhead squeeze for Production cement to be completed within 180days to tie back TOC to previous casing string at least 500ft but with top below Marker Bed 126
- 4) While drilling salt interval, separation distance to any active/inactive producing offset well will be ensured such that SF > 1.0; Anti-Collision Reports will be provided with APD Packages for review where SF < 1.5 against any applicable offset well, or where center-to-center separation against a blind or inclination only surveyed offset well is less than 500ft

# OXY USA Inc APD ATTACHMENT: SPUDDER RIG DATA

**OPERATOR NAME / NUMBER: OXY USA Inc** 

#### 1. SUMMARY OF REQUEST:

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

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

#### 2. Description of Operations

- 1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (43 CFR part 3170 Subpart 3172, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
- 2. The wellhead will be installed and tested as soon as the surface casing is cut off and the WOC time has been reached.
- **3.** A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
  - **a.** A means for intervention will be maintained while the drilling rig is not over the well.
- 4. Spudder rig operations are expected to take 2-3 days per well on the pad.
- 5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- **6.** Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.
- 7. Oxy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- **8.** Once the rig is removed, Oxy will secure the wellhead area by placing a guard rail around the cellar area.

# **BOP Break Testing Request**

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

BOP break test under the following conditions:

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

If the kill line is broken prior to skid, two tests will be performed.

- 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
- 2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1)Wellhead flange, co-flex hose, check valve, upper pipe rams

See supporting information below:

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

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

#### **Background**

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

#### **Supporting Rationale**

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

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

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

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

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

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

#### Procedures

- 1) OXY to submit the break testing plan in the APD or Sundry Notice (SN) and receive approval prior to implementing (See Appendix for examples)
- 2) OXY would perform BOP break testing on multi-well pads where multiple intermediate sections can be drilled and cased within the 30-day BOP test window
- 3) After performing a complete BOP test on the first well and drilling and casing the hole section, three breaks would be made on the BOP.
  - > Between the check valve and the kill line
  - ➤ Between the HCR valve and the co-flex hose or the co-flex hose and the manifold
  - > Between the BOP flange and the wellhead
- 4) The BOP is then lifted and removed from the wellhead by the hydraulic winch system
- 5) After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed
- 6) The choke line and kill line are reconnected
- 7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed
- 8) A shell teit is performed against the upper pipe rams testing all thlee 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)
- 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:

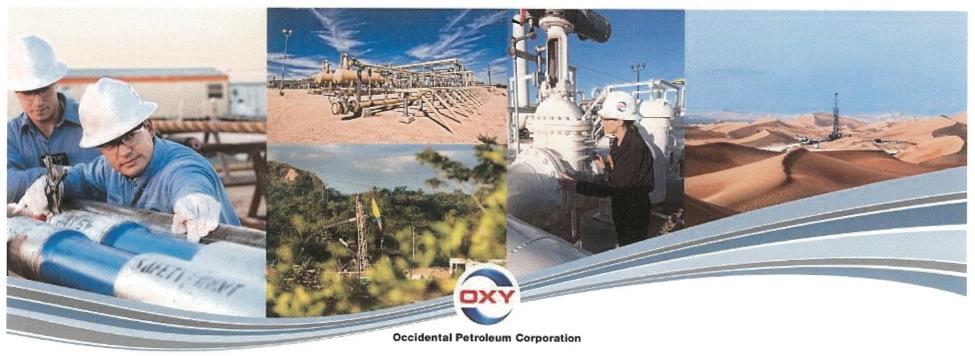
- a. If any parts of the BOP are changed out or any additional breaks are made during the skidding operation, these affected components would also be tested as in step 10.
- b. As the choke manifold remains stationary during the skidding operation and the only break to the manifold is tested in step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



# 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

- (Fourth Edition, November 2012, Addendum 1, July 2016) recognizes break API Standard 53, Blowout Prevention Equipment Systems for Drilling Wells 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

Interior, has also utilized the API standards, specifications and best practices in the The Bureau of Safety and Environmental Enforcement (BSEE), Department of 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 Preventer Systems and Well Control. Within these regulations is language and Gas and Sulphur Operations in the Outer Continental Shelf - Blowout adopted from API Standard 53 which also supports break testing.
- components following the disconnection or repair of any well-pressure Specifically, Section 250.737(d.8) states "Pressure test affected BOP 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
- 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

- BOP shell and components such as the pipe rams and check valve get tested to As skidding operations take place within the 30-day full BOPE test window, the the full rated working pressure more often
- Oxy's standard requires complete BOP tests more often than that of OOGO No. 2
- training is a vital part of well control, this procedure to simulate step one of the - Oxy performs a choke drill prior to drilling out every casing shoe. As a crew's 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
- 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 5
- 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. 3
  - 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
- The BOP is then lifted and removed from the wellhead by the hydraulic winch system 4
- After skidding to the next well, the BOP is moved to the wellhead by the hydraulic winch system and installed 2
- 6) The choke line and kill line are reconnected
- 7) A test plug is installed in the wellhead with a joint of drill pipe and the internal parts of the check valve are removed

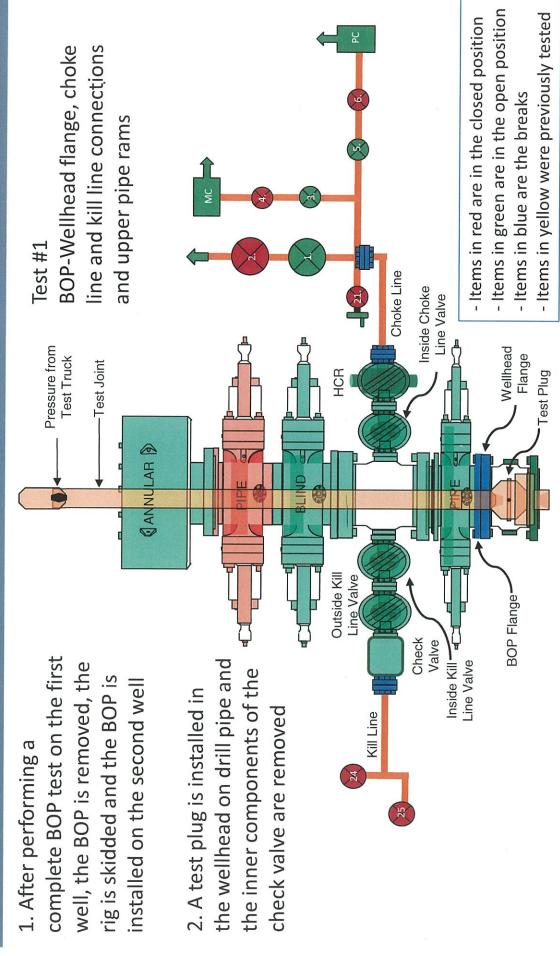


# **Break Testing Procedures**

- 8) A shell test is performed against the upper pipe rams testing all three breaks
- 9) The internal parts of the check valve are reinstalled and the HCR valve is closed. A second test is performed on them
- 10)These tests consist of a 250 psi low test and a high test to the value submitted in the APD or SN (e.g., 5000 psi)
- 11) Perform a function test of components not pressure tested to include the lower pipe rams, the blind rams and the annular
- 12) If this were a three well pad, the same three breaks on the BOP would be made and steps 4 through 11 would be repeated
- 13) A second break test would only be done if the third hole section could be completed within the 30-day BOP test window
- 14) If a second break test is performed, additional components that were not tested on the first break test will be tested

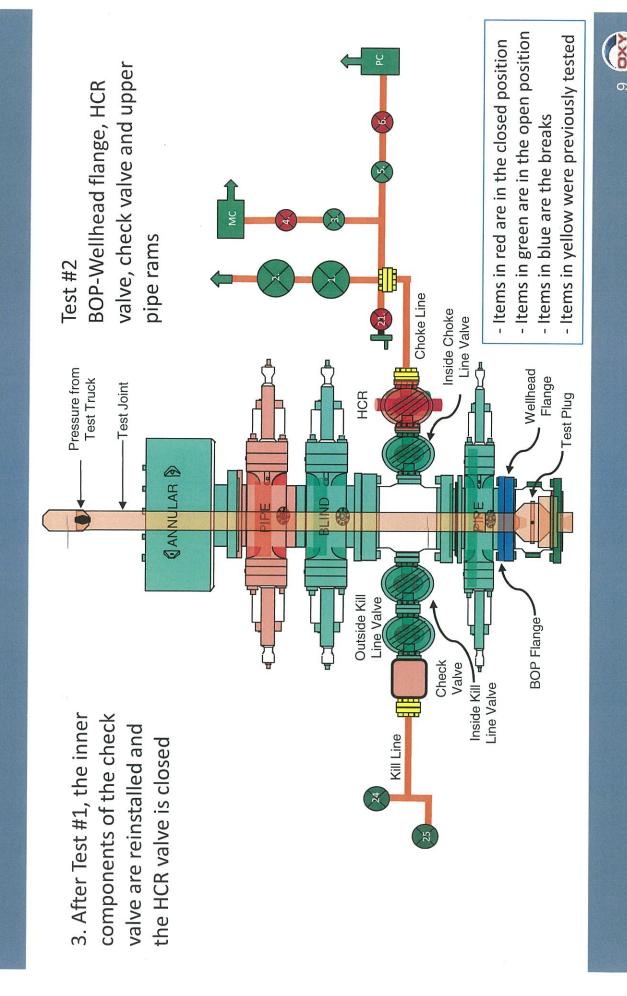


# **Break Testing Procedures and Tests**

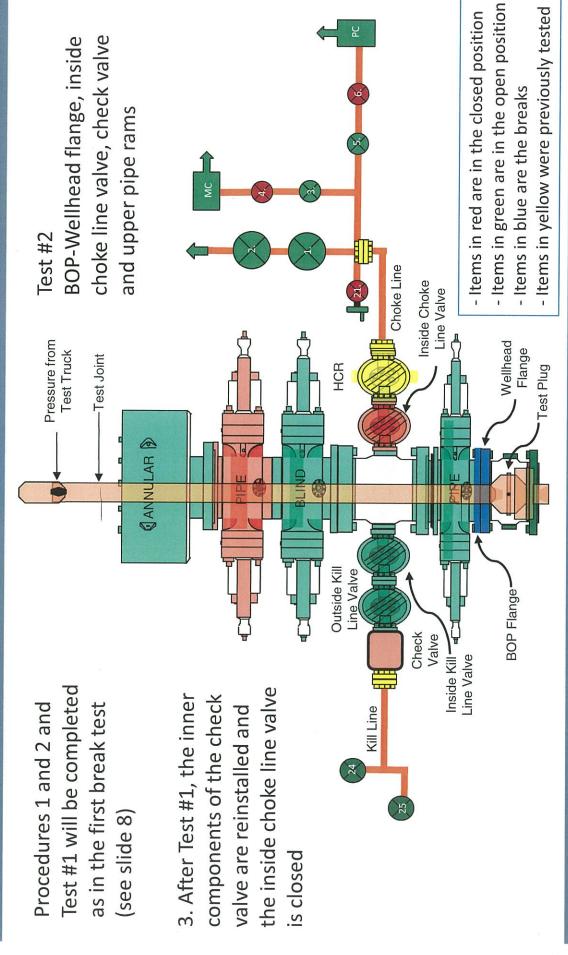




# **Break Testing Procedures and Tests**



# Second Break Testing Procedures and Tests



# =

BOP standing in its carrier



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

**BOP Handling System** 

# 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
- standards, specifications and best practices in the development of its offshore The Bureau of Safety and Environmental Enforcement has utilized API oil and gas regulations
- API Standard 53 recognizes break testing as an acceptable practice
- OXY feels break testing meets the intent of OOGO No. 2 to protect public health and safety and the environment



# **Bradenhead Cement CBL Variance Request**

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

# Three string wells:

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

# Four string wells:

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

# **Offline Cementing Variance Request**

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

# 1. Cement Program

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

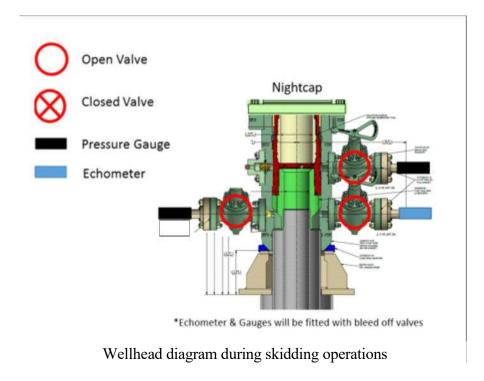
# 2. Offline Cementing Procedure

The operational sequence will be as follows:

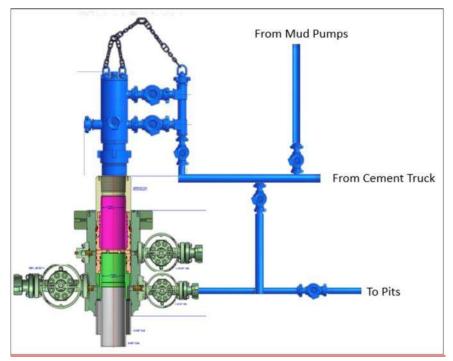
- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
- 2. Land casing with mandrel
- 3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
- 4. Set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

Annular packoff with both external and internal seals





- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50 psi compressive strength if cannot be verified.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a  $3^{\rm rd}$  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.

PRD NM DIRECTIONAL PLANS (NAD 1983) Stressed Desserts 36\_1 Fed Com Stressed Desserts 36\_1 Fed Com 12H

Wellbore #1

**Plan: Permitting Plan** 

# **Standard Planning Report**

29 August, 2024

# Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Stressed Desserts 36\_1 Fed Com
Well: Stressed Desserts 36\_1 Fed Com 12H

Wellbore: Wellbore #1

Design: Permitting Plan

Site

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well Stressed Desserts 36\_1 Fed Com 12H

RKB=25' @ 3590.00ft RKB=25' @ 3590.00ft

Grid

Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: US State Plane 1983

Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Using geodetic scale factor

Stressed Desserts 36\_1 Fed Com

 Site Position:
 Northing:
 522,341.86 usft
 Latitude:
 32.434557

 From:
 Map
 Easting:
 726,275.74 usft
 Longitude:
 -103.733896

Position Uncertainty: 0.00 ft Slot Radius: 13.200 in

Well Stressed Desserts 36\_1 Fed Com 12H

Well Position +N/-S 0.00 ft 522.341.98 usf Latitude: 32.434559 Northing: 726,150.73 usf +E/-W 0.00 ft Easting: Longitude: -103.734301 **Position Uncertainty** 2.00 ft Wellhead Elevation: ft **Ground Level:** 3,565.00 ft

Grid Convergence: 0.32  $^{\circ}$ 

 Wellbore
 Wellbore #1

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 HDGM FILE
 8/29/2024
 6.37
 60.05
 47,537.60000000

Design Permitting Plan Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.00 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 177.66

Plan Survey Tool Program

Date 8/29/2024

Depth From (ft)

Depth To
(ft)

Survey (Wellbore)

Tool Name

Remarks

1 0.00 16,770.82 Permitting Plan (Wellbore #1)

B005Mc\_MWD+HRGM+SA

MWD+HRGM+Sag+MSA

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,940.00	0.00	0.00	6,940.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,606.93	10.00	55.74	7,603.55	32.69	48.00	1.50	1.50	0.00	55.74	
8,545.72	10.00	55.74	8,528.07	124.49	182.79	0.00	0.00	0.00	0.00	
9,501.41	90.00	179.70	9,150.00	-445.27	276.77	10.00	8.37	12.97	123.55	
16,771.41	90.00	179.70	9,150.00	-7,715.18	314.87	0.00	0.00	0.00	0.00	PBHL (Stressed

# Planning Report

Database: Company: Project:

Site:

Well:

HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Stressed Desserts 36\_1 Fed Com Stressed Desserts 36\_1 Fed Com 12H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Stressed Desserts 36\_1 Fed Com 12H

COMPASS 5000.17 Build 03

RKB=25' @ 3590.00ft RKB=25' @ 3590.00ft

Grid

_	Permitting Pia								
anned 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
+00.00	0.00	0.00	+00.00		0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
,			,						
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00		2,400.00		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
3,500.00	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			4,400.00						
	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00					0.00	

# Planning Report

Database: Company: Project:

HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Stressed Desserts 36\_1 Fed Com Well: Stressed Desserts 36\_1 Fed Com 12H

Wellbore: Wellbore #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Stressed Desserts 36\_1 Fed Com 12H

RKB=25' @ 3590.00ft RKB=25' @ 3590.00ft

ellbore: esign:	Wellbore #1 Permitting Pla	an							
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,940.00	0.00	0.00	6,940.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.90	55.74	7,000.00	0.27	0.39	-0.25	1.50	1.50	0.00
7,100.00	2.40	55.74	7,099.95	1.89	2.77	-1.77	1.50	1.50	0.00
7,200.00	3.90	55.74	7,199.80	4.98	7.31	-4.68	1.50	1.50	0.00
7,300.00	5.40	55.74	7,299.47	9.54	14.01	-8.96	1.50	1.50	0.00
7,400.00	6.90	55.74	7,398.89	15.57	22.87	-14.63	1.50	1.50	0.00
7,500.00	8.40	55.74	7,498.00	23.07	33.87	-21.67	1.50	1.50	0.00
7,600.00	9.90	55.74	7,596.72	32.02	47.01	-30.07	1.50	1.50	0.00
7,606.93	10.00	55.74	7,603.55	32.69	48.00	-30.71	1.50	1.50	0.00
7,700.00	10.00	55.74	7,695.20	41.79	61.36	-39.26	0.00	0.00	0.00
7,800.00	10.00	55.74	7,793.68	51.57	75.72	-48.44	0.00	0.00	0.00
7,900.00	10.00	55.74	7,892.16	61.35	90.08	-57.63	0.00	0.00	0.00
8,000.00	10.00	55.74	7,990.64	71.13	104.44	-66.81	0.00	0.00	0.00
8,100.00	10.00	55.74	8,089.12	80.91	118.79	-76.00	0.00	0.00	0.00
8,200.00	10.00	55.74	8,187.60	90.69	133.15	-85.18	0.00	0.00	0.00
8,300.00	10.00	55.74	8,286.08	100.47	147.51	-94.37	0.00	0.00	0.00
8,400.00	10.00	55.74	8,384.56	110.24	161.87	-103.55	0.00	0.00	0.00
8,500.00	10.00	55.74	8,483.04	120.02	176.23	-112.74	0.00	0.00	0.00
8,545.72	10.00	55.74	8,528.07	124.49	182.79	-116.94	0.00	0.00	0.00
8,600.00	8.33	88.73	8,581.68	127.24	190.62	-119.36	10.00	-3.09	60.77
8,700.00	12.88	139.91	8,680.15	118.85	205.07	-110.39	10.00	4.55	51.18
8,800.00	21.47	157.86	8,775.67	93.32	219.18	-84.30	10.00	8.59	17.95
8,900.00	30.89	165.55	8,865.33	51.40	232.52	-41.87	10.00	9.43	7.69
9,000.00	40.58	169.86	8,946.42	-5.62	244.68	15.59	10.00	9.68	4.32
9,100.00	50.37	172.74	9,016.47	-76.01	255.30	86.36	10.00	9.79	2.88
9,200.00	60.21	174.89	9,073.35	-157.64	264.05	168.28	10.00	9.84	2.16
9,300.00	70.08	176.66	9,115.33	-248.02	270.67	258.85	10.00	9.87	1.77
9,400.00	79.97	178.22	9,141.14	-344.40	274.95	355.33	10.00	9.89	1.56
9,500.00	89.86	179.68	9,150.00	-443.87	276.77	454.78	10.00	9.89	1.46
9,501.41	90.00	179.70	9,150.00	-445.27	276.77	456.19	10.00	9.89	1.45
9,600.00	90.00	179.70	9,150.00	-543.86	277.29	554.72	0.00	0.00	0.00
9,700.00	90.00	179.70	9,150.00	-643.86	277.82	654.66	0.00	0.00	0.00
9,800.00	90.00	179.70	9,150.00	-743.86	278.34	754.59 954.53	0.00	0.00	0.00
9,900.00 10,000.00	90.00 90.00	179.70 179.70	9,150.00 9,150.00	-843.86 -943.86	278.86 279.39	854.53 954.47	0.00 0.00	0.00 0.00	0.00 0.00
10,100.00	90.00	179.70	9,150.00	-1,043.86	279.91	1,054.40	0.00	0.00	0.00
10,200.00	90.00	179.70	9,150.00	-1,143.86	280.44	1,154.34	0.00	0.00	0.00
10,300.00	90.00	179.70	9,150.00	-1,243.86	280.96	1,254.28	0.00	0.00	0.00
10,400.00	90.00	179.70	9,150.00	-1,343.85	281.48	1,354.21	0.00	0.00	0.00
10,500.00	90.00	179.70	9,150.00	-1,443.85	282.01	1,454.15	0.00	0.00	0.00

# Planning Report

Database: Company: Project:

HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Stressed Desserts 36\_1 Fed Com Well: Stressed Desserts 36\_1 Fed Com 12H

Wellbore: Wellbore #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Stressed Desserts 36\_1 Fed Com 12H

RKB=25' @ 3590.00ft RKB=25' @ 3590.00ft

Wellbore: Design:	Wellbore #1 Permitting Pla	an							
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	179.70	9,150.00	-1,543.85	282.53	1,554.09	0.00	0.00	0.00
10,700.00	90.00	179.70	9,150.00	-1,643.85	283.05	1,654.02	0.00	0.00	0.00
10,800.00	90.00	179.70	9,150.00	-1,743.85	283.58	1,753.96	0.00	0.00	0.00
10,900.00 11,000.00	90.00 90.00	179.70 179.70	9,150.00 9,150.00	-1,843.85 -1,943.85	284.10 284.63	1,853.90 1,953.84	0.00 0.00	0.00 0.00	0.00 0.00
11,100.00	90.00	179.70	9,150.00	-2,043.84	285.15	2,053.77	0.00	0.00	0.00
11,200.00	90.00	179.70	9,150.00	-2,143.84	285.67	2,153.71	0.00	0.00	0.00
11,300.00	90.00	179.70	9,150.00	-2,243.84	286.20	2,253.65	0.00	0.00	0.00
11,400.00	90.00	179.70	9,150.00	-2,343.84	286.72	2,353.58	0.00	0.00	0.00
11,500.00	90.00	179.70	9,150.00	-2,443.84	287.25	2,453.52	0.00	0.00	0.00
11,600.00	90.00	179.70	9,150.00	-2,543.84	287.77	2,553.46	0.00	0.00	0.00
11,700.00	90.00	179.70	9,150.00	-2,643.84	288.29	2,653.39	0.00	0.00	0.00
11,800.00	90.00	179.70	9,150.00	-2,743.83	288.82	2,753.33	0.00	0.00	0.00
11,900.00	90.00	179.70	9,150.00	-2,843.83	289.34	2,853.27	0.00	0.00	0.00
12,000.00	90.00	179.70	9,150.00	-2,943.83	289.87	2,953.20	0.00	0.00	0.00
12,100.00	90.00	179.70	9,150.00	-3,043.83	290.39	3,053.14	0.00	0.00	0.00
12,200.00	90.00	179.70	9,150.00	-3,143.83	290.91	3,153.08	0.00	0.00	0.00
12,300.00	90.00	179.70	9,150.00	-3,243.83	291.44	3,253.01	0.00	0.00	0.00
12,400.00	90.00	179.70	9,150.00	-3,343.83	291.96	3,352.95	0.00	0.00	0.00
12,500.00	90.00	179.70	9,150.00	-3,443.82	292.49	3,452.89	0.00	0.00	0.00
12,600.00	90.00	179.70	9,150.00	-3,543.82	293.01	3,552.82	0.00	0.00	0.00
12,700.00	90.00	179.70	9,150.00	-3,643.82	293.53	3,652.76	0.00	0.00	0.00
12,800.00	90.00	179.70	9,150.00	-3,743.82	294.06	3,752.70	0.00	0.00	0.00
12,900.00	90.00	179.70	9,150.00	-3,843.82	294.58	3,852.63	0.00	0.00	0.00
13,000.00	90.00	179.70	9,150.00	-3,943.82	295.11	3,952.57	0.00	0.00	0.00
	90.00	179.70	9,150.00	-4,043.82	295.63	4,052.51	0.00	0.00	0.00
13,100.00 13,200.00	90.00	179.70	9,150.00	-4,043.82 -4,143.82	295.63	4,052.51	0.00	0.00	0.00
13,200.00	90.00	179.70	9,150.00	-4,143.82 -4,243.81	296.68	4,152.45	0.00	0.00	0.00
13,400.00	90.00	179.70	9,150.00	-4,243.81 -4,343.81	290.00	4,252.30	0.00	0.00	0.00
13,500.00	90.00	179.70	9,150.00	-4,443.81	297.73	4,452.26	0.00	0.00	0.00
13,600.00	90.00	179.70	9,150.00	-4,543.81	298.25	4,552.19	0.00	0.00	0.00
13,700.00	90.00	179.70	9,150.00	-4,643.81	298.77	4,652.13	0.00	0.00	0.00
13,800.00	90.00	179.70	9,150.00	-4,743.81	299.30	4,752.07	0.00	0.00	0.00
13,900.00	90.00	179.70	9,150.00	-4,843.81	299.82	4,852.00	0.00	0.00	0.00
14,000.00	90.00	179.70	9,150.00	-4,943.80	300.35	4,951.94	0.00	0.00	0.00
14,100.00	90.00	179.70	9,150.00	-5,043.80	300.87	5,051.88	0.00	0.00	0.00
14,200.00	90.00	179.70	9,150.00	-5,143.80	301.39	5,151.81	0.00	0.00	0.00
14,300.00	90.00	179.70	9,150.00	-5,243.80	301.92	5,251.75	0.00	0.00	0.00
14,400.00	90.00	179.70	9,150.00	-5,343.80	302.44	5,351.69	0.00	0.00	0.00
14,500.00	90.00	179.70	9,150.00	-5,443.80	302.97	5,451.62	0.00	0.00	0.00
14,600.00	90.00	179.70	9,150.00	-5,543.80	303.49	5,551.56	0.00	0.00	0.00
14,700.00	90.00	179.70	9,150.00	-5,643.79	304.01	5,651.50	0.00	0.00	0.00
14,800.00	90.00	179.70	9,150.00	-5,743.79	304.54	5,751.43	0.00	0.00	0.00
14,900.00	90.00	179.70	9,150.00	-5,843.79	305.06	5,851.37	0.00	0.00	0.00
15,000.00	90.00	179.70	9,150.00	-5,943.79	305.59	5,951.31	0.00	0.00	0.00
15,100.00	90.00	179.70	9,150.00	-6,043.79	306.11	6,051.24	0.00	0.00	0.00
15,200.00	90.00	179.70	9,150.00	-6,143.79	306.63	6,151.18	0.00	0.00	0.00
15,300.00	90.00	179.70	9,150.00	-6,243.79	307.16	6,251.12	0.00	0.00	0.00
15,400.00	90.00	179.70	9,150.00	-6,343.79	307.68	6,351.06	0.00	0.00	0.00
15,500.00	90.00	179.70	9,150.00	-6,443.78	308.21	6,450.99	0.00	0.00	0.00
15,600.00	90.00	179.70	9,150.00	-6,543.78	308.73	6,550.93	0.00	0.00	0.00
15,700.00	90.00	179.70	9,150.00	-6,643.78	309.25	6,650.87	0.00	0.00	0.00
15,800.00	90.00	179.70	9,150.00	-6,743.78	309.23	6,750.80	0.00	0.00	0.00
15,900.00	90.00	179.70	9,150.00	-6,843.78	310.30	6,850.74	0.00	0.00	0.00
16,000.00	90.00	179.70	9,150.00	-6,943.78	310.83	6,950.68	0.00	0.00	0.00
.0,000.00		., ., .,		5,5 10.7 0	310.00				

# Planning Report

Database: HOPSPP

Company: ENGINEERING DESIGNS

**Project:** PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: Stressed Desserts 36\_1 Fed Com
Well: Stressed Desserts 36\_1 Fed Com 12H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well Stressed Desserts 36\_1 Fed Com 12H

RKB=25' @ 3590.00ft RKB=25' @ 3590.00ft

Grid

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,100.00	90.00	179.70	9,150.00	-7,043.78	311.35	7,050.61	0.00	0.00	0.00
16,200.00	90.00	179.70	9,150.00	-7,143.77	311.87	7,150.55	0.00	0.00	0.00
16,300.00	90.00	179.70	9,150.00	-7,243.77	312.40	7,250.49	0.00	0.00	0.00
16,400.00	90.00	179.70	9,150.00	-7,343.77	312.92	7,350.42	0.00	0.00	0.00
16,500.00	90.00	179.70	9,150.00	-7,443.77	313.44	7,450.36	0.00	0.00	0.00
16,600.00	90.00	179.70	9,150.00	-7,543.77	313.97	7,550.30	0.00	0.00	0.00
16,700.00	90.00	179.70	9,150.00	-7,643.77	314.49	7,650.23	0.00	0.00	0.00
16.771.41	90.00	179.70	9,150.00	-7,715.18	314.87	7,721.60	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Stressed - plan misses targe - Point	0.00 et center by 30	0.00 03.65ft at 0.0	0.00 Ooft MD (0.0	131.47 0 TVD, 0.00	273.71 N, 0.00 E)	522,473.44	726,424.43	32.434917	-103.733412
FTP (Stressed - plan misses targe - Point	0.00 et center by 20	0.00 05.61ft at 90	9,150.00 84.63ft MD	81.46 (9006.51 TVI	274.01 D, -64.41 N, 2	522,423.44 53.78 E)	726,424.73	32.434779	-103.733412
PBHL (Stressed - plan hits target ce - Point	0.00 enter	0.00	9,150.00	-7,715.18	314.87	514,627.22	726,465.58	32.413349	-103.733421

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	735.00	735.00	RUSTLER				
	1,021.00	1,021.00	SALADO				
	2,602.00	2,602.00	CASTILE				
	4,380.00	4,380.00	DELAWARE				
	4,465.00	4,465.00	BELL CANYON				
	5,332.00	5,332.00	CHERRY CANYON				
	6,659.00	6,659.00	BRUSHY CANYON				
	8,366.94	8,352.00	BONE SPRING				

Plan Annotations				
Measured Depth	Vertical Depth	Local Cool		
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment
6,940.0	0 6,940.00	0.00	0.00	Build 1.5°/100'
7,606.9	3 7,603.55	32.69	48.00	Hold 10° Tangent
8,545.7	2 8,528.07	124.49	182.79	KOP, Build & Turn 10°/100'
9,501.4	1 9,150.00	-445.27	276.77	Landing Point
16,771.4	1 9,150.00	-7,715.18	314.87	TD at 16771.41' MD

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** OXY USA INC.

WELL NAME & NO.: STRESSED DESSERTS 36 1 FEDERAL COM 12H

**LOCATION:** Sec 36, T21S, R31E

**COUNTY:** Eddy County, New Mexico

COA

$H_2S$	0	No	• Yes			
Potash /	O None	<ul><li>Secretary</li></ul>	• R-111-Q	Open Annulus		
WIPP	4-String Design: Ope	n 1st Int x 2nd Annulus (	ICP 2 below Relief Z	Zone) $\square$ WIPP		
Cave / Karst	• Low	O Medium	O High	Critical		
Wellhead	Conventional	<ul><li>Multibowl</li></ul>	O Both	<ul><li>Diverter</li></ul>		
Cementing	☑ Primary Squeeze	☐ Cont. Squeeze	EchoMeter	☐ DV Tool		
Special Req	☐ Capitan Reef	☐ Water Disposal	✓ COM	□ Unit		
Waste Prev.	© Self-Certification	• Waste Min. Plan	O APD Submitted	prior to 06/10/2024		
Additional	▼ Flex Hose	Casing Clearance	☐ Pilot Hole	Break Testing		
Language	▼ Four-String	Offline Cementing	☐ Fluid-Filled			

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

# A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet all requirements from 43 CFR 3176, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### **B. CASING**

- 1. The **13-3/8** inch surface casing shall be set at approximately **795** 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 **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the

- lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 10-3/4 inch intermediate salt protection casing shall be set at approximately 50' prior to entering the Delaware group. Please set Salt Protection string prior to entering hydrocarbon bearing zone. Well needs to be kept vertical till past the MB 126. The minimum required fill of cement behind the 10-3/4 inch intermediate casing is:
  - 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, Capitan Reef, or potash.
- 3. The **7-5/8** inch second intermediate casing shall be set at approximately **8446** feet. *PLEASE REVIEW EXTERNAL PRESSURE FOR PRESSURE TEST. PLEASE KEEP CASING FULL FOR COLLAPSE SF.* The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

# **Option 1 (Primary + Post Frac Bradenhead):**

- Cement should tie-back 500 feet into the previous casing but not higher than USGS Marker Bed No. 126. Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
- ❖ A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing 1 x Intermediate Casing 2 annulus un-cemented and monitored inside the Intermediate String. Operator must follow monitoring requirements listed within R-111-Q. Tieback requirements shall be met within 180 days.

Operator has proposed to pump down intermediate 1 x intermediate 2 annulus post completion. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the intermediate 2 casing to surface after the second stage BH to verify TOC. Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry during second stage bradenhead when running Echo-meter if cement is required to surface. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. Submit results to the BLM. Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.

# <u>In the event of a casing failure during completion, the operator must contact the BLM at (575-706-2779) and (575-361-2822 Eddy County).</u>

4. The **5-1/2** inch production casing shall be set at approximately **16,771** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

# **Option 1 (Single Stage):**

Cement should tie-back 500 feet into the previous casing but not higher than USGS Marker Bed No. 126. Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.

### C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
  - 1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 psi.
    - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    - c. Manufacturer representative shall install the test plug for the initial BOP test.
    - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

## D. SPECIAL REQUIREMENT (S)

## **Communitization Agreement**

• The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all

working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

# **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 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 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

## **Offline Cementing**

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

# **Casing Clearance**

Overlap clearance OK.

# **GENERAL REQUIREMENTS**

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

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

# **Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**; (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### A. CASING

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

Page 5 of 9

- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

# **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

- requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve

- open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.

## C. DRILLING MUD

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

## D. WASTE MATERIAL AND FLUIDS

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

disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**KPI -12/29/2024** 

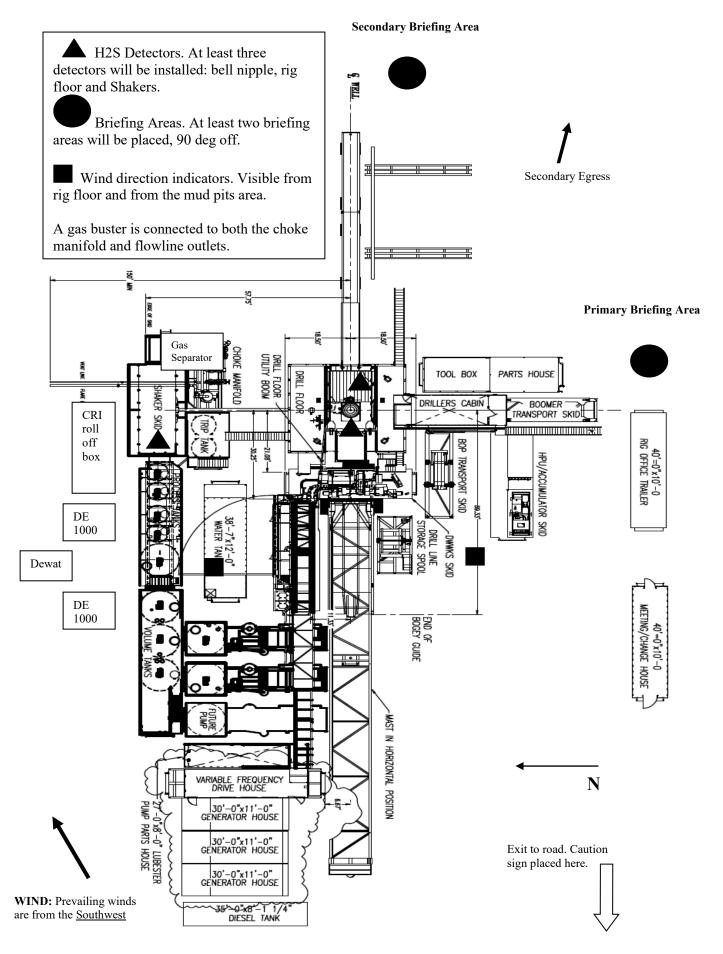


# Permian Drilling Hydrogen Sulfide Drilling Operations Plan

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

# 1. Escape

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





# Permian Drilling Hydrogen Sulfide Drilling Operations Plan New Mexico

# **Scope**

This contingency plan establishes guidelines for the public, all company employees, and contract employees who's work activities may involve exposure to hydrogen sulfide (H2S) gas.

While drilling this well, it is possible to encounter H2S bearing formations. At all times, the first barrier to control H2S emissions will be the drilling fluid, which will have a density high enough to control influx.

## **Objective**

- 1. Provide an immediate and predetermined response plan to any condition when H2S is detected. All H2S detections in excess of 10 parts per million (ppm) concentration are considered an Emergency.
- 2. Prevent any and all accidents, and prevent the uncontrolled release of hydrogen sulfide into the atmosphere.
- 3. Provide proper evacuation procedures to cope with emergencies.
- 4. Provide immediate and adequate medical attention should an injury occur.

# **Discussion**

Implementation: This plan with all details is to be fully implemented

before drilling to commence.

Emergency response

Procedure:

This section outlines the conditions and denotes steps

to be taken in the event of an emergency.

Emergency equipment

Procedure:

This section outlines the safety and emergency

equipment that will be required for the drilling of this

well.

Training provisions: This section outlines the training provisions that

must be adhered to prior to drilling.

Drilling emergency call lists: Included are the telephone numbers of all persons to

be contacted should an emergency exist.

Briefing: This section deals with the briefing of all people

involved in the drilling operation.

Public safety: Public safety personnel will be made aware of any

potential evacuation and any additional support

needed.

Check lists: Status check lists and procedural check lists have been

included to insure adherence to the plan.

General information: A general information section has been included to

supply support information.

# **Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

- 1. The hazards and characteristics of H2S.
- 2. Proper use and maintenance of personal protective equipment and life support systems.
- 3. H2S detection.
- 4. Proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
- 5. Proper techniques for first aid and rescue procedures.
- 6. Physical effects of hydrogen sulfide on the human body.
- 7. Toxicity of hydrogen sulfide and sulfur dioxide.
- 8. Use of SCBA and supplied air equipment.
- 9. First aid and artificial respiration.
- 10. Emergency rescue.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile strength tubular is to be used, personnel will be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling a well, blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan.

H2S training refresher must have been taken within one year prior to drilling the well. Specifics on the well to be drilled will be discussed during the pre-spud meeting. H2S and well control (choke) drills will be performed while drilling the well, at least on a weekly basis. This plan shall be available in the well site. All personnel will be required to carry the documentation proving that the H2S training has been taken.

## Service company and visiting personnel

- A. Each service company that will be on this well will be notified if the zone contains H2S.
- B. Each service company must provide for the training and equipment of their employees before they arrive at the well site.
- C. Each service company will be expected to attend a well site

# **Emergency Equipment Requirements**

# 1. Well control equipment

The well shall have hydraulic BOP equipment for the anticipated pressures. Equipment is to be tested on installation and follow Oxy Well Control standard, as well as 43 CFR part 3170 Subpart 3172.

# Special control equipment:

- A. Hydraulic BOP equipment with remote control on ground. Remotely operated choke.
- B. Rotating head
- C. Gas buster equipment shall be installed before drilling out of surface pipe.

# 2. <u>Protective equipment for personnel</u>

- A. Four (4) 30-minute positive pressure air packs (2 at each briefing area) on location.
- B. Adequate fire extinguishers shall be located at strategic locations.
- C. Radio / cell telephone communication will be available at the rig.
  - Rig floor and trailers.
  - Vehicle.

# 3. Hydrogen sulfide sensors and alarms

- A. H2S sensor with alarms will be located on the rig floor, at the bell nipple, and at the flow line. These monitors will be set to alarm at 10 ppm with strobe light, and audible alarm.
- B. Hand operated detectors with tubes.
- C. H2S monitor tester (to be provided by contract Safety Company.)
- D. There shall be one combustible gas detector on location at all times.

# 4. <u>Visual Warning Systems</u>

A. One sign located at each location entrance with the following language:

Caution – potential poison gas Hydrogen sulfide No admittance without authorization

#### *Wind sock – wind streamers:*

- A. One 36" (in length) wind sock located at protection center, at height visible from rig floor.
- B. One 36" (in length) wind sock located at height visible from pit areas.

#### Condition flags

A. One each condition flag to be displayed to denote conditions.

```
green – normal conditions
yellow – potential danger
red – danger, H2S present
```

B. Condition flag shall be posted at each location sign entrance.

#### 5. <u>Mud Program</u>

The mud program is designed to minimize the risk of having H2S and other formation fluids at surface. Proper mud weight and safe drilling practices will be applied. H2S scavengers will be used to minimize the hazards while drilling. Below is a summary of the drilling program.

#### Mud inspection devices:

Garrett gas train or hatch tester for inspection of sulfide concentration in mud system.

#### 6. <u>Metallurgy</u>

- A. Drill string, casing, tubing, wellhead, blowout preventers, drilling spools or adapters, kill lines, choke manifold, lines and valves shall be suitable for the H2S service.
- B. All the elastomers, packing, seals and ring gaskets shall be suitable for H2S service.

#### 7. Well Testing

No drill stem test will be performed on this well.

#### 8. Evacuation plan

Evacuation routes should be established prior to well spud for each well and discussed with all rig personnel.

#### 9. <u>Designated area</u>

- A. Parking and visitor area: all vehicles are to be parked at a predetermined safe distance from the wellhead.
- B. There will be a designated smoking area.
- C. Two briefing areas on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds perpendicularly, or at a 45-degree angle if wind direction tends to shift in the area.

#### **Emergency procedures**

- A. In the event of any evidence of H2S level above 10 ppm, take the following steps:
  - 1. The Driller will pick up off bottom, shut down the pumps, slow down the pipe rotation.
  - 2. Secure and don escape breathing equipment, report to the upwind designated safe briefing / muster area.
  - 3. All personnel on location will be accounted for and emergency search should begin for any missing, the Buddy System will be implemented.
  - 4. Order non-essential personnel to leave the well site, order all essential personnel out of the danger zone and upwind to the nearest designated safe briefing / muster area.
  - 5. Entrance to the location will be secured to a higher level than our usual "Meet and Greet" requirement, and the proper condition flag will be displayed at the entrance to the location.
  - 6. Take steps to determine if the H2S level can be corrected or suppressed and, if so, proceed as required.
- B. If uncontrollable conditions occur:
  - 1. Take steps to protect and/or remove any public in the down-wind area from the rig partial evacuation and isolation. Notify necessary public safety personnel and appropriate regulatory entities (i.e. BLM) of the situation.

- 2. Remove all personnel to the nearest upwind designated safe briefing / muster area or off location.
- 3. Notify public safety personnel of safe briefing / muster area.
- 4. An assigned crew member will blockade the entrance to the location. No unauthorized personnel will be allowed entry to the location.
- 5. Proceed with best plan (at the time) to regain control of the well. Maintain tight security and safety procedures.

#### C. Responsibility:

- 1. Designated personnel.
  - a. Shall be responsible for the total implementation of this plan.
  - b. Shall be in complete command during any emergency.
  - c. Shall designate a back-up.

All personnel:

- 1. On alarm, don escape unit and report to the nearest upwind designated safe briefing / muster area upw
- 2. Check status of personnel (buddy system).
- 3. Secure breathing equipment.
- 4. Await orders from supervisor.

Drill site manager:

- 1. Don escape unit if necessary and report to nearest upwind designated safe briefing / muster area.
- 2. Coordinate preparations of individuals to return to point of release with tool pusher and driller (using the buddy system).
- 3. Determine H2S concentrations.
- 4. Assess situation and take control measures.

Tool pusher:

- 1. Don escape unit Report to up nearest upwind designated safe briefing / muster area.
- 2. Coordinate preparation of individuals to return to point of release with tool pusher drill site manager (using the buddy system).
- 3. Determine H2S concentration.
- 4. Assess situation and take control measures.

Driller:

1. Don escape unit, shut down pumps, continue

rotating DP.

- 2. Check monitor for point of release.
- 3. Report to nearest upwind designated safe briefing / muster area.
- 4. Check status of personnel (in an attempt to rescue, use the buddy system).
- 5. Assigns least essential person to notify Drill Site Manager and tool pusher by quickest means in case of their absence.
- 6. Assumes the responsibilities of the Drill Site Manager and tool pusher until they arrive should they be absent.

Derrick man Floor man #1 Floor man #2 1. Will remain in briefing / muster area until instructed by supervisor.

Mud engineer:

- Report to nearest upwind designated safe briefing / muster area.
- 2. When instructed, begin check of mud for ph and H2S level. (Garett gas train.)

Safety personnel:

1. Mask up and check status of all personnel and secure operations as instructed by drill site manager.

#### Taking a kick

When taking a kick during an H2S emergency, all personnel will follow standard Well control procedures after reporting to briefing area and masking up.

#### **Open-hole logging**

All unnecessary personnel off floor. Drill Site Manager and safety personnel should monitor condition, advise status and determine need for use of air equipment.

#### Running casing or plugging

Following the same "tripping" procedure as above. Drill Site Manager and safety personnel should determine if all personnel have access to protective equipment.

#### **Ignition procedures**

The decision to ignite the well is the responsibility of the operator (Oxy Drilling Management). The decision should be made only as a last resort and in a situation where it is clear that:

- 1. Human life and property are endangered.
- 2. There is no hope controlling the blowout under the prevailing conditions at the well.

#### <u>Instructions for igniting the well</u>

- 1. Two people are required for the actual igniting operation. They must wear self-contained breathing units and have a safety rope attached. One man (tool pusher or safety engineer) will check the atmosphere for explosive gases with the gas monitor. The other man is responsible for igniting the well.
- 2. Primary method to ignite: 25 mm flare gun with range of approximately 500 feet.
- 3. Ignite upwind and do not approach any closer than is warranted.
- 4. Select the ignition site best for protection, and which offers an easy escape route.
- 5. Before firing, check for presence of combustible gas.
- 6. After lighting, continue emergency action and procedure as before.
- 7. All unassigned personnel will remain in briefing area until instructed by supervisor or directed by the Drill Site Manager.

<u>Remember</u>: After well is ignited, burning hydrogen sulfide will convert to sulfur dioxide, which is also highly toxic. <u>Do not assume the area is safe after the well is ignited.</u>

#### **Status check list**

Note: All items on this list must be completed before drilling to production casing point.

- 1. H2S sign at location entrance.
- 2. Two (2) wind socks located as required.
- 3. Four (4) 30-minute positive pressure air packs (2 at each Briefing area) on location for all rig personnel and mud loggers.
- 4. Air packs inspected and ready for use.
- 5. Cascade system and hose line hook-up as needed.
- 6. Cascade system for refilling air bottles as needed.
- 7. Condition flag on location and ready for use.
- 8. H2S detection system hooked up and tested.
- 9. H2S alarm system hooked up and tested.
- 10. Hand operated H2S detector with tubes on location.
- 11. 1-100' length of nylon rope on location.
- 12. All rig crew and supervisors trained as required.
- 13. All outside service contractors advised of potential H2S hazard on well.
- 14. No smoking sign posted and a designated smoking area identified.
- 15. Calibration of all H2S equipment shall be noted on the IADC report.

Checked by:	Date:
encerca oy.	Bate.

#### **Procedural check list during H2S events**

#### Perform each tour:

- 1. Check fire extinguishers to see that they have the proper charge.
- 2. Check breathing equipment to ensure that it in proper working order.
- 3. Make sure all the H2S detection system is operative.

#### Perform each week:

- 1. Check each piece of breathing equipment to make sure that demand or forced air regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you receive air or feel air flow.
- 2. BOP skills (well control drills).
- 3. Check supply pressure on BOP accumulator stand by source.
- 4. Check breathing equipment mask assembly to see that straps are loosened and turned back, ready to put on.
- 5. Check pressure on breathing equipment air bottles to make sure they are charged to full volume. (Air quality checked for proper air grade "D" before bringing to location)
- 6. Confirm pressure on all supply air bottles.
- 7. Perform breathing equipment drills with on-site personnel.
- 8. Check the following supplies for availability.
  - A. Emergency telephone list.
  - B. Hand operated H2S detectors and tubes.

#### **General evacuation plan**

- 1. When the company approved supervisor (Drill Site Manager, consultant, rig pusher, or driller) determines the H2S gas cannot be limited to the well location and the public will be involved, he will activate the evacuation plan.
- 2. Drill Site Manager or designee will notify local government agency that a hazardous condition exists and evacuation needs to be implemented.
- 3. Company or contractor safety personnel that have been trained in the use of H2S detection equipment and self-contained breathing equipment will monitor H2S concentrations, wind directions, and area of exposure. They will delineate the outer perimeter of the hazardous gas area. Extension to the evacuation area will be determined from information gathered.
- 4. Law enforcement personnel (state police, police dept., fire dept., and sheriff's dept.) Will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.
- 5. After the discharge of gas has been controlled, company safety personnel will determine when the area is safe for re-entry.

<u>Important:</u> Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

#### **Emergency actions**

#### Well blowout – if emergency

- 1. Evacuate all personnel to "Safe Briefing / Muster Areas" or off location if needed.
- 2. If sour gas evacuate rig personnel.
- 3. If sour gas evacuate public within 3000 ft radius of exposure.
- 4. Don SCBA and shut well in if possible using the buddy system.
- 5. Notify Drilling Superintendent and call 911 for emergency help (fire dept and ambulance) if needed.
- 6. Implement the Blowout Contingency Plan, and Drilling Emergency Action Plan.
- 6. Give first aid as needed.

#### Person down location/facility

- 1. If immediately possible, contact 911. Give location and wait for confirmation.
- 2. Don SCBA and perform rescue operation using buddy system.

#### Toxic effects of hydrogen sulfide

Hydrogen sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 10 ppm, which is .001% by volume. Hydrogen sulfide is heavier than air (specific gravity – 1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen sulfide is almost as toxic as hydrogen cyanide and is between five and six times more toxic than carbon monoxide. Toxicity data for hydrogen sulfide and various other gases are compared in table i. Physical effects at various hydrogen sulfide exposure levels are shown in table ii.

Table i Toxicity of various gases

Common name	Chemical formula	Specific gravity (sc=1)	Threshold limit (1)	Hazardous limit (2)	Lethal concentration (3)
Hydrogen Cyanide	Hen	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H2S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	So2	2.21	5 ppm	-	1000 ppm
Chlorine	C12	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	Co	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	Co2	1.52	5000 ppm	5%	10%
Methane	Ch4	0.55	90,000 ppm	Combustib	le above 5% in air

- 1) threshold limit concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.
- 2) hazardous limit concentration that will cause death with short-term exposure.
- 3) lethal concentration concentration that will cause death with short-term exposure.

#### Toxic effects of hydrogen sulfide

Table ii Physical effects of hydrogen sulfide

		Concentration	Physical effects
Percent (%)	Ppm	Grains	
, ,	-	100 std. Ft3*	
0.001	<10	00.65	Obvious and unpleasant odor.

0.002	10	01.30	Safe for 8 hours of exposure.
0.010	100	06.48	Kill smell in $3 - 15$ minutes. May sting eyes and throat.
0.020	200	12.96	Kills smell shortly; stings eyes and throat.
0.050	500	32.96	Dizziness; breathing ceases in a few minutes; needs prompt artificial respiration.
0.070	700	45.36	Unconscious quickly; death will result if not rescued promptly.
0.100	1000	64.30	Unconscious at once; followed by death within minutes.

<sup>\*</sup>at 15.00 psia and 60'f.

#### **Use of self-contained breathing equipment (SCBA)**

- 1. Written procedures shall be prepared covering safe use of SCBA's in dangerous atmosphere, which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available SCBA.
- 2 SCBA's shall be inspected frequently at random to insure that they are properly used, cleaned, and maintained.
- 3. Anyone who may use the SCBA's shall be trained in how to insure proper face-piece to face seal. They shall wear SCBA's in normal air and then wear them in a test atmosphere. (note: such items as facial hair {beard or sideburns} and eyeglasses will not allow proper seal.) Anyone that may be reasonably expected to wear SCBA's should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses or contact lenses.
- 4. Maintenance and care of SCBA's:
  - a. A program for maintenance and care of SCBA's shall include the following:
    - 1. Inspection for defects, including leak checks.
    - 2. Cleaning and disinfecting.
    - 3. Repair.
    - 4. Storage.
  - b. Inspection, self-contained breathing apparatus for emergency use shall be inspected monthly.
    - 1. Fully charged cylinders.
    - 2. Regulator and warning device operation.
    - 3. Condition of face piece and connections.
    - 4. Rubber parts shall be maintained to keep them pliable and prevent deterioration.
  - c. Routinely used SCBA's shall be collected, cleaned and disinfected as frequently as necessary to insure proper protection is provided.
- 5. Persons assigned tasks that requires use of self-contained breathing equipment shall be certified physically fit (medically cleared) for breathing equipment usage at least annually.
- 6. SCBA's should be worn when:
  - A. Any employee works near the top or on top of any tank unless test reveals less than 10 ppm of H2S.

- B. When breaking out any line where H2S can reasonably be expected.
- C. When sampling air in areas to determine if toxic concentrations of H2S exists.
- D. When working in areas where over 10 ppm H2S has been detected.
- E. At any time there is a doubt as to the H2S level in the area to be entered.

#### Rescue First aid for H2S poisoning

#### Do not panic!

Remain calm – think!

- 1. Don SCBA breathing equipment.
- 2. Remove victim(s) utilizing buddy system to fresh air as quickly as possible. (go up-wind from source or at right angle to the wind. Not down wind.)
- 3. Briefly apply chest pressure arm lift method of artificial respiration to clean the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs.
- 4. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.
- 5. Hospital(s) or medical facilities need to be informed, before-hand, of the possibility of H2S gas poisoning no matter how remote the possibility is.
- 6. Notify emergency room personnel that the victim(s) has been exposed to H2S gas.

Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration.

Revised CM 6/27/2012

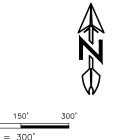


STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 36 TWP. 21-S RGE. 31-E SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: OXY USA, INC. U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

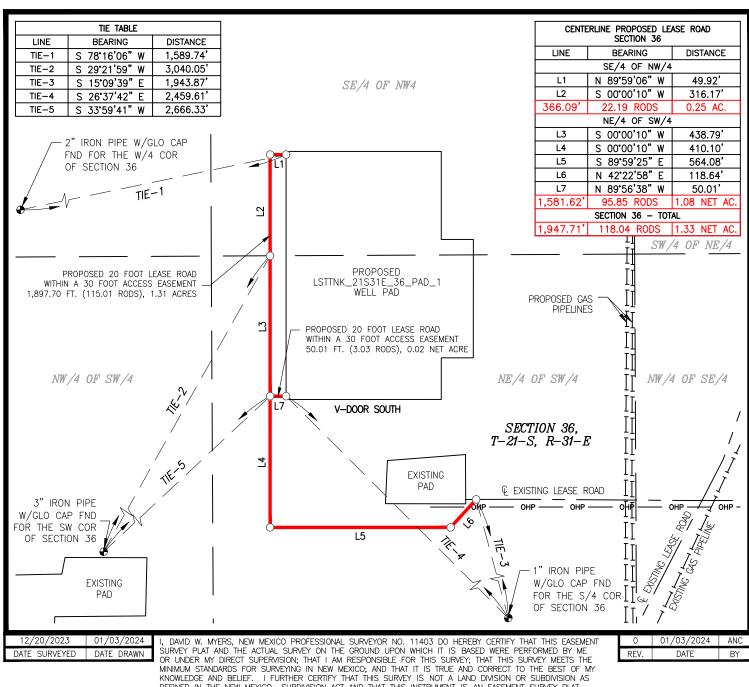
FAA PERMIT NEEDED: NO



0

SCALE: 1"

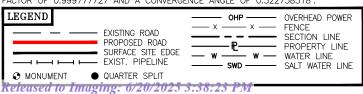
150'



DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

BASIS OF BEARING

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518°.









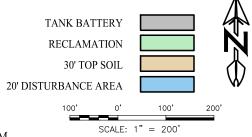
STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 21 TWP. 21-S RGE. 31-E

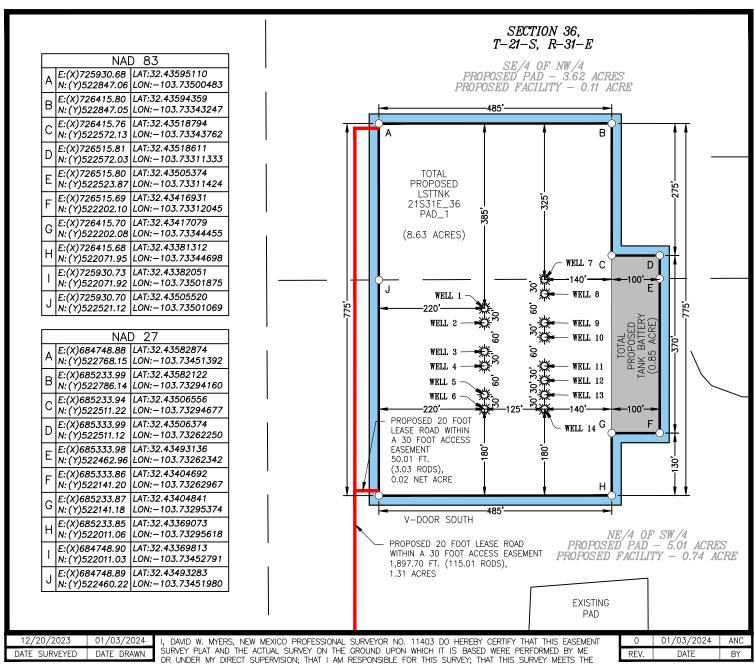
SURVEY: N.M.P.M. COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

FAA PERMIT NEEDED: NO

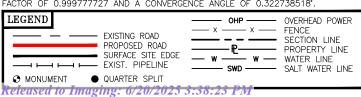


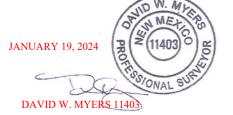


I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403 DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO. SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

BASIS OF BEARING

ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518°.









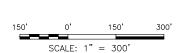
STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 36 TWP. 21-S RGE. 31-E

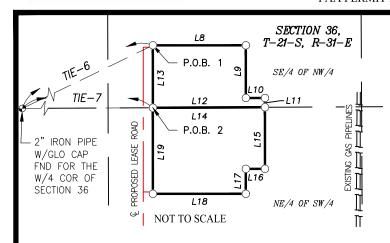
SEC. 36 TWP. 21-S RGE. 31 SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M. FAA PERMIT NEEDED: NO





		PAD 7	TABLE		
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
SE/4 OF NW/4				NE/4 OF SW	/4
L8	S 89*59'55" E	485.12'	L14	N 89°43'50" E	585.10'
L9	S 00'00'33" W	274.91'	L15	S 00°01'06" W	321.76'
L10	S 89*56'20" E	100.05'	L16	S 89*59'10" W	100.00'
L11	S 00°01'06" W	48.16'	L17	S 00°00'33" W	130.13'
L12	S 89°43'50" W	585.10'	L18	S 89°59'47" W	484.95'
L13	N 00°00'13" W	325.94'	L19	N 00°00'13" W	449.19'
SE/4 OF NW/4 AREA - 3.73 AC. NE/4 OF SW/4 AREA - 5.75 AC.					
TOTAL AREA - 9.48 AC.					

TIE TABLE				
LINE	BEARING	DISTANCE		
TIE-6	S 77*54'54" W	1,591.81		
TIE-7	S 89°43'50" W	1,556.57		

A tract of land being 9.48 acres of land. Said easement being located in Section 36, Township 21 South, Range 31 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described as the following:

#### (SE/4 OF NW/4)

BEGINNING (PLACE OF BEGINNING 1) at a point from which a 2 inch iron pipe with GLO cap found for the West quarter corner of said Section 36 bears S 77°54′54″ W a distance of 1,591.81 feet.

THENCE across the said Southeast quarter of the Northwest quarter of Section 36 the following courses and distances:

S 89°59'55" E a distance of 485.12 feet, S  $00^{\circ}00'33$ " W a distance of 274.91 feet, S  $89^{\circ}56'20$ " E a distance of 100.05 feet, S  $00^{\circ}01'06$ " W a distance of 48.16 feet, S  $89^{\circ}43'50$ " W a distance of 585.10 feet and N  $00^{\circ}00'13$ " W a distance of 325.94 feet to the PLACE OF BEGINNING 1.

The area of the above described proposed permanent easement in the said Southeast quarter of the Northwest quarter of Section 36 containing 3.73 acres of land.

#### (NE/4 OF SW/4)

BEGINNING (PLACE OF BEGINNING 2) at a point from which a 2 inch iron pipe with GLO cap found for the West quarter corner of said Section 36 bears S 89°43'50" W a distance of 1,556.57 feet.

THENCE continuing across the said Northeast quarter of the Southwest quarter of Section 36 the following courses and distances:

N 89°43'50" E a distance of 585.10 feet, S  $00^{\circ}01'06$ " W a distance of 321.76 feet, S  $89^{\circ}59'10$ " W a distance of 100.00 feet, S  $00^{\circ}00'33$ " W a distance of 130.13 feet, S  $89^{\circ}59'47$ " W a distance of 484.95 feet and N  $00^{\circ}00'13$ " W a distance of 449.19 feet to the PLACE OF BEGINNING 2.

The area of the above described proposed permanent easement in the said Northeast quarter of the Southwest quarter of Section 36 containing 5.75 acres of land.

The total area of the above described permanent easement in said Section 36 containing 9.48 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. All bearings, distances, coordinates and areas are grid measurements utilizing a combined scale factor of 0.999777727 and a convergence angle of 0.322738518°.

Title information furnished by OXY USA INC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

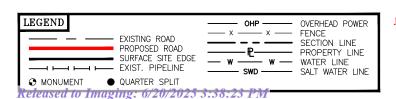
#### STATE OF NEW MEXICO

#### COUNTY OF EDDY

I, David W. Myers, New Mexico Professional Surveyor No. 11403 do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.

12/20/2023	01/03/2024
DATE SURVEYED	DATE DRAWN

	U	01/03/202+	ANC
	REV.	DATE	BY
ND W. ML			
ST MET TO		DELTA DELTA	







01/03/2024



STRESSED DESSERTS 36\_1 FED COM (LSTTNK\_21S32E\_36\_PAD 01) WELL PAD SEC. 36 TWP. 21-S RGE. 31-E SURVEY: N.M.P.M.

COUNTY: EDDY

OPERATOR: OXY USA, INC.

U.S.G.S. TOPOGRAPHIC MAP: THE DIVIDE, N.M.

FAA PERMIT NEEDED: NO



#### WELL 1 STRESSED DESSERTS 36\_1 FED COM 21H OXY USA, INC.

2,583' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.83' / Y:522461.97' LAT:32.43488923N / LON:103.73429829W NAD 27, SPCS NM EAST X:684969.01' / Y:522401.07' LAT:32.43476686N / LON:103.73380744W ELEVATION = 3561'

#### WELL 2 STRESSED DESSERTS 36\_1 FED COM 22H OXY USA, INC.

2,553' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.75' / Y:522432.05' LAT:32.43480697N / LON:103.73429908W NAD 27, SPCS NM EAST X:684968.94' / Y:522371.14' LAT:32.43468460N / LON:103.73380823W FI EVAITON = 3561'

# WELL 3 STRESSED DESSERTS 36\_1 FED COM 11H OXY USA, INC. 2,493' FSL 1,776' FWL, SECTION 36

NAD 83, SPCS NM EAST
X:726150.66' / Y:522372.00'
LAT:32.43464192N / LON:103.73430047W
NAD 27, SPCS NM EAST
X:684968.84' / Y:522311.09'
LAT:32.43451955N / LON:103.73380962W
EI EVATION = 3563'

#### WELL 4 STRESSED DESSERTS 36\_1 FED COM 12H OXY USA, INC.

2,463' FSL 1,776' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.73' / Y:522341.98' LAT:32.43455942N / LON:103.73430080W NAD 27, SPCS NM EAST X:684968.91' / Y:522281.08' LAT:32.43443705N / LON:103.73380996W ELEVATION = 3565'

## WELL 5 STRESSED DESSERTS 36\_1 FED COM 1H OXY USA, INC. 2.403' FSL 1.775' FWL SECTION 36

2,403' FSL 1,775' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726150.73' / Y:522281.91'

LAT:32.43439431N / LON:103.73430190W

NAD 27, SPCS NM EAST

X:684968.90' / Y:522221.01'

LAT:32.43427194N / LON:103.73381106W

ELEVATION = 3570'

# WELL 6 STRESSED DESSERTS 36\_1 FED COM 2H OXY USA, INC. 2,373' FSL 1,775' FWL, SECTION 36

2,373' FSL 1,775' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726150.76' / Y:522252.11' LAT:32.43431239N / LON:103.73430234W NAD 27, SPCS NM EAST X:684968.93' / Y:522191.21' LAT:32.43419002N / LON:103.73381150W ELEVATION = 3576'

# WELL 7 STRESSED DESSERTS 36\_1 FED COM 41H OXY USA, INC. 2,642' FSL 1,902' FWL, SECTION 36

2,642' FSL 1,902' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.77' / Y:522522.03' LAT:32.43505239N / LON:103.73389226W NAD 27, SPCS NM EAST X:685093.95' / Y:522461.13' LAT:32.43493002N / LON:103.73340141W ELEVATION = 3563'

# WELL 8 STRESSED DESSERTS 36\_1 FED COM 42H OXY USA, INC. 2612' FSL 1,902' FWL, SECTION 36

2612' FSL 1,902' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726275.87' / Y:522492.03'

LAT:32.43496992N / LON:103.73389247W

NAD 27, SPCS NM EAST

X:685094.05' / Y:522431.12'

LAT:32.43484755N / LON:103.73340163W

ELEVATION = 3564'

#### WELL 9 STRESSED DESSERTS 36\_1 FED COM 71H OXY USA. INC.

OXY USA, INC.

2,552' FS1 1,901' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726275.80' / Y:522431.96'

LAT:32.43480480N / LON:103.73389380W

NAD 27, SPCS NM EAST

X:685033.98' / Y:522371.05'

LAT:32.43468243N / LON:103.73340296W

FIFVATION = 3565

#### WELL 10 STRESSED DESSERTS 36\_1 FED COM 72H OXY USA, INC.

2,522' FSL 1,901' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.83' / Y:522402.01' LAT:32.43472250N / LON:103.73389422W NAD 27, SPCS NM EAST X:685094.01' / Y:522341.11' LAT:32.43460012N / LON:103.73340339W FI FVATION = 3566'

#### WELL 11 STRESSED DESSERTS 36\_1 FED COM 31H OXY USA, INC.

2,462' FSL 1,901' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.74' / Y:522341.86' LAT:32.43455717N / LON:103.73389561W NAD 27, SPCS NM EAST X:685093.92' / Y:522280.96' LAT:32.43443479N / LON:103.73340478W ELEVATION = 3565'

#### WELL 12 STRESSED DESSERTS 36\_1 FED COM 32H OXY USA, INC.

2,432' FSL 1,900' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.84' / Y:522312.05' LAT:32.43447521N / LON:103.73389585W NAD 27, SPCS NM EAST X:685094.01' / Y:522251.15' LAT:32.43435284N / LON:103.73340502W FI FVATION = 3566'

#### WELL 13 STRESSED DESSERTS 36\_1 FED COM 33H OXY USA, INC.

2,402' FSL 1,900' FWL, SECTION 36 NAD 83, SPCS NM EAST X:726275.80' / Y:522281.93' LAT:32.43439242N / LON:103.73389650W NAD 27, SPCS NM EAST X:685093.98' / Y:522221.03' LAT:32.43427004N / LON:103.73340568W ELEVATION = 3566'

DATE DRAWN

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#### WELL 14 STRESSED DESSERTS 36\_1 FED COM 34H OXY USA, INC.

2,372' FSL 1,900' FWL, SECTION 36

NAD 83, SPCS NM EAST

X:726275.80' / Y:522251.98'

LAT:32.43431011N / LON:103.73389706W

NAD 27, SPCS NM EAST

X:685093.98' / Y:522191.08'

LAT:32.43418773N / LON:103.73340624W

ELEVATION = 3567'

## 12/20/2023 | 01/03/2024

I, DAVID W. MYERS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 11403 DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO. SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT SURVEY PLAT CROSSING AN EXISTING TRACT OR TRACTS.

0	01/03/2024	ANC
DE\/	DATE	DV

BASIS OF BEARING

DATE SURVEYED

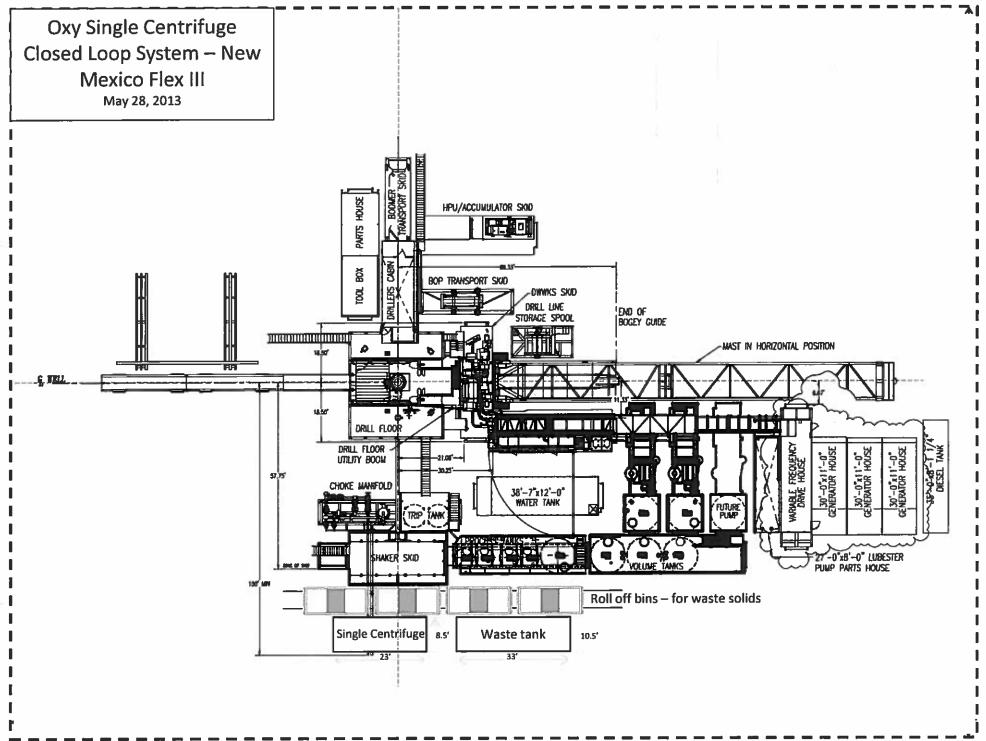
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE GRID MEASUREMENTS UTILIZING A COMBINED SCALE FACTOR OF 0.999777727 AND A CONVERGENCE ANGLE OF 0.322738518\*.

FACTOR OF	0.9997777	27 AND A CONVERG	ENCE ANGLE OF 0.322	/385181.
LEGEND			—— OHP ——	0.12
		EXISTING ROAD PROPOSED ROAD SURFACE SITE EDGE EXIST. PIPELINE		SECTION LINE PROPERTY LINE WATER LINE
S MONUM	IENT	QUARTER SPLIT		J. C

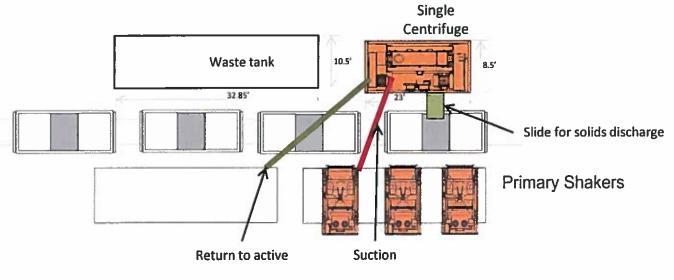


DAVID W. MYERS 11403









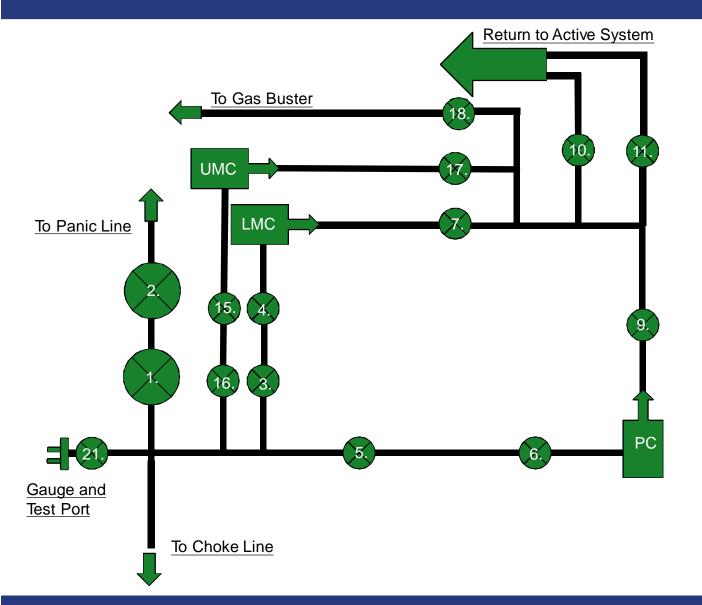




Oxy Single Centrifuge
Closed Loop System – New
Mexico Flex III

May 28, 2013

## 10M Choke Panel

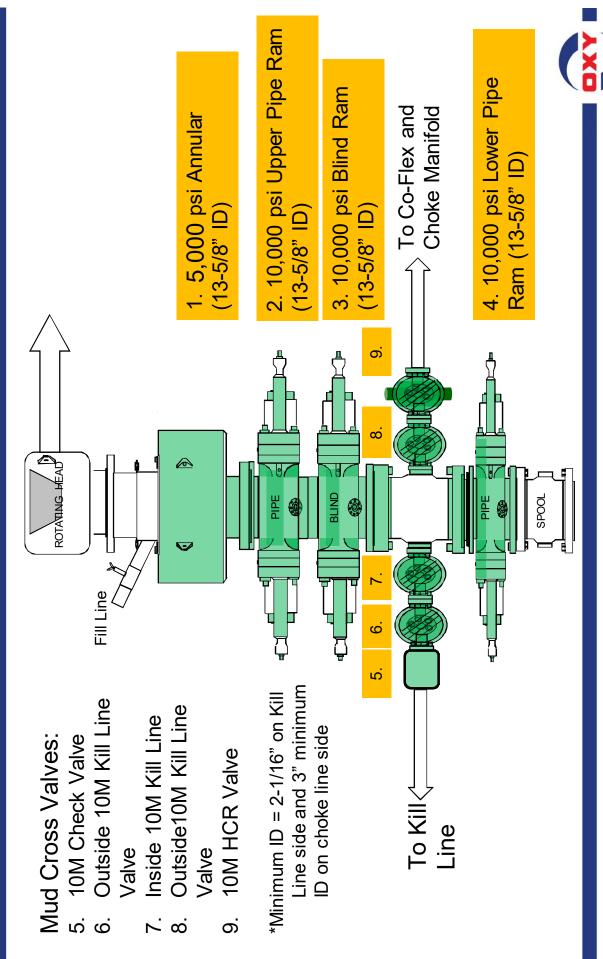


- 1. Choke Manifold Valve
- 2. Choke Manifold Valve
- 3. Choke Manifold Valve
- 4. Choke Manifold Valve
- 5. Choke Manifold Valve
- 6. Choke Manifold Valve
- 7. Choke Manifold Valve
- 8. PC Power Choke
- 9. Choke Manifold Valve
- 10. Choke Manifold Valve
- 11. Choke Manifold Valve
- 12. LMC Lower Manual Choke
- 13. UMC Upper manual choke
- 15. Choke Manifold Valve
- 16. Choke Manifold Valve
- 17. Choke Manifold Valve
- 18. Choke Manifold Valve
- 21. Vertical Choke Manifold Valve

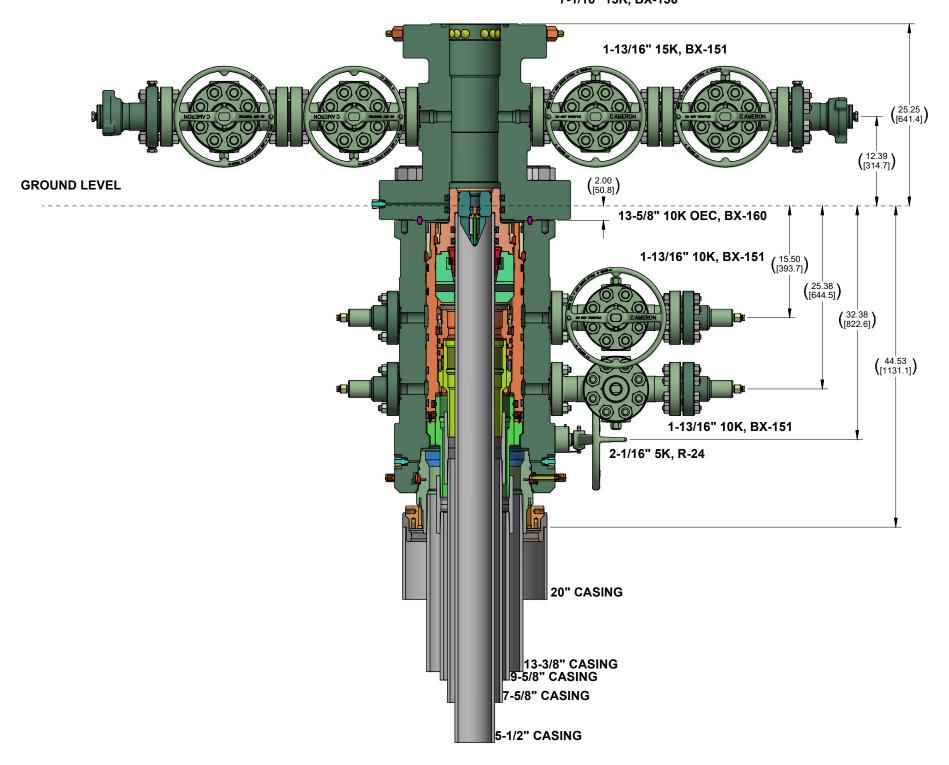
\*All Valves 3" minimum

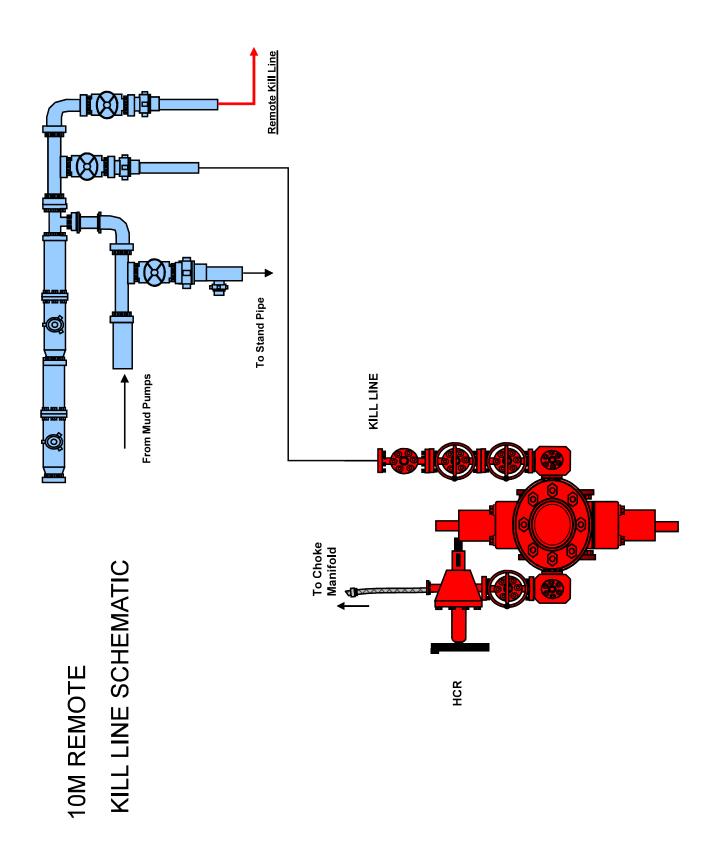


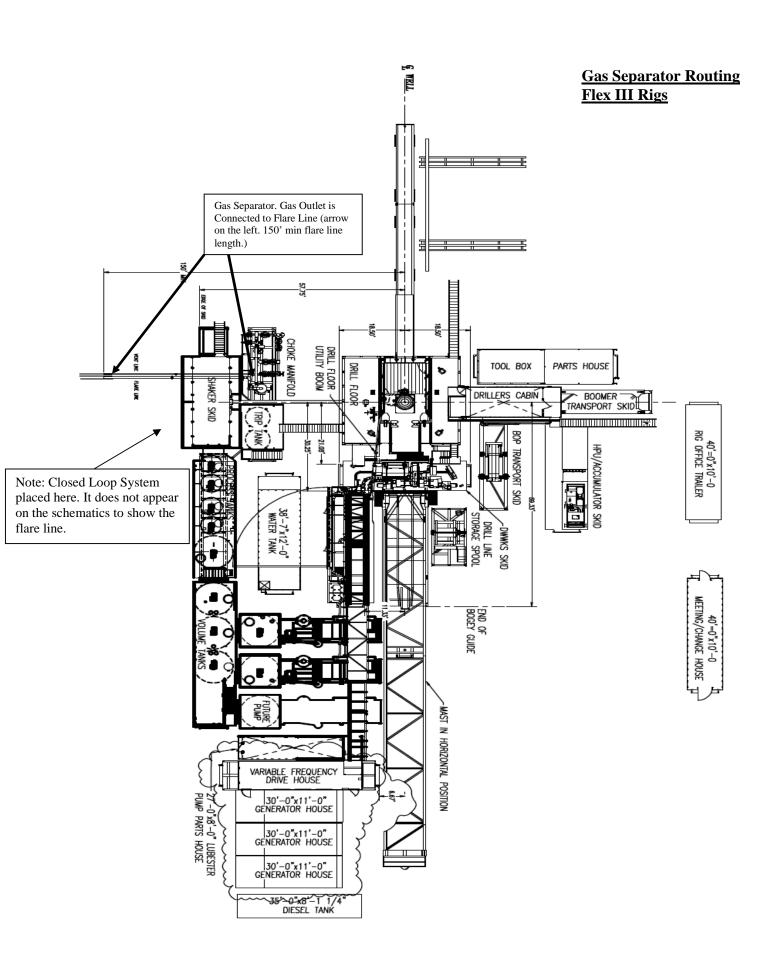
# 5/10M BOP Stack

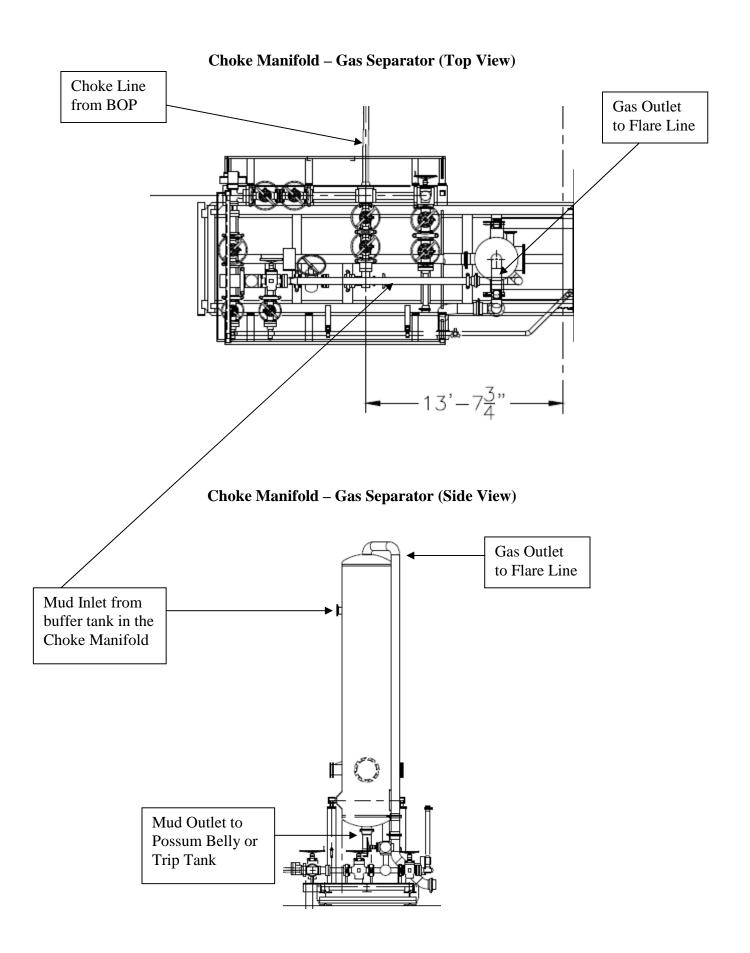


## 7-1/16" 15K, BX-156









## **Certificate of Conformity**



0 400 4 11 1	1		Contilect
Certificate Number H100161	COM Order Reference 1429702 740382384		Customer Name & Address HELMERICH & PAYNE DRILLING CO
Customer Purchase Order No:			1434 SOUTH BOULDER AVE TULSA, OK 74119
Project:			USA
Test Center Address	Acc	cepted by COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed:	Gerson Mejia-Lazo	

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	Qnty	Serial Number	Specifications
30	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70024	ContiTech Standard

#### **Hydrostatic Test Certificate**



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

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	Qnty	Serial Number	Work, Press. (psi)	Test Press, (psi)	Test Time (minutes)

30 RECERTIFICATION

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

70024

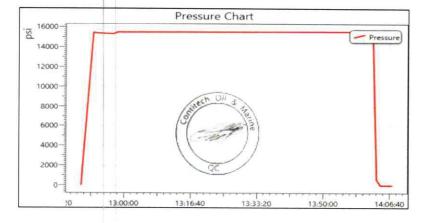
10,000

15,000

60

Record In	Record Information				
Start Time	6/8/2022 12:49:19				
End Time	6/8/2022 14:07:25				
Interval	00:01:00				
Number	79				
Start Time  End Time Interval Number MaxValue MinValue AvgValue RecordName	15762				
	-7				
AvgValue	14395				
RecordName	70024-sh				
RecordNumber	235				

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



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14286NEDEC 23/22



Gates Engineering & Services North America

Houston, TX. 77086 7603 Prairie Oak Dr.

PHONE: (281) 602-4119

:XA7

EMAIL: Troy.Schmidt@gates.com

## CERTIFICATE OF CONFORMANCE

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

:YTITNAUO	Ţ
SALES ORDER #:	Z869TS
	CLAMPS
PART DESCRIPTION:	RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS & LIFT EYE
.IAOITOCCOLDTIONI	ARMOR C/W 4 1/16 10K FIX X FLOAT H2S SUITED FLANGES WITH BX 155
CUSTOMER: CUSTOMERS P.O.#: CUSTOMER P/N:	A-7 AUSTIN INC DBA AUSTIN HOSE ASSEMBLY WITH STAINLESS STEEL 10KFR3.012.0CK411610KFIXXFLT SSA SC LE 3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL 3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL
	8

HS-112019-4

SERIAL #:

:3TAG	6TOZ/OZ/TT			
:3JTIT	SOURBUSSA YTIJAUD			
:3AUTANƏ	Torna ano			

Revision 1\_022819





FLANGES WITH BX 155 RING GROOVE SUPPLIED WITH SAFETY CLAMPS & SLINGS & LIFT EYE CLAMPS Product Description: Invoice No.: 286915 Created By: Norma Cabrera Customer Ref.: 4128128 (RIG 1 PO 002773) Hose Serial No.: HZ-112019-4 **BEOH NITZUA ABO DNI NITZUA V-A** Customer: Test Date: 6102/02/11

specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to The following hose assembly has successfully passed all pressure testing requirements set forth in Gates Gates Engineering & Services North America certifies that:

: 9160

SIØZ/OZ/TT YTIJAUD

: aumeuőis Production:

management system. AN23D ont in that has been calibrated in accordance with the requirements set-forth in the GESNA

F-PRD-005

: andengi2

: ested

Quality:

certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test

## :1 gnitting 1:

CUSTOMER P/N:

Oracle Star No.:

6246486-01000689 4 1/10 TOK FLANGES FIXED

10KER3:01S:0CK411610KE1XXELT SSA SC LE

Test Pressure: Assembly Code: End Fitting 2:

Working Pressure:

10,000 PSI. 'ISA 000'SI F41545 113018

4 1/10 TOK ELANGES FLOAT

41/20/2019

**Р**ВОВИСТІОМ

3" X 12 FT GATES CHOKE & KILL HOSE ASSEMBLY WITH STAINLESS STEEL ARMOR C/W 4 1/16 10K FIX X PLOAT H2S SUITED

PRESSURE TEST CERTIFICATE

Houston, TX 7086 7603 Prairie Oak Dr. GATES ENGINEERING & SERVICES NORTH AMERICA

PHONE: (281) 602 - 4119

www.gates.com

EMAIL: Troy.Schmidt@gates.com

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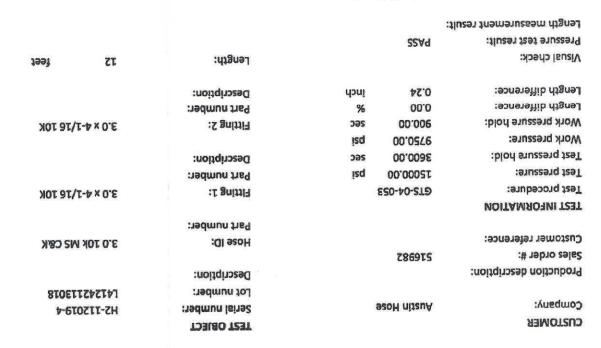
Page 1/2

**H2-1987** 

11/20/2019 12:13:07 PM

Roderick Shambra

## **TEST REPORT**



00:00:00 əmit 70:72:10 0 2000 0000 0009 0008 10000 15000 14000 16000 18000 įsd

Filename: D:/Certificates/Report\_112019-H2-112019-4.pdf

Test operator:

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H2-1987

11/20/2019 12:13:07 PM

# - Japes

## TEST REPORT

**GAUGE TRACEABILITY** 

A F-AO-OFOC	37 70 0100	TTOPMCFO	W-A-22-6
2020-04-14	7076-04-79	TTOAPOZK	W-A-2S-2
			Comment

Page 2/2

Filename: D:\Certificates/Report\_112019-H2-112019-4.pdf

# Certificate of Conformance

DW INDUSTRIES INC.

6287 Long Drive Houston, TX 77087

Tel. 713 644-49472 Fax 713-644-4947

NAMER UNIONS	C\M CE 3,, TQ'000 bei M	Part Description:	-2181-01-32-AO 1-2001	Customer Part Number:	Purcha
0707/97/70	:918G yldməssA		ľ	CTY Ordered:	lse Ord
CSZ620DW-2	Serial Number:	P-2001-2184-0492-AO		DW Industries Part Number:	ler Info
20020163	DW Industries Work Order Number:		CONTACT PAUL I	Customer Purchase Order Number:	Purchase Order Information
PAUL HOFFMAN 432-241-5360		EL DRILLING Customer Contact:		CITADEL	Customer:

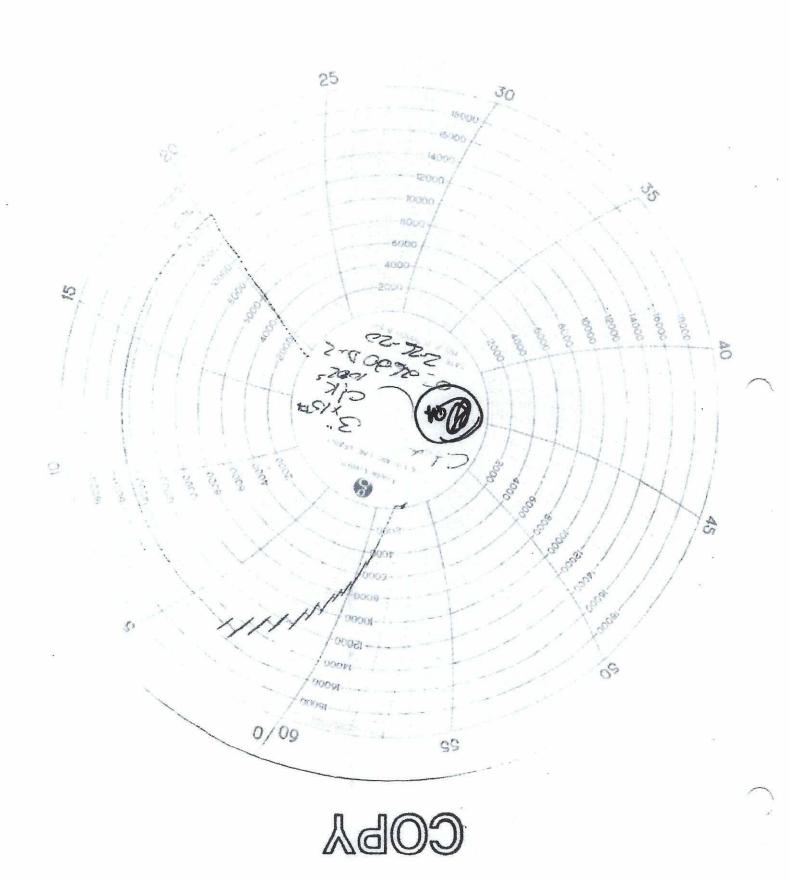
I DO HEREBY CERTIFY, AS THE AUTHORIZED REPRESENTATIVE OF DW INDUSTRIES, THAT THE PRODUCT LISTED ABOVE ARE OF THE QUALITY SPECIFIED QUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, PRESERVATION, PACKACING, PACKING, MARKING, AND PHYSICAL IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE IN THE PROPERTY OF THE PURCHASE ORDER, INCLUDING: IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE INCLUDING:

Certificate Issue Date: 2/27/2020

Carrett Crawford, Director of Quality

DW Industries Inc.

- 1/2 - 1/2 - 1/2 - 1/3



# Certificate of Conformance

# COBA

DW INDUSTRIES INC.

Houston, TX 77087

Tel. 713 644-8372 Fax 713-644-4947

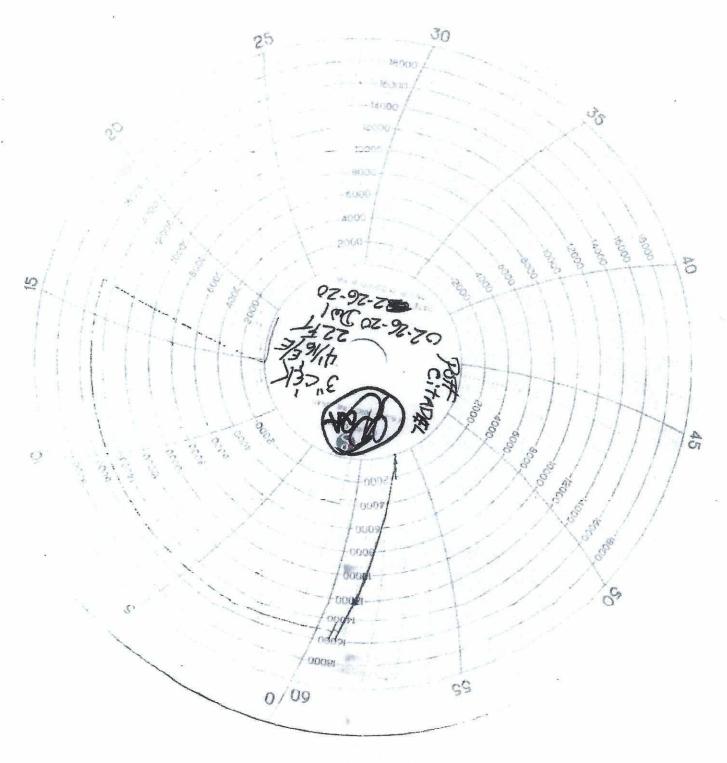
FLOAT FLANGES	C/M 25 ARMOR 4-1/16" FIXED BY 3" 10,000 psi W	Part Description:	OA-S640-4822-4- 1/16FXFL-ALE Part Description		Purcha
07)797/70	:93e@ Vidm9ssA		T	QTY Ordered:	se Ord
T-MQ0Z9ZZ0	Serial Number:	3JA-J7XFXFL-ALE	OA-5640-4822-4-1/16FXFL-ALE		er info
79102007	W Industries Work Order Number:		CONTACT PAUL HOFFMAN FOR		Purchase Order Information
PAUL HOFFMAN 03E2-142-SE4		Customer Contact:	CHADEL DAILLING		Customer Name:

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: PRESERVATION, PACKAGING, PACKING, MARKING, AND PHYSICAL IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE IDENTIFICATION REQUIREMENTS AND HAS BEEN PROCESSED IN ACCORDANCE IDENTIFICATION REQUIREMENTS AND API SPEC 7K.

Certificate Issue Date: 2/27/2020

Garrett Crawford, Director of Quality

DW Industries Inc.



COBA

# Certificate of Conformance

DW INDUSTRIES INC.

Tel. 713 644-8372 Fax 713-644-4947

ל" FIG 602 MXF	<b>bsit Description:</b> d"XTS4" 3K W/4" FIG 602 M.		Customer Part Number:	Purcha	
1/27/2023	Assembly Date:	and the second s	τ	QTY Ordered:	ise Ord
73010062	Serial Number:	ImuM lsine2		DW Industries	er Info
DW Industries Work Order Number:		∠∠6 <b>7</b> 0∠00		Customer Purchase Order Number:	Purchase Order Information
10DY LOERA		Contact:	ASOH NITURA		ustomer:

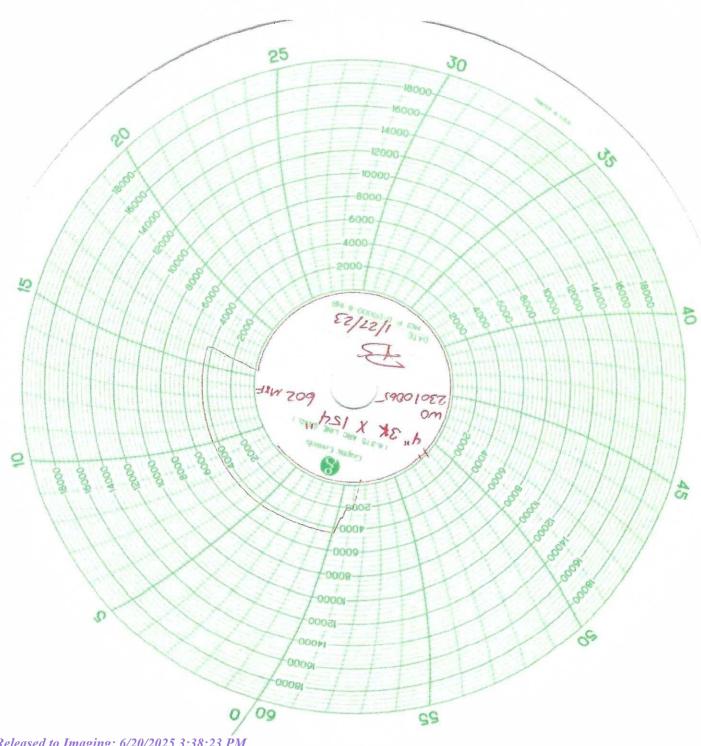
I DO HEREBY CERTIFY, AS THE AUTHORIZED REPRESENTATIVE OF DW INDUSTRIES, THAT THE PRODUCT LISTED ABOVE ARE OF THE QUALITY SPECIFIED OUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, DUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, DUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, DUALITY CONTROL CLAUSES, DESIGN SPECIFICATIONS, DRAWINGS, PRESERVATION, PACKAGING, PACKING, MARKING, AND PHYSICAL MITH ISO-9001:2015, API Q1 AND API SPEC 7K.

Certificate Issue Date: 1/27/2023

Li Shint Helm

Quality Assurance, DW Industries, Inc.

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IN SERVICE 12-20-21



**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/ollandgas

# PRESSURE TEST CERTIFICATE

Customer:

A-7 AUSTIN INC DBA AUSTIN HOSE

10/15/2021

Customer Ref.:

00595477

Hose Serial No.:

H3-101521-2

Invoice No.:

521925

Created By:

Test Date:

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:

Oracle Star No.:

CUSTOMER P/N:

4 1/16 10K FIXED FLANGE 68703010-10074881

10K3.035.0CK411610KFIXXFLTW/SSA/SC/LE

End Fitting 2: Assembly Code:

Test Pressure:

Working Pressure:

4 1/16 10K FLOAT HEAT TREATED FLANGES L41975 091719

15,000 PSI.

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:

Date:

Signature:

QUALITY 10/15/2021

nkul

Production:

Date:

Signature:

**PRODUCTION** 

10/15/2021

Revision 6\_05032021

F-PRD-005B



**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

3" X 35' GATES FIRE RATED CHOKE & KILL HOSE ASSEMBLY SUITED FOR H2S

PART DESCRIPTION: 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:	Minya wnu	
TITLE:	QUALITY ASSURANCE	
DATE:	10/15/2021	



H3-6963

10/15/2021 10:15:57 AM

# **TEST REPORT**

CUSTOMER

Company:

Sales order #:

Austin Distributing

**TEST OBJECT** 

Serial number:

H3-101521-2

Lot number:

L41975091719

Description:

521925

Hose ID: Part number: 3" 10k ck

**TEST INFORMATION** 

Customer reference:

Production description:

Test procedure:

GTS-04-053

Fitting 1:

Test pressure: Test pressure hold: 15000.00 psi 3600.00 sec Part number: Description:

3.0 x 4-1/16 10K

Work pressure:

10000.00

psi

sec

Fitting 2:

Length:

3.0 x 4-1/16 10K

Work pressure hold: Length difference: Length difference:

900.00 0.00

% inch Part number: Description:

35

feet

Visual check:

Pressure test result:

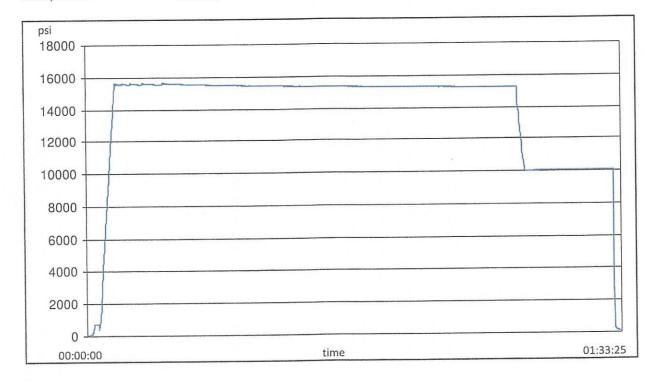
PASS

0.00

Length measurement result:

Test operator:

francisco





H3-6963

10/15/2021 10:15:57 AM

# **TEST REPORT**

## **GAUGE TRACEABILITY**

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**

<b>Hydrostatic Test Certifi</b>	icate	ContiTech
Certificate Number H100163	COM Order Reference 1429702 740382384	Customer Name & Address HELMERICH & PAYNE DRILLING CO 1434 SOUTH BOULDER AVE
Customer Purchase Order No:	(40002304	TULSA, OK 74119 USA
Project:	Accepted by COM Inspection	Accepted by Client Inspection
Test Center Address	Gerson Mejia-Lazo	
ContiTech Oil & Marine Corp. 11535 Brittmoore Park Drive Houston, TX 77041	Signed:	
USA	Date:  07/14/22	why sur Quality Management System, and to the best of our

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.

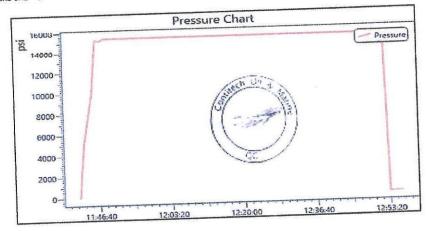
kı	nowledge are toun	d to contorn the requirement	Qnty	Serial Number	Work, Press.	Test Press.	Test Time (minutes)	
Item	Part No.	Description	Landy		(iaq)	(4)		
		250 041	1	70025	10,000	15,000	60	

RECERTIFICATION

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

Record In	iformation
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 In	formation
Model	ADT680
SN	21817380014
Range	(0-40000)psi
Unit	psi



# intinenta

# **Certificate of Conformity**

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

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	Qnty	Serial Number	Specifications
50	RECERTIFICATION	3" ID 10K Choke and Kill Hose x 35ft OAL	1	70025	ContiTech Standard

ARMORED CHOKE HOSE

FIRSTALLAND

4-29-22



CONTITECH RUBBER Industrial Kft.

No: QC-DB- 120 / 2019

Page: 16 / 91

# ContiTech

			-			-
QUALITY CO			CERT. N	lo:	75819	
PURCHASER: ContiTech	Oil & Marine Corp.		P.O. N°:		4501225327	
CONTITECH RUBBER order N°: 112744	HOSE TYPE: 3" IE	)		Choke and	d Kill Hose	
HOSE SERIAL N°: 75819	NOMINAL / ACTUAL LENG	STH:		10,67 n	n / 10,68 m	
W.P. 69,0 MPa 10000 ps	T.P. 103,5 MPa	1500	00 psi	Duration:	60	min.
Pressure test with water at ambient temperature						
	See attachment (1 p	age	)			
COUPLINGS Type	Serial N°		Qu	ality	Heat N°	
3" coupling with	6026	1	AISI	4130	A0607J	
4 1/16" 10K API Swivel Flange end		AISI 4		4130	040841	
Hub		AIS		AISI 4130 541		
3" coupling with	6016	1	AISI 4130		A0607J	
4 1/16" 10K API b.w. Flange end		AISI		4130	040431	
Not Designed For Well Testin	on a		API Sn	ec 16 C 2	end Edition—F	SI 2
Not besigned for Well 163th	9	,	птор			
				lemp	erature rate:	B
All metal parts are flawless						
WE CERTIFY THAT THE ABOVE HOSE HAS				H THE TERM	S 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 (	Contr	C-02	ntiTech Rubi		
				lity Control D		
08. April 2019.	So	~	~~	51	Tayaling	5



Prepared by	С	Cristian Rivera		Date:	8/27/2022		QIN:	N/A					
Customer:	HELI	MERICH & PAYNE, INC		Location:	H&P INT'L DRILLING CO 210 MAGNOLIA DR GALE PARK,TX,77547-2738				1· 1		H&P INT'L DR		A
User contact:	MI	MITCH MCKINNIS		Phone:	e-mail: <u>mitch.mckinnis@h</u>		e-mail: mitch.mckinnis@hpii		oinc.com				
Parameters		Hose Details			Test Status								
		PO			740398454 (88000240   SN:70035)								
		Gates SO			525035								
		Serial #:			88000240   SN:70035								
		As Tested Seria	al:		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										
Application	า												
Information Working pressure: 10			10000 PSI.				PASS						

## 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 repairabledamages 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.

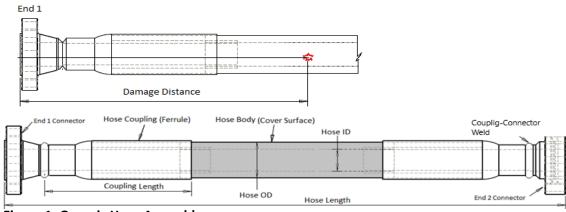


Figure 1: Generic Hose Assembly

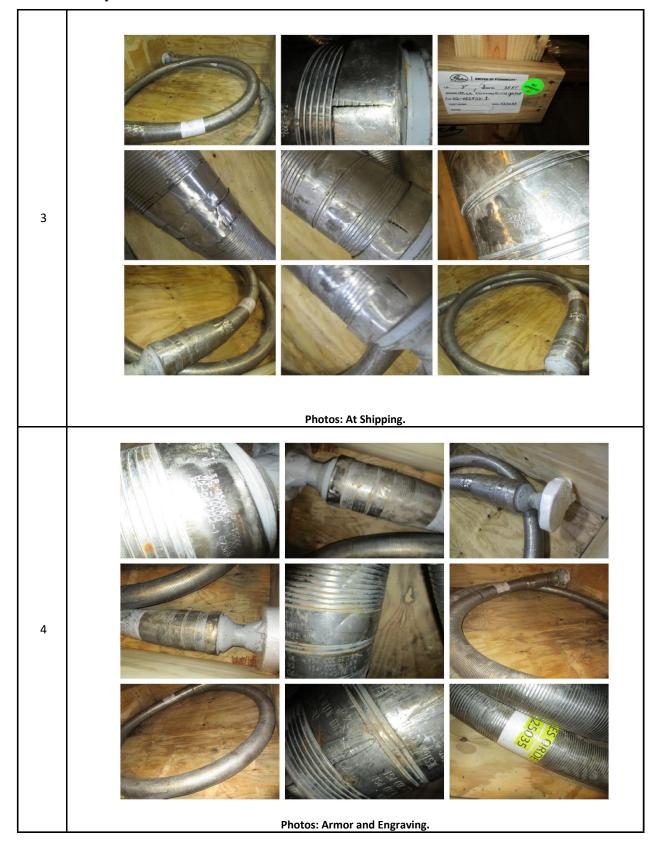


# 1.0 Observations and comments





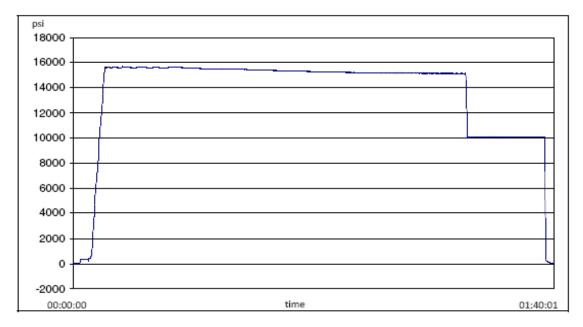








# 2. Hydro Static Pressure test



# 2.1 Hydrostatic Pressure test Procedures

	Hose Type	Test Specification	Test Date	Technician
1	IN X 35FT CHOKE & KILL	3 10K C&K	2022-08-27	Martin Orozco
	ASSEMBLY C/W 4-1/16	3 IUN CAN	2022-06-27	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

# Gate

# **Hose Assembly Evaluation Sheet**

# 2.3 Hydro Static Test Pressure results

	Details	Re	sults
1	Hydrostatic Test Results (1)	Pass	<del>Fail</del>
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

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Photos: Liner/Coupling Interface END 2

# <u>Note</u>

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.



# APPENDIX 1: Pressure Chart



H2-8316

8/27/2022 8:51:22 AM

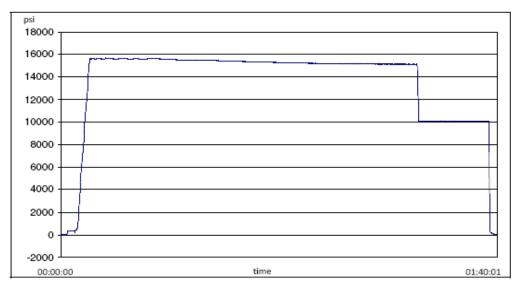
# **TEST REPORT**

TEST OBJECT CUSTOMER Company: Serial number: H2-082722-1 Lot number: Production description: Description: Sales order #: 525035 740398454 (88000240 | Customer reference: Hose ID: 3 10k C&K SN:70035) Part number: TEST INFORMATION 3 10K C&K 3.0 x 4-1/16 10K Test procedure: Fitting 1: 15000.00 Test pressure: Part number: psi Test pressure hold: 3600.00 Description: Work pressure: 10000.00 Work pressure hold: 900.00 Fitting 2: 3.0 x 4-1/16 10K sec Length difference: 0.00 % Part number: Length difference: Description: Length: 35 feet

Visual check:
Pressure test result: PASS

Length measurement result:

Test operator: Martin



Filename: D:\Certificates\Report\_082722-H2-082722-1.pdf Page 1/2





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			

Filename: D:\Certificates\Report\_082722-H2-082722-1.pdf Page 2/2



# 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/ollandgas

# 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: SERIAL #:

H2-082722-1 RE-TEST

IGNATURE:	( Reverc	
TITLE:	QUALITY ASSURANCE	
DATE:	8/27/2022	

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# OXY's Minimum Design Criteria

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

# 1) Casing Design Assumptions

## a) Burst Loads

CSG Test (Surface)

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

#### CSG Test (Production)

- Internal:
  - For Drilling: Displacement fluid + pressure required to comply with regulatory casing test pressures. This will comply with both 43 CFR part 3170 Subpart 3172 and 19.15.16 of the OCD Rules.
  - For Production: The design pressure test should be the greater of (1) the planned test pressure prior to stimulation down the casing. (2) the regulatory test pressure, and (3) the expected gas lift system pressure. The design test fluid should be the fluid associated with pressure test having the greatest pressure.

#### External:

- For Drilling: Mud Weight to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.
- For Production: Mud base-fluid density to TOC, cement mix water gradient (8.4 ppg) below TOC, and pore pressure in open hole.

## Gas Column (Surface)

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

#### Bullheading (Surface / Intermediate)

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

#### Gas Kick (Intermediate)

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

Tubing Leak Near Surface While Producing (Production)

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

Tubing Leak Near Surface While Stimulating (Production)

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

Injection / Stimulation Down Casing (Production)

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

## b) Collapse Loads

Lost Circulation (Surface / Intermediate)

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

Full Evacuation (Production)

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

#### c) Tension Loads

Running Casing (Surface / Intermediate / Production)

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

Green Cement (Surface / Intermediate / Production)

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



# **CONNECTION DATA SHEET**



# Field Torque Values

Make-up Torque (ft-lb)
20,000 MIN
22,500 OPTI
25,000 MAX

**Torque with Sealability (ft-lb)** 

36,000 MTS

Locked Flank Torque (ft-lb)

4,500 MIN 15,750 MAX

(2) MTS: Maximum Torque with Sealability.

#### PIPE BODY PROPERTIES

Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Wall Thickness	0.361	in.
Minimum Wall Thickness	87.5	%
Nominal Weight (API)	20.00	lb/ft
Plain End Weight	19.83	lb/ft
Drift	4.653	in.
Grade Type	Controll	ed Yield
Grade Type	Controll	eu fielu
Minimum Yield Strength	110	ksi
•		
Minimum Yield Strength	110	ksi
Minimum Yield Strength  Maximum Yield Strength	110 125	ksi ksi
Minimum Yield Strength  Maximum Yield Strength  Minimum Ultimate Tensile Strength	110 125 140	ksi ksi ksi
Minimum Yield Strength  Maximum Yield Strength  Minimum Ultimate Tensile Strength  Pipe Body Yield Strength	110 125 140 641	ksi ksi ksi klb

#### **CONNECTION PROPERTIES**

Connection Type	Semi-Pr	emium Integral Semi-Flu
Nominal Connection OD	5.783	in.
Nominal Connection ID	4.718	in.
Make-up Loss	5.965	in.
Tension Efficiency	90	% Pipe Body
Compression Efficiency	90	% Pipe Body
Internal Pressure Efficiency	100	% Pipe Body
External Pressure Efficiency	100	% Pipe Body

#### JOINT PERFORMANCES

Tension Strength	577	klb
Compression Strength	577	klb
Internal Pressure Resistance	12,640	psi
External Pressure Resistance	11,110	psi
Maximum Bending, Structural	78	°/100 ft
Maximum Bending, with Sealability(1)	30	°/100 ft

(1) Sealability rating demonstrated as per API RP 5C5 / ISO 13679



BOOST YOUR EFFICIENCY, REDUCE COSTS AND ENSURE 100% WELL INTEGRITY WITH VAM® FIELD SERVICE

Scan the QR code to contact us



**■**Tenaris

# **API BTC -Special** Clearance

Coupling Pipe Body

Grade: I 80-IC Grade: I 80-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	Туре	Casing
Connection OD Option	Special Clearance				

#### Pipe Body Data

Geometry			
Nominal OD	10.750 in.	Drift	9.875 in.
Wall Thickness	0.400 in.	Plain End Weight	44.26 lb/ft
Nominal Weight	45.500 lb/ft	OD Tolerance	API
Nominal ID	9.950 in.		

Performance	
SMYS	80,000 psi
Min UTS	95,000 psi
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	
Thread per In	5
Connection OD	11.250 in.
Hand Tight Stand Off	1 in.

Performance	
Joint Strength	1041 x1000 lb
Coupling Face Load	478 x1000 lb
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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Sante Fe Main Office Phone: (505) 476-3441 General Information

Phone: (505) 629-6116
Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 464659

#### **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	464659
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
lesliereeves	Cement is required to circulate on both surface and intermediate1 strings of casing.	5/19/2025
lesliereeves	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	5/19/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	6/20/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	6/20/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	6/20/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	6/20/2025
ward.rikala	Operator must comply with all of the R-111-Q requirements.	6/20/2025