

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*Lease Serial No.
NMNM45236

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
STERLING SILVER MDP1 33-4 FD C 8H9. API Well No.
30-015-45387-00-X110. Field and Pool or Exploratory Area
INGLE WELLS11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
OXY USA INCORPORATEDContact: SARAH CHAPMAN
E-Mail: SARAH_CHAPMAN@OXY.COM3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-05213b. Phone No. (include area code)
Ph: 713-350-4897

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

Sec 33 T23S R31E NENW 69FNL 2404FWL
32.267994 N Lat, 103.783516 W LonNM OIL CONSERVATION
ARTESIA DISTRICT

FEB 08 2019

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

TYPE OF SUBMISSION

TYPE OF ACTION

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

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

OXY USA Inc. respectfully requests to amend the approved APD and change the well number for API No 30-015-45387 from the Sterling Silver MDP1 33-4 Federal Com #173H to the Sterling Silver MDP1 33-4 Federal Com #8H. This well will be drilled and completed in the 2nd Bone Spring (Ingle Wells Bone Spring Pool) instead of the Wolfcamp (Purple Sage Wolfcamp Pool).

See attached for the Amended C-102 plat, drill plan with added SF-TORQ casing connection specs, directional plan, plot and supplemental form.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #451514 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 01/30/2019 (19PP0833SE)

Name (Printed/Typed) DAVID STEWART

Title REGULATORY ADVISOR

Signature (Electronic Submission)

Date 01/23/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By MUSTAFA HAQUE

Title PETROLEUM ENGINEER

Date 02/05/2019

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

Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

From WFMP → TO. V BSPG RWP-2-19-19

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 397-4161 Fax: (505) 397-4170
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1281 Fax: (505) 748-0720
District III
1000 Rio Bravo Road, Aztec, NM 87410
Phone: (505) 714-6175 Fax: (505) 714-6173
District IV
225 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3465 Fax: (505) 476-3462

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

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

RECEIVED

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45387	Pool Code 33740	Pool Name Ingle Wells Bone Spring
Property Code 322740	Property Name STERLING SILVER MDP1 "33-4" FEDERAL COM	Well Number 8H
GRID No 16696	Operator Name OXY USA INC.	Elevation 3386.2'

Surface Location

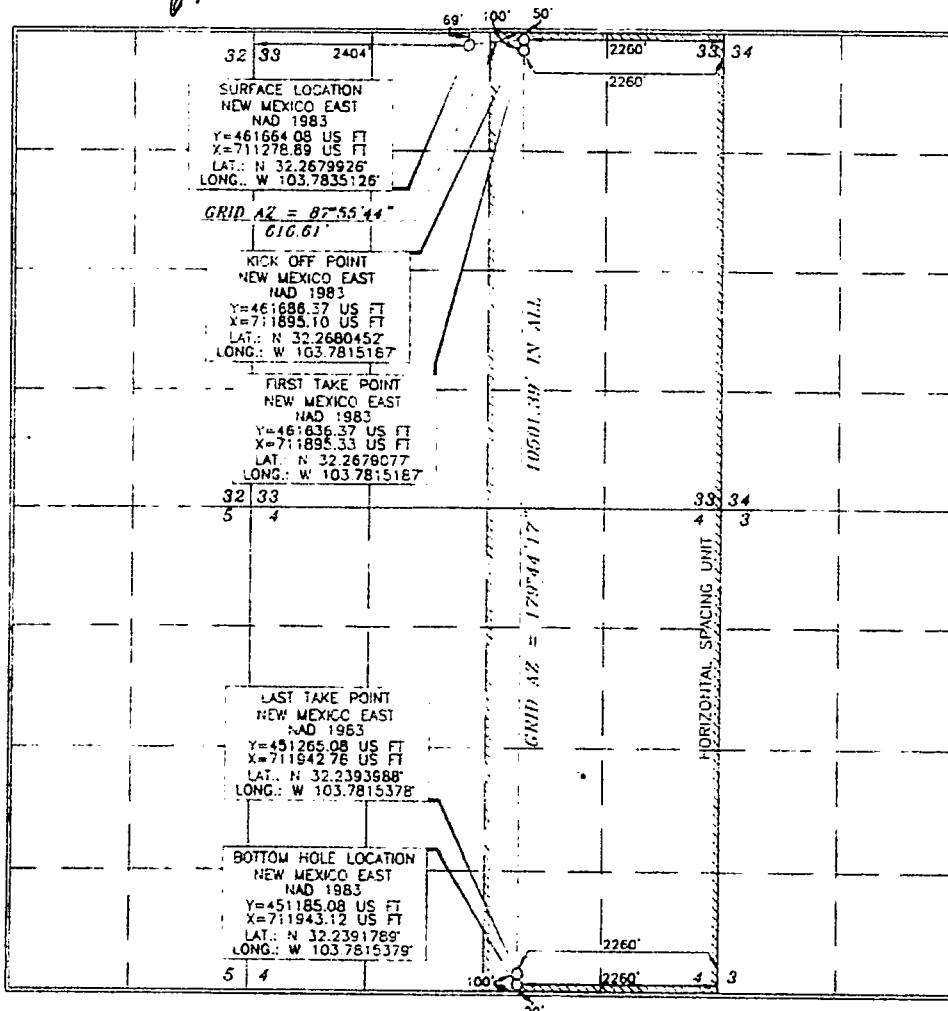
LT or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	33	23 SOUTH	31 EAST, N.M.P.M.		69'	NORTH	2404'	WEST	EDDY

Bottom Hole Location If Different From Surface

LT or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	4	24 SOUTH	31 EAST, N.M.P.M.		20'	SOUTH	2260'	EAST	EDDY

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No 21
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and accurate to the best of my knowledge and belief, and that the information is true and accurate to the best of my knowledge and belief, and that the information is true and accurate to the best of my knowledge and belief.

Signature: **Sarah Chapman** Date: **1/22/19**
Printed Name: **Sarah Chapman**
Email Address: **Sarah-Chapman@oxy.com**

SURVEYOR CERTIFICATION

I hereby certify that the information shown on this plat was plotted by the surveyor or under my supervision, and that the same is true and correct to the best of my belief.

Signature: **Terry J. Asel** Date: **1/14/2019**
Certificate Number: **15079**

Rw 2-19-19

NM OIL CONSERVATION
ARTESIA DISTRICT

Intent ☒ As Drilled ☐

FEB 08 2019

API # 30-015-45387		RECEIVED	
Operator Name: Oxy USA Inc.		Property Name: Sterling Silver HDP 133-4 Fed Com	Well Number 04

Kick Off Point (KOP)

UL B	Section 33	Township 23S	Range 31E	Lot	Feet 60	From N/S NORTH	Feet 2260	From E/W EAST	County EDDY
Latitude 32.2680452					Longitude -103.7815187				NAD NAD83

First Take Point (FTP)

UL B	Section 33	Township 23S	Range 31E	Lot	Feet 100	From N/S NORTH	Feet 2260	From E/W EAST	County EDDY
Latitude 32.2679077					Longitude -103.7815187				NAD NAD83

Last Take Point (LTP)

UL D	Section 4	Township 23S	Range 31E	Lot	Feet 100	From N/S SOUTH	Feet 2260	From E/W EAST	County EDDY
Latitude 32.2393980					Longitude -103.7815378				NAD NAD83

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

3. Cementing Program

Casing String	# Sk	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	543	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	921	12.9	1.88	10.130	14:22	Pozzolan Cement, Retarder
Intermediate (Tail)	155	14.8	1.33	6.370	12:45	Class C Cement, Accelerator
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	62	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate II 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	420	12.9	1.92	10.410	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	848	13.2	1.38	6.686	3:49	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	509	100%
Intermediate (Lead)	0	3798	50%
Intermediate (Tail)	3798	4298	20%
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	8050	9300	5%
Intermediate II 2nd Stage	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	0	8050	25%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	8800	20360	20%

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

4. Pressure Control Equipment

BOP Installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
8.5" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
6.75" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

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

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

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	509	Water-Based Mud	8.6-8.8	40-60	N/C
509	4298	Saturated Brine-Based Mud	9.8-10.0	35-45	N/C
4298	9378	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C
9378	20427	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C

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

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
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6. Logging and Testing Procedures

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4991 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	160°F

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

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

Total estimated cuttings volume: 1549.4 bbls.

Attachments

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

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Margaret Giltner	Drilling Engineer	713-366-5026	210-683-8480
Diego Tellez	Drilling Engineer Supervisor	713-350-4602	713-303-4932
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

Oxy requests to change the name of the Sterling Silver MDP1 33-4 Fed Com 173H to the Sterling Silver 33-4 Fed Com 8H due to a target change.

1. Geologic Formations

TVD of target	9931'	Pilot Hole Depth	N/A
MD at TD:	20360'	Deepest Expected fresh water:	459'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	459	
Salado	820	Brine
Castile	2,742	Brine
Lamar/Delaware	4,248	Brine
Bell Canyon	4,275	Oil/Gas
Cherry Canyon	5,154	Oil/Gas
Brushy Canyon	6,438	Losses
Bone Spring	8,050	Oil/Gas
1st Bone Spring	9,114	Oil/Gas
2nd Bone Spring	9,340	Oil/Gas

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

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF	SF Burst	Buoyant	Buoyant
	From (ft)	To (ft)					Collapse		Body SF	Joint SF
17.5	0	509	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	4298	9.625	43.5	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	9300	7.625	26.4	L-80 HC	SF (0 ft to 4000 ft) FJ (4000 ft to 9378 ft)	1.125	1.2	1.4	1.4
6.75	0	20360	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

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

*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage, we will drop a cancellation cone and not pump the second stage.

*Oxy requests the option to run production casing with DQX and/or SF TORQ connections to accommodate hole conditions or drilling operations.

Oxy USA Inc. - Sterling Silver MDP1 33-4 Fed Com 8H

Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd 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 nd 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?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Oxy Sterling Silver MDP1 33-4 Fed Com 8H Rev0 mta 17Jan19 Proposal

Geodetic Report

(Def Plan)



Report Date: January 17, 2019 - 04:13 PM Client: OXY Field: NM Eddy County (NAD 83) Structure / Slot: Oxy Sterling Silver MDP1 33-4 Federal Com 8H / Oxy Sterling Silver MDP1 33-4 Federal Com 8H Well: Sterling Silver MDP1 33-4 Fed Com 8H Borehole: Original Borehole UWI / API#: Unknown / Unknown Survey Name: Oxy Sterling Silver MDP1 33-4 Fed Com 8H Rev0 mta 17Jan19 Survey Date: January 17, 2019 Tort / AHD / DDI / ERD Ratio: 113.719 * / 11199.151 ft / 6.415 / 1.120 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 16' 4.77336", W 103° 47' 0.64536" Location Grid N/E Y/X: N 461664.078 ftUS, E 711278.890 ftUS CRS Grid Convergence Angle: 0.2935 ° Grid Scale Factor: 0.99994217 Version / Patch: 2.10.753.0	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 176.373 ° (Grid North) Vertical Section Origin: 0.000 ft, 0.000 ft TVD Reference Datum: RKB=26.5' TVD Reference Elevation: 3412.700 ft above MSL Seabed / Ground Elevation: 3386.200 ft above MSL Magnetic Declination: 6.856 ° Total Gravity Field Strength: 988.4500mgn (9.80665 Based) Gravity Model: GARM Total Magnetic Field Strength: 47972.296 nT Magnetic Dip Angle: 59.994 ° Declination Date: January 17, 2019 Magnetic Declination Model: HDGM 2018 North Reference: Grid North Grid Convergence Used: 0.2935 ° Total Corr Mag North->Grid North: 6.5625 ° Local Coord Referenced To: Well Head	
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Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	122.90	0.00	0.00	0.00	0.00	N/A	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	100.00	0.00	150.00	100.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	200.00	0.00	150.00	200.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	300.00	0.00	150.00	300.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	400.00	0.00	150.00	400.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	500.00	0.00	150.00	500.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	600.00	0.00	150.00	600.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	700.00	0.00	150.00	700.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	800.00	0.00	150.00	800.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	900.00	0.00	150.00	900.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1000.00	0.00	150.00	1000.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1100.00	0.00	150.00	1100.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1200.00	0.00	150.00	1200.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1300.00	0.00	150.00	1300.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1400.00	0.00	150.00	1400.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1500.00	0.00	150.00	1500.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1600.00	0.00	150.00	1600.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1700.00	0.00	150.00	1700.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1800.00	0.00	150.00	1800.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	1900.00	0.00	150.00	1900.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	2000.00	0.00	150.00	2000.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	2100.00	0.00	150.00	2100.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	2200.00	0.00	150.00	2200.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	2300.00	0.00	150.00	2300.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	2400.00	0.00	150.00	2400.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
2500.00	0.00	150.00	2500.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65		
2600.00	0.00	150.00	2600.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65		
2700.00	0.00	150.00	2700.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65		
2800.00	0.00	150.00	2800.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65		
2900.00	0.00	150.00	2900.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65		
Build 1°/100	3000.00	0.00	150.00	3000.00	0.00	0.00	0.00	0.00	461664.08	711278.89	N 32 16 4.77 W 103 47 0.65	
	3100.00	1.00	150.00	3099.99	0.78	-0.76	0.44	1.00	461663.32	711279.33	N 32 16 4.77 W 103 47 0.64	
Hold Tangent	3200.00	2.00	150.00	3199.96	3.13	-3.02	1.75	1.00	461661.06	711280.64	N 32 16 4.74 W 103 47 0.63	
	3300.00	3.00	150.00	3299.86	7.03	-6.80	3.93	1.00	461657.28	711282.82	N 32 16 4.71 W 103 47 0.60	
Drop 1°/100	3400.00	4.00	150.00	3399.68	12.50	-12.09	6.98	1.00	461651.99	711285.87	N 32 16 4.65 W 103 47 0.56	
	3500.00	5.00	150.00	3499.37	19.53	-18.88	10.90	1.00	461645.20	711289.79	N 32 16 4.59 W 103 47 0.52	
Vertical Point	3600.00	5.00	150.00	3598.99	27.34	-26.43	15.26	0.00	461637.65	711294.15	N 32 16 4.51 W 103 47 0.47	
	3700.00	5.00	150.00	3698.60	35.15	-33.98	19.62	0.00	461630.10	711298.51	N 32 16 4.44 W 103 47 0.42	
Hold Tangent	3800.00	4.00	150.00	3798.30	42.18	-40.77	23.54	1.00	461623.31	711302.43	N 32 16 4.37 W 103 47 0.37	
	3900.00	3.00	150.00	3898.11	47.65	-48.06	26.59	1.00	461618.02	711305.48	N 32 16 4.32 W 103 47 0.34	
Vertical Point	4000.00	2.00	150.00	3998.01	51.56	-48.84	28.77	1.00	461614.24	711307.66	N 32 16 4.28 W 103 47 0.31	
	4100.00	1.00	150.00	4097.98	53.90	-52.10	30.08	1.00	461611.98	711308.97	N 32 16 4.26 W 103 47 0.30	
Build 1°/100	4200.00	0.00	150.00	4197.97	54.68	-52.86	30.52	1.00	461611.22	711309.41	N 32 16 4.25 W 103 47 0.29	
	4300.00	0.00	150.00	4297.97	54.68	-52.86	30.52	0.00	461611.22	711309.41	N 32 16 4.25 W 103 47 0.29	
Build 1°/100	4400.00	0.00	150.00	4397.97	54.68	-52.86	30.52	0.00	461611.22	711309.41	N 32 16 4.25 W 103 47 0.29	
	4500.00	0.00	150.00	4497.97	54.68	-52.86	30.52	0.00	461611.22	711309.41	N 32 16 4.25 W 103 47 0.29	
Hold Tangent	4599.00	0.00	150.00	4598.97	54.68	-52.86	30.52	0.00	461611.22	711309.41	N 32 16 4.25 W 103 47 0.29	
	4600.00	0.11	59.35	4597.97	54.68	-52.85	30.53	1.00	461611.23	711309.42	N 32 16 4.25 W 103 47 0.29	
Hold Tangent	4700.00	1.11	59.35	4697.96	54.20	-52.31	31.44	1.00	461611.77	711310.33	N 32 16 4.25 W 103 47 0.28	
	4800.00	2.11	59.35	4797.92	52.92	-50.88	33.86	1.00	461613.20	711312.75	N 32 16 4.27 W 103 47 0.25	
Hold Tangent	4900.00	3.11	59.35	4897.82	50.85	-48.56	37.78	1.00	461615.52	711316.67	N 32 16 4.29 W 103 47 0.21	
	5000.00	4.11	59.35	4997.82	47.99	-45.35	43.19	1.00	461618.73	711322.08	N 32 16 4.32 W 103 47 0.15	
Hold Tangent	5100.00	5.11	59.35	5097.29	44.34	-41.25	50.11	1.00	461622.83	711329.00	N 32 16 4.36 W 103 47 0.06	
	5189.12	6.00	59.35	5186.00	40.42	-36.85	57.53	1.00	461627.23	711336.42	N 32 16 4.41 W 103 46 59.98	
Hold Tangent	5200.00	6.00	59.35	5196.81	39.90	-36.27	58.51	0.00	461627.81	711337.40	N 32 16 4.41 W 103 46 59.97	
	5300.00	6.00	59.35	5296.27	35.15	-30.94	67.51	0.00	461633.14	711346.39	N 32 16 4.46 W 103 46 59.86	
Hold Tangent	5400.00	6.00	59.35	5395.72	30.40	-25.61	76.50	0.00	461638.47	711355.39	N 32 16 4.52 W 103 46 59.76	
	5500.00	6.00	59.35	5495.17	25.65	-20.28	85.49	0.00	461643.80	711364.38	N 32 16 4.57 W 103 46 59.65	
Hold Tangent	5600.00	6.00	59.35	5594.62	20.90	-14.95	94.49	0.00	461649.12	711373.37	N 32 16 4.62 W 103 46 59.55	
	5700.00	6.00	59.35	5694.07	16.15	-9.62	103.48	0.00	461654.45	711382.37	N 32 16 4.67 W 103 46 59.44	
Hold Tangent	5800.00	6.00	59.35	5793.53	11.40	-4.30	112.48	0.00	461659.78	711391.36	N 32 16 4.73 W 103 46 59.34	
	5900.00	6.00	59.35	5892.98	6.65	1.03	121.47	0.00	461665.11	711400.36	N 32 16 4.78 W 103 46 59.23	
Hold Tangent	6000.00	6.00	59.35	5992.43	1.80	6.36	130.47	0.00	461670.44	711409.35	N 32 16 4.83 W 103 46 59.13	
	6100.00	6.00	59.35	6091.88	-2.85	11.69	139.46	0.00	461675.77	711418.34	N 32 16 4.88 W 103 46 59.02	
Hold Tangent	6200.00	6.00	59.35	6191.33	-7.60	17.02	148.46	0.00	461681.10	711427.34	N 32 16 4.93 W 103 46 58.92	
	6300.00	6.00	59.35	6290.79	-12.35	22.35	157.45	0.00	461686.43	711436.33	N 32 16 4.99 W 103 46 58.81	
Hold Tangent	6400.00	6.00	59.35	6390.24	-17.10	27.68	166.45	0.00	461691.76	711445.33	N 32 16 5.04 W 103 46 58.71	
	6500.00	6.00	59.35	6489.69	-21.85	33.01	175.44	0.00	461697.09	711454.32	N 32 16 5.09 W 103 46 58.60	
Hold Tangent	6600.00	6.00	59.35	6589.14	-26.60	38.34	184.43	0.00	461702.42	711463.31	N 32 16 5.14 W 103 46 58.50	
	6700.00	6.00	59.35	6688.59	-31.35	43.67	193.43	0.00	461707.75	711472.31	N 32 16 5.20 W 103 46 58.39	
Hold Tangent	6800.00	6.00	59.35	6788.05	-36.10	49.00	202.42	0.00	461713.08	711481.30	N 32 16 5.25 W 103 46 58.28	
	6900.00	6.00	59.35	6887.50	-40.85	54.33	211.42	0.00	461718.41	711490.30	N 32 16 5.30 W 103 46 58.18	
Hold Tangent	7000.00	6.00	59.35	6986.95	-45.60	59.66	220.41	0.00	461723.73	711499.29	N 32 16 5.35 W 103 46 58.07	
	7100.00	6.00	59.35	7086.40	-50.35	64.99	229.41	0.00	461729.06	711508.28	N 32 16 5.40 W 103 46 57.97	
Hold Tangent	7200.00	6.00	59.35	7185.85	-55.10	70.32	238.40	0.00	461734.39	711517.28	N 32 16 5.46 W 103 46 57.86	
	7300.00	6.00	59.35	7285.31	-59.85	75.65	247.40	0.00	461739.72	711526.27	N 32 16 5.51 W 103 46 57.76	

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7600.00	6.00	59.35	7583.66	-74.10	81.64	274.38	0.00	461755.71	711553.25	N 32 16 5.67 W	103 48 57.44
	7700.00	6.00	59.35	7683.11	-78.85	96.97	283.37	0.00	461761.04	711562.25	N 32 16 5.72 W	103 48 57.34
	7800.00	6.00	59.35	7782.56	-83.60	102.30	292.37	0.00	461766.37	711571.24	N 32 16 5.77 W	103 48 57.23
	7900.00	6.00	59.35	7882.02	-88.35	107.63	301.36	0.00	461771.70	711580.24	N 32 16 5.82 W	103 48 57.13
	8000.00	6.00	59.35	7981.47	-93.10	112.96	310.36	0.00	461777.03	711589.23	N 32 16 5.88 W	103 48 57.02
	8100.00	6.00	59.35	8080.92	-97.85	118.29	319.35	0.00	461782.36	711598.22	N 32 16 5.93 W	103 48 56.92
	8200.00	6.00	59.35	8180.37	-102.60	123.62	328.35	0.00	461787.69	711607.22	N 32 16 5.98 W	103 48 56.81
	8300.00	6.00	59.35	8279.82	-107.35	128.95	337.34	0.00	461793.02	711616.21	N 32 16 6.03 W	103 48 56.71
	8400.00	6.00	59.35	8379.28	-112.10	134.27	346.34	0.00	461798.34	711625.21	N 32 16 6.08 W	103 48 56.60
	8500.00	6.00	59.35	8478.73	-116.85	139.60	355.33	0.00	461803.67	711634.20	N 32 16 6.14 W	103 48 56.50
	8600.00	6.00	59.35	8578.18	-121.60	144.93	364.33	0.00	461809.00	711643.19	N 32 16 6.19 W	103 48 56.39
	8700.00	6.00	59.35	8677.63	-126.35	150.26	373.32	0.00	461814.33	711652.19	N 32 16 6.24 W	103 48 56.29
	8785.50	6.00	59.35	8762.67	-130.41	154.82	381.01	0.00	461818.89	711659.88	N 32 16 6.29 W	103 48 56.20
	8800.00	5.92	60.50	8777.09	-131.08	155.57	382.31	1.00	461819.64	711661.18	N 32 16 6.29 W	103 48 56.18
	8900.00	5.42	69.30	8876.60	-134.72	159.78	391.22	1.00	461823.85	711670.09	N 32 16 6.33 W	103 48 56.08
	9000.00	5.08	79.58	8976.18	-136.63	162.25	399.99	1.00	461826.32	711678.86	N 32 16 6.36 W	103 48 55.98
	9100.00	4.91	90.93	9075.80	-136.81	162.99	408.63	1.00	461827.05	711687.49	N 32 16 6.37 W	103 48 55.88
	9200.00	4.95	102.58	9175.44	-135.27	161.68	417.12	1.00	461826.05	711695.98	N 32 16 6.35 W	103 48 55.78
	9300.00	5.18	113.61	9275.05	-132.00	159.23	425.46	1.00	461823.30	711704.33	N 32 16 6.33 W	103 48 55.68
	9400.00	5.58	123.39	9374.61	-127.00	154.74	433.66	1.00	461818.81	711712.53	N 32 16 6.28 W	103 48 55.59
Turn 1°/100	9478.57	6.00	130.00	9452.78	-121.87	150.00	440.00	1.00	461814.07	711718.88	N 32 16 6.24 W	103 48 55.51
Build/Turn 10°/100	9500.00	8.00	136.43	9474.05	-119.95	148.20	441.89	10.00	461812.27	711720.75	N 32 16 6.22 W	103 48 55.49
	9600.00	17.77	146.68	9571.42	-101.31	130.36	455.10	10.00	461794.43	711733.96	N 32 16 6.04 W	103 48 55.34
	9700.00	27.70	149.74	9663.54	-67.19	97.45	475.25	10.00	461761.52	711754.11	N 32 16 5.71 W	103 48 55.10
	9800.00	37.67	151.26	9747.60	-18.62	50.46	501.72	10.00	461714.53	711780.58	N 32 16 5.25 W	103 48 54.80
Build & Turn 10°/100	9873.45	45.00	152.00	9802.71	25.42	7.79	524.73	10.00	461671.87	711803.59	N 32 16 4.82 W	103 48 54.53
	9900.00	47.15	154.16	9821.13	42.98	-9.26	533.38	10.00	461654.82	711812.24	N 32 16 4.65 W	103 48 54.43
	10000.00	55.56	161.11	9883.57	116.89	-81.45	562.78	10.00	461582.63	711841.64	N 32 16 3.94 W	103 48 54.10
	10100.00	64.29	166.77	9933.67	201.30	-164.53	586.50	10.00	461496.56	711865.36	N 32 16 3.12 W	103 48 53.82
	10200.00	73.20	171.64	9969.90	293.66	-255.97	603.82	10.00	461408.12	711882.67	N 32 16 2.21 W	103 48 53.63
	10300.00	82.22	176.07	9991.18	391.15	-353.00	614.21	10.00	461311.10	711893.06	N 32 16 1.25 W	103 48 53.51
	10386.44	90.05	179.73	9997.00	477.28	-439.10	617.35	10.00	461225.00	711896.20	N 32 16 0.40 W	103 48 53.48
	10400.00	90.05	179.73	9996.99	490.81	-452.66	617.41	0.00	461211.44	711896.27	N 32 16 0.26 W	103 48 53.48
	10500.00	90.05	179.73	9996.90	590.64	-552.66	617.88	0.00	461111.45	711896.74	N 32 15 59.27 W	103 48 53.48
	10600.00	90.05	179.73	9996.81	690.47	-652.66	618.35	0.00	461011.46	711897.20	N 32 15 58.28 W	103 48 53.48
	10700.00	90.05	179.73	9996.72	790.30	-752.66	618.82	0.00	460911.46	711897.67	N 32 15 57.29 W	103 48 53.48
	10800.00	90.05	179.73	9996.63	890.13	-852.66	619.28	0.00	460811.47	711898.14	N 32 15 56.30 W	103 48 53.48
	10900.00	90.05	179.73	9996.54	989.95	-952.66	619.75	0.00	460711.48	711898.60	N 32 15 55.32 W	103 48 53.48
	11000.00	90.05	179.73	9996.45	1089.78	-1052.66	620.22	0.00	460611.49	711899.07	N 32 15 54.33 W	103 48 53.49
	11100.00	90.05	179.73	9996.36	1189.61	-1152.65	620.69	0.00	460511.49	711899.54	N 32 15 53.34 W	103 48 53.49
	11200.00	90.05	179.73	9996.27	1289.44	-1252.65	621.15	0.00	460411.50	711900.01	N 32 15 52.35 W	103 48 53.49
	11300.00	90.05	179.73	9996.19	1389.27	-1352.65	621.62	0.00	460311.51	711900.47	N 32 15 51.36 W	103 48 53.49
	11400.00	90.05	179.73	9996.10	1489.09	-1452.65	622.09	0.00	460211.51	711900.94	N 32 15 50.37 W	103 48 53.49
	11500.00	90.05	179.73	9996.01	1588.92	-1552.65	622.56	0.00	460111.52	711901.41	N 32 15 49.38 W	103 48 53.49
	11600.00	90.05	179.73	9995.92	1688.75	-1652.65	623.02	0.00	460011.53	711901.88	N 32 15 48.39 W	103 48 53.49
	11700.00	90.05	179.73	9995.83	1788.58	-1752.65	623.49	0.00	459911.54	711902.34	N 32 15 47.40 W	103 48 53.49
	11800.00	90.05	179.73	9995.74	1888.41	-1852.65	623.96	0.00	459811.54	711902.81	N 32 15 46.41 W	103 48 53.49
	11900.00	90.05	179.73	9995.65	1988.24	-1952.65	624.42	0.00	459711.55	711903.28	N 32 15 45.42 W	103 48 53.49
	12000.00	90.05	179.73	9995.56	2088.06	-2052.64	624.89	0.00	459611.56	711903.74	N 32 15 44.43 W	103 48 53.49
	12100.00	90.05	179.73	9995.47	2187.89	-2152.64	625.36	0.00	459511.56	711904.21	N 32 15 43.44 W	103 48 53.49
	12200.00	90.05	179.73	9995.38	2287.72	-2252.64	625.83	0.00	459411.57	711904.68	N 32 15 42.45 W	103 48 53.49
	12300.00	90.05	179.73	9995.29	2387.55	-2352.64	626.29	0.00	459311.58	711905.15	N 32 15 41.46 W	103 48 53.49
	12400.00	90.05	179.73	9995.20	2487.38	-2452.64	626.76	0.00	459211.58	711905.61	N 32 15 40.47 W	103 48 53.49
	12500.00	90.05	179.73	9995.11	2587.20	-2552.64	627.23	0.00	459111.59	711906.08	N 32 15 39.48 W	103 48 53.49
	12600.00	90.05	179.73	9995.02	2687.03	-2652.64	627.70	0.00	459011.60	711906.55	N 32 15 38.49 W	103 48 53.49
	12700.00	90.05	179.73	9994.93	2786.86	-2752.64	628.16	0.00	458911.61	711907.01	N 32 15 37.50 W	103 48 53.49
	12800.00	90.05	179.73	9994.84	2886.69	-2852.64	628.63	0.00	458811.61	711907.48	N 32 15 36.51 W	103 48 53.50
	12900.00	90.05	179.73	9994.75	2986.52	-2952.63	629.10	0.00	458711.62	711907.95	N 32 15 35.53 W	103 48 53.50
	13000.00	90.05	179.73	9994.66	3086.35	-3052.63	629.56	0.00	458611.63	711908.42	N 32 15 34.54 W	103 48 53.50
	13100.00	90.05	179.73	9994.57	3186.17	-3152.63	630.03	0.00	458511.63	711908.88	N 32 15 33.55 W	103 48 53.50
	13200.00	90.05	179.73	9994.48	3286.00	-3252.63	630.50	0.00	458411.64	711909.35	N 32 15 32.56 W	103 48 53.50
	13300.00	90.05	179.73	9994.39	3385.83	-3352.63	630.97	0.00	458311.65	711909.82	N 32 15 31.57 W	103 48 53.50
	13400.00	90.05	179.73	9994.30	3485.66	-3452.63	631.43	0.00	458211.66	711910.29	N 32 15 30.58 W	103 48 53.50
	13500.00	90.05	179.73	9994.21	3585.49	-3552.63	631.90	0.00	458111.66	711910.75	N 32 15 29.59 W	103 48 53.50
	13600.00	90.05	179.73	9994.12	3685.31	-3652.63	632.37	0.00	458011.67	711911.22	N 32 15 28.60 W	103 48 53.50
	13700.00	90.05	179.73	9994.03	3785.14	-3752.63	632.84	0.00	457911.68	711911.69	N 32 15 27.61 W	103 48 53.50
	13800.00	90.05	179.73	9993.94	3884.97	-3852.62	633.30	0.00	457811.68	711912.15	N 32 15 26.62 W	103 48 53.50
	13900.00	90.05	179.73	9993.85	3984.80	-3952.62	633.77	0.00	457711.69	711912.62	N 32 15 25.63 W	103 48 53.50
	14000.00	90.05	179.73	9993.76	4084.63	-4052.62	634.24	0.00	457611.70	711913.09	N 32 15 24.64 W	103 48 53.50
	14100.00	90.05	179.73	9993.67	4184.45	-4152.62	634.70	0.00	457511.71	711913.56	N 32 15 23.65 W	103 48 53.50
	14200.00	90.05	179.73	9993.58	4284.28	-4252.62	635.17	0.00	457411.71	711914.02	N 32 15 22.66 W	103 48 53.50
	14300.00	90.05	179.73	9993.49	4384.11	-4352.62	635.64	0.00	457311.72	711914.49	N 32 15 21.67 W	103 48 53.50
	14400.00	90.05	179.73	9993.41	4483.94	-4452.62	636.11	0.00	457211.73	711914.96	N 32 15 20.68 W	103 48 53.50
	14500.00	90.05	179.73	9993.32	4583.77	-4552.62	636.57	0.00	457111.73	711915.43	N 32 15 19.69 W	103 48 53.50
	14600.00	90.05	179.73	9993.23	4683.60	-4652.61	637.04	0.00	457011.74	711915.89	N 32 15 18.70 W	103 48 53.50
	14700.00	90.05	179.73	9993.14	4783.42	-4752.61	637.51	0.00	456911.75	711916.36	N 32 15 17.71 W	103 48 53.51
	14800.00	90.05	179.73									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)
	17600.00	90.05	179.73	9990.27	7977.92	-7952.58	652.46	0.00	453711.98	711931.31	N 32 14 46.05	W 103 46 53.52
	18000.00	90.05	179.73	9990.18	8077.75	-8052.58	652.93	0.00	453611.98	711931.78	N 32 14 45.06	W 103 46 53.52
	18100.00	90.05	179.73	9990.09	8177.58	-8152.58	653.40	0.00	453511.99	711932.25	N 32 14 44.07	W 103 46 53.52
	18200.00	90.05	179.73	9990.00	8277.41	-8252.57	653.86	0.00	453412.00	711932.71	N 32 14 43.08	W 103 46 53.52
	18300.00	90.05	179.73	9989.91	8377.24	-8352.57	654.33	0.00	453312.00	711933.18	N 32 14 42.09	W 103 46 53.52
	18400.00	90.05	179.73	9989.82	8477.06	-8452.57	654.80	0.00	453212.01	711933.65	N 32 14 41.10	W 103 46 53.53
	18500.00	90.05	179.73	9989.73	8576.89	-8552.57	655.26	0.00	453112.02	711934.12	N 32 14 40.11	W 103 46 53.53
	18600.00	90.05	179.73	9989.64	8676.72	-8652.57	655.73	0.00	453012.03	711934.58	N 32 14 39.12	W 103 46 53.53
	18700.00	90.05	179.73	9989.55	8776.55	-8752.57	656.20	0.00	452912.03	711935.05	N 32 14 38.13	W 103 46 53.53
	18800.00	90.05	179.73	9989.46	8876.38	-8852.57	656.67	0.00	452812.04	711935.52	N 32 14 37.14	W 103 46 53.53
	18900.00	90.05	179.73	9989.37	8976.21	-8952.57	657.13	0.00	452712.05	711935.98	N 32 14 36.15	W 103 46 53.53
	19000.00	90.05	179.73	9989.28	9076.03	-9052.57	657.60	0.00	452612.05	711936.45	N 32 14 35.17	W 103 46 53.53
	19100.00	90.05	179.73	9989.19	9175.86	-9152.56	658.07	0.00	452512.06	711936.92	N 32 14 34.18	W 103 46 53.53
	19200.00	90.05	179.73	9989.10	9275.69	-9252.56	658.54	0.00	452412.07	711937.39	N 32 14 33.19	W 103 46 53.53
	19300.00	90.05	179.73	9989.01	9375.52	-9352.56	659.00	0.00	452312.08	711937.85	N 32 14 32.20	W 103 46 53.53
	19400.00	90.05	179.73	9988.92	9475.35	-9452.56	659.47	0.00	452212.08	711938.32	N 32 14 31.21	W 103 46 53.53
	19500.00	90.05	179.73	9988.83	9575.17	-9552.56	659.94	0.00	452112.09	711938.79	N 32 14 30.22	W 103 46 53.53
	19600.00	90.05	179.73	9988.74	9675.00	-9652.56	660.40	0.00	452012.10	711939.26	N 32 14 29.23	W 103 46 53.53
	19700.00	90.05	179.73	9988.65	9774.83	-9752.56	660.87	0.00	451912.10	711939.72	N 32 14 28.24	W 103 46 53.53
	19800.00	90.05	179.73	9988.56	9874.66	-9852.56	661.34	0.00	451812.11	711940.19	N 32 14 27.25	W 103 46 53.53
	19900.00	90.05	179.73	9988.47	9974.49	-9952.56	661.81	0.00	451712.12	711940.66	N 32 14 26.26	W 103 46 53.53
	20000.00	90.05	179.73	9988.38	10074.31	-10052.55	662.27	0.00	451612.13	711941.12	N 32 14 25.27	W 103 46 53.53
	20100.00	90.05	179.73	9988.29	10174.14	-10152.55	662.74	0.00	451512.13	711941.59	N 32 14 24.28	W 103 46 53.53
	20200.00	90.05	179.73	9988.20	10273.97	-10252.55	663.21	0.00	451412.14	711942.06	N 32 14 23.29	W 103 46 53.54
	20300.00	90.05	179.73	9988.11	10373.80	-10352.55	663.68	0.00	451312.15	711942.53	N 32 14 22.30	W 103 46 53.54
	20400.00	90.05	179.73	9988.02	10473.63	-10452.55	664.14	0.00	451212.15	711942.99	N 32 14 21.31	W 103 46 53.54
Oxy Sterling Silver MDP1 33- 4 Fed Com 8H - PBHL	20427.08	90.05	179.73	9988.00	10500.66	-10476.63	664.27	0.00	451185.08	711943.12	N 32 14 21.04	W 103 46 53.54

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Oxy Sterling Silver MDP1 33-4 Fed Com 8H Rev0 mta 17Jan19
	1	26.500	20427.076	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Sterling Silver MDP1 33-4 Fed Com 8H

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INC.
LEASE NO.:	NMNM 045236
WELL NAME & NO.:	Sterling Silver MDP1 33-4 Fed Com 8H
SURFACE HOLE FOOTAGE:	69'N & 2404'/W
BOTTOM HOLE FOOTAGE	20'/S & 2260'/E
LOCATION:	SECTION 33, T23S, R31E, NMPM
COUNTY:	EDDY

Potash	☐ None	☐ Secretary	☒ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP

All previous COAs still apply, except for the following:

A. 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).

2.

Option 1:

- i. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) psi**.

Option 2:

- i. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) 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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

MHH 02052019

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)

☒ Chaves and Roosevelt Counties

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 627-0272.

After office hours call (575)

☒ Eddy County

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

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

A. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. 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 OOGO2.III.A.2.i must be followed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
- a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall

have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.