

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address OXY USA INC. PO BOX 50250 MIDLAND, TX 79710		² OGRID Number 16696
		³ Reason for Filing Code/ Effective Date NW- 5/20/2023
⁴ API Number 30 - 015-48596	⁵ Pool Name WC 22S31E13; WOLFCAMP	⁶ Pool Code 98351
⁷ Property Code 329719	⁸ Property Name Top Spot 12 13 Federal Com	⁹ Well Number 032H

II. ¹⁰ Surface Location

UL or lot no. N	Section 13	Township 22S	Range 31E	Lot Idn	Feet from the 475	North/South Line South	Feet from the 2087	East/West line West	County Eddy
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¹¹ Bottom Hole Location

UL or lot no. C	Section 12	Township 22S	Range 31E	Lot Idn	Feet from the 48	North/South line North	Feet from the 1820	East/West line West	County Eddy
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 05/25/23	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
237722	Centerion Pipeline L.P.	O
248749	DCP Midstream, L.P.	G

IV. Well Completion Data

²¹ Spud Date 10/26/2022	²² Ready Date 05/20/2023	²³ TD 22,287' MD, 11738' TVD	²⁴ PBTD 22,245' MD, 11,738' TVD	²⁵ Perforations 12,080' – 22,096'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2"	13 3/8" 54.5# J-55 BTC	885'	1090sx - TOC 0'		
12 1/4"	9 5/8" 40# HCL80	4595'	1400sx - TOC 0'		
8 3/4"	7 5/8" 26.4# HCL 80	10968'	688 sx - TOC 3095'		
6 3/4"	5 1/2" 20# P110	22267'	871sx - TOC 9958'		

V. Well Test Data

³¹ Date New Oil 05/25/2023	³² Gas Delivery Date 05/25/2023	³³ Test Date 06/11/2023	³⁴ Test Length 24 Hours	³⁵ Tbg. Pressure	³⁶ Csg. Pressure 2212
³⁷ Choke Size 0	³⁸ Oil 6065	³⁹ Water 6615	⁴⁰ Gas 9644		⁴¹ Test Method Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: 	OIL CONSERVATION DIVISION	
Printed name: Sarah McKinney	Approved by:	
Title: Regulatory Analyst Sr.	Title:	
E-mail Address: sarah_mckinney@oxy.com	Approval Date:	
Date: 06/13/2023	Phone: 713-215-7295	

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

☒ AMENDED REPORT
As- Drilled Plat

¹ API Number 30-015-48596	² Pool Code 98351	³ Pool Name WC 22S31E13, WOLFCAMP
⁴ Property Code 329719	⁵ Property Name TOP SPOT 12_13 FEDERAL COM	⁶ Well Number 32H
⁷ OGRID No. 16696	⁸ Operator Name OXY USA INC.	⁹ Elevation 3567'

UL or lot no. N	Section 13	Township 22S	Range 31E	Lot Idn	Feet from the 475	North/South line South	Feet from the 2087	East/West line West	County EDDY
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UL or lot no. C	Section 12	Township 22S	Range 31E	Lot Idn	Feet from the 48	North/South line North	Feet from the 1820	East/West line West	County EDDY
¹² Dedicated Acres 640.00		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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BHL (NAD83)
N:514557.98' / E:726236.16'
LAT:32.41316246 / LON:-103.73416537

BHL (NAD27)
N:514497.29' / E:685054.11'
LAT:32.41303998 / LON:-103.73367538

LTP (NAD83)
N:514367.00' / E:726238.66'
LAT:32.41263748 / LON:-103.73416074

LTP (NAD27)
N:514306.31' / E:685056.61'
LAT:32.41251499 / LON:-103.73367077

FTP (NAD83)
N:504355.22' / E:726271.26'
LAT:32.38511780 / LON:-103.73423687

FTP (NAD27)
N:504294.80' / E:685088.91'
LAT:32.38499517 / LON:-103.73374799

PPP-1 (NAD83)
N:504038.02' / E:726273.43'
LAT:32.38424587 / LON:-103.73423559

PPP-1 (NAD27)
N:503977.60' / E:685091.07'
LAT:32.38412324 / LON:-103.73374674

KOP (NAD83)
N:503760.27' / E:726310.44'
LAT:32.38348186 / LON:-103.73412074

KOP (NAD27)
N:503699.86' / E:685128.08'
LAT:32.38335923 / LON:-103.73363193

SHL (NAD83)
N:504514.60' / E:726556.40'
LAT:32.38555149 / LON:-103.73331030

SHL (NAD27)
N:504454.17' / E:685374.06'
LAT:32.38542886 / LON:-103.73282143

**CORNER COORDINATES
NAD 83, SPCS NM EAST**
A - X: 727058.76' / Y: 514607.59'
B - X: 727086.90' / Y: 509326.30'
C - X: 727114.76' / Y: 504042.53'
D - X: 724471.63' / Y: 504028.35'
E - X: 724444.51' / Y: 509317.86'
F - X: 724430.42' / Y: 511959.39'
G - X: 724415.68' / Y: 514601.05'

**CORNER COORDINATES
NAD 27, SPCS NM EAST**
A - X: 685876.71' / Y: 514546.90'
B - X: 685904.70' / Y: 509265.75'
C - X: 685932.40' / Y: 503982.11'
D - X: 683289.28' / Y: 503967.93'
E - X: 683262.32' / Y: 509257.30'
F - X: 683248.31' / Y: 511898.77'
G - X: 683233.65' / Y: 514540.36'

BHL
10043' NORTH OF SHL
320' WEST OF SHL
FNL 48'
FWL 1820'
M.D. 22287'

LTP
9852' NORTH OF SHL
318' WEST OF SHL
FNL 239'
FWL 1822'
M.D. 22096'

Nearest
M.D. 18268'
807' FEL TO LEASE

Furthest
M.D. 12530'
858' FEL TO LEASE

FTP
159' SOUTH OF SHL
285' WEST OF SHL
FSL 317'
FWL 1801'
M.D. 12080'

PPP-1
477' SOUTH OF SHL
283' WEST OF SHL
FSL 0'
FWL 1802'
M.D. 11732'

KOP
754' SOUTH OF SHL
246' WEST OF SHL
FNL 278'
FWL 1837'
M.D. 11207'

SHL
FSL 475'
FWL 2087'
M.D. 0'

Sec. 12

Sec. 13

Sec. 24

NMNM029233

NMNM025876

T22S R31E

T22S R32E

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

Sarah McKinney 5/25/23
Signature Date

Sarah McKinney
Printed Name
sarah_mckinney@oxy.com
E-mail Address

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SURVEYOR CERTIFICATION
I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-staked surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurement performed by R-Squared Global.

Lloyd P. Short
Date of Survey MAY 19, 2023
Signature and Seal of Professional Surveyor

LLOYD P. SHORT
NEW MEXICO
21653
PROFESSIONAL SURVEYOR

FEDERAL LEASE ID	LENGTH
NMNM029233	10013.13'
TOTAL	10013.13'

A circular professional seal for a surveyor. The outer ring contains the text "LLOYD P. SHORT" at the top and "PROFESSIONAL SURVEYOR" at the bottom. The inner ring contains the text "NEW MEXICO". The center of the seal contains the license number "21653".

FEDERAL LEASE ID	LENGTH
NMNM029233	10013.13'
TOTAL	10013.13'

SHEET 1 OF 1
JOB No. OXY_0026_TP06
REV 0 GM 5/19/2023

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99994853 Convergence Angle: 0.3213°



Occidental Petroleum Corporation

Final Plan Vs Actual

Project: Eddy County, NM (NAD83)

Site: Top Spot 12-13

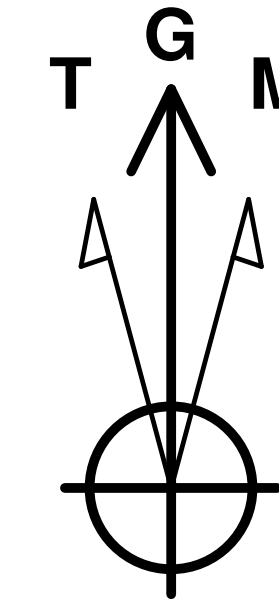
Well: Top Spot 12-13 Federal Com 32H

Wellbore: OH

Design: Plan 1

Rig: H&P 419

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



Azimuths to Grid North
True North: -0.32°
Magnetic North: 6.39°

Magnetic Field
Strength: 47732.9nT
Dip Angle: 60.10°
Date: 4/3/2023
Model: IFR

WELL DETAILS

GL 3566.9' + RKB 26' @ 3592.90usft (H&P 419)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	504514.60	726556.40	32° 23' 7.985 N	103° 43' 59.917 W	

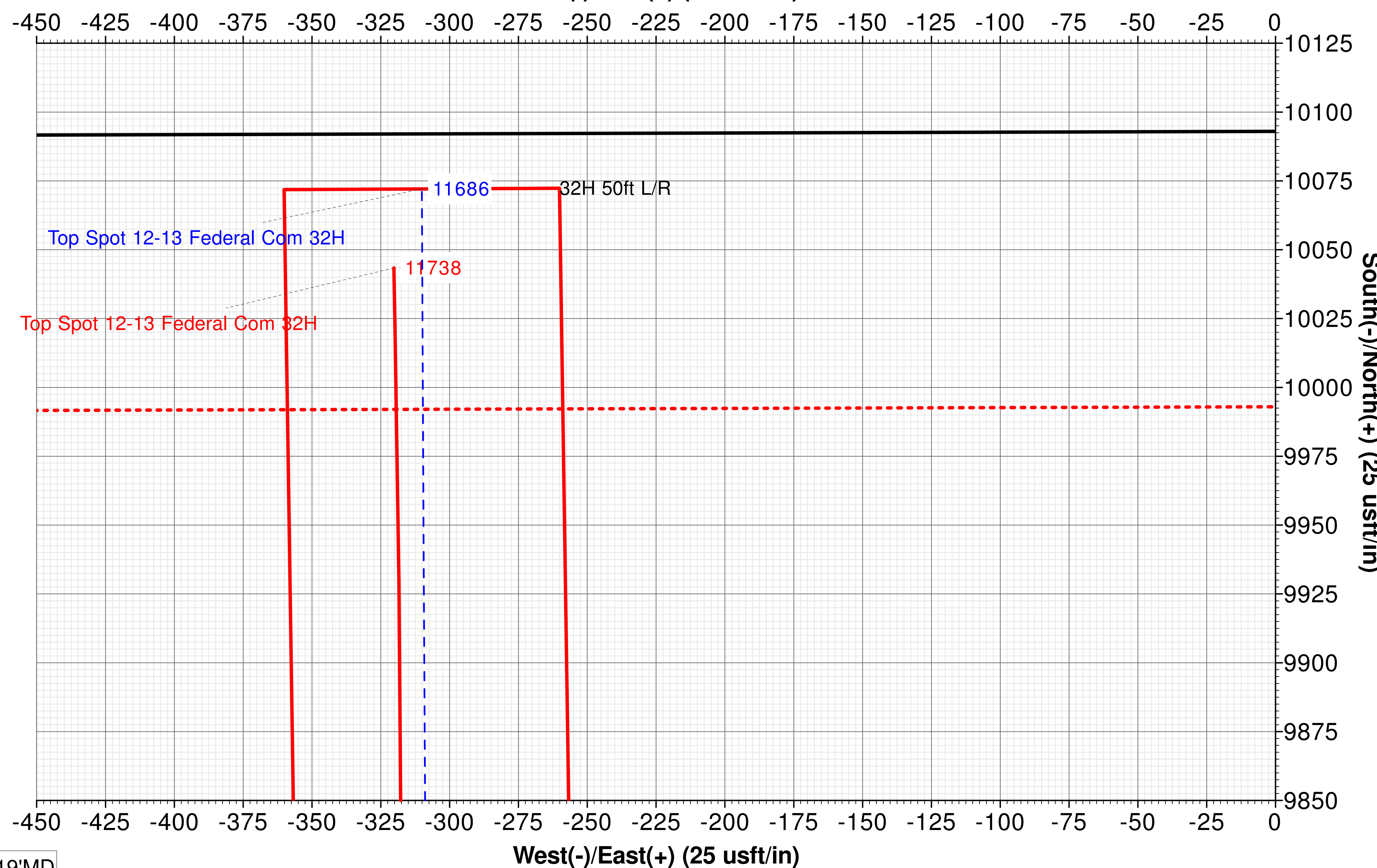
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
18.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	18ft KB Offset
95.62	0.55	257.91	95.62	-0.08	-0.36	-0.07	0.37	First Gyro @ 95.62'MD
875.06	1.27	301.62	875.01	0.87	-6.17	1.06	7.50	Last Gyro @ 875.06'MD
10916.00	2.71	214.39	10853.22	-760.91	-236.93	-753.26	864.69	Tie-in @ 10916'MD
11019.00	4.41	193.89	10956.02	-766.77	-239.25	-759.04	871.09	First MWD Svy @ 11019'MD
11734.00	54.16	357.30	11577.35	-475.03	-283.05	-466.09	1176.26	SLC @ 11734'MD
11851.00	63.55	359.84	11637.28	-374.75	-286.15	-365.77	1275.98	100HLC @ 11851'MD
17052.00	90.25	0.38	11703.05	4808.98	-284.68	4815.46	6460.44	SLC @ 17052'MD
22236.00	90.17	359.05	11738.06	9992.39	-319.32	9997.48	11644.13	100HLC @ 22236'MD
22267.00	90.40	358.93	11737.90	10023.38	-319.87	10028.48	11675.12	Last MWD Svy @ 22267'MD
22287.00	90.40	358.93	11737.76	10043.38	-320.24	10048.48	11695.12	Projection to TD @ 22287'MD

DESIGN TARGET DETAILS

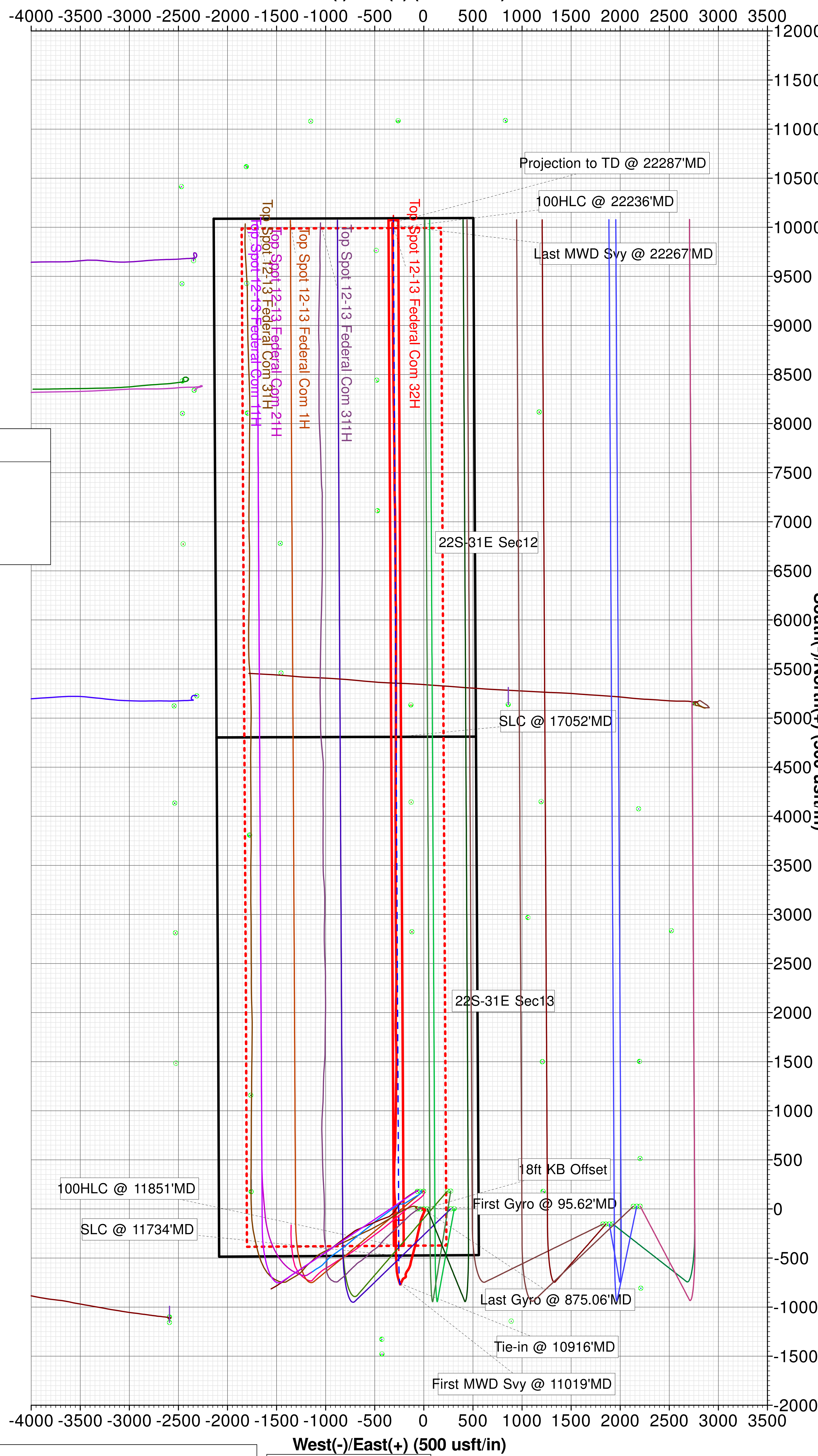
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Tspot 12-13 32H PBHL	11685.82	10072.10	-310.10	514586.70	726246.30	32° 24' 47.668 N	103° 44' 2.875 W
Tspot 12-13 32H LTP	11686.10	9992.10	-309.70	514506.70	726246.70	32° 24' 46.877 N	103° 44' 2.876 W
Tspot 12-13 32H LndPt	11721.59	-114.24	-256.50	504400.36	726299.90	32° 23' 6.869 N	103° 44' 2.916 W
Tspot 12-13 32H FTP	11722.28	-374.80	-255.20	504139.80	726301.20	32° 23' 4.291 N	103° 44' 2.918 W

West(-)/East(+) (25 usft/in)



Vertical Section at 358.24° (500 usft/in)

West(-)/East(+) (500 usft/in)



Target Center Line
11,720' TVD @ 0' VS; 90.20° INC

Created By: Chad Stich
Date: 6:14, April 14 2023

HALLIBURTON | Sperry Drilling

H&P 419

Occidental Petroleum Corporation

Eddy County, NM (NAD83) Top Spot 12-13

API# 30-015-48596

Top Spot 12-13 Federal Com 32H

OH

Design: Final Surveys

Sperry Drilling Services

Combo Report

14 April, 2023

Well Coordinates: 32° 23' 7.985 N
103° 43' 59.917 W

North American Datum 1983
New Mexico Eastern Zone
504,514.60 N
726,556.40 E

Ground Level: 3,566.90 usft

Local Coordinate Origin:

Centered on Well Top Spot 12-13 Federal Com 32H

Viewing Datum:

GL 3566.9' + RKB 26' @ 3592.90usft (H&P 419)

TVDs to System:

N

North Reference:

Grid

Unit System:

API-US Survey Feet

Compass Version: 5000.15 Build: 91E

Report Version: Midcon Combo v1.15

HALLIBURTON

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	504,514.60	726,556.40	0.00	0.00	0.00	
18.00	0.00	0.00	18.00	0.00 N	0.00 E	504,514.60	726,556.40	0.00	0.00	0.00	18ft KB Offset
95.62	0.55	257.91	95.62	0.08 S	0.36 W	504,514.52	726,556.04	0.71	-0.07	257.91	First Gyro @ 95.62'MD
179.80	0.50	255.75	179.80	0.25 S	1.12 W	504,514.35	726,555.28	0.06	-0.22	-159.48	
268.74	0.40	233.21	268.73	0.53 S	1.74 W	504,514.07	726,554.66	0.23	-0.48	-130.41	
363.01	0.42	239.98	363.00	0.90 S	2.30 W	504,513.70	726,554.10	0.06	-0.83	70.98	
457.22	0.27	224.56	457.21	1.24 S	2.76 W	504,513.36	726,553.64	0.19	-1.15	-155.80	
551.49	0.05	179.56	551.48	1.43 S	2.91 W	504,513.17	726,553.49	0.25	-1.34	-171.43	
645.78	0.42	332.81	645.77	1.17 S	3.07 W	504,513.43	726,553.33	0.49	-1.07	156.02	
739.97	0.93	299.94	739.95	0.48 S	3.89 W	504,514.12	726,552.51	0.66	-0.36	-54.42	
834.24	1.22	300.76	834.20	0.42 N	5.42 W	504,515.02	726,550.98	0.31	0.58	3.45	
875.06	1.27	301.62	875.01	0.87 N	6.17 W	504,515.47	726,550.23	0.13	1.06	20.92	Last Gyro @ 875.06'MD
982.00	1.51	308.49	981.92	2.37 N	8.29 W	504,516.97	726,548.11	0.27	2.63	38.24	
1,013.00	1.27	310.58	1,012.91	2.85 N	8.87 W	504,517.45	726,547.53	0.79	3.12	169.12	
1,076.00	1.24	299.72	1,075.90	3.64 N	9.99 W	504,518.24	726,546.41	0.38	3.95	-102.60	
1,171.00	0.55	264.05	1,170.89	4.11 N	11.34 W	504,518.71	726,545.06	0.90	4.45	-157.98	
1,266.00	0.52	209.37	1,265.88	3.68 N	12.00 W	504,518.28	726,544.40	0.52	4.05	-120.44	
1,361.00	1.09	138.51	1,360.88	2.63 N	11.61 W	504,517.23	726,544.79	1.10	2.99	-98.97	
1,455.00	1.28	146.08	1,454.86	1.09 N	10.44 W	504,515.69	726,545.96	0.26	1.41	43.31	
1,550.00	1.25	134.96	1,549.83	0.52 S	9.11 W	504,514.08	726,547.29	0.26	-0.24	-102.50	
1,645.00	1.44	137.49	1,644.81	2.14 S	7.57 W	504,512.46	726,548.83	0.21	-1.90	18.62	
1,739.00	1.26	137.76	1,738.78	3.77 S	6.08 W	504,510.83	726,550.32	0.19	-3.58	178.11	
1,834.00	1.44	137.08	1,833.75	5.42 S	4.56 W	504,509.18	726,551.84	0.19	-5.28	-5.43	
1,929.00	1.45	152.79	1,928.72	7.36 S	3.20 W	504,507.24	726,553.20	0.42	-7.26	96.42	
2,024.00	1.48	154.19	2,023.69	9.54 S	2.12 W	504,505.06	726,554.28	0.05	-9.47	50.73	
2,119.00	1.20	153.48	2,118.67	11.53 S	1.14 W	504,503.07	726,555.26	0.30	-11.49	-176.96	
2,214.00	0.43	178.13	2,213.66	12.78 S	0.68 W	504,501.82	726,555.72	0.87	-12.75	167.50	
2,309.00	0.41	189.12	2,308.65	13.47 S	0.72 W	504,501.13	726,555.68	0.09	-13.44	109.40	
2,403.00	0.32	206.97	2,402.65	14.03 S	0.90 W	504,500.57	726,555.50	0.15	-14.00	137.06	
2,498.00	0.58	7.92	2,497.65	13.80 S	0.95 W	504,500.80	726,555.45	0.94	-13.76	167.70	
2,593.00	0.50	18.43	2,592.65	12.93 S	0.75 W	504,501.67	726,555.65	0.13	-12.90	134.10	
2,687.00	0.59	47.54	2,686.64	12.21 S	0.27 W	504,502.39	726,556.13	0.31	-12.20	86.91	
2,782.00	0.79	46.78	2,781.64	11.43 S	0.57 E	504,503.17	726,556.97	0.21	-11.44	-3.00	
2,877.00	0.90	49.14	2,876.63	10.49 S	1.61 E	504,504.11	726,558.01	0.12	-10.54	18.74	
2,972.00	0.89	37.62	2,971.61	9.42 S	2.63 E	504,505.18	726,559.03	0.19	-9.50	-98.93	
3,066.00	1.08	55.11	3,065.60	8.34 S	3.80 E	504,506.26	726,560.20	0.38	-8.45	66.66	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)	Rate (°/100ft)	Section (usft)	Angle (°)	
3,161.00	0.88	52.68	3,160.59	7.38 S	5.11 E	504,507.22	726,561.51	0.21	-7.54	-169.47	
3,255.00	0.88	59.58	3,254.58	6.58 S	6.31 E	504,508.02	726,562.71	0.11	-6.77	93.45	
3,350.00	0.75	61.57	3,349.57	5.91 S	7.49 E	504,508.69	726,563.89	0.14	-6.14	168.71	
3,445.00	0.09	119.08	3,444.56	5.65 S	8.10 E	504,508.95	726,564.50	0.74	-5.90	173.82	
3,540.00	0.37	110.23	3,539.56	5.80 S	8.45 E	504,508.80	726,564.85	0.30	-6.05	-11.67	
3,635.00	0.91	135.49	3,634.56	6.44 S	9.27 E	504,508.16	726,565.67	0.63	-6.72	40.60	
3,729.00	0.93	140.01	3,728.54	7.56 S	10.28 E	504,507.04	726,566.68	0.08	-7.87	76.86	
3,824.00	0.42	122.80	3,823.54	8.34 S	11.07 E	504,506.26	726,567.47	0.57	-8.67	-166.78	
3,919.00	0.28	283.17	3,918.54	8.47 S	11.14 E	504,506.13	726,567.54	0.73	-8.81	172.17	
4,013.00	0.41	195.66	4,012.53	8.74 S	10.82 E	504,505.86	726,567.22	0.52	-9.07	-122.62	
4,108.00	0.61	172.13	4,107.53	9.57 S	10.80 E	504,505.03	726,567.20	0.30	-9.90	-58.49	
4,203.00	0.62	147.14	4,202.53	10.50 S	11.15 E	504,504.10	726,567.55	0.28	-10.84	-100.39	
4,297.00	0.78	132.50	4,296.52	11.36 S	11.90 E	504,503.24	726,568.30	0.25	-11.73	-55.66	
4,392.00	0.40	229.13	4,391.52	12.02 S	12.12 E	504,502.58	726,568.52	0.97	-12.39	154.32	
4,527.00	0.27	221.83	4,526.51	12.56 S	11.55 E	504,502.04	726,567.95	0.10	-12.91	-165.45	
4,561.39	0.18	230.74	4,560.90	12.66 S	11.46 E	504,501.94	726,567.86	0.28	-13.01	162.71	9 5/8" Casing
4,653.00	0.12	342.57	4,652.51	12.66 S	11.32 E	504,501.94	726,567.72	0.28	-13.00	153.80	
4,748.00	0.34	0.02	4,747.51	12.28 S	11.29 E	504,502.32	726,567.69	0.24	-12.62	26.52	
4,843.00	0.20	327.84	4,842.51	11.86 S	11.20 E	504,502.74	726,567.60	0.21	-12.20	-148.04	
4,937.00	0.36	203.87	4,936.51	11.99 S	10.99 E	504,502.61	726,567.39	0.53	-12.32	-143.34	
5,032.00	1.77	197.81	5,031.49	13.66 S	10.42 E	504,500.94	726,566.82	1.49	-13.98	-7.60	
5,126.00	4.03	202.08	5,125.37	18.10 S	8.74 E	504,496.50	726,565.14	2.41	-18.36	7.60	
5,221.00	5.70	204.35	5,220.02	25.50 S	5.54 E	504,489.10	726,561.94	1.77	-25.65	7.71	
5,316.00	6.82	204.57	5,314.45	34.92 S	1.24 E	504,479.68	726,557.64	1.18	-34.95	1.34	
5,410.00	7.61	204.89	5,407.71	45.65 S	3.70 W	504,468.95	726,552.70	0.84	-45.51	3.07	
5,505.00	8.88	203.40	5,501.72	58.08 S	9.26 W	504,456.52	726,547.14	1.36	-57.77	-10.29	
5,600.00	8.88	202.00	5,595.58	71.61 S	14.91 W	504,442.99	726,541.49	0.23	-71.12	-90.69	
5,694.00	9.57	202.66	5,688.37	85.55 S	20.64 W	504,429.05	726,535.76	0.74	-84.87	9.04	
5,884.00	9.42	194.11	5,875.77	115.20 S	30.52 W	504,399.40	726,525.88	0.75	-114.21	-100.28	
5,979.00	9.37	190.87	5,969.50	130.34 S	33.87 W	504,384.26	726,522.53	0.56	-129.23	-97.00	
6,073.00	8.44	189.60	6,062.37	144.66 S	36.47 W	504,369.94	726,519.93	1.01	-143.46	-168.69	
6,168.00	8.26	190.85	6,156.36	158.23 S	38.91 W	504,356.37	726,517.49	0.27	-156.96	135.38	
6,263.00	11.19	193.20	6,249.98	173.91 S	42.30 W	504,340.69	726,514.10	3.11	-172.53	8.88	
6,357.00	11.73	192.69	6,342.11	192.11 S	46.48 W	504,322.49	726,509.92	0.58	-190.59	-10.88	
6,452.00	12.23	192.86	6,435.04	211.34 S	50.85 W	504,303.26	726,505.55	0.53	-209.68	4.12	
6,546.00	13.69	194.28	6,526.64	231.83 S	55.81 W	504,282.77	726,500.59	1.59	-230.00	13.00	
6,736.00	12.42	190.90	6,711.73	273.69 S	65.22 W	504,240.91	726,491.18	0.78	-271.55	-150.63	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)	Rate (°/100ft)	Section (usft)	Angle (°)	
6,830.00	12.28	193.32	6,803.56	293.34 S	69.43 W	504,221.26	726,486.97	0.57	-291.07	106.32	
6,925.00	12.52	194.66	6,896.34	313.13 S	74.36 W	504,201.47	726,482.04	0.39	-310.70	50.83	
7,114.00	11.46	192.87	7,081.22	351.26 S	83.73 W	504,163.34	726,472.67	0.59	-348.51	-161.54	
7,209.00	10.78	193.19	7,174.43	369.11 S	87.86 W	504,145.49	726,468.54	0.72	-366.23	174.97	
7,303.00	10.36	193.50	7,266.84	385.89 S	91.84 W	504,128.71	726,464.56	0.45	-382.88	172.44	
7,398.00	10.00	193.80	7,360.34	402.20 S	95.80 W	504,112.40	726,460.60	0.38	-399.06	171.77	
7,492.00	9.90	194.14	7,452.93	417.96 S	99.72 W	504,096.64	726,456.68	0.12	-414.70	149.73	
7,587.00	9.47	194.19	7,546.57	433.46 S	103.63 W	504,081.14	726,452.77	0.45	-430.07	178.90	
7,682.00	9.19	194.73	7,640.32	448.37 S	107.48 W	504,066.23	726,448.92	0.31	-444.85	162.90	
7,776.00	8.84	195.31	7,733.16	462.60 S	111.29 W	504,052.00	726,445.11	0.38	-458.96	165.73	
7,921.00	8.61	195.15	7,876.48	483.82 S	117.07 W	504,030.78	726,439.33	0.16	-479.99	-174.06	
8,016.00	8.53	193.97	7,970.42	497.52 S	120.63 W	504,017.08	726,435.77	0.20	-493.58	-115.05	
8,110.00	8.95	195.17	8,063.32	511.35 S	124.23 W	504,003.25	726,432.17	0.49	-507.28	24.06	
8,205.00	9.37	194.18	8,157.11	525.98 S	128.06 W	503,988.62	726,428.34	0.47	-521.79	-21.06	
8,300.00	9.61	193.43	8,250.81	541.19 S	131.79 W	503,973.41	726,424.61	0.28	-536.87	-27.63	
8,394.00	9.99	191.70	8,343.44	556.80 S	135.27 W	503,957.80	726,421.13	0.51	-552.38	-38.63	
8,489.00	9.23	194.50	8,437.11	572.25 S	138.85 W	503,942.35	726,417.55	0.94	-567.70	149.78	
8,584.00	8.08	206.48	8,531.03	585.60 S	143.73 W	503,929.00	726,412.67	2.24	-580.90	128.36	
8,679.00	7.33	200.59	8,625.18	597.25 S	148.84 W	503,917.35	726,407.56	1.15	-592.39	-136.42	
8,773.00	6.62	203.33	8,718.48	607.84 S	153.09 W	503,906.76	726,403.31	0.83	-602.84	156.25	
8,868.00	7.08	216.81	8,812.81	617.56 S	158.77 W	503,897.04	726,397.63	1.76	-612.38	80.80	
8,962.00	7.37	216.97	8,906.06	627.01 S	165.87 W	503,887.59	726,390.53	0.31	-621.61	4.05	
9,057.00	6.19	210.39	9,000.40	636.30 S	172.12 W	503,878.30	726,384.28	1.49	-630.70	-149.88	
9,152.00	4.92	209.32	9,094.95	644.27 S	176.71 W	503,870.33	726,379.69	1.34	-638.52	-175.87	
9,247.00	4.52	205.06	9,189.63	651.21 S	180.29 W	503,863.39	726,376.11	0.56	-645.35	-140.88	
9,341.00	4.01	194.90	9,283.37	657.74 S	182.70 W	503,856.86	726,373.70	0.97	-651.81	-129.01	
9,435.00	4.33	192.12	9,377.12	664.39 S	184.29 W	503,850.21	726,372.11	0.40	-658.40	-33.67	
9,530.00	4.58	178.20	9,471.83	671.69 S	184.93 W	503,842.91	726,371.47	1.17	-665.68	-83.98	
9,625.00	5.80	165.46	9,566.45	680.12 S	183.60 W	503,834.48	726,372.80	1.76	-674.15	-49.83	
9,720.00	4.59	187.73	9,661.06	688.54 S	182.91 W	503,826.06	726,373.49	2.45	-682.58	131.74	
9,814.00	5.76	227.17	9,754.71	695.47 S	186.88 W	503,819.13	726,369.52	3.89	-689.39	92.12	
9,909.00	6.85	244.55	9,849.14	701.15 S	195.49 W	503,813.45	726,360.91	2.30	-694.80	69.10	
10,004.00	5.64	232.27	9,943.58	706.44 S	204.30 W	503,808.16	726,352.10	1.89	-699.82	-138.16	
10,098.00	4.71	229.88	10,037.19	711.76 S	210.90 W	503,802.84	726,345.50	1.02	-704.93	-168.14	
10,193.00	3.13	210.98	10,131.97	716.49 S	215.22 W	503,798.11	726,341.18	2.13	-709.53	-149.90	
10,288.00	4.06	197.57	10,226.79	721.92 S	217.57 W	503,792.68	726,338.83	1.31	-714.89	-48.94	
10,383.00	4.72	203.36	10,321.51	728.72 S	220.14 W	503,785.88	726,336.26	0.84	-721.60	36.79	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
10,478.00	4.77	205.38	10,416.18	735.87 S	223.38 W	503,778.73	726,333.02	0.18	-728.65	74.35	
10,572.00	4.32	207.60	10,509.89	742.54 S	226.69 W	503,772.06	726,329.71	0.51	-735.21	159.75	
10,667.00	4.15	206.17	10,604.63	748.80 S	229.87 W	503,765.80	726,326.53	0.21	-741.37	-148.86	
10,762.00	3.43	209.09	10,699.42	754.37 S	232.77 W	503,760.23	726,323.63	0.78	-746.85	166.45	
10,856.00	2.63	214.32	10,793.29	758.61 S	235.35 W	503,755.99	726,321.05	0.90	-751.00	163.54	
10,916.00	2.71	214.39	10,853.22	760.91 S	236.93 W	503,753.69	726,319.47	0.13	-753.26	2.37	Tie-in @ 10916'MD
10,968.00	3.51	201.58	10,905.14	763.41 S	238.21 W	503,751.19	726,318.19	2.04	-755.72	-47.35	7 5/8" Liner
11,019.00	4.41	193.89	10,956.02	766.77 S	239.25 W	503,747.83	726,317.15	2.04	-759.04	-34.56	First MWD Svy @ 11019'MD
11,113.00	2.41	328.49	11,049.94	768.59 S	241.15 W	503,746.01	726,315.25	6.74	-760.81	164.26	
11,207.00	16.13	343.31	11,142.49	754.33 S	245.96 W	503,760.27	726,310.44	14.70	-746.40	17.31	
11,302.00	24.30	342.14	11,231.57	723.03 S	255.76 W	503,791.57	726,300.64	8.61	-714.82	-3.39	
11,395.00	28.15	345.89	11,314.99	683.53 S	266.98 W	503,831.07	726,289.42	4.51	-674.99	24.98	
11,490.00	31.55	354.17	11,397.41	637.03 S	274.98 W	503,877.57	726,281.42	5.62	-628.27	54.12	
11,587.00	38.55	358.43	11,476.78	581.50 S	278.39 W	503,933.10	726,278.01	7.64	-572.65	21.03	
11,682.00	49.25	357.07	11,545.13	515.78 S	281.05 W	503,998.82	726,275.35	11.31	-506.88	-5.54	
11,734.00	54.16	357.30	11,577.35	475.03 S	283.05 W	504,039.57	726,273.35	9.44	-466.09	2.15	SLC @ 11734'MD
11,776.00	58.12	357.46	11,600.74	440.19 S	284.64 W	504,074.41	726,271.76	9.44	-431.23	2.01	
11,851.00	63.55	359.84	11,637.28	374.75 S	286.15 W	504,139.85	726,270.25	7.76	-365.77	21.55	100HLC @ 11851'MD
11,871.00	65.01	0.44	11,645.96	356.73 S	286.10 W	504,157.87	726,270.30	7.76	-347.76	20.39	
11,966.00	70.62	0.64	11,681.82	268.80 S	285.27 W	504,245.80	726,271.13	5.91	-259.90	1.93	
12,060.00	75.87	359.73	11,708.91	178.83 S	284.99 W	504,335.77	726,271.41	5.66	-169.97	-9.56	
12,154.00	82.40	358.17	11,726.62	86.58 S	286.69 W	504,428.02	726,269.71	7.14	-77.72	-13.36	
12,249.00	86.54	357.09	11,735.77	7.87 N	290.61 W	504,522.47	726,265.79	4.50	16.81	-14.61	
12,285.00	87.10	356.56	11,737.77	43.76 N	292.60 W	504,558.36	726,263.80	2.14	52.75	-43.39	
12,328.00	87.13	356.00	11,739.93	86.62 N	295.38 W	504,601.22	726,261.02	1.30	95.67	-86.94	
12,423.00	88.34	357.02	11,743.69	181.36 N	301.16 W	504,695.96	726,255.24	1.67	190.55	40.13	
12,517.00	88.70	359.59	11,746.12	275.28 N	303.94 W	504,789.88	726,252.46	2.76	284.51	82.06	
12,707.00	89.56	2.37	11,749.00	465.21 N	300.69 W	504,979.81	726,255.71	1.53	474.25	72.83	
12,802.00	90.45	3.48	11,748.99	560.09 N	295.84 W	505,074.69	726,260.56	1.50	568.93	51.28	
12,896.00	89.16	1.47	11,749.31	653.99 N	291.78 W	505,168.59	726,264.62	2.54	662.66	-122.69	
12,991.00	88.79	1.13	11,751.01	748.95 N	289.63 W	505,263.55	726,266.77	0.53	757.51	-137.43	
13,086.00	90.05	0.82	11,751.97	843.93 N	288.01 W	505,358.53	726,268.39	1.37	852.40	-13.82	
13,181.00	91.13	1.37	11,750.99	938.91 N	286.20 W	505,453.51	726,270.20	1.28	947.27	26.98	
13,276.00	90.78	1.02	11,749.41	1,033.87 N	284.22 W	505,548.47	726,272.18	0.52	1,042.13	-135.00	
13,371.00	90.91	359.95	11,748.01	1,128.86 N	283.41 W	505,643.46	726,272.99	1.13	1,137.05	-83.06	
13,465.00	92.13	1.03	11,745.52	1,222.82 N	282.61 W	505,737.42	726,273.79	1.73	1,230.94	41.49	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured		Grid	Vertical	Local Coordinates		Map Coordinates		Dogleg	Vertical	Toolface	Comments
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)	Rate (°/100ft)	Section (usft)	Angle (°)	
13,560.00	92.48	0.87	11,741.70	1,317.73 N	281.03 W	505,832.33	726,275.37	0.41	1,325.75	-24.55	
13,654.00	92.33	1.36	11,737.75	1,411.63 N	279.21 W	505,926.23	726,277.19	0.54	1,419.55	107.02	
13,749.00	91.50	359.97	11,734.58	1,506.56 N	278.11 W	506,021.16	726,278.29	1.70	1,514.41	-120.83	
13,844.00	90.18	358.67	11,733.18	1,601.54 N	279.23 W	506,116.14	726,277.17	1.95	1,609.38	-135.43	
14,033.00	90.99	358.20	11,731.25	1,790.46 N	284.39 W	506,305.06	726,272.01	0.50	1,798.37	-30.12	
14,128.00	90.68	359.61	11,729.87	1,885.43 N	286.21 W	506,400.03	726,270.19	1.52	1,893.35	102.39	
14,317.00	90.91	2.42	11,727.25	2,074.36 N	282.86 W	506,588.96	726,273.54	1.49	2,082.09	85.30	
14,506.00	92.20	359.87	11,722.12	2,263.24 N	279.09 W	506,777.84	726,277.31	1.51	2,270.75	-63.13	
14,601.00	91.98	359.80	11,718.65	2,358.17 N	279.36 W	506,872.77	726,277.04	0.24	2,365.65	-162.36	
14,696.00	90.37	359.56	11,716.71	2,453.15 N	279.89 W	506,967.75	726,276.51	1.71	2,460.60	-171.52	
14,790.00	90.07	359.35	11,716.34	2,547.14 N	280.78 W	507,061.74	726,275.62	0.39	2,554.58	-145.01	
14,885.00	90.18	359.62	11,716.14	2,642.14 N	281.64 W	507,156.74	726,274.76	0.31	2,649.56	67.83	
14,980.00	90.01	359.10	11,715.98	2,737.13 N	282.70 W	507,251.73	726,273.70	0.58	2,744.54	-108.10	
15,074.00	90.30	359.29	11,715.73	2,831.12 N	284.02 W	507,345.72	726,272.38	0.37	2,838.52	33.23	
15,169.00	90.02	359.54	11,715.46	2,926.12 N	284.99 W	507,440.72	726,271.41	0.40	2,933.50	138.24	
15,264.00	89.99	359.35	11,715.45	3,021.11 N	285.91 W	507,535.71	726,270.49	0.20	3,028.48	-98.97	
15,358.00	90.21	359.81	11,715.29	3,115.11 N	286.60 W	507,629.71	726,269.80	0.54	3,122.46	64.44	
15,548.00	90.18	359.98	11,714.64	3,305.11 N	286.95 W	507,819.71	726,269.45	0.09	3,312.37	100.01	
15,643.00	90.25	359.59	11,714.28	3,400.11 N	287.30 W	507,914.71	726,269.10	0.42	3,407.34	-79.82	
15,737.00	90.07	359.80	11,714.02	3,494.11 N	287.80 W	508,008.71	726,268.60	0.29	3,501.31	130.60	
15,832.00	91.57	2.26	11,712.66	3,589.07 N	286.10 W	508,103.67	726,270.30	3.03	3,596.18	58.61	
15,927.00	90.54	359.12	11,710.91	3,684.03 N	284.95 W	508,198.63	726,271.45	3.48	3,691.06	-108.13	
16,022.00	90.61	359.78	11,709.96	3,779.03 N	285.87 W	508,293.63	726,270.53	0.70	3,786.03	83.94	
16,116.00	90.31	359.42	11,709.20	3,873.02 N	286.52 W	508,387.62	726,269.88	0.50	3,880.00	-129.80	
16,211.00	90.14	359.27	11,708.83	3,968.01 N	287.61 W	508,482.61	726,268.79	0.24	3,974.98	-138.58	
16,305.00	90.55	0.22	11,708.27	4,062.01 N	288.03 W	508,576.61	726,268.37	1.10	4,068.95	66.65	
16,400.00	90.52	0.29	11,707.38	4,157.00 N	287.60 W	508,671.60	726,268.80	0.08	4,163.89	113.20	
16,495.00	90.64	0.20	11,706.42	4,252.00 N	287.20 W	508,766.60	726,269.20	0.16	4,258.82	-36.87	
16,589.00	90.58	0.16	11,705.42	4,345.99 N	286.90 W	508,860.59	726,269.50	0.08	4,352.76	-146.31	
16,684.00	90.55	0.08	11,704.48	4,440.99 N	286.70 W	508,955.59	726,269.70	0.09	4,447.71	-110.56	
16,779.00	90.26	0.30	11,703.81	4,535.98 N	286.39 W	509,050.58	726,270.01	0.38	4,542.65	142.82	
16,874.00	90.07	0.30	11,703.53	4,630.98 N	285.89 W	509,145.58	726,270.51	0.20	4,637.59	180.00	
16,968.00	90.16	0.44	11,703.35	4,724.98 N	285.28 W	509,239.58	726,271.12	0.18	4,731.52	57.26	
17,052.00	90.25	0.38	11,703.05	4,808.98 N	284.68 W	509,323.58	726,271.72	0.13	4,815.46	-34.99	SLC @ 17052'MD
17,063.00	90.26	0.37	11,703.00	4,819.98 N	284.61 W	509,334.58	726,271.79	0.13	4,826.45	-34.99	
17,157.00	90.08	0.08	11,702.72	4,913.98 N	284.24 W	509,428.58	726,272.16	0.36	4,920.40	-121.83	
17,252.00	90.07	359.80	11,702.59	5,008.98 N	284.34 W	509,523.58	726,272.06	0.29	5,015.35	-92.05	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
17,347.00	90.21	0.37	11,702.36	5,103.97 N	284.20 W	509,618.57	726,272.20	0.62	5,110.30	76.20	
17,442.00	90.21	0.22	11,702.01	5,198.97 N	283.71 W	509,713.57	726,272.69	0.16	5,205.24	-90.00	
17,631.00	90.14	359.46	11,701.44	5,387.97 N	284.24 W	509,902.57	726,272.16	0.40	5,394.17	-95.26	
17,725.00	90.27	0.58	11,701.10	5,481.97 N	284.21 W	509,996.57	726,272.19	1.20	5,488.12	83.38	
17,820.00	90.19	0.29	11,700.72	5,576.96 N	283.49 W	510,091.56	726,272.91	0.32	5,583.05	-105.42	
17,914.00	90.21	359.94	11,700.39	5,670.96 N	283.30 W	510,185.56	726,273.10	0.37	5,677.00	-86.73	
18,009.00	90.23	359.88	11,700.03	5,765.96 N	283.45 W	510,280.56	726,272.95	0.07	5,771.95	-71.56	
18,103.00	89.02	359.91	11,700.64	5,859.96 N	283.62 W	510,374.56	726,272.78	1.29	5,865.91	178.58	
18,198.00	90.30	0.50	11,701.20	5,954.95 N	283.28 W	510,469.55	726,273.12	1.48	5,960.85	24.75	
18,292.00	90.29	359.54	11,700.72	6,048.95 N	283.25 W	510,563.55	726,273.15	1.02	6,054.80	-90.59	
18,387.00	90.43	358.34	11,700.12	6,143.93 N	285.00 W	510,658.53	726,271.40	1.27	6,149.79	-83.34	
18,482.00	90.13	359.60	11,699.66	6,238.91 N	286.71 W	510,753.51	726,269.69	1.36	6,244.78	103.39	
18,576.00	90.52	359.89	11,699.13	6,332.91 N	287.13 W	510,847.51	726,269.27	0.52	6,338.75	36.63	
18,671.00	89.60	358.98	11,699.03	6,427.90 N	288.07 W	510,942.50	726,268.33	1.36	6,433.72	-135.31	
18,766.00	89.05	359.92	11,700.15	6,522.89 N	288.98 W	511,037.49	726,267.42	1.15	6,528.69	120.34	
18,860.00	89.33	359.93	11,701.47	6,616.88 N	289.10 W	511,131.48	726,267.30	0.30	6,622.64	2.05	
18,955.00	89.54	359.94	11,702.41	6,711.88 N	289.21 W	511,226.48	726,267.19	0.22	6,717.60	2.73	
19,050.00	88.66	359.28	11,703.90	6,806.86 N	289.86 W	511,321.46	726,266.54	1.16	6,812.56	-143.14	
19,144.00	88.44	359.56	11,706.28	6,900.83 N	290.81 W	511,415.43	726,265.59	0.38	6,906.51	128.17	
19,239.00	88.54	359.26	11,708.79	6,995.79 N	291.78 W	511,510.39	726,264.62	0.33	7,001.45	-71.56	
19,334.00	89.44	359.49	11,710.46	7,090.77 N	292.82 W	511,605.37	726,263.58	0.98	7,096.42	14.34	
19,428.00	88.65	357.93	11,712.03	7,184.73 N	294.94 W	511,699.33	726,261.46	1.86	7,190.40	-116.87	
19,523.00	89.49	358.75	11,713.57	7,279.67 N	297.69 W	511,794.27	726,258.71	1.24	7,285.39	44.31	
19,617.00	88.57	0.08	11,715.16	7,373.65 N	298.65 W	511,888.25	726,257.75	1.72	7,379.35	124.69	
19,712.00	89.01	359.87	11,717.17	7,468.63 N	298.69 W	511,983.23	726,257.71	0.51	7,474.28	-25.51	
19,806.00	89.33	359.64	11,718.53	7,562.62 N	299.09 W	512,077.22	726,257.31	0.42	7,568.24	-35.71	
19,901.00	88.91	359.71	11,719.99	7,657.61 N	299.63 W	512,172.21	726,256.77	0.45	7,663.20	170.54	
19,996.00	89.10	359.28	11,721.64	7,752.59 N	300.47 W	512,267.19	726,255.93	0.49	7,758.16	-66.16	
20,090.00	89.22	359.35	11,723.02	7,846.57 N	301.59 W	512,361.17	726,254.81	0.15	7,852.14	30.25	
20,185.00	88.98	359.35	11,724.51	7,941.55 N	302.67 W	512,456.15	726,253.73	0.25	7,947.11	180.00	
20,279.00	89.13	359.06	11,726.06	8,035.53 N	303.97 W	512,550.13	726,252.43	0.35	8,041.08	-62.65	
20,374.00	89.57	358.92	11,727.14	8,130.51 N	305.65 W	512,645.11	726,250.75	0.49	8,136.06	-17.65	
20,468.00	89.63	359.18	11,727.79	8,224.49 N	307.21 W	512,739.09	726,249.19	0.28	8,230.05	77.01	
20,563.00	89.56	359.51	11,728.46	8,319.49 N	308.29 W	512,834.09	726,248.11	0.36	8,325.03	101.98	
20,657.00	89.63	359.33	11,729.13	8,413.48 N	309.24 W	512,928.08	726,247.16	0.21	8,419.01	-68.75	
20,752.00	89.36	359.20	11,729.96	8,508.47 N	310.46 W	513,023.07	726,245.94	0.32	8,513.99	-154.29	
20,847.00	89.63	359.26	11,730.80	8,603.45 N	311.74 W	513,118.05	726,244.66	0.29	8,608.97	12.53	

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys**

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100ft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
20,942.00	89.43	0.04	11,731.58	8,698.45 N	312.32 W	513,213.05	726,244.08	0.85	8,703.94	104.38	
21,036.00	89.78	359.69	11,732.23	8,792.45 N	312.54 W	513,307.05	726,243.86	0.53	8,797.90	-45.00	
21,131.00	89.68	359.65	11,732.68	8,887.44 N	313.09 W	513,402.04	726,243.31	0.11	8,892.87	-158.20	
21,226.00	89.50	359.01	11,733.36	8,982.43 N	314.20 W	513,497.03	726,242.20	0.70	8,987.85	-105.71	
21,320.00	89.48	0.02	11,734.19	9,076.43 N	314.99 W	513,591.03	726,241.41	1.07	9,081.82	91.14	
21,415.00	89.49	0.05	11,735.05	9,171.42 N	314.94 W	513,686.02	726,241.46	0.03	9,176.77	71.56	
21,510.00	89.45	359.66	11,735.93	9,266.42 N	315.18 W	513,781.02	726,241.22	0.41	9,271.73	-95.86	
21,605.00	89.27	359.53	11,736.99	9,361.41 N	315.85 W	513,876.01	726,240.55	0.23	9,366.69	-144.16	
21,699.00	89.84	359.84	11,737.72	9,455.40 N	316.36 W	513,970.00	726,240.04	0.69	9,460.66	28.54	
21,794.00	90.10	359.76	11,737.77	9,550.40 N	316.70 W	514,065.00	726,239.70	0.29	9,555.63	-17.10	
21,889.00	89.78	359.78	11,737.87	9,645.40 N	317.08 W	514,160.00	726,239.32	0.34	9,650.59	176.42	
21,984.00	89.92	359.85	11,738.12	9,740.40 N	317.38 W	514,255.00	726,239.02	0.16	9,745.56	26.57	
22,078.00	90.27	359.81	11,737.96	9,834.40 N	317.66 W	514,349.00	726,238.74	0.37	9,839.52	-6.52	
22,173.00	89.70	359.29	11,737.98	9,929.40 N	318.41 W	514,444.00	726,237.99	0.81	9,934.49	-137.63	
22,236.00	90.17	359.05	11,738.06	9,992.39 N	319.32 W	514,506.99	726,237.08	0.84	9,997.48	-27.22	100HLC @ 22236'MD
22,267.00	90.40	358.93	11,737.90	10,023.38 N	319.87 W	514,537.98	726,236.53	0.84	10,028.48	-27.22	Last MWD Svy @ 22267'MD
22,287.00	90.40	358.93	11,737.76	10,043.38 N	320.24 W	514,557.98	726,236.16	0.00	10,048.48	0.00	Projection to TD @ 22287'MD - 5 1/2" Casing

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
18.00	18.00	0.00	0.00	18ft KB Offset
95.62	95.62	-0.08	-0.36	First Gyro @ 95.62'MD
875.06	875.01	0.87	-6.17	Last Gyro @ 875.06'MD
10,916.00	10,853.22	-760.91	-236.93	Tie-in @ 10916'MD
11,019.00	10,956.02	-766.77	-239.25	First MWD Svy @ 11019'MD
11,734.00	11,577.35	-475.03	-283.05	SLC @ 11734'MD
11,851.00	11,637.28	-374.75	-286.15	100HLC @ 11851'MD
17,052.00	11,703.05	4,808.98	-284.68	SLC @ 17052'MD
22,236.00	11,738.06	9,992.39	-319.32	100HLC @ 22236'MD
22,267.00	11,737.90	10,023.38	-319.87	Last MWD Svy @ 22267'MD
22,287.00	11,737.76	10,043.38	-320.24	Projection to TD @ 22287'MD

HALLIBURTON**Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys****Vertical Section Information**

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
Target	Tspot 12-13 32H PBHL	358.24	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
18.00	875.06	Gyro (RKB Adjusted from 8ft)	3_Gyro-GC_Drill pipe
982.00	7,776.00	Intermediate (Run01-02 Corrected)	Superior
7,921.00	9,341.00	Intermediate (Sag Only)	MWD+IFR1+SAG+FDIR
9,435.00	10,916.00	Intermediate (Run04 Corrected)	3_MWD+IFR1+Sag
			Superior
			MWD+IFR1+SAG+FDIR
11,019.00	22,267.00	Production	Superior
			MWD+IFR1+SAG+FDIR
22,287.00	22,287.00	Projection to TD	3_Blind

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
4,561.39	4,560.90	9 5/8" Casing	9.625	12.250
10,968.00	10,905.14	7 5/8" Liner	7.625	8.750
22,287.00	11,737.76	5 1/2" Casing	5.500	6.750

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	()	()	()	()	()	()	()		
- Shape									
()									



Design Report for Top Spot 12-13 Federal Com 32H - Final Surveys

Directional Difficulty Index

Average Dogleg over Survey:	1.12 °/100ft	Maximum Dogleg over Survey:	14.70 °/100ft at 11,207.00 usft
Net Tortousity applicable to Plans:	0.36 °/100ft	Directional Difficulty Index:	6.744

Audit Info

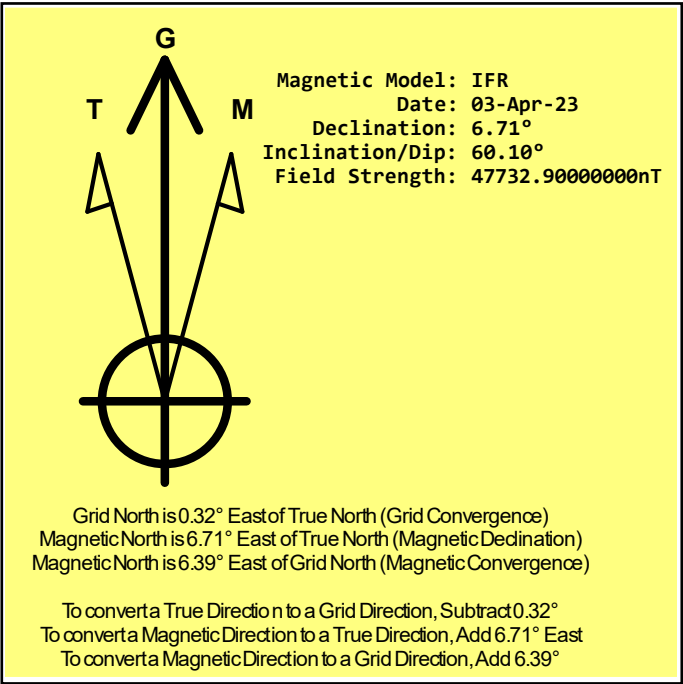
HALLIBURTON

North Reference Sheet for Top Spot 12-13 - Top Spot 12-13 Federal Com 32H - OH

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.
Vertical Depths are relative to GL 3566.9' + RKB 26' @ 3592.90usft (H&P 419). Northing and Easting are relative to Top Spot 12-13 Federal Com 32H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980
Projection method is Transverse Mercator (Gauss-Kruger)
Central Meridian is 104° 20' 0.000 W°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°
False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99994838

Grid Coordinates of Well: 504,514.60 usft N, 726,556.40 usft E
Geographical Coordinates of Well: 32° 23' 7.985 N, 103° 43' 59.917 W
Grid Convergence at Surface is: 0.32°

Based upon Minimum Curvature type calculations, at a Measured Depth of 22,287.00usft
the Bottom Hole Displacement is 10,048.49usft in the Direction of 358.17° (Grid).
Magnetic Convergence at surface is: -6.39° (3 April 2023, , IFR)



Intent ☐ As Drilled ☒

API # 30-015-48596		
Operator Name: OXY USA INC.	Property Name: Top Spot 12 13 Federal Com	Well Number 032H

Kick Off Point (KOP)

UL C	Section 24	Township 22S	Range 31E	Lot	Feet 278	From N/S North	Feet 1837	From E/W West	County Eddy
Latitude 32.38348186					Longitude -103.73412074			NAD Nad83	

First Take Point (FTP)

UL N	Section 13	Township 22S	Range 31E	Lot	Feet 317	From N/S South	Feet 1801	From E/W West	County Eddy
Latitude 32.38511780					Longitude -103.73423687			NAD Nad83	

Last Take Point (LTP)

UL C	Section 12	Township 22S	Range 31E	Lot	Feet 239	From N/S North	Feet 1822	From E/W West	County Eddy
Latitude 32.41263748					Longitude -103.73416074			NAD Nad83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NoIs this well an infill well? ☐ Yes

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

API # 30-015-47627		
Operator Name: OXY USA INC.	Property Name: Top Spot 12 13 Federal Com	Well Number 311H

KZ 06/29/2018

Well Name: TOP SPOT 12_13 FED COM	Well Location: T22S / R31E / SEC 13 / SESW / 32.385552 / -103.73331	County or Parish/State: EDDY / NM
Well Number: 32H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM29233	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548596	Well Status: Producing Oil Well	Operator: OXY USA INCORPORATED

Subsequent Report

Sundry ID: 2739793

Type of Submission: Subsequent Report

Type of Action: Hydraulic Fracturing

Date Sundry Submitted: 07/07/2023

Time Sundry Submitted: 09:41

Date Operation Actually Began: 04/19/2023

Actual Procedure: RUPU 4/19/2023, RIH & clean out to PBDT @ 22245' MD, pressure test csg to 11300 psi for 30 min, good test. RIH & perf @ 12080'-22096' Total 1640 holes. Frac in 40 stages w/ 329,292 BBLS produced water w/ 25,027,550 # 100 mesh proppant, RD Frac Crew on 5/13/23. Well ready to produce 5/20/23. OXY USA Inc. respectfully requests a tubing exception while continuing to flow back this well. The estimated date of tubing install is 8/20/2023.

Received by OCD: 1/30/2024 8:00:00 AM

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Well Name: TOP SPOT 12_13 FED COM	Well Location: T22S / R31E / SEC 13 / SESW / 32.385552 / -103.73331	County or Parish/State: EDDY / NM
Well Number: 32H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM29233	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548596	Well Status: Producing Oil Well	Operator: OXY USA INCORPORATED

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SARAH MCKINNEY	Signed on: JUL 07, 2023 09:41 AM
Name: OXY USA INCORPORATED	
Title: Regulatory Analyst Sr	
Street Address: 5 GREENWAY PLAZA SUITE 110	
City: HOUSTON	State: TX
Phone: (713) 215-7295	
Email address: SARAH_MCKINNEY@OXY.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: JONATHON W SHEPARD	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345972	BLM POC Email Address: jshepard@blm.gov
Disposition: Accepted	Disposition Date: 07/11/2023
Signature: Jonathon Shepard	

Submit To Appropriate District Office Two Copies District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505				Form C-105 Revised April 3, 2017				
1. WELL API NO. 30-015-48596										
2. Type of Lease ☐ STATE ☐ FEE ☒ FED/INDIAN										
3. State Oil & Gas Lease No. 329719										
WELL COMPLETION OR RECOMPLETION REPORT AND LOG										
4. Reason for filing: ☒ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) ☐ C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)						5. Lease Name or Unit Agreement Name Top Spot 12 13 Federal Com				
						6. Well Number: 032H				
7. Type of Completion: ☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER										
8. Name of Operator OXY USA INC.						9. OGRID 16696				
10. Address of Operator PO Box 50250, MIDLAND, TX 79710						11. Pool name or Wildcat WC 22S31E13; WOLFCAMP				
12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:	N	13	22S	31E		475	South	2087	West	Eddy
BH:	C	12	22S	31E		48	North	1820	West	Eddy
13. Date Spudded 10/26/2022	14. Date T.D. Reached 4/12/2023	15. Date Rig Released 04/16/2023			16. Date Completed (Ready to Produce) 05/20/2023			17. Elevations (DF and RKB, RT, GR, etc.) 3567' GR		
18. Total Measured Depth of Well 22,287' MD, 11738' TVD			19. Plug Back Measured Depth 22,245' MD, 11,738' TVD			20. Was Directional Survey Made? Yes		21. Type Electric and Other Logs Run CBL/Gamma		
22. Producing Interval(s), of this completion - Top, Bottom, Name 12,080' - 22,096' (Wolfcamp)										
23. CASING RECORD (Report all strings set in well)										
CASING SIZE		WEIGHT LB./FT.		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED
13 3/8"		54.5# J-55 BTC		885'		17 1/2"		1090sx - TOC 0'		
9 5/8"		40# HCL80		4595'		12 1/4"		1400sx - TOC 0'		
7 5/8"		26.4# HCL 80		10968'		8 3/4"		688sx - TOC 3095'		
5 1/2" 20# P110		20# P110		22267'		6 3/4"		871sx - TOC 9958'		
24. LINER RECORD										
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	25. TUBING RECORD					
					SIZE	DEPTH SET	PACKER SET			
26. Perforation record (interval, size, and number) 12,080' - 22,096', 0.42", 1592 holes					27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.					
					DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED			
					12080-22096		329,292 bbls clean fluid, 25,027,550 # 100 mesh proppant.			
28. PRODUCTION										
Date First Production 5/25/2023		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing				Well Status (Prod. or Shut-in) Producing				
Date of Test 06/11/2023	Hours Tested 24 Hours	Choke Size 0	Prod'n For Test Period	Oil - Bbl 6065	Gas - MCF 9644	Water - Bbl. 6615	Gas - Oil Ratio 1590			
Flow Tubing Press.	Casing Pressure 2212	Calculated 24-Hour Rate	Oil - Bbl. 6065	Gas - MCF 9644	Water - Bbl. 6615	Oil Gravity - API - (Corr.)				
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Sold							30. Test Witnessed By			
31. List Attachments C103, C104c, C102, WBD, Directional Survey, Log										
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.							33. Rig Release Date:			
34. If an on-site burial was used at the well, report the exact location of the on-site burial:										
Latitude _____ Longitude _____ NAD83										
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief										
Signature 		Printed Name Sarah McKinney			Title Regulatory Analyst Sr.			Date 06/13/2023		
E-mail Address sarah_mckinney@oxy.com										

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

Southeastern New Mexico		Northwestern New Mexico	
T. Rustler 826'	T. Bell Canyon	T. Ojo Alamo	T. Penn A"
T. Salado 1130'	T. Strawn	T. Kirtland	T. Penn. "B"
T. Castile 2878'	T. Atoka	T. Fruitland	T. Penn. "C"
T. Delaware 4479'	T. Miss	T. Pictured Cliffs	T. Penn. "D"
T. Cherry Canyon 5371'	T. Devonian	T. Cliff House	T. Leadville
T. Brushy Canyon 6602'	T. Silurian	T. Menefee	T. Madison
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert
T. San Andres	T. Simpson	T. Mancos	T. McCracken
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte
T. Paddock	T. Ellenburger	Base Greenhorn	T. Granite
T. Blinebry	T. Gr. Wash	T. Dakota	
T. Tubb	T. Delaware Sand	T. Morrison	
T. Drinkard	T. Bone Springs 8420'	T. Todilto	
T. Abo	T. 1 st Bone Springs 9496'	T. Entrada	
T. Wolfcamp	T. 2 nd Bone Springs 10156'	T. Wingate	
T. Penn	T. 3 rd Bone Springs 11188'	T. Chinle	
T. Cisco (Bough C)	T. Wolfcamp 11837'	T. Permian	

No. 1, from.....to.....

No. 2, from.....to.....

No. 3, from.....to.....

No. 4, from.....to.....

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

From	To	Thickness In Feet	Lithology



Elevation: GL 3567'

API: 30-015-48596

17-1/2" hole – 13-3/8" 54.5# J-55 csg
Set @ 885'

12-1/4" hole – 9-5/8" 43.5# HCL-80 csg
Set @ 4595'

8-3/4" hole – 7-5/8" 26.4# HCL-80 csg
Set @ 10968' – Est TOC ~3095.

2-3/8" tubing @ 11673'

6-3/4" hole – 5-1/2" 20# P-110 csg
Set @ 22267'

Frac'd 12080'-22096'
40 stages

*Note: Diagram not to scale

PBTD – 22245' MD/11738' TVD
TD – 22287' MD/11738' TVD

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

ACKNOWLEDGMENTS

Action 309345

ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 309345
	Action Type: [C-104] Completion Packet (C-104C)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
smcgrath	File 3160-4 within 10 days of BLM Approval.	2/1/2024