OCD Hobbs

Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE *– Other instructions on page 2.*

5. Lease Serial No.
NMLC065710

HOBBS OCD

6. If Indian, Allottee or Tribe Name

JAN 17 2014

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

RECEIVED

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

8. Well Name and No.
LUSK 28 WEST FEDERAL COM #1H

2. Name of Operator
~~OXY USA INC~~ Occidental Permian Ltd

9. API Well No.
30-025-41257

3a. Address
PO BOX 4294
HOUSTON, TX 77210

3b. Phone No. *(include area code)*
713-840-3011

10. Field and Pool or Exploratory Area
LUSK; BONE SPRING SOUTH - 41460

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
652' FSL & 2425' FEL
28-19S-32E

11. County or Parish, State
LEA COUNTY, NM

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

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

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be 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 recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

8-5/8" Casing set at 4306'
7-7/8" curve section kicked off at 8700' MD/TVD
Twisted off a connection above the mud motor at 9443' MD (9320' TVD, 49° Inc)
Fish left in hole: 7.875" bit and 6.5" mud motor (Total length: 26')
Made 3 unsuccessful fishing attempts.
Tagged up solid with a fishing overshot at 9150' MD (9110' TVD, 37° Inc) on the last run.
Oxy respectfully requests a following remedial operation:
Run in hole with cement stinger, tag bottom and pump kick off cement plug as follows
- Balance-spot Kick off Plug 9150' – 8550' (600' plug)
- Premium Cement, Density 18ppg, Yield 0.89ft³/sk, Mix fluid 3.01 gal/sk
- 0.85 % CFR-3 (Dispersant) and 0.2 % HR-601 (Retarder)
- Proposed Sacks: 350 sks

Pull the stinger out of hole, wait on cement for 24 hrs, run in hole with directional motor kick off and drill the curve and horizontal sections as per attached well plan. Continue with planned operations.

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

Title REGULATORY TECHNICIAN

Signature Jessica A Shelton

Date 01/15/2014

APPROVED
JAN 15 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

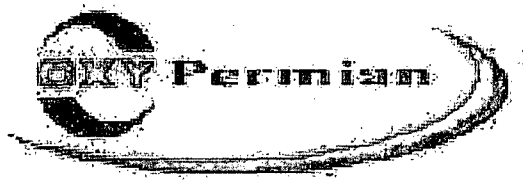
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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

(Instructions on page 2)

JAN 22 2014



OXY

Lea County, New Mexico
Lusk 28 West Fed Com 1H
L28WFC 1H
API No.:30-025-41257
Side Track #1

Plan: ST1 Design #1

Standard Planning Report

15 January, 2014

OXY Permian

Scientific Drilling

To convert a Magnetic Direction to a Grid Direction, Add 7.09°
To convert a True Direction to a Grid Direction, Subtract 0.30°

Azimuths to Grid North
True North: -0.30°
Magnetic North: 7.08°

Magnetic Field
Strength: 48576.5snT
Dip Angle: 60.46°
Date: 1/15/2014
Model: IGRF2010

L28WFC 1H
Lea County, New Mexico
Northing: 591839.70
Easting: 673445.60
ST1 Design #1

KB @ 3585.80usft
GR: 3560.80

WELL DETAILS L28WFC 1H
Ground Level: 3560.80

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	591839.70	673445.60	32.626	-103.770

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
8501.00	1.14	33.55	8499.73	-18.79	-17.08	0.00	0.00	-19.23	
8550.00	1.10	30.88	8548.72	-17.98	-16.57	0.13	-128.80	-18.41	
8596.00	1.06	28.19	8594.71	-17.23	-16.14	0.14	-129.61	-17.65	
8600.00	1.06	28.19	8598.71	-17.17	-16.11	0.00	0.00	-17.58	
8720.84	10.00	97.00	8718.90	-17.46	-5.14	8.00	74.62	-17.59	
8733.84	10.00	97.00	8731.71	-17.73	-2.90	0.00	0.00	-17.80	
9893.24	91.53	359.81	9451.68	717.54	124.17	8.00	-96.81	720.54	
13476.19	91.53	359.81	9356.00	4299.20	112.50	0.00	0.00	4300.67	BHL

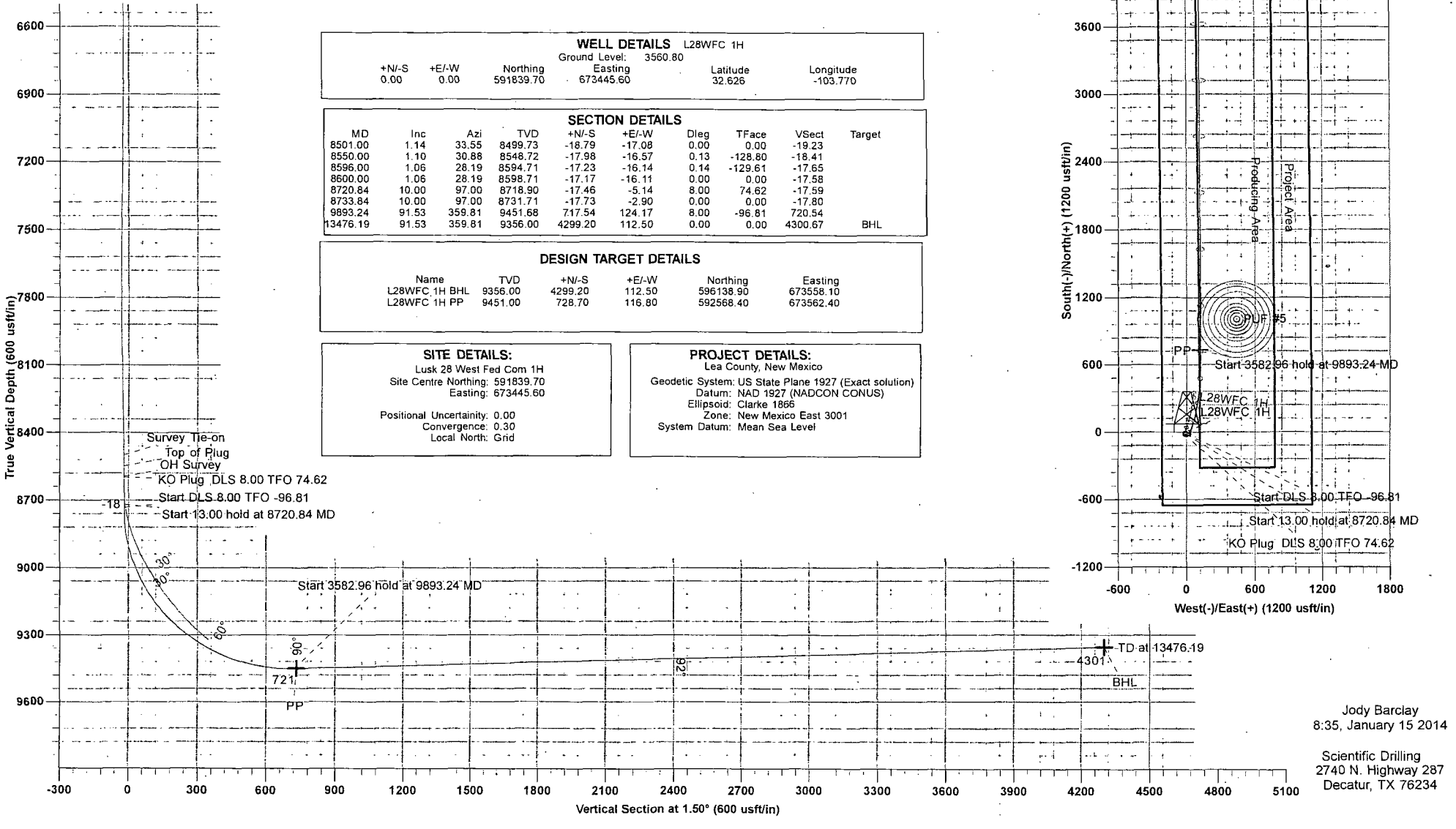
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
L28WFC 1H BHL	9356.00	4299.20	112.50	596138.90	673558.10
L28WFC 1H PP	9451.00	728.70	116.80	592568.40	673562.40

SITE DETAILS:
Lusk 28 West Fed Com 1H
Site Centre Northing: 591839.70
Easting: 673445.60

Positional Uncertainty: 0.00
Convergence: 0.30
Local North: Grid

PROJECT DETAILS:
Lea County, New Mexico
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



Jody Barclay
8:35, January 15 2014

Scientific Drilling
2740 N. Highway 287
Decatur, TX 76234

Database:	CompassC	**Local Co-ordinate Reference:**	Well L28WFC 1H
Company:	OXY	**TVD Reference:**	KB @ 3585.80usft
Project:	Lea County, New Mexico	**MD Reference:**	KB @ 3585.80usft
Site:	Lusk 28 West Fed Com 1H	**North Reference:**	Grid
Well:	L28WFC 1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Side Track #1		
Design:	ST1 Design #1		

Project Lea County, New Mexico

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Lusk 28 West Fed Com 1H

Site Position:		**Northing:**	591,839.70 usft	**Latitude:**	32.626
From:	Map	**Easting:**	673,445.60 usft	**Longitude:**	-103.770
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.30 °

Well L28WFC 1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	591,839.70 usft	**Latitude:**	32.626
	+E/-W	0.00 usft	**Easting:**	673,445.60 usft	**Longitude:**	-103.770
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,560.80 usft

Wellbore Side Track #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/15/2014	7.39	60.46	48,577

Design ST1 Design #1

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	8,501.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	1.50

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
8,501.00	1.14	33.55	8,499.73	-18.79	-17.08	0.00	0.00	0.00	0.00	
8,550.00	1.10	30.88	8,548.72	-17.98	-16.57	0.13	-0.08	-5.45	-128.80	
8,596.00	1.06	28.19	8,594.71	-17.23	-16.14	0.14	-0.09	-5.85	-129.61	
8,600.00	1.06	28.19	8,598.71	-17.17	-16.11	0.00	0.00	0.00	0.00	
8,720.84	10.00	97.00	8,718.90	-17.46	-5.14	8.00	7.40	56.94	74.62	
8,733.84	10.00	97.00	8,731.71	-17.73	-2.90	0.00	0.00	0.00	0.00	
9,893.24	91.53	359.81	9,451.68	717.54	124.17	8.00	7.03	-8.38	-96.81	
13,476.19	91.53	359.81	9,356.00	4,299.20	112.50	0.00	0.00	0.00	0.00	L28WFC 1H BHL

Database:	CompassC	Local Co-ordinate Reference:	Well L28WFC 1H
Company:	OXY	TVD Reference:	KB @ 3585.80usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3585.80usft
Site:	Lusk 28 West Fed Com 1H	North Reference:	Grid
Well:	L28WFC 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Side Track #1		
Design:	ST1 Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.37	149.45	100.00	-0.28	0.16	-0.27	0.37	0.37	0.00
200.00	0.34	175.20	200.00	-0.85	0.35	-0.84	0.16	-0.03	25.75
300.00	0.45	175.29	300.00	-1.54	0.41	-1.53	0.11	0.11	0.09
400.00	0.45	181.50	399.99	-2.32	0.43	-2.31	0.05	0.00	6.21
500.00	0.71	184.21	499.99	-3.33	0.38	-3.32	0.26	0.26	2.71
600.00	0.80	181.15	599.98	-4.65	0.32	-4.64	0.10	0.09	-3.06
700.00	0.85	181.94	699.97	-6.09	0.28	-6.08	0.05	0.05	0.79
800.00	1.17	173.48	799.95	-7.84	0.37	-7.83	0.35	0.32	-8.46
900.00	1.53	173.09	899.92	-10.18	0.65	-10.16	0.36	0.36	-0.39
939.00	1.53	171.15	938.91	-11.22	0.79	-11.19	0.13	0.00	-4.97
1,114.00	1.85	157.48	1,113.83	-16.13	2.23	-16.07	0.29	0.18	-7.81
1,145.00	1.58	144.21	1,144.82	-16.94	2.67	-16.87	1.54	-0.87	-42.81
1,239.00	0.88	122.58	1,238.80	-18.38	4.04	-18.27	0.88	-0.74	-23.01
1,333.00	1.06	127.77	1,332.79	-19.30	5.33	-19.16	0.21	0.19	5.52
1,428.00	0.62	131.37	1,427.78	-20.18	6.41	-20.01	0.47	-0.46	3.79
1,522.00	0.97	132.43	1,521.77	-21.05	7.38	-20.85	0.37	0.37	1.13
1,616.00	0.70	132.08	1,615.76	-21.98	8.40	-21.75	0.29	-0.29	-0.37
1,710.00	0.35	89.54	1,709.75	-22.36	9.11	-22.11	0.53	-0.37	-45.26
1,805.00	0.44	79.52	1,804.75	-22.29	9.76	-22.03	0.12	0.09	-10.55
1,899.00	0.62	90.06	1,898.75	-22.22	10.62	-21.94	0.22	0.19	11.21
1,993.00	0.62	102.46	1,992.74	-22.33	11.63	-22.02	0.14	0.00	13.19
2,087.00	0.88	81.54	2,086.73	-22.34	12.84	-21.99	0.40	0.28	-22.26
2,182.00	0.97	77.41	2,181.72	-22.06	14.34	-21.67	0.12	0.09	-4.35
2,276.00	0.70	88.04	2,275.71	-21.86	15.69	-21.44	0.33	-0.29	11.31
2,370.00	0.79	67.92	2,369.70	-21.60	16.87	-21.15	0.29	0.10	-21.40
2,465.00	0.62	74.42	2,464.70	-21.21	17.97	-20.74	0.20	-0.18	6.84
2,559.00	0.79	101.23	2,558.69	-21.20	19.10	-20.70	0.39	0.18	28.52
2,653.00	0.35	85.41	2,652.68	-21.31	20.02	-20.78	0.49	-0.47	-16.83
2,748.00	0.44	109.05	2,747.68	-21.40	20.65	-20.86	0.19	0.09	24.88
2,842.00	0.79	104.39	2,841.68	-21.68	21.62	-21.11	0.38	0.37	-4.96
2,897.00	0.79	103.07	2,896.67	-21.86	22.36	-21.27	0.03	0.00	-2.40
3,033.00	0.79	102.63	3,032.66	-22.28	24.18	-21.64	0.00	0.00	-0.32
3,128.00	0.88	106.94	3,127.65	-22.64	25.52	-21.96	0.12	0.09	4.54
3,222.00	0.97	102.19	3,221.64	-23.01	26.99	-22.30	0.13	0.10	-5.05
3,316.00	0.79	107.03	3,315.62	-23.37	28.39	-22.62	0.21	-0.19	5.15
3,410.00	1.41	99.91	3,409.61	-23.76	30.15	-22.96	0.67	0.66	-7.57
3,505.00	0.97	25.20	3,504.59	-23.23	31.64	-22.40	1.56	-0.46	-78.64
3,662.00	0.88	3.76	3,661.57	-20.83	32.28	-19.98	0.23	-0.06	-13.66
3,788.00	1.03	358.88	3,787.55	-18.73	32.33	-17.88	0.14	0.12	-3.87
3,882.00	1.08	335.89	3,881.54	-17.08	31.95	-16.24	0.45	0.05	-24.46
3,976.00	1.06	341.87	3,975.52	-15.44	31.32	-14.62	0.12	-0.02	6.36
4,086.00	1.41	324.82	4,085.50	-13.37	30.22	-12.57	0.46	0.32	-15.50
4,165.00	0.43	314.11	4,164.48	-12.37	29.45	-11.59	1.25	-1.24	-13.56
4,259.00	0.70	169.52	4,258.48	-12.69	29.30	-11.92	1.15	0.29	-153.82
4,352.00	0.97	168.38	4,351.47	-14.02	29.56	-13.24	0.29	0.29	-1.23
4,446.00	0.79	159.76	4,445.46	-15.40	29.94	-14.62	0.24	-0.19	-9.17
4,540.00	0.70	162.22	4,539.45	-16.56	30.34	-15.76	0.10	-0.10	2.62
4,635.00	0.62	161.96	4,634.45	-17.60	30.68	-16.79	0.08	-0.08	-0.27
4,729.00	0.53	169.34	4,728.44	-18.51	30.92	-17.70	0.12	-0.10	7.85
4,824.00	0.35	173.12	4,823.44	-19.23	31.03	-18.41	0.19	-0.19	3.98
4,918.00	0.35	175.41	4,917.44	-19.80	31.09	-18.98	0.01	0.00	2.44
5,012.00	0.26	180.33	5,011.44	-20.30	31.11	-19.48	0.10	-0.10	5.23
5,106.00	0.62	148.86	5,105.43	-20.95	31.37	-20.12	0.45	0.38	-33.48

Database:	CompassC	Local Co-ordinate Reference:	Well L28WFC 1H
Company:	OXY	TVD Reference:	KB @ 3585.80usft
Project:	Lea County, New Mexico	MD Reference:	KB @ 3585.80usft
Site:	Lusk 28 West Fed Com 1H	North Reference:	Grid
Well:	L28WFC 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Side Track #1		
Design:	ST1 Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.00	0.53	129.35	5,199.43	-21.66	31.97	-20.82	0.23	-0.10	-20.76
5,295.00	0.53	123.99	5,294.42	-22.19	32.68	-21.32	0.05	0.00	-5.64
5,389.00	0.53	128.39	5,388.42	-22.70	33.38	-21.82	0.04	0.00	4.68
5,484.00	0.44	133.83	5,483.42	-23.22	33.99	-22.33	0.11	-0.09	5.73
5,578.00	0.62	297.40	5,577.42	-23.24	33.80	-22.35	1.12	0.19	174.01
5,672.00	0.97	271.47	5,671.41	-22.99	32.55	-22.13	0.53	0.37	-27.59
5,767.00	1.23	256.79	5,766.39	-23.20	30.75	-22.39	0.40	0.27	-15.45
5,861.00	1.76	253.28	5,860.36	-23.84	28.39	-23.09	0.57	0.56	-3.73
5,955.00	0.88	269.36	5,954.33	-24.27	26.28	-23.57	1.01	-0.94	17.11
6,049.00	1.06	284.30	6,048.32	-24.06	24.72	-23.41	0.33	0.19	15.89
6,144.00	0.97	284.04	6,143.30	-23.65	23.09	-23.04	0.09	-0.09	-0.27
6,238.00	0.88	274.72	6,237.29	-23.40	21.60	-22.82	0.19	-0.10	-9.91
6,332.00	1.06	279.03	6,331.28	-23.20	20.02	-22.67	0.21	0.19	4.59
6,426.00	1.06	275.34	6,425.26	-22.98	18.29	-22.50	0.07	0.00	-3.93
6,520.00	0.97	261.98	6,519.25	-23.01	16.64	-22.57	0.27	-0.10	-14.21
6,615.00	1.14	271.21	6,614.23	-23.10	14.90	-22.71	0.25	0.18	9.72
6,709.00	1.14	257.32	6,708.21	-23.29	13.05	-22.94	0.29	0.00	-14.78
6,804.00	1.14	264.79	6,803.19	-23.58	11.19	-23.28	0.16	0.00	7.86
6,898.00	1.14	248.27	6,897.18	-24.01	9.39	-23.76	0.35	0.00	-17.57
6,992.00	1.23	255.04	6,991.16	-24.62	7.54	-24.42	0.18	0.10	7.20
7,086.00	1.23	243.70	7,085.13	-25.33	5.67	-25.17	0.26	0.00	-12.06
7,180.00	1.49	251.70	7,179.11	-26.16	3.60	-26.06	0.34	0.28	8.51
7,275.00	1.76	250.11	7,274.07	-27.04	1.06	-27.01	0.29	0.28	-1.67
7,369.00	0.44	225.24	7,368.05	-27.79	-0.56	-27.79	1.46	-1.40	-26.46
7,463.00	0.53	213.99	7,462.05	-28.40	-1.06	-28.42	0.14	0.10	-11.97
7,557.00	0.97	216.28	7,556.04	-29.41	-1.77	-29.44	0.47	0.47	2.44
7,652.00	1.14	237.37	7,651.02	-30.56	-3.04	-30.63	0.44	0.18	22.20
7,746.00	1.85	255.83	7,744.99	-31.44	-5.30	-31.57	0.90	0.76	19.64
7,840.00	0.35	337.92	7,838.97	-31.54	-6.88	-31.71	1.95	-1.60	87.33
7,935.00	1.41	316.56	7,933.96	-30.43	-7.79	-30.62	1.15	1.12	-22.48
8,060.00	2.02	304.61	8,058.90	-28.06	-10.66	-28.33	0.56	0.49	-9.56
8,123.00	2.02	313.22	8,121.87	-26.67	-12.39	-26.98	0.48	0.00	13.67
8,218.00	1.76	323.33	8,216.81	-24.35	-14.48	-24.72	0.44	-0.27	10.64
8,312.00	1.85	315.42	8,310.77	-22.11	-16.40	-22.53	0.28	0.10	-8.41
8,407.00	0.88	355.32	8,405.74	-20.29	-17.54	-20.75	1.37	-1.02	42.00
8,501.00	1.14	33.55	8,499.73	-18.79	-17.08	-19.23	0.75	0.28	40.67
Survey Tie-on									
8,550.00	1.10	30.88	8,548.72	-17.98	-16.57	-18.41	0.13	-0.08	-5.45
Top of Plug									
8,596.00	1.06	28.19	8,594.71	-17.23	-16.14	-17.65	0.14	-0.09	-5.85
OH Survey									
8,600.00	1.06	28.19	8,598.71	-17.17	-16.11	-17.58	0.00	0.00	0.00
KO Plug DLS 8.00 TFO 74.62									
8,650.00	4.40	89.40	8,648.65	-16.74	-13.97	-17.10	8.00	6.68	122.43
8,700.00	8.34	95.82	8,698.33	-17.09	-8.44	-17.30	8.00	7.88	12.83
8,720.84	10.00	97.00	8,718.90	-17.46	-5.14	-17.59	8.00	7.95	5.66
Start 13.00 hold at 8720.84 MD									
8,733.84	10.00	97.00	8,731.71	-17.73	-2.90	-17.80	0.00	0.00	0.00
Start DLS 8.00 TFO -96.81									
8,750.00	9.93	89.53	8,747.63	-17.89	-0.12	-17.89	8.00	-0.44	-46.19
8,800.00	10.73	67.53	8,796.83	-16.08	8.50	-15.85	8.00	1.61	-44.00
8,850.00	12.78	50.56	8,845.80	-10.78	17.08	-10.33	8.00	4.10	-33.94
8,900.00	15.60	38.90	8,894.28	-2.03	25.58	-1.37	8.00	5.63	-23.32

Database:	CompassC	**Local Co-ordinate Reference:**	Well L28WFC 1H
Company:	OXY	**TVD Reference:**	KB @ 3585.80usft
Project:	Lea County, New Mexico	**MD Reference:**	KB @ 3585.80usft
Site:	Lusk 28 West Fed Com 1H	**North Reference:**	Grid
Well:	L28WFC 1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Side Track #1		
Design:	ST1 Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,950.00	18.84	30.94	8,942.03	10.13	33.95	11.01	8.00	6.48	-15.92
9,000.00	22.32	25.32	8,988.84	25.64	42.17	26.74	8.00	6.96	-11.25
9,050.00	25.95	21.17	9,034.47	44.43	50.18	45.73	8.00	7.25	-8.30
9,100.00	29.66	17.98	9,078.69	66.41	57.95	67.90	8.00	7.43	-6.37
9,150.00	33.44	15.45	9,121.29	91.47	65.45	93.15	8.00	7.55	-5.06
9,200.00	37.26	13.39	9,162.07	119.48	72.63	121.34	8.00	7.64	-4.13
9,250.00	41.10	11.66	9,200.82	150.31	79.45	152.34	8.00	7.70	-3.46
9,300.00	44.97	10.17	9,237.36	183.81	85.90	186.00	8.00	7.74	-2.97
9,350.00	48.86	8.88	9,271.51	219.82	91.92	222.15	8.00	7.77	-2.59
9,400.00	52.76	7.73	9,303.10	258.16	97.51	260.62	8.00	7.80	-2.30
9,450.00	56.67	6.69	9,331.97	298.64	102.62	301.23	8.00	7.82	-2.07
9,500.00	60.59	5.74	9,358.00	341.07	107.24	343.76	8.00	7.84	-1.89
9,550.00	64.51	4.87	9,381.05	385.25	111.33	388.03	8.00	7.85	-1.75
9,600.00	68.44	4.05	9,401.00	430.94	114.89	433.80	8.00	7.86	-1.64
9,650.00	72.37	3.27	9,417.76	477.94	117.89	480.86	8.00	7.86	-1.56
9,700.00	76.31	2.53	9,431.26	526.01	120.32	528.98	8.00	7.87	-1.49
9,750.00	80.24	1.81	9,441.42	574.93	122.17	577.92	8.00	7.87	-1.44
9,800.00	84.18	1.10	9,448.19	624.44	123.42	627.45	8.00	7.88	-1.41
9,850.00	88.12	0.41	9,451.54	674.31	124.08	677.33	8.00	7.88	-1.39
9,893.24	91.53	359.81	9,451.68	717.54	124.17	720.54	8.00	7.88	-1.38
Start 3582.96 hold at 9893.24 MD									
9,900.00	91.53	359.81	9,451.49	724.30	124.14	727.30	0.00	0.00	0.00
10,000.00	91.53	359.81	9,448.82	824.27	123.82	827.22	0.00	0.00	0.00
10,100.00	91.53	359.81	9,446.15	924.23	123.49	927.14	0.00	0.00	0.00
10,200.00	91.53	359.81	9,443.48	1,024.19	123.17	1,027.06	0.00	0.00	0.00
10,300.00	91.53	359.81	9,440.81	1,124.16	122.84	1,126.99	0.00	0.00	0.00
10,400.00	91.53	359.81	9,438.14	1,224.12	122.52	1,226.91	0.00	0.00	0.00
10,500.00	91.53	359.81	9,435.47	1,324.08	122.19	1,326.83	0.00	0.00	0.00
10,600.00	91.53	359.81	9,432.80	1,424.05	121.87	1,426.75	0.00	0.00	0.00
10,700.00	91.53	359.81	9,430.13	1,524.01	121.54	1,526.67	0.00	0.00	0.00
10,800.00	91.53	359.81	9,427.46	1,623.98	121.21	1,626.59	0.00	0.00	0.00
10,900.00	91.53	359.81	9,424.79	1,723.94	120.89	1,726.51	0.00	0.00	0.00
11,000.00	91.53	359.81	9,422.12	1,823.90	120.56	1,826.43	0.00	0.00	0.00
11,100.00	91.53	359.81	9,419.45	1,923.87	120.24	1,926.35	0.00	0.00	0.00
11,200.00	91.53	359.81	9,416.78	2,023.83	119.91	2,026.28	0.00	0.00	0.00
11,300.00	91.53	359.81	9,414.11	2,123.80	119.59	2,126.20	0.00	0.00	0.00
11,400.00	91.53	359.81	9,411.44	2,223.76	119.26	2,226.12	0.00	0.00	0.00
11,500.00	91.53	359.81	9,408.77	2,323.72	118.93	2,326.04	0.00	0.00	0.00
11,600.00	91.53	359.81	9,406.10	2,423.69	118.61	2,425.96	0.00	0.00	0.00
11,700.00	91.53	359.81	9,403.43	2,523.65	118.28	2,525.88	0.00	0.00	0.00
11,800.00	91.53	359.81	9,400.76	2,623.61	117.96	2,625.80	0.00	0.00	0.00
11,900.00	91.53	359.81	9,398.09	2,723.58	117.63	2,725.72	0.00	0.00	0.00
12,000.00	91.53	359.81	9,395.42	2,823.54	117.31	2,825.64	0.00	0.00	0.00
12,100.00	91.53	359.81	9,392.75	2,923.51	116.98	2,925.57	0.00	0.00	0.00
12,200.00	91.53	359.81	9,390.08	3,023.47	116.66	3,025.49	0.00	0.00	0.00
12,300.00	91.53	359.81	9,387.41	3,123.43	116.33	3,125.41	0.00	0.00	0.00
12,400.00	91.53	359.81	9,384.74	3,223.40	116.00	3,225.33	0.00	0.00	0.00
12,500.00	91.53	359.81	9,382.07	3,323.36	115.68	3,325.25	0.00	0.00	0.00
12,600.00	91.53	359.81	9,379.40	3,423.32	115.35	3,425.17	0.00	0.00	0.00
12,700.00	91.53	359.81	9,376.73	3,523.29	115.03	3,525.09	0.00	0.00	0.00
12,800.00	91.53	359.81	9,374.06	3,623.25	114.70	3,625.01	0.00	0.00	0.00
12,900.00	91.53	359.81	9,371.39	3,723.22	114.38	3,724.93	0.00	0.00	0.00
13,000.00	91.53	359.81	9,368.72	3,823.18	114.05	3,824.86	0.00	0.00	0.00
13,100.00	91.53	359.81	9,366.05	3,923.14	113.72	3,924.78	0.00	0.00	0.00

Database:	CompassC	**Local Co-ordinate Reference:**	Well L28WFC 1H
Company:	OXY	**TVD Reference:**	KB @ 3585.80usft
Project:	Lea County, New Mexico	**MD Reference:**	KB @ 3585.80usft
Site:	Lusk 28 West Fed Com 1H	**North Reference:**	Grid
Well:	L28WFC 1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Side Track #1		
Design:	ST1 Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.00	91.53	359.81	9,363.38	4,023.11	113.40	4,024.70	0.00	0.00	0.00
13,300.00	91.53	359.81	9,360.71	4,123.07	113.07	4,124.62	0.00	0.00	0.00
13,400.00	91.53	359.81	9,358.03	4,223.04	112.75	4,224.54	0.00	0.00	0.00
13,476.19	91.53	359.81	9,356.00	4,299.20	112.50	4,300.67	0.00	0.00	0.00
TD at 13476.19									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
L28WFC 1H BHL - plan hits target center - Point	0.00	0.00	9,356.00	4,299.20	112.50	596,138.90	673,558.10	32.638	-103.770
L28WFC 1H PP - plan misses target center by 7.34usft at 9904.43usft MD (9451.38 TVD, 728.73 N, 124.13 E) - Point	0.00	0.01	9,451.00	728.70	116.80	592,568.40	673,562.40	32.628	-103.770

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,501.00	8,499.73	-18.79	-17.08	Survey Tie-on
8,550.00	8,548.72	-17.98	-16.57	Top of Plug
8,596.00	8,594.71	-17.23	-16.14	OH Survey
8,600.00	8,598.71	-17.17	-16.11	KO Plug DLS 8.00 TFO 74.62
8,720.84	8,718.90	-17.46	-5.14	Start 13.00 hold at 8720.84 MD
8,733.84	8,731.71	-17.73	-2.90	Start DLS 8.00 TFO -96.81
9,893.24	9,451.68	717.54	124.17	Start 3582.96 hold at 9893.24 MD
13,476.19	9,356.00	4,299.20	112.50	TD at 13476.19