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JAN 09 2020

EMNRD-OCD ARTESIA

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☑ AMENDED REPORT
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-45249 *	98236	WC-015 G-08 S233135D; WOLFCAMP

Property Code	Property Name	Well Number
	IRIDIUM MDP1 "28-21" FEDERAL COM	173H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3385.7'

Surface Location

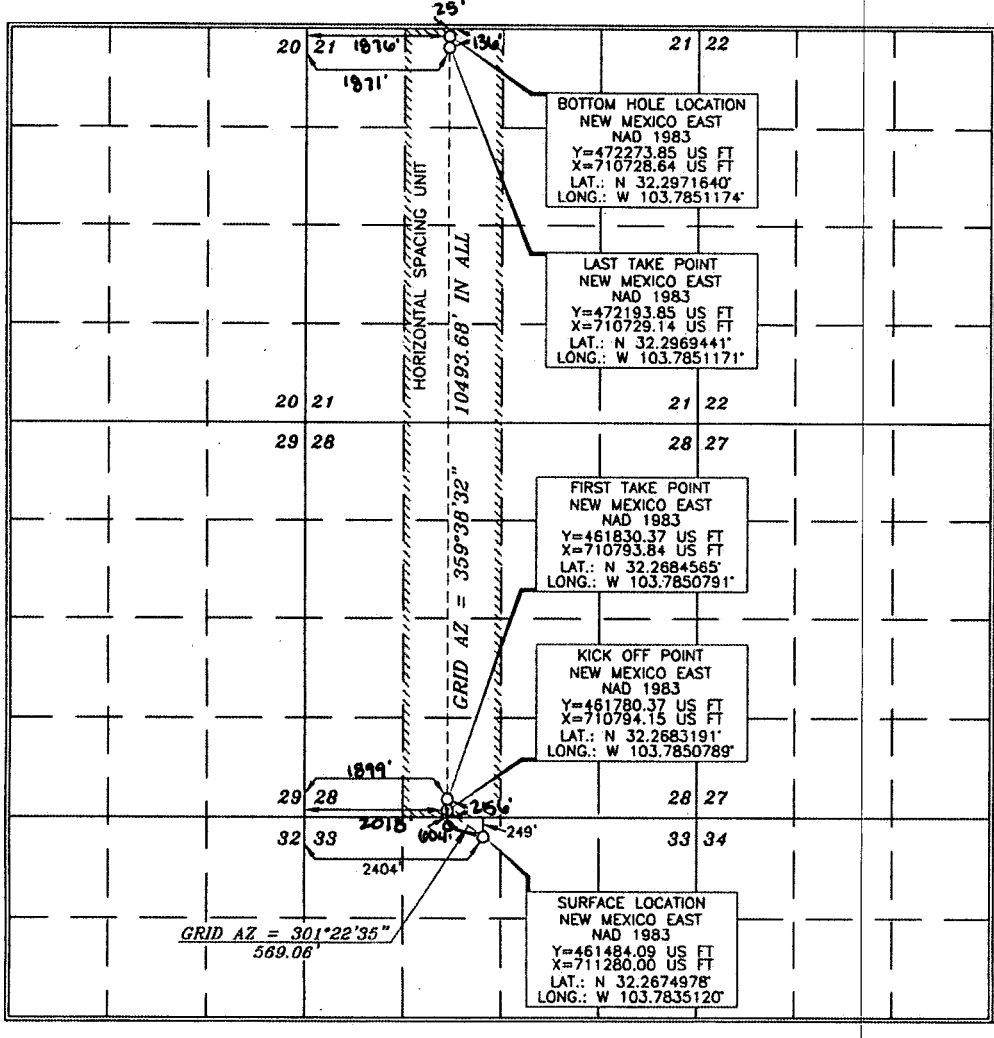
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	33	23 SOUTH	31 EAST, N.M.P.M.		249'	NORTH	2404'	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	21	23 SOUTH	31 EAST, N.M.P.M.		25'	NORTH	1876'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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 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.

Leslie Reeves 1/7/20
Signature Date

LESLIE REEVES
Printed Name

LESLIE_REEVES@OXY.COM
E-mail Address

SURVEYOR CERTIFICATION

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

15079
FEBRUARY 6, 2018
Date of Survey

Signature and Seal of Professional Surveyor

TERRY J. ASEL — NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

Terry Asel 4/4/2019
Certificate Number 15079

WO# 180202WL-f (Rev. A) (KA)

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EMNRD-OCD ARTESIA

Intent [ ] As Drilled [X]

API #
30-015-45249

Operator Name:	Property Name:	Well Number
OXY USA INC.	IRIDIUM MDP1 28-21 FEDERAL COM	173H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	33	23S	31E		604	FNL	2018	FWL	EDDY

Latitude	Longitude	NAD
32.26653	-103.78477	NAD83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	28	23S	31E		256	FSL	1899	FWL	EDDY

Latitude	Longitude	NAD
32.26889	-103.78514	NAD83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	21	23S	31E		136	FNL	1876	FWL	EDDY

Latitude	Longitude	NAD
32.29685	-103.78506	NAD83

Is this well the defining well for the Horizontal Spacing Unit? [Y]

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

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

October 24, 2019

Oxy USA, Incorporated
5 Greenway Plaza, Suite 110
Houston, TX 77046-0521

Re:

CLIENT: Oxy USA, Incorporated
WELL: Iridium MDP1 28-21 Fed Com 173H
FIELD: Wild Cat

S33, T23S, R31E Eddy, NM
N 32.2674978 W -103.783512

RIG: H&P 635
COUNTY: Eddy
API NO: 30-015-45249
JOB NO: 19MLH0354

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
JOSEPH AJAYI FE	Iridium MDP1 28-21 Federal Com 173H Original Hole	680.00 Ft to 22557.00 Ft	September 21, 2019 to October 16, 2019	TelePacer, SlimPulse 3rd Party Corrected

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

Well Reference:
S33, T23S, R31E Eddy, NM
N 32.2674978 W -103.783512

I, JOSEPH AJAYI certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 21, 2019 through October 16, 2019, conduct or supervise the taking of the TelePacer, SlimPulse, & 3rd Party Corrected surveys from a depth of 680.00 feet to a depth of 22557.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Oxy USA, Incorporated for the Iridium MDP1 28-21 Federal Com 173H Well (Original Hole) API No. 3001545249 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
JOSEPH AJAYI
FE

Subscribed and Sworn to before me this 5 day of November (month) 2019 (yr)

My Commission expires:
6/14/2023

Jean-Paul Langlois (signature)
Notary Public

Comanche Oklahoma
(County State)

Jean-Paul Langlois
Notary Public in and for
STATE OF OKLAHOMA
Commission #19005986
Expires: June 14, 2023

Schlumberger

Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
Survey Geodetic Report
(Def Survey)

Report Date:	October 15, 2019 - 10:58 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	357.075 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Iridium MDP1 28-21 Federal Com 173H / Oxy Iridium MDP1 28-21 Federal Com 173H	**TVD Reference Datum:**	RKB
Well:	Oxy Iridium MDP1 28-21 Federal Com 173H	**TVD Reference Elevation:**	3412.200 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3385.700 ft above MSL
UWI / API#:	Unknown / 30-015-45249	**Magnetic Declination:**	6.779 °
Survey Name:	Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD	**Total Gravity Field Strength:**	998.4499mgn (9.80665 Based)
Survey Date:	September 18, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	360.564 ° / 11805.071 ft / 6.916 / 1.011	**Total Magnetic Field Strength:**	47937.200 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.947 °
Location Lat / Long:	N 32° 16' 2.99223", W 103° 47' 0.64318"	**Declination Date:**	September 18, 2019
Location Grid N/E Y/X:	N 461484.090 ftUS, E 711280.000 ftUS	**Magnetic Declination Model:**	IFR1
CRS Grid Convergence Angle:	0.2935 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99994217	**Grid Convergence Used:**	0.2935 °
Version / Patch:	2.10.782.0	**Total Corr Mag North->Grid North:**	6.4855 °
		Local Coord Referenced To:	Well Head

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 ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	461484.09	711280.00	N 32 16 2.99	W 103 47 0.64
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	461484.09	711280.00	N 32 16 2.99	W 103 47 0.64
	35.50	0.33	120.93	35.50	-0.01	-0.01	0.02	3.67	461484.08	711280.02	N 32 16 2.99	W 103 47 0.64
	64.50	0.37	95.81	64.50	-0.08	-0.07	0.19	0.54	461484.02	711280.19	N 32 16 2.99	W 103 47 0.64
	95.50	0.44	84.85	95.50	-0.09	-0.07	0.41	0.34	461484.02	711280.41	N 32 16 2.99	W 103 47 0.64
	121.50	0.50	82.82	121.50	-0.07	-0.04	0.62	0.24	461484.05	711280.62	N 32 16 2.99	W 103 47 0.64
	148.50	0.30	93.17	148.50	-0.07	-0.03	0.80	0.78	461484.06	711280.80	N 32 16 2.99	W 103 47 0.63
	178.50	0.11	116.58	178.50	-0.09	-0.05	0.91	0.68	461484.04	711280.91	N 32 16 2.99	W 103 47 0.63
	208.50	0.13	168.90	208.50	-0.14	-0.09	0.94	0.36	461484.00	711280.94	N 32 16 2.99	W 103 47 0.63
	238.50	0.05	91.09	238.50	-0.18	-0.13	0.96	0.43	461483.96	711280.96	N 32 16 2.99	W 103 47 0.63
	269.50	0.25	32.96	269.50	-0.12	-0.07	1.01	0.73	461484.02	711281.01	N 32 16 2.99	W 103 47 0.63
	301.50	0.24	34.29	301.50	-0.01	0.04	1.09	0.04	461484.13	711281.09	N 32 16 2.99	W 103 47 0.63
	333.50	0.13	63.33	333.50	0.05	0.11	1.16	0.44	461484.20	711281.16	N 32 16 2.99	W 103 47 0.63
	364.50	0.17	115.70	364.50	0.05	0.11	1.23	0.44	461484.20	711281.23	N 32 16 2.99	W 103 47 0.63
	396.50	0.24	144.05	396.50	-0.03	0.03	1.31	0.38	461484.12	711281.31	N 32 16 2.99	W 103 47 0.63
	427.50	0.16	119.82	427.50	-0.11	-0.04	1.39	0.37	461484.05	711281.39	N 32 16 2.99	W 103 47 0.63
	459.50	0.15	142.45	459.50	-0.17	-0.09	1.45	0.19	461484.00	711281.45	N 32 16 2.99	W 103 47 0.63
Last Gyro	493.50	0.11	194.91	493.50	-0.24	-0.16	1.47	0.35	461483.93	711281.47	N 32 16 2.99	W 103 47 0.63
	680.00	0.16	198.29	680.00	-0.65	-0.58	1.34	0.03	461483.51	711281.34	N 32 16 2.99	W 103 47 0.63
	864.00	0.19	150.26	863.99	-1.16	-1.09	1.41	0.08	461483.00	711281.41	N 32 16 2.98	W 103 47 0.63
	1013.00	0.27	126.54	1012.99	-1.61	-1.51	1.82	0.08	461482.58	711281.82	N 32 16 2.98	W 103 47 0.62
	1165.00	0.19	55.41	1164.99	-1.70	-1.58	2.31	0.18	461482.51	711282.31	N 32 16 2.98	W 103 47 0.62
	1226.00	0.19	146.79	1225.99	-1.73	-1.61	2.45	0.45	461482.48	711282.45	N 32 16 2.98	W 103 47 0.61
	1346.00	0.13	278.64	1345.99	-1.88	-1.76	2.43	0.24	461482.33	711282.43	N 32 16 2.97	W 103 47 0.62
	1442.00	0.13	291.10	1441.99	-1.81	-1.70	2.22	0.03	461482.39	711282.22	N 32 16 2.98	W 103 47 0.62
	1500.00	0.13	303.57	1499.99	-1.75	-1.64	2.10	0.05	461482.45	711282.10	N 32 16 2.98	W 103 47 0.62
	1690.00	0.13	348.98	1689.99	-1.41	-1.31	1.88	0.05	461482.78	711281.88	N 32 16 2.98	W 103 47 0.62
	1785.00	0.19	169.15	1784.99	-1.45	-1.36	1.89	0.34	461482.73	711281.89	N 32 16 2.98	W 103 47 0.62
	1880.00	0.13	268.52	1879.99	-1.61	-1.52	1.81	0.26	461482.57	711281.81	N 32 16 2.98	W 103 47 0.62
	1975.00	0.13	167.47	1974.99	-1.71	-1.63	1.73	0.21	461482.46	711281.73	N 32 16 2.98	W 103 47 0.62
	2070.00	0.13	329.47	2069.99	-1.72	-1.64	1.70	0.27	461482.45	711281.70	N 32 16 2.98	W 103 47 0.62
	2165.00	0.13	63.11	2164.99	-1.58	-1.50	1.74	0.20	461482.59	711281.74	N 32 16 2.98	W 103 47 0.62
	2260.00	0.19	330.76	2259.99	-1.40	-1.31	1.76	0.25	461482.78	711281.76	N 32 16 2.98	W 103 47 0.62
	2355.00	0.13	41.37	2354.99	-1.18	-1.09	1.75	0.20	461483.00	711281.75	N 32 16 2.98	W 103 47 0.62
	2450.00	0.19	280.48	2449.99	-1.07	-0.98	1.67	0.29	461483.11	711281.67	N 32 16 2.98	W 103 47 0.62
	2545.00	0.16	16.78	2544.99	-0.90	-0.83	1.55	0.28	461483.26	711281.55	N 32 16 2.98	W 103 47 0.63
	2640.00	0.19	270.09	2639.99	-0.77	-0.70	1.43	0.30	461483.39	711281.43	N 32 16 2.99	W 103 47 0.63
	2735.00	0.13	124.30	2734.99	-0.83	-0.76	1.36	0.32	461483.33	711281.36	N 32 16 2.98	W 103 47 0.63
	2829.00	0.13	132.57	2828.99	-0.97	-0.89	1.53	0.02	461483.20	711281.53	N 32 16 2.98	W 103 47 0.63
	2924.00	0.42	198.69	2923.99	-1.37	-1.29	1.50	0.41	461482.80	711281.50	N 32 16 2.98	W 103 47 0.63
	3019.00	1.08	222.49	3018.98	-2.32	-2.28	0.78	0.75	461481.81	711280.78	N 32 16 2.97	W 103 47 0.63
	3114.00	2.25	230.60	3113.94	-4.06	-4.13	-1.27	1.25	461479.96	711278.73	N 32 16 2.95	W 103 47 0.66
	3213.00	3.31	227.56	3212.82	-7.03	-7.29	-4.88	1.08	461476.80	711275.12	N 32 16 2.92	W 103 47 0.70
	3308.00	4.55	229.71	3307.59	-11.06	-11.58	-9.77	1.31	461472.51	711270.23	N 32 16 2.88	W 103 47 0.76
	3403.00	5.64	224.33	3402.22	-16.52	-17.35	-15.91	1.25	461466.74	711264.09	N 32 16 2.82	W 103 47 0.83
	3498.00	5.67	216.09	3496.76	-23.34	-24.49	-21.94	0.85	461459.60	711258.06	N 32 16 2.75	W 103 47 0.90
	3593.00	8.33	211.98	3591.04	-32.63	-34.12	-28.35	2.85	461449.97	711251.65	N 32 16 2.66	W 103 47 0.98
	3688.00	11.55	209.35	3684.60	-46.32	-48.25	-36.66	3.42	461435.84	711243.35	N 32 16 2.52	W 103 47 1.07
	3783.00	13.87	206.85	3777.27	-64.24	-66.70	-46.46	2.51	461417.39	711233.54	N 32 16 2.33	W 103 47 1.19
	3878.00	12.46	204.88	3869.77	-83.19	-86.16	-55.92	1.56	461397.94	711224.09	N 32 16 2.14	W 103 47 1.30
	3973.00	11.30	203.51	3962.73	-100.59	-103.99	-63.94	1.26	461380.11	711216.06	N 32 16 1.97	W 103 47 1.39
	4068.00	10.31	200.86	4056.05	-116.71	-120.47	-70.68	1.17	461363.63	711209.32	N 32 16 1.80	W 103 47 1.47
	4163.00	8.34	201.74	4149.79	-130.75	-134.82	-76.26	2.08	461349.28	711203.74	N 32 16 1.66	W 103 47 1.54
	4233.00	6.42	203.41	4219.21	-138.87	-143.12	-79.70	2.76	461340.98	711200.31	N 32 16 1.58	W 103 47 1.58
	4433.00	2.40	203.09	4418.57	-152.66	-157.24	-85.79	2.01	461326.86	711194.22	N 32 16 1.44	W 103 47 1.65
	4528.00	0.12	96.47	4513.55	-154.46	-159.08	-86.47	2.57	461325.02	711193.54	N 32 16 1.42	W 103 47 1.66
	4623.00	0.19	16.30	4608.55	-154.33	-158.94	-86.32	0.22	461325.16	711193.68	N 32 16 1.42	W 103 47 1.66
	4813.00	0.11	82.97	4798.55	-154.02	-158.62	-86.05	0.09	461325.48	711193.95	N 32 16 1.43	W 103 47 1.65
	4908.00	0.19	135.96	4893.55	-154.13	-158.72	-85.85	0.16	461325.38	711194.15	N 32 16 1.43	W 103 47 1.65
	5003.00	0.14	234.78	4988.55	-154.31	-158.90	-85.84	0.27	461325.20	711194.17	N 32 16 1.42	W 103 47 1.65
	5098.00	0.19	285.49	5083.54	-154.33	-158.93	-86.09	0.16	461325.17	711193.92	N 32 16 1.42	W 103 47 1.66
	5192.00	0.14	295.20	5177.54	-154.22	-158.84	-86.34	0.06	461325.26	711193.67	N 32 16 1.42	W 103 47 1.66
	5287.00	0.17	175.19	5272.54	-154.31	-158.93	-86.43	0.28	461325.17	711193.57	N 32 16 1.42	W 103 47 1.66
	5382.00	0.14	69.71	5367.54	-154.41	-159.03	-86.31	0.26	461325.07	711193.69	N 32 16 1.42	W 103 47 1.66
	5572.00	0.04	79.77	5557.54	-154.34	-158.93	-86.03	0.05	461325.17	711193.98	N 32 16 1.42	W 103 47 1.65
	5667.00	0.22	335.56	5652.54	-154.16	-158.76	-86.07	0.25	461325.34	711193.93	N 32 16 1.43	W 103 47 1.66
	5857.00	0.26	214.28	5842.54	-154.17	-158.79	-86.47	0.22	461325.31	711193.54	N 32 16 1.43	W 103 47 1.66
	5952.00	0.18	317.71	5937.54	-154.22	-158.85	-86.69	0.37	461325.25	711193.32	N 32 16 1.42	W 103 47 1.66
	6142.00	0.17	358.57	6127.54	-153.71	-158.35	-86.90	0.06	461325.75	711193.11	N 32 16 1.43	W 103 47 1.66
	6237.00	0.23	151.68	6222.54	-153.74	-158.38	-86.81	0.41	461325.72	711193.20	N 32 16 1.43	W 103 47 1.66
	6332.00	0.28	303.51	6317.54	-153.78	-158.42	-86.91	0.52	461325.68	711193.09	N 32 16 1.43	W 103 47 1.66
	6427.00	0.25	270.43	6412.54	-153.63	-158.29	-87.31	0.16	461325.81	711192.69	N 32 16 1.43	W 103 47 1.67
	6617.00	0.16	22.85	6602.54	-153.36	-158.04	-87.62	0.18	461326.06	711192.38	N 32 16 1.43	W 103 47 1.67
	6807.00	0.14	74.05	6792.54	-153.07	-157.73	-87.30	0.07	461326.37	711192.71	N 32 16 1.44	W 103 47 1.67
	6997.00	0.23	86.88	6982.54	-153.02	-157.65	-86.69	0.05	461326.45	711193.31	N 32 16 1.44	W 103 47 1.66
	7092.00	0.36	79.99	7077.54	-152.98	-157.59	-86.21	0.14	461326.51	711193.80	N 32 16 1.44	W 103 47 1.66
	7186.00	0.12	21.80	7171.54	-152.85	-157.44	-85.88	0.33	461326.66	711194.12	N 32 16 1.44	W 103 47 1.65

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 ° ' ")
	7379.00	0.14	327.30	7364.54	-152.47	-157.06	-85.93	0.06	461327.04	711194.07	N 32 16 1.44	W 103 47 1.65
	7474.00	0.08	134.75	7459.54	-152.41	-157.01	-85.95	0.23	461327.09	711194.05	N 32 16 1.44	W 103 47 1.65
	7664.00	0.14	80.13	7649.53	-152.48	-157.06	-85.63	0.06	461327.04	711194.38	N 32 16 1.44	W 103 47 1.65
	7759.00	0.24	234.57	7744.53	-152.58	-157.15	-85.68	0.39	461326.94	711194.33	N 32 16 1.44	W 103 47 1.65
	7854.00	2.03	261.75	7839.51	-152.84	-157.51	-87.50	1.92	461326.59	711192.50	N 32 16 1.44	W 103 47 1.67
	7948.00	2.61	234.58	7933.44	-154.15	-158.99	-90.89	1.31	461325.11	711189.11	N 32 16 1.42	W 103 47 1.71
	8043.00	2.41	243.72	8028.35	-156.10	-161.13	-94.45	0.47	461322.97	711185.56	N 32 16 1.40	W 103 47 1.75
	8138.00	1.81	256.45	8123.28	-157.17	-162.37	-97.70	0.80	461321.73	711182.31	N 32 16 1.39	W 103 47 1.79
	8328.00	1.19	299.72	8313.22	-156.66	-162.09	-102.33	0.66	461322.01	711177.68	N 32 16 1.39	W 103 47 1.84
	8518.00	1.56	208.62	8503.19	-157.80	-163.38	-105.28	1.04	461320.72	711174.73	N 32 16 1.38	W 103 47 1.88
	8613.00	1.74	201.84	8598.15	-160.21	-165.86	-106.44	0.28	461318.24	711173.57	N 32 16 1.36	W 103 47 1.89
	8708.00	1.75	199.91	8693.10	-162.85	-168.56	-107.47	0.06	461315.54	711172.54	N 32 16 1.33	W 103 47 1.90
	8749.00	1.28	193.18	8734.09	-163.87	-169.59	-107.79	1.22	461314.51	711172.22	N 32 16 1.32	W 103 47 1.91
	8844.00	3.41	200.99	8829.00	-167.47	-173.26	-109.04	2.26	461310.84	711170.97	N 32 16 1.28	W 103 47 1.92
	8939.00	6.51	198.66	8923.64	-175.07	-181.01	-111.77	3.27	461303.09	711168.23	N 32 16 1.21	W 103 47 1.96
	9034.00	10.52	196.18	9017.57	-188.27	-194.44	-115.92	4.24	461289.66	711164.09	N 32 16 1.07	W 103 47 2.00
	9129.00	12.33	193.18	9110.68	-206.22	-212.65	-120.65	2.00	461271.45	711159.36	N 32 16 0.89	W 103 47 2.06
	9224.00	11.51	190.91	9203.64	-225.16	-231.83	-124.75	0.99	461252.27	711155.25	N 32 16 0.70	W 103 47 2.11
	9319.00	10.12	200.18	9296.95	-242.05	-248.98	-129.43	2.34	461235.13	711150.58	N 32 16 0.54	W 103 47 2.17
	9414.00	9.94	207.70	9390.50	-256.78	-264.07	-136.12	1.39	461220.04	711143.89	N 32 16 0.39	W 103 47 2.24
	9509.00	8.91	205.29	9484.22	-270.32	-277.98	-143.07	1.16	461206.12	711136.94	N 32 16 0.25	W 103 47 2.33
	9602.00	8.58	206.65	9576.14	-282.70	-290.69	-149.26	0.42	461193.41	711130.75	N 32 16 0.12	W 103 47 2.40
	9794.00	12.42	227.38	9764.96	-308.36	-317.50	-170.89	2.78	461166.61	711109.12	N 32 15 59.86	W 103 47 2.65
	9889.00	12.14	225.57	9857.78	-321.51	-331.41	-185.54	0.50	461152.70	711094.47	N 32 15 59.72	W 103 47 2.82
	10079.00	12.10	238.36	10043.58	-344.32	-355.84	-216.77	1.41	461128.27	711063.24	N 32 15 59.48	W 103 47 3.19
	10174.00	11.29	252.89	10136.63	-351.38	-363.80	-234.14	3.21	461120.31	711045.87	N 32 15 59.40	W 103 47 3.39
	10269.00	9.98	253.30	10229.99	-355.62	-368.91	-250.91	1.38	461115.21	711029.10	N 32 15 59.35	W 103 47 3.59
	10364.00	11.56	263.28	10323.33	-358.21	-372.39	-268.25	2.57	461111.73	711011.76	N 32 15 59.32	W 103 47 3.79
	10459.00	10.34	267.33	10416.60	-358.80	-373.90	-286.22	1.52	461110.22	710993.79	N 32 15 59.31	W 103 47 4.00
	10648.00	9.19	278.97	10602.87	-355.62	-372.33	-318.08	1.21	461111.78	710961.94	N 32 15 59.32	W 103 47 4.37
	10743.00	10.12	278.68	10696.53	-352.37	-369.89	-333.82	0.98	461114.22	710946.20	N 32 15 59.35	W 103 47 4.55
	10838.00	9.69	285.58	10790.11	-348.16	-366.48	-349.78	1.33	461117.63	710930.24	N 32 15 59.38	W 103 47 4.74
KOP Actual	11023.00	8.14	287.33	10972.87	-338.68	-358.40	-377.28	0.85	461125.71	710902.74	N 32 15 59.46	W 103 47 5.06
	11134.00	12.01	296.70	11082.15	-330.25	-350.87	-395.11	3.78	461133.24	710884.92	N 32 15 59.54	W 103 47 5.27
	11229.00	20.31	319.91	11173.40	-312.17	-333.77	-414.61	10.91	461150.34	710865.42	N 32 15 59.71	W 103 47 5.49
	11324.00	27.37	331.86	11260.29	-279.22	-301.84	-435.56	8.97	461182.27	710844.46	N 32 16 0.03	W 103 47 5.73
	11419.00	37.38	338.15	11340.45	-232.05	-255.69	-456.65	11.10	461228.42	710823.37	N 32 16 0.49	W 103 47 5.98
Wolfcamp Intersection	*11456.12*	*37.16*	*344.79*	*11370.00*	*-210.43*	*-234.40*	*-463.79*	*10.84*	*461249.70*	*710816.24*	*N 32 16 0.70*	*W 103 47 6.06*
	11514.00	37.56	355.12	11416.05	-175.68	-199.92	-469.88	10.84	461284.18	710810.14	N 32 16 1.04	W 103 47 6.13
	11609.00	38.94	6.23	11490.74	-117.19	-141.32	-469.11	7.38	461342.78	710810.92	N 32 16 1.62	W 103 47 6.11
	11704.00	50.44	3.33	11558.17	-51.09	-74.85	-463.72	12.29	461409.24	710816.31	N 32 16 2.28	W 103 47 6.05
	11799.00	65.91	2.71	11608.12	28.96	5.51	-459.52	16.29	461489.60	710820.51	N 32 16 3.07	W 103 47 5.99
	11894.00	80.29	358.60	11635.67	119.42	96.14	-458.61	15.69	461580.23	710821.42	N 32 16 3.97	W 103 47 5.98
	11989.00	87.90	354.85	11645.44	213.83	190.40	-464.02	8.92	461674.48	710816.01	N 32 16 4.90	W 103 47 6.04
	12021.00	87.01	354.73	11646.87	245.77	222.23	-466.92	2.81	461706.31	710813.10	N 32 16 5.21	W 103 47 6.07
LL Crossed	*12045.00*	*87.32*	*354.46*	*11648.05*	*269.72*	*246.10*	*-469.18*	*1.72*	*461730.17*	*710810.85*	*N 32 16 5.45*	*W 103 47 6.09*
	12116.00	88.24	353.66	11650.80	340.57	316.66	-476.52	1.72	461800.73	710803.50	N 32 16 6.15	W 103 47 6.17
100' FSL Crossed	*12146.00*	*88.36*	*352.95*	*11651.69*	*370.49*	*346.44*	*-480.02*	*2.41*	*461830.51*	*710800.01*	*N 32 16 6.44*	*W 103 47 6.21*
	12306.00	89.00	349.14	11655.38	529.53	504.42	-504.92	2.41	461988.48	710775.11	N 32 16 8.01	W 103 47 6.49
	12395.00	89.45	348.29	11656.58	617.58	591.69	-522.34	1.08	462075.75	710757.69	N 32 16 8.87	W 103 47 6.69
Exit Target Box	*12486.00*	*92.11*	*351.88*	*11655.34*	*707.87*	*681.30*	*-538.00*	*4.91*	*462165.35*	*710742.03*	*N 32 16 9.76*	*W 103 47 6.87*
	12490.00	92.23	352.04	11655.19	711.85	685.26	-538.56	4.91	462169.31	710741.47	N 32 16 9.80	W 103 47 6.87
	12585.00	93.82	354.82	11650.18	806.51	779.49	-549.41	3.37	462263.53	710730.62	N 32 16 10.73	W 103 47 7.00
	12680.00	94.65	357.99	11643.16	901.23	874.03	-555.35	3.44	462358.07	710724.68	N 32 16 11.67	W 103 47 7.06
	12775.00	93.20	0.40	11636.66	995.94	968.79	-556.68	2.96	462452.82	710723.35	N 32 16 12.61	W 103 47 7.07
	12965.00	88.48	4.32	11633.87	1185.02	1158.52	-548.86	3.23	462642.54	710731.17	N 32 16 14.48	W 103 47 6.97
	13060.00	87.01	2.30	11637.61	1279.38	1253.28	-543.38	2.63	462737.29	710736.65	N 32 16 15.42	W 103 47 6.90
Enter Target Box	*13098.00*	*86.89*	*2.15*	*11639.63*	*1317.17*	*1291.20*	*-541.91*	*0.52*	*462775.21*	*710738.13*	*N 32 16 15.80*	*W 103 47 6.88*
	13155.00	86.70	1.92	11642.82	1373.87	1348.07	-539.89	0.52	462832.08	710740.15	N 32 16 16.36	W 103 47 6.85
	13250.00	85.94	0.03	11648.92	1468.45	1442.86	-538.27	2.14	462926.86	710741.76	N 32 16 17.30	W 103 47 6.83
	13345.00	84.94	357.89	11656.47	1563.09	1537.53	-539.99	2.48	463021.53	710740.04	N 32 16 18.23	W 103 47 6.84
	13346.61	84.94	358.14	11656.61	1564.69	1539.14	-540.05	15.47	463023.13	710739.99	N 32 16 18.25	W 103 47 6.84
	13441.00	85.69	359.31	11664.32	1658.72	1633.18	-542.14	1.47	463117.18	710737.89	N 32 16 19.18	W 103 47 6.86
	13536.00	87.24	2.32	11670.18	1753.33	1727.98	-540.79	3.56	463211.97	710739.24	N 32 16 20.12	W 103 47 6.84
	13631.00	89.10	3.58	11673.22	1847.77	1822.80	-535.90	2.36	463306.78	710744.13	N 32 16 21.06	W 103 47 6.78
	13726.00	91.09	3.30	11673.06	1942.18	1917.62	-530.20	2.12	463401.60	710749.83	N 32 16 21.99	W 103 47 6.70
	13821.00	93.78	2.57	11669.02	2036.59	2012.40	-525.34	2.93	463496.37	710754.69	N 32 16 22.93	W 103 47 6.64
	13916.00	93.40	2.20	11663.07	2131.00	2107.14	-521.40	0.56	463591.10	710758.64	N 32 16 23.87	W 103 47 6.59
	14011.00	93.85	0.77	11657.07	2225.52	2201.91	-518.94	1.58	463685.87	710761.09	N 32 16 24.81	W 103 47 6.56
	14201.00	91.99	0.24	11647.39	2414.93	2391.65	-517.27	1.02	463875.59	710762.76	N 32 16 26.68	W 103 47 6.53
	14296.00	92.19	359.93	11643.92	2509.73	2486.58	-517.13	0.39	463970.53	710762.90	N 32 16 27.62	W 103 47 6.52
	14486.00	91.06	1.24	11638.54	2699.29	2676.49	-515.19	0.91	464160.42	710764.84	N 32 16 29.50	W 103 47 6.48
	14581.00	89.24	356.63	11638.29	2794.21	2771.44	-516.95	5.22	464255.37	710763.08	N 32 16 30.44	W 103 47 6.50
	14771.00	91.26	1.10	11637.46	2984.06	2961.35	-520.71	2.58	464445.26	710759.32	N 32 16 32.32	W 103 47 6.53
	14866.00	89.24	356.99	11637.04	3078.98	3056.31	-522.30	4.82	464540.21	710757.73	N 32 16 33.26	W 103 47 6.54
	14961.00	90.61	358.40	11637.17	3173.97	3151.23	-526.12	2.07	464635.13	710753.91	N 32 16 34.20	W 103 47 6.58
	15056.00	91.61	359.63	11635.33	3268.89	3246.19	-527.75	1.67	464730.09	710752.28	N 32 16 35.14	W 103 47 6.60
	15151.00	88.41	358.07	11635.31	3363.83	3341.16	-529.66	3.75	464825.05	710750.37	N 32 16 36.08	W 103 47 6.61
	15246.00	90.47	359.59	11636.24	3458.78	3436.12	-531.60	2.69	464920.01	710748.43	N 32 16 37.02	W 103 47 6.63
	15341.00	89.41	359.17	11636.34	3553.70	3531.12	-532.63	1.20	465015.00	710747.41	N 32 16 37.96	W 103 47 6.64
	15436.00	89.54	358.35	11637.21	3648.65	3626.09	-534.68	0.87	465109.96	710745.35	N 32 16 38.90	W 103 47 6.65
	15531.00	89.99	359.65	11637.60	3743.60	3721.07	-536.34	1.45	465204.94	710743.69	N 32 16 39.84	W 103 47 6.67
	15626.00	88.65	359.57	11638.73	3838.49	3816.06	-536.99	1.41	465299.92	710743.05	N 32 16 40.78	W 103 47 6.67
	15721.00	89.72	359.18	11640.08	3933.41	3911.04	-538.02	1.20	465394.90	710742.01	N 32 16 41.72	W 103 47 6.68
	15816.00	89.03	359.79	11641.11	4028.31	4006.03	-538.88	0.97	465489.88	710741.16	N 32 16 42.66	W 103 47 6.68
	16005.00	89.72	0.59	11643.18	4217.02	4195.02	-538.25	0.56	465678.86	710741.78	N 32 16 44.53	W 103 47 6.66
	16101.00	88.58	358.98	11644.60	4312.90	4291.00	-538.61	2.05	465774.84	710741.42	N 32 16 45.48	W 103 47 6.66
	16195.00	88.79	358.37	11646.76	4406.84	4384.95	-540.78	0.69	465868.78	710739.25	N 32 16 46.41	W 103 47 6.68
	16290.00	88.75	358.39	11648.80	4501.79	4479.89	-543.47	0.05	465963.72	710736.57	N 32 16 47.35	W 103 47 6.71
	16385.00	88.82	359.34	11650.81	4596.72	4574.85	-545.35	1.00	466058.67	710734.68	N 32 16 48.29	W 103 47 6.72
	16480.00	89.65	359.12	11652.08	4691.65	4669.83	-546.62	0.90	466153.64	710733.41	N 32 16 49.23	W 103 47 6.73
	16575.00	88.48	358.73	11653.63	4786.58	4764.80	-548.41	1.30	466248.61	710731.63	N 32 16 50.17	W 103 47 6.75
	16670.00	88.65	358.22	11656.01	4881.52	4859.74	-550.93	0.57	466343.54	710729.10	N 32 16 51.11	W 103 47 6.77
	16765.00	88.93	358.08	11658.01	4976.48	4954.67	-554.00	0.33	466438.46	710726.03	N 32 16 52.05	W 103 47 6.80
	16860.00	88.79	0.50	11659.90	5071.39	5049.64	-555.18	2.55	466533.42	710724.86	N 32 16 52.99	W 103 47 6.81
	16955.00	88.82	0.88	11661.89	5166.18	5144.61	-554.03	0.40	466628.39	710726.00	N 32 16 53.93	W 103 47 6.79
	17050.00	89.58	0.79	11663.21	5260.96	5239.59	-552.65	0.81	466723.36	710727.38	N 32 16 54.87	W 103 47 6.77
	17145.00	89.37	1.14	11664.08	5355.74	5334.57	-551.05	0.43	466818.34	710728.98	N 32 16 55.81	W 103 47 6.74
	17240.00	90.61	0.58	11664.10	5450.53	5429.56	-549.62	1.43	466913.32	710730.41	N 32 16 56.75	W 103 47 6.72
	17335.00	90.10	0.58	11663.51	5545.35	5524.55	-548.66	0.54	467008.31	710731.37	N 32 16 57.69	W 103 47 6.70
	17430.00	90.37	0.78	11663.12	5640.16	5619.54	-547.53	0.35	467103.30	710732.50	N 32 16 58.62	W 103 47 6.69
	17525.00	90.99	1.12	11661.99	5734.94	5714.52	-545.96	0.74	467198.27	710734.07	N 32 16 59.56	W 103 47 6.66
	17620.00	90.16	0.76	11661.04	5829.72	5809.50	-544.40	0.95	467293.25	710735.63	N 32 17 0.50	W 103 47 6.64
	17715.00	90.58	359.36	11660.43	5924.58	5904.50	-544.30	1.54	467388.24	710735.73	N 32 17 1.44	W 103 47 6.63
	17810.00	90.40	358.91	11659.61	6019.52	5999.48	-545.74	0.51	467483.22	710734.30	N 32 17 2.38	W 103 47 6.64
	17905.00	90.51	359.08	11658.86	6114.46	6094.47	-547.40	0.21	467578.19	710732.63	N 32 17 3.32	W 103 47 6.66

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 ° ' ")
	18095.00	90.51	358.75	11657.17	6304.35	6284.42	-551.00	0.17	467768.14	710729.03	N 32 17 5.20	W 103 47 6.69
	18190.00	90.68	0.38	11656.18	6399.26	6379.41	-551.72	1.73	467863.12	710728.31	N 32 17 6.14	W 103 47 6.69
	18285.00	91.16	359.43	11654.66	6494.13	6474.40	-551.88	1.12	467958.10	710728.15	N 32 17 7.08	W 103 47 6.69
	18475.00	90.58	358.70	11651.77	6683.99	6664.35	-554.98	0.49	468148.04	710725.05	N 32 17 8.96	W 103 47 6.71
	18570.00	90.23	358.77	11651.10	6778.95	6759.32	-557.08	0.38	468243.01	710722.96	N 32 17 9.90	W 103 47 6.73
	18665.00	91.95	359.16	11649.29	6873.87	6854.29	-558.79	1.86	468337.97	710721.24	N 32 17 10.84	W 103 47 6.74
	18760.00	91.13	358.55	11646.74	6968.79	6949.23	-560.69	1.08	468432.91	710719.34	N 32 17 11.78	W 103 47 6.76
	18855.00	90.78	359.10	11645.16	7063.73	7044.20	-562.64	0.69	468527.87	710717.40	N 32 17 12.72	W 103 47 6.78
	19044.00	90.16	358.96	11643.61	7252.62	7233.17	-565.84	0.34	468716.82	710714.20	N 32 17 14.59	W 103 47 6.80
	19140.00	86.96	359.27	11646.02	7348.51	7329.11	-567.32	3.35	468812.76	710712.72	N 32 17 15.54	W 103 47 6.81
	19234.00	90.34	1.39	11648.23	7442.32	7423.06	-566.78	4.24	468906.71	710713.26	N 32 17 16.47	W 103 47 6.80
	19329.00	88.65	359.80	11649.07	7537.13	7518.05	-565.79	2.44	469001.69	710714.24	N 32 17 17.41	W 103 47 6.79
	19424.00	90.71	0.75	11649.60	7631.97	7613.04	-565.33	2.39	469096.67	710714.70	N 32 17 18.35	W 103 47 6.77
	19519.00	88.79	0.46	11650.02	7726.79	7708.03	-564.33	2.04	469191.66	710715.70	N 32 17 19.29	W 103 47 6.76
	19614.00	89.72	0.94	11651.25	7821.59	7803.01	-563.17	1.10	469286.64	710716.86	N 32 17 20.23	W 103 47 6.74
	19804.00	89.10	1.12	11653.21	8011.12	7992.97	-559.75	0.34	469476.58	710720.28	N 32 17 22.11	W 103 47 6.69
	19994.00	90.54	1.88	11653.80	8200.55	8182.90	-554.78	0.86	469666.50	710725.25	N 32 17 23.99	W 103 47 6.62
	20184.00	90.92	1.02	11651.38	8389.98	8372.82	-549.97	0.49	469856.41	710730.06	N 32 17 25.87	W 103 47 6.55
	20279.00	88.51	359.70	11651.86	8484.81	8467.81	-549.38	2.89	469951.39	710730.66	N 32 17 26.81	W 103 47 6.54
	20469.00	87.72	359.68	11658.11	8674.51	8657.70	-550.40	0.42	470141.27	710729.63	N 32 17 28.69	W 103 47 6.54
	20564.00	88.44	359.38	11661.29	8769.37	8752.64	-551.18	0.82	470236.21	710728.85	N 32 17 29.63	W 103 47 6.54
	20658.00	88.93	359.97	11663.45	8863.25	8846.62	-551.72	0.82	470330.18	710728.32	N 32 17 30.56	W 103 47 6.54
	20753.00	89.24	0.03	11664.96	8958.11	8941.60	-551.72	0.33	470425.16	710728.32	N 32 17 31.50	W 103 47 6.54
	20848.00	89.85	0.41	11665.72	9052.96	9036.60	-551.35	0.76	470520.15	710728.68	N 32 17 32.44	W 103 47 6.53
	20943.00	88.69	359.43	11666.93	9147.84	9131.59	-551.48	1.60	470615.13	710728.55	N 32 17 33.38	W 103 47 6.52
	21038.00	89.75	0.97	11668.22	9242.68	9226.58	-551.15	1.97	470710.11	710728.88	N 32 17 34.32	W 103 47 6.51
	21133.00	90.23	0.27	11668.24	9337.50	9321.57	-550.12	0.89	470805.10	710729.91	N 32 17 35.26	W 103 47 6.50
	21228.00	89.27	0.55	11668.65	9432.34	9416.57	-549.44	1.05	470900.09	710730.59	N 32 17 36.20	W 103 47 6.48
	21323.00	88.38	0.36	11670.60	9527.15	9511.54	-548.69	0.96	470995.06	710731.34	N 32 17 37.14	W 103 47 6.47
	21418.00	87.51	359.70	11674.01	9621.96	9606.48	-548.64	1.15	471089.99	710731.39	N 32 17 38.08	W 103 47 6.46
	21513.00	89.92	0.79	11676.14	9716.78	9701.45	-548.23	2.78	471184.96	710731.80	N 32 17 39.02	W 103 47 6.45
	21608.00	92.67	2.78	11673.99	9811.42	9796.36	-545.28	3.57	471279.87	710734.76	N 32 17 39.95	W 103 47 6.41
	21703.00	90.68	0.73	11671.21	9906.06	9891.27	-542.37	3.01	471374.76	710737.66	N 32 17 40.89	W 103 47 6.37
	21798.00	91.44	1.46	11669.46	10000.81	9986.23	-540.55	1.11	471469.72	710739.48	N 32 17 41.83	W 103 47 6.34
	21893.00	88.51	0.26	11669.50	10095.59	10081.21	-539.13	3.33	471564.70	710740.90	N 32 17 42.77	W 103 47 6.32
	21988.00	87.27	359.24	11672.99	10190.42	10176.14	-539.54	1.69	471659.62	710740.49	N 32 17 43.71	W 103 47 6.32
	22083.00	93.02	0.33	11672.75	10285.27	10271.10	-539.90	6.16	471754.57	710740.13	N 32 17 44.65	W 103 47 6.32
	22272.00	89.27	0.61	11668.98	10473.86	10460.02	-538.35	1.99	471943.48	710741.68	N 32 17 46.52	W 103 47 6.29
	22367.00	90.75	1.30	11668.96	10568.64	10555.00	-536.77	1.72	472038.46	710743.27	N 32 17 47.46	W 103 47 6.27
	22462.00	90.58	1.77	11667.86	10663.35	10649.96	-534.22	0.53	472133.42	710745.81	N 32 17 48.40	W 103 47 6.23
100' FNL Crossed	*22522.00*	*90.60*	*2.73*	*11667.24*	*10723.10*	*10709.91*	*-531.87*	*1.60*	*472193.36*	*710748.17*	*N 32 17 48.99*	*W 103 47 6.20*
Final MWD	22557.00	90.61	3.29	11666.87	10757.91	10744.86	-530.03	1.60	472228.31	710750.00	N 32 17 49.34	W 103 47 6.18
Proj to TD	22600.00	90.61	3.29	11666.41	10800.66	10787.79	-527.56	0.00	472271.23	710752.47	N 32 17 49.76	W 103 47 6.15

Survey Type: Def Survey

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

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
	1	26.500	26.500	Act Stns	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
	1	26.500	493.500	Act Stns	30.000	30.000	GYD_GC+DROP+OH	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H
	1	493.500	7092.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
	1	7092.000	8708.000	Act Stns	30.000	30.000	B001Mb_MWD+HRGM	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H
	1	8708.000	11989.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
	1	11989.000	12306.000	Act Stns	30.000	30.000	B001Mb_MWD+HRGM	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H
	1	12306.000	13345.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD
	1	13345.000	13441.000	Act Stns	30.000	30.000	B001Mb_MWD+HRGM	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H
	1	13441.000	22600.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD

Schlumberger

OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Iridium MDP1 28-21 Federal Com 173H	NM Eddy County (NAD 83)	Oxy Iridium MDP1 28-21 Federal Com 173H

Gravity & Magnetic Parameters					Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	IFR1	Dip: 59.947°	Date:	18-Sep-2019	Lat:	N 32 16 2.99	Northing:	461484.09ftUS	Grid Conv: 0.2935°	Slot:	Oxy Iridium MDP1 28-21 Federal Com 173H	TVD Ref:	RKB(3412.2ft above MSL)
MagDec:	6.779°	FS: 47937.2nT	Gravity FS:	998.45mgn (9.80665 Based)	Lon:	W 103 47 0.64	Easting:	711280ftUS	Scale Fact: 0.99994217	Plan:	Oxy Iridium MDP1 28-21 Federal Com 173H Gyro + MWD 0-22600'MD		

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00
Last Gyro	493.50	0.11	194.91	493.50	-0.24	-0.16	1.47	0.35
KOP Actual	11023.00	8.14	287.33	10972.87	-338.68	-358.40	-377.28	0.85
Wolfcamp Intersection	11456.12	37.16	344.79	11370.00	-210.43	-234.40	-463.79	10.84
LL Crossed	12045.00	87.32	354.46	11648.05	269.72	246.10	-469.18	1.72
100' FSL Crossed	12146.00	88.36	352.95	11651.69	370.49	346.44	-480.02	2.41
Exit Target Box	12486.00	92.11	351.88	11655.34	707.87	681.30	-538.00	4.91
Enter Target Box	13098.00	86.89	2.15	11639.63	1317.17	1291.20	-541.91	0.52
100' FNL Crossed	22522.00	90.60	2.73	11667.24	10723.10	10709.91	-531.87	1.60
Final MWD	22557.00	90.61	3.29	11666.87	10757.91	10744.86	-530.03	1.60
Proj to TD	22600.00	90.61	3.29	11666.41	10800.66	10787.79	-527.56	0.00