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

30.015-44635

August 23, 2018

RECEIVED

MAR 18 2019

DISTRICT II-ARTESIA O.C.D

OXY USA Inc.

Re:

1, 25S, 29E, Eddy NM
32.16398 103.93348

CLIENT: OXY USA Inc.
WELL: Corral Canyon 36-25 Fed Com 25H
FIELD: Pierce Crossing Bone Spring

RIG: H&P 636
COUNTY: Eddy
API NO: 30-015-44635
JOB NO: 18MLD2325

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
Thomas Wetmore FS	Corral Canyon 36-25 Fed Com 25H Original Hole	784.00 Ft to 19531.00 Ft	March 16, 2018 to April 19, 2018	TelePacer SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Mike Stephens
Field Service Manager

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:
1, 25S, 29E, Eddy NM
32.16398 103.93348

I, Thomas Wetmore certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of March 16, 2018 through April 19, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 784.00 feet to a depth of 19531.00 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 Inc. for the Corral Canyon 36-25 Fed Com 25H Well (Original Hole) API No. 30-015-44635 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
T. Wetmore
FS

Subscribed and Sworn to before me this 23rd day of August (month) 2018 (yr)

My Commission expires:

2-16-2022

D. Adams (signature)

Notary Public

Adams County Colorado

(County State)

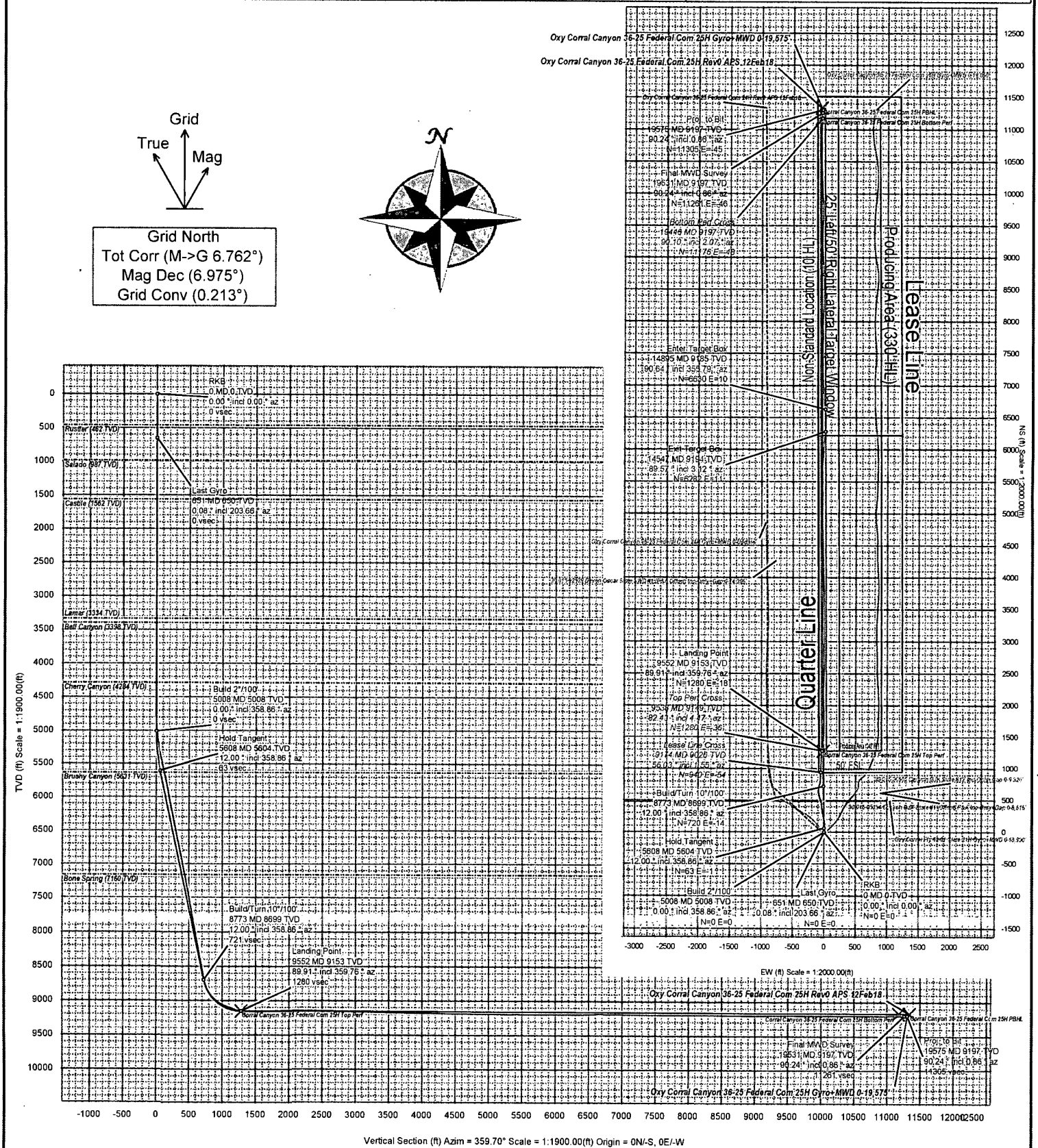
DONNA ADAMS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20184007893
MY COMMISSION EXPIRES FEBRUARY 16, 2022

Schlumberger

OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Corral Canyon 36-25 Federal Com 25H	NM Eddy County (NAD 83)	Oxy Corral Canyon 36-25 Federal Com 25H

Gravity & Magnetic Parameters					Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous	
Model:	HDGM 2018	Dip:	59.922°	Date:	11-Apr-2018	Lat:	N 32 9 50.35	Northing:	423623.54ftUS	Grid Conv:	0.2129°	Oxy Corral Canyon Slot: 36-25 Federal Com 25H	TVD Ref: RKB=26.5'(3162.1ft above MSL)
MagDec:	6.975°	FS:	48003.873nT	Gravity FS:	998.449mgn (9.80665 Based)	Lon:	W 103 56 0.56	Easting:	665064.06ftUS	Scale Fact:	0.99992662	Plan:	Oxy Corral Canyon 36-25 Federal Com 25H Rev0 APS 12Feb18



Schlumberger

Oxy Corral Canyon 36-25 Federal Com 25H Gyro+MWD 0-19,575' Survey
Geodetic Report
(Def Survey)

Report Date:	April 20, 2018 - 08:24 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	359.696 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Corral Canyon 36-25 Federal Com 25H / Oxy Corral Canyon 36-25 Federal Com 25H	**TVD Reference Datum:**	RKB=26.5'
Well:	Oxy Corral Canyon 36-25 Federal Com 25H	**TVD Reference Elevation:**	3162.100 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3135.600 ft above MSL
UWI / API#:	Unknown / 30-015-44635	**Magnetic Declination:**	6.975 °
Survey Name:	Oxy Corral Canyon 36-25 Federal Com 25H Gyro+MWD 0-19,575'	**Total Gravity Field Strength:**	998.4489mgn (9.80665 Based)
Survey Date:	April 11, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	254.309 ° / 11346.147 ft / 6.788 / 1.233	**Total Magnetic Field Strength:**	48003.873 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.922 °
Location Lat / Long:	N 32° 9' 50.35494", W 103° 56' 0.55736"	**Declination Date:**	April 11, 2018
Location Grid N/E Y/X:	N 423623.540 ftUS, E 665064.060 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.2129 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992662	**Grid Convergence Used:**	0.2129 °
Version / Patch:	2.10.715.0	**Total Corr Mag North->Grid North:**	6.7620 °
		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	423623.54	665064.06	N 32 9 50.35	W 103 56 0.56
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	423623.54	665064.06	N 32 9 50.35	W 103 56 0.56
	44.27	0.20	43.66	44.27	0.02	0.02	0.02	1.13	423623.56	665064.08	N 32 9 50.36	W 103 56 0.56
	134.10	0.12	338.68	134.10	0.22	0.22	0.10	0.21	423623.76	665064.16	N 32 9 50.36	W 103 56 0.56
	217.51	0.10	317.87	217.51	0.36	0.36	0.01	0.05	423623.90	665064.07	N 32 9 50.36	W 103 56 0.56
	311.07	0.12	139.97	311.07	0.34	0.34	0.02	0.24	423623.88	665064.08	N 32 9 50.36	W 103 56 0.56
	406.09	0.09	95.24	406.09	0.26	0.26	0.16	0.09	423623.80	665064.22	N 32 9 50.36	W 103 56 0.56
	500.93	0.07	56.19	500.93	0.29	0.29	0.28	0.06	423623.83	665064.34	N 32 9 50.36	W 103 56 0.55
	595.14	0.09	153.95	595.14	0.25	0.25	0.36	0.13	423623.79	665064.42	N 32 9 50.36	W 103 56 0.55
Last Gyro	650.50	0.08	203.66	650.50	0.18	0.18	0.37	0.13	423623.72	665064.43	N 32 9 50.36	W 103 56 0.55
	784.00	0.11	283.64	784.00	0.12	0.12	0.21	0.09	423623.66	665064.27	N 32 9 50.36	W 103 56 0.55
	967.00	0.20	161.80	967.00	-0.14	-0.14	0.13	0.15	423623.40	665064.19	N 32 9 50.35	W 103 56 0.56
	1056.00	0.20	203.71	1056.00	-0.43	-0.43	0.12	0.16	423623.11	665064.18	N 32 9 50.35	W 103 56 0.56
	1145.00	0.16	304.32	1145.00	-0.50	-0.50	-0.04	0.31	423623.04	665064.02	N 32 9 50.35	W 103 56 0.56
	1235.00	0.13	270.61	1235.00	-0.43	-0.43	-0.25	0.10	423623.11	665063.81	N 32 9 50.35	W 103 56 0.56
	1324.00	0.17	258.69	1324.00	-0.45	-0.45	-0.48	0.06	423623.09	665063.58	N 32 9 50.35	W 103 56 0.56
	1419.00	0.79	209.30	1418.99	-1.05	-1.05	-0.94	0.73	423622.49	665063.12	N 32 9 50.34	W 103 56 0.57
	1514.00	0.16	153.22	1513.99	-1.74	-1.74	-1.20	0.75	423621.80	665062.86	N 32 9 50.34	W 103 56 0.57
	1609.00	0.16	331.13	1608.99	-1.74	-1.74	-1.20	0.34	423621.80	665062.86	N 32 9 50.34	W 103 56 0.57
	1704.00	0.08	353.71	1703.99	-1.56	-1.56	-1.28	0.10	423621.98	665062.78	N 32 9 50.34	W 103 56 0.57
	1799.00	0.20	167.90	1798.99	-1.65	-1.66	-1.25	0.29	423621.88	665062.81	N 32 9 50.34	W 103 56 0.57
	1893.00	0.16	170.86	1892.99	-1.94	-1.95	-1.19	0.04	423621.59	665062.87	N 32 9 50.34	W 103 56 0.57
	2083.00	0.16	177.15	2082.99	-2.47	-2.48	-1.14	0.01	423621.06	665062.92	N 32 9 50.33	W 103 56 0.57
	2178.00	0.16	328.98	2177.99	-2.49	-2.49	-1.20	0.33	423621.05	665062.86	N 32 9 50.33	W 103 56 0.57
	2273.00	0.13	88.24	2272.99	-2.37	-2.38	-1.16	0.26	423621.16	665062.90	N 32 9 50.33	W 103 56 0.57
	2368.00	0.13	308.49	2367.99	-2.30	-2.31	-1.14	0.26	423621.23	665062.92	N 32 9 50.33	W 103 56 0.57
	2463.00	0.13	299.38	2462.99	-2.18	-2.19	-1.31	0.02	423621.35	665062.75	N 32 9 50.33	W 103 56 0.57
	2558.00	0.08	219.99	2557.99	-2.18	-2.19	-1.45	0.15	423621.36	665062.61	N 32 9 50.33	W 103 56 0.57
	2653.00	0.11	10.28	2652.99	-2.14	-2.15	-1.48	0.19	423621.39	665062.58	N 32 9 50.33	W 103 56 0.57
	2748.00	0.11	345.67	2747.99	-1.96	-1.97	-1.48	0.05	423621.57	665062.58	N 32 9 50.34	W 103 56 0.57
	2843.00	0.16	91.04	2842.99	-1.87	-1.88	-1.37	0.23	423621.66	665062.69	N 32 9 50.34	W 103 56 0.57
	2938.00	0.13	147.42	2937.99	-1.97	-1.98	-1.18	0.15	423621.56	665062.88	N 32 9 50.34	W 103 56 0.57
	3128.00	0.20	149.30	3127.99	-2.44	-2.44	-0.90	0.04	423621.10	665063.16	N 32 9 50.33	W 103 56 0.57
	3223.00	0.13	287.71	3222.99	-2.55	-2.55	-0.92	0.33	423620.99	665063.14	N 32 9 50.33	W 103 56 0.57
	3413.00	0.13	146.56	3412.99	-2.66	-2.67	-1.00	0.13	423620.87	665063.06	N 32 9 50.33	W 103 56 0.57
	3508.00	0.13	111.53	3507.99	-2.79	-2.80	-0.84	0.08	423620.74	665063.22	N 32 9 50.33	W 103 56 0.57
	3697.00	0.13	58.15	3696.99	-2.76	-2.76	-0.46	0.06	423620.78	665063.60	N 32 9 50.33	W 103 56 0.56
	3792.00	0.13	190.74	3791.99	-2.81	-2.81	-0.39	0.25	423620.73	665063.67	N 32 9 50.33	W 103 56 0.56
	3887.00	0.13	152.74	3886.98	-3.01	-3.01	-0.36	0.09	423620.53	665063.70	N 32 9 50.33	W 103 56 0.56
	3981.00	0.13	224.45	3980.98	-3.18	-3.18	-0.39	0.16	423620.36	665063.67	N 32 9 50.32	W 103 56 0.56
	4076.00	0.16	234.78	4075.98	-3.33	-3.34	-0.57	0.04	423620.20	665063.49	N 32 9 50.32	W 103 56 0.56
	4171.00	0.13	116.48	4170.98	-3.46	-3.46	-0.58	0.26	423620.08	665063.48	N 32 9 50.32	W 103 56 0.56
	4266.00	0.13	134.40	4265.98	-3.58	-3.58	-0.41	0.04	423619.96	665063.65	N 32 9 50.32	W 103 56 0.56
	4361.00	0.16	269.85	4360.98	-3.66	-3.66	-0.46	0.28	423619.88	665063.60	N 32 9 50.32	W 103 56 0.56
	4551.00	0.13	298.63	4550.98	-3.55	-3.56	-0.92	0.04	423619.98	665063.14	N 32 9 50.32	W 103 56 0.57
	4740.00	0.06	272.43	4739.98	-3.44	-3.45	-1.21	0.04	423620.09	665062.85	N 32 9 50.32	W 103 56 0.57
	4835.00	1.88	11.41	4834.97	-1.92	-1.92	-0.95	1.99	423621.62	665063.11	N 32 9 50.34	W 103 56 0.57
	4931.00	3.82	11.77	4930.84	2.75	2.75	0.02	2.02	423626.29	665064.08	N 32 9 50.38	W 103 56 0.56
	5026.00	5.82	12.12	5025.50	10.55	10.56	1.67	2.11	423634.10	665065.73	N 32 9 50.46	W 103 56 0.54
	5121.00	7.95	10.74	5119.81	21.71	21.73	3.91	2.25	423645.27	665067.97	N 32 9 50.57	W 103 56 0.51
	5216.00	10.16	9.89	5213.62	36.40	36.44	6.57	2.33	423659.98	665070.63	N 32 9 50.72	W 103 56 0.48
	5311.00	12.10	6.29	5306.83	54.54	54.59	9.10	2.17	423678.13	665073.16	N 32 9 50.89	W 103 56 0.45
	5406.00	13.36	3.43	5399.50	75.39	75.45	10.85	1.48	423698.98	665074.91	N 32 9 51.10	W 103 56 0.43
	5596.00	12.15	357.46	5584.81	117.27	117.34	11.28	0.94	423740.87	665075.34	N 32 9 51.52	W 103 56 0.42
	5786.00	11.66	353.19	5770.73	156.33	156.38	8.12	0.53	423779.90	665072.17	N 32 9 51.90	W 103 56 0.46
	5975.00	11.14	347.42	5956.00	193.15	193.16	1.87	0.66	423816.69	665065.93	N 32 9 52.27	W 103 56 0.53
	6165.00	12.01	346.73	6142.14	230.35	230.32	-6.66	0.46	423853.84	665057.40	N 32 9 52.63	W 103 56 0.62
	6260.00	11.52	350.56	6235.14	249.35	249.29	-10.49	0.97	423872.82	665053.57	N 32 9 52.82	W 103 56 0.67
	6450.00	11.62	348.64	6421.28	286.86	286.77	-17.37	0.21	423910.29	665046.69	N 32 9 53.19	W 103 56 0.75
	6545.00	11.80	348.70	6514.31	305.78	305.68	-21.15	0.19	423929.19	665042.91	N 32 9 53.38	W 103 56 0.79
	6640.00	11.56	350.24	6607.34	324.71	324.58	-24.67	0.41	423948.10	665039.39	N 32 9 53.57	W 103 56 0.83
	6735.00	11.60	351.70	6700.41	343.56	343.41	-27.66	0.31	423966.93	665036.40	N 32 9 53.75	W 103 56 0.86
	6829.00	11.58	352.27	6792.49	362.27	362.11	-30.30	0.12	423985.63	665033.76	N 32 9 53.94	W 103 56 0.89
	6924.00	11.87	352.80	6885.51	381.43	381.26	-32.80	0.33	424004.77	665031.26	N 32 9 54.13	W 103 56 0.92
	7020.00	11.56	356.09	6979.51	400.83	400.65	-34.70	0.77	424024.16	665029.36	N 32 9 54.32	W 103 56 0.94
	7169.00	11.25	357.44	7125.57	430.25	430.06	-36.37	0.27	424053.57	665027.70	N 32 9 54.61	W 103 56 0.96
	7263.00	10.35	353.08	7217.90	447.80	447.61	-37.79	1.29	424071.11	665026.27	N 32 9 54.79	W 103 56 0.98
	7358.00	10.85	349.35	7311.28	465.07	464.87	-40.47	0.89	424088.37	665023.59	N 32 9 54.96	W 103 56 1.01
	7453.00	10.69	344.37	7404.61	482.37	482.14	-44.50	0.99	424105.64	665019.56	N 32 9 55.13	W 103 56 1.05
	7642.00	10.99	339.64	7590.24	516.20	515.91	-55.49	0.50	424139.41	665008.57	N 32 9 55.46	W 103 56 1.18
	7832.00	10.42	341.63	7776.94	549.54	549.20	-67.21	0.36	424172.69	664996.86	N 32 9 55.79	W 103 56 1.32
	8022.00	11.03	343.76	7963.62	583.36	582.95	-77.70	0.38	424206.45	664986.36	N 32 9 56.13	W 103 56 1.44
	8211.00	11.31	351.72	8149.05	619.10	618.65	-85.43	0.83	424242.15	664978.64	N 32 9 56.48	W 103 56 1.52
	8306.00	10.81	354.28	8242.28	637.19	636.74	-87.66	0.74	424260.23	664976.41	N 32 9 56.66	W 103 56 1.55
	8402.00	10.62	359.42	8336.61	655.00	654.54	-88.65	1.01	424278.03	664975.42	N 32 9 56.83	W 103 56 1.56
	8496.00	11.17	4.26	8428.92	672.74	672.28	-88.06	1.14	424295.77	664976.01	N 32 9 57.01	W 103 56 1.55
	8530.00	10.93	6.27	8462.29	679.23	678.77	-87.46	1.33	424302.26	664976.61	N 32 9 57.07	W 103 56 1.55
	8688.00	11.17	13.59	8617.37	708.96	708.54	-82.23	0.90	424332.02	664981.84	N 32 9 57.37	W 103 56 1.48

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 ° ' ")
	8746.00	10.54	10.68	8674.33	719.63	719.21	-79.93	1.44	424342.70	664984.14	N 32 9 57.47	W 103 56 1.46
	8841.00	18.81	18.79	8766.16	742.67	742.29	-73.37	8.95	424365.77	664990.70	N 32 9 57.70	W 103 56 1.38
	8936.00	31.56	14.15	8851.96	781.38	781.06	-62.31	13.57	424404.54	665001.75	N 32 9 58.09	W 103 56 1.25
	9031.00	39.93	359.86	8929.13	836.14	835.85	-56.29	12.40	424459.33	665007.78	N 32 9 58.63	W 103 56 1.18
	9126.00	49.04	1.65	8996.84	902.62	902.33	-55.33	9.68	424525.81	665008.74	N 32 9 59.29	W 103 56 1.16
	9221.00	62.87	1.46	9049.89	981.10	980.83	-53.21	14.56	424604.30	665010.86	N 32 10 0.06	W 103 56 1.13
	9316.00	70.49	3.50	9087.48	1068.16	1067.92	-49.39	8.26	424691.38	665014.67	N 32 10 0.92	W 103 56 1.09
	9411.00	70.19	3.68	9119.44	1157.42	1157.20	-43.79	0.36	424780.66	665020.27	N 32 10 1.81	W 103 56 1.02
	9506.00	79.66	3.58	9144.12	1248.83	1248.65	-37.99	9.97	424872.09	665026.07	N 32 10 2.71	W 103 56 0.95
	9601.00	87.90	6.19	9154.40	1342.79	1342.65	-29.94	9.09	424966.09	665034.12	N 32 10 3.64	W 103 56 0.85
	9644.00	87.45	5.89	9156.15	1385.49	1385.38	-25.42	1.26	425008.81	665038.64	N 32 10 4.06	W 103 56 0.79
	9739.00	87.97	5.97	9159.94	1479.86	1479.79	-15.61	0.55	425103.22	665048.45	N 32 10 5.00	W 103 56 0.68
	9833.00	91.55	4.58	9160.34	1573.39	1573.38	-6.97	4.09	425196.80	665057.09	N 32 10 5.92	W 103 56 0.57
	9926.00	93.10	1.95	9156.56	1666.13	1666.14	-1.68	3.28	425289.55	665062.38	N 32 10 6.84	W 103 56 0.50
	10019.00	92.54	0.36	9151.99	1758.98	1759.00	0.19	1.81	425382.41	665064.25	N 32 10 7.76	W 103 56 0.48
	10113.00	91.72	358.51	9148.49	1852.91	1852.93	-0.73	2.15	425476.33	665063.33	N 32 10 8.69	W 103 56 0.49
	10206.00	90.00	356.68	9147.10	1945.83	1945.83	-4.63	2.70	425569.22	665059.43	N 32 10 9.61	W 103 56 0.53
	10393.00	90.00	357.83	9147.10	2132.65	2132.61	-13.59	0.61	425755.99	665050.47	N 32 10 11.46	W 103 56 0.62
	10486.00	89.79	1.07	9147.27	2225.64	2225.60	-14.48	3.49	425848.97	665049.58	N 32 10 12.38	W 103 56 0.63
	10579.00	89.97	4.40	9147.46	2318.50	2318.48	-10.05	3.59	425941.84	665054.01	N 32 10 13.30	W 103 56 0.57
	10766.00	89.72	2.86	9147.97	2505.05	2505.10	1.79	0.83	426128.45	665065.85	N 32 10 15.14	W 103 56 0.43
	10859.00	88.76	1.31	9149.20	2597.96	2598.02	5.18	1.96	426221.37	665069.24	N 32 10 16.06	W 103 56 0.38
	10954.00	88.66	1.63	9151.34	2692.89	2692.97	7.61	0.35	426316.30	665071.67	N 32 10 17.00	W 103 56 0.35
	11049.00	88.52	359.77	9153.68	2787.84	2787.93	8.77	1.96	426411.26	665072.83	N 32 10 17.94	W 103 56 0.33
	11144.00	88.66	359.22	9156.02	2882.81	2882.89	7.94	0.60	426506.22	665072.00	N 32 10 18.88	W 103 56 0.34
	11239.00	88.66	359.68	9158.24	2977.78	2977.86	7.02	0.48	426601.18	665071.08	N 32 10 19.82	W 103 56 0.35
	11334.00	88.90	359.36	9160.26	3072.76	3072.84	6.23	0.42	426696.15	665070.29	N 32 10 20.76	W 103 56 0.35
	11429.00	89.55	0.45	9161.55	3167.75	3167.83	6.07	1.34	426791.13	665070.13	N 32 10 21.70	W 103 56 0.35
	11523.00	88.76	0.06	9162.93	3261.73	3261.81	6.49	0.94	426885.11	665070.55	N 32 10 22.63	W 103 56 0.34
	11618.00	88.97	0.02	9164.81	3356.71	3356.80	6.56	0.23	426980.08	665070.62	N 32 10 23.57	W 103 56 0.34
	11713.00	88.59	359.25	9166.84	3451.69	3451.77	5.95	0.90	427075.05	665070.01	N 32 10 24.51	W 103 56 0.34
	11808.00	88.69	358.81	9169.09	3546.66	3546.73	4.34	0.47	427170.00	665068.40	N 32 10 25.45	W 103 56 0.35
	11903.00	88.87	358.79	9171.11	3641.62	3641.69	2.35	0.19	427264.95	665066.41	N 32 10 26.39	W 103 56 0.37
	11998.00	88.76	357.79	9173.08	3736.57	3736.62	-0.48	1.06	427359.88	665063.58	N 32 10 27.33	W 103 56 0.40
	12093.00	88.83	357.23	9175.08	3831.48	3831.51	-4.61	0.59	427454.76	665059.45	N 32 10 28.27	W 103 56 0.45
	12189.00	89.59	358.31	9176.40	3927.42	3927.43	-8.34	1.38	427550.67	665055.72	N 32 10 29.22	W 103 56 0.48
	12283.00	89.31	357.91	9177.30	4021.38	4021.37	-11.44	0.52	427644.61	665052.62	N 32 10 30.15	W 103 56 0.52
	12379.00	88.38	357.78	9179.24	4117.31	4117.29	-15.05	0.98	427740.52	665049.01	N 32 10 31.10	W 103 56 0.55
	12474.00	89.31	358.10	9181.15	4212.24	4212.20	-18.46	1.04	427835.43	665045.60	N 32 10 32.04	W 103 56 0.59
	12568.00	88.73	358.07	9182.76	4306.19	4306.14	-21.61	0.62	427929.35	665042.46	N 32 10 32.97	W 103 56 0.62
	12663.00	88.62	359.40	9184.96	4401.15	4401.09	-23.70	1.40	428024.29	665040.36	N 32 10 33.91	W 103 56 0.64
	12758.00	88.90	359.96	9187.01	4496.13	4496.06	-24.23	0.66	428119.26	665039.83	N 32 10 34.85	W 103 56 0.64
	12853.00	89.86	358.73	9188.04	4591.12	4591.05	-25.32	1.64	428214.24	665038.74	N 32 10 35.79	W 103 56 0.65
	12948.00	89.69	358.71	9188.41	4686.10	4686.02	-27.44	0.18	428309.21	665036.62	N 32 10 36.72	W 103 56 0.67
	13043.00	89.24	358.55	9189.30	4781.08	4780.99	-29.71	0.50	428404.17	665034.35	N 32 10 37.66	W 103 56 0.70
	13139.00	89.90	359.19	9190.02	4877.07	4876.97	-31.61	0.96	428500.14	665032.46	N 32 10 38.61	W 103 56 0.71
	13233.00	89.45	359.34	9190.56	4971.06	4970.96	-32.81	0.50	428594.12	665031.25	N 32 10 39.54	W 103 56 0.72
	13424.00	89.72	357.75	9191.94	5162.01	5161.89	-37.66	0.84	428785.04	665026.40	N 32 10 41.43	W 103 56 0.77
	13519.00	89.69	357.10	9192.43	5256.94	5256.79	-41.93	0.68	428879.93	665022.13	N 32 10 42.37	W 103 56 0.82
	13614.00	90.79	357.52	9192.03	5351.85	5351.68	-46.39	1.24	428974.82	665017.68	N 32 10 43.31	W 103 56 0.87
	13709.00	89.35	359.20	9191.91	5446.82	5446.64	-49.11	2.33	429069.77	665014.96	N 32 10 44.25	W 103 56 0.89
	13804.00	90.00	2.13	9192.45	5541.79	5541.62	-48.00	3.16	429164.74	665016.06	N 32 10 45.19	W 103 56 0.88
	13994.00	89.35	3.99	9193.53	5731.45	5731.33	-37.86	1.04	429354.44	665026.20	N 32 10 47.07	W 103 56 0.75
	14184.00	90.65	5.64	9193.53	5920.69	5920.65	-21.91	1.11	429543.75	665042.15	N 32 10 48.94	W 103 56 0.56
	14374.00	89.42	5.72	9193.41	6109.65	6109.72	-3.11	0.65	429732.80	665060.95	N 32 10 50.81	W 103 56 0.33
	14469.00	89.97	4.81	9193.92	6204.20	6204.31	5.61	1.12	429827.39	665069.67	N 32 10 51.75	W 103 56 0.22
	14564.00	89.48	2.75	9194.38	6298.95	6299.10	11.87	2.23	429922.17	665075.93	N 32 10 52.69	W 103 56 0.15
	14659.00	91.93	1.36	9193.21	6393.85	6394.02	15.28	2.96	430017.08	665079.34	N 32 10 53.62	W 103 56 0.10
	14754.00	92.37	359.21	9189.64	6488.77	6488.95	15.75	2.31	430112.00	665079.81	N 32 10 54.56	W 103 56 0.09
	14849.00	91.89	356.84	9186.11	6583.66	6583.82	12.48	2.54	430206.86	665076.54	N 32 10 55.50	W 103 56 0.13
	14944.00	89.31	354.68	9185.12	6678.42	6678.54	5.45	3.54	430301.58	665069.51	N 32 10 56.44	W 103 56 0.21
	15039.00	89.52	355.12	9186.09	6773.08	6773.16	-2.99	0.51	430396.19	665061.07	N 32 10 57.38	W 103 56 0.30
	15229.00	89.21	355.51	9188.19	6962.51	6962.51	-18.51	0.26	430585.53	665045.55	N 32 10 59.25	W 103 56 0.47
	15324.00	89.55	357.80	9189.22	7057.37	7057.34	-24.05	2.44	430680.35	665040.01	N 32 11 0.19	W 103 56 0.53
	15419.00	88.87	358.08	9190.53	7152.31	7152.27	-27.46	0.77	430775.27	665036.60	N 32 11 1.13	W 103 56 0.57
	15514.00	89.55	358.53	9191.84	7247.27	7247.22	-30.27	0.86	430870.21	665033.79	N 32 11 2.07	W 103 56 0.60
	15608.00	88.73	359.16	9193.25	7341.25	7341.18	-32.17	1.10	430964.17	665031.89	N 32 11 3.00	W 103 56 0.61
	15704.00	90.17	0.34	9194.17	7437.24	7437.18	-32.59	1.94	431060.15	665031.47	N 32 11 3.95	W 103 56 0.61
	15799.00	89.24	0.39	9194.66	7532.23	7532.17	-31.98	0.98	431155.14	665032.08	N 32 11 4.89	W 103 56 0.60
	15988.00	89.79	0.10	9196.26	7721.22	7721.16	-31.17	0.33	431344.12	665032.89	N 32 11 6.76	W 103 56 0.59
	16084.00	89.66	0.60	9196.72	7817.21	7817.16	-30.59	0.54	431440.11	665033.47	N 32 11 7.71	W 103 56 0.58
	16179.00	90.14	0.51	9196.89	7912.20	7912.15	-29.67	0.51	431535.10	665034.39	N 32 11 8.65	W 103 56 0.56
	16273.00	89.86	2.03	9196.89	8006.16	8006.13	-27.58	1.64	431629.06	665036.48	N 32 11 9.58	W 103 56 0.53
	16368.00	90.07	3.62	9196.95	8101.02	8101.01	-22.90	1.69	431723.94	665041.16	N 32 11 10.52	W 103 56 0.47
	16463.00	89.86	3.49	9197.00	8195.80	8195.83	-17.01	0.26	431818.75	665047.05	N 32 11 11.45	W 103 56 0.40
	16558.00	89.79	2.27	9197.29	8290.65	8290.70	-12.24	1.29	431913.62	665051.82	N 32 11 12.39	W 103 56 0.34
	16653.00	89.38	1.12	9197.98	8385.59	8385.66	-9.43	1.29	432008.57	665054.63	N 32 11 13.33	W 103 56 0.30
	16748.00	89.69	359.91	9198.75	8480.58	8480.65	-8.57	1.31	432103.55	665055.49	N 32 11 14.27	W 103 56 0.29
	16843.00	89.14	359.25	9199.72	8575.57	8575.64	-9.27	0.90	432198.53	665054.79	N 32 11 15.21	W 103 56 0.29
	16938.00	90.10	359.12	9200.35	8670.56	8670.63	-10.62	1.02	432293.51	665053.44	N 32 11 16.15	W 103 56 0.31
	17033.00	89.07	357.67	9201.04	8765.53	8765.58	-13.28	1.87	432388.46	665050.78	N 32 11 17.09	W 103 56 0.33
	17128.00	89.11	355.14	9202.55	8860.36	8860.38	-19.24	2.66	432483.25	665044.82	N 32 11 18.03	W 103 56 0.40
	17223.00	90.34	355.83	9203.01	8955.10	8955.08	-26.72	1.48	432577.94	665037.35	N 32 11 18.97	W 103 56 0.48
	17318.00	89.62	355.69	9203.04	9049.87	9049.82	-33.74	0.77	432672.68	665030.32	N 32 11 19.91	W 103 56 0.56
	17413.00	91.37	357.80	9202.22	9144.73	9144.65	-39.13	2.89	432767.50	665024.93	N 32 11 20.84	W 103 56 0.62
	17508.00	89.90	359.72	9201.17	9239.71	9239.62	-41.19	2.55	432862.46	665022.87	N 32 11 21.78	W 103 56 0.64
	17603.00	90.89	0.80	9200.51	9334.70	9334.61	-40.76	1.54	432957.45	665023.30	N 32 11 22.72	W 103 56 0.63
	17698.00	91.55	3.38	9198.49	9429.58	9429.52	-37.30	2.80	433052.35	665026.77	N 32 11 23.66	W 103 56 0.58
	17793.00	89.55	3.09	9197.58	9524.39	9524.36	-31.93	2.13	433147.18	665032.13	N 32 11 24.60	W 103 56 0.52
	17888.00	89.52	2.70	9198.35	9619.24	9619.23	-27.14	0.41	433242.05	665036.93	N 32 11 25.54	W 103 56 0.46
	17983.00	89.79	1.02	9198.92	9714.17	9714.18	-24.05	1.79	433336.99	665040.01	N 32 11 26.48	W 103 56 0.42
	18077.00	90.10	358.31	9199.01	9808.16	9808.17	-24.60	2.90	433430.97	665039.46	N 32 11 27.41	W 103 56 0.42
	18172.00	89.52	356.10	9199.33	9903.06	9903.05	-29.24	2.41	433525.84	665034.83	N 32 11 28.35	W 103 56 0.47
	18267.00	89.93	356.96	9199.78	9997.92	9997.87	-34.99	1.00	433620.66	665029.08	N 32 11 29.29	W 103 56 0.53
	18362.00	89.59	356.73	9200.18	10092.80	10092.73	-40.21	0.43	433715.51	665023.85	N 32 11 30.23	W 103 56 0.59
	18457.00	90.45	356.69	9200.15	10187.67	10187.57	-45.67	0.91	433810.34	665018.40	N 32 11 31.16	W 103 56 0.65
	18552.00	90.79	358.15	9199.12	10282.58	10282.46	-49.94	1.58	433905.23	665014.12	N 32 11 32.10	W 103 56 0.69
	18647.00	90.48	358.76	9198.06	10377.56	10377.42	-52.50	0.72	434000.18	665011.56	N 32 11 33.04	W 103 56 0.72
	18742.00	89.93	358.75	9197.73	10472.54	10472.40	-54.57	0.58	434095.15	665009.50	N 32 11 33.98	W 103 56 0.74
	18932.00	89.55	358.49	9198.59	10662.51	10662.34	-59.14	0.24	434285.08	665004.92	N 32 11 35.86	W 103 56 0.78
	19122.00	90.07	0.39	9199.22	10852.49	10852.32	-61.00	1.04	434475.05	665003.07	N 32 11 37.74	W 103 56 0.80
	19217.00	90.93	2.19	9198.39	10947.45	10947.29	-58.86	2.10	434570.01	665005.20	N 32 11 38.68	W 103 56 0.77
	19312.00	90.07	3.26	9197.56	11042.31	11042.18	-54.34	1.44	434664.89	665009.72	N 32 11 39.62	W 103 56 0.71
	19407.00	90.03	2.63	9197.48	11137.16	11137.05	-49.46	0.66	434759.75	665014.60	N 32 11 40.56	W 103 56 0.65
Final MWD Survey	19531.00	90.24	0.86	9197.18	11261.07	11260.99	-45.69	1.44	434883.68	665018.38	N 32 11 41.79	W 103 56 0.60
Proj. to Bit	19575.00	90.24	0.86	9197.00	11305.06	11304.98	-45.03	0.00	434927.67	665019.04	N 32 11 42.22	W 103 56 0.59

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 ° ' ")

Survey Type: Def Survey

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Canyon 36-25 Federal Com 25H Gyro+MWD 0-19,575'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Canyon 36-25 Federal Com 25H Gyro+MWD 0-19,575'
	1	26.500	650.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Corral Canyon 36-25 Federal Com 25H
	1	650.500	19575.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Corral Canyon 36-25 Federal Com 25H