

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

August 6, 2019

Oxy USA WTP Limited Partnership
PO Box 4294
Houston, TX 77210

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 26 2019

RECEIVED

S9, T19S, R29E Eddy, NM
N 32.6793033 W -104.0868261

Re: CLIENT: Oxy USA WTP Limited Partnership
WELL: Turkey Track 8 7 State 32H
FIELD: Turkey Track/Bone Spring

RIG: H&P 636
COUNTY: EDDY
API NO: 30-015-44267
JOB NO: 19MLH0206

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.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Raja A. Hakeem RS FE	Turkey Track 8 7 State 32H Original Hole	329.00 Ft to 19225.00 Ft	July 9, 2019 to July 29, 2019	SlimPulse, Telepacer 3rd Party Corrected

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

ANDREW SALOMON
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)
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Schlumberger

Well Reference:
S9, T19S, R29E Eddy, NM
N 32.6793033 W -104.0868261

I, Raja A. Hakeem RS certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of July 09, 2019 through July 29, 2019, conduct or supervise the taking of the SlimPulse, Telepacer & 3rd Party Corrected surveys from a depth of 329.00 feet to a depth of 19225.00 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 WTP Limited Partnership for the Turkey Track 8 7 State 32H Well (Original Hole) API No. 30-015-44267 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
Raja A. Hakeem RS
FE



Subscribed and Sworn to before me this 6 day of August (month) 2019 (yr)

My Commission expires:

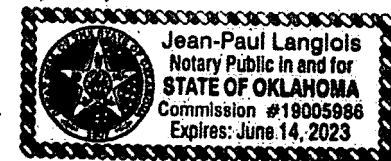
6/14/2023



Notary Public

Comanche Oklahoma

(County State)



Schlumberger

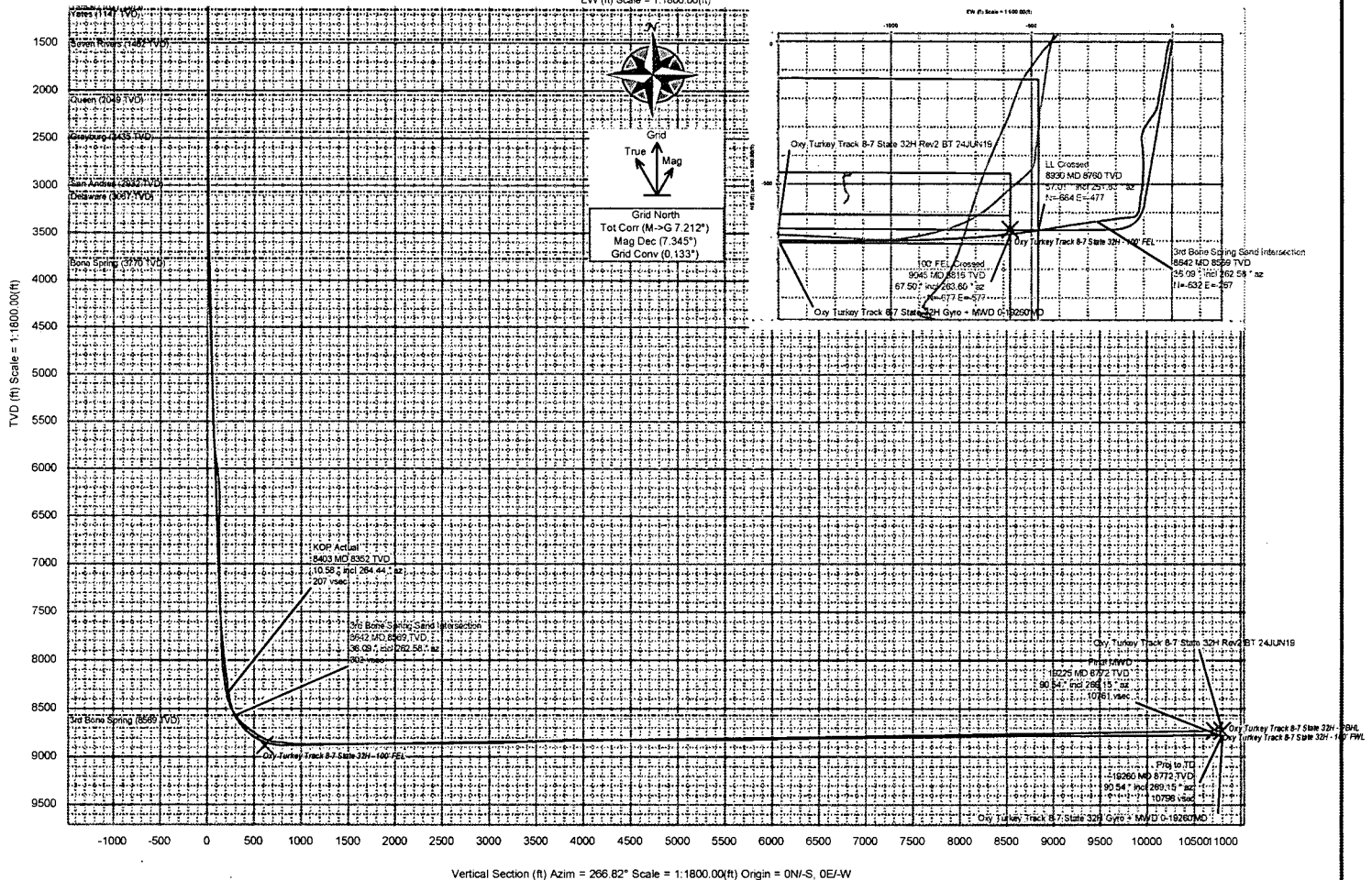
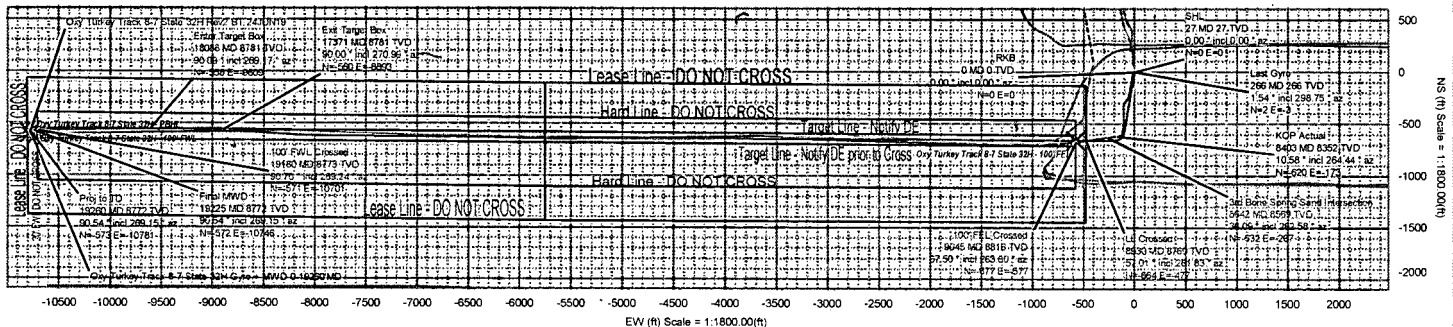
OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Turkey Track 8-7 State 32H	NM Eddy County (NAD 83)	Oxy Turkey Track 8-7 State 32H
Gravity & Magnetic Parameters			
Model: IFR1	Dip: 60.61°	Date: 03-Jul-2019	Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet
MagDec: 7.345°	FS: 48015.5nT	Gravity FS: 998.514mg (9.80665 Based)	Lat: N 32 40 45.43 Northing: 610949.76NUS Grid Conv: 0.1331°
			Lon: W 104 5 12.57 Easting: 617183.16EUS Scale Fact: 0.99991568
			Miscellaneous
			Oxy Turkey Track 8-7 State 32H
			TVD Ref: RKB(3422.8ft above MSL)
			Plan: Oxy Turkey Track 8-7 State 32H Gyro + MWD 0-19260' 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	266.44	1.54	298.75	266.39	2.72	1.90	-2.83	0.43
KOP Actual	8403.00	10.58	264.44	8351.62	207.12	-620.21	-172.98	1.30
3rd Bone Spring Sand Intersection	8642.38	36.09	262.58	8569.00	301.55	-631.81	-266.92	7.13
LL Crossed	8930.00	57.01	261.83	8759.99	513.09	-663.88	-476.99	4.30
100' FEL Crossed	9045.00	67.50	263.60	8815.77	613.20	-676.54	-576.55	13.35
Exit Target Box	17371.00	90.00	270.99	8780.65	8909.95	-560.44	-8892.56	0.19
Enter Target Box	18088.00	90.09	269.17	8780.56	9625.52	-556.02	-9609.48	0.30
100' FWL Crossed	19180.00	90.70	269.24	8772.51	10716.54	-571.39	-10701.32	0.41
Final MWD	19225.00	90.54	269.15	8772.02	10761.50	-572.02	-10746.31	0.41
Proj to TD	19260.00	90.54	269.15	8771.69	10796.47	-572.54	-10781.31	0.00



Oxy Turkey Track 8-7 State 32H Gyro + MWD 0-19260'MD Survey Geodetic Report

(Def Survey)



Report Date: July 30, 2019 - 01:58 PM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Turkey Track 8-7 State 32H / Oxy Turkey Track 8-7 State 32H
Well: Oxy Turkey Track 8-7 State 32H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Oxy Turkey Track 8-7 State 32H Gyro + MWD 0-19260'MD
Survey Date: June 13, 2019
Tort / AHD / DDI / ERD Ratio: 185.780 ° / 11320.181 ft / 5.660 / 1.276
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 40' 45.49176", W 104° 5' 12.57387"
Location Grid N/E Y/X: N 610949.760 NUS, E 617183.160 NUS
CRS Grid Convergence Angle: 0.1331 °
Grid Scale Factor: 0.99991568
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 266.820 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3422.800 ft above MSL
Seabed / Ground Elevation: 3396.300 ft above MSL
Magnetic Declination: 7.345 °
Total Gravity Field Strength: 998.5135mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48015.900 nT
Magnetic Dip Angle: 60.516 °
Declination Date: July 03, 2019
Magnetic Declination Model: IFR1
North Reference: Grid North
Grid Convergence Used: 0.1331 °
Total Corr Mag North->Grid North: 7.2119 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	610949.76	617183.16	N 32 40 45.49	W 104 5 12.57
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	610949.76	617183.16	N 32 40 45.49	W 104 5 12.57
	101.75	0.27	31.75	101.75	-0.10	0.15	0.09	0.36	610949.91	617183.25	N 32 40 45.49	W 104 5 12.57
	128.26	0.28	357.61	128.26	-0.14	0.27	0.12	0.61	610950.03	617183.28	N 32 40 45.49	W 104 5 12.57
	157.69	1.16	302.78	157.69	0.10	0.50	-0.13	3.48	610950.26	617183.03	N 32 40 45.50	W 104 5 12.58
	183.61	1.74	293.30	183.60	0.67	0.80	-0.71	2.41	610950.56	617182.45	N 32 40 45.50	W 104 5 12.58
	211.06	1.66	296.89	211.04	1.38	1.14	-1.45	0.49	610950.90	617181.71	N 32 40 45.50	W 104 5 12.59
	240.35	1.65	299.39	240.31	2.11	1.54	-2.20	0.25	610951.30	617180.97	N 32 40 45.51	W 104 5 12.60
Last Gyro	266.44	1.54	298.75	266.39	2.72	1.90	-2.83	0.43	610951.66	617180.33	N 32 40 45.51	W 104 5 12.61
	329.00	1.85	302.72	328.93	4.25	2.85	-4.42	0.53	610952.61	617178.74	N 32 40 45.52	W 104 5 12.63
	422.00	1.07	297.87	421.90	6.21	4.06	-6.45	0.85	610953.82	617176.71	N 32 40 45.53	W 104 5 12.65
	604.00	0.06	103.76	603.89	7.58	4.84	-7.86	0.62	610954.59	617175.30	N 32 40 45.54	W 104 5 12.67
	696.00	0.00	7.18	695.89	7.53	4.82	-7.81	0.07	610954.58	617175.35	N 32 40 45.54	W 104 5 12.67
	880.00	0.06	253.97	879.89	7.62	4.80	-7.90	0.03	610954.56	617175.26	N 32 40 45.54	W 104 5 12.67
	971.00	0.08	286.02	970.89	7.73	4.80	-8.01	0.05	610954.56	617175.15	N 32 40 45.54	W 104 5 12.67
	1153.00	0.06	184.70	1152.89	7.86	4.74	-8.14	0.06	610954.50	617175.02	N 32 40 45.54	W 104 5 12.67
	1335.00	0.06	289.04	1334.89	7.97	4.68	-8.24	0.05	610954.44	617174.92	N 32 40 45.54	W 104 5 12.67
	1517.00	0.00	7.18	1516.89	8.05	4.71	-8.33	0.03	610954.47	617174.83	N 32 40 45.54	W 104 5 12.67
	1607.00	0.22	323.74	1606.89	8.15	4.85	-8.43	0.24	610954.61	617174.73	N 32 40 45.54	W 104 5 12.67
	1698.00	0.34	312.29	1697.88	8.43	5.17	-8.73	0.14	610954.93	617174.43	N 32 40 45.54	W 104 5 12.68
	1790.00	0.33	321.63	1789.88	8.78	5.56	-9.10	0.06	610955.32	617174.06	N 32 40 45.55	W 104 5 12.68
	1880.00	0.33	319.57	1879.88	9.08	5.96	-9.43	0.01	610955.72	617173.73	N 32 40 45.55	W 104 5 12.68
	1972.00	0.29	341.72	1971.88	9.30	6.39	-9.67	0.14	610956.14	617173.49	N 32 40 45.56	W 104 5 12.69
	2064.00	0.18	339.91	2063.88	9.41	6.74	-9.80	0.12	610956.50	617173.37	N 32 40 45.56	W 104 5 12.69
	2154.00	0.25	294.53	2153.88	9.62	6.96	-10.02	0.20	610956.72	617173.14	N 32 40 45.56	W 104 5 12.69
	2245.00	0.08	217.33	2244.88	9.84	6.99	-10.24	0.27	610956.75	617172.92	N 32 40 45.56	W 104 5 12.69
	2336.00	0.06	221.59	2335.88	9.91	6.90	-10.31	0.02	610956.66	617172.85	N 32 40 45.56	W 104 5 12.69
	2427.00	0.11	247.72	2426.88	10.03	6.83	-10.42	0.07	610956.59	617172.74	N 32 40 45.56	W 104 5 12.70
	2518.00	0.08	78.26	2517.88	10.05	6.81	-10.44	0.21	610956.57	617172.72	N 32 40 45.56	W 104 5 12.70
	2609.00	0.06	58.54	2608.88	9.94	6.85	-10.34	0.03	610956.61	617172.82	N 32 40 45.56	W 104 5 12.69
	2700.00	0.00	7.18	2699.88	9.90	6.88	-10.30	0.07	610956.64	617172.86	N 32 40 45.56	W 104 5 12.69
	2887.00	0.06	82.08	2886.88	9.80	6.89	-10.20	0.03	610956.65	617172.86	N 32 40 45.56	W 104 5 12.69
	2981.00	0.00	7.18	2980.88	9.76	6.90	-10.15	0.06	610956.66	617173.01	N 32 40 45.56	W 104 5 12.69
	3002.00	0.06	324.89	3001.88	9.76	6.91	-10.16	0.29	610956.66	617173.00	N 32 40 45.56	W 104 5 12.69
	3170.00	0.31	109.42	3169.88	9.39	6.83	-9.78	0.21	610956.59	617173.38	N 32 40 45.56	W 104 5 12.69
	3265.00	0.97	181.32	3264.87	9.21	5.94	-9.56	0.97	610955.70	617173.60	N 32 40 45.55	W 104 5 12.69
	3359.00	1.18	186.66	3358.86	9.44	4.18	-9.69	0.25	610953.94	617173.47	N 32 40 45.53	W 104 5 12.69
	3455.00	1.48	191.45	3454.83	9.92	1.98	-10.05	0.33	610951.74	617173.11	N 32 40 45.51	W 104 5 12.69
	3551.00	2.38	194.74	3550.77	10.85	-1.16	-10.80	0.94	610948.60	617172.36	N 32 40 45.48	W 104 5 12.70
	3647.00	4.64	198.98	3646.59	12.93	-6.76	-12.57	2.37	610943.00	617170.59	N 32 40 45.43	W 104 5 12.72
	3741.00	7.28	193.47	3740.07	16.07	-16.15	-15.20	2.87	610933.61	617167.96	N 32 40 45.33	W 104 5 12.75
	3837.00	8.24	191.28	3835.19	19.53	-28.81	-17.96	1.05	610920.95	617165.20	N 32 40 45.21	W 104 5 12.78
	3933.00	8.58	188.14	3930.16	22.65	-42.65	-20.32	0.60	610907.12	617162.84	N 32 40 45.07	W 104 5 12.81
	4029.00	8.46	188.77	4025.10	25.52	-56.71	-22.41	0.16	610893.05	617160.75	N 32 40 44.93	W 104 5 12.84
	4125.00	7.90	189.05	4120.12	28.38	-70.21	-24.52	0.58	610879.56	617158.64	N 32 40 44.80	W 104 5 12.86
	4220.00	7.08	190.27	4214.31	31.13	-82.42	-26.60	0.88	610867.35	617156.57	N 32 40 44.68	W 104 5 12.89
	4316.00	5.84	190.28	4309.70	33.64	-93.05	-28.52	1.29	610856.72	617154.64	N 32 40 44.57	W 104 5 12.91
	4411.00	5.62	188.16	4404.23	35.68	-102.41	-30.04	0.32	610847.36	617153.12	N 32 40 44.48	W 104 5 12.93
	4507.00	6.05	191.67	4499.73	37.90	-112.01	-31.74	0.58	610837.76	617151.43	N 32 40 44.38	W 104 5 12.95
	4603.00	5.73	190.60	4595.22	40.34	-121.68	-33.64	0.35	610828.09	617149.52	N 32 40 44.29	W 104 5 12.97
	4698.00	5.08	192.03	4689.80	42.57	-130.45	-35.39	0.70	610819.32	617147.77	N 32 40 44.20	W 104 5 12.99
	4794.00	5.43	189.13	4785.40	44.65	-139.09	-37.00	0.46	610810.68	617146.17	N 32 40 44.12	W 104 5 13.01
	4888.00	5.66	191.04	4878.96	46.74	-148.04	-38.59	0.31	610801.74	617144.57	N 32 40 44.03	W 104 5 13.03
	4984.00	5.74	188.93	4974.48	48.91	-157.42	-40.24	0.23	610792.35	617142.92	N 32 40 43.94	W 104 5 13.05
	5079.00	5.94	190.90	5068.99	51.10	-166.94	-41.91	0.30	610782.83	617141.26	N 32 40 43.84	W 104 5 13.07
	5174.00	6.07	190.37	5163.47	53.48	-176.71	-43.74	0.15	610773.06	617139.42	N 32 40 43.74	W 104 5 13.09
	5268.00	6.21	188.86	5256.93	55.70	-186.62	-45.42	0.23	610763.15	617137.74	N 32 40 43.65	W 104 5 13.11
	5363.00	6.48	187.25	5351.35	57.74	-197.02	-46.89	0.34	610752.76	617136.28	N 32 40 43.54	W 104 5 13.13
	5458.00	6.78	187.55	5445.71	59.76	-207.90	-48.30	0.32	610741.88	617134.86	N 32 40 43.44	W 104 5 13.14
	5554.00	7.06	192.63	5541.01	62.42	-219.27	-50.33	0.70	610730.51	617132.83	N 32 40 43.32	W 104 5 13.17
	5650.00	7.48	198.09	5636.24	66.30	-230.97	-53.57	0.84	610718.81	617129.60	N 32 40 43.21	W 104 5 13.21
	5745.00	8.61	205.51	5730.31	71.95	-243.26	-58.55	1.61	610706.52	617124.62	N 32 40 43.09	W 104 5 13.27
	5841.00	10.39	216.36	5824.99	80.91	-256.72	-66.78	2.62	610693.06	617116.39	N 32 40 42.95	W 104 5 13.36
	5937.00	12.97	215.08	5919.00	93.10	-272.51	-78.10	2.70	610677.27	617105.06	N 32 40 42.80	W 104 5 13.50
	6033.00	11.41	215.03	6012.83	105.64	-289.11	-89.74	1.63	610660.68	617093.42	N 32 40 42.63	W 104 5 13.63
	6128.00	11.40	208.23	6105.96	116.35	-305.07	-99.58	1.41	610644.71	617083.59	N 32 40 42.48	W 104 5 13.75
	6224.00	11.00	194.78	6200.15	124.12	-322.29	-106.41	2.75	610627.50	617076.76	N 32 40 42.31	W 104 5 13.83
	6319.00	10.15	179.97	6293.55	127.38	-339.43	-108.71	2.99	610610.36	617074.46	N 32 40 42.14	W 104 5 13.85
	6412.00	9.60	170.69	6385.18	127.00	-355.28	-107.45	1.81	610594.51	617075.71	N 32 40 41.98	W 104 5 13.84
	6507.00	10.12	173.47	6478.78	125.66	-371.39	-105.22	0.74	610578.41	617077.94	N 32 40 41.82	W 104 5 13.81
	6603.00	9.68	176.07	6573.35	125.07	-387.82	-103.71	0.65	610561.97	617079.46	N 32 40 41.66	W 104 5 13.80
	6696.00	9.91	177.50	6664.99	125.06	-403.61	-102.83	0.36	610546.18	617080.34	N 32 40 41.50	W 104 5 13.79
	6792.00	9.69	177.83	6759.59	125.30	-419.94	-102.16	0.24	610529.86	617081.01	N 32 40 41.34	W 104 5 13.78
	6885.00	9.74	180.96	6851.26	126.00	-435.63	-102.00	0.57	610514.17	617081.17	N 32 40 41.18	W 104 5 13.78
	6981.00	10.02	181.48	6946								

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 ° ' '')
	7456.00	8.75	191.07	7414.14	138.19	-531.18	-108.89	0.85	610418.63	617074.28	N 32 40 40.24 W 104	5 13.86
	7550.00	9.03	188.93	7507.01	141.49	-545.48	-111.41	0.46	610404.33	617071.76	N 32 40 40.10 W 104	5 13.89
	7645.00	10.11	183.46	7600.68	144.02	-561.17	-113.07	1.48	610388.64	617070.10	N 32 40 39.94 W 104	5 13.91
	7740.00	9.25	187.25	7694.33	146.37	-577.07	-114.53	1.13	610372.74	617068.64	N 32 40 39.78 W 104	5 13.93
	7835.00	7.25	193.54	7788.35	149.48	-590.47	-116.90	2.31	610359.34	617066.27	N 32 40 39.65 W 104	5 13.96
	7929.00	5.32	196.16	7881.78	152.63	-600.42	-119.50	2.08	610349.39	617063.67	N 32 40 39.55 W 104	5 13.99
	8024.00	6.71	218.36	7976.26	157.77	-609.01	-124.17	2.83	610340.81	617059.00	N 32 40 39.47 W 104	5 14.04
	8119.00	5.90	249.45	8070.72	166.11	-615.07	-132.19	3.64	610334.74	617050.98	N 32 40 39.41 W 104	5 14.14
	8213.00	7.43	262.34	8164.08	176.78	-617.58	-142.74	2.27	610332.23	617040.43	N 32 40 39.38 W 104	5 14.26
	8308.00	9.39	266.42	8258.06	190.66	-618.88	-156.56	2.16	610330.93	617026.61	N 32 40 39.37 W 104	5 14.42
	8403.00	10.58	264.44	8351.62	207.12	-620.21	-172.98	1.30	610329.60	617010.19	N 32 40 39.36 W 104	5 14.61
	8411.00	10.79	263.65	8359.48	208.60	-620.37	-174.46	3.20	610329.45	617008.72	N 32 40 39.36 W 104	5 14.63
	8506.00	21.31	262.69	8450.65	234.77	-623.56	-200.49	11.08	610326.26	616982.69	N 32 40 39.33 W 104	5 14.94
	8600.00	33.08	263.14	8534.11	277.56	-628.81	-243.05	12.52	610321.00	616940.13	N 32 40 39.28 W 104	5 15.43
3rd Bone Spring Sand Intersection	8642.38	36.09	262.58	8569.00	301.55	-631.81	-266.92	7.13	610318.01	616916.27	N 32 40 39.25 W 104	5 15.71
	8695.00	39.82	261.99	8610.48	333.81	-636.16	-298.98	7.13	610313.66	616884.21	N 32 40 39.20 W 104	5 16.09
	8792.00	50.55	260.66	8678.75	402.19	-646.59	-366.89	11.10	610303.22	616816.31	N 32 40 39.10 W 104	5 16.88
	8887.00	55.26	261.11	8736.03	477.54	-658.58	-441.68	4.97	610291.23	616741.51	N 32 40 38.99 W 104	5 17.76
LL Crossed	8930.00	57.01	261.83	8759.99	513.09	-663.88	-470.99	4.30	610285.94	616706.21	N 32 40 38.93 W 104	5 18.17
	8982.00	59.13	262.66	8787.50	557.07	-669.83	-520.72	4.30	610279.99	616662.49	N 32 40 38.88 W 104	5 18.68
100' FEL Crossed	9045.00	67.50	263.60	8815.77	613.20	-676.54	-576.55	13.35	610273.28	616606.66	N 32 40 38.81 W 104	5 19.34
	9078.00	71.88	264.04	8827.22	644.09	-679.87	-607.32	13.35	610269.95	616575.90	N 32 40 38.78 W 104	5 19.70
	9172.00	84.83	265.65	8846.15	735.91	-688.10	-698.81	13.88	610261.72	616484.41	N 32 40 38.70 W 104	5 20.77
	9261.00	84.88	267.48	8854.13	824.54	-693.41	-787.29	2.05	610256.41	616395.94	N 32 40 38.65 W 104	5 21.80
	9334.00	84.67	267.80	8860.78	897.23	-696.40	-859.93	0.52	610253.42	616323.31	N 32 40 38.62 W 104	5 22.65
	9430.00	87.70	268.62	8867.17	992.98	-699.39	-955.65	3.27	610250.43	616227.59	N 32 40 38.59 W 104	5 23.77
	9526.00	90.79	269.80	8868.43	1088.87	-700.71	-1051.62	3.45	610249.11	616131.63	N 32 40 38.58 W 104	5 24.90
	9620.00	90.39	269.61	8867.47	1182.75	-701.20	-1145.62	0.47	610248.62	616037.64	N 32 40 38.58 W 104	5 26.00
	9716.00	90.28	270.29	8866.90	1278.61	-701.28	-1241.61	0.72	610248.54	615944.65	N 32 40 38.58 W 104	5 27.12
	9813.00	90.28	271.00	8866.43	1375.39	-700.19	-1338.61	0.73	610248.63	615844.67	N 32 40 38.59 W 104	5 28.25
	9908.00	90.34	271.30	8865.92	1470.11	-698.28	-1433.59	0.32	610251.54	615749.70	N 32 40 38.62 W 104	5 29.36
	10004.00	90.34	271.32	8865.35	1565.82	-696.09	-1529.56	0.02	610253.73	615653.73	N 32 40 38.64 W 104	5 30.49
	10099.00	90.28	271.53	8864.83	1660.51	-693.73	-1624.53	0.23	610256.09	615558.77	N 32 40 38.66 W 104	5 31.60
	10195.00	90.34	271.64	8864.31	1756.18	-691.07	-1720.49	0.13	610258.75	615462.82	N 32 40 38.69 W 104	5 32.72
	10290.00	90.23	271.58	8863.84	1850.84	-688.40	-1815.45	0.13	610261.42	615367.86	N 32 40 38.72 W 104	5 33.83
	10386.00	90.28	271.22	8863.41	1946.54	-686.06	-1911.42	0.38	610263.76	615271.90	N 32 40 38.75 W 104	5 34.95
	10482.00	90.28	271.38	8862.94	2042.24	-683.88	-2007.40	0.17	610265.94	615175.94	N 32 40 38.77 W 104	5 36.08
	10577.00	90.39	271.63	8862.39	2136.92	-681.38	-2102.36	0.29	610268.44	615080.98	N 32 40 38.80 W 104	5 37.19
	10673.00	90.45	271.55	8861.69	2232.59	-678.72	-2198.32	0.10	610271.10	614985.03	N 32 40 38.83 W 104	5 38.31
	10767.00	90.39	271.33	8861.00	2326.28	-676.36	-2292.29	0.24	610273.46	614891.07	N 32 40 38.85 W 104	5 39.41
	10863.00	90.34	271.68	8860.38	2421.96	-673.84	-2388.25	0.37	610275.98	614795.11	N 32 40 38.88 W 104	5 40.53
	11054.00	90.28	271.71	8859.35	2512.26	-668.19	-2579.17	0.04	610281.63	614604.21	N 32 40 38.94 W 104	5 42.77
	11147.00	90.51	272.04	8858.71	2704.90	-665.14	-2672.12	0.43	610284.67	614511.27	N 32 40 38.97 W 104	5 43.85
	11337.00	90.23	271.87	8857.48	2894.13	-658.66	-2862.00	0.17	610291.16	614321.41	N 32 40 39.04 W 104	5 46.07
	11433.00	90.51	271.47	8856.86	2989.79	-655.86	-2957.96	0.51	610293.95	614225.46	N 32 40 39.07 W 104	5 47.20
	11624.00	92.07	272.29	8852.56	3179.99	-649.60	-3148.80	0.92	610300.22	614034.63	N 32 40 39.14 W 104	5 49.43
	11815.00	92.36	273.15	8845.18	3369.83	-640.54	-3339.44	0.47	610309.27	613844.01	N 32 40 39.23 W 104	5 51.66
	11911.00	92.19	273.79	8841.37	3465.11	-634.74	-3435.19	0.69	610315.08	613748.27	N 32 40 39.29 W 104	5 52.78
	12007.00	92.58	273.82	8837.38	3560.31	-628.37	-3530.89	0.41	610321.44	613652.57	N 32 40 39.35 W 104	5 53.90
	12102.00	92.69	274.16	8833.01	3654.47	-621.77	-3625.56	0.38	610328.05	613557.91	N 32 40 39.42 W 104	5 55.01
	12197.00	93.22	269.04	8828.11	3748.98	-619.12	-3720.37	5.41	610330.69	613463.11	N 32 40 39.45 W 104	5 56.12
	12275.00	90.44	266.79	8825.62	3826.92	-621.96	-3798.26	4.58	610327.86	613385.23	N 32 40 39.42 W 104	5 57.03
	12291.00	90.11	267.05	8825.54	3842.92	-622.82	-3814.24	2.63	610327.00	613369.25	N 32 40 39.41 W 104	5 57.21
	12387.00	90.16	269.10	8825.31	3938.89	-626.04	-3910.18	2.14	610323.77	613273.32	N 32 40 39.39 W 104	5 58.34
	12482.00	89.94	269.12	8825.23	4033.81	-627.52	-4005.17	0.23	610322.30	613178.34	N 32 40 39.37 W 104	5 59.45
	12577.00	89.88	269.01	8825.38	4128.74	-629.07	-4100.16	0.13	610320.75	613083.36	N 32 40 39.36 W 104	6 0.56
	12673.00	90.11	269.35	8825.40	4318.58	-631.79	-4290.14	0.22	610318.03	612893.39	N 32 40 39.34 W 104	6 2.78
	12966.00	89.99	269.43	8825.23	4507.39	-633.80	-4479.12	0.08	610316.02	612704.42	N 32 40 39.32 W 104	6 4.99
	13051.00	90.05	269.46	8825.20	4602.29	-634.72	-4574.12	0.07	610315.10	612609.43	N 32 40 39.31 W 104	6 6.10
	13145.00	89.94	269.47	8825.21	4696.19	-635.60	-4668.12	0.12	610314.22	612515.45	N 32 40 39.31 W 104	6 7.20
	13334.00	90.11	269.54	8825.12	4884.98	-637.23	-4857.11	0.10	610312.59	612326.47	N 32 40 39.29 W 104	6 9.41
	13523.00	90.16	269.28	8824.68	5073.79	-639.17	-5046.10	0.14	610310.64	612137.50	N 32 40 39.28 W 104	6 11.63
	13618.00	90.11	269.15	8824.45	5168.70	-640.48	-5141.09	0.15	610309.34	612042.51	N 32 40 39.27 W 104	6 12.74
	13712.00	89.94	269.38	8824.41	5262.62	-641.68	-5235.08	0.30	610308.13	611948.53	N 32 40 39.26 W 104	6 13.84
	13807.00	90.05	269.22	8824.42	5357.53	-642.84	-5330.07	0.20	610306.97	611853.55	N 32 40 39.25 W 104	6 14.95
	13997.00	89.94	269.33	8824.44	5547.35	-645.25	-5520.06	0.08	610304.57	611663.58	N 32 40 39.23 W 104	6 17.17
	14091.00	89.99	269.57	8824.50	5641.25	-646.15	-5614.05	0.26	610303.67	611569.59	N 32 40 39.22 W 104	6 18.27
	14186.00	91.17	271.28	8823.53	5736.06	-645.44	-5709.04	2.19	610304.37	611474.61	N 32 40 39.23 W 104	6 19.38
	14375.00	91.00	271.31	8819.96	5924.45	-641.17	-5897.96	0.09	610308.64	611285.71	N 32 40 39.28 W 104	6 21.59
	14470.00	91.11	271.31	8818.21	6019.14	-639.00	-5992.92	0.12	610310.81	611190.76	N 32 40 39.30 W 104	6 22.70
	14565.00	91.11	271.49	8816.37	6113.82	-636.68	-6087.87	0.19	610313.13	611095.81	N 32 40 39.33 W 104	6 23.81
	14659.00	91.11	271.52	8814.54	6207.49	-634.21	-6181.82	0.03	610315.60	611001.87	N 32 40 39.35 W 104	6 24.91
	14849.00	90.95	271.14	8811.13	6396.87	-629.80	-6371.74	0.22	610320.01	610811.97	N 32 40 39.40 W 104	6 27.13
	14943.00	91.00	271.59	8809.53	6490.56	-627.57	-6465.70	0.48	610322.25	610718.02	N 32 40 39.42 W 104	6 28.23
	15038.00	91.06	271.37	8807.82	6585.23	-625.11	-6560.65	0.24	610324.70	610623.07	N 32 40 39.45 W 104	6 29.34
	15226.00	90.66	271.13	8805.00	6772.64	-621.01	-6748.59	0.25	610328.80	610435.16	N 32 40 39.50 W 104	6 31.54
	15320.00	90.66	271.56	88								

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 ° ' ")
	18326.00	90.09	269.00	8780.41	9863.34	-559.94	-9847.44	0.07	610389.87	607336.57	N 32 40 40.16	W 104 7 7.80
	18421.00	90.03	269.39	8780.31	9958.26	-561.27	-9942.43	0.42	610388.54	607241.58	N 32 40 40.15	W 104 7 8.91
	18516.00	90.15	269.34	8780.17	10053.17	-562.32	-10037.43	0.14	610387.48	607146.60	N 32 40 40.14	W 104 7 10.02
	18610.00	90.60	268.98	8779.55	10147.09	-563.70	-10131.42	0.61	610386.11	607052.62	N 32 40 40.13	W 104 7 11.12
	18705.00	90.65	269.19	8778.51	10242.01	-565.22	-10226.40	0.23	610384.59	606957.64	N 32 40 40.12	W 104 7 12.23
	18800.00	90.71	269.20	8777.39	10336.92	-566.55	-10321.38	0.06	610383.26	606862.67	N 32 40 40.11	W 104 7 13.34
	18893.00	90.65	269.10	8776.28	10429.83	-567.93	-10414.37	0.13	610381.88	606769.69	N 32 40 40.10	W 104 7 14.43
	18987.00	90.82	269.46	8775.08	10523.74	-569.11	-10508.35	0.42	610380.69	606675.72	N 32 40 40.09	W 104 7 15.53
	19083.00	90.76	269.30	8773.75	10619.64	-570.15	-10604.34	0.18	610379.66	606579.74	N 32 40 40.08	W 104 7 16.65
	19178.00	90.71	269.24	8772.53	10714.54	-571.36	-10699.32	0.08	610378.45	606484.76	N 32 40 40.07	W 104 7 17.76
100' FWL Crossed	19180.00	90.70	269.24	8772.51	10716.54	-571.39	-10701.32	0.41	610378.42	606482.76	N 32 40 40.07	W 104 7 17.79
Final MWD	19225.00	90.54	269.15	8772.02	10761.50	-572.02	-10746.31	0.41	610377.79	606437.78	N 32 40 40.06	W 104 7 18.31
Proj to TD	19260.00	90.54	269.15	8771.69	10796.47	-572.54	-10781.31	0.00	610377.27	606402.78	N 32 40 40.06	W 104 7 18.72

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 Turkey Track 8-7 State 32H Gyro + MWD 0-19260'MD
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD 0-19260'MD
	1	26.500	266.440	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD
	1	266.440	3002.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD
	1	3002.000	12102.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD
	1	12102.000	12197.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD
	1	12197.000	19260.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Turkey Track 8-7 State 32H Gyro + MWD

...Original Borehole\Oxy Turkey Track 8-7 State 32H Gyro + MWD 0-19260'MD