

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

June 18, 2019

Chevron

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
AUG 26 2019

**RECEIVED**

Re:

CLIENT: Oxy USA WTP Limited Partnership  
WELL: Turkey Track 8-7 201H  
FIELD: Bone Spring

S9, T19S, R29E Eddy, NM  
N 32.67950 W -104.80683

RIG: H&P 636  
COUNTY: EDDY  
API NO: 30-015-45681  
JOB NO: 19MLH0204

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 &amp; Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Ahmad Aldashti FE	Turkey Track 8-7 201H Original Hole	7226.00 Ft to 18234.00 Ft	June 1, 2019 to June 13, 2019	Telepacer/SlimPulse 3rd Party Corrected

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

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)



Well Reference:  
S9, T19S, R29E Eddy, NM  
N 32.67950 W -104.80683

I, Ahmad Aldashti certify that: I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of June 01, 2019 through June 13, 2019, conduct or supervise the taking of the Telepacor/SlimPulse & 3rd Party Corrected surveys from a depth of 7226.00 feet to a depth of 18234.00 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 201H Well (Original Hole) API No. 30-015-45681 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  
Ahmad Aldashti  
FE

Subscribed and Sworn to before me this 19 day of June (month) 2019 (yr)

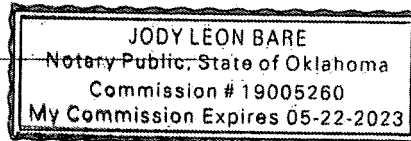
My Commission expires:  
3-22-2023

(signature)

Notary Public

Grady, OK

(County State)





Oxy

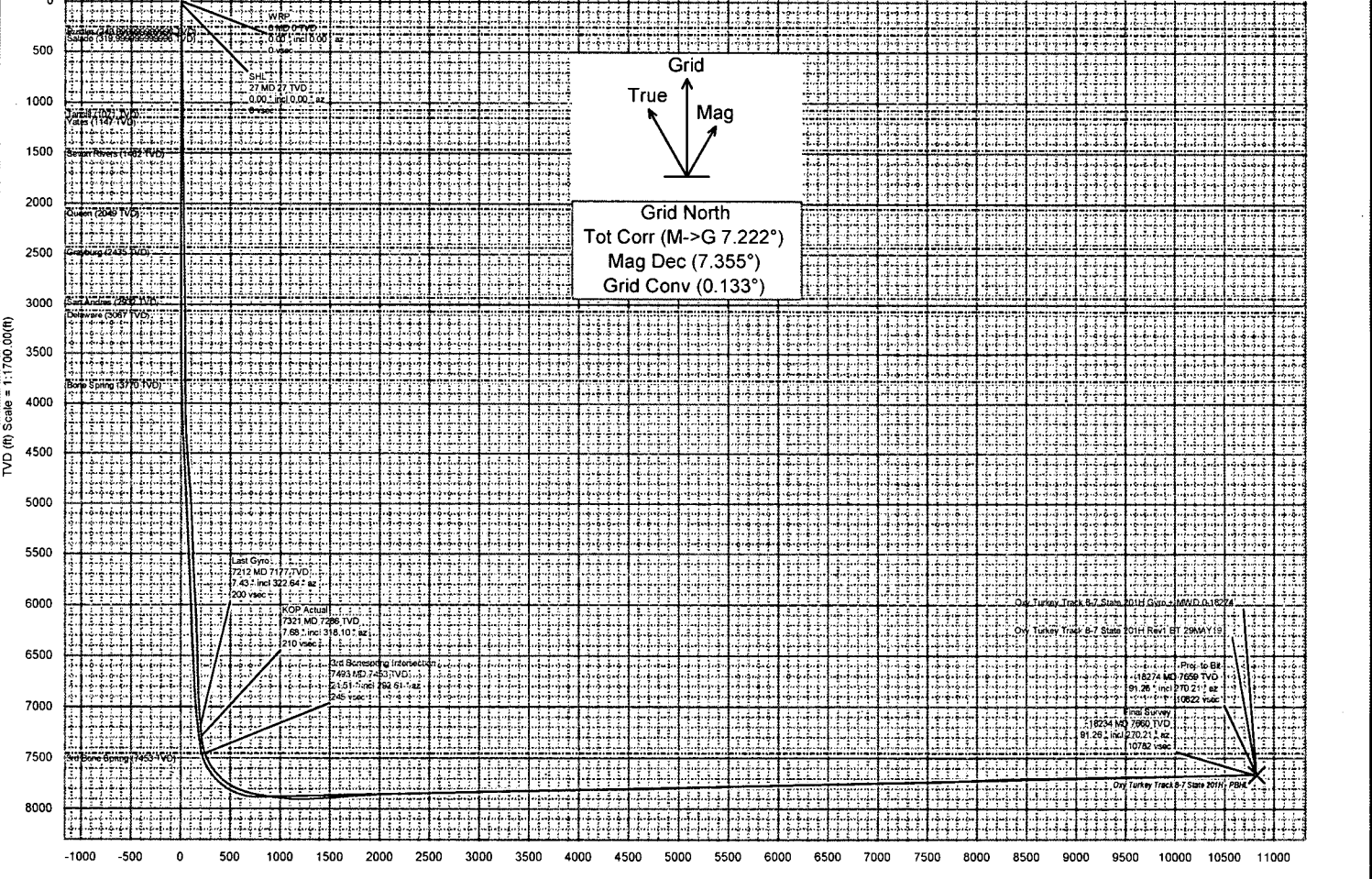
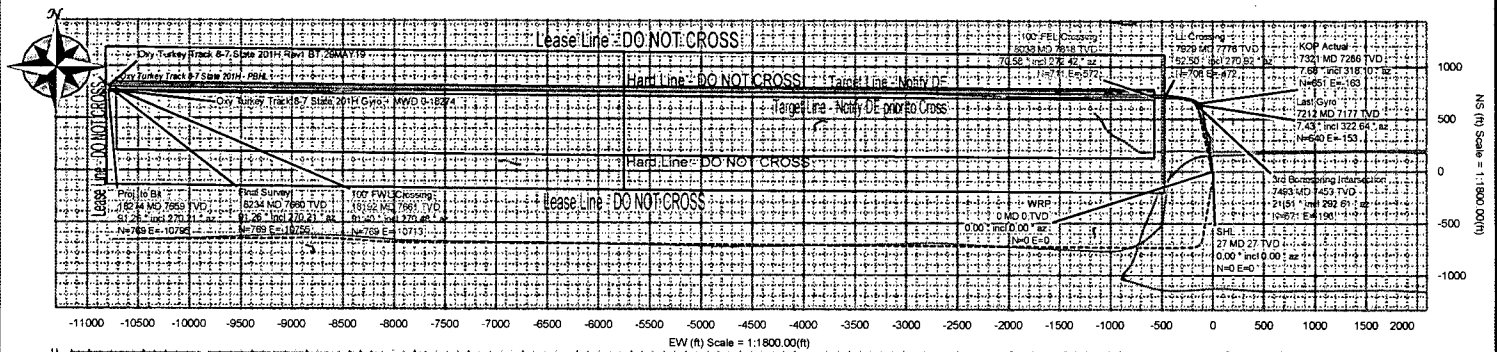


<b>Borehole:</b>	<b>Well:</b>	<b>Field:</b>	<b>Structure:</b>
Original Borehole	Oxy Turkey Track 8-7 State 201H	NM Eddy County (NAD 83)	Oxy Turkey Track 8-7 State 201H

<b>Gravity &amp; Magnetic Parameters</b>		<b>Surface Location</b>		<b>Miscellaneous</b>	
Model: IIFR1	Dip: 60.51°	Date: 30-May-2019	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Slot: New Slot	TVD Ref: RKB(3422.8ft above MSL)
MagDec: 7.355°	FS: 48025.9nT	Gravity FS: 980.614mgn (9.80665 Based)	Lat: N 32 40 46.18	Northing: 611019.76NUS	Grid Conv: 0.1331°
			Lon: W 104 5 12.57	Eastng: 617183.29NUS	Scale Fact: 0.99991568
				Plan: Oxy Turkey Track 8-7 State 201H Gyro + MWD 0-18274	

**Critical Points**

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
WRP	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	7211.50	7.43	322.64	7177.05	200.12	639.56	-153.33	2.35
KOP Actual	7321.00	7.68	318.10	7285.57	210.44	650.60	-162.86	0.23
3rd Bonespring Intersection	7493.49	21.51	292.61	7453.00	244.88	671.18	-195.87	9.96
LL Crossing	7929.24	62.50	270.92	7775.65	522.75	708.06	-471.77	11.29
100' FEL Crossing	8037.92	70.58	272.42	7818.49	622.43	710.79	-571.52	6.40
100' FWL Crossing	18192.37	91.40	270.48	7660.54	10740.60	769.01	-10713.06	0.72
Final Survey	18234.00	91.26	270.21	7659.57	10782.12	769.26	-10754.68	0.72
Proj. to Bit	18274.00	91.26	270.21	7658.69	10822.02	769.41	-10794.67	0.00



Vertical Section (ft) Azim = 274.23° Scale = 1:1700.00(ft) Origin = 0N-S, 0E-W

## Oxy Turkey Track 8-7 State 201H Gyro + MWD 0-18274' Survey Geodetic Report

(Def Survey)



**Report Date:** June 18, 2019 - 01:37 PM  
**Client:** Oxy  
**Field:** NM Eddy County (NAD 83)  
**Structure / Slot:** Oxy Turkey Track 8-7 State 201H / New Slot  
**Well:** Oxy Turkey Track 8-7 State 201H  
**Borehole:** Original Borehole  
**UWI / API#:** Unknown / 30-015-45681  
**Survey Name:** Oxy Turkey Track 8-7 State 201H Gyro + MWD 0-18274  
**Survey Date:** May 31, 2019  
**Tort / AHD / DDI / ERD Ratio:** 198.485° / 11333.605 ft / 6.716 / 1.434  
**Coordinate Reference System:** NAD83 New Mexico State Plane, Eastern Zone, US Feet  
**Location Lat / Long:** N 32° 40' 46.18442", W 104° 5' 12.57044"  
**Location Grid N/E Y/X:** N 611019.760 RUS, E 617183.290 RUS  
**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:** 274.233° (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:** 7.355°  
**Total Gravity Field Strength:** 998.5136mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 48025.900 nT  
**Magnetic Dip Angle:** 60.519°  
**Declination Date:** May 30, 2019  
**Magnetic Declination Model:** IIFR1  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.1331°  
**Total Corr Mag North->Grid North:** 7.2219°  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S °'")	Longitude (E/W °'")
WRP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	611019.76	617183.29	N 32 40 46.18 W 104	5 12.57
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	611019.76	617183.29	N 32 40 46.18 W 104	5 12.57
	100.00	0.47	283.58	100.00	0.30	0.07	-0.29	0.64	611019.83	617183.00	N 32 40 46.19 W 104	5 12.57
	125.00	0.63	280.40	125.00	0.54	0.12	-0.53	0.65	611019.88	617182.76	N 32 40 46.19 W 104	5 12.58
	150.00	0.87	274.97	150.00	0.82	0.16	-0.81	0.29	611019.92	617182.48	N 32 40 46.19 W 104	5 12.58
	175.00	0.83	285.88	174.99	1.14	0.22	-1.13	0.86	611019.98	617182.16	N 32 40 46.19 W 104	5 12.58
	200.00	0.98	284.58	199.99	1.53	0.34	-1.51	0.61	611020.08	617181.78	N 32 40 46.19 W 104	5 12.59
	225.00	0.97	288.06	224.99	1.95	0.42	-1.92	0.24	611020.20	617181.37	N 32 40 46.19 W 104	5 12.59
	250.00	0.99	288.75	249.98	2.36	0.58	-2.32	0.09	611020.34	617180.97	N 32 40 46.19 W 104	5 12.60
	275.00	0.98	294.94	274.98	2.77	0.74	-2.72	0.43	611020.50	617180.57	N 32 40 46.19 W 104	5 12.60
	300.00	1.08	299.93	299.98	3.18	0.94	-3.12	0.54	611020.70	617180.17	N 32 40 46.19 W 104	5 12.61
	325.00	1.13	301.65	324.97	3.61	1.19	-3.53	0.24	611020.95	617179.76	N 32 40 46.20 W 104	5 12.61
	350.00	1.19	303.87	349.97	4.06	1.47	-3.96	0.30	611021.23	617179.33	N 32 40 46.20 W 104	5 12.62
	375.00	1.24	301.87	374.96	4.52	1.75	-4.40	0.26	611021.51	617178.89	N 32 40 46.20 W 104	5 12.62
	400.00	1.33	301.80	399.95	5.02	2.05	-4.88	0.36	611021.81	617178.41	N 32 40 46.20 W 104	5 12.63
	425.00	1.55	304.87	424.95	5.57	2.39	-5.40	0.93	611022.15	617177.89	N 32 40 46.21 W 104	5 12.63
	450.00	1.76	306.13	449.94	6.18	2.81	-5.99	0.85	611022.57	617177.30	N 32 40 46.21 W 104	5 12.64
	475.00	1.90	310.29	474.92	6.84	3.31	-6.62	0.77	611023.07	617176.67	N 32 40 46.22 W 104	5 12.65
	500.00	2.05	315.36	499.91	7.52	3.90	-7.25	0.92	611023.65	617176.04	N 32 40 46.22 W 104	5 12.66
	525.00	2.30	316.83	524.89	8.22	4.58	-7.91	1.02	611024.34	617175.38	N 32 40 46.23 W 104	5 12.66
	550.00	2.43	321.96	549.87	8.95	5.36	-8.58	0.99	611025.12	617174.71	N 32 40 46.24 W 104	5 12.67
	575.00	2.56	326.04	574.85	9.65	6.24	-9.21	0.88	611026.00	617174.08	N 32 40 46.25 W 104	5 12.68
	600.00	2.81	329.43	599.82	10.35	7.23	-9.84	1.18	611026.98	617173.45	N 32 40 46.26 W 104	5 12.69
	625.00	2.97	332.23	624.79	11.04	8.33	-10.45	0.85	611028.09	617172.84	N 32 40 46.27 W 104	5 12.69
	650.00	2.98	335.07	649.75	11.70	9.50	-11.03	0.59	611028.26	617172.26	N 32 40 46.28 W 104	5 12.70
	675.00	3.09	337.50	674.72	12.32	10.71	-11.56	0.68	611030.47	617171.73	N 32 40 46.29 W 104	5 12.71
	700.00	3.13	337.19	699.68	12.93	11.96	-12.08	0.17	611031.72	617171.21	N 32 40 46.30 W 104	5 12.71
	725.00	3.17	341.20	724.64	13.51	13.24	-12.57	0.90	611033.00	617170.72	N 32 40 46.32 W 104	5 12.72
	750.00	3.26	343.28	749.60	14.04	14.58	-13.00	0.59	611034.34	617170.30	N 32 40 46.33 W 104	5 12.72
	775.00	3.30	346.78	774.56	14.51	15.96	-13.36	0.82	611035.72	617169.93	N 32 40 46.34 W 104	5 12.73
	800.00	3.43	349.23	799.52	14.92	17.40	-13.67	0.78	611037.15	617169.62	N 32 40 46.36 W 104	5 12.73
	825.00	3.71	350.51	824.47	15.30	18.93	-13.94	1.16	611038.69	617169.35	N 32 40 46.37 W 104	5 12.73
	850.00	3.90	352.57	849.42	15.67	20.57	-14.19	0.94	611040.33	617169.11	N 32 40 46.39 W 104	5 12.74
	875.00	4.13	353.84	874.35	16.00	22.31	-14.39	0.99	611042.06	617168.90	N 32 40 46.41 W 104	5 12.74
	900.00	4.26	355.30	899.29	16.31	24.13	-14.56	0.67	611043.88	617168.73	N 32 40 46.42 W 104	5 12.74
	925.00	4.57	356.91	924.21	16.58	26.05	-14.69	1.34	611045.80	617168.60	N 32 40 46.44 W 104	5 12.74
	950.00	4.76	359.57	949.13	16.79	28.08	-14.76	1.15	611047.84	617168.54	N 32 40 46.46 W 104	5 12.74
	975.00	4.96	359.90	974.04	16.95	30.20	-14.77	0.81	611049.95	617168.53	N 32 40 46.48 W 104	5 12.74
	1000.00	5.10	356.95	998.94	17.18	32.39	-14.83	1.18	611052.14	617168.46	N 32 40 46.51 W 104	5 12.74
	1025.00	5.38	358.77	1023.84	17.43	34.67	-14.91	1.30	611054.43	617168.38	N 32 40 46.53 W 104	5 12.74
	1050.00	5.65	2.92	1048.72	17.57	37.07	-14.87	1.93	611056.83	617168.42	N 32 40 46.55 W 104	5 12.74
	1075.00	5.88	4.55	1073.60	17.59	39.60	-14.71	1.48	611059.35	617168.58	N 32 40 46.58 W 104	5 12.74
	1100.00	5.95	3.71	1098.46	17.59	42.19	-14.52	0.37	611061.94	617168.77	N 32 40 46.60 W 104	5 12.74
	1125.00	5.82	4.01	1123.33	17.61	44.75	-14.35	0.53	611064.50	617168.94	N 32 40 46.63 W 104	5 12.74
	1150.00	6.11	3.86	1148.19	17.63	47.34	-14.17	1.16	611067.09	617169.12	N 32 40 46.65 W 104	5 12.73
	1175.00	6.07	4.17	1173.05	17.64	49.98	-13.98	0.21	611069.74	617169.31	N 32 40 46.68 W 104	5 12.73
	1200.00	5.95	2.78	1197.91	17.67	52.60	-13.83	0.75	611072.35	617169.47	N 32 40 46.71 W 104	5 12.73
	1225.00	5.90	2.13	1222.78	17.75	55.17	-13.71	0.33	611074.93	617169.58	N 32 40 46.73 W 104	5 12.73
	1250.00	5.98	1.06	1247.65	17.87	57.76	-13.64	0.55	611077.51	617169.65	N 32 40 46.76 W 104	5 12.73
	1275.00	5.89	3.25	1272.51	17.96	60.34	-13.55	0.97	611080.10	617169.75	N 32 40 46.78 W 104	5 12.73
	1300.00	5.75	0.53	1297.38	18.07	62.88	-13.46	1.24	611082.63	617169.83	N 32 40 46.81 W 104	5 12.73
	1325.00	5.70	0.02	1322.26	18.24	65.37	-13.45	0.29	611085.12	617169.84	N 32 40 46.83 W 104	5 12.73
	1350.00	5.67	0.43	1347.14	18.41	67.85	-13.44	0.20	611087.60	617169.85	N 32 40 46.86 W 104	5 12.73
	1375.00	5.53	358.24	1372.02	18.62	70.28	-13.47	1.02	611090.04	617169.82	N 32 40 46.88 W 104	5 12.73
	1400.00	5.15	359.72	1396.91	18.83	72.61	-13.51	1.62	611092.36	617169.78	N 32 40 46.90 W 104	5 12.73
	1425.00	5.57	357.87	1421.80	19.06	74.95	-13.56	1.82	611094.70	617169.73	N 32 40 46.93 W 104	5 12.73
	1450.00	5.58	355.26	1446.68	19.38	77.37	-13.71	1.01	611097.12	617169.59	N 32 40 46.95 W 104	5 12.73
	1475.00	5.85	356.44	1471.56	19.74	79.81	-13.88	0.54	611099.56	617169.41	N 32 40 46.97 W 104	5 12.73
	1500.00	5.59	355.90	1496.44	20.08	82.25	-14.05	0.32	611102.00	617169.24	N 32 40 47.00 W 104	5 12.73
	1525.00	5.83	355.27	1521.32	20.45	84.69	-14.23	0.29	611104.44	617169.06	N 32 40 47.02 W 104	5 12.73
	1550.00	5.54	356.73	1546.20	20.80	87.11	-14.40	0.67	611106.87	617168.89	N 32 40 47.05 W 104	5 12.74
	1575.00	5.80	354.83	1571.08	21.15	89.53	-14.58	0.78	611109.29	617168.71	N 32 40 47.07 W 104	5 12.74
	1600.00	5.65	353.06	1595.96	21.59	91.97	-14.84	0.72	611111.72	617168.45	N 32 40 47.09 W 104	5 12.74
	1625.00	5.87	356.52	1620.84	21.99	94.43	-15.07	1.37	611114.18	617168.23	N 32 40 47.12 W 104	5 12.74
	1650.00	5.72	356.04	1645.72	22.34	96.90	-15.23	0.28	611116.65	617168.06	N 32 40 47.14 W 104	5 12.75
	1675.00	5.79	356.22	1670.59	22.69	99.40	-15.40	0.29	611119.15	617167.90	N 32 40 47.17 W 104	5 12.75
	1700.00	5.79	354.82	1695.47	23.07	101.92	-15.59	0.56	611121.67	617167.70	N 32 40 47.19 W 104	5 12.75
	1725.00	6.15	356.37	1720.33	23.46	104.51	-15.79	1.58	611124.26	617167.50	N 32 40 47.22 W 104	5 12.75
	1750.00	5.81	355.79	1745.19	23.83	107.11	-15.97	1.38	611126.86	617167.32	N 32 40 47.24 W 104	5 12.75
	1775.00	5.85	355.25	1770.07	24.21	109.80	-16.16	0.68	611129.35	617167.13	N 32 40 47.27 W 104	5 12.76
	1800.00	5.86	355.60	1794.95	24.59	112.05	-16.36	0.14	611131.80	617166.93	N 32 40 47.29 W 104	5 12.76
	1825.00	5.82	356.31	1819.83	24.94	114.50	-16.53	0.32	611134.25	617166.76	N 32 40 47.32 W 104	5 12.76
	1850.00	5.53	354.52	1844.71	25.31	116.92	-16.73	0.78	611136.67	617166.56	N 32 40 47.34 W 104	5 12.76
	1875.00	5.12	356.69	1869.60	25.66	119.23	-16.91					

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2025.00	5.24	356.44	2018.95	27.78	133.13	-18.00	1.56	611152.88	617165.29	N 32 40 47.50 W 104	5 12.78	
	2050.00	5.21	356.33	2043.85	28.09	135.41	-18.14	0.13	611155.15	617165.15	N 32 40 47.52 W 104	5 12.78	
	2075.00	5.06	356.81	2068.75	28.39	137.64	-18.27	0.62	611157.39	617165.02	N 32 40 47.55 W 104	5 12.78	
	2100.00	5.36	357.25	2093.64	28.67	139.91	-18.39	1.21	611159.65	617164.90	N 32 40 47.57 W 104	5 12.78	
	2125.00	5.11	355.74	2118.54	28.98	142.18	-18.53	1.14	611161.93	617164.76	N 32 40 47.59 W 104	5 12.78	
	2150.00	5.16	356.34	2143.44	29.29	144.42	-18.69	0.29	611164.16	617164.61	N 32 40 47.61 W 104	5 12.79	
	2175.00	5.03	356.81	2168.34	29.59	146.63	-18.82	0.55	611166.38	617164.47	N 32 40 47.64 W 104	5 12.79	
	2200.00	4.99	356.84	2193.24	29.87	148.81	-18.94	0.16	611168.56	617164.35	N 32 40 47.66 W 104	5 12.79	
	2225.00	4.88	357.49	2218.15	30.14	150.96	-19.05	0.49	611170.71	617164.25	N 32 40 47.68 W 104	5 12.79	
	2250.00	5.26	355.79	2243.05	30.43	153.16	-19.18	1.63	611172.91	617164.12	N 32 40 47.70 W 104	5 12.79	
	2275.00	5.02	354.84	2267.95	30.78	155.40	-19.36	1.02	611175.14	617163.93	N 32 40 47.72 W 104	5 12.79	
	2300.00	4.85	355.31	2292.86	31.12	157.54	-19.54	0.70	611177.29	617163.75	N 32 40 47.74 W 104	5 12.79	
	2325.00	4.93	355.15	2317.77	31.45	159.66	-19.72	0.32	611179.41	617163.57	N 32 40 47.76 W 104	5 12.80	
	2350.00	4.89	356.68	2342.68	31.76	161.80	-19.87	0.55	611181.54	617163.42	N 32 40 47.79 W 104	5 12.80	
	2375.00	4.96	356.39	2367.58	32.05	163.94	-20.00	0.30	611183.69	617163.29	N 32 40 47.81 W 104	5 12.80	
	2400.00	4.95	354.96	2392.49	32.37	166.09	-20.17	0.50	611185.84	617163.13	N 32 40 47.83 W 104	5 12.80	
	2425.00	5.10	356.22	2417.40	32.70	168.28	-20.33	0.74	611188.02	617162.96	N 32 40 47.85 W 104	5 12.80	
	2450.00	5.27	352.86	2442.29	33.08	170.52	-20.55	1.39	611190.27	617162.74	N 32 40 47.87 W 104	5 12.81	
	2475.00	4.99	354.60	2467.19	33.49	172.75	-20.79	1.28	611192.49	617162.50	N 32 40 47.89 W 104	5 12.81	
	2500.00	4.96	355.97	2492.10	33.83	174.91	-20.97	0.49	611194.65	617162.32	N 32 40 47.92 W 104	5 12.81	
	2525.00	5.00	355.92	2517.00	34.14	177.07	-21.13	0.16	611196.82	617162.17	N 32 40 47.94 W 104	5 12.81	
	2550.00	5.04	355.55	2541.91	34.46	179.25	-21.29	0.21	611199.00	617162.00	N 32 40 47.96 W 104	5 12.81	
	2575.00	5.27	357.41	2566.81	34.77	181.49	-21.43	1.14	611201.24	617161.87	N 32 40 47.98 W 104	5 12.82	
	2600.00	4.97	355.01	2591.71	35.08	183.72	-21.57	1.47	611203.46	617161.72	N 32 40 48.00 W 104	5 12.82	
	2625.00	5.04	354.80	2616.61	35.43	185.89	-21.77	0.29	611205.64	617161.53	N 32 40 48.02 W 104	5 12.82	
	2650.00	5.04	354.53	2641.52	35.79	188.08	-21.97	0.09	611207.82	617161.32	N 32 40 48.05 W 104	5 12.82	
	2675.00	5.12	354.32	2666.42	36.17	190.28	-22.19	0.33	611210.03	617161.11	N 32 40 48.07 W 104	5 12.82	
	2700.00	5.35	355.24	2691.31	36.55	192.55	-22.39	0.98	611212.30	617160.90	N 32 40 48.09 W 104	5 12.83	
	2725.00	5.29	354.46	2716.21	36.92	194.86	-22.60	0.38	611214.61	617160.69	N 32 40 48.11 W 104	5 12.83	
	2750.00	5.22	355.22	2741.10	37.30	197.15	-22.81	0.34	611216.89	617160.48	N 32 40 48.14 W 104	5 12.83	
	2775.00	5.42	349.17	2766.00	37.66	199.42	-23.01	0.15	611219.16	617160.29	N 32 40 48.16 W 104	5 12.83	
	2800.00	5.17	356.76	2790.89	38.05	201.71	-23.33	2.26	611221.45	617159.96	N 32 40 48.18 W 104	5 12.84	
	2825.00	5.13	356.93	2815.78	38.41	203.99	-23.61	2.97	611223.74	617159.68	N 32 40 48.20 W 104	5 12.84	
	2850.00	5.40	355.57	2840.68	38.80	206.28	-23.74	0.64	611226.02	617159.55	N 32 40 48.23 W 104	5 12.84	
	2875.00	5.42	355.56	2865.57	39.23	208.51	-23.89	0.58	611228.35	617159.40	N 32 40 48.25 W 104	5 12.84	
	2900.00	5.49	356.52	2890.46	39.62	210.76	-24.07	0.08	611230.70	617159.22	N 32 40 48.27 W 104	5 12.85	
	2925.00	5.50	352.72	2915.34	40.02	213.03	-24.24	0.46	611233.07	617159.05	N 32 40 48.30 W 104	5 12.85	
	2950.00	5.37	357.14	2940.23	40.42	215.31	-24.45	1.75	611235.45	617158.83	N 32 40 48.32 W 104	5 12.85	
	2975.00	5.37	357.14	2965.12	40.70	218.07	-24.67	1.46	611237.81	617158.62	N 32 40 48.34 W 104	5 12.85	
	3000.00	5.37	357.86	2990.01	40.98	220.41	-24.77	0.27	611240.15	617158.52	N 32 40 48.37 W 104	5 12.85	
	3025.00	5.56	357.87	3014.89	41.24	222.79	-24.86	0.76	611242.53	617158.43	N 32 40 48.39 W 104	5 12.86	
	3050.00	5.69	358.42	3039.77	41.48	225.24	-24.92	0.80	611244.98	617158.37	N 32 40 48.41 W 104	5 12.86	
	3075.00	5.48	357.10	3064.65	41.73	227.67	-24.99	1.23	611247.41	617158.30	N 32 40 48.44 W 104	5 12.86	
	3100.00	5.46	358.34	3089.54	42.00	230.05	-25.09	0.48	611249.79	617158.20	N 32 40 48.46 W 104	5 12.86	
	3125.00	5.54	358.64	3114.42	42.24	232.44	-25.15	0.34	611252.18	617158.14	N 32 40 48.48 W 104	5 12.86	
	3150.00	5.41	358.73	3139.31	42.47	234.83	-25.21	0.52	611254.57	617158.09	N 32 40 48.51 W 104	5 12.86	
	3175.00	5.67	358.34	3164.19	42.71	237.24	-25.27	1.05	611256.98	617158.02	N 32 40 48.53 W 104	5 12.86	
	3200.00	5.80	359.71	3189.07	42.94	239.74	-25.31	0.76	611259.48	617157.98	N 32 40 48.56 W 104	5 12.86	
	3225.00	5.63	359.14	3213.94	43.15	242.23	-25.34	0.72	611261.97	617157.96	N 32 40 48.58 W 104	5 12.86	
	3250.00	5.66	359.80	3238.82	43.35	244.69	-25.36	0.29	611264.43	617157.93	N 32 40 48.61 W 104	5 12.86	
	3275.00	5.53	359.31	3263.70	43.55	247.12	-25.38	0.55	611266.86	617157.92	N 32 40 48.63 W 104	5 12.86	
	3300.00	5.51	357.53	3288.59	43.79	249.53	-25.44	0.69	611269.27	617157.85	N 32 40 48.65 W 104	5 12.86	
	3325.00	5.34	358.75	3313.48	44.04	251.89	-25.52	0.82	611271.63	617157.77	N 32 40 48.68 W 104	5 12.86	
	3350.00	5.79	2.23	3338.36	44.20	254.31	-25.50	2.25	611274.05	617157.80	N 32 40 48.70 W 104	5 12.86	
	3375.00	5.79	9.17	3363.23	44.14	256.82	-25.25	2.80	611276.56	617158.05	N 32 40 48.73 W 104	5 12.86	
	3400.00	5.97	9.25	3388.10	43.91	259.35	-24.84	0.72	611279.08	617158.46	N 32 40 48.75 W 104	5 12.85	
	3425.00	5.66	343.88	3412.98	44.23	261.81	-24.97	10.27	611281.55	617158.32	N 32 40 48.78 W 104	5 12.86	
	3450.00	5.81	0.42	3437.85	44.74	264.26	-25.30	6.62	611284.00	617157.99	N 32 40 48.80 W 104	5 12.86	
	3475.00	5.84	1.31	3462.72	44.89	266.80	-25.26	0.38	611286.54	617158.03	N 32 40 48.82 W 104	5 12.86	
	3500.00	5.84	1.11	3487.59	45.02	269.34	-25.21	0.08	611289.08	617158.08	N 32 40 48.85 W 104	5 12.86	
	3525.00	5.77	1.04	3512.46	45.16	271.87	-25.16	0.28	611291.61	617158.13	N 32 40 48.88 W 104	5 12.86	
	3550.00	5.83	2.49	3537.34	45.27	274.40	-25.09	0.63	611294.13	617158.21	N 32 40 48.90 W 104	5 12.86	
	3575.00	5.79	2.55	3562.21	45.35	276.93	-24.97	0.16	611296.66	617158.32	N 32 40 48.93 W 104	5 12.86	
	3600.00	5.81	2.65	3587.08	45.42	279.45	-24.86	0.09	611299.19	617158.43	N 32 40 48.95 W 104	5 12.85	
	3625.00	5.81	2.33	3611.95	45.50	281.98	-24.75	0.13	611301.71	617158.54	N 32 40 48.97 W 104	5 12.85	
	3650.00	5.90	2.11	3636.82	45.59	284.53	-24.65	0.37	611304.26	617158.64	N 32 40 49.00 W 104	5 12.85	
	3675.00	5.94	1.95	3661.69	45.69	287.10	-24.56	0.17	611306.84	617158.73	N 32 40 49.03 W 104	5 12.85	
	3700.00	5.95	1.59	3686.55	45.80	289.69	-24.48	0.15	611309.43	617158.81	N 32 40 49.05 W 104	5 12.85	
	3725.00	5.77	1.64	3711.42	45.91	292.24	-24.41	0.72	611311.98	617158.88	N 32 40 49.08 W 104	5 12.85	
	3750.00	5.71	1.49	3736.30	46.03	294.74	-24.34	0.25	611314.48	617158.95	N 32 40 49.10 W 104	5 12.85	
	3775.00	5.67	1.95	3761.17	46.14	297.22	-24.27	0.24	611316.95	617159.03	N 32 40 49.13 W 104	5 12.85	
	3800.00	5.65	1.74	3786.05	46.24	299.68	-24.19	0.12	611319.42	617159.11	N 32 40 49.15 W 104	5 12.85	
	3825.00	5.55	1.36	3810.93	46.36	302.12	-24.12	0.43	611321.86	617159.17	N 32 40 49.17 W 104	5 12.84	
	3850.00	5.54	1.49	3835.82	46.47	304.54	-24.06	0.06	611324.27	617159.23	N 32 40 49.20 W 104	5 12.84	
	3875.00	5.42	0.64	3860.70	46.61	306.93	-24.02	0.58	611326.66	617159.28	N 32 40 49.22 W 104	5 12.84	
	3900.00	5.32	0.51	3885.59	46.76	309.26	-23.99	0.40	611329.00	617159.30	N 32 40 49.24 W 104	5 12.84	
	3925.00	5.25	359.60	3910.49	46.92	311.57	-23.99	0.44	611331.30	617159.30	N 32 40 49.27 W 104	5 12.84	
	3950.00	5.32	359.96	3935.38	47.10	313.87	-24.00	0.31	611333.60	617159.29	N 32 40 49.29 W 104	5 12.84	
	3975.00	5.15	358.33	3960.28	47.30	316.15	-24.03	0.90	611335.88	617159.26			

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 ° ' ")
	4750.00	6.91	322.69	4731.74	84.12	379.78	-56.24	0.66	611399.51	617127.02	N 32 40 49.94 W 104	5 13.22
	4775.00	7.13	323.01	4756.56	86.14	382.21	-58.08	0.89	611401.94	617125.21	N 32 40 49.97 W 104	5 13.24
	4800.00	7.05	324.64	4781.37	88.14	384.70	-59.90	0.87	611404.43	617123.39	N 32 40 49.99 W 104	5 13.26
	4825.00	6.97	326.53	4806.18	90.04	387.22	-61.63	0.98	611406.95	617121.67	N 32 40 50.02 W 104	5 13.28
	4850.00	6.99	327.86	4830.99	91.87	389.77	-63.27	0.65	611409.50	617120.02	N 32 40 50.04 W 104	5 13.30
	4875.00	6.96	329.27	4855.81	93.64	392.36	-64.86	0.70	611412.09	617118.44	N 32 40 50.07 W 104	5 13.32
	4900.00	6.99	330.53	4880.62	95.36	394.99	-66.38	0.62	611414.72	617116.92	N 32 40 50.09 W 104	5 13.34
	4925.00	6.89	331.77	4905.44	97.00	397.64	-67.84	0.72	611417.36	617115.46	N 32 40 50.12 W 104	5 13.35
	4950.00	6.82	332.99	4930.26	98.58	400.28	-69.22	0.65	611420.01	617114.08	N 32 40 50.15 W 104	5 13.37
	4975.00	6.86	334.04	4955.08	100.10	402.95	-70.55	0.53	611422.67	617112.75	N 32 40 50.17 W 104	5 13.38
	5000.00	6.89	335.59	4979.90	101.57	405.65	-71.82	0.75	611425.38	617111.47	N 32 40 50.20 W 104	5 13.40
	5025.00	6.92	336.27	5004.72	102.99	408.40	-73.05	0.35	611428.12	617110.25	N 32 40 50.23 W 104	5 13.41
	5050.00	6.94	336.78	5029.54	104.40	411.16	-74.25	0.26	611430.89	617109.05	N 32 40 50.25 W 104	5 13.43
	5075.00	6.90	337.61	5054.36	105.77	413.94	-75.42	0.43	611433.67	617107.88	N 32 40 50.28 W 104	5 13.44
	5100.00	6.96	338.32	5079.18	107.10	416.74	-76.55	0.42	611436.46	617106.75	N 32 40 50.31 W 104	5 13.45
	5125.00	6.97	338.87	5103.99	108.41	419.56	-77.65	0.27	611439.28	617105.64	N 32 40 50.34 W 104	5 13.47
	5150.00	6.97	339.53	5128.81	109.70	422.40	-78.73	0.32	611442.12	617104.57	N 32 40 50.37 W 104	5 13.48
	5175.00	6.97	340.61	5153.62	110.94	425.25	-79.77	0.52	611444.97	617103.53	N 32 40 50.39 W 104	5 13.49
	5200.00	7.05	341.56	5178.43	112.14	428.13	-80.75	0.56	611447.86	617102.54	N 32 40 50.42 W 104	5 13.50
	5225.00	7.04	342.10	5203.25	113.31	431.05	-81.71	0.27	611450.77	617101.59	N 32 40 50.45 W 104	5 13.51
	5250.00	7.04	342.90	5228.06	114.44	433.97	-82.63	0.39	611453.69	617100.67	N 32 40 50.48 W 104	5 13.53
	5275.00	7.10	343.37	5252.87	115.55	436.91	-83.52	0.33	611456.64	617099.77	N 32 40 50.51 W 104	5 13.54
	5300.00	7.04	344.63	5277.68	116.61	439.87	-84.37	0.67	611459.59	617098.92	N 32 40 50.54 W 104	5 13.55
	5325.00	7.10	345.96	5302.49	117.61	442.85	-85.15	0.70	611462.57	617098.14	N 32 40 50.57 W 104	5 13.55
	5350.00	7.08	346.78	5327.30	118.56	445.85	-85.88	0.41	611465.57	617097.42	N 32 40 50.60 W 104	5 13.56
	5375.00	7.07	347.23	5352.11	119.47	448.85	-86.57	0.23	611468.57	617096.72	N 32 40 50.63 W 104	5 13.57
	5400.00	7.09	347.54	5376.92	120.36	451.85	-87.25	0.17	611471.57	617096.05	N 32 40 50.66 W 104	5 13.58
	5425.00	7.09	348.01	5401.72	121.24	454.87	-87.90	0.23	611474.59	617095.40	N 32 40 50.69 W 104	5 13.59
	5450.00	7.01	349.01	5426.53	122.09	457.89	-88.53	0.24	611477.61	617094.77	N 32 40 50.72 W 104	5 13.59
	5475.00	6.97	349.33	5451.34	122.91	460.91	-89.13	0.48	611480.63	617094.17	N 32 40 50.75 W 104	5 13.60
	5500.00	6.99	349.33	5476.16	123.70	463.90	-89.70	0.22	611483.62	617093.60	N 32 40 50.78 W 104	5 13.61
	5525.00	6.98	349.12	5500.97	124.49	466.88	-90.27	0.13	611486.60	617093.03	N 32 40 50.81 W 104	5 13.61
	5550.00	7.03	348.46	5525.78	125.30	469.87	-90.86	0.36	611489.59	617092.43	N 32 40 50.84 W 104	5 13.62
	5575.00	7.07	347.93	5550.60	126.15	472.88	-91.49	0.31	611492.60	617091.81	N 32 40 50.87 W 104	5 13.62
	5600.00	7.01	346.74	5575.41	127.04	475.87	-92.16	0.63	611495.58	617091.14	N 32 40 50.89 W 104	5 13.64
	5625.00	6.97	345.57	5600.22	127.98	478.82	-92.89	0.69	611498.54	617090.41	N 32 40 50.92 W 104	5 13.64
	5650.00	6.89	344.40	5625.04	128.98	481.73	-93.67	0.65	611501.45	617089.63	N 32 40 50.95 W 104	5 13.65
	5675.00	6.70	342.68	5649.86	130.02	484.57	-94.51	1.11	611504.29	617088.79	N 32 40 50.98 W 104	5 13.66
	5700.00	6.60	340.46	5674.69	131.14	487.32	-95.42	1.10	611507.03	617087.87	N 32 40 51.01 W 104	5 13.67
	5725.00	6.56	338.10	5699.53	132.34	489.99	-96.44	1.09	611509.71	617086.86	N 32 40 51.03 W 104	5 13.69
	5750.00	6.70	336.32	5724.36	133.66	492.66	-97.56	0.99	611512.37	617085.74	N 32 40 51.06 W 104	5 13.70
	5775.00	6.92	334.83	5749.19	135.08	495.35	-98.78	1.13	611515.07	617084.52	N 32 40 51.09 W 104	5 13.71
	5800.00	6.90	334.34	5774.00	136.57	498.07	-100.07	0.25	611517.79	617083.23	N 32 40 51.11 W 104	5 13.73
	5825.00	7.00	334.58	5798.82	138.07	500.80	-101.38	0.42	611520.52	617081.92	N 32 40 51.14 W 104	5 13.74
	5850.00	7.14	334.37	5823.63	139.59	503.58	-102.70	0.57	611523.29	617080.60	N 32 40 51.17 W 104	5 13.76
	5875.00	7.13	334.48	5848.44	141.14	506.38	-104.04	0.07	611526.09	617079.26	N 32 40 51.20 W 104	5 13.77
	5900.00	7.12	334.32	5873.24	142.68	509.17	-105.38	0.09	611528.89	617077.92	N 32 40 51.22 W 104	5 13.79
	5925.00	7.11	335.15	5898.05	144.21	511.97	-106.70	0.41	611531.69	617076.59	N 32 40 51.25 W 104	5 13.80
	5950.00	6.99	335.54	5922.86	145.69	514.76	-108.04	0.52	611534.48	617075.31	N 32 40 51.28 W 104	5 13.82
	5975.00	6.89	335.46	5947.68	147.14	517.51	-109.24	0.40	611537.23	617074.06	N 32 40 51.31 W 104	5 13.83
	6000.00	6.88	336.08	5972.50	148.57	520.24	-110.47	0.30	611539.96	617072.83	N 32 40 51.33 W 104	5 13.85
	6025.00	6.83	336.44	5997.32	149.97	522.98	-111.67	0.26	611542.69	617071.63	N 32 40 51.36 W 104	5 13.86
	6050.00	6.85	337.27	6022.14	151.34	525.71	-112.84	0.40	611545.43	617070.46	N 32 40 51.39 W 104	5 13.88
	6075.00	6.79	337.50	6046.97	152.68	528.45	-113.98	0.26	611548.17	617069.32	N 32 40 51.42 W 104	5 13.89
	6100.00	6.70	338.15	6071.79	153.98	531.17	-115.09	0.47	611550.89	617068.21	N 32 40 51.44 W 104	5 13.90
	6125.00	6.62	338.26	6096.62	155.26	533.87	-116.17	0.32	611553.58	617067.13	N 32 40 51.47 W 104	5 13.92
	6150.00	6.61	338.98	6121.46	156.50	536.55	-117.21	0.33	611556.26	617066.09	N 32 40 51.50 W 104	5 13.93
	6175.00	6.45	339.32	6146.30	157.71	539.20	-118.23	0.66	611558.92	617065.07	N 32 40 51.52 W 104	5 13.94
	6200.00	6.26	339.85	6171.14	158.86	541.80	-119.19	0.80	611561.51	617064.11	N 32 40 51.55 W 104	5 13.95
	6225.00	5.96	340.35	6196.00	159.95	544.30	-120.10	1.22	611564.01	617063.20	N 32 40 51.57 W 104	5 13.96
	6250.00	5.57	340.40	6220.87	160.97	546.86	-120.94	1.56	611566.38	617062.36	N 32 40 51.60 W 104	5 13.97
	6275.00	5.31	339.39	6245.76	161.94	548.89	-121.76	1.11	611568.60	617061.54	N 32 40 51.62 W 104	5 13.98
	6300.00	5.14	339.77	6270.66	162.89	551.02	-122.55	0.69	611570.74	617060.75	N 32 40 51.64 W 104	5 13.99
	6325.00	5.11	339.16	6295.56	163.83	553.12	-123.33	0.25	611572.83	617059.97	N 32 40 51.66 W 104	5 14.00
	6350.00	5.08	340.71	6320.46	164.74	555.20	-124.10	0.56	611574.91	617059.21	N 32 40 51.68 W 104	5 14.01
	6375.00	5.12	342.87	6345.36	165.59	557.31	-124.79	0.78	611577.02	617058.51	N 32 40 51.70 W 104	5 14.02
	6400.00	5.17	344.64	6370.26	166.37	559.46	-125.42	0.67	611579.18	617057.88	N 32 40 51.72 W 104	5 14.02
	6425.00	5.14	344.49	6395.16	167.13	561.63	-126.01	0.13	611581.34	617057.29	N 32 40 51.74 W 104	5 14.03
	6450.00	5.12	346.44	6420.06	167.85	563.79	-126.58	0.70	611583.50	617056.73	N 32 40 51.77 W 104	5 14.04
	6475.00	5.09	348.33	6444.96	168.49	565.96	-127.06	0.68	611585.67	617056.24	N 32 40 51.79 W 104	5 14.04
	6500.00	4.75	347.87	6469.87	169.09	568.06	-127.50	1.37	611587.77	617055.80	N 32 40 51.81 W 104	5 14.05
	6525.00	4.49	349.29	6494.78	169.63	570.03	-127.90	1.14	611589.75	617055.40	N 32 40 51.83 W 104	5 14.05
	6550.00	4.43	347.95	6519.71	170.15	571.94	-128.29	0.48	611591.65	617055.02	N 32 40 51.85 W 104	5 14.06
	6575.00	4.50	347.81	6544.63	170.70	573.84	-128.69	0.28	611593.55	617054.61	N 32 40 51.87 W 104	5 14.06
	6600.00	4.53	348.57	6569.56	171.25	575.77	-129.10	0.27	611595.48	617054.20	N 32 40 51.88 W 104	5 14.07
	6625.00	4.68	348.56	6594.47	171.79	577.74	-129.50	0.60	611597.45	617053.81	N 32 40 51.90 W 104	5 14.07
	6650.00	4.75	346.68	6619.39	172.38	579.74	-129.94	0.68	611599.45	617053.37	N 32 40 51.92 W 104	5 14.07
	6675.00	4.86	347.78	6644.30	172.99	581.79	-130.40	0.57	611601.50	617052.90	N 32 40 51.94 W 104	

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
LL Crossing	7847.00	53.24	271.74	7731.96	453.27	706.47	-402.22		11.16	611726.17	616781.10	N 32 40 53.18 W 104	5 17.26
	7929.24	62.50	270.92	7775.65	522.75	708.06	-471.77	11.29	611727.76	616711.56	N 32 40 53.20 W 104	5 18.07	
	7941.00	63.82	270.82	7780.96	533.22	708.22	-482.26	11.29	611727.92	616701.07	N 32 40 53.20 W 104	5 18.19	
	8036.00	70.46	272.41	7817.85	620.62	710.71	-569.71	7.16	611730.41	616613.63	N 32 40 53.23 W 104	5 19.22	
100' FEL Crossing	8037.92	70.58	272.42	7818.49	622.43	710.79	-571.52	6.40	611730.49	616611.82	N 32 40 53.23 W 104	5 19.24	
	8131.00	76.53	272.71	7844.82	711.62	714.78	-660.66	6.40	611734.48	616522.69	N 32 40 53.27 W 104	5 20.28	
	8225.00	82.13	271.11	7862.22	803.88	717.85	-752.95	6.19	611737.55	616430.41	N 32 40 53.30 W 104	5 21.36	
	8283.00	82.04	270.80	7870.21	861.23	718.81	-810.38	0.55	611738.51	616372.98	N 32 40 53.32 W 104	5 22.03	
8377.00	83.36	270.11	7882.15	954.27	719.55	-903.62	1.58	611739.25	616278.75	N 32 40 53.32 W 104	5 23.12		
8472.00	84.09	269.37	7892.54	1048.41	719.12	-998.05	1.09	611738.82	616185.33	N 32 40 53.32 W 104	5 24.23		
8567.00	87.16	268.10	7899.78	1142.68	717.03	-1092.73	3.50	611736.72	616090.65	N 32 40 53.30 W 104	5 25.34		
8662.00	91.63	267.88	7900.79	1237.09	713.69	-1187.64	4.71	611733.39	615995.75	N 32 40 53.27 W 104	5 26.45		
8757.00	93.97	268.05	7896.15	1331.40	710.33	-1282.46	2.47	611730.02	615900.94	N 32 40 53.24 W 104	5 27.56		
8849.00	93.56	268.13	7890.11	1422.67	707.27	-1374.22	0.45	611726.96	615809.19	N 32 40 53.21 W 104	5 28.63		
8940.00	93.83	269.90	7884.24	1513.10	705.70	-1465.01	1.96	611725.40	615718.41	N 32 40 53.20 W 104	5 29.69		
9032.00	93.63	270.16	7878.26	1604.66	705.75	-1556.81	0.36	611725.45	615626.61	N 32 40 53.20 W 104	5 30.77		
9123.00	93.87	270.42	7872.30	1695.25	706.21	-1647.62	0.39	611725.91	615535.81	N 32 40 53.21 W 104	5 31.83		
9214.00	93.39	271.81	7866.54	1785.93	707.98	-1738.42	1.61	611727.68	615445.02	N 32 40 53.23 W 104	5 32.89		
9305.00	92.70	272.23	7861.71	1876.74	711.18	-1829.23	0.89	611730.88	615354.22	N 32 40 53.26 W 104	5 33.95		
9397.00	92.25	272.02	7857.74	1968.59	714.59	-1921.08	0.54	611734.29	615262.38	N 32 40 53.30 W 104	5 35.03		
9487.00	91.84	271.66	7854.52	2058.45	717.48	-2010.98	0.61	611737.18	615172.49	N 32 40 53.33 W 104	5 36.08		
9578.00	91.39	271.91	7851.96	2149.33	720.31	-2101.90	0.57	611740.01	615081.58	N 32 40 53.36 W 104	5 37.14		
9669.00	91.39	271.81	7849.75	2240.23	723.26	-2192.82	0.11	611742.96	614990.66	N 32 40 53.39 W 104	5 38.21		
9759.00	91.60	272.04	7847.40	2330.12	726.29	-2282.74	0.35	611745.98	614900.75	N 32 40 53.42 W 104	5 39.26		
9850.00	91.46	272.02	7844.97	2421.02	729.51	-2373.65	0.16	611749.21	614809.85	N 32 40 53.46 W 104	5 40.32		
9941.00	91.29	271.53	7842.79	2511.91	732.33	-2464.58	0.57	611752.02	614718.92	N 32 40 53.49 W 104	5 41.39		
10032.00	91.35	271.87	7840.69	2602.80	735.03	-2555.52	0.38	611754.72	614628.00	N 32 40 53.51 W 104	5 42.45		
10127.00	91.77	272.11	7838.11	2697.69	738.32	-2650.42	0.51	611758.02	614533.10	N 32 40 53.55 W 104	5 43.56		
10221.00	91.63	272.33	7835.32	2791.59	741.96	-2744.31	0.28	611761.66	614439.22	N 32 40 53.59 W 104	5 44.66		
10316.00	91.73	271.92	7832.53	2886.49	745.48	-2839.20	0.44	611765.18	614344.33	N 32 40 53.62 W 104	5 45.77		
10411.00	91.70	270.45	7829.69	2981.31	747.45	-2934.14	1.55	611767.14	614249.40	N 32 40 53.65 W 104	5 46.88		
10505.00	90.98	270.16	7827.49	3075.06	747.95	-3028.11	0.83	611767.64	614155.44	N 32 40 53.65 W 104	5 47.98		
10600.00	91.08	269.96	7825.78	3169.79	748.05	-3123.10	0.24	611767.74	614060.46	N 32 40 53.66 W 104	5 49.09		
10694.00	90.84	270.02	7824.21	3263.52	748.03	-3217.08	0.26	611767.73	613966.49	N 32 40 53.66 W 104	5 50.19		
10789.00	90.84	269.79	7822.62	3358.24	747.87	-3312.07	0.24	611767.57	613871.50	N 32 40 53.66 W 104	5 51.30		
10883.00	91.11	270.37	7821.22	3451.98	748.00	-3406.06	0.68	611767.70	613777.53	N 32 40 53.66 W 104	5 52.40		
10978.00	90.67	270.29	7819.74	3546.75	748.55	-3501.04	0.47	611768.25	613682.55	N 32 40 53.67 W 104	5 53.51		
11073.00	90.84	270.13	7818.49	3641.51	748.90	-3595.04	0.25	611768.60	613587.56	N 32 40 53.68 W 104	5 54.62		
11168.00	90.91	270.23	7817.04	3736.26	749.20	-3689.02	0.13	611768.89	613492.58	N 32 40 53.68 W 104	5 55.73		
11262.00	90.87	269.64	7815.58	3829.98	749.09	-3783.00	0.63	611768.79	613398.60	N 32 40 53.68 W 104	5 56.83		
11357.00	90.91	270.36	7814.10	3924.71	749.09	-3877.00	0.76	611768.79	613303.62	N 32 40 53.68 W 104	5 57.94		
11452.00	91.42	270.69	7812.17	4019.49	749.96	-3971.98	0.64	611769.66	613208.66	N 32 40 53.69 W 104	5 59.06		
11546.00	90.94	269.99	7810.24	4113.25	750.52	-4066.95	0.90	611770.22	613114.69	N 32 40 53.70 W 104	6 0.16		
11641.00	91.05	270.37	7808.59	4208.00	750.82	-4163.94	0.42	611770.51	613019.71	N 32 40 53.71 W 104	6 1.27		
11736.00	90.77	270.17	7807.08	4302.76	751.27	-4258.93	0.36	611770.96	612924.73	N 32 40 53.71 W 104	6 2.38		
11830.00	90.77	269.70	7805.81	4396.49	751.16	-4352.92	0.50	611770.85	612830.75	N 32 40 53.71 W 104	6 3.48		
11925.00	91.15	270.47	7804.22	4491.23	751.30	-4447.90	0.90	611771.00	612735.77	N 32 40 53.72 W 104	6 4.59		
12019.00	91.53	270.67	7802.02	4585.01	752.23	-4541.87	0.46	611771.93	612641.81	N 32 40 53.73 W 104	6 5.69		
12114.00	90.91	269.83	7800.00	4679.76	752.65	-4636.85	1.10	611772.34	612546.84	N 32 40 53.73 W 104	6 6.80		
12209.00	90.80	269.76	7798.58	4774.46	752.31	-4731.84	0.14	611772.00	612451.86	N 32 40 53.73 W 104	6 7.91		
12303.00	92.01	270.91	7796.28	4868.21	752.86	-4826.80	1.78	611772.55	612357.90	N 32 40 53.74 W 104	6 9.01		
12398.00	91.46	270.56	7793.40	4962.99	754.08	-4920.75	0.69	611773.77	612262.96	N 32 40 53.76 W 104	6 10.12		
12493.00	90.98	270.18	7791.38	5057.75	754.69	-5015.73	0.64	611774.38	612168.00	N 32 40 53.76 W 104	6 11.23		
12588.00	91.42	270.16	7789.39	5152.49	754.97	-5110.71	0.46	611774.67	612073.03	N 32 40 53.77 W 104	6 12.34		
12682.00	92.15	270.71	7786.46	5246.24	755.68	-5204.66	0.97	611775.38	611978.08	N 32 40 53.78 W 104	6 13.44		
12777.00	91.35	269.68	7783.56	5340.96	756.01	-5299.61	1.37	611775.70	611884.14	N 32 40 53.78 W 104	6 14.55		
12872.00	91.56	269.82	7781.15	5435.64	755.59	-5394.58	0.27	611775.29	611789.18	N 32 40 53.78 W 104	6 15.66		
12966.00	91.73	270.44	7778.45	5529.36	755.81	-5489.54	0.68	611775.50	611695.22	N 32 40 53.78 W 104	6 16.76		
13156.00	91.35	270.25	7773.34	5718.85	756.95	-5678.47	0.22	611776.65	611505.31	N 32 40 53.80 W 104	6 18.99		
13250.00	91.15	270.28	7771.29	5812.60	757.39	-5772.44	0.22	611777.08	611411.35	N 32 40 53.81 W 104	6 20.09		
13349.00	91.42	270.24	7767.06	6001.10	758.24	-5866.39	0.14	611777.94	611222.41	N 32 40 53.82 W 104	6 22.30		
13439.00	91.60	270.78	7762.08	6189.64	759.92	-5960.32	0.30	611779.62	611033.50	N 32 40 53.84 W 104	6 24.51		
13528.00	91.42	270.37	7759.60	6283.41	760.87	-6054.28	0.48	611780.56	610939.55	N 32 40 53.85 W 104	6 25.61		
13616.00	90.91	270.18	7757.69	6377.17	761.32	-6148.26	0.58	611781.01	610845.58	N 32 40 53.86 W 104	6 26.71		
13711.00	90.77	270.41	7756.29	6471.93	761.81	-6242.25	0.28	611781.50	610750.60	N 32 40 53.86 W 104	6 27.82		
13806.00	91.05	270.19	7754.79	6566.70	762.30	-6336.24	0.37	611782.00	610655.62	N 32 40 53.87 W 104	6 28.93		
13901.00	91.29	270.17	7752.87	6660.44	762.60	-6430.22	0.26	611782.29	610561.65	N 32 40 53.88 W 104	6 30.03		
14000.00	91.11	270.09	7750.88	6755.18	762.82	-6524.21	0.21	611782.51	610466.68	N 32 40 53.88 W 104	6 31.14		
14099.00	91.22	270.22	7748.97	6848.92	763.07	-6618.17	0.18	611782.76	610372.70	N 32 40 53.88 W 104	6 32.24		
14193.00	91.05	270.17	7747.10	6942.67	763.39	-6712.19	0.19	611783.08	610278.73	N 32 40 53.89 W 104	6 33.34		
14288.00	91.18	270.54	7745.25	7037.43	763.98	-6806.14	0.41	611783.67	610183.76	N 32 40 53.90 W 104	6 34.45		
14383.00	91.15	270.59											

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 ° ' ")
Final Survey	18234.00	91.26	270.21	7659.57	10782.12	769.26	-10754.68	0.72	611788.96	606429.54	N 32 40 54.03	W 104 7 18.38
Proj. to Bit	18274.00	91.26	270.21	7658.69	10822.02	769.41	-10794.67	0.00	611789.10	606389.55	N 32 40 54.03	W 104 7 18.84

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 201H Gyro + MWD 0-18274
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Turkey Track 8-7 State 201H Gyro + MWD 0-18274
	1	26.500	7211.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Turkey Track 8-7 State 201H Gyro +
	1	7211.500	7321.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Turkey Track 8-7 State 201H Gyro +
	1	7321.000	18274.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Turkey Track 8-7 State 201H Gyro +