Schlumberger

OXY

OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Platinum MDP1 34-3 Federal Com 26H	NM Eddy County (NAD 83)	Oxy Platinum MDP1 34-3 Federal Com 26H

Gravity & Magnetic Parameters

Model: IFR1 Dip: 59.928° Date: 25-Feb-2020

MagDec: 6.692° FS: 47894.7nT Gravity FS: 998.447mgn (9.80665 Based)

Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet

Lat: N 32 16 4.39 Northing: 461663.98ftUS Grid Conv: 0.3063°

Lon: W 103 45 34.88 Easting: 718642.85ftUS Scale Fact: 0.9999451

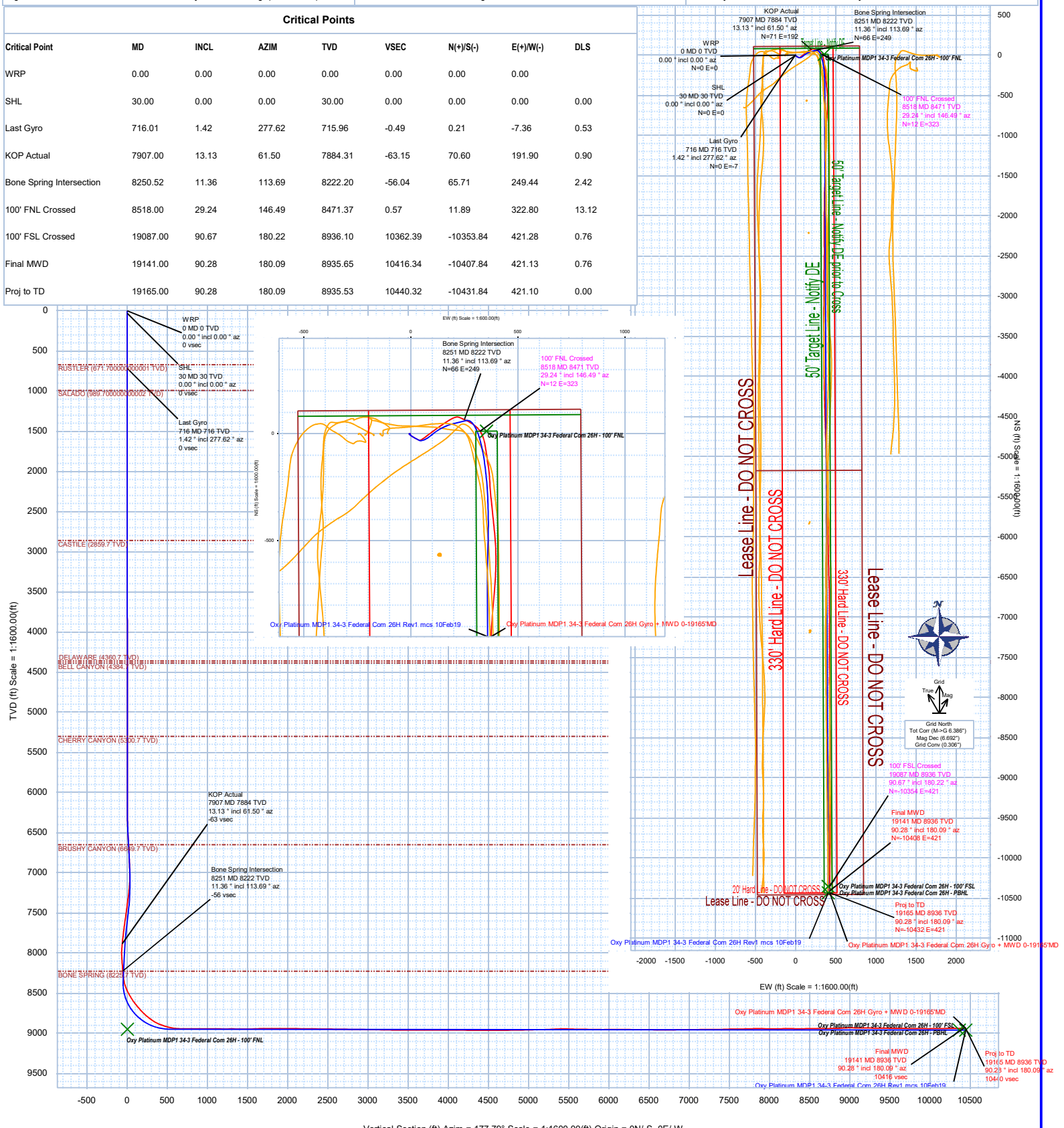
Miscellaneous

Slot: Oxy Platinum MDP1 34-3 Federal Com 26H TVD Ref: RKB = 30(3472.7ft above MSL)

Plan: Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD

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	30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00
Last Gyro	716.01	1.42	277.62	715.96	-0.49	0.21	-7.36	0.53
KOP Actual	7907.00	13.13	61.50	7884.31	-63.15	70.60	191.90	0.90
Bone Spring Intersection	8250.52	11.36	113.69	8222.20	-56.04	65.71	249.44	2.42
100' FNL Crossed	8518.00	29.24	146.49	8471.37	0.57	11.89	322.80	13.12
100' FSL Crossed	19087.00	90.67	180.22	8936.10	10362.39	-10353.84	421.28	0.76
Final MWD	19141.00	90.28	180.09	8935.65	10416.34	-10407.84	421.13	0.76
Proj to TD	19165.00	90.28	180.09	8935.53	10440.32	-10431.84	421.10	0.00



Schlumberger

Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD
Survey Geodetic Report
(Def Survey)

Report Date:	March 04, 2020 - 12:03 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	177.790 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Platinum MDP1 34-3 Federal Com 26H / Oxy Platinum MDP1 34-3 Federal Com 26H	**TVD Reference Datum:**	RKB = 30
Well:	Oxy Platinum MDP1 34-3 Federal Com 26H	**TVD Reference Elevation:**	3472.700 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3442.700 ft above MSL
UWI / API#:	Unknown / 30-015-46559	**Magnetic Declination:**	6.692 °
Survey Name:	Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD	**Total Gravity Field Strength:**	998.4466mgn (9.80665 Based)
Survey Date:	January 31, 2020	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	279.815 ° / 10866.651 ft / 6.813 / 1.213	**Total Magnetic Field Strength:**	47894.700 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.928 °
Location Lat / Long:	N 32° 16' 4.39097", W 103° 45' 34.87889"	**Declination Date:**	February 25, 2020
Location Grid N/E Y/X:	N 461663.980 ftUS, E 718642.850 ftUS	**Magnetic Declination Model:**	IFR1
CRS Grid Convergence Angle:	0.3063 °	**North Reference:**	Grid North
Grid Scale Factor:	0.9999451	**Grid Convergence Used:**	0.3063 °
Version / Patch:	2.10.782.0	**Total Corr Mag North->Grid North:**	6.3857 °
		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 ° ' ")
WRP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	461663.98	718642.85	N 32 16 4.39	W 103 45 34.88
SHL	30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	461663.98	718642.85	N 32 16 4.39	W 103 45 34.88
	107.18	0.39	276.58	107.18	-0.04	0.03	-0.26	0.51	461664.01	718642.59	N 32 16 4.39	W 103 45 34.88
	136.01	0.37	279.64	136.01	-0.07	0.06	-0.45	0.10	461664.04	718642.40	N 32 16 4.39	W 103 45 34.88
	165.03	0.42	281.26	165.03	-0.12	0.09	-0.65	0.18	461664.07	718642.20	N 32 16 4.39	W 103 45 34.89
	194.28	0.42	275.55	194.28	-0.16	0.12	-0.86	0.14	461664.10	718641.99	N 32 16 4.39	W 103 45 34.89
	223.24	0.45	264.11	223.24	-0.16	0.12	-1.08	0.32	461664.10	718641.77	N 32 16 4.39	W 103 45 34.89
	248.20	0.49	264.67	248.20	-0.15	0.10	-1.28	0.16	461664.08	718641.57	N 32 16 4.39	W 103 45 34.89
	276.30	0.50	258.07	276.29	-0.13	0.07	-1.52	0.21	461664.05	718641.33	N 32 16 4.39	W 103 45 34.90
	307.78	0.53	260.41	307.77	-0.08	0.01	-1.80	0.12	461663.99	718641.05	N 32 16 4.39	W 103 45 34.90
	339.33	0.54	254.07	339.32	-0.03	-0.05	-2.09	0.19	461663.93	718640.76	N 32 16 4.39	W 103 45 34.90
	370.80	0.52	262.02	370.79	0.02	-0.11	-2.37	0.24	461663.87	718640.48	N 32 16 4.39	W 103 45 34.91
	402.30	0.52	269.77	402.29	0.03	-0.13	-2.65	0.22	461663.85	718640.20	N 32 16 4.39	W 103 45 34.91
	433.81	0.62	270.43	433.80	0.02	-0.13	-2.97	0.32	461663.85	718639.88	N 32 16 4.39	W 103 45 34.91
	465.32	0.70	266.73	465.31	0.01	-0.14	-3.33	0.29	461663.84	718639.52	N 32 16 4.39	W 103 45 34.92
	496.83	0.76	272.47	496.81	0.00	-0.14	-3.73	0.30	461663.84	718639.12	N 32 16 4.39	W 103 45 34.92
	528.35	0.82	276.46	528.33	-0.05	-0.11	-4.16	0.26	461663.87	718638.69	N 32 16 4.39	W 103 45 34.93
	559.85	0.78	275.70	559.83	-0.12	-0.06	-4.60	0.13	461663.92	718638.25	N 32 16 4.39	W 103 45 34.93
	591.37	0.80	274.88	591.34	-0.17	-0.02	-5.03	0.07	461663.96	718637.82	N 32 16 4.39	W 103 45 34.94
	622.89	0.88	273.01	622.86	-0.22	0.01	-5.50	0.27	461663.99	718637.36	N 32 16 4.39	W 103 45 34.94
	654.42	1.07	274.87	654.39	-0.28	0.05	-6.03	0.61	461664.03	718636.82	N 32 16 4.39	W 103 45 34.95
	685.92	1.26	277.37	685.88	-0.37	0.12	-6.67	0.62	461664.10	718636.18	N 32 16 4.39	W 103 45 34.96
Last Gyro	716.01	1.42	277.62	715.96	-0.49	0.21	-7.36	0.53	461664.19	718635.49	N 32 16 4.39	W 103 45 34.96
	880.00	0.19	161.34	879.94	-0.58	0.22	-9.29	0.92	461664.20	718633.56	N 32 16 4.39	W 103 45 34.99
	945.00	0.16	22.07	944.94	-0.56	0.20	-9.22	0.51	461664.18	718633.63	N 32 16 4.39	W 103 45 34.99
	1036.00	0.18	53.97	1035.93	-0.75	0.40	-9.06	0.10	461664.38	718633.79	N 32 16 4.40	W 103 45 34.98
	1127.00	0.16	244.33	1126.93	-0.78	0.43	-9.06	0.37	461664.41	718633.79	N 32 16 4.40	W 103 45 34.98
	1218.00	0.18	140.17	1217.93	-0.62	0.27	-9.08	0.30	461664.25	718633.77	N 32 16 4.39	W 103 45 34.98
	1309.00	0.19	2.56	1308.93	-0.66	0.31	-8.98	0.38	461664.29	718633.87	N 32 16 4.39	W 103 45 34.98
	1399.00	0.18	332.68	1398.93	-0.93	0.58	-9.04	0.11	461664.56	718633.81	N 32 16 4.40	W 103 45 34.98
	1493.00	0.16	327.85	1492.93	-1.18	0.83	-9.18	0.03	461664.81	718633.67	N 32 16 4.40	W 103 45 34.99
	1588.00	0.18	149.12	1587.93	-1.16	0.81	-9.17	0.36	461664.79	718633.68	N 32 16 4.40	W 103 45 34.99
	1683.00	0.16	186.00	1682.93	-0.90	0.55	-9.11	0.11	461664.53	718633.74	N 32 16 4.40	W 103 45 34.98
	1778.00	0.16	44.66	1777.93	-0.86	0.51	-9.03	0.32	461664.49	718633.82	N 32 16 4.40	W 103 45 34.98
	1872.00	0.19	281.35	1871.93	-0.99	0.64	-9.09	0.33	461664.62	718633.76	N 32 16 4.40	W 103 45 34.98
	1967.00	0.19	277.68	1966.93	-1.05	0.69	-9.40	0.01	461664.67	718633.45	N 32 16 4.40	W 103 45 34.99
	2061.00	0.19	358.95	2060.93	-1.23	0.87	-9.56	0.26	461664.85	718633.29	N 32 16 4.40	W 103 45 34.99
	2156.00	0.18	333.84	2155.93	-1.53	1.16	-9.63	0.09	461665.14	718633.22	N 32 16 4.40	W 103 45 34.99
	2250.00	0.16	156.06	2249.93	-1.54	1.17	-9.64	0.36	461665.15	718633.21	N 32 16 4.40	W 103 45 34.99
	2345.00	0.16	239.22	2344.93	-1.35	0.98	-9.70	0.22	461664.96	718633.15	N 32 16 4.40	W 103 45 34.99
	2440.00	0.16	208.63	2439.93	-1.18	0.80	-9.88	0.09	461664.78	718632.97	N 32 16 4.40	W 103 45 34.99
	2534.00	0.16	241.95	2533.93	-1.01	0.62	-10.06	0.10	461664.60	718632.79	N 32 16 4.40	W 103 45 35.00
	2629.00	0.16	138.47	2628.93	-0.85	0.46	-10.09	0.26	461664.44	718632.77	N 32 16 4.40	W 103 45 35.00
	2723.00	0.18	69.75	2722.93	-0.79	0.41	-9.86	0.20	461664.39	718632.99	N 32 16 4.40	W 103 45 34.99
	2817.00	0.18	188.83	2816.93	-0.69	0.32	-9.74	0.33	461664.30	718633.11	N 32 16 4.39	W 103 45 34.99
	2912.00	0.14	51.92	2911.93	-0.61	0.24	-9.68	0.31	461664.22	718633.18	N 32 16 4.39	W 103 45 34.99
	3007.00	0.18	128.76	3006.93	-0.58	0.22	-9.47	0.21	461664.20	718633.38	N 32 16 4.39	W 103 45 34.99
	3102.00	0.18	214.07	3101.93	-0.36	0.00	-9.44	0.26	461663.98	718633.42	N 32 16 4.39	W 103 45 34.99
	3196.00	0.14	152.14	3195.93	-0.14	-0.22	-9.46	0.18	461663.76	718633.39	N 32 16 4.39	W 103 45 34.99
	3291.00	0.18	320.44	3290.93	-0.16	-0.21	-9.50	0.34	461663.77	718633.35	N 32 16 4.39	W 103 45 34.99
	3386.00	0.18	91.67	3385.93	-0.26	-0.10	-9.45	0.35	461663.88	718633.40	N 32 16 4.39	W 103 45 34.99
	3480.00	0.16	45.50	3479.93	-0.34	-0.01	-9.21	0.14	461663.97	718633.64	N 32 16 4.39	W 103 45 34.99
	3575.00	0.32	129.26	3574.93	-0.26	-0.09	-8.91	0.36	461663.89	718633.94	N 32 16 4.39	W 103 45 34.98
	3670.00	0.16	64.58	3669.93	-0.13	-0.20	-8.58	0.31	461663.78	718634.27	N 32 16 4.39	W 103 45 34.98
	3764.00	0.19	176.96	3763.93	-0.03	-0.30	-8.46	0.31	461663.68	718634.39	N 32 16 4.39	W 103 45 34.98
	3859.00	0.19	162.93	3858.93	0.28	-0.60	-8.40	0.05	461663.38	718634.45	N 32 16 4.39	W 103 45 34.98
	3953.00	0.16	331.21	3952.93	0.31	-0.64	-8.42	0.37	461663.34	718634.43	N 32 16 4.39	W 103 45 34.98
	4048.00	0.16	93.45	4047.92	0.21	-0.53	-8.35	0.29	461663.45	718634.50	N 32 16 4.39	W 103 45 34.98
	4143.00	0.22	167.23	4142.92	0.40	-0.72	-8.18	0.25	461663.26	718634.67	N 32 16 4.38	W 103 45 34.97
	4237.00	0.22	124.63	4236.92	0.69	-1.00	-7.99	0.17	461662.99	718634.86	N 32 16 4.38	W 103 45 34.97
	4349.00	0.18	160.26	4348.92	0.98	-1.28	-7.75	0.11	461662.70	718635.10	N 32 16 4.38	W 103 45 34.97
	4501.00	0.15	119.81	4500.92	1.32	-1.61	-7.50	0.08	461662.37	718635.35	N 32 16 4.38	W 103 45 34.97
	4596.00	0.07	139.31	4595.92	1.43	-1.71	-7.36	0.09	461662.27	718635.50	N 32 16 4.37	W 103 45 34.96
	4691.00	0.06	188.44	4690.92	1.52	-1.81	-7.32	0.06	461662.17	718635.53	N 32 16 4.37	W 103 45 34.96
	4785.00	0.07	129.88	4784.92	1.61	-1.89	-7.29	0.07	461662.09	718635.56	N 32 16 4.37	W 103 45 34.96
	4880.00	0.02	53.94	4879.92	1.64	-1.92	-7.23	0.07	461662.06	718635.62	N 32 16 4.37	W 103 45 34.96
	4974.00	0.02	84.36	4973.92	1.63	-1.91	-7.20	0.01	461662.07	718635.65	N 32 16 4.37	W 103 45 34.96
	5069.00	0.05	216.31	5068.92	1.66	-1.94	-7.21	0.07	461662.04	718635.64	N 32 16 4.37	W 103 45 34.96
	5164.00	0.03	150.17	5163.92	1.71	-1.99	-7.22	0.05	461661.99	718635.63	N 32 16 4.37	W 103 45 34.96
	5259.00	0.05	57.54	5258.92	1.72	-1.99	-7.17	0.06	461661.99	718635.68	N 32 16 4.37	W 103 45 34.96
	5353.00	0.12	299.01	5352.92	1.64	-1.92	-7.22	0.16	461662.06	718635.63	N 32 16 4.37	W 103 45 34.96
	5448.00	0.06	260.33	5447.92	1.60	-1.88	-7.36	0.09	461662.10	718635.49	N 32 16 4.37	W 103 45 34.96
	5543.00	0.10	272.45	5542.92	1.60	-1.89	-7.49	0.05	461662.09	718635.36	N 32 16 4.37	W 103 45 34.97
	5637.00	0.04	139.98	5636.92	1.62	-1.91	-7.55	0.14	461662.07	718635.30	N 32 16 4.37	W 103 45 34.97
	5732.00	0.11	48.68	5731.92	1.59	-1.88	-7.46	0.12	461662.10	718635.39	N 32 16 4.37	W 103 45 34.97
	5826.00	0.10	13.35	5825.92	1.45	-1.74	-7.38	0.07	461662.24	718635.47	N 32 16 4.37	W 103 45 34.96
	5921.00	0.07	294.78	5920.92	1.34	-1.63	-7.41	0.12	461662.35	718635.44	N 32 16 4.38	W 103 45 34.97

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 ° ' ")
	6015.00	0.00	66.98	6014.92	1.32	-1.61	-7.46	0.07	461662.37	718635.39	N 32 16 4.38	W 103 45 34.97
	6110.00	0.07	183.24	6109.92	1.38	-1.66	-7.47	0.07	461662.32	718635.38	N 32 16 4.37	W 103 45 34.97
	6204.00	0.08	218.77	6203.92	1.48	-1.77	-7.51	0.05	461662.21	718635.34	N 32 16 4.37	W 103 45 34.97
	6298.00	0.43	147.92	6297.92	1.84	-2.12	-7.36	0.44	461661.86	718635.49	N 32 16 4.37	W 103 45 34.96
	6393.00	2.69	131.95	6392.88	3.70	-3.92	-5.52	2.40	461660.06	718637.33	N 32 16 4.35	W 103 45 34.94
	6488.00	4.79	126.90	6487.67	7.76	-7.79	-0.69	2.24	461656.19	718642.16	N 32 16 4.31	W 103 45 34.89
	6677.00	5.63	120.72	6675.89	17.77	-17.26	13.59	0.53	461646.72	718656.44	N 32 16 4.22	W 103 45 34.72
	6771.00	5.26	117.92	6769.47	22.44	-21.64	21.37	0.48	461642.35	718664.21	N 32 16 4.18	W 103 45 34.63
	6866.00	4.70	118.05	6864.11	26.59	-25.50	28.65	0.59	461638.48	718671.50	N 32 16 4.14	W 103 45 34.55
	6961.00	4.35	119.09	6958.81	30.42	-29.09	35.23	0.38	461634.90	718678.08	N 32 16 4.10	W 103 45 34.47
	7056.00	4.97	80.73	7053.52	31.79	-30.18	42.44	3.28	461633.81	718685.29	N 32 16 4.09	W 103 45 34.39
	7151.00	8.27	58.23	7147.89	27.91	-25.91	52.32	4.36	461638.07	718695.16	N 32 16 4.13	W 103 45 34.27
	7245.00	11.25	52.59	7240.52	19.29	-16.78	65.35	3.33	461647.20	718708.20	N 32 16 4.22	W 103 45 34.12
	7340.00	12.70	52.72	7333.45	7.95	-4.83	81.02	1.53	461659.15	718723.87	N 32 16 4.34	W 103 45 33.94
	7434.00	13.24	53.56	7425.05	-4.05	7.83	97.90	0.61	461671.81	718740.75	N 32 16 4.46	W 103 45 33.74
	7529.00	13.94	53.89	7517.39	-16.55	21.03	115.90	0.74	461685.01	718758.74	N 32 16 4.59	W 103 45 33.53
	7624.00	14.83	55.89	7609.41	-29.35	34.60	135.21	1.07	461698.57	718778.05	N 32 16 4.73	W 103 45 33.30
	7718.00	13.79	56.15	7700.49	-41.59	47.58	154.48	1.11	461711.56	718797.32	N 32 16 4.85	W 103 45 33.08
	7813.00	13.44	58.07	7792.82	-53.00	59.73	173.25	0.60	461723.70	718816.09	N 32 16 4.97	W 103 45 32.86
KOP Actual	7907.00	13.13	61.50	7884.31	-63.15	70.60	191.90	0.90	461734.58	718834.74	N 32 16 5.08	W 103 45 32.64
	8002.00	11.04	79.47	7977.23	-69.24	77.41	210.34	4.50	461741.39	718853.18	N 32 16 5.15	W 103 45 32.42
	8097.00	8.38	111.35	8070.93	-67.79	76.56	225.74	6.20	461740.53	718868.58	N 32 16 5.14	W 103 45 32.25
	8191.00	10.03	116.63	8163.72	-61.11	70.39	239.44	1.97	461734.37	718882.28	N 32 16 5.07	W 103 45 32.09
Bone Spring Intersection	*8250.52*	*11.36*	*113.69*	*8222.20*	*-56.04*	*65.71*	*249.44*	*2.42*	*461729.69*	*718892.28*	*N 32 16 5.03*	*W 103 45 31.97*
	8260.00	11.58	113.28	8231.49	-55.23	64.96	251.17	2.42	461728.94	718894.01	N 32 16 5.02	W 103 45 31.95
	8353.00	15.28	116.68	8321.94	-45.29	55.77	270.70	4.07	461719.74	718913.54	N 32 16 4.93	W 103 45 31.72
	8447.00	28.40	127.18	8409.03	-25.02	36.61	299.72	14.51	461700.58	718942.55	N 32 16 4.74	W 103 45 31.39
100' FNL Crossed	*8518.00*	*29.24*	*146.49*	*8471.37*	*0.57*	*11.89*	*322.80*	*13.12*	*461675.87*	*718965.63*	*N 32 16 4.49*	*W 103 45 31.12*
	8542.00	30.12	152.60	8492.23	11.03	1.65	328.80	13.12	461665.63	718971.64	N 32 16 4.39	W 103 45 31.05
	8637.00	33.06	169.41	8573.30	58.34	-45.08	344.57	9.74	461618.90	718987.40	N 32 16 3.93	W 103 45 30.87
	8732.00	39.57	171.60	8649.81	114.12	-100.55	353.76	6.99	461563.44	718996.59	N 32 16 3.38	W 103 45 30.77
	8826.00	42.68	172.21	8720.61	175.61	-161.75	362.46	3.34	461502.24	719005.29	N 32 16 2.77	W 103 45 30.67
	8921.00	50.25	177.29	8786.02	244.30	-230.26	368.56	8.86	461433.74	719011.39	N 32 16 2.09	W 103 45 30.60
	9016.00	56.08	173.88	8842.96	320.22	-306.01	374.49	6.77	461357.99	719017.32	N 32 16 1.34	W 103 45 30.54
	9110.00	68.50	173.97	8886.58	403.09	-388.60	383.28	13.21	461275.41	719026.11	N 32 16 0.53	W 103 45 30.44
	9205.00	74.32	175.05	8916.86	492.94	-478.19	391.88	6.22	461185.82	719034.70	N 32 15 59.64	W 103 45 30.34
	9300.00	82.44	179.02	8935.98	585.89	-571.02	396.64	9.48	461092.99	719039.47	N 32 15 58.72	W 103 45 30.30
	9395.00	89.22	183.59	8942.89	680.38	-665.66	394.47	8.60	460998.35	719037.29	N 32 15 57.78	W 103 45 30.33
	9533.00	91.37	185.13	8942.18	817.46	-803.25	383.98	1.92	460860.77	719026.80	N 32 15 56.42	W 103 45 30.46
	9627.00	89.45	183.33	8941.51	910.86	-896.98	377.04	2.80	460767.05	719019.87	N 32 15 55.50	W 103 45 30.54
	9719.00	90.22	183.12	8941.77	1002.44	-988.84	371.87	0.87	460675.20	719014.70	N 32 15 54.59	W 103 45 30.61
	9811.00	88.61	180.76	8942.71	1094.19	-1080.77	368.75	3.11	460583.27	719011.58	N 32 15 53.68	W 103 45 30.65
	9904.00	89.66	180.27	8944.12	1187.07	-1173.75	367.92	1.25	460490.29	719010.75	N 32 15 52.76	W 103 45 30.67
	9997.00	90.49	179.28	8943.99	1280.01	-1266.75	368.28	1.39	460397.30	719011.11	N 32 15 51.84	W 103 45 30.67
	10088.00	89.00	180.75	8944.40	1370.94	-1357.75	368.26	2.30	460306.31	719011.09	N 32 15 50.94	W 103 45 30.67
	10180.00	89.34	180.14	8945.73	1462.83	-1449.73	367.54	0.76	460214.33	719010.37	N 32 15 50.03	W 103 45 30.69
	10272.00	92.30	182.70	8944.42	1554.62	-1541.68	365.27	4.25	460122.39	719008.10	N 32 15 49.12	W 103 45 30.72
	10364.00	92.45	184.06	8940.60	1646.10	-1633.44	359.85	1.49	460030.64	719002.68	N 32 15 48.21	W 103 45 30.79
	10458.00	89.15	180.40	8939.29	1739.78	-1727.33	356.19	5.24	459936.75	718999.02	N 32 15 47.28	W 103 45 30.84
	10551.00	89.56	180.00	8940.34	1832.69	-1820.32	355.87	0.62	459843.76	718998.70	N 32 15 46.36	W 103 45 30.85
	10643.00	90.71	181.27	8940.12	1924.57	-1912.31	354.85	1.86	459751.78	718997.68	N 32 15 45.45	W 103 45 30.87
	10736.00	89.58	180.29	8939.88	2017.44	-2005.30	353.58	1.61	459658.80	718996.41	N 32 15 44.53	W 103 45 30.89
	10827.00	89.01	180.03	8941.00	2108.36	-2096.29	353.33	0.69	459567.81	718996.16	N 32 15 43.63	W 103 45 30.89
	11014.00	89.45	179.78	8943.52	2295.21	-2283.27	353.64	0.27	459380.84	718996.47	N 32 15 41.78	W 103 45 30.90
	11107.00	89.28	179.65	8944.55	2388.15	-2376.27	354.10	0.23	459287.85	718996.93	N 32 15 40.86	W 103 45 30.90
	11199.00	89.35	180.20	8945.65	2480.08	-2468.26	354.22	0.60	459195.86	718997.05	N 32 15 39.95	W 103 45 30.91
	11292.00	89.23	180.79	8946.80	2572.97	-2561.25	353.42	0.65	459102.88	718996.25	N 32 15 39.03	W 103 45 30.92
	11386.00	88.99	181.02	8948.26	2666.82	-2655.23	351.93	0.35	459008.91	718994.76	N 32 15 38.10	W 103 45 30.95
	11479.00	89.27	180.44	8949.67	2759.69	-2748.21	350.75	0.69	458915.93	718993.58	N 32 15 37.18	W 103 45 30.97
	11572.00	89.48	180.72	8950.69	2852.57	-2841.20	349.81	0.38	458822.95	718992.64	N 32 15 36.26	W 103 45 30.98
	11663.00	89.35	179.87	8951.62	2943.48	-2932.19	349.34	0.94	458731.96	718992.17	N 32 15 35.36	W 103 45 30.99
	11756.00	89.17	180.00	8952.82	3036.41	-3025.18	349.44	0.24	458638.97	718992.27	N 32 15 34.44	W 103 45 31.00
	11851.00	89.08	180.64	8954.27	3131.30	-3120.17	348.91	0.68	458543.99	718991.74	N 32 15 33.50	W 103 45 31.01
	11945.00	88.51	181.48	8956.24	3225.13	-3214.13	347.17	1.08	458450.03	718990.00	N 32 15 32.57	W 103 45 31.04
	12039.00	89.56	179.36	8957.83	3319.01	-3308.11	346.49	2.52	458356.06	718989.32	N 32 15 31.64	W 103 45 31.05
	12134.00	89.73	178.48	8958.42	3413.99	-3403.09	348.28	0.94	458261.09	718991.11	N 32 15 30.70	W 103 45 31.04
	12229.00	89.98	179.73	8958.66	3508.96	-3498.07	349.76	1.34	458166.10	718992.59	N 32 15 29.76	W 103 45 31.02
	12323.00	89.95	180.02	8958.71	3602.90	-3592.07	349.97	0.31	458072.11	718992.80	N 32 15 28.83	W 103 45 31.03
	12417.00	90.07	179.84	8958.70	3696.83	-3686.07	350.08	0.23	457978.12	718992.91	N 32 15 27.90	W 103 45 31.03
	12512.00	89.84	179.54	8958.77	3791.78	-3781.07	350.59	0.40	457883.12	718993.42	N 32 15 26.96	W 103 45 31.03
	12607.00	89.79	180.13	8959.08	3886.72	-3876.07	350.87	0.62	457788.13	718993.70	N 32 15 26.02	W 103 45 31.03
	12701.00	89.52	179.85	8959.65	3980.65	-3970.07	350.88	0.41	457694.14	718993.71	N 32 15 25.09	W 103 45 31.04
	12796.00	90.35	178.65	8959.75	4075.61	-4065.06	352.13	1.54	457599.15	718994.96	N 32 15 24.15	W 103 45 31.03
	12891.00	89.62	178.92	8959.78	4170.60	-4160.04	354.14	0.82	457504.18	718996.97	N 32 15 23.21	W 103 45 31.01
	12986.00	89.97	179.17	8960.12	4265.58	-4255.02	355.73	0.45	457409.20	718998.56	N 32 15 22.27	W 103 45 31.00
	13081.00	89.35	178.37	8960.68	4360.56	-4350.00	357.76	1.07	457314.23	719000.59	N 32 15 21.33	W 103 45 30.98
	13175.00	89.78	178.01	8961.40	4454.55	-4443.95	360.73	0.60	457220.29	719003.56	N 32 15 20.40	W 103 45 30.95
	13270.00	90.03	178.31	8961.55	4549.55	-4538.90	363.78	0.41	457125.34	719006.61	N 32 15 19.46	W 103 45 30.93
	13365.00	90.32	178.32	8961.26	4644.55	-4633.86	366.58	0.31	457030.39	719009.41	N 32 15 18.52	W 103 45 30.90
	13459.00	90.75	177.79	8960.39	4738.54	-4727.80	369.77	0.73	456936.45	719012.60	N 32 15 17.59	W 103 45 30.87
	13554.00	90.88	177.80	8959.03	4833.53	-4822.72	373.42	0.14	456841.54	719016.25	N 32 15 16.65	W 103 45 30.83
	13648.00	91.07	179.04	8957.43	4927.51	-4916.67	376.01	1.33	456747.59	719018.84	N 32 15 15.72	W 103 45 30.81
	13743.00	91.29	178.45	8955.48	5022.48	-5011.62	378.09	0.66	456652.64	719020.92	N 32 15 14.78	W 103 45 30.79
	13838.00	90.04	177.85	8954.38	5117.47	-5106.56	381.16	1.46	456557.71	719023.99	N 32 15 13.84	W 103 45 30.76
	13932.00	93.09	180.88	8951.81	5211.37	-5200.50	382.20	4.57	456463.77	719025.03	N 32 15 12.91	W 103 45 30.75
	14027.00	92.32	179.73	8947.32	5306.17	-5295.39	381.70	1.46	456368.89	719024.53	N 32 15 11.97	W 103 45 30.76
	14122.00	91.77	180.47	8943.93	5401.03	-5390.33	381.53	0.97	456273.96	719024.36	N 32 15 11.03	W 103 45 30.77
	14216.00	87.53	175.48	8944.51	5494.98	-5484.22	384.85	6.97	456180.07	719027.68	N 32 15 10.10	W 103 45 30.74
	14311.00	89.06	178.48	8947.34	5589.92	-5579.03	389.85	3.54	456085.27	719032.68	N 32 15 9.17	W 103 45 30.69
	14406.00	89.28	178.62	8948.71	5684.90	-5673.99	392.26	0.27	455990.31	719035.08	N 32 15 8.23	W 103 45 30.66
	14500.00	88.85	178.76	8950.25	5778.87	-5767.95	394.41	0.48	455896.35	719037.23	N 32 15 7.30	W 103 45 30.65
	14595.00	89.31	178.70	8951.77	5873.85	-5862.92	396.51	0.49	455801.40	719039.34	N 32 15 6.36	W 103 45 30.63
	14690.00	90.96	178.17	8951.55	5968.84	-5957.88	399.11	1.82	455706.44	719041.93	N 32 15 5.42	W 103 45 30.60
	14784.00	89.38	179.00	8951.27	6062.82	-6051.85	401.43	1.90	455612.48	719044.25	N 32 15 4.49	W 103 45 30.58
	14879.00	90.05	178.98	8951.74	6157.80	-6146.83	403.10	0.71	455517.50	719045.93	N 32 15 3.55	W 103 45 30.57
	14974.00	89.75	178.74	8951.91	6252.79	-6241.81	404.99	0.40	455422.53	719047.82	N 32 15 2.61	W 103 45 30.55
	15068.00	89.69	178.90	8952.37	6346.77	-6335.79	406.93	0.18	455328.55	719049.75	N 32 15 1.68	W 103 45 30.53
	15163.00	89.78	178.83	8952.81	6441.75	-6430.77	408.81	0.12	455233.58	719051.63	N 32 15 0.74	W 103 45 30.52
	15258.00	88.23	177.19	8954.46	6536.73	-6525.69	412.11	2.38	455138.66	719054.93	N 32 14 59.80	W 103 45 30.49
	15353.00	90.04	178.97	8955.89	6631.71	-6620.62	415.29	2.67	455043.74	719058.11	N 32 14 58.86	W 103 45 30.46
	15447.00	90.05	179.34	8955.82	6725.68	-6714.61	416.67	0.39	454949.75	719059.50	N 32 14 57.93	W 103 45 30.45
	15542.00	91.12	180.60	8954.85	6820.61	-6809.60	416.72	1.74	454854.77	719059.55	N 32 14 56.99	W 103 45 30.45
	15637.00	89.91	178.86	8953.99	6915.54	-6904.59	417.17	2.23	454759.78	719060.00	N 32 14 56.05	W 103 45 30.45
	15732.00	90.56	179.81	8953.60	7010.51	-6999.58	418.27	1.21	454664.80	719061.10	N 32 14 55.11	W 103 45 30.44
	15826.00	91.39	180.53	8952.00	7104.41	-7093.57	418.00	1.17	454570.82	719060.82	N 32 14 54.18	W 103 45 30.45
	15921.00	90.32	180.30	8950.59	7199.30	-7188.55	417.31	1.15	454475.84	719060.13	N 32 14 53.24	W 103 45 30.47
	16110.00	90.18	179.26	8949.76	7388.18	-7377.55	418.03	0.56	454286.85	719060.86	N 32 14 51.37	W 103 45 30.47

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 ° ' ")
	16205.00	92.99	180.68	8947.13	7483.06	-7472.50	418.08	3.31	454191.91	719060.91	N 32 14 50.43	W 103 45 30.48
	16300.00	90.45	179.77	8944.28	7577.93	-7567.45	417.71	2.84	454096.97	719060.54	N 32 14 49.49	W 103 45 30.49
	16395.00	89.85	179.33	8944.03	7672.88	-7662.44	418.46	0.78	454001.97	719061.28	N 32 14 48.55	W 103 45 30.48
	16489.00	92.49	181.00	8942.11	7766.77	-7756.41	418.19	3.32	453908.01	719061.01	N 32 14 47.62	W 103 45 30.49
	16584.00	89.43	178.85	8940.52	7861.67	-7851.38	418.31	3.94	453813.05	719061.14	N 32 14 46.68	W 103 45 30.50
	16679.00	89.45	179.08	8941.45	7956.65	-7946.36	420.03	0.24	453718.07	719062.85	N 32 14 45.74	W 103 45 30.48
	16773.00	89.55	179.43	8942.27	8050.61	-8040.35	421.25	0.39	453624.09	719064.08	N 32 14 44.81	W 103 45 30.47
	16868.00	91.49	180.29	8941.41	8145.54	-8135.34	421.48	2.23	453529.10	719064.31	N 32 14 43.87	W 103 45 30.48
	16962.00	89.28	180.15	8940.78	8239.45	-8229.33	421.12	2.36	453435.12	719063.95	N 32 14 42.94	W 103 45 30.49
	17057.00	89.95	178.03	8941.42	8334.42	-8324.31	422.63	2.34	453340.14	719065.46	N 32 14 42.00	W 103 45 30.48
	17152.00	90.08	177.25	8941.39	8429.41	-8419.23	426.54	0.83	453245.23	719069.37	N 32 14 41.06	W 103 45 30.44
	17247.00	91.11	180.68	8940.40	8524.37	-8514.19	428.26	3.77	453150.27	719071.08	N 32 14 40.12	W 103 45 30.42
	17436.00	89.86	180.19	8938.80	8713.16	-8703.18	426.82	0.71	452961.30	719069.65	N 32 14 38.25	W 103 45 30.45
	17531.00	91.11	180.71	8938.00	8808.05	-8798.17	426.08	1.43	452866.31	719068.90	N 32 14 37.31	W 103 45 30.47
	17626.00	94.01	181.44	8933.76	8902.79	-8893.04	424.30	3.15	452771.44	719067.12	N 32 14 36.37	W 103 45 30.49
	17720.00	90.05	179.62	8930.43	8996.60	-8986.96	423.43	4.64	452677.53	719066.26	N 32 14 35.44	W 103 45 30.51
	17815.00	89.08	180.12	8931.15	9091.54	-9081.95	423.65	1.15	452582.54	719066.47	N 32 14 34.50	W 103 45 30.51
	17910.00	89.55	180.61	8932.28	9186.43	-9176.95	423.04	0.71	452487.56	719065.87	N 32 14 33.56	W 103 45 30.52
	18005.00	89.11	179.47	8933.40	9281.35	-9271.94	422.98	1.29	452392.57	719065.80	N 32 14 32.62	W 103 45 30.53
	18099.00	89.57	180.49	8934.48	9375.28	-9365.93	423.01	1.19	452298.58	719065.83	N 32 14 31.69	W 103 45 30.54
	18194.00	89.26	180.25	8935.45	9470.17	-9460.92	422.39	0.41	452203.60	719065.22	N 32 14 30.75	W 103 45 30.55
	18289.00	89.24	180.29	8936.69	9565.08	-9555.91	421.95	0.05	452108.61	719064.77	N 32 14 29.81	W 103 45 30.56
	18384.00	89.24	179.71	8937.95	9660.00	-9650.90	421.95	0.61	452013.62	719064.77	N 32 14 28.87	W 103 45 30.57
	18478.00	89.09	180.15	8939.32	9753.92	-9744.89	422.06	0.49	451919.64	719064.89	N 32 14 27.94	W 103 45 30.57
	18573.00	89.40	180.05	8940.57	9848.84	-9839.89	421.90	0.34	451824.65	719064.72	N 32 14 27.00	W 103 45 30.58
	18668.00	89.70	180.14	8941.32	9943.76	-9934.88	421.74	0.33	451729.66	719064.56	N 32 14 26.06	W 103 45 30.59
	18762.00	90.71	179.93	8940.98	10037.68	-10028.88	421.68	1.10	451635.67	719064.51	N 32 14 25.13	W 103 45 30.59
	18857.00	90.98	180.03	8939.58	10132.60	-10123.87	421.71	0.30	451540.69	719064.54	N 32 14 24.19	W 103 45 30.60
	18951.00	90.79	179.97	8938.13	10226.52	-10217.86	421.71	0.21	451446.70	719064.54	N 32 14 23.26	W 103 45 30.60
	19046.00	90.96	180.32	8936.68	10321.43	-10312.85	421.47	0.41	451351.72	719064.30	N 32 14 22.32	W 103 45 30.61
100' FSL Crossed	*19087.00*	*90.67*	*180.22*	*8936.10*	*10362.39*	*-10353.84*	*421.28*	*0.76*	*451310.73*	*719064.11*	*N 32 14 21.92*	*W 103 45 30.62*
Final MWD	19141.00	90.28	180.09	8935.65	10416.34	-10407.84	421.13	0.76	451256.73	719063.96	N 32 14 21.38	W 103 45 30.62
Proj to TD	19165.00	90.28	180.09	8935.53	10440.32	-10431.84	421.10	0.00	451232.73	719063.92	N 32 14 21.15	W 103 45 30.63

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	30.000	1/98.425	26.400	26.400	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD
	1	30.000	30.000	Act Stns	26.400	26.400	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD
	1	30.000	716.010	Act Stns	26.400	26.400	GYD_GC+DROP+OH	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 26H
	1	716.010	19165.000	Act Stns	26.400	26.400	A010Mb_MWD+IFR1+SAG+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 26H Gyro + MWD 0-19165'MD