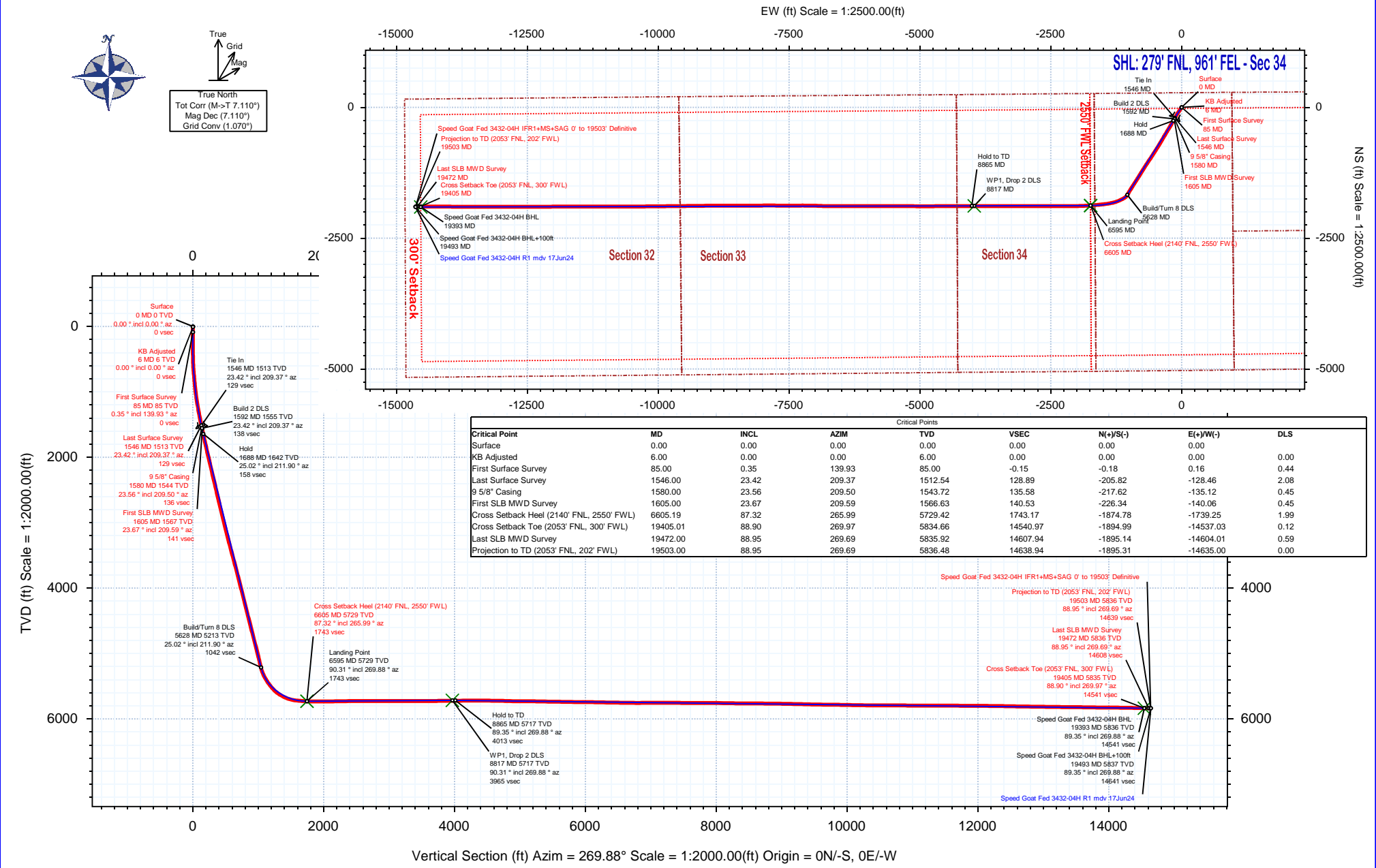


<b>Borehole:</b> Speed Goat Fed 3432-04H	<b>Well:</b> Speed Goat Fed 3432-04H	<b>Field:</b> CO, Weld County (NAD 83 NZ) - 2019	<b>Structure:</b> Verdad Resources 34-09N-58W (Speed Goat 3432-3435 Pad)
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<b>Gravity &amp; Magnetic Parameters</b>		<b>Surface Location</b> NAD83 Colorado State Plane, Northern Zone, US Feet			<b>Miscellaneous</b>	
Model: HDGM 2024	Dip: 66.845°	Date: 08-Jul-2024	Lat: N 40 42 51.17	Northing: 1507319.65ftUS	Grid Conv: 1.0701°	Slot: Speed Goat Fed 3432-04H
MagDec: 7.11°	FS: 51806.015mT	Gravity FS: 999.096mgn (9.80665 Based)	Lon: W 103 50 37.65	Easting: 3459106.64ftUS	Scale Fact: 0.99998951	TVD Ref: RKB = 21ft(4743ft above Mean Sea Level)
					Plan: Speed Goat Fed 3432-04H IFR1+MS+SAG 0' to 19503' Definitive	





# Speed Goat Fed 3432-04H IFR1+MS+SAG 0' to 19503' Definitive Survey

## Geodetic Report

(Def Survey)



**Report Date:** July 23, 2024 - 10:42 AM  
**Client:** Verdad Resources  
**Field:** CO, Weld County (NAD 83 NZ) - 2019  
**Structure / Slot:** Verdad Resources 34-09N-58W (Speed Goat 3432-3435 Pad) / Speed Goat Fed 3432-04H  
**Well:** Speed Goat Fed 3432-04H  
**Borehole:** Speed Goat Fed 3432-04H  
**UWI / API#:** Unknown / 05-123-52494  
**Survey Name:** Speed Goat Fed 3432-04H IFR1+MS+SAG 0' to 19503' Definitive  
**Survey Date:** May 08, 2024  
**Tort / AHD / DDI / ERD Ratio:** 241.879 ° / 15618.197 ft / 7.101 / 2.676  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 42' 51.17040", W 103° 50' 37.64759"  
**Location Grid N/E Y/X:** N 1507319.650 ftUS, E 3459106.640 ftUS  
**CRS Grid Convergence Angle:** 1.0701 °  
**Grid Scale Factor:** 0.99998951  
**Version / Patch:** 2.10.836.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 269.880 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** RKB = 21ft  
**TVD Reference Elevation:** 4743.000 ft above Mean Sea Level  
**Seabed / Ground Elevation:** 4722.000 ft above Mean Sea Level  
**Magnetic Declination:** 7.110 °  
**Total Gravity Field Strength:** 999.0960mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51806.015 nT  
**Magnetic Dip Angle:** 66.845 °  
**Declination Date:** July 08, 2024  
**Magnetic Declination Model:** HDGM 2024  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North→True North:** 7.1100 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1507319.65	3459106.64	40.714214	-103.843791
KB Adjusted	6.00	0.00	0.00	6.00	0.00	0.00	0.00	0.00	1507319.65	3459106.64	40.714214	-103.843791
First Surface Survey	85.00	0.35	139.93	85.00	-0.15	-0.18	0.16	0.44	1507319.47	3459106.80	40.714213	-103.843790
	176.00	0.35	16.71	176.00	-0.41	-0.13	0.41	0.68	1507319.53	3459107.06	40.714214	-103.843790
	267.00	0.13	16.89	267.00	-0.52	0.23	0.52	0.24	1507319.89	3459107.16	40.714215	-103.843789
	358.00	0.13	176.58	358.00	-0.56	0.23	0.56	0.28	1507319.89	3459107.20	40.714215	-103.843789
	448.00	2.68	203.83	447.96	0.29	-1.80	-0.28	2.85	1507317.85	3459106.39	40.714209	-103.843792
	537.00	3.25	212.44	536.84	2.49	-5.83	-2.48	0.81	1507313.77	3459104.27	40.714198	-103.843800
	627.00	5.16	221.06	626.60	6.53	-11.04	-6.51	2.23	1507308.50	3459100.34	40.714184	-103.843814
	716.00	7.78	222.46	715.02	13.24	-18.50	-13.20	2.95	1507300.91	3459093.79	40.714163	-103.843839
	806.00	10.06	209.72	803.94	21.28	-29.82	-21.21	3.34	1507289.44	3459085.99	40.714132	-103.843868
	895.00	11.87	209.19	891.31	29.62	-44.56	-29.53	2.04	1507274.54	3459077.95	40.714092	-103.843898
	984.00	12.04	214.11	978.38	39.33	-60.24	-39.20	1.16	1507258.69	3459068.57	40.714049	-103.843932
	1074.00	12.88	212.00	1066.26	49.94	-76.52	-49.78	1.06	1507242.21	3459058.30	40.714004	-103.843971
	1163.00	15.29	217.28	1152.58	62.35	-94.27	-62.15	3.07	1507224.23	3459046.26	40.713955	-103.844015
	1253.00	17.49	213.50	1238.92	77.04	-115.00	-76.80	2.72	1507203.24	3459032.00	40.713898	-103.844068
	1342.00	20.43	208.75	1323.09	91.95	-139.77	-91.66	3.73	1507178.19	3459017.61	40.713830	-103.844122
	1431.00	21.45	209.10	1406.21	107.40	-167.61	-107.05	1.15	1507150.07	3459002.74	40.713754	-103.844177
	1521.00	22.90	209.37	1489.55	124.05	-197.25	-123.64	1.62	1507120.13	3458986.71	40.713673	-103.844237
Last Surface Survey	1546.00	23.42	209.37	1512.54	128.89	-205.82	-128.46	2.08	1507111.47	3458982.05	40.713649	-103.844254
9 5/8" Casing	1580.00	23.56	209.50	1543.72	135.58	-217.62	-135.12	0.45	1507099.54	3458975.61	40.713617	-103.844278
First SLB MWD Survey	1605.00	23.67	209.59	1566.63	140.53	-226.34	-140.06	0.45	1507090.74	3458970.83	40.713593	-103.844296
	1694.00	23.52	211.07	1648.19	158.58	-257.08	-158.05	0.69	1507059.66	3458953.43	40.713508	-103.844361
	1784.00	22.82	209.66	1730.93	176.55	-287.63	-175.95	0.99	1507028.78	3458936.09	40.713425	-103.844426
	1874.00	24.43	210.46	1813.38	194.69	-318.84	-194.02	1.82	1506997.24	3458918.61	40.713339	-103.844491
	1963.00	23.93	210.23	1894.57	213.17	-350.30	-212.44	0.57	1506965.44	3458900.78	40.713253	-103.844557
	2053.00	24.50	210.24	1976.65	231.83	-382.20	-231.03	0.63	1506933.21	3458882.79	40.713165	-103.844624
	2142.00	25.07	211.42	2057.46	251.02	-414.23	-250.15	0.85	1506900.82	3458864.27	40.713077	-103.844693
	2232.00	24.45	210.51	2139.18	270.48	-446.55	-269.55	0.81	1506868.15	3458845.48	40.712988	-103.844763
	2322.00	24.43	211.10	2221.12	289.62	-478.53	-288.62	0.27	1506835.82	3458827.01	40.712901	-103.844832
	2411.00	24.40	211.00	2302.16	308.66	-510.05	-307.59	0.06	1506803.95	3458808.63	40.712814	-103.844901
	2500.00	24.79	211.94	2383.08	328.07	-541.64	-326.93	0.62	1506772.01	3458789.89	40.712727	-103.844970
	2590.00	24.92	208.63	2464.75	347.20	-574.30	-346.00	1.55	1506739.00	3458771.43	40.712638	-103.845039
	2679.00	24.63	211.37	2545.56	365.91	-606.59	-364.64	1.33	1506706.36	3458753.40	40.712549	-103.845106
	2769.00	25.18	209.28	2627.19	385.10	-639.30	-383.77	1.15	1506673.30	3458734.89	40.712459	-103.845175
	2859.00	25.01	210.96	2708.70	404.32	-672.32	-402.92	0.81	1506639.93	3458716.35	40.712369	-103.845244
	2948.00	24.44	211.29	2789.54	423.63	-704.18	-422.16	0.66	1506607.71	3458697.71	40.712281	-103.845314
	3038.00	24.87	211.39	2871.34	443.23	-736.25	-441.68	0.48	1506575.29	3458678.79	40.712193	-103.845384
	3128.00	24.68	212.45	2953.05	463.23	-768.26	-461.62	0.54	1506542.91	3458659.45	40.712105	-103.845456
	3217.00	25.15	213.04	3033.77	483.58	-799.80	-481.91	0.60	1506511.00	3458639.76	40.712019	-103.845529
	3307.00	25.19	211.55	3115.22	504.10	-832.15	-502.35	0.71	1506478.27	3458619.92	40.711930	-103.845603
	3396.00	25.68	213.39	3195.60	524.69	-864.39	-522.88	1.04	1506445.65	3458600.00	40.711841	-103.845677
	3486.00	24.86	212.63	3276.99	545.69	-896.61	-543.81	0.98	1506413.06	3458579.68	40.711753	-103.845753
	3575.00	25.87	212.91	3357.41	566.39	-928.66	-564.45	1.14	1506380.62	3458559.64	40.711665	-103.845827
	3665.00	25.77	213.88	3438.42	588.04	-961.39	-586.02	0.48	1506347.50	3458538.68	40.711575	-103.845905
	3755.00	25.66	213.57	3519.51	609.78	-993.87	-607.70	0.19	1506314.62	3458517.61	40.711486	-103.845983
	3844.00	25.36	213.91	3599.83	631.14	-1025.74	-628.99	0.38	1506282.35	3458496.92	40.711399	-103.846060
	3934.00	25.37	213.91	3681.15	652.72	-1057.74	-650.50	0.01	1506249.96	3458476.01	40.711311	-103.846137
	4023.00	25.09	213.48	3761.66	673.83	-1089.30	-671.55	0.38	1506218.01	3458455.56	40.711224	-103.846213
	4113.00	25.16	212.38	3843.15	694.67	-1121.37	-692.32	0.52	1506185.56	3458435.39	40.711136	-103.846288
	4202.00	25.82	212.01	3923.49	715.14	-1153.79	-712.73	0.76	1506152.77	3458415.60	40.711047	-103.846362
	4292.00	25.16	212.21	4004.72	735.80	-1186.59	-733.31	0.74	1506119.58	3458395.62	40.710957	-103.846436
	4381.00	25.51	212.47	4085.16	756.24	-1218.77	-753.69	0.41	1506087.03	3458375.86	40.710869	-103.846510
	4471.00	25.33	211.93	4166.45	776.89	-1251.46	-774.27	0.33	1506053.96	3458355.88	40.710779	-103.846584
	4561.00	24.99	211.26	4247.91	797.01	-1284.05	-794.32	0.49	1506021.00	3458336.45	40.710690	-103.846656
	4649.00	25.26	212.15	4327.59	816.71	-1315.84	-813.96	0.53	1505988.86	3458317.41	40.710602	-103.846727
	4739.00	25.72	212.44	4408.83	837.47	-1348.58	-834.65	0.53	1505955.74	3458297.33	40.710512	-103.846802
	4828.00	25.33	212.40	4489.14	858.10	-1380.95	-855.21	0.44	1505922.99	3458277.38	40.710424	-103.846876
	4917.00	25.28	212.48	4569.60	878.58	-1413.06	-875.62	0.07	1505890.51	3458257.58	40.710335	-103.846949
	5007.00	24.90	212.51	4651.11	899.15	-1445.24	-896.12	0.42	1505857.94	3458237.63	40.710247	-103.847023
	5096.00	25.49	213.10	4731.64	919.74	-1477.09	-916.65	0.72	1505825.72	3458217.75	40.710160	-103.847097
	5186.00	25.66	211.94	4812.82	940.69	-1509.85	-937.53	0.59	1505792.58	3458197.48	40.710070	-103.847171
	5275.00	25.46	211.95	4893.11	961.08	-1542.43	-957.85	0.22	1505759.62	3458177.77	40.709980	-103.847246
	5365.00	25.43	212.58	4974.38	981.79	-1575.13	-978.49	0.30	1505726.54	3458157.15	40.709891	-103.847320
	5454.00	24.87	211.85	5054.94	1002.02	-1607.13	-998.66	0.72	1505694.17	3458138.18	40.709803	-103.847393
	5544.00	24.94	207.03	5136.58	1020.70	-1640.11	-1017.27	2.26	1505660.85	3458120.19	40.709712	-103.847466
	5633.00	25.79	211.13	5217.01	1039.31	-1673.40	-1035.81	2.19	1505627.22	3458102.28	40.709621	-103.847527
	5723.00	30.32	225.08	5296.50	1065.63	-1706.25	-1062.06	8.83	1505593.88	3458086.62	40.709531	-103.847598
	5813.00	33.09	239.03	5373.16	1102.90	-1734.98	-1099.27	8.69	1505564.46	3458070.98	40.709442	-103.847756
	5902.00	37.00	244.02	5446.03	1147.88	-1759.23	-1144.20	5.44	1505539.38	3457956.51	40.709385	-103.847818
	5992.00	42.63	245.51	5515.13	1200.06	-1783.75	-1196.32	6.34	1505513.89	3457943.85	40.709318	-103.848106
	6081.00	49.21	251.69	5577.05	1259.61	-1806.86	-1255.83	8.91	1505489.67	3457934.79	40.709255	-103.848321

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6439.00	84.49	265.04	5717.80	1577.96	-1860.98	-1574.06	10.62	1505429.62	3457567.63	40.709106	-103.849469
	6529.00	86.19	264.97	5725.11	1667.33	-1868.79	-1663.42	1.89	1505420.15	3457478.43	40.709084	-103.849791
Cross Setback Heel (2140' FNL, 2550' FWL)	6605.19	87.32	265.99	5729.42	1743.17	-1874.78	-1739.25	1.99	1505412.73	3457402.73	40.709068	-103.850064
	6619.00	87.52	266.17	5730.05	1756.94	-1875.73	-1753.01	1.99	1505411.53	3457388.99	40.709065	-103.850114
	6708.00	88.60	267.23	5733.06	1845.75	-1880.85	-1841.81	1.70	1505404.76	3457300.30	40.709051	-103.850434
	6798.00	90.41	267.58	5733.84	1935.66	-1884.92	-1931.71	2.05	1505399.00	3457210.49	40.709040	-103.850759
	6887.00	90.30	269.59	5733.29	2024.63	-1887.12	-2020.68	2.26	1505395.14	3457121.58	40.709034	-103.851079
	6977.00	91.27	270.05	5732.05	2114.62	-1887.40	-2110.67	1.19	1505393.18	3457031.61	40.709033	-103.851404
	7067.00	90.76	270.04	5730.46	2204.60	-1887.33	-2200.65	0.57	1505391.57	3456941.64	40.709033	-103.851729
	7156.00	91.00	269.96	5729.09	2293.59	-1887.33	-2289.64	0.28	1505389.91	3456852.67	40.709033	-103.852050
	7246.00	90.68	270.04	5727.77	2383.58	-1887.33	-2379.63	0.37	1505388.23	3456762.70	40.709033	-103.852374
	7335.00	89.74	269.96	5727.45	2472.58	-1887.33	-2468.63	1.06	1505386.57	3456673.72	40.709033	-103.852695
	7425.00	90.05	269.84	5727.61	2562.58	-1887.49	-2558.63	0.37	1505384.73	3456583.74	40.709033	-103.853020
	7514.00	90.36	270.03	5727.29	2651.58	-1887.59	-2647.63	0.41	1505382.97	3456494.76	40.709033	-103.853341
	7604.00	89.55	269.70	5727.36	2741.58	-1887.80	-2737.63	0.97	1505381.07	3456404.70	40.709032	-103.853665
	7694.00	90.65	270.17	5727.21	2831.58	-1887.90	-2827.63	1.33	1505379.29	3456314.80	40.709032	-103.853990
	7783.00	90.24	270.08	5726.52	2920.57	-1887.71	-2916.63	0.47	1505377.82	3456225.81	40.709032	-103.854311
	7873.00	90.25	269.82	5726.13	3010.57	-1887.79	-3006.62	0.29	1505376.06	3456135.83	40.709032	-103.854636
	7963.00	90.37	270.13	5725.64	3100.57	-1887.83	-3096.62	0.37	1505374.34	3456045.85	40.709032	-103.854960
	8052.00	89.77	269.60	5725.53	3189.57	-1888.04	-3185.62	0.90	1505372.47	3455956.87	40.709031	-103.855281
	8141.00	89.81	269.99	5725.86	3278.57	-1888.36	-3274.62	0.44	1505370.49	3455867.90	40.709030	-103.855602
	8231.00	89.68	269.79	5726.26	3368.57	-1888.53	-3364.62	0.27	1505368.64	3455777.92	40.709030	-103.855927
	8321.00	90.71	270.05	5725.96	3458.57	-1888.65	-3454.62	1.18	1505366.83	3455687.94	40.709029	-103.856252
	8410.00	89.66	269.74	5725.67	3547.56	-1888.82	-3543.62	1.23	1505365.01	3455598.96	40.709029	-103.856577
	8500.00	89.86	269.86	5725.97	3637.56	-1889.13	-3633.61	0.36	1505363.01	3455508.99	40.709028	-103.856897
	8589.00	91.35	270.02	5724.95	3726.56	-1889.22	-3722.61	1.57	1505361.26	3455420.01	40.709028	-103.857218
	8679.00	89.97	269.93	5723.91	3816.55	-1889.26	-3812.60	1.54	1505359.54	3455330.04	40.709028	-103.857543
	8768.00	90.56	269.91	5723.50	3905.55	-1889.39	-3901.60	0.66	1505357.75	3455241.06	40.709027	-103.857864
	8857.00	90.70	270.07	5722.52	3994.54	-1889.40	-3990.59	0.24	1505356.07	3455152.08	40.709027	-103.858185
	8947.00	90.74	270.25	5721.39	4084.53	-1889.15	-4080.58	0.20	1505354.64	3455062.10	40.709028	-103.858509
	9036.00	90.62	270.05	5720.33	4173.52	-1889.92	-4169.58	0.26	1505353.21	3454973.12	40.709028	-103.858830
	9126.00	90.47	269.93	5719.48	4263.52	-1889.94	-4259.57	0.21	1505351.52	3454883.14	40.709028	-103.859155
	9215.00	89.64	269.77	5719.39	4352.52	-1889.17	-4348.57	0.95	1505349.62	3454794.16	40.709028	-103.859476
	9305.00	89.43	269.95	5720.12	4442.52	-1889.39	-4438.57	0.31	1505347.72	3454704.19	40.709027	-103.859801
	9394.00	89.26	269.94	5721.14	4531.51	-1889.47	-4527.56	0.19	1505345.97	3454615.21	40.709027	-103.860122
	9484.00	89.63	269.91	5722.01	4621.51	-1889.59	-4617.56	0.41	1505344.17	3454525.23	40.709026	-103.860446
	9573.00	88.37	269.66	5723.57	4710.49	-1889.93	-4706.54	1.44	1505342.18	3454436.27	40.709025	-103.860767
	9662.00	88.70	270.02	5725.84	4799.46	-1890.17	-4795.51	0.55	1505340.27	3454347.32	40.709025	-103.861088
	9752.00	88.54	269.74	5728.01	4889.43	-1890.36	-4884.50	0.36	1505338.40	3454257.37	40.709024	-103.861413
	9842.00	89.40	270.08	5729.63	4979.42	-1890.50	-4973.47	1.03	1505336.58	3454167.41	40.709024	-103.861737
	9931.00	89.77	270.29	5730.27	5068.42	-1890.22	-5064.47	0.48	1505335.20	3454078.42	40.709024	-103.862058
	10021.00	90.10	271.29	5730.37	5158.40	-1889.98	-5154.46	1.17	1505334.76	3453988.42	40.709028	-103.862383
	10110.00	88.57	269.81	5731.41	5247.39	-1888.12	-5243.44	2.39	1505333.96	3453899.44	40.709030	-103.862704
	10200.00	89.10	270.08	5733.24	5337.37	-1888.21	-5333.42	0.66	1505332.19	3453809.48	40.709030	-103.863028
	10290.00	89.11	269.88	5734.64	5427.36	-1888.24	-5423.41	0.22	1505330.48	3453719.51	40.709030	-103.863353
	10379.00	89.40	269.80	5735.80	5516.35	-1888.49	-5512.40	0.34	1505328.57	3453630.54	40.709029	-103.863674
	10469.00	88.50	269.80	5737.45	5606.33	-1888.80	-5602.39	1.00	1505326.57	3453540.57	40.709028	-103.863998
	10558.00	89.63	270.11	5738.90	5695.32	-1888.87	-5691.37	1.32	1505324.84	3453451.61	40.709028	-103.864319
	10648.00	88.59	269.99	5740.30	5785.31	-1888.79	-5781.36	1.16	1505323.24	3453361.63	40.709028	-103.864644
	10737.00	88.57	269.77	5742.50	5874.28	-1888.98	-5870.33	0.25	1505321.39	3453272.68	40.709027	-103.864965
	10826.00	89.73	270.46	5743.82	5963.27	-1888.80	-5959.32	1.52	1505319.91	3453183.71	40.709028	-103.865286
	10916.00	89.80	270.45	5744.19	6053.26	-1888.09	-6049.32	0.08	1505318.94	3453093.71	40.709030	-103.865610
	11005.00	89.67	270.13	5744.61	6142.26	-1887.63	-6138.32	0.39	1505317.73	3453004.72	40.709031	-103.865931
	11094.00	88.60	270.00	5745.95	6231.24	-1887.53	-6227.31	1.21	1505316.17	3452915.75	40.709031	-103.866252
	11184.00	88.47	269.95	5748.25	6321.22	-1887.57	-6317.28	0.15	1505314.45	3452826.80	40.709031	-103.866577
	11274.00	89.67	270.15	5749.71	6411.20	-1887.49	-6407.26	1.35	1505312.85	3452737.83	40.709031	-103.866902
	11363.00	88.53	269.98	5751.11	6500.19	-1887.39	-6496.25	1.30	1505311.29	3452648.85	40.709031	-103.867223
	11453.00	89.83	270.23	5752.40	6590.18	-1887.23	-6586.24	1.47	1505309.77	3452559.88	40.709032	-103.867547
	11542.00	88.93	270.15	5753.36	6679.17	-1886.93	-6675.23	1.02	1505308.40	3452470.90	40.709032	-103.867868
	11632.00	89.62	270.02	5754.50	6769.16	-1886.80	-6765.22	0.78	1505306.86	3452381.92	40.709033	-103.868193
	11721.00	90.47	270.80	5754.43	6858.16	-1886.16	-6854.22	1.30	1505305.83	3452292.93	40.709034	-103.868514
	11810.00	90.63	272.53	5753.57	6947.10	-1883.58	-6943.18	1.95	1505306.75	3452199.94	40.709041	-103.868835
	11900.00	90.85	272.66	5752.41	7037.00	-1887.50	-7033.08	0.28	1505309.15	3452109.98	40.709052	-103.869159
	11989.00	90.03	269.94	5751.73	7125.96	-1887.48	-7122.04	3.19	1505309.51	3452020.99	40.709058	-103.869480
	12079.00	89.88	270.06	5751.80	7215.96	-1887.48	-7212.04	0.21	1505307.82	3451931.01	40.709058	-103.869804
	12168.00	89.28	269.81	5752.45	7304.95	-1887.59	-7301.04	0.73	1505306.06	3451842.03	40.709058	-103.870125
	12258.00	89.13	268.24	5753.70	7394.93	-1879.12	-7391.01	1.75	1505302.85	3451752.10	40.709053	-103.870450
	12348.00	89.47	270.08	5754.80	7484.91	-1880.44	-7480.99	2.08	1505299.85	3451662.16	40.709050	-103.870774
	12437.00	89.81	269.78	5755.36	7573.91	-1880.54	-7569.99	0.51	1505298.08	3451573.19	40.709049	-103.871095
	12527.00	89.93	270.70	5755.56	7663.91	-1880.17	-7659.99	1.03	1505296.78	3451483.20	40.709050	-103.871420
	12616.00	90.80	272.14	5755.00	7752.87	-1877.96	-7749.96	1.89	1505297.32	3451394.20	40.709056	-103.871741
	12706.00	89.22	269.88	5754.98	7842.85	-1876.38	-7839.96	3.06	1505297.22	3451304.21	40.709060	-103.872065
	12795.00	89.09	269.40	5756.29	7931.84	-1876.93	-7929.92	0.56	1505295.00	3451215.25	40.709059	-103.872386
	12885.00	89.28	269.85	5757.57	8021.83	-1877.52	-8011.91	0.54	1505292.73	3451126.29	40.709057	-103.872711
	12975.00	89.28	269.85	5758.70	8111.82	-1877.76	-8101.90	0.00	1505290.82	3451036.32	40.709056	-103.873036
	13064.00	89.05	269.86	5760.00	8200.81	-1877.98	-8191.89	0.26	1505288.93	3450946.35	40.709056	-103.873357
	13154.00	88.73	269.51	5761.74	8290.79	-1878.48	-8286.87	0.53	1505286.76			

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	15841.00	89.36	269.87	5795.03	10977.40	-1897.68	-10973.45	0.57	1505217.38	3448170.68	40.708999	-103.883371
	15931.00	90.50	270.25	5795.14	11067.40	-1897.59	-11063.45	1.34	1505215.79	3448080.70	40.708999	-103.883696
	16021.00	89.09	269.67	5795.46	11157.40	-1897.65	-11153.45	1.69	1505214.05	3447990.72	40.708998	-103.884021
	16110.00	90.49	270.80	5795.79	11246.39	-1897.29	-11242.44	2.02	1505212.75	3447901.73	40.708999	-103.884342
	16200.00	89.78	270.03	5795.57	11336.39	-1896.63	-11332.44	1.16	1505211.73	3447811.74	40.709001	-103.884666
	16289.00	89.87	269.96	5795.85	11425.38	-1896.64	-11421.44	0.13	1505210.06	3447722.76	40.709001	-103.884987
	16379.00	89.97	270.00	5795.97	11515.38	-1896.67	-11511.44	0.12	1505208.34	3447632.78	40.709001	-103.885312
	16468.00	89.60	269.69	5796.30	11604.38	-1896.91	-11600.44	0.54	1505206.44	3447543.80	40.709000	-103.885633
	16558.00	88.99	269.67	5797.41	11694.38	-1897.42	-11690.43	0.68	1505204.26	3447453.83	40.708998	-103.885958
	16647.00	89.75	269.91	5798.39	11783.37	-1897.74	-11779.42	0.90	1505202.27	3447364.86	40.708997	-103.886279
	16737.00	88.81	269.81	5799.52	11873.36	-1897.96	-11869.41	1.05	1505200.37	3447274.89	40.708997	-103.886603
	16827.00	89.70	269.93	5800.69	11963.35	-1898.17	-11959.40	1.00	1505198.48	3447184.92	40.708996	-103.886928
	16916.00	90.00	269.75	5800.92	12052.35	-1898.42	-12048.40	0.39	1505196.57	3447095.94	40.708995	-103.887249
	17005.00	89.73	269.78	5801.13	12141.35	-1898.78	-12137.40	0.31	1505194.55	3447006.97	40.708994	-103.887570
	17095.00	89.07	269.94	5802.08	12231.35	-1899.00	-12227.40	0.75	1505192.65	3446917.00	40.708993	-103.887894
	17185.00	89.24	269.54	5803.40	12321.34	-1899.41	-12317.39	0.48	1505190.56	3446827.03	40.708992	-103.888219
	17274.00	88.97	269.77	5804.79	12410.32	-1899.95	-12406.37	0.40	1505188.36	3446738.07	40.708991	-103.888540
	17364.00	88.83	269.50	5806.52	12500.31	-1900.52	-12496.35	0.34	1505186.10	3446648.12	40.708989	-103.888864
	17454.00	89.20	269.63	5808.07	12590.29	-1901.20	-12586.34	0.44	1505183.74	3446558.16	40.708987	-103.889189
	17543.00	89.13	269.64	5809.37	12679.28	-1901.77	-12675.33	0.08	1505181.51	3446469.20	40.708985	-103.889510
	17633.00	89.25	269.91	5810.64	12769.27	-1902.12	-12765.32	0.33	1505179.48	3446379.23	40.708984	-103.889835
	17722.00	89.10	270.14	5811.92	12858.26	-1902.08	-12854.31	0.31	1505177.86	3446290.26	40.708984	-103.890156
	17812.00	89.26	270.64	5813.21	12948.25	-1901.47	-12944.30	0.58	1505176.79	3446200.28	40.708986	-103.890480
	17901.00	88.51	269.52	5814.94	13037.23	-1901.35	-13033.28	1.51	1505175.25	3446111.31	40.708986	-103.890801
	17991.00	89.75	270.51	5816.31	13127.22	-1901.32	-13123.26	1.76	1505173.59	3446021.34	40.708986	-103.891126
	18080.00	89.08	270.07	5817.22	13216.21	-1900.87	-13212.26	0.90	1505172.38	3445932.35	40.708987	-103.891447
	18170.00	89.89	270.21	5818.02	13306.20	-1900.65	-13302.25	0.91	1505170.92	3445842.37	40.708987	-103.891771
	18260.00	89.40	270.06	5818.58	13396.20	-1900.44	-13392.25	0.57	1505169.45	3445752.39	40.708988	-103.892096
	18349.00	88.85	269.80	5819.94	13485.19	-1900.55	-13481.24	0.68	1505167.88	3445663.42	40.708987	-103.892417
	18439.00	89.61	269.70	5821.15	13575.18	-1900.94	-13571.23	0.85	1505165.61	3445573.45	40.708986	-103.892741
	18528.00	88.97	270.20	5822.25	13664.17	-1901.02	-13660.22	0.91	1505163.87	3445484.47	40.708986	-103.893062
	18618.00	89.19	269.47	5823.70	13754.16	-1901.28	-13750.21	0.85	1505161.93	3445394.51	40.708985	-103.893387
	18707.00	89.11	269.87	5825.02	13843.15	-1901.79	-13839.20	0.46	1505159.75	3445305.55	40.708983	-103.893708
	18797.00	90.43	273.07	5825.38	13933.10	-1899.48	-13929.15	3.85	1505160.38	3445215.56	40.708990	-103.894032
	18886.00	89.11	269.84	5825.74	14022.05	-1897.22	-14018.11	3.92	1505160.98	3445126.58	40.708996	-103.894353
	18976.00	89.03	270.43	5827.20	14112.04	-1897.01	-14108.10	0.66	1505159.51	3445036.61	40.708996	-103.894678
	19065.00	89.16	270.95	5828.60	14201.02	-1895.94	-14197.08	0.60	1505158.92	3444947.62	40.708999	-103.894999
	19155.00	89.02	270.38	5830.03	14291.00	-1894.89	-14287.06	0.65	1505158.28	3444857.64	40.709002	-103.895323
	19245.00	89.02	269.80	5831.57	14380.99	-1894.75	-14377.05	0.64	1505156.75	3444767.66	40.709002	-103.895648
	19334.00	88.82	269.95	5833.25	14469.97	-1894.95	-14466.03	0.28	1505154.89	3444678.70	40.709001	-103.895969
Cross Setback Toe (2053' FNL, 300' FWL)	19405.01	88.90	269.97	5834.66	14540.97	-1894.99	-14537.03	0.12	1505153.52	3444607.72	40.709001	-103.896225
	19423.00	88.92	269.98	5835.01	14558.95	-1895.00	-14555.02	0.12	1505153.17	3444589.74	40.709001	-103.896290
Last SLB MWD Survey Projection to TD (2053' FNL, 202' FWL)	19472.00	88.95	269.69	5835.92	14607.94	-1895.14	-14604.01	0.59	1505152.12	3444540.76	40.709000	-103.896467
	19503.00	88.95	269.69	5836.48	14638.94	-1895.31	-14635.00	0.00	1505151.37	3444509.77	40.709000	-103.896578

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	6.000	1/98.425	13.500	9.625	A001Mb_MWD-Depth Only	Speed Goat Fed 3432-04H / Speed Goat Fed 3432-04H
	1	6.000	21.000	Act Stns	13.500	9.625	A001Mb_MWD-Depth Only	Speed Goat Fed 3432-04H / Speed Goat Fed 3432-04H
	1	21.000	1546.000	Act Stns	13.500	9.625	A001Mb_MWD	Speed Goat Fed 3432-04H / Speed Goat Fed 3432-04H
	1	1546.000	19503.000	Act Stns	8.500	5.500	A010Mb_MWD+IFR1+SAG+MS	Speed Goat Fed 3432-04H / Speed Goat Fed 3432-04H / IFR1+MS+SAG 0' to 19503'