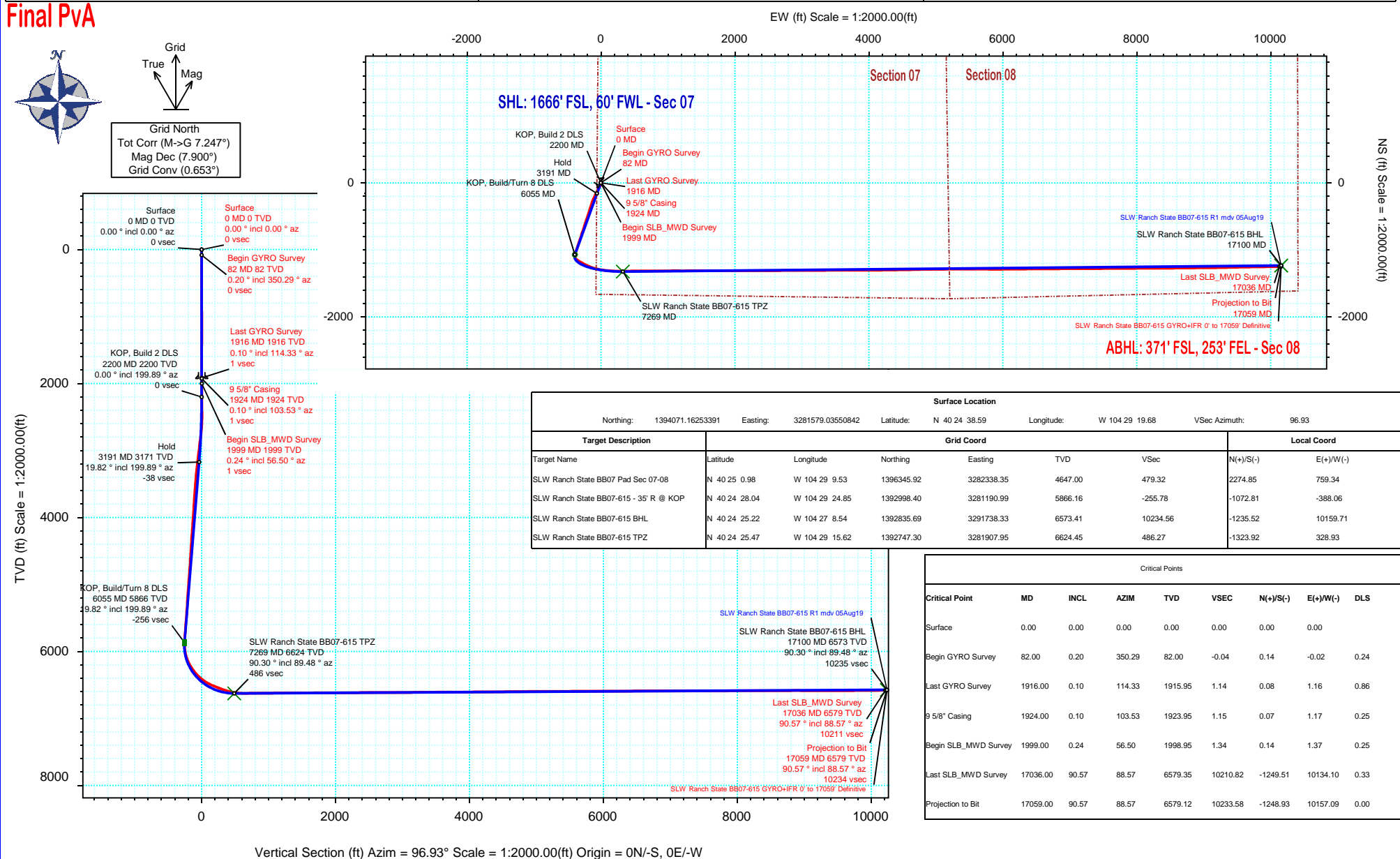


<b>Borehole:</b>	<b>Well:</b>	<b>Field:</b>	<b>Structure:</b>
Original Hole	SLW Ranch State BB07-615	CO, Weld County (NAD 83 NZ)	Noble 07-05N-63W (SLW Ranch State BB07 Pad South)

Gravity & Magnetic Parameters					Surface Location					NAD83 Colorado State Plane, Northern Zone, US Feet					Miscellaneous				
Model:	Magvar IFR	Dip:	66.89°	Date:	09-Aug-2019	Lat:	N 40 24 38.59	Northing:	1394071.16ftUS	Grid Conv:	0.6534°	Slot:	SLW Ranch State BB07-615	TVD Ref:	KB 30ft(4647ft above MSL)				
MagDec:	7.9°	FS:	52146nT	Gravity FS:	999.054mgn (9.80665 Based)	Lon:	W 104 29 19.68	Easting:	3281579.04ftUS	Scale Fact:	0.99996073	Plan:	SLW Ranch State BB07-615 GYRO+IFR 0' to 17059' Definitive						



# SLW Ranch State BB07-615 GYRO+IFR 0' to 17059' Definitive Survey

## Geodetic Report

### (Def Survey)

**Report Date:** September 17, 2019 - 08:48 AM  
**Client:** Noble Energy  
**Field:** CO, Weld County (NAD 83 NZ)  
**Structure / Slot:** Noble 07-05N-63W (SLW Ranch State BB07 Pad South) / SLW Ranch State BB07-615  
**Well:** SLW Ranch State BB07-615  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / 05-123-47405  
**Survey Name:** SLW Ranch State BB07-615 GYRO+IFR 0' to 17059' Definitive  
**Survey Date:** August 07, 2019  
**Tort / AHD / DDI / ERD Ratio:** 212.858 ° / 11795.388 ft / 6.811 / 1.781  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 24' 38.59200", W 104° 29' 19.68000"  
**Location Grid N/E Y/X:** N 1394071.163 ftUS, E 3281579.036 ftUS  
**CRS Grid Convergence Angle:** 0.6534 °  
**Grid Scale Factor:** 0.99996073  
**Version / Patch:** 2.10.782.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 96.930 ° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 30ft  
**TVD Reference Elevation:** 4647.000 ft above MSL  
**Seabed / Ground Elevation:** 4617.000 ft above MSL  
**Magnetic Declination:** 7.900 °  
**Total Gravity Field Strength:** 999.0540mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 52146.000 nT  
**Magnetic Dip Angle:** 66.890 °  
**Declination Date:** August 09, 2019  
**Magnetic Declination Model:** Magvar IFR  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.6534 °  
**Total Corr Mag North->Grid North:** 7.2466 °  
**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 (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1394071.16	3281579.04	40.410720	-104.488800
Begin GYRO	82.00	0.20	350.29	82.00	-0.04	0.14	-0.02	0.24	1394071.30	3281579.01	40.410720	-104.488800
Survey	176.00	0.19	0.63	176.00	-0.11	0.46	-0.05	0.04	1394071.62	3281578.99	40.410721	-104.488800
	268.00	0.17	113.86	268.00	0.01	0.56	0.08	0.33	1394071.72	3281579.11	40.410722	-104.488800
	362.00	0.65	320.93	362.00	-0.24	0.91	-0.13	0.86	1394072.08	3281578.90	40.410723	-104.488800
	457.00	0.44	55.08	456.99	-0.36	1.54	-0.17	0.85	1394072.70	3281578.86	40.410724	-104.488801
	552.00	0.61	353.27	551.99	-0.20	2.25	0.07	0.59	1394073.41	3281579.10	40.410726	-104.488800
	646.00	0.18	169.45	645.99	-0.28	2.60	0.04	0.84	1394073.77	3281579.07	40.410727	-104.488800
	741.00	0.49	153.09	740.99	-0.01	2.09	0.25	0.34	1394073.26	3281579.28	40.410726	-104.488799
	836.00	0.51	132.54	835.98	0.56	1.45	0.74	0.19	1394072.61	3281579.78	40.410724	-104.488797
	931.00	0.92	161.98	930.98	1.23	0.44	1.29	0.57	1394071.60	3281580.33	40.410721	-104.488795
	1025.00	0.69	164.02	1024.97	1.77	-0.83	1.68	0.25	1394070.34	3281580.71	40.410718	-104.488794
	1120.00	0.42	173.09	1119.96	2.07	-1.72	1.88	0.30	1394069.44	3281580.91	40.410715	-104.488793
	1215.00	0.21	282.22	1214.96	1.98	-2.03	1.75	0.56	1394069.13	3281580.79	40.410714	-104.488794
	1310.00	0.22	267.04	1309.96	1.63	-2.00	1.40	0.06	1394069.16	3281580.43	40.410714	-104.488795
	1405.00	0.45	308.29	1404.96	1.13	-1.78	0.92	0.34	1394069.38	3281579.96	40.410715	-104.488797
	1499.00	0.46	344.19	1498.96	0.67	-1.19	0.53	0.30	1394069.97	3281579.57	40.410717	-104.488798
	1594.00	0.52	343.51	1593.95	0.35	-0.41	0.30	0.06	1394070.75	3281579.34	40.410719	-104.488799
	1689.00	0.30	349.04	1688.95	0.10	0.25	0.13	0.24	1394071.41	3281579.17	40.410721	-104.488800
	1784.00	0.41	97.30	1783.95	0.37	0.45	0.42	0.61	1394071.61	3281579.46	40.410721	-104.488798
	1878.00	0.42	130.56	1877.95	0.99	0.18	1.02	0.25	1394071.34	3281580.05	40.410720	-104.488796
Last GYRO	1916.00	0.10	114.33	1915.95	1.14	0.08	1.16	0.86	1394071.24	3281580.19	40.410720	-104.488796
Survey	1924.00	0.10	103.53	1923.95	1.15	0.07	1.17	0.25	1394071.24	3281580.20	40.410720	-104.488796
9 5/8" Casing												
Begin												
SLB_MWD	1999.00	0.24	56.50	1998.95	1.34	0.14	1.37	0.25	1394071.31	3281580.40	40.410720	-104.488795
Survey	2094.00	0.23	112.32	2093.95	1.67	0.18	1.71	0.23	1394071.34	3281580.74	40.410720	-104.488794
	2189.00	0.10	133.83	2188.95	1.92	0.05	1.94	0.15	1394071.21	3281580.98	40.410720	-104.488793
	2283.00	2.58	177.87	2282.91	2.32	-2.12	2.08	2.67	1394069.04	3281581.12	40.410714	-104.488793
	2378.00	4.24	168.90	2377.74	3.75	-7.70	2.84	1.83	1394063.46	3281581.87	40.410699	-104.488790
	2473.00	6.15	185.12	2472.35	5.00	-16.22	3.06	2.52	1394054.94	3281582.10	40.410675	-104.488790
	2567.00	8.97	200.53	2565.54	3.43	-28.10	0.04	3.67	1394043.06	3281579.08	40.410643	-104.488801
	2662.00	10.74	209.24	2659.14	-1.67	-42.76	-6.88	2.43	1394028.40	3281572.15	40.410603	-104.488826
	2757.00	14.47	213.36	2751.83	-10.32	-60.41	-17.74	4.04	1394010.76	3281561.30	40.410555	-104.488866
	2852.00	17.42	210.85	2843.17	-21.37	-82.53	-31.56	3.19	1393988.63	3281547.48	40.410494	-104.488917
	3041.00	19.16	205.52	3022.62	-42.73	-134.82	-59.43	1.28	1393936.35	3281519.61	40.410352	-104.489019
	3136.00	18.89	207.32	3112.44	-53.06	-162.55	-73.21	0.68	1393908.62	3281505.83	40.410276	-104.489070
	3231.00	19.45	204.73	3202.17	-63.25	-190.58	-86.88	1.07	1393880.59	3281492.16	40.410200	-104.489120
	3326.00	18.81	205.24	3291.92	-72.90	-218.80	-100.03	0.70	1393852.37	3281479.01	40.410123	-104.489168
	3421.00	19.54	204.66	3381.65	-82.55	-247.09	-113.19	0.79	1393824.08	3281465.85	40.410045	-104.489217
	3515.00	19.56	199.98	3470.24	-90.89	-276.17	-125.13	1.67	1393795.01	3281453.92	40.409966	-104.489261
	3610.00	19.52	198.16	3559.77	-97.57	-306.19	-135.51	0.64	1393764.98	3281443.54	40.409884	-104.489299
	3705.00	19.60	198.15	3649.29	-103.76	-336.42	-145.42	0.08	1393734.76	3281433.63	40.409801	-104.489336
	3799.00	19.78	197.80	3737.79	-109.83	-366.54	-155.19	0.23	1393704.64	3281423.85	40.409719	-104.489372
	3894.00	19.36	197.65	3827.30	-115.79	-396.85	-164.88	0.45	1393674.33	3281414.16	40.409636	-104.489408
	3989.00	19.31	197.75	3916.94	-121.67	-426.82	-174.44	0.06	1393644.36	3281404.60	40.409554	-104.489444
	4084.00	19.36	197.79	4006.59	-127.58	-456.77	-184.04	0.05	1393614.41	3281395.00	40.409472	-104.489480
	4178.00	19.22	198.41	4095.31	-133.60	-486.29	-193.69	0.26	1393584.90	3281385.36	40.409391	-104.489515
	4273.00	18.88	198.43	4185.11	-139.77	-515.70	-203.48	0.36	1393555.48	3281375.56	40.409311	-104.489552
	4368.00	19.16	199.05	4274.92	-146.11	-545.02	-213.43	0.36	1393526.16	3281365.61	40.409231	-104.489589
	4462.00	19.15	198.29	4363.71	-152.39	-574.24	-223.31	0.27	1393496.94	3281355.74	40.409151	-104.489625
	4557.00	19.10	196.00	4453.47	-157.91	-603.98	-232.48	0.79	1393467.21	3281346.56	40.409070	-104.489659
	4651.00	19.12	198.16	4542.29	-163.33	-633.39	-241.52	0.75	1393437.80	3281337.53	40.408989	-104.489693
	4746.00	18.78	198.23	4632.14	-169.36	-662.70	-251.15	0.36	1393408.49	3281327.90	40.408909	-104.489729
	4841.00	18.69	198.88	4722.11	-175.50	-691.63	-260.86	0.24	1393379.57	3281318.19	40.408830	-104.489765
	4935.00	19.35	199.51	4810.98	-182.02	-720.56	-270.93	0.74	1393350.64	3281308.11	40.408751	-104.489802
	5030.00	19.22	199.15	4900.65	-188.75	-750.16	-281.32	0.19	1393321.03	3281297.73	40.408670	-104.489841
	5125.00	19.15	197.44	4990.37	-194.90	-779.80	-291.12	0.60	1393291.40	3281287.93	40.408589	-104.489877
	5314.00	19.72	197.50	5168.60	-206.41	-839.79	-310.00	0.30	1393231.41	3281269.05	40.408425	-104.489947
	5409.00	19.69	198.12	5258.04	-212.45	-870.28	-319.80	0.22	1393200.92	3281259.25	40.408341	-104.489984
	5504.00	19.63	197.46	5347.50	-218.48	-900.71	-329.56	0.24	1393170.49	3281249.49	40.408258	-104.490020
	5598.00	19.45	199.62	5436.09	-224.80	-930.52	-339.55	0.79	1393140.68	3281239.50	40.408177	-104.490057
	5693.00	19.25	199.65	5525.72	-231.72	-960.17	-350.13	0.21	1393111.04	3281228.92	40.408096	-104.490096
	5882.00	19.16	198.95	5704.20	-245.04	-1018.84	-370.68	0.13	1393052.36	3281208.37	40.407935	-104.490173
	5977.00	19.79	198.31	5793.77	-251.46	-1048.85	-380.80	0.70	1393022.35	3281198.26	40.407853	-104.490210
	6072.00	19.31	189.89	5883.31	-255.45	-1079.60	-388.55	3.01	1392991.60	3281190.50	40.407769	-104.490239
	6166.00	18.44	165.69	5972.39	-250.86	-1109.37	-387.54	8.32	1392961.84	3281191.51	40.407687	-104.490237
	6261.00	19.19	134.15	6062.55	-232.93	-1134.87	-372.59	10.61	1392936.34	3281206.47	40.407617	-104.490184
	6355.00	27.23	124.19	6148.90	-201.45	-1157.76	-343.65	9.49	1392913.45	3281235.40	40.407553	-104.490081
	6450.00	33.39	119.76	6230.88	-157.99	-1182.97	-302.94	6.89	1392888.24	3281276.11	40.407483	-104.489936
	6544.00	41.16	117.77	6305.63	-105.16	-1210.27	-253.03	8.36	1392860.94	3281326.01	40.407406	-104.489758
	6639.00	47.34	114.56	6373.65	-42.58	-1239.38	-193.54	6.92	1392831.83	3281385.51	40.407324	-104.489546
	6733.00	55.27	108.63	6432.41	28.33	-1266.15	-125.35	9.76	1392805.07	3281453.69	40.407249	-104.489302
	6828.00	62.91	103.04	6481.20	108.77	-1288.21	-47.00	9.49	1392783.01	3281532.04	40.407186	-104.489021
	6923.00	67.61	97.69	6520.97	194.84	-1303.64	37.82	7.11	1392767.57	3281616.86	40.407141	-104.488748
	7017.00	70.11	93.80	6554.88	282.47	-1312.39	125.03	4.69	1392758.83	3281704.06	40.407114	-10

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7112.00	72.01	91.88	6585.71	372.08	-1316.83	214.77	2.77	1392754.38	3281793.79	40.407099	-104.488083
	7207.00	79.31	89.92	6609.23	463.54	-1318.25	306.73	7.94	1392752.96	3281885.75	40.407092	-104.487753
	7302.00	86.22	89.13	6621.19	556.94	-1317.47	400.91	7.32	1392753.75	3281979.93	40.407091	-104.487414
	7397.00	90.44	88.84	6623.95	650.97	-1315.78	495.84	4.45	1392755.43	3282074.85	40.407093	-104.487074
	7491.00	90.73	90.06	6622.99	744.16	-1314.88	589.82	1.33	1392756.33	3282168.84	40.407093	-104.486736
	7586.00	90.48	89.89	6621.99	838.46	-1314.84	684.82	0.32	1392756.38	3282263.83	40.407090	-104.486395
	7681.00	90.47	89.95	6621.20	932.75	-1314.71	779.82	0.06	1392756.51	3282358.82	40.407087	-104.486054
	7776.00	90.40	90.08	6620.48	1027.05	-1314.73	874.81	0.16	1392756.48	3282453.81	40.407084	-104.485713
	7870.00	90.31	89.24	6619.90	1120.29	-1314.18	968.81	0.90	1392757.04	3282547.80	40.407083	-104.485375
	7965.00	90.44	89.58	6619.28	1214.47	-1313.20	1063.80	0.38	1392758.02	3282642.79	40.407082	-104.485034
	8060.00	90.53	90.42	6618.47	1308.78	-1313.20	1158.80	0.89	1392758.02	3282737.78	40.407079	-104.484693
	8155.00	90.38	89.60	6617.72	1403.08	-1313.21	1253.79	0.88	1392758.00	3282832.78	40.407076	-104.484352
	8249.00	89.81	89.82	6617.56	1496.33	-1312.74	1347.79	0.65	1392758.48	3282926.77	40.407075	-104.484014
	8344.00	90.16	89.87	6617.59	1590.61	-1312.48	1442.79	0.37	1392758.74	3283021.77	40.407072	-104.483673
	8439.00	90.80	90.33	6616.79	1684.93	-1312.65	1537.79	0.83	1392758.57	3283116.76	40.407069	-104.483332
	8533.00	90.44	89.72	6615.78	1778.24	-1312.69	1631.78	0.75	1392758.53	3283210.75	40.407066	-104.482995
	8628.00	90.39	90.25	6615.09	1872.54	-1312.66	1726.78	0.56	1392758.55	3283305.74	40.407063	-104.482654
	8723.00	90.15	90.22	6614.64	1966.89	-1313.05	1821.78	0.25	1392758.16	3283400.74	40.407059	-104.482313
	8817.00	90.21	89.79	6614.35	2060.21	-1313.06	1915.77	0.46	1392758.16	3283494.73	40.407056	-104.481975
	8912.00	90.21	89.95	6614.00	2154.49	-1312.85	2010.77	0.17	1392758.37	3283589.73	40.407053	-104.481634
	9007.00	89.79	89.58	6614.00	2248.74	-1312.46	2105.77	0.59	1392758.76	3283684.72	40.407052	-104.481293
	9101.00	90.61	90.18	6613.67	2342.03	-1312.26	2199.77	1.08	1392758.96	3283778.72	40.407049	-104.480955
	9196.00	90.34	90.39	6612.88	2436.39	-1312.73	2294.77	0.36	1392758.49	3283873.71	40.407045	-104.480614
	9290.00	90.36	89.35	6612.31	2529.68	-1312.52	2388.76	1.11	1392758.70	3283967.70	40.407042	-104.480277
	9385.00	89.97	89.70	6612.03	2623.88	-1311.73	2483.76	0.55	1392759.49	3284062.69	40.407042	-104.479936
	9480.00	90.10	89.36	6611.98	2718.09	-1310.95	2578.76	0.38	1392760.27	3284157.68	40.407041	-104.479595
	9575.00	90.20	89.35	6611.73	2812.26	-1309.88	2673.75	0.11	1392761.33	3284252.67	40.407041	-104.479253
	9669.00	90.54	89.26	6611.12	2905.43	-1308.74	2767.74	0.37	1392762.47	3284346.66	40.407041	-104.478916
	9764.00	90.04	90.17	6610.64	2999.67	-1308.27	2862.74	1.09	1392762.95	3284441.65	40.407039	-104.478575
	9859.00	90.26	90.37	6610.39	3094.03	-1308.72	2957.73	0.31	1392762.50	3284536.65	40.407035	-104.478234
	9954.00	90.40	89.15	6609.84	3188.29	-1308.32	3052.73	1.29	1392762.90	3284631.64	40.407033	-104.477893
	10048.00	90.43	89.87	6609.16	3281.50	-1307.51	3146.72	0.77	1392763.70	3284725.63	40.407032	-104.477555
	10143.00	90.76	90.04	6608.18	3375.79	-1307.44	3241.72	0.39	1392763.78	3284820.62	40.407029	-104.477214
	10238.00	90.61	89.37	6607.04	3470.03	-1306.95	3336.71	0.72	1392764.27	3284915.61	40.407028	-104.476873
	10333.00	90.37	89.31	6606.23	3564.19	-1305.86	3431.70	0.26	1392765.36	3285010.59	40.407028	-104.476532
	10427.00	90.10	89.87	6605.84	3657.42	-1305.18	3525.70	0.66	1392766.03	3285104.59	40.407027	-104.476194
	10522.00	90.39	89.87	6605.44	3751.70	-1304.97	3620.70	0.31	1392766.25	3285199.58	40.407024	-104.475853
	10617.00	90.03	90.77	6605.09	3846.06	-1305.50	3715.69	1.02	1392765.72	3285294.57	40.407020	-104.475512
	10712.00	90.66	89.58	6604.52	3940.40	-1305.79	3810.69	1.42	1392765.43	3285389.57	40.407016	-104.475171
	10807.00	90.34	90.14	6603.69	4034.67	-1305.56	3905.68	0.68	1392765.66	3285484.56	40.407014	-104.474830
	10902.00	90.07	89.12	6603.35	4128.90	-1304.94	4000.68	1.11	1392766.27	3285579.55	40.407012	-104.474489
	10997.00	90.48	89.69	6602.89	4223.08	-1303.96	4095.67	0.74	1392767.26	3285674.54	40.407012	-104.474148
	11092.00	90.82	89.61	6601.81	4317.31	-1303.38	4190.66	0.37	1392767.84	3285769.53	40.407010	-104.473807
	11187.00	90.34	89.42	6600.85	4411.51	-1302.57	4285.66	0.54	1392768.64	3285864.51	40.407010	-104.473466
	11282.00	90.34	88.42	6600.29	4505.58	-1300.78	4380.64	1.05	1392770.43	3285959.49	40.407012	-104.473124
	11376.00	90.55	89.47	6599.56	4598.67	-1299.05	4474.62	1.14	1392772.16	3286053.47	40.407013	-104.472787
	11471.00	90.49	88.80	6598.70	4692.78	-1297.62	4569.60	0.71	1392773.60	3286148.45	40.407014	-104.472446
	11566.00	90.55	88.94	6597.83	4786.84	-1295.74	4664.58	0.16	1392775.47	3286243.42	40.407016	-104.472105
	11661.00	90.82	88.60	6596.70	4880.87	-1293.71	4759.55	0.46	1392777.51	3286338.39	40.407019	-104.471764
	11755.00	90.09	90.09	6595.95	4974.04	-1292.63	4853.54	1.77	1392778.59	3286432.37	40.407019	-104.471426
	11850.00	90.35	89.25	6595.59	5068.28	-1292.08	4948.53	0.93	1392779.13	3286527.37	40.407017	-104.471085
	11945.00	90.42	89.35	6594.95	5162.44	-1290.92	5043.52	0.13	1392780.29	3286622.35	40.407018	-104.470744
	12040.00	89.73	89.63	6594.82	5256.64	-1290.08	5138.52	0.78	1392781.14	3286717.34	40.407017	-104.470403
	12135.00	90.35	89.59	6594.76	5350.86	-1289.43	5233.52	0.65	1392781.78	3286812.34	40.407016	-104.470062
	12230.00	90.37	90.13	6594.16	5445.14	-1289.20	5328.51	0.57	1392782.02	3286907.33	40.407013	-104.469721
	12324.00	90.67	90.23	6593.31	5538.48	-1289.49	5422.51	0.34	1392781.72	3287001.32	40.407009	-104.469383
	12419.00	90.21	89.03	6592.58	5632.71	-1288.88	5517.50	1.35	1392782.34	3287096.31	40.407008	-104.469042
	12514.00	90.25	90.15	6592.20	5726.93	-1288.20	5612.50	1.18	1392783.01	3287191.30	40.407007	-104.468701
	12609.00	90.05	90.87	6591.95	5821.33	-1289.05	5707.49	0.79	1392782.17	3287286.29	40.407001	-104.468360
	12703.00	89.74	90.51	6592.12	5914.77	-1290.18	5801.49	0.51	1392781.04	3287380.28	40.406995	-104.468022
	12798.00	89.85	90.08	6592.46	6009.13	-1290.67	5896.48	0.47	1392780.55	3287475.28	40.406991	-104.467681
	12893.00	89.88	88.97	6592.68	6103.34	-1289.88	5991.48	1.17	1392781.34	3287570.27	40.406990	-104.467340
	12987.00	90.52	89.69	6592.36	6196.51	-1288.78	6085.47	1.02	1392782.44	3287664.26	40.406990	-104.467003
	13082.00	90.71	89.69	6591.34	6290.75	-1288.27	6180.46	0.20	1392782.95	3287759.25	40.406989	-104.466662
	13177.00	90.41	89.33	6590.41	6384.95	-1287.45	6275.46	0.49	1392783.76	3287854.23	40.406988	-104.466321
	13272.00	90.18	89.56	6589.92	6479.14	-1286.53	6370.45	0.34	1392784.68	3287949.22	40.406987	-104.465979
	13366.00	89.85	89.94	6589.89	6572.40	-1286.12	6464.45	0.54	1392785.09	3288043.22	40.406985	-104.465642
	13461.00	90.14	88.96	6589.90	6666.59	-1285.21	6559.44	1.08	1392786.00	3288138.21	40.406985	-104.465301
	13556.00	89.97	90.34	6589.81	6760.82	-1284.63	6654.44	1.46	1392786.58	3288232.20	40.406983	-104.464960
	13651.00	89.83	89.58	6589.98	6855.12	-1284.57	6749.44	0.81	1392786.65	3288328.20	40.406980	-104.464619
	13745.00	90.35	89.09	6589.83	6948.30	-1283.47	6843.43	0.76	1392787.74	3288422.18	40.406980	-104.464281
	13840.00	90.23	90.13	6589.35	7042.52	-1282.83	6938.43	1.10	1392788.39	3288517.18	40.406979	-104.463940
	13935.00	90.06	89.67	6589.11	7136.80	-1282.66	7033.43	0.52	1392788.55	3288612.17	40.406977	-104.463599
	14029.00	89.92	89.62	6589.12	7230.05	-1282.08	7127.42	0.16	1392789.14	3288706.17	40.406975	-104.463261
	14124.00	90.17	90.29	6589.05	7324.34	-1282.01	7222.42	0.75	1392789.21	3288801.16	40.406972	-104.462920
	14219.00	90.24	89.42	6588.71	7418.62	-1281.76	7317.42	0.92	1392789.45	3288896.16	40.406970	-104.462579
	14313.00	90.24	89.40	6588.32	7511.81	-1280.80	7411.42	0.02	1392790.42	3288990.15	40.406970	-104.462242
	14408.00	90.13	89.05	6588.01	7605.95	-1279.51	7506.41	0.39				

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Projection to Bit	17059.00	90.57	88.57	6579.12	10233.58	-1248.93	10157.09	0.00	1392822.28	3291735.71	40.406968	-104.452382

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	30.000	1/98.425	13.500	9.625	NAL_NSG+MSHOT-Depth Only	Original Hole / SLW Ranch State BB07-615 GYRO+IFR 0' to 17059' Definitive
	1	30.000	30.000	Act Stns	13.500	9.625	NAL_NSG+MSHOT-Depth Only	Original Hole / SLW Ranch State BB07-615 GYRO+IFR 0' to 17059' Definitive
	1	30.000	1924.000	Act Stns	13.500	9.625	NAL_NSG+MSHOT	Original Hole / SLW Ranch State BB07-615 GYRO+IFR 0' to 17059'
	1	1924.000	17059.000	Act Stns	8.500	5.500	NAL_MWD_IFR1+MS	Original Hole / SLW Ranch State BB07-615 GYRO+IFR 0' to 17059'