



Crestone Peak Resources

Schlumberger

Plan 0

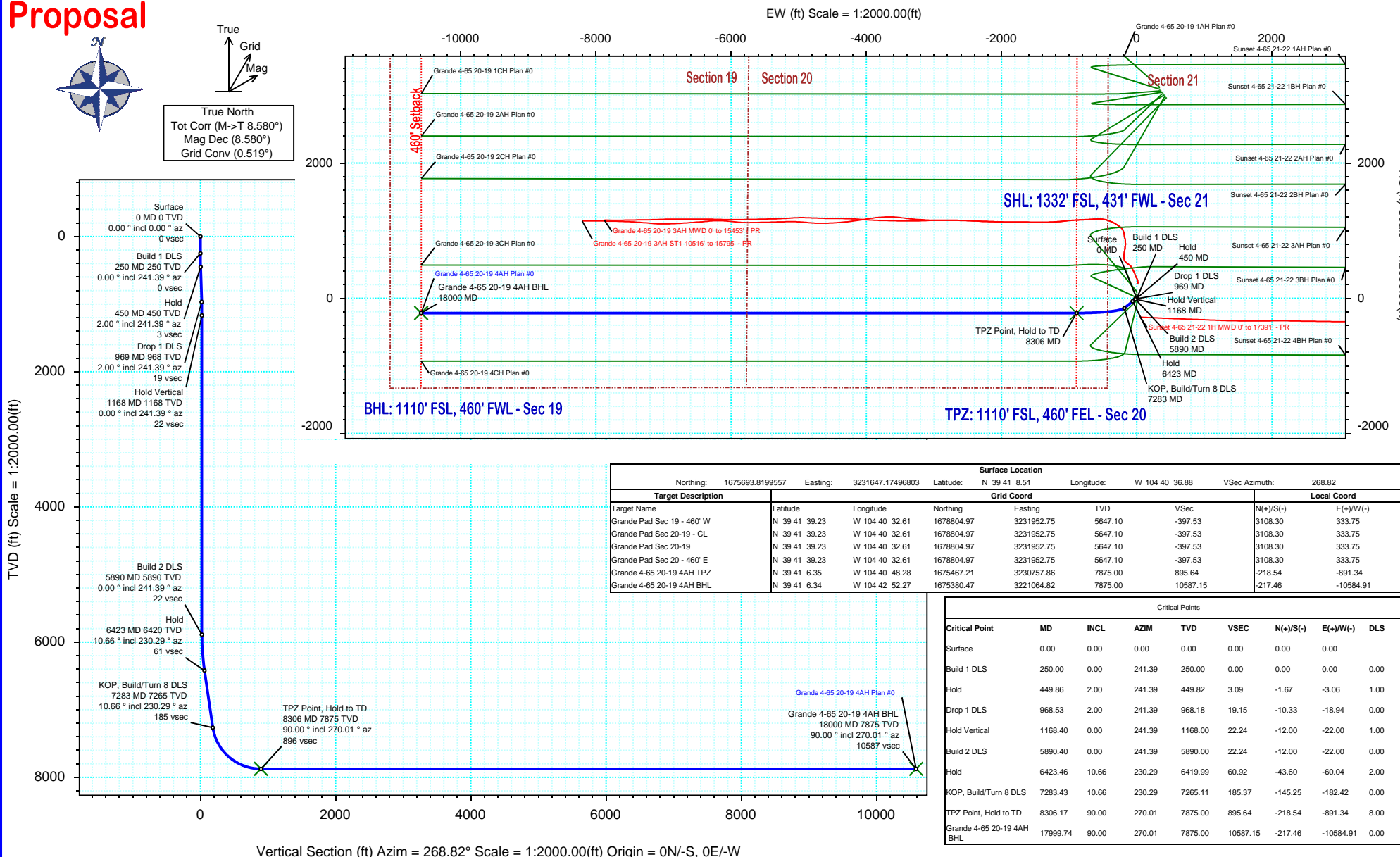
Borehole:	Well:	Field:	Structure:
Original Hole	Grande 4-65 20-19 4AH	CO, Arapahoe County (NAD 83 CZ)	Crestone Peak 21-04S-65W (Grande South Pad)

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM 2020	Dip:	66.341°	Date:	20-May-2020	Lat:	N 39 41 8.51	Northing:	1675693.82ftUS	Grid Conv:	0.5191°
MagDec:	8.58°	FS:	51552.831nT	Gravity FS:	998.916mgn (9.80665 Based)	Lon:	W 104 40 36.88	Easting:	3231647.17ftUS	Scale Fact:	0.99998791
								Slot:	Grande 4-65 20-19 4AH	TVD Ref:	KB 28ft(5647.1ft above MSL)
								Plan:	Grande 4-65 20-19 4AH Plan #0		

Proposal



True North
Tot Corr (M->T 8.580°)
Mag Dec (8.580°)
Grid Conv (0.519°)



Grande 4-65 20-19 4AH Plan #0 Proposal Geodetic Report

(Def Plan)

Report Date: May 22, 2020 - 01:51 PM
Client: Crestone Peak Resources
Field: CO, Arapahoe County (NAD 83 CZ)
Structure / Slot: Crestone Peak 21-04S-65W (Grande South Pad) / Grande 4-65 20-19 4AH
Well: Grande 4-65 20-19 4AH
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Grande 4-65 20-19 4AH Plan #0
Survey Date: March 19, 2020
Tort / AHD / DDI / ERD Ratio: 96.478 ° / 10644.173 ft / 6.371 / 1.352
Coordinate Reference System: NAD83 Colorado State Plane, Central Zone, US Feet
Location Lat / Long: N 39° 41' 8.51280", W 104° 40' 36.87600"
Location Grid N/E Y/X: N 1675693.820 ftUS, E 3231647.175 ftUS
CRS Grid Convergence Angle: 0.5191 °
Grid Scale Factor: 0.99998791
Version / Patch: 2.10.810.1

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 268.823 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 28ft
TVD Reference Elevation: 5647.100 ft above MSL
Seabed / Ground Elevation: 5619.100 ft above MSL
Magnetic Declination: 8.580 °
Total Gravity Field Strength: 998.9165mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 51552.831 nT
Magnetic Dip Angle: 66.341 °
Declination Date: May 20, 2020
Magnetic Declination Model: HDGM 2020
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 8.5797 °
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	1675693.82	3231647.17	39.685698	-104.676910
Build 1 DLS	100.00	0.00	241.39	100.00	0.00	0.00	0.00	0.00	1675693.82	3231647.17	39.685698	-104.676910
	200.00	0.00	241.39	200.00	0.00	0.00	0.00	0.00	1675693.82	3231647.17	39.685698	-104.676910
	250.00	0.00	241.39	250.00	0.00	0.00	0.00	0.00	1675693.82	3231647.17	39.685698	-104.676910
	300.00	0.50	241.39	300.00	0.19	-0.10	-0.19	1.00	1675693.71	3231646.98	39.685698	-104.676911
Hold	400.00	1.50	241.39	399.98	1.74	-0.94	-1.72	1.00	1675692.86	3231645.46	39.685695	-104.676916
	449.86	2.00	241.39	449.82	3.09	-1.67	-3.06	1.00	1675692.12	3231644.13	39.685693	-104.676921
	500.00	2.00	241.39	499.93	4.65	-2.51	-4.59	0.00	1675691.27	3231642.60	39.685691	-104.676926
	600.00	2.00	241.39	599.87	7.74	-4.18	-7.66	0.00	1675689.57	3231639.56	39.685687	-104.676937
Drop 1 DLS	700.00	2.00	241.39	699.81	10.84	-5.85	-10.72	0.00	1675687.88	3231636.51	39.685682	-104.676948
	800.00	2.00	241.39	799.75	13.93	-7.52	-13.78	0.00	1675686.18	3231633.46	39.685677	-104.676959
	900.00	2.00	241.39	899.69	17.03	-9.19	-16.84	0.00	1675684.48	3231630.42	39.685673	-104.676970
	968.53	2.00	241.39	968.18	19.15	-10.33	-18.94	0.00	1675683.32	3231628.33	39.685670	-104.676977
Hold Vertical	1000.00	1.68	241.39	999.63	20.05	-10.82	-19.83	1.00	1675682.83	3231627.45	39.685668	-104.676980
	1100.00	0.68	241.39	1099.61	21.88	-11.80	-21.64	1.00	1675681.82	3231625.64	39.685666	-104.676987
	1168.40	0.00	241.39	1168.00	22.24	-12.00	-22.00	1.00	1675681.62	3231625.28	39.685665	-104.676988
	1200.00	0.00	241.39	1199.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1300.00	0.00	241.39	1299.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1400.00	0.00	241.39	1399.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1500.00	0.00	241.39	1499.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1600.00	0.00	241.39	1599.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1700.00	0.00	241.39	1699.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1800.00	0.00	241.39	1799.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	1900.00	0.00	241.39	1899.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2000.00	0.00	241.39	1999.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2100.00	0.00	241.39	2099.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2200.00	0.00	241.39	2199.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2300.00	0.00	241.39	2299.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2400.00	0.00	241.39	2399.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2500.00	0.00	241.39	2499.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2600.00	0.00	241.39	2599.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2700.00	0.00	241.39	2699.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2800.00	0.00	241.39	2799.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	2900.00	0.00	241.39	2899.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3000.00	0.00	241.39	2999.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3100.00	0.00	241.39	3099.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3200.00	0.00	241.39	3199.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3300.00	0.00	241.39	3299.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3400.00	0.00	241.39	3399.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3500.00	0.00	241.39	3499.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3600.00	0.00	241.39	3599.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3700.00	0.00	241.39	3699.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3800.00	0.00	241.39	3799.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	3900.00	0.00	241.39	3899.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4000.00	0.00	241.39	3999.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4100.00	0.00	241.39	4099.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4200.00	0.00	241.39	4199.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4300.00	0.00	241.39	4299.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4400.00	0.00	241.39	4399.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4500.00	0.00	241.39	4499.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4600.00	0.00	241.39	4599.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4700.00	0.00	241.39	4699.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4800.00	0.00	241.39	4799.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	4900.00	0.00	241.39	4899.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5000.00	0.00	241.39	4999.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5100.00	0.00	241.39	5099.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5200.00	0.00	241.39	5199.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5300.00	0.00	241.39	5299.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5400.00	0.00	241.39	5399.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5500.00	0.00	241.39	5499.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5600.00	0.00	241.39	5599.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5700.00	0.00	241.39	5699.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5800.00	0.00	241.39	5799.60	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5890.40	0.00	241.39	5890.00	22.24	-12.00	-22.00	0.00	1675681.62	3231625.28	39.685665	-104.676988
	5900.00	0.19	230.29	5899.60	22.25	-12.01	-22.01	2.00	1675681.61	3231625.27	39.685665	-104.676988
6000.00	2.19	230.29	5999.58	23.88	-13.34	-23.61	2.00	1675680.27	3231623.68	39.685661	-104.676994	
6100.00	4.19	230.29	6099.42	28.24	-16.90	-27.90	2.00	1675676.67	3231619.43	39.685652	-104.677009	
6200.00	6.19	230.29	6199.00	35.32	-22.68	-34.86	2.00	1675670.83	3231612.53	39.685636	-104.677034	
6300.00	8.19	230.29	6298.21	45.11	-30.68	-44.49	2.00	1675662.74	3231602.97	39.685614	-104.677068	
6400.00	10.19	230.29	6396.92	57.60	-40.88	-56.77	2.00	1675652.42	3231590.77	39.685586	-104.677112	
6423.46	10.66	230.29	6419.99	60.92	-43.60	-60.04	2.00	1675649.68	3231587.53	39.685578	-104.677123	
6500.00	10.66	230.29	6495.21	72.00	-52.65	-70.93	0.00	1675640.53	3231576.72	39.685553	-104.677162	
6600.00	10.66	230.29	6593.49	86.47	-64.47	-85.16	0.00	1675628.59	3231562.60	39.685521	-104.677213	
6700.00	10.66	230.29	6691.76	100.94	-76.29	-99.39	0.00	1675616.64	3231548.48	39.685489	-104.677263	
6800.00	10.66	230.29	6790.03	115.41	-88.11	-113.63	0.00	1675604.69	3231534.35	39.685456	-104.677314	
6900.00	10.66	230.29	6888.31	129.88	-99.93	-127.86	0.00	1675592.74	3231520.23	39.685424	-104.677364	
7000.00	10.66	230.29	6986.58	144.35	-111.75	-142.09	0.00	1675580.79	3231506.11	39.685391	-104.677415	
7100.00	10.66	230.29										

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7200.00	10.66	230.29	7183.13	173.30	-135.39	-170.55	0.00	1675556.89	3231477.86	39.685326	-104.677516
KOP, Build/Turn 8 DLS	7283.43	10.66	230.29	7265.11	185.37	-145.25	-182.42	0.00	1675546.92	3231466.08	39.685299	-104.677558
	7300.00	11.70	234.51	7281.37	187.96	-147.21	-184.97	8.00	1675544.94	3231463.55	39.685294	-104.677567
	7400.00	18.76	249.27	7377.83	211.53	-158.81	-208.31	8.00	1675533.13	3231440.32	39.685262	-104.677650
	7500.00	26.35	255.95	7470.13	248.38	-169.91	-244.94	8.00	1675521.70	3231403.79	39.685232	-104.677780
	7600.00	34.12	259.78	7556.47	297.80	-180.29	-294.16	8.00	1675510.87	3231354.67	39.685203	-104.677955
	7700.00	41.97	262.32	7635.16	358.82	-189.75	-354.99	8.00	1675500.86	3231293.92	39.685177	-104.678171
	7800.00	49.86	264.18	7704.69	430.25	-198.11	-426.27	8.00	1675491.86	3231222.72	39.685154	-104.678425
	7900.00	57.77	265.66	7763.69	510.71	-205.20	-506.60	8.00	1675484.05	3231142.46	39.685135	-104.678710
	8000.00	65.69	266.89	7811.01	598.62	-210.88	-594.41	8.00	1675477.57	3231054.70	39.685119	-104.679022
	8100.00	73.63	267.98	7845.74	692.28	-215.05	-688.01	8.00	1675472.55	3230961.15	39.685108	-104.679355
	8200.00	81.57	268.98	7867.20	789.87	-217.62	-785.56	8.00	1675469.10	3230863.63	39.685101	-104.679701
	8300.00	89.51	269.95	7874.97	889.48	-218.54	-885.18	8.00	1675467.27	3230764.03	39.685098	-104.680055
TPZ Point, Hold to TD	8306.17	90.00	270.01	7875.00	895.64	-218.54	-891.34	8.00	1675467.21	3230757.86	39.685098	-104.680077
	8400.00	90.00	270.01	7875.00	989.46	-218.53	-985.18	0.00	1675466.37	3230664.03	39.685098	-104.680410
	8500.00	90.00	270.01	7875.00	1089.43	-218.52	-1085.18	0.00	1675465.48	3230564.04	39.685098	-104.680766
	8600.00	90.00	270.01	7875.00	1189.41	-218.51	-1185.18	0.00	1675464.58	3230464.04	39.685098	-104.681121
	8700.00	90.00	270.01	7875.00	1289.39	-218.50	-1285.18	0.00	1675463.69	3230364.05	39.685098	-104.681476
	8800.00	90.00	270.01	7875.00	1389.37	-218.49	-1385.18	0.00	1675462.79	3230264.06	39.685098	-104.681832
	8900.00	90.00	270.01	7875.00	1489.35	-218.48	-1485.18	0.00	1675461.90	3230164.06	39.685098	-104.682187
	9000.00	90.00	270.01	7875.00	1589.33	-218.47	-1585.18	0.00	1675461.00	3230064.07	39.685098	-104.682542
	9100.00	90.00	270.01	7875.00	1689.31	-218.46	-1685.18	0.00	1675460.11	3229964.07	39.685098	-104.682898
	9200.00	90.00	270.01	7875.00	1789.29	-218.44	-1785.18	0.00	1675459.21	3229864.08	39.685098	-104.683253
	9300.00	90.00	270.01	7875.00	1889.26	-218.43	-1885.18	0.00	1675458.32	3229764.08	39.685098	-104.683608
	9400.00	90.00	270.01	7875.00	1989.24	-218.42	-1985.18	0.00	1675457.42	3229664.09	39.685098	-104.683963
	9500.00	90.00	270.01	7875.00	2089.22	-218.41	-2085.18	0.00	1675456.53	3229564.09	39.685098	-104.684319
	9600.00	90.00	270.01	7875.00	2189.20	-218.40	-2185.18	0.00	1675455.63	3229464.10	39.685098	-104.684674
	9700.00	90.00	270.01	7875.00	2289.18	-218.39	-2285.18	0.00	1675454.74	3229364.10	39.685098	-104.685029
	9800.00	90.00	270.01	7875.00	2389.16	-218.38	-2385.18	0.00	1675453.84	3229264.11	39.685098	-104.685385
	9900.00	90.00	270.01	7875.00	2489.14	-218.37	-2485.18	0.00	1675452.95	3229164.12	39.685098	-104.685740
	10000.00	90.00	270.01	7875.00	2589.11	-218.36	-2585.18	0.00	1675452.05	3229064.12	39.685098	-104.686095
	10100.00	90.00	270.01	7875.00	2689.09	-218.34	-2685.18	0.00	1675451.16	3228964.13	39.685098	-104.686451
	10200.00	90.00	270.01	7875.00	2789.07	-218.33	-2785.18	0.00	1675450.27	3228864.13	39.685098	-104.686806
	10300.00	90.00	270.01	7875.00	2889.05	-218.32	-2885.18	0.00	1675449.37	3228764.14	39.685098	-104.687161
	10400.00	90.00	270.01	7875.00	2989.03	-218.31	-2985.18	0.00	1675448.48	3228664.14	39.685098	-104.687517
	10500.00	90.00	270.01	7875.00	3089.01	-218.30	-3085.18	0.00	1675447.58	3228564.15	39.685098	-104.687872
	10600.00	90.00	270.01	7875.00	3188.99	-218.29	-3185.18	0.00	1675446.69	3228464.15	39.685098	-104.688227
	10700.00	90.00	270.01	7875.00	3288.97	-218.28	-3285.18	0.00	1675445.79	3228364.16	39.685098	-104.688582
	10800.00	90.00	270.01	7875.00	3388.94	-218.27	-3385.18	0.00	1675444.90	3228264.16	39.685098	-104.688938
	10900.00	90.00	270.01	7875.00	3488.92	-218.25	-3485.18	0.00	1675444.00	3228164.17	39.685098	-104.689293
	11000.00	90.00	270.01	7875.00	3588.90	-218.24	-3585.18	0.00	1675443.11	3228064.17	39.685098	-104.689648
	11100.00	90.00	270.01	7875.00	3688.88	-218.23	-3685.18	0.00	1675442.21	3227964.18	39.685098	-104.690004
	11200.00	90.00	270.01	7875.00	3788.86	-218.22	-3785.18	0.00	1675441.32	3227864.19	39.685098	-104.690359
	11300.00	90.00	270.01	7875.00	3888.84	-218.21	-3885.18	0.00	1675440.42	3227764.19	39.685098	-104.690714
	11400.00	90.00	270.01	7875.00	3988.82	-218.20	-3985.18	0.00	1675439.53	3227664.20	39.685098	-104.691070
	11500.00	90.00	270.01	7875.00	4088.79	-218.19	-4085.18	0.00	1675438.63	3227564.20	39.685098	-104.691425
	11600.00	90.00	270.01	7875.00	4188.77	-218.18	-4185.18	0.00	1675437.74	3227464.21	39.685098	-104.691780
	11700.00	90.00	270.01	7875.00	4288.75	-218.17	-4285.18	0.00	1675436.84	3227364.21	39.685098	-104.692136
	11800.00	90.00	270.01	7875.00	4388.73	-218.15	-4385.18	0.00	1675435.95	3227264.22	39.685098	-104.692491
	11900.00	90.00	270.01	7875.00	4488.71	-218.14	-4485.18	0.00	1675435.05	3227164.22	39.685098	-104.692846
	12000.00	90.00	270.01	7875.00	4588.69	-218.13	-4585.18	0.00	1675434.16	3227064.23	39.685098	-104.693201
	12100.00	90.00	270.01	7875.00	4688.67	-218.12	-4685.18	0.00	1675433.26	3226964.23	39.685098	-104.693557
	12200.00	90.00	270.01	7875.00	4788.65	-218.11	-4785.18	0.00	1675432.37	3226864.24	39.685098	-104.693912
	12300.00	90.00	270.01	7875.00	4888.62	-218.10	-4885.18	0.00	1675431.47	3226764.25	39.685098	-104.694267
	12400.00	90.00	270.01	7875.00	4988.60	-218.09	-4985.18	0.00	1675430.58	3226664.25	39.685098	-104.694623
	12500.00	90.00	270.01	7875.00	5088.58	-218.08	-5085.18	0.00	1675429.68	3226564.26	39.685098	-104.694978
	12600.00	90.00	270.01	7875.00	5188.56	-218.07	-5185.18	0.00	1675428.79	3226464.26	39.685098	-104.695333
	12700.00	90.00	270.01	7875.00	5288.54	-218.05	-5285.18	0.00	1675427.89	3226364.27	39.685098	-104.695689
	12800.00	90.00	270.01	7875.00	5388.52	-218.04	-5385.18	0.00	1675427.00	3226264.27	39.685098	-104.696044
	12900.00	90.00	270.01	7875.00	5488.50	-218.03	-5485.18	0.00	1675426.10	3226164.28	39.685098	-104.696399
	13000.00	90.00	270.01	7875.00	5588.47	-218.02	-5585.18	0.00	1675425.21	3226064.28	39.685098	-104.696755
	13100.00	90.00	270.01	7875.00	5688.45	-218.01	-5685.18	0.00	1675424.32	3225964.29	39.685098	-104.697110
	13200.00	90.00	270.01	7875.00	5788.43	-218.00	-5785.18	0.00	1675423.42	3225864.29	39.685098	-104.697465
	13300.00	90.00	270.01	7875.00	5888.41	-217.99	-5885.18	0.00	1675422.53	3225764.30	39.685098	-104.697820
	13400.00	90.00	270.01	7875.00	5988.39	-217.98	-5985.18	0.00	1675421.63	3225664.30	39.685098	-104.698176
	13500.00	90.00	270.01	7875.00	6088.37	-217.96	-6085.18	0.00	1675420.74	3225564.31	39.685098	-104.698531
	13600.00	90.00	270.01	7875.00	6188.35	-217.95	-6185.18	0.00	1675419.84	3225464.32	39.685098	-104.698886
	13700.00	90.00	270.01	7875.00	6288.33	-217.94	-6285.18	0.00	1675418.95	3225364.32	39.685098	-104.699242
	13800.00	90.00	270.01	7875.00	6388.30	-217.93	-6385.18	0.00	1675418.05	3225264.33	39.685098	-104.699597
	13900.00	90.00	270.01	7875.00	6488.28	-217.92	-6485.18	0.00	1675417.16	3225164.33	39.685097	-104.699952
	14000.00	90.00	270.01	7875.00	6588.26	-217.91	-6585.18	0.00	1675416.26	3225064.34	39.685097	-104.700308
	14100.00	90.00	270.01	7875.00	6688.24	-217.90	-6685.18	0.00	1675415.37	3224964.34	39.685097	-104.700663
	14200.00	90.00	270.01	7875.00	6788.22	-217.89	-6785.18	0.00	1675414.47	3224864.35	39.685097	-104.701018
	14300.00	90.00	270.01	7875.00	6888.20	-217.88	-6885.18	0.00	1675413.58	3224764.35	39.685097	-104.701374
	14400.00	90.00	270.01	7875.00	6988.18	-217.86	-6985.18	0.00	1675412.68	3224664.36	39.685097	-104.701729
	14500.00	90.00	270.01	7875.00	7088.16	-217.85	-7085.18	0.00	1675411.79	3224564.36	39.685097	-104.702084
	14600.00	90.00	270.01	7875.00	7188.13	-217.84	-7185.18	0.00	1675410.89	3224464.37	39.685097	-104.702439
	14											

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	17600.00	90.00	270.01	7875.00	10187.49	-217.51	-10185.18	0.00	1675384.05	3221464.53	39.685095	-104.713099
	17700.00	90.00	270.01	7875.00	10287.47	-217.50	-10285.18	0.00	1675383.15	3221364.54	39.685095	-104.713454
	17800.00	90.00	270.01	7875.00	10387.45	-217.48	-10385.18	0.00	1675382.26	3221264.54	39.685095	-104.713809
	17900.00	90.00	270.01	7875.00	10487.43	-217.47	-10485.18	0.00	1675381.36	3221164.55	39.685095	-104.714165
Grande 4-65 20-19 4AH BHL	17999.74	90.00	270.01	7875.00	10587.15	-217.46	-10584.91	0.00	1675380.47	3221064.82	39.685095	-104.714519

Survey Type: Def Plan

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)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	28.000	1/100.000	13.500	9.625		NAL_MWD-NON_SLB-Depth Only	Original Hole / Grande 4-65 20-19 4AH Plan #0
	1	28.000	2200.000	1/100.000	13.500	9.625		NAL_MWD-NON_SLB	Original Hole / Grande 4-65 20-19 4AH Plan #0
	1	2200.000	17999.737	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG	Original Hole / Grande 4-65 20-19 4AH Plan #0