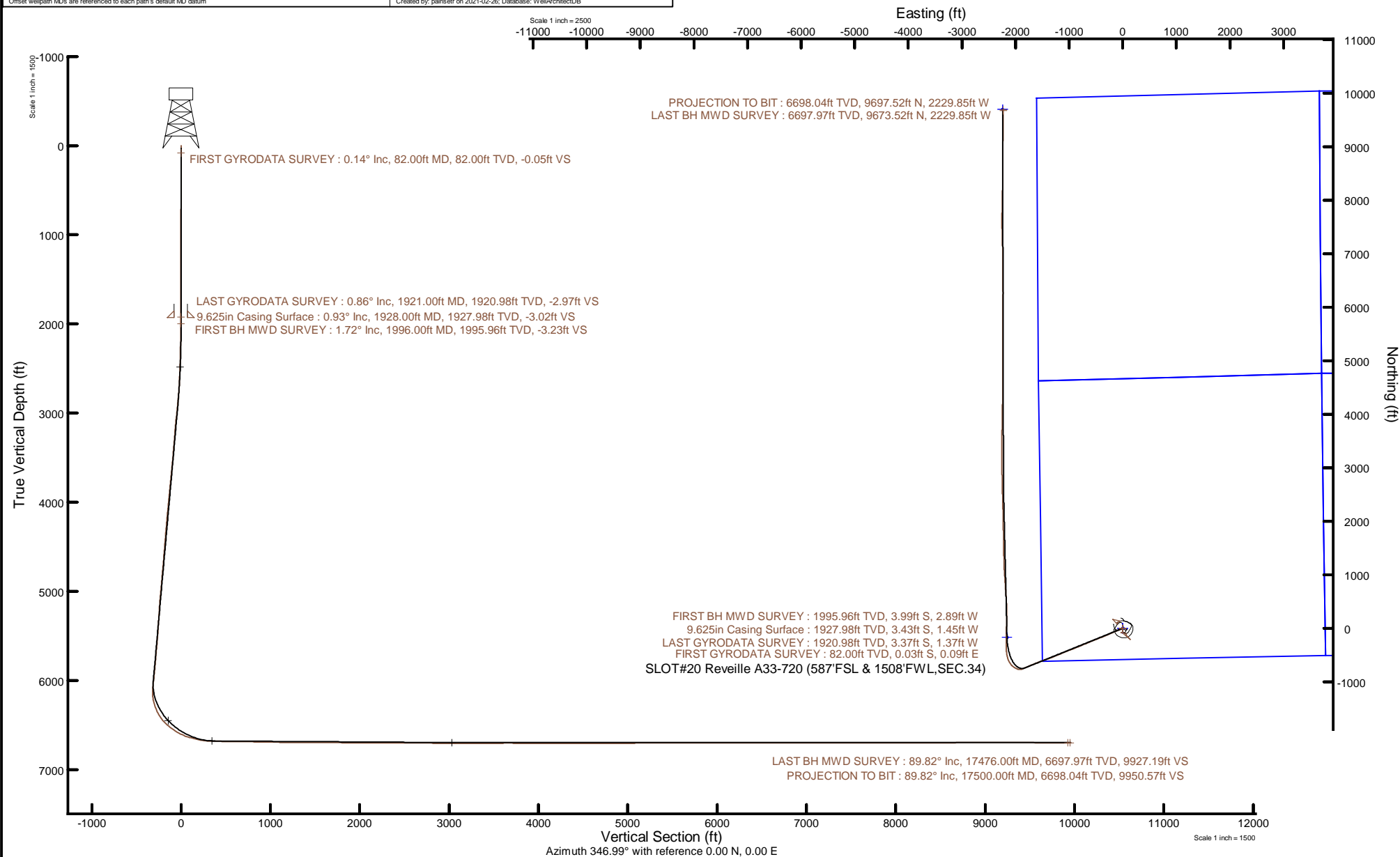


# NOBLE ENERGY, INC



Location: COLORADO Slot: SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL, SEC.34)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: Reveille A33-720  
Facility: SEC.34-T06N-R64W Wellbore: Reveille A33-720 PWB

Plot reference wellpath is Reveille A33-720 PWP Rev-C.0	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to H&P 517 (30) (RT)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 517 (30) (RT)	Scale: True distance
H&P 517 (30) (RT) to Mean Sea Level: 4661 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL, SEC.34)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: painsr on 2021-02-26; Database: WellArchitectDB



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Painsetr
Scale	0.999962	Report Generated	2/26/2021 at 9:12:08 AM
Convergence at slot	0.62° East	Database	WellArchitectDB

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2667.21	884.24	3267123.65	1403532.24	40.4371300°	-104.5403400°
Facility Reference Pt			3266239.44	1406199.34	40.4444770°	-104.5434130°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

## WELLPATH DATUM

Calculation method	Minimum curvature	H&P 517 (30') (RT) to Facility Vertical Datum	4661.00ft
Horizontal Reference Pt	Slot	H&P 517 (30') (RT) to Mean Sea Level	4661.00ft
Vertical Reference Pt	H&P 517 (30') (RT)	H&P 517 (30') (RT) to Mud Line at Slot (SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34))	4661.00ft
MD Reference Pt	H&P 517 (30') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	346.99°

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	108.980	0.00	0.00	0.00	0.00	3267123.65	1403532.24	40.4371300	-104.5403400	0.00	
82.00	0.140	108.980	82.00	-0.05	-0.03	0.09	3267123.74	1403532.21	40.4371299	-104.5403397	0.17	FIRST GYRODATA SURVEY
175.00	0.290	152.450	175.00	-0.34	-0.28	0.31	3267123.96	1403531.96	40.4371292	-104.5403389	0.23	
267.00	0.130	184.620	267.00	-0.67	-0.59	0.41	3267124.06	1403531.65	40.4371284	-104.5403385	0.21	
361.00	0.050	200.590	361.00	-0.80	-0.73	0.39	3267124.04	1403531.51	40.4371280	-104.5403386	0.09	
456.00	0.170	68.300	456.00	-0.81	-0.72	0.50	3267124.15	1403531.52	40.4371280	-104.5403382	0.22	
551.00	0.100	138.530	551.00	-0.87	-0.73	0.69	3267124.34	1403531.51	40.4371280	-104.5403375	0.17	
645.00	0.490	188.870	645.00	-1.31	-1.19	0.68	3267124.33	1403531.05	40.4371267	-104.5403376	0.46	
740.00	0.400	235.100	739.99	-1.81	-1.78	0.35	3267124.00	1403530.46	40.4371251	-104.5403388	0.38	
835.00	0.390	196.880	834.99	-2.22	-2.28	-0.02	3267123.63	1403529.96	40.4371237	-104.5403401	0.27	
929.00	0.300	275.710	928.99	-2.41	-2.56	-0.36	3267123.29	1403529.68	40.4371230	-104.5403414	0.47	
1024.00	0.150	175.170	1023.99	-2.46	-2.66	-0.59	3267123.06	1403529.58	40.4371227	-104.5403422	0.38	
1119.00	0.260	125.570	1118.99	-2.74	-2.91	-0.41	3267123.24	1403529.33	40.4371220	-104.5403416	0.21	
1213.00	0.070	144.750	1212.99	-2.96	-3.08	-0.20	3267123.45	1403529.16	40.4371215	-104.5403408	0.21	
1308.00	0.100	161.760	1307.99	-3.09	-3.21	-0.14	3267123.51	1403529.03	40.4371212	-104.5403406	0.04	
1403.00	0.350	29.140	1402.99	-2.96	-3.03	0.03	3267123.68	1403529.21	40.4371217	-104.5403400	0.45	
1497.00	0.130	316.800	1496.99	-2.65	-2.70	0.09	3267123.74	1403529.54	40.4371226	-104.5403398	0.36	
1592.00	0.260	252.600	1591.99	-2.58	-2.69	-0.19	3267123.46	1403529.55	40.4371226	-104.5403408	0.25	
1687.00	0.230	355.630	1686.99	-2.41	-2.56	-0.41	3267123.24	1403529.68	40.4371230	-104.5403416	0.40	
1782.00	0.170	209.890	1781.99	-2.32	-2.50	-0.49	3267123.16	1403529.74	40.4371232	-104.5403419	0.40	
1876.00	0.630	225.860	1875.98	-2.69	-2.98	-0.93	3267122.72	1403529.26	40.4371219	-104.5403435	0.50	
1921.00	0.860	229.970	1920.98	-2.97	-3.37	-1.37	3267122.28	1403528.87	40.4371208	-104.5403450	0.52	LAST GYRODATA SURVEY
1996.00	1.720	256.580	1995.96	-3.23	-3.99	-2.89	3267120.76	1403528.25	40.4371191	-104.5403505	1.37	FIRST BH MWD SURVEY
2091.00	3.800	245.340	2090.85	-3.88	-5.63	-7.14	3267116.51	1403526.61	40.4371147	-104.5403659	2.25	
2186.00	5.990	246.360	2185.49	-5.43	-8.93	-14.55	3267109.11	1403523.31	40.4371059	-104.5403926	2.31	
2280.00	7.850	248.260	2278.81	-7.31	-13.28	-25.00	3267098.65	1403518.96	40.4370943	-104.5404303	1.99	
2375.00	9.960	247.640	2372.66	-9.63	-18.81	-38.63	3267085.02	1403513.43	40.4370795	-104.5404795	2.22	
2470.00	12.440	248.680	2465.84	-12.44	-25.66	-55.76	3267067.89	1403506.59	40.4370612	-104.5405413	2.62	
2564.00	14.650	248.240	2557.22	-15.71	-33.74	-76.23	3267047.42	1403498.50	40.4370396	-104.5406151	2.35	
2659.00	16.700	248.390	2648.68	-19.58	-43.23	-100.08	3267023.57	1403489.02	40.4370143	-104.5407012	2.16	

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2754.00	21.030	247.310	2738.56	-24.49	-54.83	-128.51	3266995.14	1403477.41	40.4369833	-104.5408038	4.57	
2849.00	25.460	246.510	2825.82	-31.07	-69.56	-162.99	3266960.67	1403462.69	40.4369439	-104.5409282	4.67	
2943.00	27.620	246.050	2909.91	-38.88	-86.46	-201.43	3266922.22	1403445.79	40.4368987	-104.5410669	2.31	
3038.00	29.680	246.260	2993.28	-47.43	-104.87	-243.09	3266880.57	1403427.38	40.4368494	-104.5412173	2.17	
3133.00	29.660	245.190	3075.82	-56.61	-124.20	-285.96	3266837.70	1403408.05	40.4367976	-104.5413720	0.56	
3228.00	28.210	249.090	3158.97	-64.51	-142.08	-328.28	3266795.39	1403390.17	40.4367498	-104.5415247	2.50	
3322.00	29.410	249.070	3241.33	-70.74	-158.25	-370.59	3266753.08	1403373.99	40.4367066	-104.5416773	1.28	
3417.00	29.040	248.490	3324.24	-77.36	-175.04	-413.83	3266709.84	1403357.21	40.4366618	-104.5418333	0.49	
3511.00	28.860	247.820	3406.49	-84.34	-191.97	-456.06	3266667.61	1403340.28	40.4366166	-104.5419857	0.39	
3605.00	29.420	248.610	3488.60	-91.32	-208.95	-498.56	3266625.11	1403323.30	40.4365713	-104.5421390	0.72	
3700.00	30.890	248.020	3570.74	-98.52	-226.59	-542.90	3266580.77	1403305.66	40.4365242	-104.5422990	1.58	
3794.00	30.860	247.250	3651.42	-106.36	-244.94	-587.51	3266536.16	1403287.31	40.4364751	-104.5424599	0.42	
3889.00	30.880	247.510	3732.96	-114.49	-263.69	-632.51	3266491.17	1403268.56	40.4364250	-104.5426223	0.14	
3984.00	30.940	247.660	3814.47	-122.46	-282.30	-677.62	3266446.06	1403249.95	40.4363753	-104.5427850	0.10	
4078.00	30.460	247.220	3895.29	-130.42	-300.71	-721.94	3266401.74	1403231.54	40.4363260	-104.5429450	0.56	
4172.00	30.690	247.350	3976.22	-138.48	-319.17	-766.04	3266357.64	1403213.08	40.4362767	-104.5431041	0.25	
4267.00	30.710	247.880	4057.91	-146.37	-337.64	-810.89	3266312.79	1403194.61	40.4362273	-104.5432659	0.29	
4361.00	30.420	247.930	4138.85	-153.92	-355.62	-855.18	3266268.50	1403176.63	40.4361793	-104.5434257	0.31	
4456.00	30.290	248.680	4220.83	-161.16	-373.37	-899.79	3266223.90	1403158.88	40.4361319	-104.5435866	0.42	
4550.00	29.860	248.510	4302.17	-168.04	-390.56	-943.65	3266180.04	1403141.69	40.4360860	-104.5437448	0.47	
4645.00	29.950	248.940	4384.52	-174.84	-407.75	-987.78	3266135.91	1403124.51	40.4360401	-104.5439040	0.24	
4740.00	29.350	247.820	4467.08	-181.87	-425.06	-1031.47	3266092.22	1403107.20	40.4359939	-104.5440616	0.86	
4834.00	27.010	249.060	4549.94	-188.49	-441.39	-1072.74	3266050.95	1403090.87	40.4359503	-104.5442105	2.57	
4929.00	26.090	248.120	4634.92	-194.68	-456.88	-1112.28	3266011.42	1403075.38	40.4359090	-104.5443531	1.06	
5023.00	27.600	244.580	4718.79	-202.55	-473.93	-1151.13	3265972.57	1403058.32	40.4358633	-104.5444934	2.34	
5118.00	27.880	249.180	4802.88	-210.29	-491.28	-1191.77	3265931.93	1403040.98	40.4358169	-104.5446400	2.27	
5212.00	29.390	248.770	4885.38	-216.57	-507.44	-1233.82	3265889.88	1403024.82	40.4357738	-104.5447917	1.62	
5307.00	30.280	246.700	4967.79	-224.18	-525.36	-1277.55	3265846.15	1403006.90	40.4357259	-104.5449495	1.43	
5401.00	29.620	246.430	5049.24	-232.67	-544.02	-1320.60	3265803.10	1402988.24	40.4356759	-104.5451048	0.72	
5496.00	27.790	250.460	5132.57	-239.49	-560.82	-1363.00	3265760.70	1402971.44	40.4356311	-104.5452578	2.80	

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5590.00	27.160	250.350	5215.97	-244.46	-575.36	-1403.86	3265719.85	1402956.90	40.4355924	-104.5454051	0.67	
5685.00	30.280	250.640	5299.27	-249.61	-590.60	-1446.88	3265676.82	1402941.67	40.4355518	-104.5455602	3.29	
5779.00	30.300	250.080	5380.44	-255.08	-606.53	-1491.54	3265632.17	1402925.73	40.4355094	-104.5457213	0.30	
5874.00	30.440	250.290	5462.40	-260.77	-622.81	-1536.72	3265586.99	1402909.45	40.4354661	-104.5458842	0.18	
5968.00	28.560	248.000	5544.21	-267.06	-639.26	-1579.98	3265543.73	1402893.00	40.4354222	-104.5460402	2.33	
6063.00	29.760	248.250	5627.17	-274.19	-656.51	-1622.93	3265500.78	1402875.76	40.4353761	-104.5461952	1.27	
6158.00	29.940	248.360	5709.57	-281.32	-673.99	-1666.87	3265456.85	1402858.28	40.4353294	-104.5463537	0.20	
6253.00	28.660	247.980	5792.41	-288.45	-691.27	-1710.03	3265413.69	1402841.00	40.4352833	-104.5465094	1.36	
6347.00	28.560	247.450	5874.93	-295.70	-708.34	-1751.68	3265372.04	1402823.93	40.4352377	-104.5466596	0.29	
6442.00	27.970	246.080	5958.61	-303.68	-726.08	-1793.01	3265330.71	1402806.19	40.4351902	-104.5468088	0.92	
6537.00	32.200	244.570	6040.79	-313.34	-745.99	-1836.26	3265287.47	1402786.28	40.4351368	-104.5469649	4.52	
6631.00	35.330	252.920	6118.97	-320.66	-764.75	-1884.90	3265238.83	1402767.52	40.4350868	-104.5471403	5.95	
6725.00	27.530	277.120	6199.43	-315.07	-770.07	-1932.70	3265191.03	1402762.21	40.4350736	-104.5473122	15.64	
6820.00	28.540	294.460	6283.43	-293.67	-757.93	-1975.21	3265148.52	1402774.34	40.4351082	-104.5474645	8.62	
6915.00	37.030	300.090	6363.24	-260.25	-734.14	-2020.71	3265103.02	1402798.13	40.4351748	-104.5476270	9.49	
7009.00	43.280	313.710	6435.19	-213.83	-697.58	-2068.64	3265055.10	1402834.69	40.4352766	-104.5477977	11.44	
7104.00	49.840	330.090	6500.71	-151.59	-643.35	-2110.47	3265013.26	1402888.91	40.4354266	-104.5479459	14.26	
7198.00	56.890	341.660	6556.89	-77.76	-574.61	-2140.87	3264982.86	1402957.65	40.4356162	-104.5480525	12.38	
7293.00	63.770	349.870	6603.94	4.61	-494.70	-2160.94	3264962.80	1403037.56	40.4358361	-104.5481215	10.42	
7387.00	74.100	355.370	6637.71	91.73	-407.85	-2172.04	3264951.70	1403124.40	40.4360748	-104.5481580	12.27	
7482.00	78.130	1.530	6660.52	182.04	-315.73	-2174.49	3264949.25	1403216.52	40.4363277	-104.5481633	7.59	
7577.00	83.650	1.090	6675.56	272.89	-221.99	-2172.35	3264951.39	1403310.26	40.4365850	-104.5481519	5.83	
7671.00	89.570	1.670	6681.11	363.74	-128.22	-2170.09	3264953.65	1403404.02	40.4368423	-104.5481402	6.33	
7766.00	88.680	359.360	6682.56	456.09	-33.24	-2169.23	3264954.50	1403499.00	40.4371029	-104.5481335	2.61	
7861.00	89.450	2.090	6684.11	548.35	61.73	-2168.03	3264955.70	1403593.96	40.4373636	-104.5481255	2.99	
7956.00	89.380	2.100	6685.08	640.06	156.66	-2164.56	3264959.18	1403688.89	40.4376240	-104.5481094	0.07	
8050.00	89.350	0.790	6686.13	731.07	250.62	-2162.19	3264961.55	1403782.85	40.4378818	-104.5480972	1.39	
8145.00	88.830	359.130	6687.63	823.63	345.60	-2162.25	3264961.48	1403877.83	40.4381426	-104.5480938	1.83	
8239.00	89.260	356.150	6689.20	915.99	439.50	-2166.12	3264957.61	1403971.72	40.4384004	-104.5481041	3.20	
8334.00	88.770	356.150	6690.83	1009.76	534.27	-2172.50	3264951.23	1404066.49	40.4386607	-104.5481233	0.52	

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

### WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8429.00	89.230	355.590	6692.49	1103.61	629.01	-2179.34	3264944.39	1404161.22	40.4389209	-104.5481443	0.76	
8523.00	89.540	356.840	6693.50	1196.38	722.80	-2185.55	3264938.19	1404255.01	40.4391785	-104.5481629	1.37	
8618.00	89.350	355.800	6694.42	1290.12	817.60	-2191.65	3264932.09	1404349.80	40.4394389	-104.5481812	1.11	
8713.00	89.780	355.630	6695.14	1384.02	912.33	-2198.74	3264924.99	1404444.53	40.4396991	-104.5482030	0.49	
8808.00	89.850	356.520	6695.45	1477.82	1007.10	-2205.25	3264918.49	1404539.30	40.4399594	-104.5482227	0.94	
8902.00	89.850	356.340	6695.70	1570.55	1100.92	-2211.10	3264912.64	1404633.12	40.4402171	-104.5482401	0.19	
8997.00	89.660	358.840	6696.10	1663.92	1195.83	-2215.09	3264908.64	1404728.02	40.4404777	-104.5482508	2.64	
9092.00	89.230	358.660	6697.02	1756.92	1290.80	-2217.17	3264906.57	1404822.99	40.4407385	-104.5482546	0.49	
9187.00	89.690	358.050	6697.92	1850.05	1385.76	-2219.89	3264903.85	1404917.94	40.4409992	-104.5482607	0.80	
9281.00	89.720	358.550	6698.40	1942.22	1479.71	-2222.68	3264901.06	1405011.89	40.4412571	-104.5482671	0.53	
9376.00	89.780	359.290	6698.82	2035.17	1574.69	-2224.47	3264899.27	1405106.87	40.4415179	-104.5482699	0.78	
9470.00	89.970	359.520	6699.02	2126.97	1668.69	-2225.45	3264898.29	1405200.86	40.4417759	-104.5482698	0.32	
9565.00	89.780	359.350	6699.23	2219.73	1763.68	-2226.38	3264897.35	1405295.85	40.4420367	-104.5482695	0.27	
9660.00	90.150	359.040	6699.29	2312.58	1858.67	-2227.72	3264896.02	1405390.84	40.4422974	-104.5482706	0.51	
9754.00	89.820	359.550	6699.31	2404.42	1952.67	-2228.88	3264894.86	1405484.83	40.4425555	-104.5482712	0.65	
9849.00	89.600	358.100	6699.79	2497.40	2047.64	-2230.82	3264892.91	1405579.80	40.4428162	-104.5482745	1.54	
9944.00	89.690	359.020	6700.38	2590.46	2142.61	-2233.21	3264890.53	1405674.76	40.4430769	-104.5482794	0.97	
10038.00	89.320	358.070	6701.19	2682.55	2236.58	-2235.60	3264888.14	1405768.73	40.4433349	-104.5482844	1.08	
10133.00	89.480	358.410	6702.19	2775.72	2331.52	-2238.52	3264885.22	1405863.67	40.4435956	-104.5482912	0.40	
10228.00	89.320	358.440	6703.18	2868.83	2426.48	-2241.13	3264882.61	1405958.63	40.4438563	-104.5482969	0.17	
10322.00	90.120	357.680	6703.64	2961.08	2520.43	-2244.31	3264879.43	1406052.57	40.4441143	-104.5483047	1.17	
10417.00	90.090	358.840	6703.47	3054.24	2615.38	-2247.19	3264876.55	1406147.52	40.4443750	-104.5483114	1.22	
10511.00	90.220	358.800	6703.21	3146.24	2709.36	-2249.13	3264874.61	1406241.49	40.4446330	-104.5483147	0.14	
10606.00	90.120	359.150	6702.93	3239.17	2804.35	-2250.83	3264872.91	1406336.47	40.4448937	-104.5483172	0.38	
10700.00	89.720	358.520	6703.06	3331.17	2898.33	-2252.74	3264871.00	1406430.45	40.4451517	-104.5483204	0.79	
10795.00	90.120	358.040	6703.20	3424.33	2993.28	-2255.59	3264868.15	1406525.40	40.4454124	-104.5483270	0.66	
10890.00	90.220	358.360	6702.91	3517.51	3088.23	-2258.58	3264865.16	1406620.35	40.4456731	-104.5483341	0.35	
10984.00	90.310	0.340	6702.48	3609.33	3182.22	-2259.64	3264864.10	1406714.34	40.4459311	-104.5483343	2.11	
11079.00	89.690	0.940	6702.48	3701.64	3277.22	-2258.58	3264865.16	1406809.33	40.4461918	-104.5483268	0.91	
11173.00	90.000	1.040	6702.73	3792.85	3371.20	-2256.96	3264866.78	1406903.31	40.4464498	-104.5483173	0.35	

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11268.00	89.970	0.410	6702.76	3885.13	3466.19	-2255.75	3264867.99	1406998.30	40.4467105	-104.5483094	0.66	
11362.00	90.150	1.390	6702.66	3976.37	3560.18	-2254.28	3264869.46	1407092.28	40.4469684	-104.5483004	1.06	
11457.00	89.690	0.380	6702.79	4068.59	3655.17	-2252.81	3264870.93	1407187.26	40.4472290	-104.5482915	1.17	
11552.00	90.030	1.330	6703.02	4160.82	3750.16	-2251.39	3264872.35	1407282.25	40.4474897	-104.5482827	1.06	
11646.00	90.280	0.220	6702.77	4252.10	3844.15	-2250.12	3264873.62	1407376.23	40.4477477	-104.5482746	1.21	
11741.00	89.720	0.390	6702.77	4344.55	3939.14	-2249.62	3264874.12	1407471.23	40.4480084	-104.5482691	0.62	
11835.00	89.480	1.410	6703.43	4435.79	4033.13	-2248.14	3264875.60	1407565.21	40.4482663	-104.5482601	1.11	
11930.00	90.000	1.770	6703.86	4527.72	4128.09	-2245.50	3264878.24	1407660.17	40.4485269	-104.5482470	0.67	
12025.00	89.910	1.290	6703.93	4619.67	4223.06	-2242.97	3264880.77	1407755.13	40.4487874	-104.5482342	0.51	
12119.00	89.970	0.500	6704.03	4710.92	4317.04	-2241.50	3264882.24	1407849.11	40.4490454	-104.5482253	0.84	
12214.00	90.580	1.510	6703.57	4803.08	4412.03	-2239.83	3264883.91	1407944.09	40.4493060	-104.5482157	1.24	
12308.00	89.970	0.530	6703.12	4894.28	4506.01	-2238.16	3264885.58	1408038.07	40.4495639	-104.5482060	1.23	
12403.00	90.250	0.990	6702.94	4986.54	4601.00	-2236.90	3264886.84	1408133.06	40.4498246	-104.5481979	0.57	
12498.00	90.280	359.830	6702.50	5078.95	4695.99	-2236.22	3264887.52	1408228.05	40.4500853	-104.5481918	1.22	
12592.00	90.250	359.670	6702.07	5170.62	4789.99	-2236.63	3264887.11	1408322.04	40.4503433	-104.5481896	0.17	
12781.00	90.400	359.870	6700.99	5354.93	4978.99	-2237.39	3264886.35	1408511.03	40.4508621	-104.5481850	0.13	
12876.00	89.940	359.110	6700.71	5447.68	5073.98	-2238.23	3264885.51	1408606.02	40.4511229	-104.5481844	0.94	
12971.00	90.150	359.860	6700.64	5540.43	5168.98	-2239.09	3264884.65	1408701.01	40.4513836	-104.5481838	0.82	
13065.00	90.120	359.280	6700.42	5632.17	5262.98	-2239.79	3264883.95	1408795.01	40.4516416	-104.5481827	0.62	
13160.00	90.400	0.100	6699.99	5724.84	5357.97	-2240.31	3264883.43	1408890.00	40.4519024	-104.5481809	0.91	
13254.00	90.150	0.520	6699.53	5816.31	5451.97	-2239.80	3264883.94	1408983.99	40.4521604	-104.5481755	0.52	
13444.00	90.150	359.950	6699.04	6001.25	5641.97	-2239.02	3264884.72	1409173.98	40.4526818	-104.5481653	0.30	
13538.00	90.180	0.160	6698.77	6092.82	5735.97	-2238.93	3264884.81	1409267.98	40.4529398	-104.5481614	0.23	
13633.00	90.280	0.390	6698.38	6185.27	5830.96	-2238.47	3264885.27	1409362.97	40.4532006	-104.5481561	0.26	
13727.00	90.060	0.170	6698.11	6276.75	5924.96	-2238.01	3264885.73	1409456.97	40.4534585	-104.5481508	0.33	
13822.00	89.720	0.560	6698.29	6369.17	6019.96	-2237.41	3264886.33	1409551.96	40.4537193	-104.5481450	0.54	
13917.00	89.690	0.350	6698.78	6461.56	6114.96	-2236.65	3264887.09	1409646.95	40.4539800	-104.5481386	0.22	
14012.00	89.570	0.720	6699.39	6553.91	6209.95	-2235.77	3264887.97	1409741.94	40.4542407	-104.5481317	0.41	
14106.00	89.910	359.550	6699.82	6645.45	6303.95	-2235.55	3264888.19	1409835.93	40.4544987	-104.5481273	1.30	
14201.00	89.940	359.370	6699.94	6738.20	6398.94	-2236.44	3264887.30	1409930.93	40.4547594	-104.5481269	0.19	



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14295.00	90.030	359.810	6699.97	6829.94	6492.94	-2237.11	3264886.63	1410024.92	40.4550175	-104.5481257	0.48	
14390.00	89.750	359.000	6700.15	6922.71	6587.93	-2238.10	3264885.64	1410119.91	40.4552782	-104.5481255	0.90	
14485.00	90.150	359.670	6700.23	7015.52	6682.93	-2239.20	3264884.54	1410214.90	40.4555390	-104.5481258	0.82	
14580.00	90.120	0.120	6700.01	7108.11	6777.92	-2239.38	3264884.36	1410309.89	40.4557997	-104.5481228	0.47	
14674.00	90.030	359.190	6699.88	7199.82	6871.92	-2239.94	3264883.80	1410403.89	40.4560577	-104.5481212	0.99	
14769.00	90.120	359.940	6699.76	7292.54	6966.92	-2240.66	3264883.08	1410498.88	40.4563185	-104.5481201	0.80	
14864.00	89.970	359.260	6699.69	7385.25	7061.92	-2241.33	3264882.41	1410593.87	40.4565793	-104.5481189	0.73	
14958.00	89.750	356.960	6699.92	7477.48	7155.86	-2244.43	3264879.31	1410687.81	40.4568372	-104.5481264	2.46	
15053.00	89.940	358.030	6700.17	7570.88	7250.77	-2248.58	3264875.16	1410782.72	40.4570978	-104.5481376	1.14	
15147.00	89.880	359.240	6700.32	7662.94	7344.74	-2250.82	3264872.92	1410876.68	40.4573558	-104.5481420	1.29	
15242.00	89.940	359.560	6700.47	7755.72	7439.73	-2251.81	3264871.93	1410971.67	40.4576166	-104.5481420	0.34	
15337.00	89.880	359.290	6700.62	7848.49	7534.73	-2252.77	3264870.97	1411066.67	40.4578773	-104.5481417	0.29	
15431.00	89.880	0.130	6700.82	7940.18	7628.72	-2253.24	3264870.50	1411160.66	40.4581353	-104.5481398	0.89	
15526.00	90.150	0.690	6700.79	8032.59	7723.72	-2252.56	3264871.18	1411255.65	40.4583961	-104.5481337	0.65	
15621.00	89.940	1.310	6700.72	8124.76	7818.71	-2250.90	3264872.84	1411350.63	40.4586567	-104.5481241	0.69	
15715.00	90.400	0.730	6700.44	8215.95	7912.69	-2249.23	3264874.51	1411444.61	40.4589146	-104.5481144	0.79	
15810.00	90.060	1.180	6700.06	8308.14	8007.68	-2247.65	3264876.09	1411539.60	40.4591753	-104.5481051	0.59	
15905.00	90.460	1.240	6699.62	8400.23	8102.65	-2245.64	3264878.10	1411634.57	40.4594359	-104.5480942	0.43	
15999.00	90.370	1.300	6698.94	8491.32	8196.63	-2243.56	3264880.18	1411728.54	40.4596938	-104.5480831	0.12	
16094.00	90.340	1.110	6698.36	8583.41	8291.61	-2241.56	3264882.18	1411823.51	40.4599544	-104.5480723	0.20	
16188.00	90.800	0.690	6697.42	8674.65	8385.59	-2240.08	3264883.66	1411917.49	40.4602123	-104.5480633	0.66	
16283.00	90.120	0.140	6696.66	8767.04	8480.58	-2239.40	3264884.34	1412012.48	40.4604730	-104.5480572	0.92	
16377.00	90.310	0.010	6696.30	8858.60	8574.58	-2239.27	3264884.47	1412106.48	40.4607310	-104.5480531	0.24	
16472.00	89.940	0.240	6696.10	8951.11	8669.58	-2239.07	3264884.67	1412201.47	40.4609918	-104.5480487	0.46	
16566.00	89.970	0.290	6696.17	9042.60	8763.58	-2238.63	3264885.11	1412295.47	40.4612498	-104.5480435	0.06	
16661.00	89.690	0.250	6696.45	9135.06	8858.58	-2238.18	3264885.56	1412390.46	40.4615105	-104.5480383	0.30	
16756.00	90.180	0.650	6696.56	9227.45	8953.57	-2237.44	3264886.30	1412485.46	40.4617712	-104.5480319	0.67	
16850.00	89.820	0.900	6696.56	9318.74	9047.57	-2236.17	3264887.57	1412579.44	40.4620291	-104.5480237	0.47	
16945.00	89.690	0.370	6696.97	9411.05	9142.56	-2235.11	3264888.63	1412674.43	40.4622898	-104.5480163	0.57	
17039.00	89.820	359.970	6697.37	9502.58	9236.56	-2234.83	3264888.91	1412768.43	40.4625478	-104.5480116	0.45	



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH DATA (186 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17134.00	90.000	0.310	6697.52	9595.08	9331.56	-2234.60	3264889.14	1412863.42	40.4628086	-104.5480071	0.40	
17228.00	89.910	1.600	6697.59	9686.30	9425.54	-2233.04	3264890.70	1412957.41	40.4630665	-104.5479979	1.38	
17323.00	89.850	0.590	6697.79	9778.43	9520.52	-2231.22	3264892.52	1413052.38	40.4633271	-104.5479877	1.07	
17418.00	90.030	0.670	6697.89	9870.75	9615.52	-2230.18	3264893.56	1413147.37	40.4635878	-104.5479803	0.21	
17476.00	89.820	359.980	6697.97	9927.19	9673.52	-2229.85	3264893.89	1413205.37	40.4637470	-104.5479769	1.24	LAST BH MWD SURVEY
17500.00†	89.820	359.980	6698.04	9950.57	9697.52	-2229.85	3264893.88	1413229.37	40.4638129	-104.5479760	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: Reveille A33-720 AWB Ref Wellpath: Reveille A33-720 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	1928.00	1898.00	30.00	1927.98	0.00	0.01	-3.43	-1.45

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.26-T06N-R64W	0.00	0.00	0.00	3267123.65	1403532.24	40.4371300	-104.5403400	polygon
	2D Polygon: dimensions not calculated							
SEC.27-T06N-R64W	0.00	0.00	0.00	3267123.65	1403532.24	40.4371300	-104.5403400	polygon
	2D Polygon: dimensions not calculated							
SEC.34-T06N-R64W	0.00	0.00	0.00	3267123.65	1403532.24	40.4371300	-104.5403400	polygon
	2D Polygon: dimensions not calculated							
SEC.35-T06N-R64W	0.00	0.00	0.00	3267123.65	1403532.24	40.4371300	-104.5403400	polygon
	2D Polygon: dimensions not calculated							
Reveille A33-720 TPZ REV-2 (460'FSL & 655'FEL,SEC.33)	6686.58	-171.76	-2159.21	3264964.53	1403360.49	40.4367225	-104.5481028	point
Reveille A33-720 BHL REV-1 (200'FNL & 634'FEL,SEC.28)	6689.00	9698.34	-2241.48	3264882.26	1413230.19	40.4638155	-104.5480177	point
Reveille A33-720 TPZ REV-1 (460'FSL & 655'FEL,SEC.33)	6689.00	-171.76	-2159.21	3264964.53	1403360.49	40.4367225	-104.5481028	point
Reveille A33-720 BHL REV-2 (200'FNL & 634'FEL,SEC.28)	6696.00	9698.34	-2241.48	3264882.26	1413230.19	40.4638155	-104.5480177	point

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH COMPOSITION - Ref Wellbore: Reveille A33-720 AWB Ref Wellpath: Reveille A33-720 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1921.00	Gyrodatta 2015 - GC+DROP+COND	Gyrodatta 2015 - GC+DROP+COND 13-1/2" <82 - 1921>	Reveille A33-720 AWB	2/11/2021
1921.00	17500.00	OWSG MWD rev2 (MS+IFR1) NOBLE	OWSG MWD rev2 (MS+IFR1) NOBLE 8-1/2" <1996 - 17476>	Reveille A33-720 AWB	2/23/2021

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Reveille A33-720
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350790
Facility	SEC.34-T06N-R64W	Wellbore	Reveille A33-720 AWB
Slot	SLOT#20 Reveille A33-720 (587'FSL & 1508'FWL,SEC.34)		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
82.00	0.140	108.980	82.00	FIRST GYRODATA SURVEY
1921.00	0.860	229.970	1920.98	LAST GYRODATA SURVEY
1996.00	1.720	256.580	1995.96	FIRST BH MWD SURVEY
17476.00	89.820	359.980	6697.97	LAST BH MWD SURVEY
17500.00	89.820	359.980	6698.04	PROJECTION TO BIT