

# NOBLE ENERGY, INC



Location: COLORADO Slot: SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)  
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EMMY STATE H25-757  
 Facility: SEC.25-T03N-R65W Wellbore: EMMY STATE H25-757 PWB

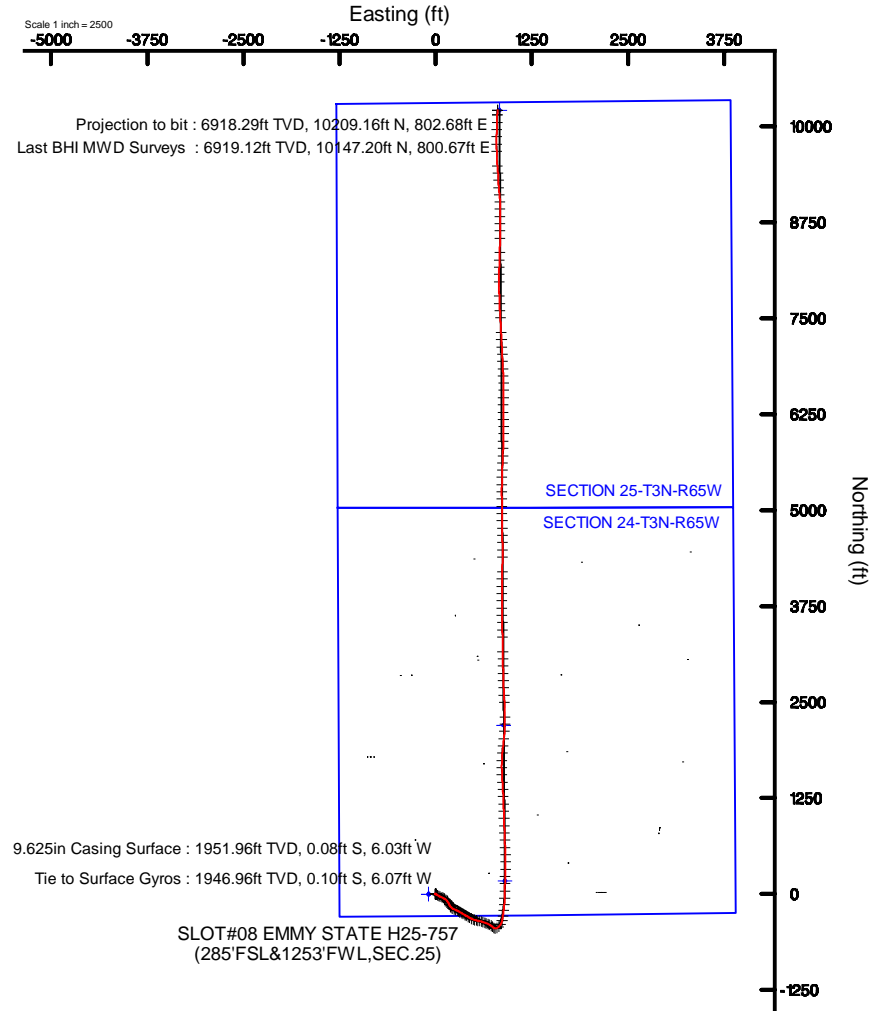
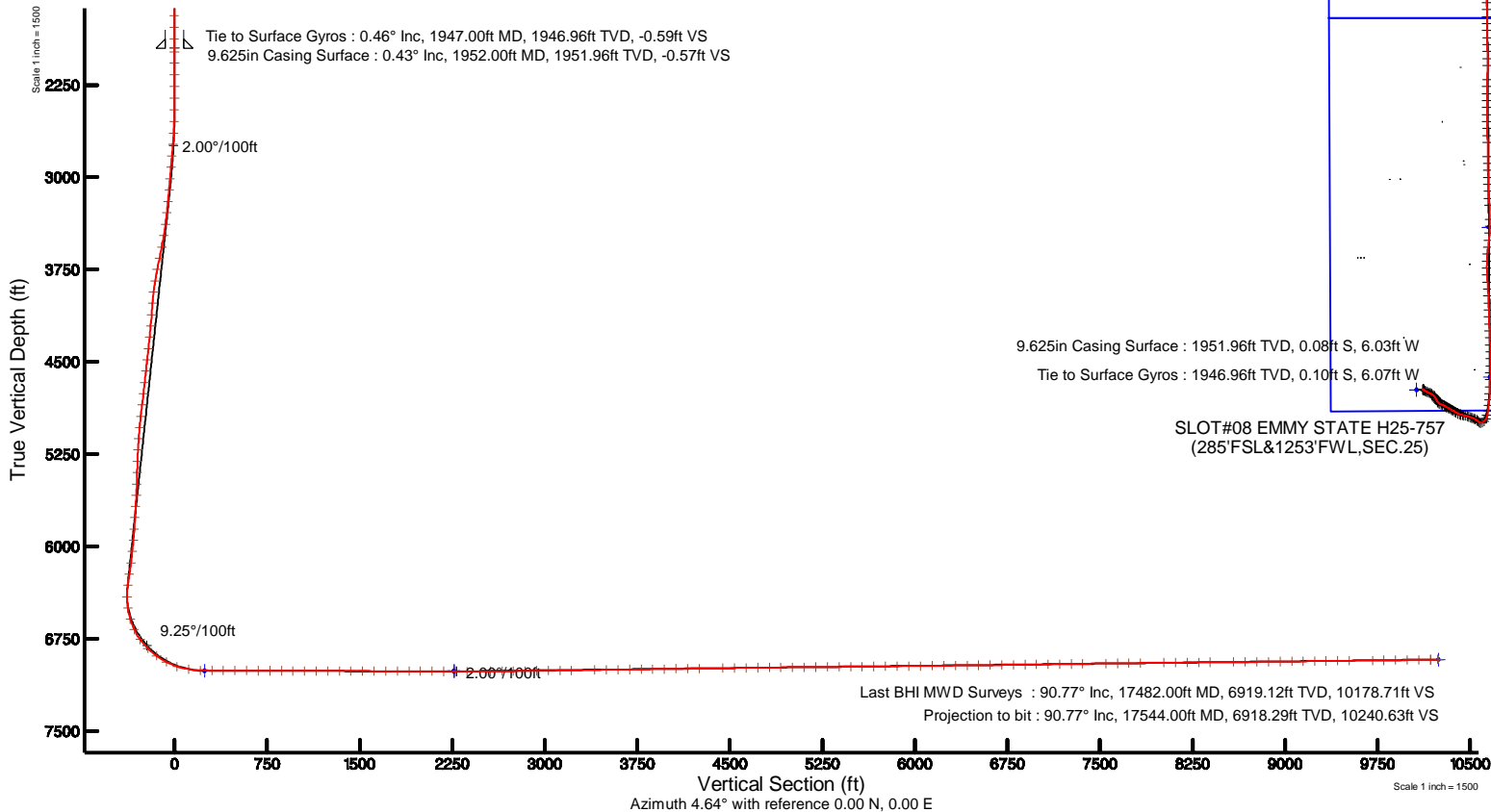
Plot reference wellpath is EMMY STATE H25-757 (REV-B.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig (30XB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Rig (30XB) (RKB)	North Reference: Grid north
Rig (30XB) (RKB) to Mean Sea Level: 4846 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: guenaler on 2018-08-16
	Database: WA_DEN_Denver_Defn

## Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.25-T03N-R65W				3248954.739	1313190.352	40°11'22.812"N	104°36'31.932"W
Slot		Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)		-22.03	-2201.46	3246753.379	1313168.327	40°11'22.812"N	104°37'00.300"W
Rig (30XB) (RKB) to Ground level (At Slot: SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25))				4846ft			
Mean Sea Level to Ground level (At Slot: SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25))				0ft			
Rig (30XB) (RKB) to Mean Sea Level				4846ft			

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	17521.25	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		EMMY STATE H25-757 PWB



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Guenaler
Scale	0.999957	Report Generated	8/16/2018 at 9:08:24 AM
Convergence at slot	0.58° East	Database/Source file	WA_DEN_Denver_Defn/EMMY_STATE_H25-757_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-22.03	-2201.46	3246753.38	1313168.33	40°11'22.812"N	104°37'00.300"W
Facility Reference Pt			3248954.74	1313190.35	40°11'22.812"N	104°36'31.932"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig (30'KB) (RKB) to Facility Vertical Datum	4846.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4846.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#08 EMMY STATE H25-757 (285'FSL&1253'FWL,SEC.25))	4846.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	4.64°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	157.880	0.00	0.00	0.00	0.00	40°11'22.812"N	104°37'00.300"W	0.00	
80.80	0.380	157.880	80.80	-0.24	-0.25	0.10	40°11'22.810"N	104°37'00.299"W	0.47	
175.70	0.370	126.990	175.70	-0.68	-0.72	0.46	40°11'22.805"N	104°37'00.294"W	0.21	
270.20	0.440	76.300	270.20	-0.73	-0.82	1.06	40°11'22.804"N	104°37'00.286"W	0.37	
364.60	0.290	193.750	364.59	-0.86	-0.97	1.36	40°11'22.802"N	104°37'00.283"W	0.67	
459.00	0.510	200.730	458.99	-1.49	-1.59	1.15	40°11'22.796"N	104°37'00.285"W	0.24	
553.50	0.350	252.510	553.49	-2.01	-2.07	0.73	40°11'22.791"N	104°37'00.291"W	0.43	
648.00	0.300	276.260	647.99	-2.11	-2.13	0.20	40°11'22.791"N	104°37'00.298"W	0.15	
742.60	0.260	290.890	742.59	-2.04	-2.03	-0.24	40°11'22.792"N	104°37'00.303"W	0.09	
837.10	0.300	256.030	837.09	-2.06	-2.01	-0.68	40°11'22.792"N	104°37'00.309"W	0.18	
931.70	0.340	261.870	931.68	-2.20	-2.11	-1.20	40°11'22.791"N	104°37'00.316"W	0.05	
1026.30	0.410	299.410	1026.28	-2.12	-1.99	-1.77	40°11'22.793"N	104°37'00.323"W	0.26	
1121.00	0.300	273.160	1120.98	-1.99	-1.81	-2.32	40°11'22.794"N	104°37'00.330"W	0.20	
1215.60	0.010	232.670	1215.58	-2.00	-1.80	-2.57	40°11'22.794"N	104°37'00.333"W	0.31	
1310.50	0.120	238.280	1310.48	-2.06	-1.85	-2.66	40°11'22.794"N	104°37'00.335"W	0.12	
1405.10	0.240	283.670	1405.08	-2.09	-1.86	-2.94	40°11'22.794"N	104°37'00.338"W	0.19	
1499.50	0.480	286.980	1499.48	-1.98	-1.70	-3.51	40°11'22.796"N	104°37'00.345"W	0.26	
1594.00	0.480	293.240	1593.97	-1.76	-1.43	-4.25	40°11'22.798"N	104°37'00.355"W	0.06	
1688.50	0.500	277.970	1688.47	-1.61	-1.21	-5.02	40°11'22.801"N	104°37'00.365"W	0.14	
1783.10	0.650	295.530	1783.07	-1.40	-0.92	-5.92	40°11'22.803"N	104°37'00.376"W	0.24	
1877.50	0.330	10.090	1877.46	-0.94	-0.43	-6.35	40°11'22.808"N	104°37'00.382"W	0.68	
1947.00	0.460	62.420	1946.96	-0.59	-0.10	-6.07	40°11'22.812"N	104°37'00.378"W	0.53	Tie to Surface Gyros
1980.00	0.290	86.330	1979.96	-0.51	-0.03	-5.87	40°11'22.812"N	104°37'00.376"W	0.69	
2074.00	0.030	51.620	2073.96	-0.46	0.00	-5.61	40°11'22.813"N	104°37'00.372"W	0.28	
2168.00	0.130	349.190	2167.96	-0.34	0.12	-5.61	40°11'22.814"N	104°37'00.372"W	0.13	
2263.00	0.070	85.660	2262.96	-0.22	0.23	-5.57	40°11'22.815"N	104°37'00.372"W	0.16	
2357.00	0.000	7.540	2356.96	-0.21	0.23	-5.52	40°11'22.815"N	104°37'00.371"W	0.07	
2452.00	1.690	113.360	2451.95	-0.66	-0.32	-4.23	40°11'22.809"N	104°37'00.355"W	1.78	
2546.00	5.210	113.180	2545.76	-2.47	-2.55	0.97	40°11'22.787"N	104°37'00.288"W	3.74	
2641.00	7.660	119.420	2640.16	-6.49	-7.36	10.45	40°11'22.738"N	104°37'00.166"W	2.68	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2736.00	11.320	119.380	2733.84	-13.05	-15.05	24.09	40°11'22.661"N	104°36'59.992"W	3.85	
2830.00	13.200	118.740	2825.69	-21.30	-24.74	41.54	40°11'22.563"N	104°36'59.768"W	2.01	
2925.00	12.600	115.490	2918.30	-29.41	-34.41	60.41	40°11'22.466"N	104°36'59.526"W	0.99	
3020.00	12.460	115.730	3011.03	-36.79	-43.32	78.99	40°11'22.376"N	104°36'59.288"W	0.16	
3114.00	12.350	117.840	3102.84	-44.40	-52.42	97.02	40°11'22.284"N	104°36'59.057"W	0.50	
3209.00	12.010	122.800	3195.70	-53.07	-62.52	114.31	40°11'22.183"N	104°36'58.835"W	1.16	
3303.00	11.700	125.170	3287.70	-62.52	-73.30	130.32	40°11'22.075"N	104°36'58.630"W	0.61	
3398.00	10.120	138.010	3380.99	-73.15	-85.06	143.78	40°11'21.957"N	104°36'58.458"W	3.04	
3492.00	12.320	146.990	3473.20	-86.77	-99.61	154.77	40°11'21.812"N	104°36'58.319"W	2.98	
3587.00	12.450	150.830	3565.99	-103.30	-117.05	165.29	40°11'21.639"N	104°36'58.185"W	0.88	
3681.00	13.920	152.330	3657.51	-121.28	-135.91	175.48	40°11'21.452"N	104°36'58.057"W	1.61	
3776.00	13.940	147.970	3749.72	-140.11	-155.73	186.85	40°11'21.255"N	104°36'57.912"W	1.10	
3870.00	13.990	137.900	3840.95	-156.98	-173.77	200.48	40°11'21.075"N	104°36'57.739"W	2.58	
3965.00	14.020	122.080	3933.16	-170.16	-188.40	217.93	40°11'20.929"N	104°36'57.516"W	4.02	
4059.00	13.680	110.620	4024.45	-178.47	-198.37	237.99	40°11'20.828"N	104°36'57.259"W	2.94	
4154.00	13.820	113.960	4116.73	-185.32	-206.93	258.87	40°11'20.742"N	104°36'56.991"W	0.85	
4248.00	13.820	117.000	4208.01	-193.30	-216.59	279.13	40°11'20.644"N	104°36'56.731"W	0.77	
4343.00	13.790	119.320	4300.26	-202.35	-227.28	299.11	40°11'20.537"N	104°36'56.475"W	0.58	
4437.00	13.510	122.000	4391.61	-212.07	-238.59	318.19	40°11'20.423"N	104°36'56.231"W	0.74	
4532.00	14.760	119.840	4483.73	-222.33	-250.49	338.10	40°11'20.303"N	104°36'55.976"W	1.43	
4626.00	14.840	118.650	4574.61	-232.32	-262.22	359.05	40°11'20.186"N	104°36'55.707"W	0.33	
4721.00	14.810	118.370	4666.45	-242.16	-273.82	380.41	40°11'20.069"N	104°36'55.434"W	0.08	
4815.00	14.650	119.430	4757.36	-251.98	-285.37	401.34	40°11'19.953"N	104°36'55.166"W	0.33	
4910.00	14.860	121.060	4849.23	-262.44	-297.56	422.23	40°11'19.830"N	104°36'54.898"W	0.49	
5005.00	14.730	119.990	4941.08	-273.03	-309.88	443.13	40°11'19.706"N	104°36'54.630"W	0.32	
5099.00	14.800	117.430	5031.98	-282.80	-321.38	464.14	40°11'19.591"N	104°36'54.361"W	0.70	
5194.00	13.640	110.970	5124.07	-290.65	-330.98	485.37	40°11'19.494"N	104°36'54.089"W	2.07	
5288.00	13.690	106.890	5215.41	-296.13	-338.18	506.36	40°11'19.420"N	104°36'53.819"W	1.03	
5383.00	13.620	103.880	5307.73	-300.31	-344.13	527.98	40°11'19.359"N	104°36'53.541"W	0.75	
5477.00	13.600	100.690	5399.09	-303.25	-348.84	549.58	40°11'19.311"N	104°36'53.264"W	0.80	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5572.00	13.880	102.180	5491.37	-305.92	-353.31	571.70	40°11'19.264"N	104°36'52.979"W	0.47	
5666.00	13.880	107.090	5582.63	-309.83	-359.01	593.50	40°11'19.206"N	104°36'52.699"W	1.25	
5761.00	13.780	111.540	5674.88	-315.58	-366.51	614.91	40°11'19.130"N	104°36'52.424"W	1.12	
5855.00	13.970	105.790	5766.14	-321.03	-373.71	636.24	40°11'19.057"N	104°36'52.150"W	1.48	
5950.00	13.980	110.200	5858.33	-326.33	-380.79	658.05	40°11'18.984"N	104°36'51.870"W	1.12	
6044.00	14.050	115.190	5949.53	-333.38	-389.57	679.03	40°11'18.896"N	104°36'51.601"W	1.29	
6138.00	13.980	120.570	6040.74	-342.35	-400.20	699.13	40°11'18.789"N	104°36'51.343"W	1.39	
6233.00	13.960	125.960	6132.93	-353.32	-412.76	718.29	40°11'18.662"N	104°36'51.098"W	1.37	
6327.00	13.840	129.020	6224.18	-365.57	-426.50	736.20	40°11'18.525"N	104°36'50.869"W	0.79	
6422.00	13.600	130.240	6316.47	-378.49	-440.87	753.56	40°11'18.381"N	104°36'50.647"W	0.40	
6516.00	11.830	94.470	6408.30	-384.90	-448.77	771.63	40°11'18.301"N	104°36'50.416"W	8.44	
6611.00	16.500	65.540	6500.50	-378.30	-443.94	793.65	40°11'18.347"N	104°36'50.131"W	8.78	
6705.00	21.970	46.780	6589.30	-358.74	-426.34	818.66	40°11'18.518"N	104°36'49.807"W	8.71	
6800.00	28.680	34.900	6675.18	-325.81	-395.42	844.70	40°11'18.821"N	104°36'49.467"W	8.83	
6894.00	36.220	11.030	6754.77	-278.47	-349.41	863.02	40°11'19.274"N	104°36'49.225"W	15.68	
6989.00	45.110	7.680	6826.77	-216.84	-288.38	872.91	40°11'19.876"N	104°36'49.090"W	9.63	
7084.00	53.200	8.070	6888.85	-145.15	-217.25	882.76	40°11'20.578"N	104°36'48.954"W	8.52	
7178.00	62.550	4.670	6938.79	-65.68	-138.23	891.46	40°11'21.358"N	104°36'48.832"W	10.41	
7273.00	72.620	1.570	6974.97	21.98	-50.66	896.15	40°11'22.223"N	104°36'48.760"W	11.02	
7367.00	80.970	1.500	6996.43	113.28	40.74	898.60	40°11'23.126"N	104°36'48.717"W	8.88	
7462.00	88.180	1.940	7005.40	207.67	135.21	901.44	40°11'24.059"N	104°36'48.668"W	7.60	
7557.00	89.850	1.140	7007.04	302.51	230.16	903.99	40°11'24.997"N	104°36'48.623"W	1.95	
7651.00	89.570	1.470	7007.51	396.35	324.13	906.13	40°11'25.926"N	104°36'48.583"W	0.46	
7746.00	89.660	359.920	7008.15	491.12	419.12	907.28	40°11'26.864"N	104°36'48.556"W	1.63	
7840.00	89.780	358.680	7008.61	584.71	513.11	906.13	40°11'27.793"N	104°36'48.559"W	1.33	
7935.00	89.750	356.780	7009.00	679.02	608.03	902.37	40°11'28.731"N	104°36'48.595"W	2.00	
8029.00	89.780	358.140	7009.39	772.28	701.94	898.20	40°11'29.660"N	104°36'48.636"W	1.45	
8124.00	89.880	358.060	7009.67	866.66	796.89	895.06	40°11'30.598"N	104°36'48.665"W	0.13	
8218.00	89.850	357.970	7009.89	960.03	890.83	891.80	40°11'31.527"N	104°36'48.695"W	0.10	
8313.00	89.880	358.020	7010.11	1054.39	985.77	888.48	40°11'32.465"N	104°36'48.725"W	0.06	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8407.00	89.940	357.890	7010.26	1147.75	1079.71	885.12	40°11'33.394"N	104°36'48.756"W	0.15	
8502.00	89.820	358.280	7010.46	1242.13	1174.66	881.95	40°11'34.332"N	104°36'48.785"W	0.43	
8597.00	89.820	357.880	7010.76	1336.51	1269.60	878.76	40°11'35.271"N	104°36'48.814"W	0.42	
8691.00	89.750	356.260	7011.11	1429.69	1363.48	873.96	40°11'36.199"N	104°36'48.864"W	1.73	
8786.00	89.750	356.010	7011.53	1523.64	1458.26	867.56	40°11'37.136"N	104°36'48.934"W	0.26	
8880.00	89.750	357.100	7011.94	1616.71	1552.09	861.91	40°11'38.064"N	104°36'48.995"W	1.16	
8975.00	89.750	359.620	7012.35	1711.13	1647.04	859.19	40°11'39.003"N	104°36'49.017"W	2.65	
9069.00	89.720	2.530	7012.79	1804.93	1741.01	860.95	40°11'39.931"N	104°36'48.983"W	3.10	
9164.00	90.250	4.330	7012.81	1899.91	1835.84	866.64	40°11'40.867"N	104°36'48.897"W	1.98	
9258.00	89.690	7.450	7012.86	1993.87	1929.33	876.28	40°11'41.790"N	104°36'48.761"W	3.37	
9353.00	89.660	5.780	7013.40	2088.81	2023.69	887.22	40°11'42.722"N	104°36'48.608"W	1.76	
9447.00	89.630	3.130	7013.98	2182.80	2117.40	894.52	40°11'43.647"N	104°36'48.502"W	2.82	
9542.00	89.690	1.270	7014.54	2277.71	2212.32	898.17	40°11'44.584"N	104°36'48.442"W	1.96	
9636.00	89.750	359.250	7015.00	2371.43	2306.31	898.60	40°11'45.513"N	104°36'48.425"W	2.15	
9826.00	90.650	357.550	7014.34	2560.30	2496.23	893.29	40°11'47.390"N	104°36'48.469"W	1.01	
9920.00	90.740	357.110	7013.20	2653.52	2590.12	888.91	40°11'48.319"N	104°36'48.513"W	0.48	
10015.00	90.740	357.080	7011.97	2747.69	2684.99	884.10	40°11'49.257"N	104°36'48.563"W	0.03	
10109.00	90.890	358.120	7010.64	2840.98	2778.90	880.16	40°11'50.185"N	104°36'48.601"W	1.12	
10204.00	90.830	358.510	7009.21	2935.39	2873.85	877.37	40°11'51.123"N	104°36'48.625"W	0.42	
10298.00	90.800	358.520	7007.87	3028.84	2967.81	874.94	40°11'52.052"N	104°36'48.644"W	0.03	
10393.00	90.830	358.960	7006.52	3123.33	3062.77	872.85	40°11'52.991"N	104°36'48.659"W	0.46	
10487.00	90.680	359.580	7005.28	3216.91	3156.76	871.65	40°11'53.920"N	104°36'48.662"W	0.68	
10676.00	90.890	358.650	7002.69	3405.01	3345.71	868.73	40°11'55.787"N	104°36'48.676"W	0.50	
10771.00	90.770	358.400	7001.32	3499.46	3440.67	866.28	40°11'56.726"N	104°36'48.695"W	0.29	
10866.00	90.520	358.840	7000.25	3593.93	3535.64	864.00	40°11'57.664"N	104°36'48.712"W	0.53	
10960.00	90.740	358.880	6999.21	3687.45	3629.61	862.13	40°11'58.593"N	104°36'48.724"W	0.24	
11055.00	90.860	359.260	6997.89	3781.99	3724.59	860.59	40°11'59.532"N	104°36'48.732"W	0.42	
11149.00	90.830	359.590	6996.50	3875.59	3818.58	859.64	40°12'00.460"N	104°36'48.732"W	0.35	
11244.00	90.920	0.540	6995.05	3970.27	3913.56	859.75	40°12'01.399"N	104°36'48.718"W	1.00	
11339.00	90.920	1.010	6993.53	4065.05	4008.54	861.03	40°12'02.338"N	104°36'48.689"W	0.49	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ["/100ft]	Comments
11434.00	90.920	1.550	6992.00	4159.87	4103.51	863.16	40°12'03.276"N	104°36'48.650"W	0.57	
11529.00	90.770	1.360	6990.60	4254.71	4198.47	865.57	40°12'04.214"N	104°36'48.607"W	0.25	
11718.00	90.770	0.190	6988.06	4443.26	4387.43	868.12	40°12'06.081"N	104°36'48.549"W	0.62	
11813.00	90.800	359.930	6986.76	4537.95	4482.42	868.22	40°12'07.019"N	104°36'48.536"W	0.28	
11907.00	90.740	359.360	6985.50	4631.59	4576.41	867.64	40°12'07.948"N	104°36'48.531"W	0.61	
12002.00	90.740	359.180	6984.27	4726.16	4671.39	866.43	40°12'08.887"N	104°36'48.535"W	0.19	
12096.00	90.710	358.900	6983.08	4819.70	4765.37	864.86	40°12'09.816"N	104°36'48.543"W	0.30	
12191.00	90.710	359.300	6981.90	4914.25	4860.35	863.36	40°12'10.754"N	104°36'48.550"W	0.42	
12285.00	90.710	358.750	6980.74	5007.80	4954.33	861.77	40°12'11.683"N	104°36'48.558"W	0.59	
12380.00	90.460	359.760	6979.77	5102.37	5049.32	860.53	40°12'12.622"N	104°36'48.562"W	1.10	
12474.00	90.520	359.110	6978.96	5195.98	5143.31	859.60	40°12'13.551"N	104°36'48.562"W	0.69	
12569.00	90.620	359.940	6978.02	5290.60	5238.30	858.82	40°12'14.490"N	104°36'48.560"W	0.88	
12663.00	90.550	1.120	6977.06	5384.35	5332.29	859.69	40°12'15.418"N	104°36'48.536"W	1.26	
12758.00	90.580	1.830	6976.12	5479.20	5427.25	862.13	40°12'16.356"N	104°36'48.493"W	0.75	
12852.00	90.550	2.040	6975.19	5573.09	5521.19	865.30	40°12'17.284"N	104°36'48.440"W	0.23	
12946.00	90.710	2.530	6974.16	5667.00	5615.11	869.05	40°12'18.212"N	104°36'48.379"W	0.55	
13041.00	90.650	2.420	6973.03	5761.93	5710.02	873.15	40°12'19.149"N	104°36'48.314"W	0.13	
13136.00	90.710	1.500	6971.91	5856.82	5804.96	876.40	40°12'20.087"N	104°36'48.260"W	0.97	
13230.00	90.550	1.560	6970.87	5950.67	5898.92	878.91	40°12'21.015"N	104°36'48.216"W	0.18	
13325.00	90.620	0.630	6969.90	6045.49	5993.89	880.73	40°12'21.954"N	104°36'48.180"W	0.98	
13419.00	90.680	359.920	6968.84	6139.21	6087.88	881.18	40°12'22.882"N	104°36'48.162"W	0.76	
13514.00	90.620	359.150	6967.76	6233.82	6182.87	880.41	40°12'23.821"N	104°36'48.160"W	0.81	
13608.00	90.770	359.200	6966.62	6327.39	6276.86	879.05	40°12'24.750"N	104°36'48.165"W	0.17	
13703.00	90.710	0.560	6965.39	6422.05	6371.85	878.86	40°12'25.689"N	104°36'48.155"W	1.43	
13797.00	90.650	1.110	6964.28	6515.84	6465.83	880.23	40°12'26.617"N	104°36'48.126"W	0.59	
13892.00	90.740	0.360	6963.12	6610.61	6560.82	881.44	40°12'27.556"N	104°36'48.098"W	0.80	
13986.00	90.830	358.970	6961.83	6704.24	6654.80	880.89	40°12'28.485"N	104°36'48.093"W	1.48	
14080.00	90.740	357.720	6960.55	6797.67	6748.75	878.18	40°12'29.413"N	104°36'48.115"W	1.33	
14175.00	90.770	357.320	6959.30	6891.93	6843.66	874.07	40°12'30.351"N	104°36'48.156"W	0.42	
14269.00	90.590	357.010	6958.18	6985.12	6937.53	869.42	40°12'31.279"N	104°36'48.204"W	0.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14364.00	90.770	357.200	6957.05	7079.29	7032.41	864.62	40°12'32.217"N	104°36'48.254"W	0.28	
14458.00	90.830	357.080	6955.74	7172.48	7126.28	859.93	40°12'33.145"N	104°36'48.302"W	0.14	
14553.00	91.140	357.130	6954.11	7266.65	7221.14	855.14	40°12'34.083"N	104°36'48.352"W	0.33	
14647.00	90.710	357.040	6952.59	7359.82	7315.01	850.36	40°12'35.011"N	104°36'48.401"W	0.47	
14836.00	90.680	356.510	6950.30	7547.03	7503.70	839.72	40°12'36.877"N	104°36'48.514"W	0.28	
14931.00	90.830	356.890	6949.04	7641.11	7598.53	834.26	40°12'37.815"N	104°36'48.572"W	0.43	
15025.00	90.680	357.780	6947.81	7734.34	7692.42	829.89	40°12'38.743"N	104°36'48.616"W	0.96	
15120.00	90.800	358.420	6946.58	7828.71	7787.36	826.74	40°12'39.681"N	104°36'48.645"W	0.69	
15309.00	90.860	359.960	6943.84	8016.83	7976.31	824.07	40°12'41.549"N	104°36'48.655"W	0.82	
15403.00	90.680	0.600	6942.58	8110.55	8070.30	824.52	40°12'42.477"N	104°36'48.637"W	0.71	
15497.00	90.800	1.240	6941.36	8204.34	8164.28	826.03	40°12'43.406"N	104°36'48.605"W	0.69	
15592.00	90.620	2.210	6940.19	8299.21	8259.23	828.89	40°12'44.344"N	104°36'48.556"W	1.04	
15686.00	90.340	1.680	6939.40	8393.11	8353.17	832.08	40°12'45.272"N	104°36'48.503"W	0.64	
15875.00	90.430	0.910	6938.13	8581.78	8542.12	836.35	40°12'47.138"N	104°36'48.423"W	0.41	
15970.00	90.400	0.360	6937.44	8676.54	8637.11	837.41	40°12'48.077"N	104°36'48.398"W	0.58	
16065.00	90.370	358.110	6936.80	8771.11	8732.09	836.14	40°12'49.016"N	104°36'48.402"W	2.37	
16159.00	90.770	359.660	6935.87	8864.63	8826.07	834.31	40°12'49.944"N	104°36'48.413"W	1.70	
16253.00	90.800	1.690	6934.58	8958.39	8920.05	835.42	40°12'50.873"N	104°36'48.387"W	2.16	
16348.00	90.650	358.580	6933.38	9053.08	9015.03	835.64	40°12'51.811"N	104°36'48.372"W	3.28	
16441.00	90.770	352.720	6932.22	9144.89	9107.71	828.59	40°12'52.728"N	104°36'48.451"W	6.30	
16536.00	91.110	356.200	6930.66	9238.37	9202.24	819.42	40°12'53.663"N	104°36'48.557"W	3.68	
16630.00	90.520	358.340	6929.33	9331.58	9296.12	814.95	40°12'54.591"N	104°36'48.602"W	2.36	
16725.00	90.680	355.400	6928.33	9425.69	9390.96	809.76	40°12'55.529"N	104°36'48.657"W	3.10	
16819.00	90.550	355.420	6927.32	9518.47	9484.66	802.24	40°12'56.455"N	104°36'48.742"W	0.14	
17009.00	90.770	358.970	6925.13	9706.82	9674.39	792.94	40°12'58.331"N	104°36'48.837"W	1.87	
17103.00	90.650	359.570	6923.97	9800.40	9768.37	791.74	40°12'59.260"N	104°36'48.840"W	0.65	
17198.00	90.710	0.710	6922.84	9895.10	9863.36	791.98	40°13'00.199"N	104°36'48.825"W	1.20	
17293.00	90.710	1.910	6921.66	9989.93	9958.33	794.15	40°13'01.137"N	104°36'48.785"W	1.26	
17387.00	90.800	2.070	6920.43	10083.83	10052.26	797.41	40°13'02.065"N	104°36'48.731"W	0.20	
17482.00	90.770	1.860	6919.12	10178.71	10147.20	800.67	40°13'03.002"N	104°36'48.677"W	0.22	Last BHI MWD Surveys

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17544.00	90.770	1.860	6918.29	10240.63	10209.16	802.68	40°13'03.614"N	104°36'48.643"W	0.00	Projection to bit

HOLE & CASING SECTIONS - Ref Wellbore: EMMY STATE H25-757 AWB Ref Wellpath: EMMY STATE H25-757 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]
13.5in Open Hole	30.00	1952.00	1922.00	30.00	1951.96	-0.03	0.01	-0.08	-6.03
9.625in Casing Surface	30.00	1952.00	1922.00	30.00	1951.96	-0.03	0.01	-0.08	-6.03
8.5in Open Hole	1952.00	17544.00	15592.00	1951.96	6918.29	-0.08	-6.03	10209.16	802.68

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
EMMY STATE H25-785 SECTION 24-T3N-R65W	-1.00	-0.92	-92.19	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-785 SECTION 25-T3N-R65W	-1.00	-0.92	-92.19	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-757 REV-1 BHL(100'FNL&2125'FWL,SEC.24)	6918.30	10209.16	828.33	3247581.67	1323377.04	40°13'03.612"N	104°36'48.312"W	point
EMMY STATE H25-757 LANDING POINT	7009.00	170.00	900.00	3247653.34	1313338.32	40°11'24.403"N	104°36'48.682"W	point
EMMY STATE H25-757 Target 1	7009.00	2200.00	885.51	3247638.85	1315368.23	40°11'44.464"N	104°36'48.607"W	point
EMMY STATE H25-757 Target 1 REV-2	7014.00	2200.00	885.51	3247638.85	1315368.23	40°11'44.464"N	104°36'48.607"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: EMMY STATE H25-757 AWB Ref Wellpath: EMMY STATE H25-757 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1947.00	Gyrodatta standard - Drop gyro or Multi-shot	3rd Party Surface GYROS <80.8'-1947'>	EMMY STATE H25-757 AWB
1947.00	17482.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2+IFR1+MSA <1980'-17482'>	EMMY STATE H25-757 AWB
17482.00	17544.00	Blind Drilling (std)	Projection to bit	EMMY STATE H25-757 AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 EMMY STATE H25-757(285'FSL&1253'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-757 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1947.00	0.460	62.420	1946.96	Tie to Surface Gyros
17482.00	90.770	1.860	6919.12	Last BHI MWD Surveys
17544.00	90.770	1.860	6918.29	Projection to bit

COMMENTS
<p><b>Wellpath general comments</b>            SURFACE LOCATION: SESW            40.18967N            104.61675W            API #: 05-123-46974</p>