

# NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#06 EMMY STATE H25-744(285°FSL&1805°FEL,SEC.25)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EMMY STATE H25-744  
Facility: SEC.25-T03N-R65W Wellbore: EMMY STATE H25-744 PWB

Plot reference wellpath is EMMY STATE H25-744 (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig (30KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Rig (30KB) (RKB)	North Reference: Grid north
Rig (30KB) (RKB) to Mean Sea Level: 4835 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#06 EMMY STATE H25-744(285°FSL&1805°FEL,SEC.25)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: guenaler on 2018-10-09
	Database: WA_DEN_Denver_Defn

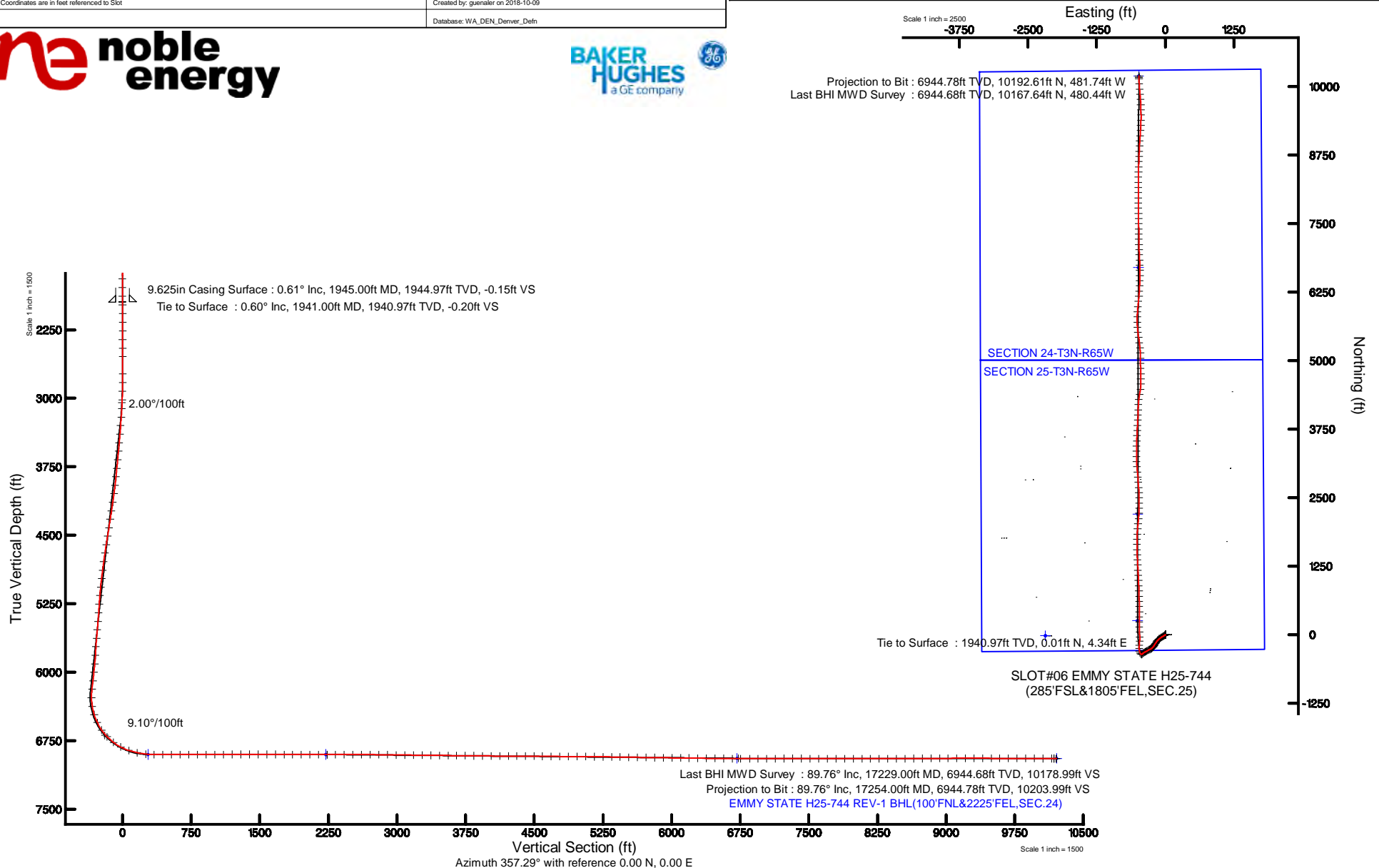


## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.25-T03N-R65W			3248954.739	1313190.352	40°1'22.812"N	104°36'31.932"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#06 EMMY STATE H25-744(285°FSL&1805°FEL,SEC.25)	-1.12	-111.75	3248842.995	1313189.230	40°1'22.812"N	104°36'33.372"W
Rig (30KB) (RKB) to Ground level (At Slot: SLOT#06 EMMY STATE H25-744(285°FSL&1805°FEL,SEC.25))					4835ft	
Mean Sea Level to Ground level (At Slot: SLOT#06 EMMY STATE H25-744(285°FSL&1805°FEL,SEC.25))					0ft	
Rig (30KB) (RKB) to Mean Sea Level					4835ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	17327.94	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		EMMY STATE H25-744 PWB



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 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	10/9/2018 at 3:45:50 PM
Convergence at slot	0.58° East	Database/Source file	WA_DEN_Denver_Defn/EMMY_STATE_H25-744_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1.12	-111.75	3248843.00	1313189.23	40°11'22.812"N	104°36'33.372"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	4835.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4835.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#06 EMMY STATE H25-744 (285'FSL&1805'FEL,SEC.25))	4835.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	357.29°



Actual Wellpath Report  
EMMY STATE H25-744 AWP  
Page 2 of 9



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Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	339.200	0.00	0.00	0.00	0.00	40°11'22.812"N	104°36'33.372"W	0.00	
86.33	0.230	339.200	86.33	0.16	0.16	-0.06	40°11'22.814"N	104°36'33.373"W	0.27	
180.80	0.230	53.890	180.80	0.45	0.45	0.02	40°11'22.816"N	104°36'33.372"W	0.30	
275.27	0.260	251.870	275.27	0.50	0.50	-0.03	40°11'22.817"N	104°36'33.372"W	0.51	
369.74	0.320	33.960	369.74	0.65	0.65	-0.08	40°11'22.818"N	104°36'33.373"W	0.58	
464.21	0.330	44.690	464.21	1.05	1.06	0.26	40°11'22.822"N	104°36'33.369"W	0.07	
558.68	0.410	2.420	558.68	1.57	1.59	0.46	40°11'22.828"N	104°36'33.366"W	0.29	
653.15	0.320	78.970	653.14	1.94	1.98	0.73	40°11'22.831"N	104°36'33.362"W	0.48	
747.62	0.290	117.990	747.61	1.86	1.92	1.21	40°11'22.831"N	104°36'33.356"W	0.22	
842.09	0.450	100.870	842.08	1.65	1.74	1.78	40°11'22.829"N	104°36'33.349"W	0.20	
936.56	0.270	183.160	936.55	1.34	1.44	2.13	40°11'22.826"N	104°36'33.344"W	0.52	
1031.03	0.310	244.530	1031.02	1.02	1.11	1.89	40°11'22.823"N	104°36'33.348"W	0.32	
1125.50	0.380	221.270	1125.49	0.70	0.77	1.45	40°11'22.819"N	104°36'33.353"W	0.16	
1219.97	0.470	188.150	1219.95	0.09	0.15	1.19	40°11'22.813"N	104°36'33.357"W	0.27	
1314.44	0.460	136.210	1314.42	-0.58	-0.51	1.40	40°11'22.807"N	104°36'33.354"W	0.43	
1408.91	0.380	88.130	1408.89	-0.87	-0.77	1.97	40°11'22.804"N	104°36'33.347"W	0.37	
1503.38	0.400	120.790	1503.36	-1.05	-0.93	2.57	40°11'22.803"N	104°36'33.339"W	0.23	
1597.85	0.460	67.410	1597.82	-1.11	-0.96	3.20	40°11'22.802"N	104°36'33.331"W	0.41	
1692.32	0.440	54.650	1692.29	-0.78	-0.60	3.85	40°11'22.806"N	104°36'33.322"W	0.11	
1786.79	0.250	142.990	1786.76	-0.76	-0.55	4.27	40°11'22.806"N	104°36'33.317"W	0.53	
1881.26	0.310	354.860	1881.23	-0.67	-0.46	4.37	40°11'22.807"N	104°36'33.316"W	0.57	
1941.00	0.600	357.910	1940.97	-0.20	0.01	4.34	40°11'22.812"N	104°36'33.316"W	0.49	Tie to Surface
1978.00	0.700	5.730	1977.97	0.22	0.43	4.36	40°11'22.816"N	104°36'33.316"W	0.36	
2072.00	0.090	137.890	2071.96	0.73	0.94	4.47	40°11'22.821"N	104°36'33.314"W	0.81	
2167.00	0.070	249.230	2166.96	0.66	0.87	4.46	40°11'22.820"N	104°36'33.314"W	0.14	
2261.00	0.070	201.500	2260.96	0.59	0.79	4.39	40°11'22.819"N	104°36'33.315"W	0.06	
2356.00	0.070	291.240	2355.96	0.56	0.76	4.31	40°11'22.819"N	104°36'33.316"W	0.10	
2451.00	0.040	61.920	2450.96	0.59	0.80	4.29	40°11'22.819"N	104°36'33.317"W	0.11	
2545.00	0.320	347.300	2544.96	0.87	1.07	4.26	40°11'22.822"N	104°36'33.317"W	0.33	
2735.00	0.190	334.810	2734.96	1.68	1.87	4.01	40°11'22.830"N	104°36'33.320"W	0.07	



Actual Wellpath Report  
EMMY STATE H25-744 AWP  
Page 3 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2829.00	0.650	214.150	2828.96	1.40	1.57	3.64	40°11'22.827"N	104°36'33.325"W	0.81	
2924.00	2.330	227.220	2923.92	-0.28	-0.19	1.92	40°11'22.810"N	104°36'33.347"W	1.79	
3018.00	4.250	232.860	3017.76	-3.48	-3.59	-2.26	40°11'22.777"N	104°36'33.402"W	2.07	
3113.00	5.450	234.240	3112.42	-7.93	-8.35	-8.72	40°11'22.730"N	104°36'33.485"W	1.27	
3207.00	6.810	231.860	3205.88	-13.59	-14.40	-16.73	40°11'22.671"N	104°36'33.589"W	1.47	
3302.00	8.470	235.780	3300.04	-20.52	-21.81	-26.95	40°11'22.599"N	104°36'33.722"W	1.83	
3397.00	10.220	241.700	3393.77	-27.82	-29.74	-40.15	40°11'22.522"N	104°36'33.893"W	2.10	
3492.00	10.300	238.420	3487.26	-35.56	-38.19	-54.81	40°11'22.440"N	104°36'34.083"W	0.62	
3586.00	10.170	234.400	3579.76	-44.12	-47.42	-68.72	40°11'22.350"N	104°36'34.264"W	0.77	
3681.00	10.200	233.990	3673.27	-53.30	-57.25	-82.34	40°11'22.254"N	104°36'34.440"W	0.08	
3775.00	10.230	235.370	3765.78	-62.28	-66.88	-95.94	40°11'22.161"N	104°36'34.617"W	0.26	
3870.00	10.320	235.260	3859.25	-71.25	-76.53	-109.87	40°11'22.067"N	104°36'34.798"W	0.10	
3965.00	10.910	228.910	3952.63	-81.35	-87.29	-123.64	40°11'21.962"N	104°36'34.976"W	1.38	
4059.00	10.750	221.040	4044.96	-93.21	-99.74	-136.10	40°11'21.840"N	104°36'35.139"W	1.58	
4154.00	10.610	215.950	4138.32	-106.44	-113.51	-147.06	40°11'21.705"N	104°36'35.281"W	1.00	
4249.00	10.850	214.690	4231.66	-120.37	-127.94	-157.28	40°11'21.563"N	104°36'35.415"W	0.35	
4343.00	10.700	214.660	4324.00	-134.34	-142.39	-167.28	40°11'21.422"N	104°36'35.546"W	0.16	
4438.00	10.830	213.900	4417.33	-148.51	-157.05	-177.27	40°11'21.278"N	104°36'35.676"W	0.20	
4532.00	10.750	212.420	4509.66	-162.77	-171.78	-186.90	40°11'21.133"N	104°36'35.802"W	0.31	
4627.00	10.720	210.600	4603.00	-177.40	-186.87	-196.14	40°11'20.985"N	104°36'35.923"W	0.36	
4721.00	10.150	208.180	4695.45	-191.81	-201.69	-204.51	40°11'20.839"N	104°36'36.033"W	0.76	
4816.00	10.190	217.100	4788.96	-205.45	-215.78	-213.53	40°11'20.701"N	104°36'36.151"W	1.66	
4910.00	10.110	223.260	4881.49	-217.58	-228.42	-224.20	40°11'20.577"N	104°36'36.290"W	1.16	
5005.00	10.150	226.810	4975.01	-228.81	-240.22	-236.02	40°11'20.462"N	104°36'36.444"W	0.66	
5100.00	10.230	233.080	5068.52	-238.99	-251.02	-248.86	40°11'20.356"N	104°36'36.611"W	1.17	
5194.00	10.060	240.560	5161.05	-247.37	-260.07	-262.69	40°11'20.268"N	104°36'36.790"W	1.41	
5289.00	10.170	246.510	5254.58	-254.08	-267.49	-277.61	40°11'20.196"N	104°36'36.983"W	1.11	
5384.00	10.210	246.180	5348.08	-260.09	-274.23	-293.00	40°11'20.131"N	104°36'37.183"W	0.07	
5479.00	10.210	237.960	5441.58	-267.25	-282.10	-307.84	40°11'20.055"N	104°36'37.375"W	1.53	
5573.00	10.190	236.560	5534.09	-275.58	-291.10	-321.84	40°11'19.967"N	104°36'37.556"W	0.26	



Actual Wellpath Report

EMMY STATE H25-744 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5668.00	10.200	242.240	5627.60	-283.44	-299.65	-336.30	40°11'19.884"N	104°36'37.744"W	1.06	
5763.00	9.700	243.370	5721.17	-290.24	-307.15	-350.90	40°11'19.812"N	104°36'37.933"W	0.56	
5857.00	10.410	246.090	5813.72	-296.53	-314.14	-365.74	40°11'19.744"N	104°36'38.125"W	0.91	
5952.00	10.350	238.900	5907.17	-303.69	-322.03	-380.89	40°11'19.668"N	104°36'38.321"W	1.36	
6046.00	10.350	232.910	5999.65	-312.47	-331.49	-394.86	40°11'19.576"N	104°36'38.502"W	1.14	
6141.00	10.240	227.570	6093.12	-322.69	-342.33	-407.90	40°11'19.470"N	104°36'38.672"W	1.01	
6235.00	10.300	224.190	6185.61	-333.77	-353.99	-419.92	40°11'19.356"N	104°36'38.828"W	0.64	
6330.00	7.900	272.760	6279.54	-338.96	-359.78	-432.38	40°11'19.300"N	104°36'38.990"W	8.18	
6424.00	13.710	309.500	6371.93	-330.85	-352.37	-447.46	40°11'19.374"N	104°36'39.183"W	9.30	
6519.00	18.360	337.470	6463.35	-309.17	-331.34	-461.91	40°11'19.584"N	104°36'39.366"W	9.36	
6613.00	25.950	347.970	6550.38	-274.88	-297.49	-471.89	40°11'19.919"N	104°36'39.491"W	9.08	
6708.00	34.030	359.650	6632.66	-227.69	-250.46	-476.39	40°11'20.384"N	104°36'39.543"W	10.46	
6802.00	44.780	4.110	6705.20	-168.35	-190.95	-474.17	40°11'20.972"N	104°36'39.506"W	11.82	
6897.00	53.040	5.520	6767.59	-97.44	-119.68	-468.12	40°11'21.676"N	104°36'39.419"W	8.77	
6991.00	61.290	358.070	6818.56	-18.84	-40.88	-465.88	40°11'22.454"N	104°36'39.380"W	11.01	
7086.00	71.640	356.900	6856.44	68.14	46.01	-469.74	40°11'23.313"N	104°36'39.418"W	10.95	
7181.00	77.960	358.400	6881.34	159.76	137.56	-473.48	40°11'24.218"N	104°36'39.455"W	6.82	
7275.00	83.860	0.530	6896.19	252.47	230.33	-474.33	40°11'25.135"N	104°36'39.454"W	6.66	
7370.00	89.850	1.490	6901.40	347.08	325.13	-472.65	40°11'26.072"N	104°36'39.420"W	6.39	
7464.00	90.030	359.910	6901.50	440.91	419.12	-471.51	40°11'27.000"N	104°36'39.393"W	1.69	
7559.00	90.220	358.630	6901.29	535.85	514.11	-472.72	40°11'27.939"N	104°36'39.396"W	1.36	
7654.00	90.090	358.640	6901.03	630.83	609.08	-474.98	40°11'28.878"N	104°36'39.413"W	0.14	
7748.00	90.180	358.570	6900.81	724.80	703.05	-477.27	40°11'29.807"N	104°36'39.431"W	0.12	
7843.00	90.090	358.100	6900.59	819.78	798.01	-480.03	40°11'30.745"N	104°36'39.454"W	0.50	
7937.00	90.220	357.830	6900.33	913.78	891.95	-483.37	40°11'31.674"N	104°36'39.485"W	0.32	
8032.00	90.120	357.490	6900.05	1008.77	986.87	-487.24	40°11'32.612"N	104°36'39.523"W	0.37	
8127.00	90.120	356.910	6899.85	1103.77	1081.76	-491.88	40°11'33.550"N	104°36'39.570"W	0.61	
8221.00	90.180	356.980	6899.60	1197.77	1175.62	-496.89	40°11'34.478"N	104°36'39.622"W	0.10	
8316.00	90.150	357.170	6899.33	1292.77	1270.50	-501.74	40°11'35.416"N	104°36'39.673"W	0.20	
8410.00	90.100	356.710	6899.13	1386.77	1364.37	-506.76	40°11'36.344"N	104°36'39.725"W	0.49	



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Page 5 of 9



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Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8505.00	89.910	357.130	6899.12	1481.77	1459.23	-511.86	40°11'37.282"N	104°36'39.779"W	0.49	
8599.00	89.850	358.190	6899.31	1575.76	1553.15	-515.70	40°11'38.211"N	104°36'39.816"W	1.13	
8694.00	89.820	0.840	6899.59	1670.68	1648.14	-516.51	40°11'39.149"N	104°36'39.814"W	2.79	
8789.00	89.880	1.430	6899.84	1765.47	1743.12	-514.62	40°11'40.088"N	104°36'39.778"W	0.62	
8883.00	89.880	2.620	6900.03	1859.15	1837.06	-511.30	40°11'41.016"N	104°36'39.723"W	1.27	
8978.00	89.880	4.960	6900.23	1953.53	1931.84	-505.02	40°11'41.952"N	104°36'39.630"W	2.46	
9072.00	89.970	6.430	6900.36	2046.52	2025.37	-495.70	40°11'42.875"N	104°36'39.497"W	1.57	
9167.00	89.970	4.640	6900.41	2140.53	2119.93	-486.53	40°11'43.808"N	104°36'39.367"W	1.88	
9262.00	89.940	3.260	6900.48	2234.89	2214.70	-479.99	40°11'44.744"N	104°36'39.270"W	1.45	
9356.00	89.880	0.390	6900.63	2328.59	2308.64	-477.00	40°11'45.672"N	104°36'39.220"W	3.05	
9451.00	90.030	0.650	6900.70	2423.44	2403.64	-476.13	40°11'46.611"N	104°36'39.196"W	0.32	
9545.00	89.880	359.240	6900.78	2517.33	2497.64	-476.22	40°11'47.540"N	104°36'39.185"W	1.51	
9640.00	89.910	356.630	6900.95	2612.32	2592.57	-479.65	40°11'48.478"N	104°36'39.217"W	2.75	
9734.00	89.540	355.870	6901.40	2706.30	2686.36	-485.80	40°11'49.405"N	104°36'39.284"W	0.90	
9829.00	89.270	355.880	6902.39	2801.27	2781.11	-492.63	40°11'50.342"N	104°36'39.360"W	0.28	
9924.00	89.300	356.440	6903.57	2896.24	2875.89	-498.99	40°11'51.280"N	104°36'39.430"W	0.59	
10018.00	89.200	354.080	6904.80	2990.17	2969.55	-506.76	40°11'52.206"N	104°36'39.518"W	2.51	
10113.00	89.300	354.620	6906.05	3085.03	3064.08	-516.11	40°11'53.141"N	104°36'39.626"W	0.58	
10208.00	89.260	358.350	6907.24	3180.00	3158.88	-521.93	40°11'54.078"N	104°36'39.689"W	3.93	
10302.00	89.330	359.290	6908.40	3273.96	3252.85	-523.87	40°11'55.007"N	104°36'39.702"W	1.00	
10397.00	89.330	0.190	6909.51	3368.86	3347.84	-524.30	40°11'55.946"N	104°36'39.695"W	0.95	
10491.00	89.420	1.490	6910.53	3462.68	3441.83	-522.92	40°11'56.874"N	104°36'39.665"W	1.39	
10586.00	89.360	2.260	6911.55	3557.37	3536.77	-519.81	40°11'57.812"N	104°36'39.613"W	0.81	
10680.00	89.450	3.070	6912.52	3650.95	3630.66	-515.44	40°11'58.739"N	104°36'39.544"W	0.87	
10775.00	89.390	2.620	6913.48	3745.50	3725.54	-510.73	40°11'59.677"N	104°36'39.471"W	0.48	
10870.00	89.420	2.670	6914.47	3840.08	3820.43	-506.34	40°12'00.614"N	104°36'39.403"W	0.06	
10964.00	89.300	3.220	6915.52	3933.62	3914.30	-501.51	40°12'01.541"N	104°36'39.328"W	0.60	
11059.00	89.260	2.510	6916.71	4028.16	4009.18	-496.77	40°12'02.478"N	104°36'39.255"W	0.75	
11154.00	89.480	1.320	6917.76	4122.84	4104.12	-493.59	40°12'03.416"N	104°36'39.202"W	1.27	
11248.00	89.820	1.930	6918.33	4216.57	4198.08	-490.93	40°12'04.344"N	104°36'39.155"W	0.74	





Actual Wellpath Report

EMMY STATE H25-744 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11343.00	90.000	7.570	6918.48	4310.73	4292.71	-483.06	40°12'05.278"N	104°36'39.041"W	5.94	
11437.00	90.370	10.760	6918.18	4402.71	4385.50	-468.09	40°12'06.194"N	104°36'38.837"W	3.42	
11532.00	89.360	7.230	6918.40	4495.72	4479.31	-453.24	40°12'07.119"N	104°36'38.633"W	3.86	
11626.00	89.230	0.660	6919.56	4589.03	4573.03	-446.78	40°12'08.045"N	104°36'38.538"W	6.99	
11721.00	89.260	0.650	6920.81	4683.85	4668.02	-445.69	40°12'08.983"N	104°36'38.511"W	0.03	
11815.00	89.230	358.170	6922.05	4777.77	4762.00	-446.66	40°12'09.912"N	104°36'38.512"W	2.64	
11910.00	89.970	358.410	6922.71	4872.76	4856.95	-449.50	40°12'10.851"N	104°36'38.536"W	0.82	
12005.00	90.130	359.830	6922.63	4967.71	4951.94	-450.95	40°12'11.789"N	104°36'38.543"W	1.50	
12099.00	89.260	359.540	6923.13	5061.62	5045.93	-451.47	40°12'12.718"N	104°36'38.537"W	0.98	
12194.00	89.260	356.740	6924.36	5156.59	5140.87	-454.55	40°12'13.657"N	104°36'38.564"W	2.95	
12289.00	89.140	354.280	6925.69	5251.53	5235.56	-461.99	40°12'14.593"N	104°36'38.648"W	2.59	
12383.00	89.020	353.050	6927.19	5345.33	5328.97	-472.36	40°12'15.517"N	104°36'38.770"W	1.31	
12477.00	89.170	350.770	6928.68	5438.90	5422.02	-485.59	40°12'16.438"N	104°36'38.928"W	2.43	
12572.00	89.170	353.670	6930.06	5533.50	5516.12	-498.44	40°12'17.369"N	104°36'39.082"W	3.05	
12667.00	89.140	355.720	6931.46	5628.39	5610.70	-507.23	40°12'18.304"N	104°36'39.183"W	2.16	
12761.00	89.230	358.610	6932.79	5722.37	5704.57	-511.87	40°12'19.232"N	104°36'39.230"W	3.08	
12856.00	89.020	2.000	6934.25	5817.22	5799.54	-511.37	40°12'20.171"N	104°36'39.212"W	3.57	
12950.00	89.200	4.250	6935.71	5910.71	5893.38	-506.24	40°12'21.098"N	104°36'39.133"W	2.40	
13045.00	89.110	5.660	6937.11	6004.85	5988.02	-498.04	40°12'22.032"N	104°36'39.015"W	1.49	
13140.00	89.330	5.440	6938.40	6098.86	6082.56	-488.85	40°12'22.965"N	104°36'38.885"W	0.33	
13234.00	89.300	5.310	6939.52	6191.92	6176.14	-480.05	40°12'23.889"N	104°36'38.759"W	0.14	
13329.00	89.200	3.890	6940.77	6286.14	6270.82	-472.43	40°12'24.824"N	104°36'38.649"W	1.50	
13423.00	89.260	2.680	6942.03	6379.61	6364.66	-467.04	40°12'25.751"N	104°36'38.567"W	1.29	
13518.00	89.170	0.800	6943.33	6474.31	6459.60	-464.16	40°12'26.689"N	104°36'38.518"W	1.98	
13612.00	89.540	0.480	6944.39	6568.15	6553.59	-463.11	40°12'27.617"N	104°36'38.492"W	0.52	
13707.00	89.450	359.620	6945.23	6663.03	6648.59	-463.03	40°12'28.556"N	104°36'38.479"W	0.91	
13801.00	89.940	358.850	6945.73	6756.98	6742.58	-464.28	40°12'29.485"N	104°36'38.483"W	0.97	
13896.00	90.100	357.020	6945.70	6851.97	6837.51	-467.71	40°12'30.423"N	104°36'38.515"W	1.93	
13990.00	90.060	357.150	6945.56	6945.97	6931.39	-472.49	40°12'31.351"N	104°36'38.564"W	0.14	
14085.00	90.100	357.330	6945.43	7040.97	7026.28	-477.06	40°12'32.289"N	104°36'38.611"W	0.19	



Actual Wellpath Report  
EMMY STATE H25-744 AWP  
Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14179.00	90.430	359.400	6945.00	7134.94	7120.23	-479.74	40°12'33.218"N	104°36'38.633"W	2.23	
14274.00	90.030	359.800	6944.62	7229.86	7215.23	-480.41	40°12'34.157"N	104°36'38.630"W	0.60	
14368.00	90.030	358.930	6944.57	7323.80	7309.22	-481.45	40°12'35.086"N	104°36'38.631"W	0.93	
14463.00	89.850	358.890	6944.67	7418.76	7404.21	-483.25	40°12'36.024"N	104°36'38.642"W	0.19	
14557.00	89.850	359.050	6944.91	7512.72	7498.19	-484.94	40°12'36.953"N	104°36'38.651"W	0.17	
14652.00	89.970	359.070	6945.06	7607.68	7593.18	-486.50	40°12'37.892"N	104°36'38.659"W	0.13	
14746.00	90.000	359.270	6945.09	7701.63	7687.17	-487.86	40°12'38.821"N	104°36'38.665"W	0.22	
14841.00	89.970	359.540	6945.11	7796.56	7782.16	-488.85	40°12'39.760"N	104°36'38.665"W	0.29	
14936.00	90.030	359.530	6945.11	7891.49	7877.16	-489.62	40°12'40.699"N	104°36'38.663"W	0.06	
15030.00	90.060	359.480	6945.04	7985.42	7971.16	-490.43	40°12'41.627"N	104°36'38.661"W	0.06	
15125.00	90.030	359.780	6944.96	8080.34	8066.15	-491.05	40°12'42.566"N	104°36'38.657"W	0.32	
15219.00	89.970	0.160	6944.96	8174.24	8160.15	-491.10	40°12'43.495"N	104°36'38.645"W	0.41	
15314.00	89.970	0.430	6945.01	8269.11	8255.15	-490.61	40°12'44.434"N	104°36'38.627"W	0.28	
15409.00	90.060	0.910	6944.99	8363.94	8350.15	-489.50	40°12'45.372"N	104°36'38.600"W	0.51	
15503.00	90.000	1.240	6944.94	8457.74	8444.13	-487.73	40°12'46.301"N	104°36'38.565"W	0.36	
15598.00	89.940	1.840	6944.99	8552.48	8539.09	-485.18	40°12'47.239"N	104°36'38.520"W	0.63	
15692.00	90.340	2.030	6944.76	8646.17	8633.04	-482.01	40°12'48.167"N	104°36'38.467"W	0.47	
15787.00	90.130	2.170	6944.37	8740.83	8727.97	-478.53	40°12'49.105"N	104°36'38.410"W	0.27	
15881.00	90.930	3.050	6943.50	8834.42	8821.87	-474.25	40°12'50.032"N	104°36'38.342"W	1.27	
15976.00	90.190	2.860	6942.57	8928.96	8916.74	-469.35	40°12'50.969"N	104°36'38.267"W	0.80	
16070.00	90.280	3.320	6942.18	9022.47	9010.60	-464.28	40°12'51.896"N	104°36'38.190"W	0.50	
16165.00	90.740	4.040	6941.34	9116.88	9105.40	-458.18	40°12'52.832"N	104°36'38.099"W	0.90	
16259.00	89.910	4.090	6940.81	9210.22	9199.16	-451.52	40°12'53.758"N	104°36'38.001"W	0.88	
16354.00	89.700	2.980	6941.13	9304.66	9293.98	-445.66	40°12'54.694"N	104°36'37.913"W	1.19	
16449.00	89.790	1.240	6941.55	9399.32	9388.91	-442.17	40°12'55.632"N	104°36'37.856"W	1.83	
16543.00	89.630	358.930	6942.03	9493.20	9482.90	-442.03	40°12'56.561"N	104°36'37.842"W	2.46	
16637.00	90.000	359.400	6942.33	9587.15	9576.89	-443.40	40°12'57.490"N	104°36'37.847"W	0.64	
16732.00	89.660	357.060	6942.61	9682.13	9671.84	-446.33	40°12'58.428"N	104°36'37.873"W	2.49	
16827.00	89.760	355.780	6943.09	9777.11	9766.65	-452.26	40°12'59.366"N	104°36'37.937"W	1.35	
16921.00	89.790	355.270	6943.46	9871.07	9860.36	-459.60	40°13'00.293"N	104°36'38.019"W	0.54	





Actual Wellpath Report  
EMMY STATE H25-744 AWP  
Page 8 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17016.00	89.730	355.690	6943.86	9966.02	9955.07	-467.08	40°13'01.229"N	104°36'38.104"W	0.45	
17111.00	89.820	356.480	6944.23	10061.00	10049.84	-473.57	40°13'02.166"N	104°36'38.175"W	0.84	
17205.00	89.760	356.730	6944.58	10154.99	10143.68	-479.14	40°13'03.094"N	104°36'38.235"W	0.27	
17229.00	89.760	357.020	6944.68	10178.99	10167.64	-480.44	40°13'03.331"N	104°36'38.248"W	1.21	Last BHI MWD Survey
17254.00	89.760	357.020	6944.78	10203.99	10192.61	-481.74	40°13'03.578"N	104°36'38.262"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: EMMY STATE H25-744 AWB      Ref Wellpath: EMMY STATE H25-744 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	1945.00	1915.00	30.00	1944.97	0.02	-0.01	0.05	4.34
9.625in Casing Surface	30.00	1945.00	1915.00	30.00	1944.97	0.02	-0.01	0.05	4.34
8.5in Open Hole	1945.00	17229.00	15284.00	1944.97	6944.68	0.05	4.34	10167.64	-480.44

WELLPATH COMPOSITION - Ref Wellbore: EMMY STATE H25-744 AWB    Ref Wellpath: EMMY STATE H25-744 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1941.00	Gyrodata standard - Drop gyro or Multi-shot	3rd Party Surface Gyros	EMMY STATE H25-744 AWB
1941.00	17229.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" OWSG MWD rev2+IFR+MSA <1978'-17229'>	EMMY STATE H25-744 AWB
17229.00	17254.00	Blind Drilling (std)	Projection to bit	EMMY STATE H25-744 AWB



Actual Wellpath Report  
EMMY STATE H25-744 AWP  
Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 EMMY STATE H25-744(285'FSL&1805'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-744
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-744 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1941.00	0.600	357.910	1940.97	Tie to Surface
17229.00	89.760	357.020	6944.68	Last BHI MWD Survey
17254.00	89.760	357.020	6944.78	Projection to Bit