

NOBLE ENERGY, INC



Location:	COLORADO	Slot:	SLOT#18 GIG-EM STATE Y9-740 (595°FNL&997°FEL,SEC.16)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	GIG-EM STATE Y9-740
Facility:	SEC.16-T02N-R64W	Wellbore:	GIG-EM STATE Y9-740 PWB

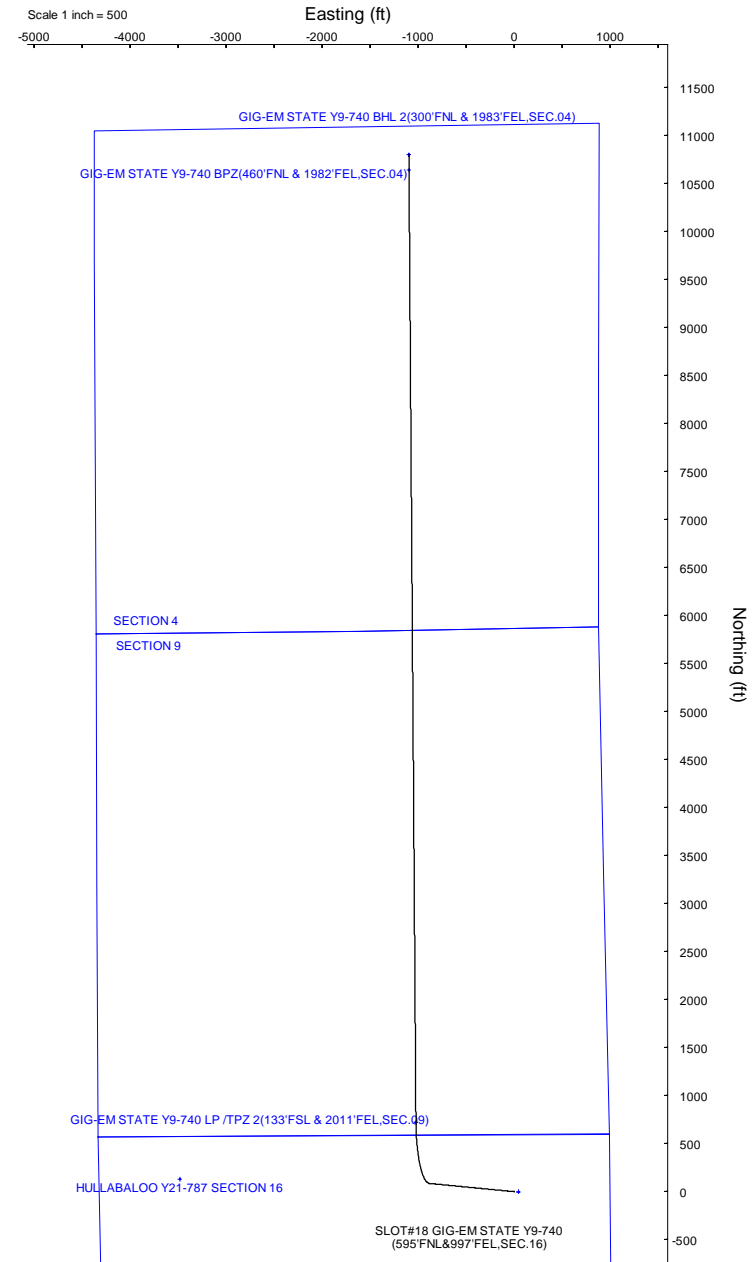
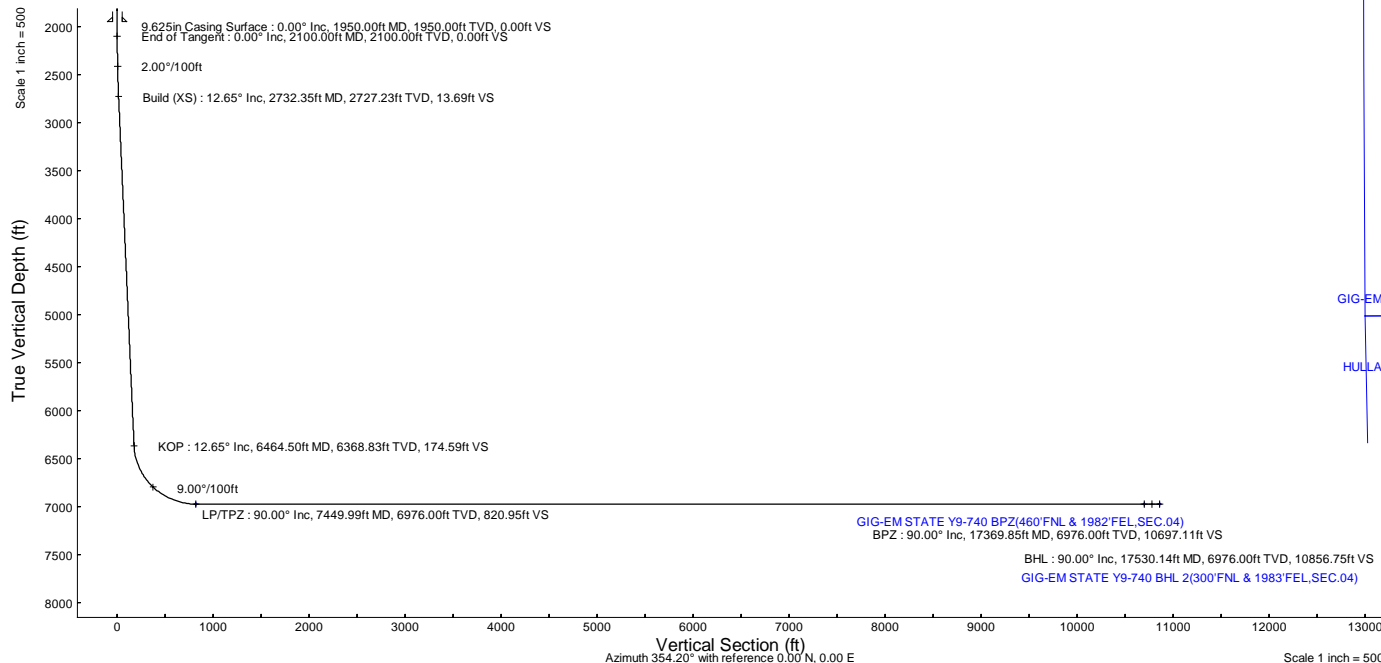
Plot reference wellpath is GIG-EM STATE Y9-740 (REV-B.0) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig(30°KB) (RKB)		North Reference: Grid north
Reference wellpath measured depths are referenced to Rig(30°KB) (RKB)		Scale: True distance
Rig(30°KB) (RKB) to Mean Sea Level: 4973 feet		Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595°FNL&997°FEL,SEC.16)): 0 feet		Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum		Created by: guanaler on 2022-05-03; Database: WA, Denver

Location Information					
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude
SEC.16-T02N-R64W			3261942.561	1296894.275	40°08'40.4520"N
Slot			Grid East (US ft)	Grid North (US ft)	Latitude
SLOT#18 GIG-EM STATE Y9-740 (595°FNL&997°FEL,SEC.16)	Local N (ft)	Local E (ft)	3265424.676	1296763.737	40°08'38.7960"N
Rig(30°KB) (RKB) to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595°FNL&997°FEL,SEC.16))			4973ft		
Mean Sea Level to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595°FNL&997°FEL,SEC.16))			0ft		
Rig(30°KB) (RKB) to Mean Sea Level			4973ft		

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SHL	30.00	0.000	275.560	30.00	0.00	0.00	0.00	0.00
End of Tangent	2100.00	0.000	275.560	2100.00	0.00	0.00	0.00	0.00
Build (XS)	2732.35	12.647	275.560	2727.23	6.73	-69.18	2.00	13.69
KOP	6464.50	12.647	275.560	6368.83	85.90	-882.47	0.00	174.59
LP/TPZ	7449.99	90.000	359.583	6976.00	721.35	-1022.60	9.00	820.95
BPZ	17369.85	90.000	359.583	6976.00	10640.94	-1094.88	0.00	10697.11
BHL	17530.14	90.000	359.195	6976.00	10801.22	-1096.59	0.24	10856.75

Targets								
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Rubicon State Y16-718 SECTION 4	N/A	-3.00	-1.41	44.35	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
Rubicon State Y16-718 SECTION 9	N/A	-3.00	-1.41	44.35	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
HULLABALOO Y21-787 SECTION 16	N/A	60.00	130.54	-3482.27	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W
GIG-EM STATE Y9-740 BHL (300°FNL & 1983°FEL,SEC.04)	N/A	6976.00	10800.66	-1097.25	3264327.47	1307563.93	40°10'25.6385"W	104°33'14.6246"W
GIG-EM STATE Y9-740 BHL 2(300°FNL & 1983°FEL,SEC.04)	17530.14	6976.00	10801.22	-1096.59	3264328.14	1307564.49	40°10'25.6440"W	104°33'14.6160"W
GIG-EM STATE Y9-740 BPZ(460°FNL & 1982°FEL,SEC.04)	17369.85	6976.00	10640.94	-1094.88	3264328.85	1307404.22	40°10'24.0600"N	104°33'14.6160"W
GIG-EM STATE Y9-740 LP /TPZ (133°FSL & 2011°FEL,SEC.09)	7449.99	6976.00	720.66	-1023.16	3264401.56	1297484.37	40°08'46.0253"N	104°33'15.0553"W
GIG-EM STATE Y9-740 LP /TPZ 2(133°FSL & 2011°FEL,SEC.09)	7449.99	6976.00	721.35	-1022.60	3264402.12	1297485.05	40°08'46.0320"N	104°33'15.0480"W

Bottom Hole Location								
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
17530.14	90.000	359.195	6976.00	10801.22	-1096.59	3264328.14	1307564.49	40°10'25.6440"N





Planned Wellpath Report

GIG-EM STATE Y9-740 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999959	Report Generated	5/3/2022 at 2:25:09 PM
Convergence at slot	0.61° East	Database	WA_Denver

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-130.54	3482.27	3265424.68	1296763.74	40°08'38.7960"N	104°33'1.9800"W
Facility Reference Pt			3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.3150"N	105°30'0.0000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig(30'KB) (RKB) to Facility Vertical Datum	4973.00ft
Horizontal Reference Pt	Slot	Rig(30'KB) (RKB) to Mean Sea Level	4973.00ft
Vertical Reference Pt	Rig(30'KB) (RKB)	Rig(30'KB) (RKB) to Ground Level at Slot (SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16))	4973.00ft
MD Reference Pt	Rig(30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	354.20°



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

WELLPATH DATA (183 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	275.560	0.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
30.00	0.000	275.560	30.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	SHL
130.00†	0.000	275.560	130.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
230.00†	0.000	275.560	230.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
330.00†	0.000	275.560	330.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
430.00†	0.000	275.560	430.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
530.00†	0.000	275.560	530.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
630.00†	0.000	275.560	630.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
730.00†	0.000	275.560	730.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
830.00†	0.000	275.560	830.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
930.00†	0.000	275.560	930.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1030.00†	0.000	275.560	1030.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1130.00†	0.000	275.560	1130.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1230.00†	0.000	275.560	1230.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1330.00†	0.000	275.560	1330.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1430.00†	0.000	275.560	1430.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1530.00†	0.000	275.560	1530.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1630.00†	0.000	275.560	1630.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1730.00†	0.000	275.560	1730.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1830.00†	0.000	275.560	1830.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
1930.00†	0.000	275.560	1930.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
2030.00†	0.000	275.560	2030.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	
2100.00	0.000	275.560	2100.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'1.9800"W	0.00	End of Tangent
2130.00†	0.600	275.560	2130.00	0.03	0.02	-0.16	40°08'38.7962"N	104°33'1.9820"W	2.00	
2230.00†	2.600	275.560	2229.96	0.58	0.29	-2.94	40°08'38.7991"N	104°33'2.0178"W	2.00	
2330.00†	4.600	275.560	2329.75	1.82	0.89	-9.18	40°08'38.8058"N	104°33'2.0981"W	2.00	
2430.00†	6.600	275.560	2429.27	3.74	1.84	-18.90	40°08'38.8162"N	104°33'2.2231"W	2.00	
2530.00†	8.600	275.560	2528.39	6.34	3.12	-32.06	40°08'38.8302"N	104°33'2.3924"W	2.00	
2630.00†	10.600	275.560	2626.98	9.63	4.74	-48.66	40°08'38.8479"N	104°33'2.6059"W	2.00	
2730.00†	12.600	275.560	2724.93	13.59	6.68	-68.67	40°08'38.8693"N	104°33'2.8633"W	2.00	
2732.35	12.647	275.560	2727.23	13.69	6.73	-69.18	40°08'38.8699"N	104°33'2.8698"W	2.00	Build (XS)
2830.00†	12.647	275.560	2822.51	17.90	8.81	-90.46	40°08'38.8926"N	104°33'3.1435"W	0.00	
2930.00†	12.647	275.560	2920.08	22.21	10.93	-112.25	40°08'38.9158"N	104°33'3.4238"W	0.00	
3030.00†	12.647	275.560	3017.66	26.52	13.05	-134.04	40°08'38.9391"N	104°33'3.7041"W	0.00	
3130.00†	12.647	275.560	3115.23	30.83	15.17	-155.83	40°08'38.9624"N	104°33'3.9844"W	0.00	
3230.00†	12.647	275.560	3212.80	35.14	17.29	-177.63	40°08'38.9856"N	104°33'4.2647"W	0.00	
3330.00†	12.647	275.560	3310.38	39.45	19.41	-199.42	40°08'39.0089"N	104°33'4.5450"W	0.00	
3430.00†	12.647	275.560	3407.95	43.76	21.53	-221.21	40°08'39.0322"N	104°33'4.8253"W	0.00	
3530.00†	12.647	275.560	3505.52	48.08	23.65	-243.00	40°08'39.0554"N	104°33'5.1056"W	0.00	
3630.00†	12.647	275.560	3603.10	52.39	25.77	-264.79	40°08'39.0787"N	104°33'5.3859"W	0.00	
3730.00†	12.647	275.560	3700.67	56.70	27.90	-286.58	40°08'39.1020"N	104°33'5.6662"W	0.00	
3830.00†	12.647	275.560	3798.25	61.01	30.02	-308.37	40°08'39.1252"N	104°33'5.9465"W	0.00	
3930.00†	12.647	275.560	3895.82	65.32	32.14	-330.17	40°08'39.1485"N	104°33'6.2268"W	0.00	
4030.00†	12.647	275.560	3993.39	69.63	34.26	-351.96	40°08'39.1717"N	104°33'6.5071"W	0.00	
4130.00†	12.647	275.560	4090.97	73.94	36.38	-373.75	40°08'39.1950"N	104°33'6.7874"W	0.00	



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

WELLPATH DATA (183 stations) † = interpolated, ‡ = extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude		Longitude		DLS [°/100ft]	Comments
4230.00†	12.647	275.560	4188.54	78.26	38.50	-395.54	40°08'39.2183"N		104°33'7.0677"W		0.00	
4330.00†	12.647	275.560	4286.11	82.57	40.62	-417.33	40°08'39.2415"N		104°33'7.3480"W		0.00	
4430.00†	12.647	275.560	4383.69	86.88	42.74	-439.12	40°08'39.2648"N		104°33'7.6283"W		0.00	
4530.00†	12.647	275.560	4481.26	91.19	44.86	-460.91	40°08'39.2881"N		104°33'7.9086"W		0.00	
4630.00†	12.647	275.560	4578.84	95.50	46.99	-482.71	40°08'39.3113"N		104°33'8.1889"W		0.00	
4730.00†	12.647	275.560	4676.41	99.81	49.11	-504.50	40°08'39.3346"N		104°33'8.4691"W		0.00	
4830.00†	12.647	275.560	4773.98	104.12	51.23	-526.29	40°08'39.3578"N		104°33'8.7494"W		0.00	
4930.00†	12.647	275.560	4871.56	108.43	53.35	-548.08	40°08'39.3811"N		104°33'9.0297"W		0.00	
5030.00†	12.647	275.560	4969.13	112.75	55.47	-569.87	40°08'39.4044"N		104°33'9.3100"W		0.00	
5130.00†	12.647	275.560	5066.70	117.06	57.59	-591.66	40°08'39.4276"N		104°33'9.5903"W		0.00	
5230.00†	12.647	275.560	5164.28	121.37	59.71	-613.45	40°08'39.4509"N		104°33'9.8706"W		0.00	
5330.00†	12.647	275.560	5261.85	125.68	61.83	-635.25	40°08'39.4741"N		104°33'10.1509"W		0.00	
5430.00†	12.647	275.560	5359.43	129.99	63.95	-657.04	40°08'39.4974"N		104°33'10.4312"W		0.00	
5530.00†	12.647	275.560	5457.00	134.30	66.08	-678.83	40°08'39.5207"N		104°33'10.7115"W		0.00	
5630.00†	12.647	275.560	5554.57	138.61	68.20	-700.62	40°08'39.5439"N		104°33'10.9918"W		0.00	
5730.00†	12.647	275.560	5652.15	142.93	70.32	-722.41	40°08'39.5672"N		104°33'11.2721"W		0.00	
5830.00†	12.647	275.560	5749.72	147.24	72.44	-744.20	40°08'39.5904"N		104°33'11.5524"W		0.00	
5930.00†	12.647	275.560	5847.29	151.55	74.56	-765.99	40°08'39.6137"N		104°33'11.8327"W		0.00	
6030.00†	12.647	275.560	5944.87	155.86	76.68	-787.79	40°08'39.6370"N		104°33'12.1130"W		0.00	
6130.00†	12.647	275.560	6042.44	160.17	78.80	-809.58	40°08'39.6602"N		104°33'12.3933"W		0.00	
6230.00†	12.647	275.560	6140.02	164.48	80.92	-831.37	40°08'39.6835"N		104°33'12.6736"W		0.00	
6330.00†	12.647	275.560	6237.59	168.79	83.04	-853.16	40°08'39.7067"N		104°33'12.9539"W		0.00	
6430.00†	12.647	275.560	6335.16	173.10	85.17	-874.95	40°08'39.7300"N		104°33'13.2342"W		0.00	
6464.50	12.647	275.560	6368.83	174.59	85.90	-882.47	40°08'39.7380"N		104°33'13.3309"W		0.00	KOP
6530.00†	14.467	299.699	6432.55	180.76	90.65	-896.73	40°08'39.7865"N		104°33'13.5138"W		9.00	
6630.00†	20.408	322.725	6528.02	202.93	110.75	-918.18	40°08'39.9874"N		104°33'13.7873"W		9.00	
6730.00†	27.982	334.745	6619.23	239.99	145.92	-938.79	40°08'40.3370"N		104°33'14.0478"W		9.00	
6830.00†	36.175	341.813	6703.92	291.04	195.27	-958.05	40°08'40.8268"N		104°33'14.2890"W		9.00	
6930.00†	44.647	346.524	6780.01	354.82	257.61	-975.48	40°08'41.4446"N		104°33'14.5050"W		9.00	
7030.00†	53.260	349.993	6845.62	429.76	331.39	-990.67	40°08'42.1753"N		104°33'14.6903"W		9.00	
7130.00†	61.954	352.755	6899.15	514.01	414.80	-1003.22	40°08'43.0008"N		104°33'14.8405"W		9.00	
7230.00†	70.695	355.099	6939.27	605.49	505.78	-1012.84	40°08'43.9008"N		104°33'14.9518"W		9.00	
7330.00†	79.463	357.204	6965.00	701.96	602.09	-1019.28	40°08'44.8532"N		104°33'15.0216"W		9.00	
7430.00†	88.244	359.191	6975.69	801.04	701.36	-1022.39	40°08'45.8345"N		104°33'15.0480"W		9.00	
7449.99	90.000	359.583	6976.00†	820.95	721.35	-1022.60	40°08'46.0320"N		104°33'15.0480"W		9.00	LP/TPZ
7530.00†	90.000	359.583	6976.00	900.61	801.36	-1023.19	40°08'46.8227"N		104°33'15.0445"W		0.00	
7630.00†	90.000	359.583	6976.00	1000.17	901.35	-1023.92	40°08'47.8109"N		104°33'15.0402"W		0.00	
7730.00†	90.000	359.583	6976.00	1099.72	1001.35	-1024.64	40°08'48.7991"N		104°33'15.0358"W		0.00	
7830.00†	90.000	359.583	6976.00	1199.28	1101.35	-1025.37	40°08'49.7873"N		104°33'15.0315"W		0.00	
7930.00†	90.000	359.583	6976.00	1298.84	1201.35	-1026.10	40°08'50.7755"N		104°33'15.0271"W		0.00	
8030.00†	90.000	359.583	6976.00	1398.40	1301.34	-1026.83	40°08'51.7637"N		104°33'15.0228"W		0.00	
8130.00†	90.000	359.583	6976.00	1497.96	1401.34	-1027.56	40°08'52.7519"N		104°33'15.0184"W		0.00	
8230.00†	90.000	359.583	6976.00	1597.52	1501.34	-1028.29	40°08'53.7401"N		104°33'15.0140"W		0.00	
8330.00†	90.000	359.583	6976.00	1697.08	1601.34	-1029.02	40°08'54.7283"N		104°33'15.0097"W		0.00	
8430.00†	90.000	359.583	6976.00	1796.64	1701.33	-1029.74	40°08'55.7165"N		104°33'15.0053"W		0.00	



Planned Wellpath Report
GIG-EM STATE Y9-740 (REV-B.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

WELLPATH DATA (183 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8530.00†	90.000	359.583	6976.00	1896.20	1801.33	-1030.47	40°08'56.7047"N	104°33'15.0010"W	0.00	
8630.00†	90.000	359.583	6976.00	1995.76	1901.33	-1031.20	40°08'57.6929"N	104°33'14.9966"W	0.00	
8730.00†	90.000	359.583	6976.00	2095.32	2001.32	-1031.93	40°08'58.6811"N	104°33'14.9923"W	0.00	
8830.00†	90.000	359.583	6976.00	2194.88	2101.32	-1032.66	40°08'59.6693"N	104°33'14.9879"W	0.00	
8930.00†	90.000	359.583	6976.00	2294.44	2201.32	-1033.39	40°09'0.6575"N	104°33'14.9836"W	0.00	
9030.00†	90.000	359.583	6976.00	2394.00	2301.32	-1034.12	40°09'1.6457"N	104°33'14.9792"W	0.00	
9130.00†	90.000	359.583	6976.00	2493.56	2401.31	-1034.84	40°09'2.6339"N	104°33'14.9749"W	0.00	
9230.00†	90.000	359.583	6976.00	2593.12	2501.31	-1035.57	40°09'3.6221"N	104°33'14.9705"W	0.00	
9330.00†	90.000	359.583	6976.00	2692.68	2601.31	-1036.30	40°09'4.6103"N	104°33'14.9662"W	0.00	
9430.00†	90.000	359.583	6976.00	2792.24	2701.31	-1037.03	40°09'5.5985"N	104°33'14.9618"W	0.00	
9530.00†	90.000	359.583	6976.00	2891.80	2801.30	-1037.76	40°09'6.5867"N	104°33'14.9574"W	0.00	
9630.00†	90.000	359.583	6976.00	2991.36	2901.30	-1038.49	40°09'7.5749"N	104°33'14.9531"W	0.00	
9730.00†	90.000	359.583	6976.00	3090.92	3001.30	-1039.22	40°09'8.5631"N	104°33'14.9487"W	0.00	
9830.00†	90.000	359.583	6976.00	3190.47	3101.30	-1039.94	40°09'9.5513"N	104°33'14.9444"W	0.00	
9930.00†	90.000	359.583	6976.00	3290.03	3201.29	-1040.67	40°09'10.5395"N	104°33'14.9400"W	0.00	
10030.00†	90.000	359.583	6976.00	3389.59	3301.29	-1041.40	40°09'11.5277"N	104°33'14.9357"W	0.00	
10130.00†	90.000	359.583	6976.00	3489.15	3401.29	-1042.13	40°09'12.5159"N	104°33'14.9313"W	0.00	
10230.00†	90.000	359.583	6976.00	3588.71	3501.28	-1042.86	40°09'13.5041"N	104°33'14.9270"W	0.00	
10330.00†	90.000	359.583	6976.00	3688.27	3601.28	-1043.59	40°09'14.4923"N	104°33'14.9226"W	0.00	
10430.00†	90.000	359.583	6976.00	3787.83	3701.28	-1044.32	40°09'15.4805"N	104°33'14.9183"W	0.00	
10530.00†	90.000	359.583	6976.00	3887.39	3801.28	-1045.04	40°09'16.4687"N	104°33'14.9139"W	0.00	
10630.00†	90.000	359.583	6976.00	3986.95	3901.27	-1045.77	40°09'17.4569"N	104°33'14.9096"W	0.00	
10730.00†	90.000	359.583	6976.00	4086.51	4001.27	-1046.50	40°09'18.4451"N	104°33'14.9052"W	0.00	
10830.00†	90.000	359.583	6976.00	4186.07	4101.27	-1047.23	40°09'19.4333"N	104°33'14.9008"W	0.00	
10930.00†	90.000	359.583	6976.00	4285.63	4201.27	-1047.96	40°09'20.4215"N	104°33'14.8965"W	0.00	
11030.00†	90.000	359.583	6976.00	4385.19	4301.26	-1048.69	40°09'21.4097"N	104°33'14.8921"W	0.00	
11130.00†	90.000	359.583	6976.00	4484.75	4401.26	-1049.42	40°09'22.3979"N	104°33'14.8878"W	0.00	
11230.00†	90.000	359.583	6976.00	4584.31	4501.26	-1050.14	40°09'23.3861"N	104°33'14.8834"W	0.00	
11330.00†	90.000	359.583	6976.00	4683.87	4601.26	-1050.87	40°09'24.3743"N	104°33'14.8791"W	0.00	
11430.00†	90.000	359.583	6976.00	4783.43	4701.25	-1051.60	40°09'25.3625"N	104°33'14.8747"W	0.00	
11530.00†	90.000	359.583	6976.00	4882.99	4801.25	-1052.33	40°09'26.3507"N	104°33'14.8704"W	0.00	
11630.00†	90.000	359.583	6976.00	4982.55	4901.25	-1053.06	40°09'27.3389"N	104°33'14.8660"W	0.00	
11730.00†	90.000	359.583	6976.00	5082.11	5001.25	-1053.79	40°09'28.3271"N	104°33'14.8617"W	0.00	
11830.00†	90.000	359.583	6976.00	5181.67	5101.24	-1054.52	40°09'29.3153"N	104°33'14.8573"W	0.00	
11930.00†	90.000	359.583	6976.00	5281.23	5201.24	-1055.24	40°09'30.3035"N	104°33'14.8529"W	0.00	
12030.00†	90.000	359.583	6976.00	5380.78	5301.24	-1055.97	40°09'31.2917"N	104°33'14.8486"W	0.00	
12130.00†	90.000	359.583	6976.00	5480.34	5401.23	-1056.70	40°09'32.2799"N	104°33'14.8442"W	0.00	
12230.00†	90.000	359.583	6976.00	5579.90	5501.23	-1057.43	40°09'33.2681"N	104°33'14.8399"W	0.00	
12330.00†	90.000	359.583	6976.00	5679.46	5601.23	-1058.16	40°09'34.2563"N	104°33'14.8355"W	0.00	
12430.00†	90.000	359.583	6976.00	5779.02	5701.23	-1058.89	40°09'35.2445"N	104°33'14.8312"W	0.00	
12530.00†	90.000	359.583	6976.00	5878.58	5801.22	-1059.62	40°09'36.2327"N	104°33'14.8268"W	0.00	
12630.00†	90.000	359.583	6976.00	5978.14	5901.22	-1060.34	40°09'37.2209"N	104°33'14.8225"W	0.00	
12730.00†	90.000	359.583	6976.00	6077.70	6001.22	-1061.07	40°09'38.2091"N	104°33'14.8181"W	0.00	
12830.00†	90.000	359.583	6976.00	6177.26	6101.22	-1061.80	40°09'39.1973"N	104°33'14.8137"W	0.00	
12930.00†	90.000	359.583	6976.00	6276.82	6201.21	-1062.53	40°09'40.1855"N	104°33'14.8094"W	0.00	



Planned Wellpath Report
GIG-EM STATE Y9-740 (REV-B.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

WELLPATH DATA (183 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13030.00†	90.000	359.583	6976.00	6376.38	6301.21	-1063.26	40°09'41.1737"N	104°33'14.8050"W	0.00	
13130.00†	90.000	359.583	6976.00	6475.94	6401.21	-1063.99	40°09'42.1619"N	104°33'14.8007"W	0.00	
13230.00†	90.000	359.583	6976.00	6575.50	6501.21	-1064.72	40°09'43.1501"N	104°33'14.7963"W	0.00	
13330.00†	90.000	359.583	6976.00	6675.06	6601.20	-1065.44	40°09'44.1383"N	104°33'14.7920"W	0.00	
13430.00†	90.000	359.583	6976.00	6774.62	6701.20	-1066.17	40°09'45.1265"N	104°33'14.7876"W	0.00	
13530.00†	90.000	359.583	6976.00	6874.18	6801.20	-1066.90	40°09'46.1147"N	104°33'14.7833"W	0.00	
13630.00†	90.000	359.583	6976.00	6973.74	6901.19	-1067.63	40°09'47.1029"N	104°33'14.7789"W	0.00	
13730.00†	90.000	359.583	6976.00	7073.30	7001.19	-1068.36	40°09'48.0911"N	104°33'14.7746"W	0.00	
13830.00†	90.000	359.583	6976.00	7172.86	7101.19	-1069.09	40°09'49.0793"N	104°33'14.7702"W	0.00	
13930.00†	90.000	359.583	6976.00	7272.42	7201.19	-1069.82	40°09'50.0675"N	104°33'14.7658"W	0.00	
14030.00†	90.000	359.583	6976.00	7371.98	7301.18	-1070.54	40°09'51.0557"N	104°33'14.7615"W	0.00	
14130.00†	90.000	359.583	6976.00	7471.54	7401.18	-1071.27	40°09'52.0439"N	104°33'14.7571"W	0.00	
14230.00†	90.000	359.583	6976.00	7571.09	7501.18	-1072.00	40°09'53.0321"N	104°33'14.7528"W	0.00	
14330.00†	90.000	359.583	6976.00	7670.65	7601.18	-1072.73	40°09'54.0203"N	104°33'14.7484"W	0.00	
14430.00†	90.000	359.583	6976.00	7770.21	7701.17	-1073.46	40°09'55.0085"N	104°33'14.7441"W	0.00	
14530.00†	90.000	359.583	6976.00	7869.77	7801.17	-1074.19	40°09'55.9967"N	104°33'14.7397"W	0.00	
14630.00†	90.000	359.583	6976.00	7969.33	7901.17	-1074.92	40°09'56.9849"N	104°33'14.7354"W	0.00	
14730.00†	90.000	359.583	6976.00	8068.89	8001.17	-1075.64	40°09'57.9731"N	104°33'14.7310"W	0.00	
14830.00†	90.000	359.583	6976.00	8168.45	8101.16	-1076.37	40°09'58.9613"N	104°33'14.7266"W	0.00	
14930.00†	90.000	359.583	6976.00	8268.01	8201.16	-1077.10	40°09'59.9495"N	104°33'14.7223"W	0.00	
15030.00†	90.000	359.583	6976.00	8367.57	8301.16	-1077.83	40°10'0.9377"N	104°33'14.7179"W	0.00	
15130.00†	90.000	359.583	6976.00	8467.13	8401.15	-1078.56	40°10'1.9259"N	104°33'14.7136"W	0.00	
15230.00†	90.000	359.583	6976.00	8566.69	8501.15	-1079.29	40°10'2.9141"N	104°33'14.7092"W	0.00	
15330.00†	90.000	359.583	6976.00	8666.25	8601.15	-1080.01	40°10'3.9023"N	104°33'14.7049"W	0.00	
15430.00†	90.000	359.583	6976.00	8765.81	8701.15	-1080.74	40°10'4.8905"N	104°33'14.7005"W	0.00	
15530.00†	90.000	359.583	6976.00	8865.37	8801.14	-1081.47	40°10'5.8787"N	104°33'14.6961"W	0.00	
15630.00†	90.000	359.583	6976.00	8964.93	8901.14	-1082.20	40°10'6.8669"N	104°33'14.6918"W	0.00	
15730.00†	90.000	359.583	6976.00	9064.49	9001.14	-1082.93	40°10'7.8551"N	104°33'14.6874"W	0.00	
15830.00†	90.000	359.583	6976.00	9164.05	9101.14	-1083.66	40°10'8.8433"N	104°33'14.6831"W	0.00	
15930.00†	90.000	359.583	6976.00	9263.61	9201.13	-1084.39	40°10'9.8315"N	104°33'14.6787"W	0.00	
16030.00†	90.000	359.583	6976.00	9363.17	9301.13	-1085.11	40°10'10.8197"N	104°33'14.6744"W	0.00	
16130.00†	90.000	359.583	6976.00	9462.73	9401.13	-1085.84	40°10'11.8079"N	104°33'14.6700"W	0.00	
16230.00†	90.000	359.583	6976.00	9562.29	9501.13	-1086.57	40°10'12.7961"N	104°33'14.6657"W	0.00	
16330.00†	90.000	359.583	6976.00	9661.84	9601.12	-1087.30	40°10'13.7843"N	104°33'14.6613"W	0.00	
16430.00†	90.000	359.583	6976.00	9761.40	9701.12	-1088.03	40°10'14.7725"N	104°33'14.6569"W	0.00	
16530.00†	90.000	359.583	6976.00	9860.96	9801.12	-1088.76	40°10'15.7607"N	104°33'14.6526"W	0.00	
16630.00†	90.000	359.583	6976.00	9960.52	9901.12	-1089.49	40°10'16.7488"N	104°33'14.6482"W	0.00	
16730.00†	90.000	359.583	6976.00	10060.08	10001.11	-1090.21	40°10'17.7370"N	104°33'14.6439"W	0.00	
16830.00†	90.000	359.583	6976.00	10159.64	10101.11	-1090.94	40°10'18.7252"N	104°33'14.6395"W	0.00	
16930.00†	90.000	359.583	6976.00	10259.20	10201.11	-1091.67	40°10'19.7134"N	104°33'14.6352"W	0.00	
17030.00†	90.000	359.583	6976.00	10358.76	10301.10	-1092.40	40°10'20.7016"N	104°33'14.6308"W	0.00	
17130.00†	90.000	359.583	6976.00	10458.32	10401.10	-1093.13	40°10'21.6898"N	104°33'14.6264"W	0.00	
17230.00†	90.000	359.583	6976.00	10557.88	10501.10	-1093.86	40°10'22.6780"N	104°33'14.6221"W	0.00	
17330.00†	90.000	359.583	6976.00	10657.44	10601.10	-1094.59	40°10'23.6662"N	104°33'14.6177"W	0.00	
17369.85	90.000	359.583	6976.00 ²	10697.11	10640.94	-1094.88	40°10'24.0600"N	104°33'14.6160"W	0.00	BPZ



Planned Wellpath Report

GIG-EM STATE Y9-740 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

WELLPATH DATA (183 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17430.00†	90.000	359.437	6976.00	10757.01	10701.09	-1095.39	40°10'24.6544"N	104°33'14.6144"W	0.24	
17530.00†	90.000	359.195	6976.00	10856.61	10801.09	-1096.58	40°10'25.6426"N	104°33'14.6160"W	0.24	
17530.14	90.000	359.195	6976.00 ³	10856.75	10801.22	-1096.59	40°10'25.6440"N	104°33'14.6160"W	0.24	BHL

HOLE & CASING SECTIONS - Ref Wellbore: GIG-EM STATE Y9-740 PWB Ref Wellpath: GIG-EM STATE Y9-740 (REV-B.0) PWP

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	1950.00	1920.00	30.00	1950.00	0.00	0.00	0.00	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Rubicon State Y16-718 SECTION 4	N/A	-3.00	-1.41	44.35	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W	polygon
	2D Polygon: dimensions not calculated								
Rubicon State Y16-718 SECTION 9	N/A	-3.00	-1.41	44.35	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W	polygon
	2D Polygon: dimensions not calculated								
HULLABALOO Y21-787 SECTION 16	N/A	60.00	130.54	-3482.27	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W	polygon
	2D Polygon: dimensions not calculated								
GIG-EM STATE Y9-740 BHL (300'FNL & 1983'FEL,SEC.04)	N/A	6976.00	10800.66	-1097.25	3264327.47	1307563.93	40°10'25.6385"N	104°33'14.6246"W	point
3) GIG-EM STATE Y9-740 BHL 2(300'FNL & 1983'FEL,SEC.04)	17530.14	6976.00	10801.22	-1096.59	3264328.14	1307564.49	40°10'25.6440"N	104°33'14.6160"W	point
2) GIG-EM STATE Y9-740 BPZ(460'FNL & 1982'FEL,SEC.04)	17369.85	6976.00	10640.94	-1094.88	3264329.85	1307404.22	40°10'24.0600"N	104°33'14.6160"W	point
GIG-EM STATE Y9-740 LP /TPZ (133'FSL & 2011'FEL,SEC.09)	N/A	6976.00	720.66	-1023.16	3264401.56	1297484.37	40°08'46.0253"N	104°33'15.0553"W	point
1) GIG-EM STATE Y9-740 LP /TPZ 2(133'FSL & 2011'FEL,SEC.09)	7449.99	6976.00	721.35	-1022.60	3264402.12	1297485.05	40°08'46.0320"N	104°33'15.0480"W	point



Planned Wellpath Report

GIG-EM STATE Y9-740 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

SURVEY PROGRAM - Ref Wellbore: GIG-EM STATE Y9-740 PWB Ref Wellpath: GIG-EM STATE Y9-740 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	BH Generic gyro - northseeking (Standard)		GIG-EM STATE Y9-740 PWB
1950.00	20000.00	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-740 PWB



Planned Wellpath Report

GIG-EM STATE Y9-740 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	275.560	30.00	SHL
2100.00	0.000	275.560	2100.00	End of Tangent
2732.35	12.647	275.560	2727.23	Build (XS)
6464.50	12.647	275.560	6368.83	KOP
7449.99	90.000	359.583	6976.00	LP/TPZ
17369.85	90.000	359.583	6976.00	BPZ
17530.14	90.000	359.195	6976.00	BHL



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-740 (REV-B.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999959	Report Generated	5/3/2022 at 2:25:22 PM
Convergence at slot	0.61° East	Database	WA_Denver

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-130.54	3482.27	3265424.68	1296763.74	40°08'38.7960"N	104°33'1.9800"W
Facility Reference Pt			3261942.56	1296894.27	40°08'40.4520"N	104°33'46.8000"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.3150"N	105°30'0.0000"W

WELLPATH DATUM			
Calculation method	Minimum Curvature	Rig(30'KB) (RKB) to Facility Vertical Datum	4973.00ft
Horizontal Reference Pt	Slot	Rig(30'KB) (RKB) to Mean Sea Level	4973.00ft
Vertical Reference Pt	Rig(30'KB) (RKB)	Rig(30'KB) (RKB) to Ground Level at Slot (SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16))	4973.00ft
MD Reference Pt	Rig(30'KB) (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS					
Ellipse Confidence Limit	3.50 Std Dev	Ellipse Start MD	30.00ft	Surface Position Uncertainty	included
Declination	7.71° East of TN	Dip Angle	66.43°	Mag Field Strength	51798 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft	Vertical	3.000ft
Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes					



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-740 (REV-B.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

PROXIMITY-SCAN RULE			
Rule Name	SPE WPTS Stop Drilling HSE Risk (2017)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no

HOLE & CASING SECTIONS - Ref Wellbore: GIG-EM STATE Y9-740 PWB Ref Wellpath: GIG-EM STATE Y9-740 (REV-B.0) PWP									
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	1950.00	1920.00	30.00	1950.00	0.00	0.00	0.00	0.00

SURVEY PROGRAM - Ref Wellbore: GIG-EM STATE Y9-740 PWB Ref Wellpath: GIG-EM STATE Y9-740 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	BH Generic gyro - northseeking (Standard)		GIG-EM STATE Y9-740 PWB
1950.00	20000.00	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-740 PWB



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-740 (REV-B.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17530.14ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (31 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
Y Section 04	(HSR-Guttersen 02-04)	HSR-Guttersen 02-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17204.24	32.04	17204.24	17205.07	0.18	17205.07	FAIL
Y Section 04	(HSR-Guttersen 07-04)	HSR-Guttersen 07-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	15971.06	181.53	15971.06	15978.44	1.24	15978.44	PASS
SEC.16-T02N-R64W	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)	GIG-EM STATE Y9-751	GIG-EM STATE Y9-751 PWB	GIG-EM STATE Y9-751 (REV-B.0) PWP	Planned	30.00	22.37	17530.00	2007.08	1.31	17530.14	PASS
SEC.16-T02N-R64W	SLOT#19 GIG-EM STATE Y9-730 (595'FNL&975'FEL,SEC.16)	GIG-EM STATE Y9-730	GIG-EM STATE Y9-730 PWB	GIG-EM STATE Y9-730 (REV-B.0) PWP	Planned	30.00	22.37	17430.00	2102.31	1.31	17530.14	PASS
Y Section 09	(Perkins 34-09)	Perkins 34-09	Wellbore #1	Wellbore #1\Wellbore #1 - As Drilled	Drilling	7917.62	109.06	7917.62	7915.44	1.87	7915.44	PASS
SEC.16-T02N-R64W	SLOT#08 HULLABALOO Y21-736(445'FNL&967'FEL,SEC.16)	HULLABALOO Y21-736	HULLABALOO Y21-736 AWB	HULLABALOO Y21-736 AWP	Drilling	1512.81	148.57	6930.00	6937.84	5.64	6937.84	PASS
Y Section 09	(Perkins USX Y09-23)	Perkins USX Y09-23	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	8499.85	709.41	8499.85	8909.76	5.89	8909.76	PASS
SEC.16-T02N-R64W	SLOT#16 GIG-EM STATE Y9-761 (595'FNL&2610'FWL,SEC.16)	GIG-EM STATE Y9-761	GIG-EM STATE Y9-761 PWB	GIG-EM STATE Y9-761 (REV-B.0) PWP	Planned	17422.36	1386.79	17422.36	17530.14	6.16	17530.14	PASS
SEC.16-T02N-R64W	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)	GIG-EM STATE Y9-719	GIG-EM STATE Y9-719 PWB	GIG-EM STATE Y9-719 (REV-B.0) PWP	Planned	30.00	44.73	17430.00	17530.14	6.18	17530.14	PASS
SEC.16-T02N-R64W	SLOT#07 HULLABALOO Y21-746(445'FNL&1005'FEL,SEC.16)	HULLABALOO Y21-746	HULLABALOO Y21-746 AWB	HULLABALOO Y21-746 AWP	Drilling	1399.95	145.05	6922.02	6922.02	6.68	6922.02	PASS
Y Section 04	(HSR-Guttersen 01-04)	HSR-Guttersen 01-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17200.44	1072.06	17200.44	17224.19	6.69	17224.19	PASS
SEC.10-T02N-R64W	SLOT#12 Ex.Oscar #Y10-79HN(2380'FSL&550'FWL,SEC.10)(PR)	Ex.Oscar #Y10-79HN ST01	Ex.Oscar #Y10-79HN ST01 (A) AWB	Ex.Oscar #Y10-79HN ST01 (A) AWP	Drilling	11480.00	1976.29	16230.00	17530.14	7.07	17530.14	PASS
SEC.16-T02N-R64W	SLOT#15 GIG-EM STATE Y9-772 (595'FNL&2588'FWL,SEC.16)	GIG-EM STATE Y9-772	GIG-EM STATE Y9-772 PWB	GIG-EM STATE Y9-772 (REV-B.0) PWP	Planned	3139.24	1685.00	17530.00	17530.14	9.22	17530.14	PASS
Y Section 04	(HSR-Guttersen 03-04)	HSR-Guttersen 03-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17122.00	1472.28	17122.00	17261.29	9.23	17261.29	PASS
SEC.16-T02N-R64W	SLOT#09 HULLABALOO Y21-726(445'FNL&930'FEL,SEC.16)	HULLABALOO Y21-726	HULLABALOO Y21-726 AWB	HULLABALOO Y21-726 AWP	Drilling	1014.48	162.38	6930.00	2080.05	10.95	7030.00	PASS
SEC.16-T02N-R64W	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)	GIG-EM STATE Y9-782	GIG-EM STATE Y9-782 PWB	GIG-EM STATE Y9-782 (REV-B.0) PWP	Planned	3048.75	1728.36	17430.00	17530.14	12.34	17530.14	PASS
Y Section 04	(Melvin Y04-04)	Melvin Y04-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	16913.88	2288.40	16913.88	17217.64	14.54	17217.64	PASS
SEC.16-T02N-R64W	SLOT#10 HULLABALOO Y21-716(445'FNL&892'FEL,SEC.16)	HULLABALOO Y21-716	HULLABALOO Y21-716 AWB	HULLABALOO Y21-716 AWP	Drilling	1811.86	174.75	6930.00	2074.29	15.16	7130.00	PASS
SEC.29-T03N-R64W	SLOT#41 GUTTERSEN STATE Y05-719 (2237'FNL & 538'FEL, SEC.29)	GUTTERSEN STATE Y05-719	GUTTERSEN STATE Y05-719 AWB	GUTTERSEN STATE Y05-719 AWP	Drilling	12910.05	3524.12	17230.00	12598.34	16.00	17530.00	PASS
Y Section 04	(HSR-Guttersen 05-04)	HSR-Guttersen 05-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	15756.42	2582.52	15756.42	16180.34	18.15	16180.34	PASS
SEC.10-T02N-R64W	SLOT#12 Ex.Oscar #Y10-79HN(2380'FSL&550'FWL,SEC.10)(PR)	Ex.Oscar #Y10-79HN OWB	Ex.Oscar #Y10-79HN AWB	Ex.Oscar #Y10-79HN (A) AWP	Drilling	10466.14	2030.70	10930.00	11197.94	20.03	11197.94	PASS
SEC.16-T02N-R64W	SLOT#13 Ex.STATE #21(1320'FSL&1170'FWL,SEC.16) (PA) 7700'MD)	Ex.STATE #21	Ex.STATE #21 AWB	Ex.STATE #21 AWP	Drilling	6537.26	4117.21	6537.26	6996.72	20.86	6996.72	PASS
SEC.16-T02N-R64W	SLOT#06 HULLABALOO Y21-756(445'FNL&2617'FWL,SEC.16)	HULLABALOO Y21-756	HULLABALOO Y-21-756 AWB	HULLABALOO Y-21-756 AWP	Drilling	7085.91	1061.82	7085.91	7169.24	22.64	7169.24	PASS
SEC.16-T02N-R64W	SLOT#11 Ex.STATE#1(1351'FNL&1320'FEL,SEC.16) (PR) 7700'MD	Ex.STATE#1	Ex.STATE#1 AWB	Ex.STATE#1 AWP	Drilling	3818.00	772.58	3818.00	6556.53	25.89	6556.53	PASS
SEC.16-T02N-R64W	SLOT#05 HULLABALOO Y21-763(445'FNL&2580'FWL,SEC.16)	HULLABALOO Y21-763	HULLABALOO Y21-763 AWB	HULLABALOO Y21-763 AWP	Drilling	7382.05	1468.15	7382.05	7567.61	30.12	7567.61	PASS



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-740 (REV-B.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 PWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17530.14ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (31 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.05-T02N-R64W	SLOT#07 PIONEER Y17-715 (398'FSL & 2194'FEL,SEC.05)	PIONEER Y17-715	PIONEER Y17-715 PWB	PIONEER Y17-715 (REV-1.0) PWP	Planned	12366.83	3646.44	12366.83	13758.94	32.09	13758.94	PASS
SEC.16-T02N-R64W	SLOT#04 HULLABALOO Y21-769(445'FNL&955'FWL,SEC.16)	HULLABALOO Y21-769	HULLABALOO Y21-769 AWB	HULLABALOO Y21-769 AWP	Drilling	7239.41	1923.87	7239.41	7411.93	40.03	7411.93	PASS
SEC.16-T02N-R64W	SLOT#03 HULLABALOO Y21-775(445'FNL&917'FWL,SEC.16)	HULLABALOO Y21-775	HULLABALOO Y21-775 AWB	HULLABALOO Y21-775 AWP	Drilling	7276.99	2332.07	7276.99	7775.24	47.95	7775.24	PASS
SEC.16-T02N-R64W	SLOT#02 HULLABALOO Y21-781(445'FNL&880'FWL,SEC.16)	HULLABALOO Y21-781	HULLABALOO Y21-781 AWB	HULLABALOO Y21-781 AWP	Drilling	7354.85	2720.86	7354.85	8308.56	55.50	8308.56	PASS
SEC.16-T02N-R64W	SLOT#01 HULLABALOO Y21-787(445'FNL&842'FWL,SEC.16)	HULLABALOO Y21-787	HULLABALOO Y21-787 AWB	HULLABALOO Y21-787 AWP	Drilling	7374.72	3123.74	7374.72	8795.27	61.62	8795.27	PASS
SEC.16-T02N-R64W	SLOT#12 Ex.STATE Y #16-5D(1984'FNL&667'FWL,SEC16) (PR) 7725'MD	Ex.STATE Y #16-5D	Ex.STATE Y #16-5D AWB	Ex.STATE Y #16-5D AWP	Drilling	6693.66	3052.91	6693.66	7130.00	77.02	7130.00	PASS