

NOBLE ENERGY, INC



Location:	COLORADO	Slot:	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	GIG-EM STATE Y9-782
Facility:	SEC.16-T02N-R64W	Wellbore:	GIG-EM STATE Y9-782 PWB

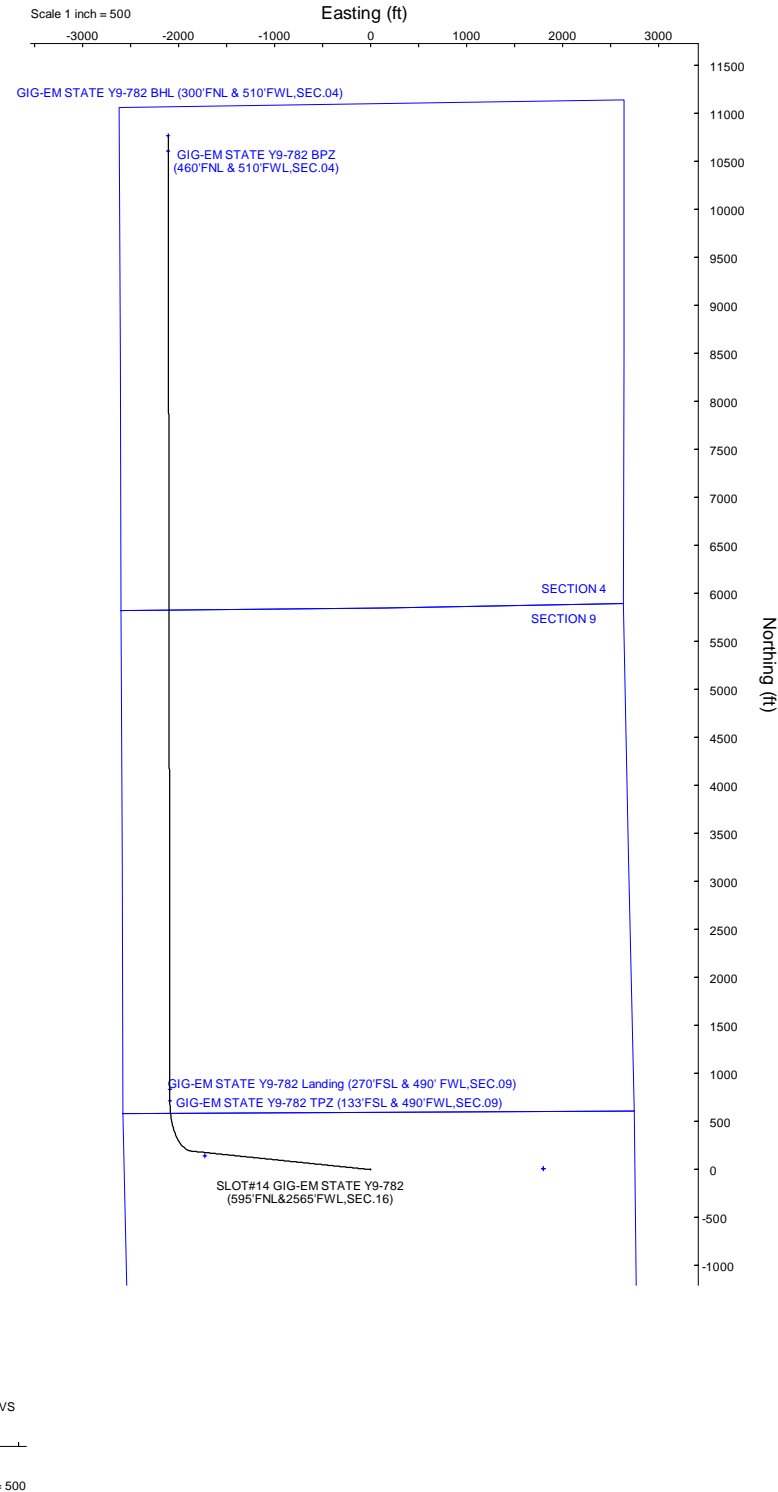
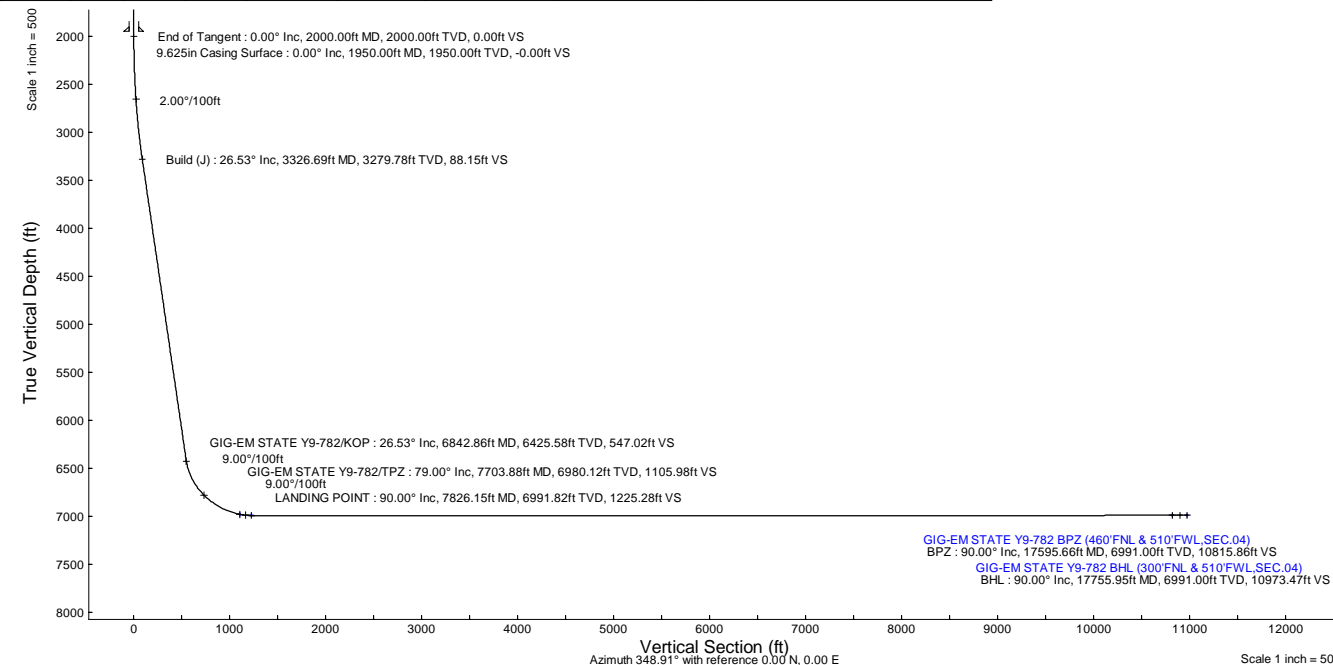
Plot reference wellpath is GIG-EM STATE Y9-782 (REV-B.0) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig (30'KB) (RKB)		North Reference: Grid north
Reference wellpath measured depths are referenced to Rig (30'KB) (RKB)		Scale: True distance
Rig (30'KB) (RKB) to Mean Sea Level: 4941 feet		Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)): 0 feet		Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum		Created by: guenaler on 2022-05-03; Database: WA_Denver

Location Information							
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.16-T02N-R64W				3261942.561	1296894.275	40°08'40.4520"N	104°33'46.8000"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)	-141.99	1726.57	3263669.052	1296752.287	40°08'38.8680"N	104°33'24.5880"W	
Rig (30'KB) (RKB) to Ground level (At Slot: SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16))				4941ft			
Mean Sea Level to Ground level (At Slot: SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16))				0ft			
Rig (30'KB) (RKB) to Mean Sea Level				4941ft			

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
GIG-EM STATE Y9-782/Tie On	30.00	0.000	275.900	30.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	275.900	2000.00	0.00	0.00	0.00	0.00
Build (J)	3326.69	26.534	275.900	3279.78	31.02	-300.15	2.00	88.15
GIG-EM STATE Y9-782/KOP	6842.86	26.534	275.900	6425.58	192.48	-1862.59	0.00	547.02
GIG-EM STATE Y9-782/TPZ	7703.88	79.000	359.896	6980.12	717.41	-2090.51	9.00	1105.98
LANDING POINT	7826.15	90.005	359.897	6991.82	838.94	-2090.73	9.00	1225.28
BPZ	17595.66	90.005	359.897	6991.00	10608.43	-2108.25	0.00	10815.86
BHL	17755.95	89.995	358.893	6991.00	10768.72	-2109.94	0.63	10973.47

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	-35.00	10.04	1800.05	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
Rubicon State Y16-718 SECTION 9	N/A	-35.00	10.04	1800.05	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
MULLABALOO Y21-787 SECTION 16	N/A	28.00	141.99	-1726.57	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W
GIG-EM STATE Y9-782 TPZ (133'FSL & 490'FWL,SEC.09)	7703.88	6980.12	717.41	-2090.51	3261578.63	1297469.67	40°08'46.1760"N	104°33'51.4080"W
GIG-EM STATE Y9-782 BHL (300'FNL & 510'FWL,SEC.04)	17755.95	6991.00	10768.72	-2109.94	3261559.20	1307520.54	40°10'25.5000"N	104°33'50.2920"W
GIG-EM STATE Y9-782 BPZ (480'FNL & 510'FWL,SEC.04)	17595.66	6991.00	10608.43	-2108.25	3261560.89	1307360.26	40°10'23.9160"N	104°33'50.2920"W
GIG-EM STATE Y9-782 Landing (270'FSL & 490' FWL,SEC.09)	N/A	6991.00	838.89	-2090.51	3261578.63	1297591.14	40°08'47.3764"N	104°33'51.3915"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	Longitude
17755.95	89.995	358.893	6991.00	10768.72	-2109.94	3261559.20	1307520.54	40°10'25.5000"N	104°33'50.2920"W





Planned Wellpath Report

GIG-EM STATE Y9-782 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,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 2:11:28 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	-141.99	1726.57	3263669.05	1296752.29	40°08'38.8680"N	104°33'24.5880"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	4941.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4941.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16))	4941.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	348.91°



Planned Wellpath Report
GIG-EM STATE Y9-782 (REV-B.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

WELLPATH DATA (186 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	275.900	0.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
30.00	0.000	275.900	30.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	GIG-EM STATE Y9-782/Tie On
130.00†	0.000	275.900	130.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
230.00†	0.000	275.900	230.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
330.00†	0.000	275.900	330.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
430.00†	0.000	275.900	430.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
530.00†	0.000	275.900	530.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
630.00†	0.000	275.900	630.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
730.00†	0.000	275.900	730.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
830.00†	0.000	275.900	830.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
930.00†	0.000	275.900	930.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1030.00†	0.000	275.900	1030.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1130.00†	0.000	275.900	1130.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1230.00†	0.000	275.900	1230.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1330.00†	0.000	275.900	1330.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1430.00†	0.000	275.900	1430.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1530.00†	0.000	275.900	1530.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1630.00†	0.000	275.900	1630.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1730.00†	0.000	275.900	1730.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1830.00†	0.000	275.900	1830.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
1930.00†	0.000	275.900	1930.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	
2000.00	0.000	275.900	2000.00	0.00	0.00	0.00	40°08'38.8680"N	104°33'24.5880"W	0.00	End of Tangent
2030.00†	0.600	275.900	2030.00	0.05	0.02	-0.16	40°08'38.8682"N	104°33'24.5900"W	2.00	
2130.00†	2.600	275.900	2129.96	0.86	0.30	-2.93	40°08'38.8713"N	104°33'24.6257"W	2.00	
2230.00†	4.600	275.900	2229.75	2.70	0.95	-9.18	40°08'38.8783"N	104°33'24.7061"W	2.00	
2330.00†	6.600	275.900	2329.27	5.55	1.95	-18.89	40°08'38.8893"N	104°33'24.8309"W	2.00	
2430.00†	8.600	275.900	2428.39	9.41	3.31	-32.04	40°08'38.9041"N	104°33'25.0001"W	2.00	
2530.00†	10.600	275.900	2526.98	14.28	5.03	-48.63	40°08'38.9228"N	104°33'25.2134"W	2.00	
2630.00†	12.600	275.900	2624.93	20.16	7.09	-68.63	40°08'38.9453"N	104°33'25.4707"W	2.00	
2730.00†	14.600	275.900	2722.13	27.02	9.51	-92.02	40°08'38.9716"N	104°33'25.7715"W	2.00	
2830.00†	16.600	275.900	2818.44	34.88	12.27	-118.76	40°08'39.0018"N	104°33'26.1155"W	2.00	
2930.00†	18.600	275.900	2913.75	43.71	15.38	-148.84	40°08'39.0356"N	104°33'26.5024"W	2.00	
3030.00†	20.600	275.900	3007.95	53.51	18.83	-182.21	40°08'39.0732"N	104°33'26.9315"W	2.00	
3130.00†	22.600	275.900	3100.93	64.26	22.61	-218.82	40°08'39.1144"N	104°33'27.4025"W	2.00	
3230.00†	24.600	275.900	3192.56	75.96	26.73	-258.64	40°08'39.1593"N	104°33'27.9146"W	2.00	
3326.69	26.534	275.900	3279.78	88.15	31.02	-300.15	40°08'39.2060"N	104°33'28.4485"W	2.00	Build (J)
3330.00†	26.534	275.900	3282.74	88.58	31.17	-301.62	40°08'39.2077"N	104°33'28.4674"W	0.00	
3430.00†	26.534	275.900	3372.20	101.63	35.76	-346.05	40°08'39.2577"N	104°33'29.0389"W	0.00	
3530.00†	26.534	275.900	3461.67	114.68	40.35	-390.49	40°08'39.3078"N	104°33'29.6104"W	0.00	
3630.00†	26.534	275.900	3551.14	127.73	44.94	-434.93	40°08'39.3578"N	104°33'30.1820"W	0.00	
3730.00†	26.534	275.900	3640.60	140.78	49.54	-479.36	40°08'39.4078"N	104°33'30.7535"W	0.00	
3830.00†	26.534	275.900	3730.07	153.83	54.13	-523.80	40°08'39.4579"N	104°33'31.3250"W	0.00	
3930.00†	26.534	275.900	3819.54	166.88	58.72	-568.23	40°08'39.5079"N	104°33'31.8966"W	0.00	
4030.00†	26.534	275.900	3909.01	179.93	63.31	-612.67	40°08'39.5579"N	104°33'32.4681"W	0.00	
4130.00†	26.534	275.900	3998.47	192.98	67.90	-657.11	40°08'39.6080"N	104°33'33.0396"W	0.00	



Planned Wellpath Report
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

WELLPATH DATA (186 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4230.00†	26.534	275.900	4087.94	206.03	72.50	-701.54	40°08'39.6580"N	104°33'33.6112"W	0.00	
4330.00†	26.534	275.900	4177.41	219.08	77.09	-745.98	40°08'39.7080"N	104°33'34.1827"W	0.00	
4430.00†	26.534	275.900	4266.87	232.13	81.68	-790.41	40°08'39.7581"N	104°33'34.7542"W	0.00	
4530.00†	26.534	275.900	4356.34	245.18	86.27	-834.85	40°08'39.8081"N	104°33'35.3258"W	0.00	
4630.00†	26.534	275.900	4445.81	258.23	90.86	-879.29	40°08'39.8581"N	104°33'35.8973"W	0.00	
4730.00†	26.534	275.900	4535.27	271.28	95.46	-923.72	40°08'39.9082"N	104°33'36.4688"W	0.00	
4830.00†	26.534	275.900	4624.74	284.33	100.05	-968.16	40°08'39.9582"N	104°33'37.0404"W	0.00	
4930.00†	26.534	275.900	4714.21	297.38	104.64	-1012.59	40°08'40.0082"N	104°33'37.6119"W	0.00	
5030.00†	26.534	275.900	4803.68	310.43	109.23	-1057.03	40°08'40.0582"N	104°33'38.1835"W	0.00	
5130.00†	26.534	275.900	4893.14	323.49	113.82	-1101.47	40°08'40.1083"N	104°33'38.7550"W	0.00	
5230.00†	26.534	275.900	4982.61	336.54	118.41	-1145.90	40°08'40.1583"N	104°33'39.3265"W	0.00	
5330.00†	26.534	275.900	5072.08	349.59	123.01	-1190.34	40°08'40.2083"N	104°33'39.8981"W	0.00	
5430.00†	26.534	275.900	5161.54	362.64	127.60	-1234.77	40°08'40.2583"N	104°33'40.4696"W	0.00	
5530.00†	26.534	275.900	5251.01	375.69	132.19	-1279.21	40°08'40.3084"N	104°33'41.0411"W	0.00	
5630.00†	26.534	275.900	5340.48	388.74	136.78	-1323.65	40°08'40.3584"N	104°33'41.6127"W	0.00	
5730.00†	26.534	275.900	5429.95	401.79	141.37	-1368.08	40°08'40.4084"N	104°33'42.1842"W	0.00	
5830.00†	26.534	275.900	5519.41	414.84	145.97	-1412.52	40°08'40.4584"N	104°33'42.7557"W	0.00	
5930.00†	26.534	275.900	5608.88	427.89	150.56	-1456.95	40°08'40.5085"N	104°33'43.3273"W	0.00	
6030.00†	26.534	275.900	5698.35	440.94	155.15	-1501.39	40°08'40.5585"N	104°33'43.8988"W	0.00	
6130.00†	26.534	275.900	5787.81	453.99	159.74	-1545.83	40°08'40.6085"N	104°33'44.4704"W	0.00	
6230.00†	26.534	275.900	5877.28	467.04	164.33	-1590.26	40°08'40.6585"N	104°33'45.0419"W	0.00	
6330.00†	26.534	275.900	5966.75	480.09	168.93	-1634.70	40°08'40.7085"N	104°33'45.6134"W	0.00	
6430.00†	26.534	275.900	6056.21	493.14	173.52	-1679.13	40°08'40.7585"N	104°33'46.1850"W	0.00	
6530.00†	26.534	275.900	6145.68	506.19	178.11	-1723.57	40°08'40.8086"N	104°33'46.7565"W	0.00	
6630.00†	26.534	275.900	6235.15	519.24	182.70	-1768.01	40°08'40.8586"N	104°33'47.3281"W	0.00	
6730.00†	26.534	275.900	6324.62	532.29	187.29	-1812.44	40°08'40.9086"N	104°33'47.8996"W	0.00	
6830.00†	26.534	275.900	6414.08	545.34	191.89	-1856.88	40°08'40.9586"N	104°33'48.4711"W	0.00	
6842.86	26.534	275.900	6425.58	547.02	192.48	-1862.59	40°08'40.9650"N	104°33'48.5446"W	0.00	GIG-EM STATE Y9-782/KOP
6930.00†	27.639	293.007	6503.29	564.06	202.39	-1900.62	40°08'41.0670"N	104°33'49.0329"W	9.00	
7030.00†	31.195	309.915	6590.53	597.26	228.13	-1941.92	40°08'41.3256"N	104°33'49.5612"W	9.00	
7130.00†	36.498	323.026	6673.67	644.23	268.59	-1979.74	40°08'41.7293"N	104°33'50.0427"W	9.00	
7230.00†	42.900	332.964	6750.65	703.84	322.77	-2013.17	40°08'42.2683"N	104°33'50.4658"W	9.00	
7330.00†	49.971	340.669	6819.58	774.60	389.36	-2041.37	40°08'42.9292"N	104°33'50.8199"W	9.00	
7430.00†	57.455	346.884	6878.75	854.78	466.69	-2063.66	40°08'43.6957"N	104°33'51.0963"W	9.00	
7530.00†	65.196	352.124	6926.73	942.39	552.88	-2079.47	40°08'44.5490"N	104°33'51.2882"W	9.00	
7630.00†	73.098	356.739	6962.31	1035.30	645.79	-2088.43	40°08'45.4680"N	104°33'51.3910"W	9.00	
7703.88	79.000	359.896	6980.12 ¹	1105.98	717.41	-2090.51	40°08'46.1760"N	104°33'51.4080"W	9.00	GIG-EM STATE Y9-782/TPZ
7730.00†	81.351	359.896	6984.58	1131.25	743.15	-2090.56	40°08'46.4303"N	104°33'51.4051"W	9.00	
7826.15	90.005	359.897	6991.82 ²	1225.28	838.94	-2090.73	40°08'47.3769"N	104°33'51.3943"W	9.00	LANDING POINT
7830.00†	90.005	359.897	6991.82	1229.06	842.79	-2090.74	40°08'47.4149"N	104°33'51.3939"W	0.00	
7930.00†	90.005	359.897	6991.81	1327.23	942.79	-2090.92	40°08'48.4031"N	104°33'51.3826"W	0.00	
8030.00†	90.005	359.897	6991.80	1425.40	1042.79	-2091.10	40°08'49.3913"N	104°33'51.3713"W	0.00	
8130.00†	90.005	359.897	6991.79	1523.57	1142.79	-2091.27	40°08'50.3794"N	104°33'51.3600"W	0.00	
8230.00†	90.005	359.897	6991.78	1621.74	1242.79	-2091.45	40°08'51.3676"N	104°33'51.3488"W	0.00	
8330.00†	90.005	359.897	6991.77	1719.90	1342.79	-2091.63	40°08'52.3558"N	104°33'51.3375"W	0.00	



Planned Wellpath Report
GIG-EM STATE Y9-782 (REV-B.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

WELLPATH DATA (186 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8430.00†	90.005	359.897	6991.77	1818.07	1442.79	-2091.81	40°08'53.3439"N	104°33'51.3262"W	0.00	
8530.00†	90.005	359.897	6991.76	1916.24	1542.79	-2091.99	40°08'54.3321"N	104°33'51.3149"W	0.00	
8630.00†	90.005	359.897	6991.75	2014.41	1642.79	-2092.17	40°08'55.3203"N	104°33'51.3036"W	0.00	
8730.00†	90.005	359.897	6991.74	2112.58	1742.79	-2092.35	40°08'56.3084"N	104°33'51.2924"W	0.00	
8830.00†	90.005	359.897	6991.73	2210.75	1842.79	-2092.53	40°08'57.2966"N	104°33'51.2811"W	0.00	
8930.00†	90.005	359.897	6991.72	2308.92	1942.79	-2092.71	40°08'58.2848"N	104°33'51.2698"W	0.00	
9030.00†	90.005	359.897	6991.72	2407.08	2042.79	-2092.89	40°08'59.2729"N	104°33'51.2585"W	0.00	
9130.00†	90.005	359.897	6991.71	2505.25	2142.79	-2093.07	40°09'0.2611"N	104°33'51.2472"W	0.00	
9230.00†	90.005	359.897	6991.70	2603.42	2242.79	-2093.25	40°09'1.2493"N	104°33'51.2360"W	0.00	
9330.00†	90.005	359.897	6991.69	2701.59	2342.79	-2093.43	40°09'2.2375"N	104°33'51.2247"W	0.00	
9430.00†	90.005	359.897	6991.68	2799.76	2442.79	-2093.61	40°09'3.2256"N	104°33'51.2134"W	0.00	
9530.00†	90.005	359.897	6991.67	2897.93	2542.79	-2093.79	40°09'4.2138"N	104°33'51.2021"W	0.00	
9630.00†	90.005	359.897	6991.67	2996.09	2642.79	-2093.96	40°09'5.2020"N	104°33'51.1908"W	0.00	
9730.00†	90.005	359.897	6991.66	3094.26	2742.79	-2094.14	40°09'6.1901"N	104°33'51.1796"W	0.00	
9830.00†	90.005	359.897	6991.65	3192.43	2842.79	-2094.32	40°09'7.1783"N	104°33'51.1683"W	0.00	
9930.00†	90.005	359.897	6991.64	3290.60	2942.79	-2094.50	40°09'8.1665"N	104°33'51.1570"W	0.00	
10030.00†	90.005	359.897	6991.63	3388.77	3042.79	-2094.68	40°09'9.1546"N	104°33'51.1457"W	0.00	
10130.00†	90.005	359.897	6991.62	3486.94	3142.78	-2094.86	40°09'10.1428"N	104°33'51.1344"W	0.00	
10230.00†	90.005	359.897	6991.62	3585.10	3242.78	-2095.04	40°09'11.1310"N	104°33'51.1232"W	0.00	
10330.00†	90.005	359.897	6991.61	3683.27	3342.78	-2095.22	40°09'12.1191"N	104°33'51.1119"W	0.00	
10430.00†	90.005	359.897	6991.60	3781.44	3442.78	-2095.40	40°09'13.1073"N	104°33'51.1006"W	0.00	
10530.00†	90.005	359.897	6991.59	3879.61	3542.78	-2095.58	40°09'14.0955"N	104°33'51.0893"W	0.00	
10630.00†	90.005	359.897	6991.58	3977.78	3642.78	-2095.76	40°09'15.0836"N	104°33'51.0780"W	0.00	
10730.00†	90.005	359.897	6991.57	4075.95	3742.78	-2095.94	40°09'16.0718"N	104°33'51.0668"W	0.00	
10830.00†	90.005	359.897	6991.57	4174.11	3842.78	-2096.12	40°09'17.0600"N	104°33'51.0555"W	0.00	
10930.00†	90.005	359.897	6991.56	4272.28	3942.78	-2096.30	40°09'18.0481"N	104°33'51.0442"W	0.00	
11030.00†	90.005	359.897	6991.55	4370.45	4042.78	-2096.48	40°09'19.0363"N	104°33'51.0329"W	0.00	
11130.00†	90.005	359.897	6991.54	4468.62	4142.78	-2096.65	40°09'20.0245"N	104°33'51.0216"W	0.00	
11230.00†	90.005	359.897	6991.53	4566.79	4242.78	-2096.83	40°09'21.0126"N	104°33'51.0103"W	0.00	
11330.00†	90.005	359.897	6991.52	4664.96	4342.78	-2097.01	40°09'22.0008"N	104°33'50.9991"W	0.00	
11430.00†	90.005	359.897	6991.52	4763.13	4442.78	-2097.19	40°09'22.9890"N	104°33'50.9878"W	0.00	
11530.00†	90.005	359.897	6991.51	4861.29	4542.78	-2097.37	40°09'23.9772"N	104°33'50.9765"W	0.00	
11630.00†	90.005	359.897	6991.50	4959.46	4642.78	-2097.55	40°09'24.9653"N	104°33'50.9652"W	0.00	
11730.00†	90.005	359.897	6991.49	5057.63	4742.78	-2097.73	40°09'25.9535"N	104°33'50.9539"W	0.00	
11830.00†	90.005	359.897	6991.48	5155.80	4842.78	-2097.91	40°09'26.9417"N	104°33'50.9427"W	0.00	
11930.00†	90.005	359.897	6991.47	5253.97	4942.78	-2098.09	40°09'27.9298"N	104°33'50.9314"W	0.00	
12030.00†	90.005	359.897	6991.47	5352.14	5042.78	-2098.27	40°09'28.9180"N	104°33'50.9201"W	0.00	
12130.00†	90.005	359.897	6991.46	5450.30	5142.78	-2098.45	40°09'29.9062"N	104°33'50.9088"W	0.00	
12230.00†	90.005	359.897	6991.45	5548.47	5242.78	-2098.63	40°09'30.8943"N	104°33'50.8975"W	0.00	
12330.00†	90.005	359.897	6991.44	5646.64	5342.78	-2098.81	40°09'31.8825"N	104°33'50.8862"W	0.00	
12430.00†	90.005	359.897	6991.43	5744.81	5442.78	-2098.99	40°09'32.8707"N	104°33'50.8750"W	0.00	
12530.00†	90.005	359.897	6991.42	5842.98	5542.78	-2099.17	40°09'33.8588"N	104°33'50.8637"W	0.00	
12630.00†	90.005	359.897	6991.42	5941.15	5642.78	-2099.35	40°09'34.8470"N	104°33'50.8524"W	0.00	
12730.00†	90.005	359.897	6991.41	6039.31	5742.78	-2099.52	40°09'35.8352"N	104°33'50.8411"W	0.00	
12830.00†	90.005	359.897	6991.40	6137.48	5842.78	-2099.70	40°09'36.8233"N	104°33'50.8298"W	0.00	



Planned Wellpath Report
GIG-EM STATE Y9-782 (REV-B.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

WELLPATH DATA (186 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12930.00†	90.005	359.897	6991.39	6235.65	5942.78	-2099.88	40°09'37.8115"N	104°33'50.8185"W	0.00	
13030.00†	90.005	359.897	6991.38	6333.82	6042.78	-2100.06	40°09'38.7997"N	104°33'50.8073"W	0.00	
13130.00†	90.005	359.897	6991.37	6431.99	6142.78	-2100.24	40°09'39.7878"N	104°33'50.7960"W	0.00	
13230.00†	90.005	359.897	6991.36	6530.16	6242.78	-2100.42	40°09'40.7760"N	104°33'50.7847"W	0.00	
13330.00†	90.005	359.897	6991.36	6628.32	6342.78	-2100.60	40°09'41.7642"N	104°33'50.7734"W	0.00	
13430.00†	90.005	359.897	6991.35	6726.49	6442.78	-2100.78	40°09'42.7523"N	104°33'50.7621"W	0.00	
13530.00†	90.005	359.897	6991.34	6824.66	6542.78	-2100.96	40°09'43.7405"N	104°33'50.7508"W	0.00	
13630.00†	90.005	359.897	6991.33	6922.83	6642.78	-2101.14	40°09'44.7287"N	104°33'50.7396"W	0.00	
13730.00†	90.005	359.897	6991.32	7021.00	6742.78	-2101.32	40°09'45.7168"N	104°33'50.7283"W	0.00	
13830.00†	90.005	359.897	6991.31	7119.17	6842.78	-2101.50	40°09'46.7050"N	104°33'50.7170"W	0.00	
13930.00†	90.005	359.897	6991.31	7217.34	6942.78	-2101.68	40°09'47.6932"N	104°33'50.7057"W	0.00	
14030.00†	90.005	359.897	6991.30	7315.50	7042.78	-2101.86	40°09'48.6813"N	104°33'50.6944"W	0.00	
14130.00†	90.005	359.897	6991.29	7413.67	7142.78	-2102.04	40°09'49.6695"N	104°33'50.6831"W	0.00	
14230.00†	90.005	359.897	6991.28	7511.84	7242.78	-2102.21	40°09'50.6577"N	104°33'50.6719"W	0.00	
14330.00†	90.005	359.897	6991.27	7610.01	7342.78	-2102.39	40°09'51.6458"N	104°33'50.6606"W	0.00	
14430.00†	90.005	359.897	6991.26	7708.18	7442.78	-2102.57	40°09'52.6340"N	104°33'50.6493"W	0.00	
14530.00†	90.005	359.897	6991.26	7806.35	7542.78	-2102.75	40°09'53.6222"N	104°33'50.6380"W	0.00	
14630.00†	90.005	359.897	6991.25	7904.51	7642.78	-2102.93	40°09'54.6103"N	104°33'50.6267"W	0.00	
14730.00†	90.005	359.897	6991.24	8002.68	7742.78	-2103.11	40°09'55.5985"N	104°33'50.6154"W	0.00	
14830.00†	90.005	359.897	6991.23	8100.85	7842.78	-2103.29	40°09'56.5867"N	104°33'50.6041"W	0.00	
14930.00†	90.005	359.897	6991.22	8199.02	7942.78	-2103.47	40°09'57.5748"N	104°33'50.5929"W	0.00	
15030.00†	90.005	359.897	6991.21	8297.19	8042.78	-2103.65	40°09'58.5630"N	104°33'50.5816"W	0.00	
15130.00†	90.005	359.897	6991.21	8395.36	8142.78	-2103.83	40°09'59.5512"N	104°33'50.5703"W	0.00	
15230.00†	90.005	359.897	6991.20	8493.52	8242.78	-2104.01	40°10'0.5393"N	104°33'50.5590"W	0.00	
15330.00†	90.005	359.897	6991.19	8591.69	8342.78	-2104.19	40°10'1.5275"N	104°33'50.5477"W	0.00	
15430.00†	90.005	359.897	6991.18	8689.86	8442.78	-2104.37	40°10'2.5157"N	104°33'50.5364"W	0.00	
15530.00†	90.005	359.897	6991.17	8788.03	8542.78	-2104.55	40°10'3.5038"N	104°33'50.5251"W	0.00	
15630.00†	90.005	359.897	6991.16	8886.20	8642.78	-2104.73	40°10'4.4920"N	104°33'50.5139"W	0.00	
15730.00†	90.005	359.897	6991.16	8984.37	8742.78	-2104.91	40°10'5.4802"N	104°33'50.5026"W	0.00	
15830.00†	90.005	359.897	6991.15	9082.53	8842.78	-2105.08	40°10'6.4683"N	104°33'50.4913"W	0.00	
15930.00†	90.005	359.897	6991.14	9180.70	8942.78	-2105.26	40°10'7.4565"N	104°33'50.4800"W	0.00	
16030.00†	90.005	359.897	6991.13	9278.87	9042.78	-2105.44	40°10'8.4447"N	104°33'50.4687"W	0.00	
16130.00†	90.005	359.897	6991.12	9377.04	9142.78	-2105.62	40°10'9.4328"N	104°33'50.4574"W	0.00	
16230.00†	90.005	359.897	6991.11	9475.21	9242.78	-2105.80	40°10'10.4210"N	104°33'50.4461"W	0.00	
16330.00†	90.005	359.897	6991.11	9573.38	9342.77	-2105.98	40°10'11.4092"N	104°33'50.4349"W	0.00	
16430.00†	90.005	359.897	6991.10	9671.55	9442.77	-2106.16	40°10'12.3973"N	104°33'50.4236"W	0.00	
16530.00†	90.005	359.897	6991.09	9769.71	9542.77	-2106.34	40°10'13.3855"N	104°33'50.4123"W	0.00	
16630.00†	90.005	359.897	6991.08	9867.88	9642.77	-2106.52	40°10'14.3737"N	104°33'50.4010"W	0.00	
16730.00†	90.005	359.897	6991.07	9966.05	9742.77	-2106.70	40°10'15.3618"N	104°33'50.3897"W	0.00	
16830.00†	90.005	359.897	6991.06	10064.22	9842.77	-2106.88	40°10'16.3500"N	104°33'50.3784"W	0.00	
16930.00†	90.005	359.897	6991.06	10162.39	9942.77	-2107.06	40°10'17.3382"N	104°33'50.3671"W	0.00	
17030.00†	90.005	359.897	6991.05	10260.56	10042.77	-2107.24	40°10'18.3263"N	104°33'50.3558"W	0.00	
17130.00†	90.005	359.897	6991.04	10358.72	10142.77	-2107.42	40°10'19.3145"N	104°33'50.3446"W	0.00	
17230.00†	90.005	359.897	6991.03	10456.89	10242.77	-2107.60	40°10'20.3027"N	104°33'50.3333"W	0.00	
17330.00†	90.005	359.897	6991.02	10555.06	10342.77	-2107.77	40°10'21.2908"N	104°33'50.3220"W	0.00	



Planned Wellpath Report

GIG-EM STATE Y9-782 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

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

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17430.00†	90.005	359.897	6991.01	10653.23	10442.77	-2107.95	40°10'22.2790"N	104°33'50.3107"W	0.00	
17530.00†	90.005	359.897	6991.01	10751.40	10542.77	-2108.13	40°10'23.2672"N	104°33'50.2994"W	0.00	
17595.66	90.005	359.897	6991.00 ³	10815.86	10608.43	-2108.25	40°10'23.9160"N	104°33'50.2920"W	0.00	BPZ
17630.00†	90.003	359.682	6991.00	10849.58	10642.77	-2108.38	40°10'24.2553"N	104°33'50.2890"W	0.63	
17730.00†	89.997	359.056	6991.00	10947.92	10742.77	-2109.48	40°10'25.2435"N	104°33'50.2895"W	0.63	
17755.95	89.995	358.893	6991.00 ⁴	10973.47	10768.72	-2109.94	40°10'25.5000"N	104°33'50.2920"W	0.63	BHL

HOLE & CASING SECTIONS - Ref Wellbore: GIG-EM STATE Y9-782 PWB Ref Wellpath: GIG-EM STATE Y9-782 (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	-35.00	10.04	1800.05	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	-35.00	10.04	1800.05	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	28.00	141.99	-1726.57	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W	polygon
	2D Polygon: dimensions not calculated								
1) GIG-EM STATE Y9-782 TPZ (133'FSL & 490'FWL,SEC.09)	7703.88	6980.12	717.41	-2090.51	3261578.63	1297469.67	40°08'46.1760"N	104°33'51.4080"W	point
4) GIG-EM STATE Y9-782 BHL (300'FNL & 510'FWL,SEC.04)	17755.95	6991.00	10768.72	-2109.94	3261559.20	1307520.54	40°10'25.5000"N	104°33'50.2920"W	point
3) GIG-EM STATE Y9-782 BPZ (460'FNL & 510'FWL,SEC.04)	17595.66	6991.00	10608.43	-2108.25	3261560.89	1307360.26	40°10'23.9160"N	104°33'50.2920"W	point
2) GIG-EM STATE Y9-782 Landing (270'FSL & 490' FWL,SEC.09)	N/A	6991.00	838.89	-2090.51	3261578.63	1297591.14	40°08'47.3764"N	104°33'51.3915"W	point



Planned Wellpath Report

GIG-EM STATE Y9-782 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

SURVEY PROGRAM - Ref Wellbore: GIG-EM STATE Y9-782 PWB Ref Wellpath: GIG-EM STATE Y9-782 (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 Y9-782 PWB
1950.00	17907.87	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-782 PWB



Planned Wellpath Report

GIG-EM STATE Y9-782 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	275.900	30.00	GIG-EM STATE Y9-782/Tie On
2000.00	0.000	275.900	2000.00	End of Tangent
3326.69	26.534	275.900	3279.78	Build (J)
6842.86	26.534	275.900	6425.58	GIG-EM STATE Y9-782/KOP
7703.88	79.000	359.896	6980.12	GIG-EM STATE Y9-782/TPZ
7826.15	90.005	359.897	6991.82	LANDING POINT
17595.66	90.005	359.897	6991.00	BPZ
17755.95	89.995	358.893	6991.00	BHL

COMMENTS	
<div>Wellpath general comments</div> <div>SHL: 595' FNL & 2565' FWL SEC.16</div> <div>TPZ: 133' FSL & 490'FWL SEC.09</div> <div>BHL: 300' FNL & 510' FWL SEC.04</div>	



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-782 (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 Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,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 2:08:50 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	-141.99	1726.57	3263669.05	1296752.29	40.1441300°	-104.5568300°
Facility Reference Pt			3261942.56	1296894.27	40.1445700°	-104.5630000°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

WELLPATH DATUM			
Calculation method	Minimum Curvature	Rig (30'KB) (RKB) to Facility Vertical Datum	4941.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4941.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16))	4941.00ft
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 Y9-782 (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 Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,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 Y9-782 PWB Ref Wellpath: GIG-EM STATE Y9-782 (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 Y9-782 PWB Ref Wellpath: GIG-EM STATE Y9-782 (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 Y9-782 PWB
1950.00	17907.87	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-782 PWB



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-782 (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 Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17755.95ft 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.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	7351.03	53.36	7351.03	7350.05	0.98	7350.05	FAIL
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	30.00	22.37	17595.66	2006.25	1.31	17755.95	PASS
Y Section 04	(HSR-Guttersen 05-04)	HSR-Guttersen 05-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	16009.61	189.76	16009.61	15996.89	1.34	15996.89	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	30.00	44.73	17630.00	2013.06	2.90	17755.95	PASS
Y Section 04	(Melvin Y04-04)	Melvin Y04-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17164.22	483.04	17164.22	17143.86	3.09	17143.86	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	13124.41	729.93	17430.00	13067.88	3.30	17630.00	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	7398.93	377.31	7398.93	7405.80	7.00	7405.80	PASS
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	7703.07	844.19	7703.07	12908.03	7.78	12908.03	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	6148.42	402.00	7130.00	7176.64	8.16	7176.64	PASS
Y Section 04	(HSR-Guttersen 03-04)	HSR-Guttersen 03-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17378.93	1298.56	17378.93	17371.70	8.17	17371.70	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	3052.17	1607.27	17630.00	17755.95	9.28	17755.95	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	5548.15	419.23	5548.15	5670.97	10.90	7030.00	PASS
SEC.16-T02N-R64W	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)	GIG-EM STATE Y9-740	GIG-EM STATE Y9-740 PWB	GIG-EM STATE Y9-740 (REV-B.0) PWP	Planned	2632.76	1728.36	17630.00	17755.95	12.35	17755.95	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	1359.27	146.70	1359.27	2303.34	13.42	7130.00	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	193.72	157.42	1130.00	2111.38	15.05	6630.00	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	1778.10	17630.00	17755.95	15.46	17755.95	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	2406.67	4275.90	17630.00	17755.95	16.66	17755.95	PASS
Y Section 04	(HSR-Guttersen 02-04)	HSR-Guttersen 02-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17468.78	2738.16	17468.78	17627.34	17.02	17627.34	PASS
Y Section 04	(HSR-Guttersen 07-04)	HSR-Guttersen 07-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	16234.90	2595.46	16234.90	16385.23	18.00	16385.23	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	1800.58	17630.00	17755.95	18.57	17755.95	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	4810.37	3508.95	4810.37	7234.50	18.62	7234.50	PASS
Y Section 04	(HSR-Guttersen 01-04)	HSR-Guttersen 01-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17472.19	3839.30	17472.19	17755.95	23.65	17755.95	PASS
Y Section 09	(Perkins USX Y09-23)	Perkins USX Y09-23	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	30.00	2333.82	8730.00	10855.77	28.25	10855.77	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	6484.21	1552.11	6484.21	6991.15	33.20	6991.15	PASS
Y Section 09	(Perkins 34-09)	Perkins 34-09	Wellbore #1	Wellbore #1\Wellbore #1 - As Drilled	Drilling	589.08	1409.73	8230.00	679.51	41.27	8530.00	PASS



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-782 (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 Y9-782
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-782 PWB
Slot	SLOT#14 GIG-EM STATE Y9-782 (595'FNL&2565'FWL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17755.95ft 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.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	2809.43	1678.56	2809.43	6699.11	43.13	6699.11	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	2406.67	4275.90	11230.00	12196.06	46.01	12196.06	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	2102.31	1790.78	2102.31	6730.00	56.98	6730.00	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	30.00	1828.50	1930.00	7779.39	71.50	7779.39	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	2043.63	1606.77	2043.63	7777.19	75.78	7777.19	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	30.00	1864.61	1830.00	7779.45	83.57	8630.00	PASS