

NOBLE ENERGY, INC



Location:	COLORADO	Slot:	SLOT#17 GIG-EM STATE Y9-751 (595°FNL&1020°FEL,SEC.16)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	GIG-EM STATE Y9-751
Facility:	SEC.16-T02N-R64W	Wellbore:	GIG-EM STATE Y9-751 PWB

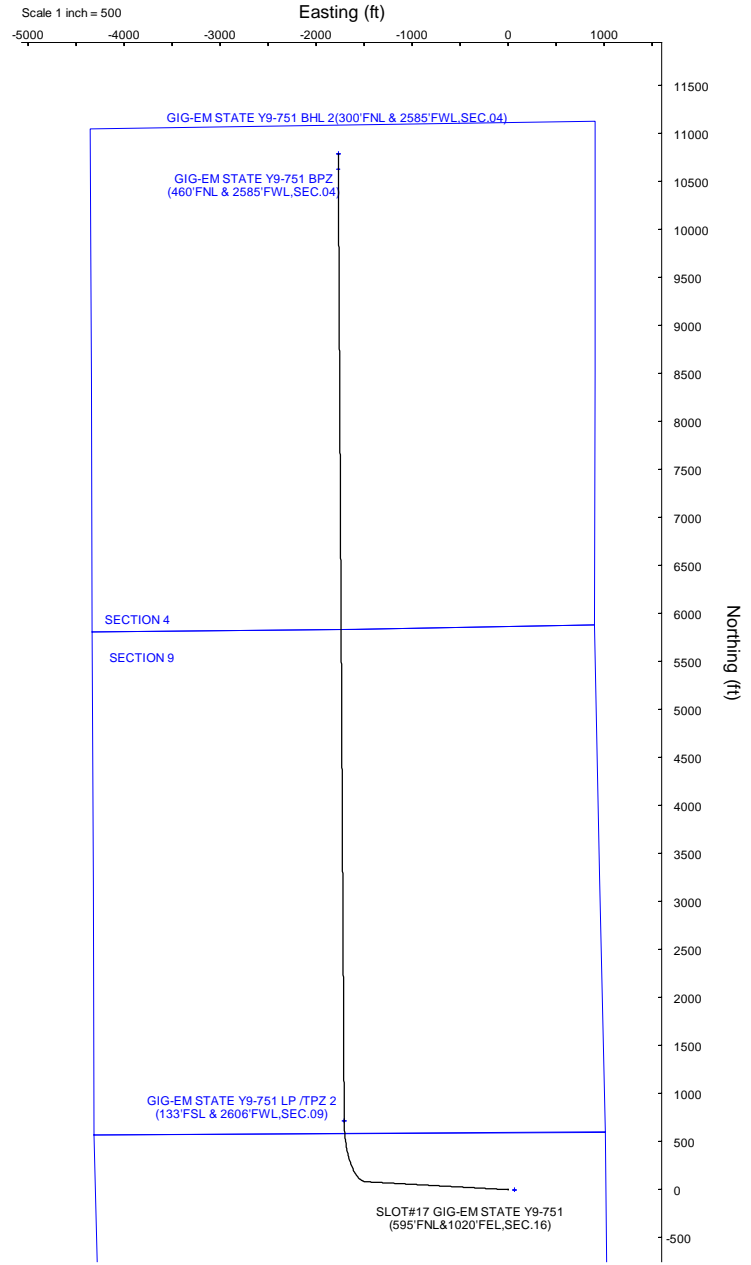
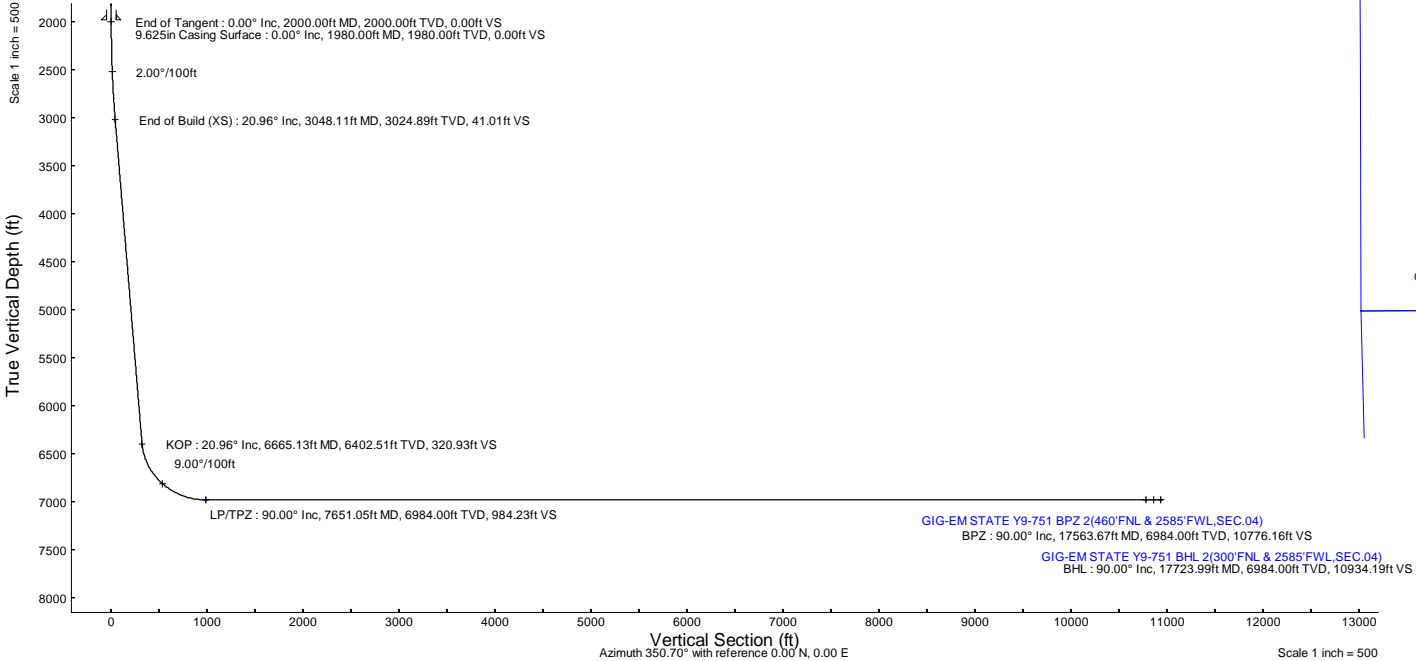
Plot reference wellpath is GIG-EM STATE Y9-751 (REV-B.0) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig(30°KB) (RKB)		North Reference: Grid north
Reference wellpath measured depths are referenced to Rig(30°KB) (RKB)		Scale: True distance
Rig(30°KB) (RKB) to Mean Sea Level: 4972 feet		Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#17 GIG-EM STATE Y9-751 (595°FNL&1020°FEL,SEC.16)): 0 feet		Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum		Created by: gualaner 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#17 GIG-EM STATE Y9-751 (595°FNL&1020°FEL,SEC.16)		-130.78	3459.90	3265402.312	1296763.498	40°08'38.7960"N	104°33'2.2680"W
Rig(30°KB) (RKB) to Ground level (At Slot: SLOT#17 GIG-EM STATE Y9-751 (595°FNL&1020°FEL,SEC.16))				4972ft			
Mean Sea Level to Ground level (At Slot: SLOT#17 GIG-EM STATE Y9-751 (595°FNL&1020°FEL,SEC.16))				0ft			
Rig(30°KB) (RKB) to Mean Sea Level				4972ft			

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	273.192	30.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	273.192	2000.00	0.00	0.00	0.00	0.00
End of Build (XS)	3048.11	20.962	273.192	3024.89	10.56	-189.31	2.00	41.01
KOP	6665.13	20.962	273.192	6402.51	82.61	-1481.30	0.00	320.93
LP/TPZ	7651.05	90.000	359.649	6984.00	717.70	-1707.54	9.00	984.23
BPZ	17563.67	90.000	359.649	6984.00	10630.13	-1768.27	0.00	10776.16
BHL	17723.99	90.000	1.129	6984.00	10790.44	-1767.18	0.92	10934.19

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	-4.00	-1.17	66.71	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
Rubicon State Y16-718 SECTION 9	N/A	-4.00	-1.17	66.71	3265469.02	1296762.33	40°08'38.7774"N	104°33'1.4092"W
HULLABALOO Y21-787 SECTION 16	N/A	59.00	130.78	-3459.90	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W
GIG-EM STATE Y9-751 BHL (300°FNL & 2585°FWL,SEC.04)	N/A	6984.00	10790.13	-1766.65	3263635.74	1307553.16	40°10'25.6049"N	104°33'23.5372"W
GIG-EM STATE Y9-751 BHL 2(300°FNL & 2585°FWL,SEC.04)	17723.99	6984.00	10790.44	-1767.18	3263635.21	1307553.47	40°10'25.6080"N	104°33'23.5440"W
GIG-EM STATE Y9-751 BPZ 2(460°FNL & 2585°FWL,SEC.04)	17563.67	6984.00	10630.13	-1768.27	3263634.12	1307393.16	40°10'24.0240"N	104°33'23.5800"W
GIG-EM STATE Y9-751 LP /TPZ (133°FSL & 2606°FWL,SEC.09)	N/A	6984.00	716.96	-1706.16	3263696.23	1297480.42	40°08'46.0606"N	104°33'24.1383"W
GIG-EM STATE Y9-751 LP /TPZ 2(133°FSL & 2606°FWL,SEC.09)	7651.05	6984.00	717.70	-1707.54	3263694.85	1297481.16	40°08'46.0606"N	104°33'24.1560"W

Bottom Hole Location								
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid North (US ft)	Latitude	Longitude
17723.99	90.000	1.129	6984.00	10790.44	-1767.18	3263635.21	1307553.47	40°10'25.6080"N 104°33'23.5440"W





Planned Wellpath Report

GIG-EM STATE Y9-751 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'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 2:22:23 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	-130.78	3459.90	3265402.31	1296763.50	40°08'38.7960"N	104°33'2.2680"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	4972.00ft
Horizontal Reference Pt	Slot	Rig(30'KB) (RKB) to Mean Sea Level	4972.00ft
Vertical Reference Pt	Rig(30'KB) (RKB)	Rig(30'KB) (RKB) to Ground Level at Slot (SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16))	4972.00ft
MD Reference Pt	Rig(30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	350.70°



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GIG-EM STATE Y9-751 (REV-B.0) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

WELLPATH DATA (184 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	273.192	0.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
30.00	0.000	273.192	30.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	SHL
130.00†	0.000	273.192	130.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
230.00†	0.000	273.192	230.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
330.00†	0.000	273.192	330.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
430.00†	0.000	273.192	430.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
530.00†	0.000	273.192	530.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
630.00†	0.000	273.192	630.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
730.00†	0.000	273.192	730.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
830.00†	0.000	273.192	830.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
930.00†	0.000	273.192	930.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1030.00†	0.000	273.192	1030.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1130.00†	0.000	273.192	1130.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1230.00†	0.000	273.192	1230.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1330.00†	0.000	273.192	1330.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1430.00†	0.000	273.192	1430.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1530.00†	0.000	273.192	1530.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1630.00†	0.000	273.192	1630.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1730.00†	0.000	273.192	1730.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1830.00†	0.000	273.192	1830.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
1930.00†	0.000	273.192	1930.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	
2000.00	0.000	273.192	2000.00	0.00	0.00	0.00	40°08'38.7960"N	104°33'2.2680"W	0.00	End of Tangent
2030.00†	0.600	273.192	2030.00	0.03	0.01	-0.16	40°08'38.7961"N	104°33'2.2700"W	2.00	
2130.00†	2.600	273.192	2129.96	0.64	0.16	-2.94	40°08'38.7979"N	104°33'2.3059"W	2.00	
2230.00†	4.600	273.192	2229.75	2.00	0.51	-9.21	40°08'38.8021"N	104°33'2.3866"W	2.00	
2330.00†	6.600	273.192	2329.27	4.11	1.06	-18.96	40°08'38.8085"N	104°33'2.5119"W	2.00	
2430.00†	8.600	273.192	2428.39	6.97	1.79	-32.16	40°08'38.8171"N	104°33'2.6819"W	2.00	
2530.00†	10.600	273.192	2526.98	10.58	2.72	-48.81	40°08'38.8281"N	104°33'2.8961"W	2.00	
2630.00†	12.600	273.192	2624.93	14.92	3.84	-68.89	40°08'38.8412"N	104°33'3.1545"W	2.00	
2730.00†	14.600	273.192	2722.13	20.01	5.15	-92.36	40°08'38.8567"N	104°33'3.4566"W	2.00	
2830.00†	16.600	273.192	2818.44	25.83	6.65	-119.21	40°08'38.8743"N	104°33'3.8021"W	2.00	
2930.00†	18.600	273.192	2913.75	32.37	8.33	-149.40	40°08'38.8941"N	104°33'4.1905"W	2.00	
3030.00†	20.600	273.192	3007.95	39.62	10.20	-182.89	40°08'38.9161"N	104°33'4.6215"W	2.00	
3048.11	20.962	273.192	3024.89	41.01	10.56	-189.31	40°08'38.9203"N	104°33'4.7041"W	2.00	End of Build (XS)
3130.00†	20.962	273.192	3101.35	47.35	12.19	-218.56	40°08'38.9396"N	104°33'5.0805"W	0.00	
3230.00†	20.962	273.192	3194.74	55.09	14.18	-254.28	40°08'38.9630"N	104°33'5.5401"W	0.00	
3330.00†	20.962	273.192	3288.12	62.83	16.17	-290.00	40°08'38.9865"N	104°33'5.9998"W	0.00	
3430.00†	20.962	273.192	3381.50	70.57	18.16	-325.72	40°08'39.0099"N	104°33'6.4594"W	0.00	
3530.00†	20.962	273.192	3474.88	78.31	20.16	-361.44	40°08'39.0334"N	104°33'6.9191"W	0.00	
3630.00†	20.962	273.192	3568.26	86.05	22.15	-397.16	40°08'39.0568"N	104°33'7.3787"W	0.00	
3730.00†	20.962	273.192	3661.64	93.78	24.14	-432.88	40°08'39.0803"N	104°33'7.8384"W	0.00	
3830.00†	20.962	273.192	3755.03	101.52	26.13	-468.60	40°08'39.1038"N	104°33'8.2981"W	0.00	
3930.00†	20.962	273.192	3848.41	109.26	28.12	-504.32	40°08'39.1272"N	104°33'8.7577"W	0.00	
4030.00†	20.962	273.192	3941.79	117.00	30.12	-540.04	40°08'39.1507"N	104°33'9.2174"W	0.00	
4130.00†	20.962	273.192	4035.17	124.74	32.11	-575.76	40°08'39.1741"N	104°33'9.6770"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

WELLPATH DATA (184 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4230.00†	20.962	273.192	4128.55	132.48	34.10	-611.48	40°08'39.1976"N	104°33'10.1367"W	0.00	
4330.00†	20.962	273.192	4221.93	140.22	36.09	-647.20	40°08'39.2210"N	104°33'10.5963"W	0.00	
4430.00†	20.962	273.192	4315.32	147.96	38.08	-682.92	40°08'39.2445"N	104°33'11.0560"W	0.00	
4530.00†	20.962	273.192	4408.70	155.69	40.08	-718.63	40°08'39.2679"N	104°33'11.5156"W	0.00	
4630.00†	20.962	273.192	4502.08	163.43	42.07	-754.35	40°08'39.2914"N	104°33'11.9753"W	0.00	
4730.00†	20.962	273.192	4595.46	171.17	44.06	-790.07	40°08'39.3148"N	104°33'12.4350"W	0.00	
4830.00†	20.962	273.192	4688.84	178.91	46.05	-825.79	40°08'39.3383"N	104°33'12.8946"W	0.00	
4930.00†	20.962	273.192	4782.22	186.65	48.04	-861.51	40°08'39.3617"N	104°33'13.3543"W	0.00	
5030.00†	20.962	273.192	4875.61	194.39	50.04	-897.23	40°08'39.3852"N	104°33'13.8139"W	0.00	
5130.00†	20.962	273.192	4968.99	202.13	52.03	-932.95	40°08'39.4086"N	104°33'14.2736"W	0.00	
5230.00†	20.962	273.192	5062.37	209.87	54.02	-968.67	40°08'39.4321"N	104°33'14.7332"W	0.00	
5330.00†	20.962	273.192	5155.75	217.60	56.01	-1004.39	40°08'39.4555"N	104°33'15.1929"W	0.00	
5430.00†	20.962	273.192	5249.13	225.34	58.00	-1040.11	40°08'39.4790"N	104°33'15.6525"W	0.00	
5530.00†	20.962	273.192	5342.51	233.08	60.00	-1075.83	40°08'39.5024"N	104°33'16.1122"W	0.00	
5630.00†	20.962	273.192	5435.89	240.82	61.99	-1111.55	40°08'39.5259"N	104°33'16.5719"W	0.00	
5730.00†	20.962	273.192	5529.28	248.56	63.98	-1147.27	40°08'39.5493"N	104°33'17.0315"W	0.00	
5830.00†	20.962	273.192	5622.66	256.30	65.97	-1182.99	40°08'39.5728"N	104°33'17.4912"W	0.00	
5930.00†	20.962	273.192	5716.04	264.04	67.96	-1218.71	40°08'39.5962"N	104°33'17.9508"W	0.00	
6030.00†	20.962	273.192	5809.42	271.78	69.95	-1254.43	40°08'39.6197"N	104°33'18.4105"W	0.00	
6130.00†	20.962	273.192	5902.80	279.52	71.95	-1290.15	40°08'39.6431"N	104°33'18.8701"W	0.00	
6230.00†	20.962	273.192	5996.18	287.25	73.94	-1325.87	40°08'39.6666"N	104°33'19.3298"W	0.00	
6330.00†	20.962	273.192	6089.57	294.99	75.93	-1361.59	40°08'39.6900"N	104°33'19.7895"W	0.00	
6430.00†	20.962	273.192	6182.95	302.73	77.92	-1397.31	40°08'39.7134"N	104°33'20.2491"W	0.00	
6530.00†	20.962	273.192	6276.33	310.47	79.91	-1433.03	40°08'39.7369"N	104°33'20.7088"W	0.00	
6630.00†	20.962	273.192	6369.71	318.21	81.91	-1468.75	40°08'39.7603"N	104°33'21.1684"W	0.00	
6665.13	20.962	273.192	6402.51	320.93	82.61	-1481.30	40°08'39.7686"N	104°33'21.3299"W	0.00	KOP
6730.00†	22.048	288.888	6462.92	329.20	87.20	-1504.42	40°08'39.8164"N	104°33'21.6270"W	9.00	
6830.00†	26.183	308.602	6554.32	354.49	107.08	-1539.50	40°08'40.0165"N	104°33'22.0759"W	9.00	
6930.00†	32.242	322.332	6641.66	394.41	142.03	-1573.11	40°08'40.3654"N	104°33'22.5039"W	9.00	
7030.00†	39.340	331.841	6722.79	447.99	191.19	-1604.43	40°08'40.8545"N	104°33'22.9005"W	9.00	
7130.00†	47.004	338.762	6795.70	513.90	253.35	-1632.69	40°08'41.4717"N	104°33'23.2559"W	9.00	
7230.00†	54.991	344.114	6858.62	590.52	326.98	-1657.20	40°08'42.2018"N	104°33'23.5613"W	9.00	
7330.00†	63.171	348.498	6909.97	675.96	410.26	-1677.35	40°08'43.0269"N	104°33'23.8094"W	9.00	
7430.00†	71.467	352.284	6948.51	768.12	501.15	-1692.64	40°08'43.9266"N	104°33'23.9938"W	9.00	
7530.00†	79.832	355.716	6973.28	864.74	597.40	-1702.70	40°08'44.8788"N	104°33'24.1102"W	9.00	
7630.00†	88.230	358.972	6983.67	963.42	696.65	-1707.29	40°08'45.8600"N	104°33'24.1556"W	9.00	
7651.05	90.000	359.649	6984.00†	984.23	717.70	-1707.54	40°08'46.0680"N	104°33'24.1560"W	9.00	LP/TPZ
7730.00†	90.000	359.649	6984.00	1062.22	796.64	-1708.02	40°08'46.8482"N	104°33'24.1514"W	0.00	
7830.00†	90.000	359.649	6984.00	1161.00	896.64	-1708.64	40°08'47.8364"N	104°33'24.1456"W	0.00	
7930.00†	90.000	359.649	6984.00	1259.78	996.64	-1709.25	40°08'48.8245"N	104°33'24.1398"W	0.00	
8030.00†	90.000	359.649	6984.00	1358.57	1096.64	-1709.86	40°08'49.8127"N	104°33'24.1340"W	0.00	
8130.00†	90.000	359.649	6984.00	1457.35	1196.63	-1710.47	40°08'50.8009"N	104°33'24.1282"W	0.00	
8230.00†	90.000	359.649	6984.00	1556.13	1296.63	-1711.09	40°08'51.7891"N	104°33'24.1224"W	0.00	
8330.00†	90.000	359.649	6984.00	1654.91	1396.63	-1711.70	40°08'52.7773"N	104°33'24.1166"W	0.00	
8430.00†	90.000	359.649	6984.00	1753.70	1496.63	-1712.31	40°08'53.7655"N	104°33'24.1108"W	0.00	



Planned Wellpath Report  
GIG-EM STATE Y9-751 (REV-B.0) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

WELLPATH DATA (184 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	359.649	6984.00	1852.48	1596.63	-1712.92	40°08'54.7537"N	104°33'24.1049"W	0.00	
8630.00†	90.000	359.649	6984.00	1951.26	1696.63	-1713.54	40°08'55.7419"N	104°33'24.0991"W	0.00	
8730.00†	90.000	359.649	6984.00	2050.04	1796.62	-1714.15	40°08'56.7301"N	104°33'24.0933"W	0.00	
8830.00†	90.000	359.649	6984.00	2148.83	1896.62	-1714.76	40°08'57.7183"N	104°33'24.0875"W	0.00	
8930.00†	90.000	359.649	6984.00	2247.61	1996.62	-1715.38	40°08'58.7065"N	104°33'24.0817"W	0.00	
9030.00†	90.000	359.649	6984.00	2346.39	2096.62	-1715.99	40°08'59.6947"N	104°33'24.0759"W	0.00	
9130.00†	90.000	359.649	6984.00	2445.17	2196.62	-1716.60	40°09'0.6829"N	104°33'24.0701"W	0.00	
9230.00†	90.000	359.649	6984.00	2543.96	2296.61	-1717.21	40°09'1.6711"N	104°33'24.0643"W	0.00	
9330.00†	90.000	359.649	6984.00	2642.74	2396.61	-1717.83	40°09'2.6593"N	104°33'24.0585"W	0.00	
9430.00†	90.000	359.649	6984.00	2741.52	2496.61	-1718.44	40°09'3.6475"N	104°33'24.0527"W	0.00	
9530.00†	90.000	359.649	6984.00	2840.30	2596.61	-1719.05	40°09'4.6357"N	104°33'24.0469"W	0.00	
9630.00†	90.000	359.649	6984.00	2939.09	2696.61	-1719.66	40°09'5.6239"N	104°33'24.0410"W	0.00	
9730.00†	90.000	359.649	6984.00	3037.87	2796.60	-1720.28	40°09'6.6121"N	104°33'24.0352"W	0.00	
9830.00†	90.000	359.649	6984.00	3136.65	2896.60	-1720.89	40°09'7.6003"N	104°33'24.0294"W	0.00	
9930.00†	90.000	359.649	6984.00	3235.43	2996.60	-1721.50	40°09'8.5885"N	104°33'24.0236"W	0.00	
10030.00†	90.000	359.649	6984.00	3334.22	3096.60	-1722.11	40°09'9.5767"N	104°33'24.0178"W	0.00	
10130.00†	90.000	359.649	6984.00	3433.00	3196.60	-1722.73	40°09'10.5649"N	104°33'24.0120"W	0.00	
10230.00†	90.000	359.649	6984.00	3531.78	3296.60	-1723.34	40°09'11.5531"N	104°33'24.0062"W	0.00	
10330.00†	90.000	359.649	6984.00	3630.56	3396.59	-1723.95	40°09'12.5413"N	104°33'24.0004"W	0.00	
10430.00†	90.000	359.649	6984.00	3729.35	3496.59	-1724.57	40°09'13.5295"N	104°33'23.9946"W	0.00	
10530.00†	90.000	359.649	6984.00	3828.13	3596.59	-1725.18	40°09'14.5177"N	104°33'23.9888"W	0.00	
10630.00†	90.000	359.649	6984.00	3926.91	3696.59	-1725.79	40°09'15.5059"N	104°33'23.9829"W	0.00	
10730.00†	90.000	359.649	6984.00	4025.69	3796.59	-1726.40	40°09'16.4941"N	104°33'23.9771"W	0.00	
10830.00†	90.000	359.649	6984.00	4124.48	3896.58	-1727.02	40°09'17.4822"N	104°33'23.9713"W	0.00	
10930.00†	90.000	359.649	6984.00	4223.26	3996.58	-1727.63	40°09'18.4704"N	104°33'23.9655"W	0.00	
11030.00†	90.000	359.649	6984.00	4322.04	4096.58	-1728.24	40°09'19.4586"N	104°33'23.9597"W	0.00	
11130.00†	90.000	359.649	6984.00	4420.82	4196.58	-1728.85	40°09'20.4468"N	104°33'23.9539"W	0.00	
11230.00†	90.000	359.649	6984.00	4519.61	4296.58	-1729.47	40°09'21.4350"N	104°33'23.9481"W	0.00	
11330.00†	90.000	359.649	6984.00	4618.39	4396.57	-1730.08	40°09'22.4232"N	104°33'23.9423"W	0.00	
11430.00†	90.000	359.649	6984.00	4717.17	4496.57	-1730.69	40°09'23.4114"N	104°33'23.9365"W	0.00	
11530.00†	90.000	359.649	6984.00	4815.95	4596.57	-1731.31	40°09'24.3996"N	104°33'23.9307"W	0.00	
11630.00†	90.000	359.649	6984.00	4914.74	4696.57	-1731.92	40°09'25.3878"N	104°33'23.9248"W	0.00	
11730.00†	90.000	359.649	6984.00	5013.52	4796.57	-1732.53	40°09'26.3760"N	104°33'23.9190"W	0.00	
11830.00†	90.000	359.649	6984.00	5112.30	4896.57	-1733.14	40°09'27.3642"N	104°33'23.9132"W	0.00	
11930.00†	90.000	359.649	6984.00	5211.08	4996.56	-1733.76	40°09'28.3524"N	104°33'23.9074"W	0.00	
12030.00†	90.000	359.649	6984.00	5309.87	5096.56	-1734.37	40°09'29.3406"N	104°33'23.9016"W	0.00	
12130.00†	90.000	359.649	6984.00	5408.65	5196.56	-1734.98	40°09'30.3288"N	104°33'23.8958"W	0.00	
12230.00†	90.000	359.649	6984.00	5507.43	5296.56	-1735.59	40°09'31.3170"N	104°33'23.8900"W	0.00	
12330.00†	90.000	359.649	6984.00	5606.21	5396.56	-1736.21	40°09'32.3052"N	104°33'23.8842"W	0.00	
12430.00†	90.000	359.649	6984.00	5705.00	5496.55	-1736.82	40°09'33.2934"N	104°33'23.8784"W	0.00	
12530.00†	90.000	359.649	6984.00	5803.78	5596.55	-1737.43	40°09'34.2816"N	104°33'23.8726"W	0.00	
12630.00†	90.000	359.649	6984.00	5902.56	5696.55	-1738.04	40°09'35.2698"N	104°33'23.8667"W	0.00	
12730.00†	90.000	359.649	6984.00	6001.34	5796.55	-1738.66	40°09'36.2580"N	104°33'23.8609"W	0.00	
12830.00†	90.000	359.649	6984.00	6100.13	5896.55	-1739.27	40°09'37.2462"N	104°33'23.8551"W	0.00	
12930.00†	90.000	359.649	6984.00	6198.91	5996.54	-1739.88	40°09'38.2344"N	104°33'23.8493"W	0.00	



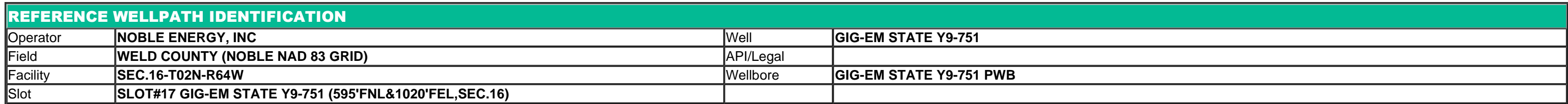
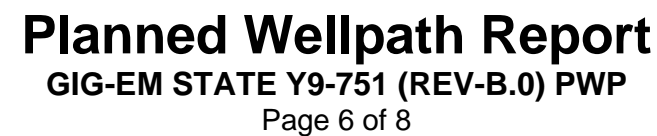


Planned Wellpath Report  
GIG-EM STATE Y9-751 (REV-B.0) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

WELLPATH DATA (184 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	359.649	6984.00	6297.69	6096.54	-1740.50	40°09'39.2225"N	104°33'23.8435"W	0.00	
13130.00†	90.000	359.649	6984.00	6396.47	6196.54	-1741.11	40°09'40.2107"N	104°33'23.8377"W	0.00	
13230.00†	90.000	359.649	6984.00	6495.26	6296.54	-1741.72	40°09'41.1989"N	104°33'23.8319"W	0.00	
13330.00†	90.000	359.649	6984.00	6594.04	6396.54	-1742.33	40°09'42.1871"N	104°33'23.8261"W	0.00	
13430.00†	90.000	359.649	6984.00	6692.82	6496.54	-1742.95	40°09'43.1753"N	104°33'23.8203"W	0.00	
13530.00†	90.000	359.649	6984.00	6791.60	6596.53	-1743.56	40°09'44.1635"N	104°33'23.8144"W	0.00	
13630.00†	90.000	359.649	6984.00	6890.39	6696.53	-1744.17	40°09'45.1517"N	104°33'23.8086"W	0.00	
13730.00†	90.000	359.649	6984.00	6989.17	6796.53	-1744.78	40°09'46.1399"N	104°33'23.8028"W	0.00	
13830.00†	90.000	359.649	6984.00	7087.95	6896.53	-1745.40	40°09'47.1281"N	104°33'23.7970"W	0.00	
13930.00†	90.000	359.649	6984.00	7186.73	6996.53	-1746.01	40°09'48.1163"N	104°33'23.7912"W	0.00	
14030.00†	90.000	359.649	6984.00	7285.52	7096.52	-1746.62	40°09'49.1045"N	104°33'23.7854"W	0.00	
14130.00†	90.000	359.649	6984.00	7384.30	7196.52	-1747.24	40°09'50.0927"N	104°33'23.7796"W	0.00	
14230.00†	90.000	359.649	6984.00	7483.08	7296.52	-1747.85	40°09'51.0809"N	104°33'23.7738"W	0.00	
14330.00†	90.000	359.649	6984.00	7581.86	7396.52	-1748.46	40°09'52.0691"N	104°33'23.7680"W	0.00	
14430.00†	90.000	359.649	6984.00	7680.65	7496.52	-1749.07	40°09'53.0573"N	104°33'23.7621"W	0.00	
14530.00†	90.000	359.649	6984.00	7779.43	7596.51	-1749.69	40°09'54.0455"N	104°33'23.7563"W	0.00	
14630.00†	90.000	359.649	6984.00	7878.21	7696.51	-1750.30	40°09'55.0337"N	104°33'23.7505"W	0.00	
14730.00†	90.000	359.649	6984.00	7976.99	7796.51	-1750.91	40°09'56.0219"N	104°33'23.7447"W	0.00	
14830.00†	90.000	359.649	6984.00	8075.78	7896.51	-1751.52	40°09'57.0101"N	104°33'23.7389"W	0.00	
14930.00†	90.000	359.649	6984.00	8174.56	7996.51	-1752.14	40°09'57.9982"N	104°33'23.7331"W	0.00	
15030.00†	90.000	359.649	6984.00	8273.34	8096.51	-1752.75	40°09'58.9864"N	104°33'23.7273"W	0.00	
15130.00†	90.000	359.649	6984.00	8372.12	8196.50	-1753.36	40°09'59.9746"N	104°33'23.7215"W	0.00	
15230.00†	90.000	359.649	6984.00	8470.91	8296.50	-1753.97	40°10'0.9628"N	104°33'23.7156"W	0.00	
15330.00†	90.000	359.649	6984.00	8569.69	8396.50	-1754.59	40°10'1.9510"N	104°33'23.7098"W	0.00	
15430.00†	90.000	359.649	6984.00	8668.47	8496.50	-1755.20	40°10'2.9392"N	104°33'23.7040"W	0.00	
15530.00†	90.000	359.649	6984.00	8767.25	8596.50	-1755.81	40°10'3.9274"N	104°33'23.6982"W	0.00	
15630.00†	90.000	359.649	6984.00	8866.04	8696.49	-1756.43	40°10'4.9156"N	104°33'23.6924"W	0.00	
15730.00†	90.000	359.649	6984.00	8964.82	8796.49	-1757.04	40°10'5.9038"N	104°33'23.6866"W	0.00	
15830.00†	90.000	359.649	6984.00	9063.60	8896.49	-1757.65	40°10'6.8920"N	104°33'23.6808"W	0.00	
15930.00†	90.000	359.649	6984.00	9162.38	8996.49	-1758.26	40°10'7.8802"N	104°33'23.6750"W	0.00	
16030.00†	90.000	359.649	6984.00	9261.16	9096.49	-1758.88	40°10'8.8684"N	104°33'23.6691"W	0.00	
16130.00†	90.000	359.649	6984.00	9359.95	9196.48	-1759.49	40°10'9.8566"N	104°33'23.6633"W	0.00	
16230.00†	90.000	359.649	6984.00	9458.73	9296.48	-1760.10	40°10'10.8448"N	104°33'23.6575"W	0.00	
16330.00†	90.000	359.649	6984.00	9557.51	9396.48	-1760.71	40°10'11.8330"N	104°33'23.6517"W	0.00	
16430.00†	90.000	359.649	6984.00	9656.29	9496.48	-1761.33	40°10'12.8212"N	104°33'23.6459"W	0.00	
16530.00†	90.000	359.649	6984.00	9755.08	9596.48	-1761.94	40°10'13.8094"N	104°33'23.6401"W	0.00	
16630.00†	90.000	359.649	6984.00	9853.86	9696.48	-1762.55	40°10'14.7975"N	104°33'23.6343"W	0.00	
16730.00†	90.000	359.649	6984.00	9952.64	9796.47	-1763.17	40°10'15.7857"N	104°33'23.6285"W	0.00	
16830.00†	90.000	359.649	6984.00	10051.42	9896.47	-1763.78	40°10'16.7739"N	104°33'23.6226"W	0.00	
16930.00†	90.000	359.649	6984.00	10150.21	9996.47	-1764.39	40°10'17.7621"N	104°33'23.6168"W	0.00	
17030.00†	90.000	359.649	6984.00	10248.99	10096.47	-1765.00	40°10'18.7503"N	104°33'23.6110"W	0.00	
17130.00†	90.000	359.649	6984.00	10347.77	10196.47	-1765.62	40°10'19.7385"N	104°33'23.6052"W	0.00	
17230.00†	90.000	359.649	6984.00	10446.55	10296.46	-1766.23	40°10'20.7267"N	104°33'23.5994"W	0.00	
17330.00†	90.000	359.649	6984.00	10545.34	10396.46	-1766.84	40°10'21.7149"N	104°33'23.5936"W	0.00	
17430.00†	90.000	359.649	6984.00	10644.12	10496.46	-1767.45	40°10'22.7031"N	104°33'23.5878"W	0.00	



WELLPATH DATA (184 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ['/100ft]	Comments
17530.00†	90.000	359.649	6984.00	10742.90	10596.46	-1768.07	40°10'23.6913"N	104°33'23.5820"W	0.00	
17563.67	90.000	359.649	6984.00 <sup>2</sup>	10776.16	10630.13	-1768.27	40°10'24.0240"N	104°33'23.5800"W	0.00	BPZ
17630.00†	90.000	0.262	6984.00	10841.63	10696.46	-1768.32	40°10'24.6795"N	104°33'23.5716"W	0.92	
17723.99	90.000	1.129	6984.00 <sup>3</sup>	10934.19	10790.44	-1767.18	40°10'25.6080"N	104°33'23.5440"W	0.92	BHL

HOLE & CASING SECTIONS - Ref Wellbore: GIG-EM STATE Y9-751 PWB      Ref Wellpath: GIG-EM STATE Y9-751 (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	1980.00	1950.00	30.00	1980.00	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	-4.00	-1.17	66.71	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	-4.00	-1.17	66.71	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	59.00	130.78	-3459.90	3261942.56	1296894.28	40°08'40.4520"N	104°33'46.8000"W	polygon
	2D Polygon: dimensions not calculated								
GIG-EM STATE Y9-751 BHL (300'FNL & 2585'FWL,SEC.04)	N/A	6984.00	10790.13	-1766.65	3263635.74	1307553.16	40°10'25.6049"N	104°33'23.5372"W	point
3) GIG-EM STATE Y9-751 BHL 2(300'FNL & 2585'FWL,SEC.04)	17723.99	6984.00	10790.44	-1767.18	3263635.21	1307553.47	40°10'25.6080"N	104°33'23.5440"W	point
2) GIG-EM STATE Y9-751 BPZ 2(460'FNL & 2585'FWL,SEC.04)	17563.67	6984.00	10630.13	-1768.27	3263634.12	1307393.16	40°10'24.0240"N	104°33'23.5800"W	point
GIG-EM STATE Y9-751 LP /TPZ (133'FSL & 2606'FWL,SEC.09)	N/A	6984.00	716.96	-1706.16	3263696.23	1297480.42	40°08'46.0606"N	104°33'24.1383"W	point
1) GIG-EM STATE Y9-751 LP /TPZ 2(133'FSL & 2606'FWL,SEC.09)	7651.05	6984.00	717.70	-1707.54	3263694.85	1297481.16	40°08'46.0680"N	104°33'24.1560"W	point



Planned Wellpath Report

GIG-EM STATE Y9-751 (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

SURVEY PROGRAM - Ref Wellbore: GIG-EM STATE Y9-751 PWB    Ref Wellpath: GIG-EM STATE Y9-751 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1980.00	BH Generic gyro - northseeking (Standard)		GIG-EM STATE Y9-751 PWB
1980.00	20030.00	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-751 PWB





Planned Wellpath Report  
GIG-EM STATE Y9-751 (REV-B.0) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	273.192	30.00	SHL
2000.00	0.000	273.192	2000.00	End of Tangent
3048.11	20.962	273.192	3024.89	End of Build (XS)
6665.13	20.962	273.192	6402.51	KOP
7651.05	90.000	359.649	6984.00	LP/TPZ
17563.67	90.000	359.649	6984.00	BPZ
17723.99	90.000	1.129	6984.00	BHL



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-751 (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 Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'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 2:22:34 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	-130.78	3459.90	3265402.31	1296763.50	40°08'38.7960"N	104°33'2.2680"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	4972.00ft
Horizontal Reference Pt	Slot	Rig(30'KB) (RKB) to Mean Sea Level	4972.00ft
Vertical Reference Pt	Rig(30'KB) (RKB)	Rig(30'KB) (RKB) to Ground Level at Slot (SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16))	4972.00ft
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 Y9-751 (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 Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'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 Y9-751 PWB      Ref Wellpath: GIG-EM STATE Y9-751 (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	1980.00	1950.00	30.00	1980.00	0.00	0.00	0.00	0.00

SURVEY PROGRAM - Ref Wellbore: GIG-EM STATE Y9-751 PWB      Ref Wellpath: GIG-EM STATE Y9-751 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1980.00	BH Generic gyro - northseeking (Standard)		GIG-EM STATE Y9-751 PWB
1980.00	20030.00	OWSG MWD rev2 (MS+IFR1)		GIG-EM STATE Y9-751 PWB



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-751 (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 Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17723.99ft 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#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	30.00	22.37	17723.99	2006.04	1.31	17723.99	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	44.73	17723.99	2012.67	2.92	17723.99	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	17564.84	692.47	17564.84	17723.99	3.06	17723.99	PASS
Y Section 04	(HSR-Guttersen 07-04)	HSR-Guttersen 07-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	16171.46	515.94	16171.46	16155.35	3.57	16155.35	PASS
Y Section 04	(HSR-Guttersen 02-04)	HSR-Guttersen 02-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17404.80	663.99	17404.80	17391.95	4.12	17391.95	PASS
Y Section 04	(HSR-Guttersen 03-04)	HSR-Guttersen 03-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17320.94	776.12	17320.94	17387.26	4.84	17387.26	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	2517.45	145.11	7010.24	7010.24	5.76	7010.24	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	7037.44	1354.87	17630.00	17723.99	6.11	17723.99	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	7239.20	380.11	7239.20	7265.50	7.60	7265.50	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	3699.97	1607.27	17563.67	17723.99	9.23	17723.99	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	67.10	17723.99	17723.99	9.26	17723.99	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	11684.04	2678.94	17723.99	17723.99	9.45	17723.99	PASS
Y Section 04	(Melvin Y04-04)	Melvin Y04-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17111.22	1592.25	17111.22	17307.39	10.10	17307.39	PASS
Y Section 04	(HSR-Guttersen 01-04)	HSR-Guttersen 01-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	17402.69	1767.21	17402.69	17456.93	10.97	17456.93	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	1013.10	173.38	1630.00	2078.83	11.58	6930.00	PASS
Y Section 09	(Perkins USX Y09-23)	Perkins USX Y09-23	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	8701.12	1415.44	8701.12	9513.52	11.65	9513.52	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	13098.25	2823.08	17430.00	12836.69	12.78	17630.00	PASS
Y Section 04	(HSR-Guttersen 05-04)	HSR-Guttersen 05-04	Original Drilling	Original Drilling\Original Drilling - As Drilled	Drilling	15954.73	1886.46	15954.73	16248.20	13.26	16248.20	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	1541.69	154.82	6830.00	2077.84	13.96	6930.00	PASS
Y Section 09	(Perkins 34-09)	Perkins 34-09	Wellbore #1	Wellbore #1\Wellbore #1 - As Drilled	Drilling	8119.04	815.57	8119.04	8112.28	13.99	8112.28	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	7509.03	795.99	7509.03	7575.15	15.10	7575.15	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	1828.69	189.00	1828.69	2016.34	16.07	7130.00	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	6752.19	3817.62	6752.19	7161.39	19.31	7161.39	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	7452.57	1223.89	7452.57	7572.38	24.06	7572.38	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	12561.36	2944.77	12561.36	13694.92	25.85	13694.92	PASS



Closest Approach Clearance Summary Report

GIG-EM STATE Y9-751 (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 Y9-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-751 PWB
Slot	SLOT#17 GIG-EM STATE Y9-751 (595'FNL&1020'FEL,SEC.16)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17723.99ft 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.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	10671.38	2734.57	11130.00	11467.56	26.62	11467.56	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	7484.46	1633.04	7484.46	7662.86	31.64	7662.86	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	3361.63	762.89	3361.63	5602.25	33.54	6730.00	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	7554.73	2020.76	7554.73	8091.02	39.04	8091.02	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	7579.77	2426.16	7579.77	8468.78	45.57	8468.78	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	6930.00	2503.01	6930.00	7259.29	57.61	7259.29	PASS