

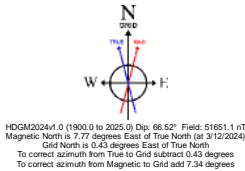
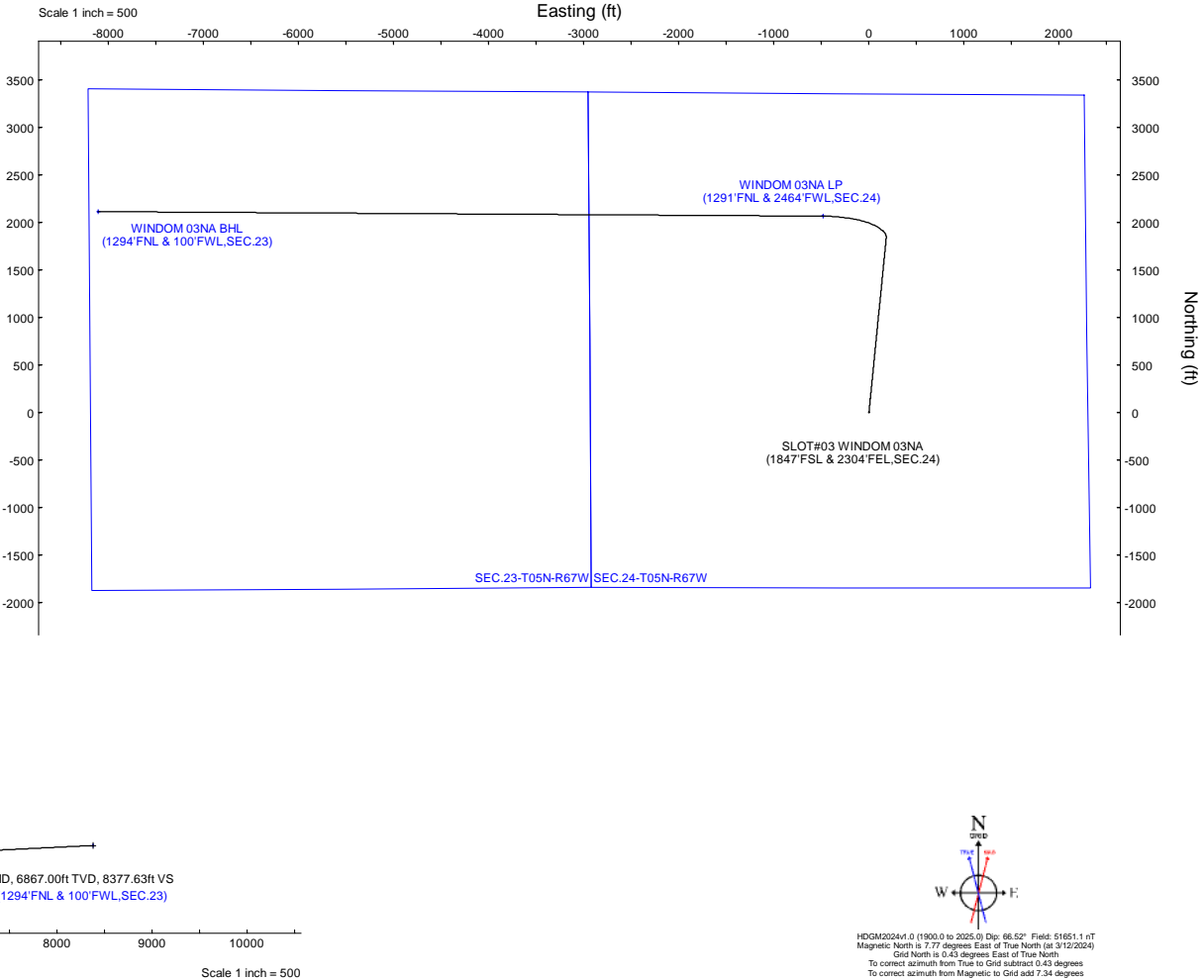
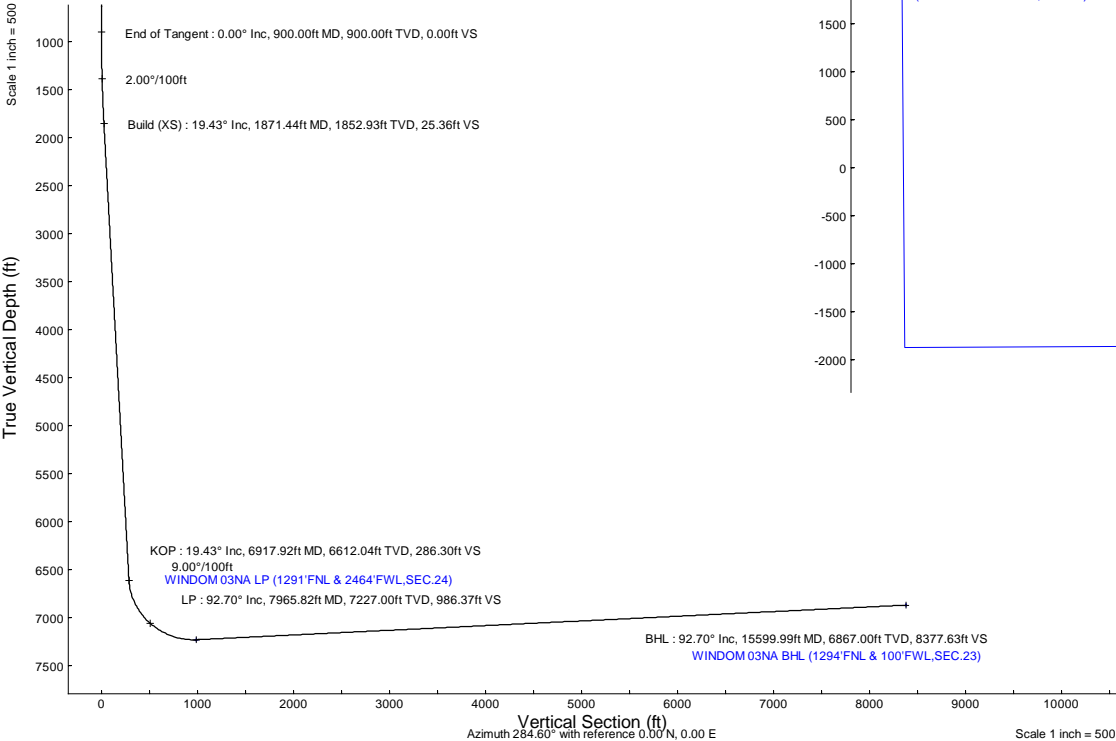
PDC ENERGY INC

Location:	COLORADO	Slot:	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)
Field:	WELD COUNTY (NAD83/GRID)	Well:	WINDOM 03NA
Facility:	SEC.24-T05N-R67W	Wellbore:	WINDOM 03NA PWB
Plot reference wellpath is WINDOM 03NA (REV-A.1) PWP		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	
True vertical depths are referenced to (4998'GL+28.5'KB@5027'RKB) (RKB)		North Reference: Grid north	
Reference wellpath measured depths are referenced to (4998'GL+28.5'KB@5027'RKB) (RKB)		Scale: True distance	
(4998'GL+28.5'KB@5027'RKB) (RKB) to Mean Sea Level: 5026.5 feet		Coordinates are in feet referenced to Slot	
Mean Sea Level to Ground level (At Slot: SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)): 0 feet		Depths are in feet	
Offset wellpath MDs are referenced to each path's default MD datum		Created by: guesaler on 2024-05-02; Database: WA_Denver	

Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.24-T05N-R67W		3183745.419	1383040.882	40°22'58.7028"N	104°50'25.4978"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)	-29.87	-0.06	3183745.362	1383011.019	40°22'58.4076"N	104°50'25.5012"W
(4998'GL+28.5'KB@5027'RKB) (RKB) to Ground level (At Slot: SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24))					5026.5ft	
Mean Sea Level to Ground level (At Slot: SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24))					0ft	
(4998'GL+28.5'KB@5027'RKB) (RKB) to Mean Sea Level					5026.5ft	

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SHL	28.50	0.000	5.662	28.50	0.00	0.00	0.00	0.00
End of Tangent	900.00	0.000	5.662	900.00	0.00	0.00	0.00	0.00
Build (XS)	1871.44	19.429	5.662	1852.93	162.34	16.09	2.00	25.36
KOP	6917.92	19.429	5.662	6612.04	1832.78	181.70	0.00	286.30
LP	7965.82	92.703	270.361	7227.00	2064.31	-481.41	9.00	986.37
BHL	15599.99	92.703	270.361	6867.00	2112.38	-8106.94	0.00	8377.63

Targets								
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.23-T05N-R67W	N/A	1.00	29.87	-488.97	3183256.41	1383040.89	40°22'58.7387"N	104°50'31.8167"W
SEC.24-T05N-R67W	N/A	1.00	29.87	-488.97	3183256.41	1383040.89	40°22'58.7387"N	104°50'31.8167"W
WINDOM 03NA BHL (1294'FNL & 100'FWL,SEC.23)	15599.99	6867.00	2112.38	-8106.94	3175638.76	1385123.31	40°23'19.8638"N	104°52'10.0832"W
WINDOM 03NA BPZ (1294'FNL&150'FWL,SEC.23)	N/A	6867.00	2112.01	-8056.80	3175688.91	1385122.93	40°23'19.8564"N	104°52'9.4152"W
WINDOM 03NA LP (1291'FNL & 2464'FWL,SEC.24)	7965.82	7227.00	2064.31	-481.41	3183263.97	1385075.24	40°23'18.8412"N	104°50'31.5240"W





Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Martsam01
Scale	0.999960	Report Generated	6/4/2024 at 3:36:12 PM
Convergence at slot	0.43° 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	-29.87	-0.06	3183745.36	1383011.02	40.3828910°	-104.8404170°
Facility Reference Pt			3183745.42	1383040.89	40.3829730°	-104.8404160°
Field Reference Pt			3296400.32	1413291.61	40.4630000°	-104.4347500°

WELLPATH DATUM			
Calculation method	Minimum curvature	(4998'GL+28.5'KB@5027'RKB) (RKB) to Facility Vertical Datum	5026.50ft
Horizontal Reference Pt	Slot	(4998'GL+28.5'KB@5027'RKB) (RKB) to Mean Sea Level	5026.50ft
Vertical Reference Pt	(4998'GL+28.5'KB@5027'RKB) (RKB)	(4998'GL+28.5'KB@5027'RKB) (RKB) to Ground Level at Slot (SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24))	5026.50ft
MD Reference Pt	(4998'GL+28.5'KB@5027'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	284.60°



Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

WELLPATH DATA (163 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	5.668	0.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
28.50	0.000	5.668	28.50	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	SHL
100.00†	0.000	5.668	100.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
200.00†	0.000	5.668	200.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
300.00†	0.000	5.668	300.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
400.00†	0.000	5.668	400.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
500.00†	0.000	5.668	500.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
600.00†	0.000	5.668	600.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
700.00†	0.000	5.668	700.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
800.00†	0.000	5.668	800.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	
900.00	0.000	5.668	900.00	0.00	0.00	0.00	40.3828910	-104.8404170	0.00	End of Tangent
1000.00†	2.000	5.668	999.98	0.27	1.74	0.17	40.3828958	-104.8404163	2.00	
1100.00†	4.000	5.668	1099.84	1.08	6.94	0.69	40.3829100	-104.8404143	2.00	
1200.00†	6.000	5.668	1199.45	2.44	15.62	1.55	40.3829338	-104.8404110	2.00	
1300.00†	8.000	5.668	1298.70	4.33	27.74	2.75	40.3829671	-104.8404064	2.00	
1400.00†	10.000	5.668	1397.47	6.76	43.31	4.30	40.3830098	-104.8404004	2.00	
1500.00†	12.000	5.668	1495.62	9.73	62.30	6.18	40.3830619	-104.8403931	2.00	
1600.00†	14.000	5.668	1593.06	13.22	84.68	8.40	40.3831233	-104.8403846	2.00	
1700.00†	16.000	5.668	1689.64	17.24	110.43	10.96	40.3831939	-104.8403747	2.00	
1800.00†	18.000	5.668	1785.27	21.78	139.53	13.85	40.3832737	-104.8403636	2.00	
1871.41	19.428	5.668	1852.90	25.34	162.33	16.11	40.3833362	-104.8403548	2.00	Build (XS)
1900.00†	19.428	5.668	1879.86	26.82	171.79	17.05	40.3833622	-104.8403512	0.00	
2000.00†	19.428	5.668	1974.17	31.99	204.89	20.33	40.3834530	-104.8403385	0.00	
2100.00†	19.428	5.668	2068.48	37.15	237.99	23.62	40.3835438	-104.8403259	0.00	
2200.00†	19.428	5.668	2162.78	42.32	271.09	26.90	40.3836345	-104.8403132	0.00	
2300.00†	19.428	5.668	2257.09	47.49	304.19	30.19	40.3837253	-104.8403005	0.00	
2400.00†	19.428	5.668	2351.39	52.65	337.29	33.47	40.3838161	-104.8402878	0.00	
2500.00†	19.428	5.668	2445.70	57.82	370.39	36.76	40.3839069	-104.8402752	0.00	
2600.00†	19.428	5.668	2540.00	62.99	403.49	40.04	40.3839977	-104.8402625	0.00	
2700.00†	19.428	5.668	2634.31	68.16	436.59	43.33	40.3840885	-104.8402498	0.00	
2800.00†	19.428	5.668	2728.62	73.32	469.69	46.61	40.3841793	-104.8402371	0.00	
2900.00†	19.428	5.668	2822.92	78.49	502.79	49.90	40.3842701	-104.8402245	0.00	
3000.00†	19.428	5.668	2917.23	83.66	535.89	53.18	40.3843608	-104.8402118	0.00	
3100.00†	19.428	5.668	3011.53	88.82	568.99	56.47	40.3844516	-104.8401991	0.00	
3200.00†	19.428	5.668	3105.84	93.99	602.09	59.75	40.3845424	-104.8401864	0.00	
3300.00†	19.428	5.668	3200.15	99.16	635.19	63.04	40.3846332	-104.8401738	0.00	
3400.00†	19.428	5.668	3294.45	104.33	668.29	66.32	40.3847240	-104.8401611	0.00	
3500.00†	19.428	5.668	3388.76	109.49	701.39	69.61	40.3848148	-104.8401484	0.00	
3600.00†	19.428	5.668	3483.06	114.66	734.49	72.89	40.3849056	-104.8401357	0.00	
3700.00†	19.428	5.668	3577.37	119.83	767.59	76.18	40.3849963	-104.8401231	0.00	
3800.00†	19.428	5.668	3671.68	124.99	800.69	79.46	40.3850871	-104.8401104	0.00	
3900.00†	19.428	5.668	3765.98	130.16	833.79	82.75	40.3851779	-104.8400977	0.00	
4000.00†	19.428	5.668	3860.29	135.33	866.89	86.03	40.3852687	-104.8400850	0.00	
4100.00†	19.428	5.668	3954.59	140.50	899.99	89.32	40.3853595	-104.8400724	0.00	
4200.00†	19.428	5.668	4048.90	145.66	933.09	92.60	40.3854503	-104.8400597	0.00	



Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

WELLPATH DATA (163 stations) † = interpolated, ‡ = extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
4300.00†	19.428	5.668	4143.21	150.83	966.19	95.89	40.3855411	-104.8400470	0.00		
4400.00†	19.428	5.668	4237.51	156.00	999.29	99.17	40.3856319	-104.8400343	0.00		
4500.00†	19.428	5.668	4331.82	161.16	1032.39	102.46	40.3857226	-104.8400217	0.00		
4600.00†	19.428	5.668	4426.12	166.33	1065.49	105.74	40.3858134	-104.8400090	0.00		
4700.00†	19.428	5.668	4520.43	171.50	1098.59	109.03	40.3859042	-104.8399963	0.00		
4800.00†	19.428	5.668	4614.73	176.67	1131.69	112.31	40.3859950	-104.8399836	0.00		
4900.00†	19.428	5.668	4709.04	181.83	1164.79	115.60	40.3860858	-104.8399710	0.00		
5000.00†	19.428	5.668	4803.35	187.00	1197.89	118.88	40.3861766	-104.8399583	0.00		
5100.00†	19.428	5.668	4897.65	192.17	1230.99	122.17	40.3862674	-104.8399456	0.00		
5200.00†	19.428	5.668	4991.96	197.33	1264.09	125.45	40.3863581	-104.8399329	0.00		
5300.00†	19.428	5.668	5086.26	202.50	1297.19	128.74	40.3864489	-104.8399203	0.00		
5400.00†	19.428	5.668	5180.57	207.67	1330.29	132.02	40.3865397	-104.8399076	0.00		
5500.00†	19.428	5.668	5274.88	212.84	1363.39	135.31	40.3866305	-104.8398949	0.00		
5600.00†	19.428	5.668	5369.18	218.00	1396.49	138.59	40.3867213	-104.8398822	0.00		
5700.00†	19.428	5.668	5463.49	223.17	1429.59	141.88	40.3868121	-104.8398696	0.00		
5800.00†	19.428	5.668	5557.79	228.34	1462.69	145.16	40.3869029	-104.8398569	0.00		
5900.00†	19.428	5.668	5652.10	233.51	1495.79	148.45	40.3869936	-104.8398442	0.00		
6000.00†	19.428	5.668	5746.41	238.67	1528.89	151.73	40.3870844	-104.8398315	0.00		
6100.00†	19.428	5.668	5840.71	243.84	1561.99	155.02	40.3871752	-104.8398188	0.00		
6200.00†	19.428	5.668	5935.02	249.01	1595.09	158.30	40.3872660	-104.8398062	0.00		
6300.00†	19.428	5.668	6029.32	254.17	1628.19	161.59	40.3873568	-104.8397935	0.00		
6400.00†	19.428	5.668	6123.63	259.34	1661.29	164.87	40.3874476	-104.8397808	0.00		
6500.00†	19.428	5.668	6217.93	264.51	1694.39	168.16	40.3875384	-104.8397681	0.00		
6600.00†	19.428	5.668	6312.24	269.68	1727.49	171.44	40.3876292	-104.8397555	0.00		
6700.00†	19.428	5.668	6406.55	274.84	1760.59	174.73	40.3877199	-104.8397428	0.00		
6800.00†	19.428	5.668	6500.85	280.01	1793.69	178.01	40.3878107	-104.8397301	0.00		
6900.00†	19.428	5.668	6595.16	285.18	1826.79	181.30	40.3879015	-104.8397174	0.00		
6917.91	19.428	5.668	6612.05	286.10	1832.72	181.88	40.3879178	-104.8397152	0.00	KOP	
7000.00†	20.234	343.900	6689.38	295.48	1859.98	179.29	40.3879927	-104.8397237	9.00		
7100.00†	24.292	322.506	6782.05	320.60	1892.98	161.94	40.3880836	-104.8397851	9.00		
7200.00†	30.437	308.085	6870.92	360.14	1924.99	129.42	40.3881721	-104.8399010	9.00		
7300.00†	37.657	298.431	6953.78	413.14	1955.22	82.52	40.3882561	-104.8400686	9.00		
7400.00†	45.438	291.583	7028.61	478.30	1982.92	22.41	40.3883333	-104.8402836	9.00		
7500.00†	53.529	286.386	7093.54	554.00	2007.42	-49.44	40.3884020	-104.8405409	9.00		
7600.00†	61.803	282.187	7147.00	638.39	2028.11	-131.26	40.3884605	-104.8408340	9.00		
7700.00†	70.187	278.598	7187.66	729.39	2044.48	-221.03	40.3885073	-104.8411558	9.00		
7800.00†	78.635	275.372	7214.51	824.75	2056.12	-316.54	40.3885412	-104.8414984	9.00		
7900.00†	87.116	272.334	7226.91	922.13	2062.76	-415.44	40.3885614	-104.8418532	9.00		
7966.02	92.721	270.361	7227.00‡	986.36	2064.31	-481.41	40.3885670	-104.8420900	9.00	LP	
8000.00†	92.721	270.361	7225.39	1019.26	2064.52	-515.36	40.3885683	-104.8422118	0.00		
8100.00†	92.721	270.361	7220.64	1116.08	2065.15	-615.24	40.3885720	-104.8425704	0.00		
8200.00†	92.721	270.361	7215.89	1212.90	2065.78	-715.13	40.3885758	-104.8429289	0.00		
8300.00†	92.721	270.361	7211.15	1309.71	2066.41	-815.01	40.3885796	-104.8432875	0.00		
8400.00†	92.721	270.361	7206.40	1406.53	2067.04	-914.90	40.3885833	-104.8436460	0.00		
8500.00†	92.721	270.361	7201.65	1503.35	2067.67	-1014.78	40.3885871	-104.8440045	0.00		



# Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

WELLPATH DATA (163 stations) † = interpolated, ‡ = extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
8600.00†	92.721	270.361	7196.91	1600.16	2068.30	-1114.67	40.3885908	-104.8443631	0.00		
8700.00†	92.721	270.361	7192.16	1696.98	2068.93	-1214.55	40.3885946	-104.8447216	0.00		
8800.00†	92.721	270.361	7187.41	1793.80	2069.56	-1314.44	40.3885983	-104.8450801	0.00		
8900.00†	92.721	270.361	7182.67	1890.61	2070.18	-1414.32	40.3886021	-104.8454387	0.00		
9000.00†	92.721	270.361	7177.92	1987.43	2070.81	-1514.21	40.3886058	-104.8457972	0.00		
9100.00†	92.721	270.361	7173.17	2084.25	2071.44	-1614.09	40.3886096	-104.8461558	0.00		
9200.00†	92.721	270.361	7168.43	2181.06	2072.07	-1713.98	40.3886133	-104.8465143	0.00		
9300.00†	92.721	270.361	7163.68	2277.88	2072.70	-1813.86	40.3886171	-104.8468728	0.00		
9400.00†	92.721	270.361	7158.93	2374.69	2073.33	-1913.75	40.3886208	-104.8472314	0.00		
9500.00†	92.721	270.361	7154.19	2471.51	2073.96	-2013.64	40.3886246	-104.8475899	0.00		
9600.00†	92.721	270.361	7149.44	2568.33	2074.59	-2113.52	40.3886283	-104.8479485	0.00		
9700.00†	92.721	270.361	7144.69	2665.14	2075.22	-2213.41	40.3886320	-104.8483070	0.00		
9800.00†	92.721	270.361	7139.94	2761.96	2075.84	-2313.29	40.3886358	-104.8486655	0.00		
9900.00†	92.721	270.361	7135.20	2858.78	2076.47	-2413.18	40.3886395	-104.8490241	0.00		
10000.00†	92.721	270.361	7130.45	2955.59	2077.10	-2513.06	40.3886433	-104.8493826	0.00		
10100.00†	92.721	270.361	7125.70	3052.41	2077.73	-2612.95	40.3886470	-104.8497412	0.00		
10200.00†	92.721	270.361	7120.96	3149.23	2078.36	-2712.83	40.3886507	-104.8500997	0.00		
10300.00†	92.721	270.361	7116.21	3246.04	2078.99	-2812.72	40.3886545	-104.8504582	0.00		
10400.00†	92.721	270.361	7111.46	3342.86	2079.62	-2912.60	40.3886582	-104.8508168	0.00		
10500.00†	92.721	270.361	7106.72	3439.68	2080.25	-3012.49	40.3886619	-104.8511753	0.00		
10600.00†	92.721	270.361	7101.97	3536.49	2080.88	-3112.37	40.3886657	-104.8515339	0.00		
10700.00†	92.721	270.361	7097.22	3633.31	2081.50	-3212.26	40.3886694	-104.8518924	0.00		
10800.00†	92.721	270.361	7092.48	3730.13	2082.13	-3312.14	40.3886731	-104.8522509	0.00		
10900.00†	92.721	270.361	7087.73	3826.94	2082.76	-3412.03	40.3886769	-104.8526095	0.00		
11000.00†	92.721	270.361	7082.98	3923.76	2083.39	-3511.91	40.3886806	-104.8529680	0.00		
11100.00†	92.721	270.361	7078.24	4020.58	2084.02	-3611.80	40.3886843	-104.8533266	0.00		
11200.00†	92.721	270.361	7073.49	4117.39	2084.65	-3711.69	40.3886880	-104.8536851	0.00		
11300.00†	92.721	270.361	7068.74	4214.21	2085.28	-3811.57	40.3886918	-104.8540436	0.00		
11400.00†	92.721	270.361	7064.00	4311.03	2085.91	-3911.46	40.3886955	-104.8544022	0.00		
11500.00†	92.721	270.361	7059.25	4407.84	2086.54	-4011.34	40.3886992	-104.8547607	0.00		
11600.00†	92.721	270.361	7054.50	4504.66	2087.16	-4111.23	40.3887029	-104.8551193	0.00		
11700.00†	92.721	270.361	7049.76	4601.47	2087.79	-4211.11	40.3887066	-104.8554778	0.00		
11800.00†	92.721	270.361	7045.01	4698.29	2088.42	-4311.00	40.3887104	-104.8558363	0.00		
11900.00†	92.721	270.361	7040.26	4795.11	2089.05	-4410.88	40.3887141	-104.8561949	0.00		
12000.00†	92.721	270.361	7035.52	4891.92	2089.68	-4510.77	40.3887178	-104.8565534	0.00		
12100.00†	92.721	270.361	7030.77	4988.74	2090.31	-4610.65	40.3887215	-104.8569120	0.00		
12200.00†	92.721	270.361	7026.02	5085.56	2090.94	-4710.54	40.3887252	-104.8572705	0.00		
12300.00†	92.721	270.361	7021.28	5182.37	2091.57	-4810.42	40.3887289	-104.8576290	0.00		
12400.00†	92.721	270.361	7016.53	5279.19	2092.20	-4910.31	40.3887326	-104.8579876	0.00		
12500.00†	92.721	270.361	7011.78	5376.01	2092.82	-5010.19	40.3887364	-104.8583461	0.00		
12600.00†	92.721	270.361	7007.03	5472.82	2093.45	-5110.08	40.3887401	-104.8587047	0.00		
12700.00†	92.721	270.361	7002.29	5569.64	2094.08	-5209.97	40.3887438	-104.8590632	0.00		
12800.00†	92.721	270.361	6997.54	5666.46	2094.71	-5309.85	40.3887475	-104.8594217	0.00		
12900.00†	92.721	270.361	6992.79	5763.27	2095.34	-5409.74	40.3887512	-104.8597803	0.00		
13000.00†	92.721	270.361	6988.05	5860.09	2095.97	-5509.62	40.3887549	-104.8601388	0.00		



Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

WELLPATH DATA (163 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13100.00†	92.721	270.361	6983.30	5956.91	2096.60	-5609.51	40.3887586	-104.8604974	0.00	
13200.00†	92.721	270.361	6978.55	6053.72	2097.23	-5709.39	40.3887623	-104.8608559	0.00	
13300.00†	92.721	270.361	6973.81	6150.54	2097.86	-5809.28	40.3887660	-104.8612145	0.00	
13400.00†	92.721	270.361	6969.06	6247.36	2098.48	-5909.16	40.3887697	-104.8615730	0.00	
13500.00†	92.721	270.361	6964.31	6344.17	2099.11	-6009.05	40.3887734	-104.8619315	0.00	
13600.00†	92.721	270.361	6959.57	6440.99	2099.74	-6108.93	40.3887771	-104.8622901	0.00	
13700.00†	92.721	270.361	6954.82	6537.81	2100.37	-6208.82	40.3887808	-104.8626486	0.00	
13800.00†	92.721	270.361	6950.07	6634.62	2101.00	-6308.70	40.3887845	-104.8630072	0.00	
13900.00†	92.721	270.361	6945.33	6731.44	2101.63	-6408.59	40.3887882	-104.8633657	0.00	
14000.00†	92.721	270.361	6940.58	6828.26	2102.26	-6508.47	40.3887919	-104.8637242	0.00	
14100.00†	92.721	270.361	6935.83	6925.07	2102.89	-6608.36	40.3887956	-104.8640828	0.00	
14200.00†	92.721	270.361	6931.09	7021.89	2103.52	-6708.24	40.3887993	-104.8644413	0.00	
14300.00†	92.721	270.361	6926.34	7118.70	2104.14	-6808.13	40.3888030	-104.8647999	0.00	
14400.00†	92.721	270.361	6921.59	7215.52	2104.77	-6908.02	40.3888066	-104.8651584	0.00	
14500.00†	92.721	270.361	6916.85	7312.34	2105.40	-7007.90	40.3888103	-104.8655169	0.00	
14600.00†	92.721	270.361	6912.10	7409.15	2106.03	-7107.79	40.3888140	-104.8658755	0.00	
14700.00†	92.721	270.361	6907.35	7505.97	2106.66	-7207.67	40.3888177	-104.8662340	0.00	
14800.00†	92.721	270.361	6902.61	7602.79	2107.29	-7307.56	40.3888214	-104.8665926	0.00	
14900.00†	92.721	270.361	6897.86	7699.60	2107.92	-7407.44	40.3888251	-104.8669511	0.00	
15000.00†	92.721	270.361	6893.11	7796.42	2108.55	-7507.33	40.3888288	-104.8673097	0.00	
15100.00†	92.721	270.361	6888.37	7893.24	2109.18	-7607.21	40.3888324	-104.8676682	0.00	
15200.00†	92.721	270.361	6883.62	7990.05	2109.80	-7707.10	40.3888361	-104.8680267	0.00	
15300.00†	92.721	270.361	6878.87	8086.87	2110.43	-7806.98	40.3888398	-104.8683853	0.00	
15400.00†	92.721	270.361	6874.13	8183.69	2111.06	-7906.87	40.3888435	-104.8687438	0.00	
15500.00†	92.721	270.361	6869.38	8280.50	2111.69	-8006.75	40.3888472	-104.8691024	0.00	
15550.10	92.721	270.361	6867.00 <sup>2</sup>	8329.01	2112.01	-8056.80	40.3888490	-104.8692820	0.00	BPZ
15600.00†	92.721	270.361	6864.63	8377.32	2112.32	-8106.64	40.3888508	-104.8694609	0.00	
15600.10	92.721	270.361	6864.63	8377.42	2112.32	-8106.74	40.3888508	-104.8694613	0.00	BHL (1294'FNL & 100'FWL,SEC.23)





Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.23-T05N-R67W	N/A	1.00	29.87	-488.97	3183256.41	1383040.89	40.3829830	-104.8421713	polygon
	2D Polygon: dimensions not calculated								
SEC.24-T05N-R67W	N/A	1.00	29.87	-488.97	3183256.41	1383040.89	40.3829830	-104.8421713	polygon
	2D Polygon: dimensions not calculated								
WINDOM 03NA BHL (1294'FNL & 100'FWL,SEC.23)	N/A	6867.00	2112.38	-8106.94	3175638.76	1385123.31	40.3888510	-104.8694620	point
2) WINDOM 03NA BPZ (1294'FNL&150'FWL Sec.23)	15550.10	6867.00	2112.01	-8056.80	3175688.91	1385122.93	40.3888490	-104.8692820	point
1) WINDOM 03NA LP (1291'FNL & 2464'FWL,SEC.24)	7966.02	7227.00	2064.31	-481.41	3183263.97	1385075.24	40.3885670	-104.8420900	point

SURVEY PROGRAM - Ref Wellbore: WINDOM 03NA PWB    Ref Wellpath: WINDOM 03NA (REV-A.1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.50	1950.00	OWSG MWD rev2 - Standard		WINDOM 03NA PWB
1950.00	15600.10	OWSG MWD rev2 (MS+IFR1)		WINDOM 03NA PWB



Planned Wellpath Report

WINDOM 03NA (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.50	0.000	5.668	28.50	SHL
900.00	0.000	5.668	900.00	End of Tangent
1871.41	19.428	5.668	1852.90	Build (XS)
6917.91	19.428	5.668	6612.05	KOP
7966.02	92.721	270.361	7227.00	LP
15550.10	92.721	270.361	6867.00	BPZ
15600.10	92.721	270.361	6864.63	BHL (1294'FNL & 100'FWL,SEC.23)





Closest Approach Clearance Summary Report

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

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	0.999960	Report Generated	5/2/2024 at 1:21:47 PM
Convergence at slot	0.43° 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	-29.87	-0.06	3183745.36	1383011.02	40°22'58.4076"N	104°50'25.5012"W
Facility Reference Pt			3183745.42	1383040.89	40°22'58.7028"N	104°50'25.4976"W
Field Reference Pt			3296400.32	1413291.61	40°27'46.8000"N	104°26'5.1000"W

WELLPATH DATUM			
Calculation method	Minimum Curvature	(4998'GL+28.5'KB@5027'RKB) (RKB) to Facility Vertical Datum	5026.50ft
Horizontal Reference Pt	Slot	(4998'GL+28.5'KB@5027'RKB) (RKB) to Mean Sea Level	5026.50ft
Vertical Reference Pt	(4998'GL+28.5'KB@5027'RKB) (RKB)	(4998'GL+28.5'KB@5027'RKB) (RKB) to Ground Level at Slot (SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24))	5026.50ft
MD Reference Pt	(4998'GL+28.5'KB@5027'RKB) (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS					
Ellipse Confidence Limit	3.50 Std Dev	Ellipse Start MD	28.50ft	Surface Position Uncertainty	included
Declination	7.77° East of TN	Dip Angle	66.52°	Mag Field Strength	51651 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

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

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

SURVEY PROGRAM - Ref Wellbore: WINDOM 03NA PWB    Ref Wellpath: WINDOM 03NA (REV-A.1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.50	1950.00	OWSG MWD rev2 - Standard		WINDOM 03NA PWB
1950.00	15599.99	OWSG MWD rev2 (MS+IFR1)		WINDOM 03NA PWB



Closest Approach Clearance Summary Report

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 15599.99ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (95 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.23-T5N-R67W	PHILLIPS PC #N23-17 (05-123-25876)	PHILLIPS PC N23-17 (Vert)	PHILLIPS PC N23-17	PHILLIPS PC N23-17\PHILLIPS PC N23-17	Drilling	12012.78	3.50	12012.78	12012.78	0.00	12012.78	FAIL
Sec.23-T5N-R67W	KINZER #18-23 (05-123-24000)	KINZER 18-23 (Vert)	KINZER 18-23	KINZER 18-23\KINZER 18-23	Drilling	14465.23	69.50	14465.23	14465.20	0.01	14465.20	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	DL PHILLIPS #24-23 (05-123-17231)	DL PHILLIPS #24-23 (Exist.)	DL PHILLIPS #24-23 AWB	DL PHILLIPS #24-23 AWP	Drilling	10182.33	254.23	10182.33	10181.90	0.03	10181.90	FAIL
Sec.23-T5N-R67W	PHILLIPS PC #N24-19 (05-123-25878)	PHILLIPS PC N24-19 (Vert)	PHILLIPS PC N24-19	PHILLIPS PC N24-19 AWP	Drilling	9339.74	328.42	9339.74	9339.03	0.04	9339.03	FAIL
Sec.23-T5N-R67W	HSR-KINZER #4-23 (05-123-19498)	HSR-KINZER 4-23 (Vert)	HSR-KINZER 4-23	HSR-KINZER 4-23\HSR-KINZER 4-23	Drilling	15046.48	630.44	15046.48	15043.80	0.07	15043.80	FAIL
Sec.23-T5N-R67W	GOLDBERG #N 24-2 (05-123-18983)	GOLDBERG N 24-2 (Vert)	GOLDBERG N 24-2	GOLDBERG N 24-2\GOLDBERG N 24-2	Drilling	7373.92	750.14	7373.92	7423.88	0.09	7423.88	FAIL
Sec.23-T5N-R67W	D.L. PHILLIPS #24-22 (05-123-18369)	D.L. PHILLIPS 24-22 (Vert)	D.L. PHILLIPS 24-22	D.L. PHILLIPS 24-22\D.L. PHILLIPS 24-22	Drilling	9800.06	807.81	9800.06	9795.73	0.09	9795.73	FAIL
Sec.23-T5N-R67W	D.L. PHILLIPS #24-21 (05-123-18368)	D.L. PHILLIPS 24-21 (Vert)	D.L. PHILLIPS 24-21	D.L. PHILLIPS 24-21\D.L. PHILLIPS 24-21	Drilling	8589.58	884.09	8589.58	8584.42	0.10	8584.42	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	GOLDBERG N #24-7 (05-123-18984) TA	GOLDBERG N #24-7	GOLDBERG N #24-7 AWB	GOLDBERG N #24-7 AWP	Drilling	6402.95	344.89	6402.95	6969.42	0.20	6969.42	FAIL
Phillips 24-3-23 (Dir) Pad Sec.24-T5N-R67W	D. L. PHILLIPS #24-31 (05-123-21347)	D. L. PHILLIPS #24-31	D. L. PHILLIPS #24-31 AWB	D. L. PHILLIPS #24-31 AWP	Drilling	2039.25	784.04	8228.50	8211.46	0.20	8211.46	FAIL
Sec.23-T5N-R67W	HSR-KINZER #6-23 (05-123-19500) TA	HSR-KINZER #6-23	HSR-KINZER #6-23 AWB	HSR-KINZER #6-23 AWP	Drilling	13814.38	480.26	13814.38	13808.69	0.20	13808.69	FAIL
Sec.23-T5N-R67W	GOLDBERG #1-24 (05-123-13117)	GOLDBERG 1-24 (Vert)	GOLDBERG 1-24	GOLDBERG 1-24\GOLDBERG 1-24	Drilling	7053.79	1694.63	7053.79	7198.98	0.20	7198.98	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	D.L. PHILLIPS #24-24 (05-123-19879) TA	D.L. PHILLIPS #24-24	D.L. PHILLIPS 24-24 AWB	D.L. PHILLIPS 24-24 AWP	Drilling	8275.14	628.36	8275.14	8266.61	0.23	8266.61	FAIL
Sec.23-T5N-R67W	PHILLIPS #23-11 (05-123-17267) PR	PHILLIPS #23-11	PHILLIPS #23-11 AWB	PHILLIPS #23-11 AWP	Drilling	11104.91	636.31	11104.91	11095.81	0.25	11095.81	FAIL
Sec.23-T5N-R67W	PHILLIPS #23-13 (05-123-17204) PR	PHILLIPS #23-13	PHILLIPS #23-13 AWB	PHILLIPS #23-13 AWP	Drilling	12020.81	637.11	12020.81	12011.26	0.26	12011.26	FAIL
Sec.23-T5N-R67W	PHILLIPS #23-12 (05-123-17203) PA	PHILLIPS #23-12	PHILLIPS #23-12 AWB	PHILLIPS #23-12 AWP	Drilling	12015.81	638.16	12015.81	12006.52	0.26	12006.52	FAIL
SEC.22-T05N-R67W	SLOT#04 BLUE CHIP #22-4HZ (05-123-51935) PR	BLUE CHIP #22-4HZ	BLUE CHIP #22-4HZ PR AWB	BLUE CHIP #22-4HZ AWP	Drilling	15258.58	54.59	15258.58	15258.58	0.26	15258.58	FAIL
Sec.23-T5N-R67W	HSR-KINZER #5-23 (05-123-19499) PA	HSR-KINZER #5-23	HSR-KINZER #5-23 AWB	HSR-KINZER #5-23 AWP	Drilling	15030.77	724.33	15030.77	15017.63	0.32	15017.63	FAIL
SEC.24-T05N-R67W	SLOT#15 WINDOM 15N (1847'FSL & 2384'FEL,SEC.24)	WINDOM 15N	WINDOM 15N PWB	WINDOM 15N (REV-A.0) PWP	Planned	8104.29	41.93	8104.29	8102.89	0.58	8102.89	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	D.L. PHILLIPS #24-32 (05-123-19878) SI	D.L. PHILLIPS #24-32	D.L. PHILLIPS #24-32 AWB	D.L. PHILLIPS #24-32 AWP	Drilling	9757.47	1961.72	9757.47	9670.67	0.77	9670.67	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	GOLDBERG N #24-8 (05-123-21109) TA	GOLDBERG N #24-8	GOLDBERG N #24-8 AWB	GOLDBERG N #24-8 AWP	Drilling	5660.45	1690.50	5660.45	7385.69	0.80	7385.69	FAIL
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS PC #N24-25 (05-123-25877) SI	PHILLIPS PC #N24-25	PHILLIPS PC #N24-25 AWB	PHILLIPS PC #N24-25 AWP	Drilling	28.50	1253.48	8728.50	8604.09	0.85	8604.09	FAIL
SEC.24-T05N-R67W	SLOT#04 WINDOM 04N (1832'FSL & 2304'FEL,SEC.24)	WINDOM 04N	WINDOM 04N PWB	WINDOM 04N (REV-A.0) PWP	Planned	28.50	15.30	900.00	928.50	1.16	15599.99	PASS
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS # #1 (05-123-11720) SI	PHILLIPS # #1	PHILLIPS # #1 AWB	PHILLIPS # #1 AWP	Drilling	28.50	2559.82	9728.50	9504.47	1.26	9504.47	PASS
SEC.24-T05N-R67W	SLOT#02 WINDOM 02C (1862'FSL & 2304'FEL,SEC.24)	WINDOM 02C	WINDOM 02C PWB	WINDOM 02C (REV-A.0) PWP	Planned	28.50	14.94	628.50	724.45	1.31	15599.99	PASS



Closest Approach Clearance Summary Report

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 15599.99ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (95 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.22-T05N-R67W	SLOT#03 BLUE CHIP #22-3HZ (05-123-51938) PR	BLUE CHIP #22-3HZ	BLUE CHIP #22-3HZ PR AWB	BLUE CHIP #22-3HZ PR AWP	Drilling	15313.64	443.66	15313.64	15322.53	2.24	15322.53	PASS
SEC.24-T05N-R67W	SLOT#05 WINDOM 05N (1817'FSL & 2305'FEL,SEC.24)	WINDOM 05N	WINDOM 05N PWB	WINDOM 05N (REV-A.0) PWP	Planned	28.50	30.24	900.00	955.39	2.67	15599.99	PASS
SEC.22-T05N-R67W	SLOT#05 BLUE CHIP #22-5HZ (05-123-51936) PR	BLUE CHIP #22-5HZ	BLUE CHIP #22-5HZ PR AWB	BLUE CHIP #22-5HZ PR AWP	Drilling	15526.11	673.50	15526.11	15599.99	3.33	15599.99	PASS
SEC.24-T05N-R67W	SLOT#01 WINDOM 01N (1877'FSL & 2304'FEL,SEC.24)	WINDOM 01N	WINDOM 01N PWB	WINDOM 01N (REV-A.0) PWP	Planned	28.50	29.87	428.50	15599.99	3.38	15599.99	PASS
SEC.22-T05N-R67W	SLOT#02 BLUE CHIP #22-2HZ (05-123-51929) PR	BLUE CHIP #22-2HZ	BLUE CHIP #22-2HZ PR AWB	BLUE CHIP #22-2HZ PR AWP	Drilling	15177.04	771.43	15177.04	15243.13	3.92	15243.13	PASS
Sec.23-T5N-R67W	HSR-KINZER #3-23 (05-123-19497)	HSR-KINZER 3-23	HSR-KINZER 3-23	HSR-KINZER 3-23HSR-KINZER 3-23	Drilling	13977.56	632.79	13977.56	14031.81	3.97	14031.81	PASS
SEC.24-T05N-R67W	SLOT#06 WINDOM 06N (1802'FSL & 2305'FEL,SEC.24)	WINDOM 06N	WINDOM 06N PWB	WINDOM 06N (REV-A.0) PWP	Planned	28.50	45.18	900.00	988.38	4.13	15599.99	PASS
Phillips PC N24-29 Pad Sec.24-T5N-R67W	PHILLIPS PC #N24-31D (05-123-29077)	Phillips PC N24-31D	Wellbore #1	Wellbore #1Wellbore #1	Drilling	10418.94	401.75	10418.94	10459.10	4.16	10459.10	PASS
Sec.23-T5N-R67W	PHILLIPS #23-14 (05-123-16960) PR	PHILLIPS #23-14	PHILLIPS #23-14 AWB	PHILLIPS #23-14 AWP	Drilling	11086.71	680.19	11086.71	11080.49	4.30	11080.49	PASS
SEC.22-T05N-R67W	SLOT#01 BLUE CHIP #22-1HZ (05-123-51932) PR	BLUE CHIP #22-1HZ	BLUE CHIP #22-1HZ PR AWB	BLUE CHIP #22-1HZ PR AWP	Drilling	15199.95	927.16	15199.95	15299.93	4.68	15299.93	PASS
Sec.23-T5N-R67W	PHILLIPS #23-43 (05-123-19269) PA	PHILLIPS #23-43	PHILLIPS #23-43 AWB	PHILLIPS #23-43 AWP	Drilling	12466.87	3491.96	12466.87	11997.74	4.78	11997.74	PASS
SEC.24-T05N-R67W	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)	WINDOM 14N	WINDOM 14N PWB	WINDOM 14N (REV-A.0) PWP	Planned	28.50	81.41	8228.50	8233.43	5.12	8233.43	PASS
SEC.24-T05N-R67W	SLOT#07 WINDOM 07N (1787'FSL & 2305'FEL,SEC.24)	WINDOM 07N	WINDOM 07N PWB	WINDOM 07N (REV-A.0) PWP	Planned	28.50	60.11	900.00	1020.37	5.57	15599.99	PASS
SEC.22-T05N-R67W	SLOT#06 BLUE CHIP #22-6HZ (05-123-51937) PR	BLUE CHIP #22-6HZ	BLUE CHIP #22-6HZ PR AWB	BLUE CHIP #22-6HZ AWP	Drilling	15140.88	1147.24	15140.88	15201.95	6.14	15599.99	PASS
Sec.23-T5N-R67W	PHILLIPS #23-41 (05-123-19267) PA	PHILLIPS #23-41	PHILLIPS #23-41 AWB	PHILLIPS #23-41 AWP	Drilling	11345.57	706.12	11345.57	11449.26	6.84	11449.26	PASS
SEC.24-T05N-R67W	SLOT#08 WINDOM 08C (1772'FSL & 2305'FEL,SEC.24)	WINDOM 08C	WINDOM 08C PWB	WINDOM 08C (REV-A.0) PWP	Planned	28.50	75.05	900.00	1050.64	6.97	15599.99	PASS
SEC.24-T05N-R67W	SLOT#16 WINDOM 16C (1832'FSL & 2384'FEL,SEC.24)	WINDOM 16C	WINDOM 16C PWB	WINDOM 16C (REV-A.0) PWP	Planned	28.50	81.27	8028.50	1226.28	6.99	8028.50	PASS
SEC.24-T05N-R67W	SLOT#17 WINDOM 17NA (1817'FSL & 2385'FEL,SEC.24)	WINDOM 17NA	WINDOM 17NA PWB	WINDOM 17NA (REV-A.0) PWP	Planned	28.50	85.49	7328.50	1194.99	7.53	7328.50	PASS
SEC.24-T05N-R67W	SLOT#18 WINDOM 18N (1802'FSL & 2385'FEL,SEC.24)	WINDOM 18N	WINDOM 18N PWB	WINDOM 18N (REV-A.0) PWP	Planned	28.50	91.72	7028.50	1175.71	8.20	7128.50	PASS
SEC.24-T05N-R67W	SLOT#09 WINDOM 09NA (1757'FSL & 2306'FEL,SEC.24)	WINDOM 09NA	WINDOM 09NA PWB	WINDOM 09NA (REV-A.0) PWP	Planned	28.50	89.99	900.00	1081.82	8.34	15599.99	PASS
SEC.24-T05N-R67W	SLOT#19 WINDOM 19N (1787'FSL & 2385'FEL,SEC.24)	WINDOM 19N	WINDOM 19N PWB	WINDOM 19N (REV-A.0) PWP	Planned	28.50	100.04	7128.50	1171.10	9.01	7228.50	PASS
SEC.22-T05N-R67W	SLOT#07 BLUE CHIP #22-7HZ (05-123-51933) PR	BLUE CHIP #22-7HZ	BLUE CHIP #22-7HZ PR AWB	BLUE CHIP #22-7HZ AWP	Drilling	15599.99	1739.06	15599.99	15599.99	9.12	15599.99	PASS
Sec.23-T5N-R67W	Phillips #23-1-20 (05-123-29703) PR	Phillips #23-1-20	Phillips #23-1-20 AWB	Phillips #23-1-20 AWP	Drilling	13000.20	1238.17	13000.20	13056.52	9.27	13056.52	PASS
SEC.24-T05N-R67W	SLOT#13 WINDOM 13N (1877'FSL & 2384'FEL,SEC.24)	WINDOM 13N	WINDOM 13N PWB	WINDOM 13N (REV-A.0) PWP	Planned	28.50	85.35	8328.50	8414.72	9.59	8414.72	PASS
SEC.24-T05N-R67W	SLOT#10 WINDOM 10N (1742'FSL & 2306'FEL,SEC.24)	WINDOM 10N	WINDOM 10N PWB	WINDOM 10N (REV-A.0) PWP	Planned	28.50	105.29	900.00	1113.39	9.72	15599.99	PASS



Closest Approach Clearance Summary Report

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 15599.99ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (95 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.24-T05N-R67W	SLOT#20 WINDOM 20C (1772'FSL & 2385'FEL,SEC.24)	WINDOM 20C	WINDOM 20C PWB	WINDOM 20C (REV-A.0) PWP	Planned	28.50	109.82	8128.50	1175.33	9.92	8328.50	PASS
SEC.24-T05N-R67W	SLOT#21 WINDOM 21N (1757'FSL & 2386'FEL,SEC.24)	WINDOM 21N	WINDOM 21N PWB	WINDOM 21N (REV-A.0) PWP	Planned	28.50	120.48	8128.50	1186.10	10.88	8628.50	PASS
Sec.23-T5N-R67W	Phillips #23-1-17 (05-123-29702) PR	Phillips #23-1-17	Phillips #23-1-17 AWB	Phillips #23-1-17 AWP	Drilling	11791.77	1262.43	11791.77	12029.94	11.17	12029.94	PASS
Sec.23-T5N-R67W	Phillips #23-1-21 (05-123-29704) PR	Phillips #23-1-21	Phillips #23-1-21 AWB	Phillips #23-1-21 AWP	Drilling	11776.23	1236.69	11776.23	11843.49	11.27	11843.49	PASS
SEC.22-T05N-R67W	SLOT#08 BLUE CHIP #22-8HZ (05-123-51930) PR	BLUE CHIP #22-8HZ	BLUE CHIP #22-8HZ PR AWB	BLUE CHIP #22-8HZ AWP	Drilling	15599.99	2166.57	15599.99	15599.99	11.34	15599.99	PASS
SEC.24-T05N-R67W	SLOT#22 WINDOM 22N (1742'FSL & 2386'FEL,SEC.24)	WINDOM 22N	WINDOM 22N PWB	WINDOM 22N (REV-A.0) PWP	Planned	28.50	132.13	8228.50	1195.54	11.91	9128.50	PASS
SEC.24-T05N-R67W	SLOT#11 WINDOM 11N (1727'FSL & 2306'FEL,SEC.24)	WINDOM 11N	WINDOM 11N PWB	WINDOM 11N (REV-A.0) PWP	Planned	28.50	120.23	728.50	1010.59	12.12	15599.99	PASS
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS #24-2-20 (05-123-29908)	Phillips 24-2-20 (Dir)	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	10357.83	1261.29	10357.83	10455.66	13.44	10455.66	PASS
SEC.22-T05N-R67W	SLOT#09 BLUE CHIP #22-9HZ (05-123-51939) PR	BLUE CHIP #22-9HZ	BLUE CHIP #22-9HZ PR AWB	BLUE CHIP #22-9HZ AWP	Drilling	15599.99	2680.06	15599.99	15599.99	14.39	15599.99	PASS
SEC.24-T05N-R67W	SLOT#23 WINDOM 23N (1727'FSL & 2386'FEL,SEC.24)	WINDOM 23N	WINDOM 23N PWB	WINDOM 23N (REV-A.0) PWP	Planned	28.50	144.24	8328.50	1033.67	14.40	9628.50	PASS
SEC.24-T05N-R67W	SLOT#12 WINDOM 12N (1712'FSL & 2306'FEL,SEC.24)	WINDOM 12N	WINDOM 12N PWB	WINDOM 12N (REV-A.0) PWP	Planned	28.50	135.16	428.50	15599.99	14.59	15599.99	PASS
Sec.23-T5N-R67W	KINZER #23-3D (05-123-19424) PA	KINZER #23-3D	KINZER #23-3D AWB	KINZER #23-3D AWP	Drilling	15290.16	2655.90	15290.16	15599.99	14.60	15599.99	PASS
Sec.23-T5N-R67W	PHILLIPS #23-42 (05-123-19268) PA	PHILLIPS #23-42	PHILLIPS #23-42 AWB	PHILLIPS #23-42 AWP	Drilling	12693.80	1886.31	12693.80	12894.99	14.65	12894.99	PASS
Phillips PC N24-29 Pad Sec.24-T5N-R67W	PHILLIPS PC #N24-29D (05-123-29345)	Phillips PC N24-29D	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	9175.17	1232.03	9175.17	9402.55	15.17	9402.55	PASS
Sec.23-T5N-R67W	KINZER #23-3C (05-123-19423) PA	KINZER #23-3C	KINZER #23-3C AWB	KINZER #23-3C AWP	Drilling	14750.49	2599.90	14750.49	15065.45	15.18	15065.45	PASS
Sec.23-T5N-R67W	KINZER #23-3B (05-123-19415) PA	KINZER #23-3B	KINZER #23-3B AWB	KINZER #23-3B AWP	Drilling	14234.67	2581.83	14234.67	14576.05	16.05	14576.05	PASS
Phillips 24-3-23 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS #24-3-17 (05-123-29447)	Phillips 24-3-17 (Dir)	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	746.46	839.29	9128.50	9163.83	16.90	9163.83	PASS
SEC.22-T05N-R67W	SLOT#10 BLUE CHIP #22-10HZ (05-123-51931) PR	BLUE CHIP #22-10HZ	BLUE CHIP #22-10HZ PR AWB	BLUE CHIP #22-10HZ PR AWP	Drilling	15599.99	3095.09	15599.99	15599.99	17.13	15599.99	PASS
SEC.22-T05N-R67W	SLOT#11 BLUE CHIP #22-11HZ (05-123-51934) PR	BLUE CHIP #22-11HZ	BLUE CHIP #22-11HZ PR AWB	BLUE CHIP #22-11HZ AWP	Drilling	15599.99	3143.13	15599.99	15599.99	17.46	15599.99	PASS
Sec.23-T5N-R67W	KINZER #23-3A (05-123-19414) PA	KINZER #23-3A	KINZER #23-3A AWB	KINZER #23-3A AWP	Drilling	13713.65	2633.42	13713.65	14095.71	17.55	14095.71	PASS
SEC.24-T05N-R67W	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)	WINDOM 24N	WINDOM 24N PWB	WINDOM 24N (REV-A.0) PWP	Planned	28.50	156.98	8228.50	843.00	18.80	10028.50	PASS
Phillips 24-3-23 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS #24-3-23 (05-123-29446)	Phillips 24-3-23 (Dir)	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	1893.41	701.26	1893.41	2060.16	20.15	8028.50	PASS
SEC.19-T05N-R66W	SLOT#05 UPRR 61 PAN AM C #1 (05-123-09638)	UPRR 61 PAN AM C #1	UPRR 61 PAN AM C #1 AWB	UPRR 61 PAN AM C #1 AWP	Drilling	28.50	3226.38	900.00	5297.08	23.32	5297.08	PASS
Sec.23-T5N-R67W	SHEEP DRAW #23-44 (05-123-11290) PA	SHEEP DRAW #23-44	SHEEP DRAW #23-44 AWB	SHEEP DRAW #23-44 AWP	Drilling	11616.43	2904.47	11616.43	12246.04	26.26	12246.04	PASS
SEC.19-T05N-R66W	SLOT#03 KORI #J 19-15 (05-123-16363)	KORI #J 19-15	KORI #J 19-15 AWB	KORI #J 19-15 AWP	Drilling	28.50	5800.94	900.00	7310.52	28.87	7310.52	PASS





Closest Approach Clearance Summary Report

WINDOM 03NA (REV-A.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 03NA
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 03NA PWB
Slot	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 15599.99ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (95 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.19-T5N-R66W	CHISMAR #19-22 (05-123-19467) PA	CHISMAR 19-22	CHISMAR 19-22	CHISMAR 19-22\CHISMAR 19-22	Drilling	7001.64	2707.81	7001.64	7213.83	41.40	7213.83	PASS
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	BLEHM #7 (05-123-11217) PA	BLEHM #7	BLEHM #7 AWB	BLEHM #7 AWP	Drilling	902.52	1245.35	902.52	1082.15	41.54	7628.50	PASS
SEC.19-T05N-R66W	SLOT#13 SHEEP DRAW #19-23 (05-123-11521)	SHEEP DRAW #19-23	SHEEP DRAW #19-23 AWB	SHEEP DRAW #19-23 AWP	Drilling	6602.48	3075.37	6602.48	7117.28	43.09	7117.28	PASS
Phillips 24-3-21 (Dir) Pad Sec.24-T5N-R67W	PHILLIPS #24-3-21 (05-123-29448)	Phillips 24-3-21 (Dir)	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	28.50	1555.78	9128.50	10478.28	43.80	10478.28	PASS
SEC.19-T05N-R66W	SLOT#07 KORI J #19-12 (05-123-22721)	KORI J #19-12	KORI J #19-12 AWB	KORI J #19-12 AWB	Drilling	2488.05	2726.58	2488.05	7028.50	44.07	7028.50	PASS
Phillips 24-3-21 (Dir) Pad Sec.24-T5N-R67W	D.L. PHILLIPS #24-34 (05-123-21349)	Phillips 24-34 (Exist.)	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	28.50	1581.79	8328.50	9399.98	47.16	9399.98	PASS
SEC.19-T05N-R66W	SLOT#11 KORI J #19-25 (05-123-23230)	KORI J #19-25	KORI J #19-25 AWB	KORI J #19-25 AWP	Drilling	1530.47	3732.26	1530.47	7163.17	59.31	7163.17	PASS
SEC.19-T05N-R66W	SLOT#14 CHISMAR #19-24 (05-123-19468)	CHISMAR #19-24	CHISMAR #19-24 AWB	CHISMAR #19-24 AWP	Drilling	6714.96	4265.01	6714.96	7177.08	59.91	7177.08	PASS
Sec.19-T5N-R66W	CHISMAR #19-21 (05-123-19466) PA	CHISMAR 19-21	CHISMAR 19-21	CHISMAR 19-21\CHISMAR 19-21	Drilling	6988.77	3963.77	6988.77	7264.42	60.40	7264.42	PASS
SEC.19-T05N-R66W	SLOT#06 KORI J #19-11 (05-123-22718)	KORI J #19-11	KORI J #19-11 AWB	KORI J #19-11 AWP	Drilling	3176.44	4120.26	3176.44	7139.82	60.57	7139.82	PASS
SEC.19-T05N-R66W	SLOT#01 KORI #J 19-13 (05-123-22720)	KORI #J 19-13	KORI #J 19-13 AWB	KORI #J 19-13 AWP	Drilling	1025.49	3374.20	1025.49	7178.50	60.65	7178.50	PASS
Phillips 24-2-20 (Dir) Pad Sec.24-T5N-R67W	NYC N #24-16 (05-123-21127) PA	NYC N #24-16	NYC N #24-16 AWB	NYC N #24-16 AWP	Drilling	993.46	2149.26	993.46	7096.33	67.67	7096.33	PASS
SEC.19-T05N-R66W	SLOT#02 KORI #J 19-14 (05-123-22719)	KORI #J 19-14	KORI #J 19-14 AWB	KORI #J 19-14 AWP	Drilling	118.76	4616.19	428.50	7183.00	72.96	7183.00	PASS
SEC.19-T05N-R66W	SLOT#15 LUNDVALL UP #7-19 (05-123-13484)	LUNDVALL UP #7-19	LUNDVALL UP #7-19 AWB	LUNDVALL UP #7-19 AWP	Drilling	6923.43	5226.49	6923.43	7219.33	73.22	7219.33	PASS
SEC.19-T05N-R66W	SLOT#09 KORI #J 19-10 (05-123-17994)	KORI #J 19-10	KORI #J 19-10 AWB	KORI #J 19-10 AWP	Drilling	3750.81	5534.84	3750.81	7207.85	79.10	7207.85	PASS
Sec.19-T5N-R66W	LUNDVALL UP #2-19 (05-123-13483) SI	LUNDVALL UP 2-19	LUNDVALL UP 2-19	LUNDVALL UP 2-19\LUNDVALL UP 2-19	Drilling	6980.59	5605.22	6980.59	7341.44	84.03	7341.44	PASS
SEC.19-T05N-R66W	SLOT#10 KORI J #19-23 (05-123-22722)	KORI J #19-23	KORI J #19-23 AWB	KORI J #19-23 AWP	Drilling	1647.98	6466.05	1647.98	7274.76	94.09	7274.76	PASS
SEC.19-T05N-R66W	SLOT#16 HSR-LUNDVALL #8-19 (05-123-20564) TA	HSR-LUNDVALL #8-19	HSR-LUNDVALL #8-19 AWB	HSR-LUNDVALL #8-19 AWP	Drilling	6928.50	6911.26	6928.50	7328.50	95.74	7328.50	PASS
SEC.19-T05N-R66W	SLOT#12 KORI #J 19-9 (05-123-17993)	KORI #J 19-9	KORI #J 19-9 AWB	KORI #J 19-9 AWP	Drilling	3951.96	6853.32	3951.96	7304.09	96.66	7304.09	PASS
SEC.19-T05N-R66W	SLOT#04 KORI #J 19-16 (05-123-17999)	KORI #J 19-16	KORI #J 19-16 AWB	KORI #J 19-16 AWP	Drilling	1530.55	7110.28	1530.55	7255.89	104.36	7255.89	PASS