



Planned Wellpath Report

WINDOM 24N (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'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	0.999959	Report Generated	6/4/2024 at 11:51:37 AM
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	-164.90	-80.13	3183665.30	1382876.00	40.3825220°	-104.8407080°
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	(5003'GL+28.5'KB@5032'RKB) (RKB) to Facility Vertical Datum	5031.50ft
Horizontal Reference Pt	Slot	(5003'GL+28.5'KB@5032'RKB) (RKB) to Mean Sea Level	5031.50ft
Vertical Reference Pt	(5003'GL+28.5'KB@5032'RKB) (RKB)	(5003'GL+28.5'KB@5032'RKB) (RKB) to Ground Level at Slot (SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24))	5031.50ft
MD Reference Pt	(5003'GL+28.5'KB@5032'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	97.84°



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Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

WELLPATH DATA (190 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	207.615	0.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	
28.50	0.000	207.615	28.50	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	SHL
100.00†	0.000	207.615	100.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	
200.00†	0.000	207.615	200.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	
300.00†	0.000	207.615	300.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	
400.00†	0.000	207.615	400.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	
500.00	0.000	207.615	500.00	0.00	0.00	0.00	40.3825220	-104.8407080	0.00	End of Tangent
600.00†	2.000	207.615	599.98	-0.59	-1.55	-0.81	40.3825178	-104.8407109	2.00	
700.00†	4.000	207.615	699.84	-2.36	-6.18	-3.23	40.3825051	-104.8407198	2.00	
800.00†	6.000	207.615	799.45	-5.31	-13.91	-7.27	40.3824840	-104.8407345	2.00	
900.00†	8.000	207.615	898.70	-9.43	-24.70	-12.92	40.3824545	-104.8407550	2.00	
1000.00†	10.000	207.615	997.47	-14.72	-38.56	-20.17	40.3824166	-104.8407814	2.00	
1100.00†	12.000	207.615	1095.62	-21.18	-55.47	-29.02	40.3823703	-104.8408136	2.00	
1200.00†	14.000	207.615	1193.06	-28.79	-75.40	-39.44	40.3823158	-104.8408516	2.00	
1227.60	14.552	207.615	1219.81	-31.09	-81.43	-42.60	40.3822993	-104.8408631	2.00	Build (XS)
1300.00†	14.552	207.615	1289.88	-37.24	-97.55	-51.03	40.3822553	-104.8408938	0.00	
1400.00†	14.552	207.615	1386.67	-45.74	-119.82	-62.68	40.3821944	-104.8409362	0.00	
1500.00†	14.552	207.615	1483.46	-54.24	-142.08	-74.32	40.3821335	-104.8409786	0.00	
1600.00†	14.552	207.615	1580.26	-62.74	-164.34	-85.97	40.3820727	-104.8410210	0.00	
1700.00†	14.552	207.615	1677.05	-71.24	-186.61	-97.62	40.3820118	-104.8410634	0.00	
1800.00†	14.552	207.615	1773.84	-79.74	-208.87	-109.26	40.3819509	-104.8411058	0.00	
1900.00†	14.552	207.615	1870.63	-88.24	-231.14	-120.91	40.3818900	-104.8411482	0.00	
2000.00†	14.552	207.615	1967.42	-96.74	-253.40	-132.56	40.3818292	-104.8411905	0.00	
2100.00†	14.552	207.615	2064.22	-105.24	-275.66	-144.20	40.3817683	-104.8412329	0.00	
2200.00†	14.552	207.615	2161.01	-113.73	-297.93	-155.85	40.3817074	-104.8412753	0.00	
2300.00†	14.552	207.615	2257.80	-122.23	-320.19	-167.50	40.3816465	-104.8413177	0.00	
2400.00†	14.552	207.615	2354.59	-130.73	-342.45	-179.14	40.3815857	-104.8413601	0.00	
2500.00†	14.552	207.615	2451.38	-139.23	-364.72	-190.79	40.3815248	-104.8414025	0.00	
2600.00†	14.552	207.615	2548.18	-147.73	-386.98	-202.43	40.3814639	-104.8414449	0.00	
2700.00†	14.552	207.615	2644.97	-156.23	-409.25	-214.08	40.3814031	-104.8414873	0.00	
2800.00†	14.552	207.615	2741.76	-164.73	-431.51	-225.73	40.3813422	-104.8415297	0.00	
2900.00†	14.552	207.615	2838.55	-173.23	-453.77	-237.37	40.3812813	-104.8415721	0.00	
3000.00†	14.552	207.615	2935.34	-181.73	-476.04	-249.02	40.3812204	-104.8416145	0.00	
3100.00†	14.552	207.615	3032.14	-190.23	-498.30	-260.67	40.3811596	-104.8416569	0.00	
3200.00†	14.552	207.615	3128.93	-198.73	-520.56	-272.31	40.3810987	-104.8416993	0.00	
3300.00†	14.552	207.615	3225.72	-207.23	-542.83	-283.96	40.3810378	-104.8417417	0.00	
3400.00†	14.552	207.615	3322.51	-215.73	-565.09	-295.61	40.3809769	-104.8417841	0.00	
3500.00†	14.552	207.615	3419.30	-224.23	-587.36	-307.25	40.3809161	-104.8418265	0.00	
3600.00†	14.552	207.615	3516.10	-232.73	-609.62	-318.90	40.3808552	-104.8418689	0.00	
3700.00†	14.552	207.615	3612.89	-241.22	-631.88	-330.55	40.3807943	-104.8419113	0.00	
3800.00†	14.552	207.615	3709.68	-249.72	-654.15	-342.19	40.3807335	-104.8419537	0.00	
3900.00†	14.552	207.615	3806.47	-258.22	-676.41	-353.84	40.3806726	-104.8419961	0.00	
4000.00†	14.552	207.615	3903.26	-266.72	-698.67	-365.49	40.3806117	-104.8420385	0.00	
4100.00†	14.552	207.615	4000.06	-275.22	-720.94	-377.13	40.3805508	-104.8420809	0.00	
4200.00†	14.552	207.615	4096.85	-283.72	-743.20	-388.78	40.3804900	-104.8421233	0.00	



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Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4300.00†	14.552	207.615	4193.64	-292.22	-765.47	-400.42	40.3804291	-104.8421656	0.00	
4400.00†	14.552	207.615	4290.43	-300.72	-787.73	-412.07	40.3803682	-104.8422080	0.00	
4500.00†	14.552	207.615	4387.22	-309.22	-809.99	-423.72	40.3803073	-104.8422504	0.00	
4600.00†	14.552	207.615	4484.01	-317.72	-832.26	-435.36	40.3802465	-104.8422928	0.00	
4700.00†	14.552	207.615	4580.81	-326.22	-854.52	-447.01	40.3801856	-104.8423352	0.00	
4800.00†	14.552	207.615	4677.60	-334.72	-876.79	-458.66	40.3801247	-104.8423776	0.00	
4900.00†	14.552	207.615	4774.39	-343.22	-899.05	-470.30	40.3800638	-104.8424200	0.00	
5000.00†	14.552	207.615	4871.18	-351.72	-921.31	-481.95	40.3800030	-104.8424624	0.00	
5100.00†	14.552	207.615	4967.97	-360.21	-943.58	-493.60	40.3799421	-104.8425048	0.00	
5200.00†	14.552	207.615	5064.77	-368.71	-965.84	-505.24	40.3798812	-104.8425472	0.00	
5300.00†	14.552	207.615	5161.56	-377.21	-988.10	-516.89	40.3798204	-104.8425896	0.00	
5400.00†	14.552	207.615	5258.35	-385.71	-1010.37	-528.54	40.3797595	-104.8426320	0.00	
5500.00†	14.552	207.615	5355.14	-394.21	-1032.63	-540.18	40.3796986	-104.8426744	0.00	
5600.00†	14.552	207.615	5451.93	-402.71	-1054.90	-551.83	40.3796377	-104.8427168	0.00	
5700.00†	14.552	207.615	5548.73	-411.21	-1077.16	-563.47	40.3795769	-104.8427592	0.00	
5800.00†	14.552	207.615	5645.52	-419.71	-1099.42	-575.12	40.3795160	-104.8428016	0.00	
5900.00†	14.552	207.615	5742.31	-428.21	-1121.69	-586.77	40.3794551	-104.8428440	0.00	
6000.00†	14.552	207.615	5839.10	-436.71	-1143.95	-598.41	40.3793942	-104.8428863	0.00	
6100.00†	14.552	207.615	5935.89	-445.21	-1166.21	-610.06	40.3793334	-104.8429287	0.00	
6200.00†	14.552	207.615	6032.69	-453.71	-1188.48	-621.71	40.3792725	-104.8429711	0.00	
6300.00†	14.552	207.615	6129.48	-462.21	-1210.74	-633.35	40.3792116	-104.8430135	0.00	
6400.00†	14.552	207.615	6226.27	-470.71	-1233.01	-645.00	40.3791507	-104.8430559	0.00	
6500.00†	14.552	207.615	6323.06	-479.21	-1255.27	-656.65	40.3790899	-104.8430983	0.00	
6600.00†	14.552	207.615	6419.85	-487.70	-1277.53	-668.29	40.3790290	-104.8431407	0.00	
6700.00†	14.552	207.615	6516.65	-496.20	-1299.80	-679.94	40.3789681	-104.8431831	0.00	
6800.00†	14.552	207.615	6613.44	-504.70	-1322.06	-691.59	40.3789073	-104.8432255	0.00	
6892.81	14.552	207.615	6703.27	-512.59	-1342.73	-702.40	40.3788508	-104.8432648	0.00	KOP
6900.00†	14.268	205.281	6710.23	-513.16	-1344.33	-703.19	40.3788464	-104.8432677	9.00	
7000.00†	13.220	166.957	6807.57	-512.78	-1366.65	-705.88	40.3787851	-104.8432780	9.00	
7100.00†	17.470	136.355	6904.13	-496.92	-1388.70	-692.91	40.3787244	-104.8432320	9.00	
7200.00†	24.389	119.980	6997.56	-465.99	-1409.92	-664.61	40.3786655	-104.8431310	9.00	
7300.00†	32.304	110.868	7085.54	-420.74	-1429.80	-621.67	40.3786101	-104.8429774	9.00	
7400.00†	40.635	105.105	7165.91	-362.28	-1447.84	-565.15	40.3785594	-104.8427750	9.00	
7500.00†	49.169	101.038	7236.69	-292.07	-1463.60	-496.44	40.3785148	-104.8425288	9.00	
7600.00†	57.812	97.909	7296.14	-211.81	-1476.69	-417.23	40.3784772	-104.8422449	9.00	
7700.00†	66.519	95.329	7342.79	-123.50	-1486.80	-329.47	40.3784477	-104.8419302	9.00	
7800.00†	75.263	93.071	7375.50	-29.30	-1493.66	-235.33	40.3784270	-104.8415925	9.00	
7900.00†	84.028	90.988	7393.46	68.46	-1497.11	-137.12	40.3784155	-104.8412401	9.00	
7969.66	90.139	89.583	7397.00†	137.40	-1497.46	-67.59	40.3784131	-104.8409905	9.00	LP
8000.00†	90.139	89.583	7396.93	167.42	-1497.24	-37.25	40.3784131	-104.8408817	0.00	
8100.00†	90.139	89.583	7396.68	266.38	-1496.51	62.75	40.3784131	-104.8405227	0.00	
8200.00†	90.139	89.583	7396.44	365.34	-1495.78	162.74	40.3784130	-104.8401638	0.00	
8300.00†	90.139	89.583	7396.20	464.30	-1495.05	262.74	40.3784130	-104.8398049	0.00	
8400.00†	90.139	89.583	7395.96	563.26	-1494.32	362.74	40.3784129	-104.8394460	0.00	
8500.00†	90.139	89.583	7395.72	662.23	-1493.60	462.73	40.3784129	-104.8390870	0.00	



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8600.00†	90.139	89.583	7395.48	761.19	-1492.87	562.73	40.3784128	-104.8387281	0.00	
8700.00†	90.139	89.583	7395.23	860.15	-1492.14	662.73	40.3784128	-104.8383692	0.00	
8800.00†	90.139	89.583	7394.99	959.11	-1491.41	762.73	40.3784127	-104.8380103	0.00	
8900.00†	90.139	89.583	7394.75	1058.08	-1490.68	862.72	40.3784127	-104.8376514	0.00	
9000.00†	90.139	89.583	7394.51	1157.04	-1489.95	962.72	40.3784126	-104.8372924	0.00	
9100.00†	90.139	89.583	7394.27	1256.00	-1489.22	1062.72	40.3784126	-104.8369335	0.00	
9200.00†	90.139	89.583	7394.03	1354.96	-1488.50	1162.71	40.3784125	-104.8365746	0.00	
9300.00†	90.139	89.583	7393.78	1453.92	-1487.77	1262.71	40.3784125	-104.8362157	0.00	
9400.00†	90.139	89.583	7393.54	1552.89	-1487.04	1362.71	40.3784124	-104.8358567	0.00	
9500.00†	90.139	89.583	7393.30	1651.85	-1486.31	1462.70	40.3784124	-104.8354978	0.00	
9600.00†	90.139	89.583	7393.06	1750.81	-1485.58	1562.70	40.3784123	-104.8351389	0.00	
9700.00†	90.139	89.583	7392.82	1849.77	-1484.85	1662.70	40.3784122	-104.8347800	0.00	
9800.00†	90.139	89.583	7392.57	1948.73	-1484.13	1762.70	40.3784122	-104.8344210	0.00	
9900.00†	90.139	89.583	7392.33	2047.70	-1483.40	1862.69	40.3784121	-104.8340621	0.00	
10000.00†	90.139	89.583	7392.09	2146.66	-1482.67	1962.69	40.3784121	-104.8337032	0.00	
10100.00†	90.139	89.583	7391.85	2245.62	-1481.94	2062.69	40.3784120	-104.8333443	0.00	
10200.00†	90.139	89.583	7391.61	2344.58	-1481.21	2162.68	40.3784119	-104.8329854	0.00	
10300.00†	90.139	89.583	7391.37	2443.55	-1480.48	2262.68	40.3784119	-104.8326264	0.00	
10400.00†	90.139	89.583	7391.12	2542.51	-1479.75	2362.68	40.3784118	-104.8322675	0.00	
10500.00†	90.139	89.583	7390.88	2641.47	-1479.03	2462.68	40.3784117	-104.8319086	0.00	
10600.00†	90.139	89.583	7390.64	2740.43	-1478.30	2562.67	40.3784117	-104.8315497	0.00	
10700.00†	90.139	89.583	7390.40	2839.39	-1477.57	2662.67	40.3784116	-104.8311907	0.00	
10800.00†	90.139	89.583	7390.16	2938.36	-1476.84	2762.67	40.3784115	-104.8308318	0.00	
10900.00†	90.139	89.583	7389.91	3037.32	-1476.11	2862.66	40.3784114	-104.8304729	0.00	
11000.00†	90.139	89.583	7389.67	3136.28	-1475.38	2962.66	40.3784114	-104.8301140	0.00	
11100.00†	90.139	89.583	7389.43	3235.24	-1474.65	3062.66	40.3784113	-104.8297551	0.00	
11200.00†	90.139	89.583	7389.19	3334.21	-1473.93	3162.65	40.3784112	-104.8293962	0.00	
11300.00†	90.139	89.583	7388.95	3433.17	-1473.20	3262.65	40.3784111	-104.8290372	0.00	
11400.00†	90.139	89.583	7388.71	3532.13	-1472.47	3362.65	40.3784111	-104.8286783	0.00	
11500.00†	90.139	89.583	7388.46	3631.09	-1471.74	3462.65	40.3784110	-104.8283194	0.00	
11600.00†	90.139	89.583	7388.22	3730.05	-1471.01	3562.64	40.3784109	-104.8279604	0.00	
11700.00†	90.139	89.583	7387.98	3829.02	-1470.28	3662.64	40.3784108	-104.8276015	0.00	
11800.00†	90.139	89.583	7387.74	3927.98	-1469.56	3762.64	40.3784107	-104.8272426	0.00	
11900.00†	90.139	89.583	7387.50	4026.94	-1468.83	3862.63	40.3784107	-104.8268837	0.00	
12000.00†	90.139	89.583	7387.25	4125.90	-1468.10	3962.63	40.3784106	-104.8265248	0.00	
12100.00†	90.139	89.583	7387.01	4224.86	-1467.37	4062.63	40.3784105	-104.8261658	0.00	
12200.00†	90.139	89.583	7386.77	4323.83	-1466.64	4162.63	40.3784104	-104.8258069	0.00	
12300.00†	90.139	89.583	7386.53	4422.79	-1465.91	4262.62	40.3784103	-104.8254480	0.00	
12400.00†	90.139	89.583	7386.29	4521.75	-1465.18	4362.62	40.3784102	-104.8250891	0.00	
12500.00†	90.139	89.583	7386.05	4620.71	-1464.46	4462.62	40.3784101	-104.8247301	0.00	
12600.00†	90.139	89.583	7385.80	4719.68	-1463.73	4562.61	40.3784100	-104.8243712	0.00	
12700.00†	90.139	89.583	7385.56	4818.64	-1463.00	4662.61	40.3784100	-104.8240123	0.00	
12800.00†	90.139	89.583	7385.32	4917.60	-1462.27	4762.61	40.3784099	-104.8236534	0.00	
12900.00†	90.139	89.583	7385.08	5016.56	-1461.54	4862.60	40.3784098	-104.8232945	0.00	
13000.00†	90.139	89.583	7384.84	5115.52	-1460.81	4962.60	40.3784097	-104.8229355	0.00	



Planned Wellpath Report

WINDOM 24N (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13100.00†	90.139	89.583	7384.59	5214.49	-1460.09	5062.60	40.3784096	-104.8225766	0.00	
13200.00†	90.139	89.583	7384.35	5313.45	-1459.36	5162.60	40.3784095	-104.8222177	0.00	
13300.00†	90.139	89.583	7384.11	5412.41	-1458.63	5262.59	40.3784094	-104.8218588	0.00	
13400.00†	90.139	89.583	7383.87	5511.37	-1457.90	5362.59	40.3784093	-104.8214998	0.00	
13500.00†	90.139	89.583	7383.63	5610.34	-1457.17	5462.59	40.3784092	-104.8211409	0.00	
13600.00†	90.139	89.583	7383.39	5709.30	-1456.44	5562.58	40.3784091	-104.8207820	0.00	
13700.00†	90.139	89.583	7383.14	5808.26	-1455.71	5662.58	40.3784090	-104.8204231	0.00	
13800.00†	90.139	89.583	7382.90	5907.22	-1454.99	5762.58	40.3784089	-104.8200642	0.00	
13900.00†	90.139	89.583	7382.66	6006.18	-1454.26	5862.57	40.3784088	-104.8197052	0.00	
14000.00†	90.139	89.583	7382.42	6105.15	-1453.53	5962.57	40.3784087	-104.8193463	0.00	
14100.00†	90.139	89.583	7382.18	6204.11	-1452.80	6062.57	40.3784085	-104.8189874	0.00	
14200.00†	90.139	89.583	7381.94	6303.07	-1452.07	6162.57	40.3784084	-104.8186285	0.00	
14300.00†	90.139	89.583	7381.69	6402.03	-1451.34	6262.56	40.3784083	-104.8182695	0.00	
14400.00†	90.139	89.583	7381.45	6501.00	-1450.61	6362.56	40.3784082	-104.8179106	0.00	
14500.00†	90.139	89.583	7381.21	6599.96	-1449.89	6462.56	40.3784081	-104.8175517	0.00	
14600.00†	90.139	89.583	7380.97	6698.92	-1449.16	6562.55	40.3784080	-104.8171928	0.00	
14700.00†	90.139	89.583	7380.73	6797.88	-1448.43	6662.55	40.3784079	-104.8168339	0.00	
14800.00†	90.139	89.583	7380.48	6896.84	-1447.70	6762.55	40.3784078	-104.8164749	0.00	
14900.00†	90.139	89.583	7380.24	6995.81	-1446.97	6862.55	40.3784076	-104.8161160	0.00	
15000.00†	90.139	89.583	7380.00	7094.77	-1446.24	6962.54	40.3784075	-104.8157571	0.00	
15100.00†	90.139	89.583	7379.76	7193.73	-1445.52	7062.54	40.3784074	-104.8153982	0.00	
15200.00†	90.139	89.583	7379.52	7292.69	-1444.79	7162.54	40.3784073	-104.8150392	0.00	
15300.00†	90.139	89.583	7379.28	7391.65	-1444.06	7262.53	40.3784072	-104.8146803	0.00	
15400.00†	90.139	89.583	7379.03	7490.62	-1443.33	7362.53	40.3784070	-104.8143214	0.00	
15500.00†	90.139	89.583	7378.79	7589.58	-1442.60	7462.53	40.3784069	-104.8139625	0.00	
15600.00†	90.139	89.583	7378.55	7688.54	-1441.87	7562.52	40.3784068	-104.8136035	0.00	
15700.00†	90.139	89.583	7378.31	7787.50	-1441.14	7662.52	40.3784067	-104.8132446	0.00	
15800.00†	90.139	89.583	7378.07	7886.47	-1440.42	7762.52	40.3784065	-104.8128857	0.00	
15900.00†	90.139	89.583	7377.82	7985.43	-1439.69	7862.52	40.3784064	-104.8125268	0.00	
16000.00†	90.139	89.583	7377.58	8084.39	-1438.96	7962.51	40.3784063	-104.8121679	0.00	
16100.00†	90.139	89.583	7377.34	8183.35	-1438.23	8062.51	40.3784062	-104.8118089	0.00	
16200.00†	90.139	89.583	7377.10	8282.31	-1437.50	8162.51	40.3784060	-104.8114500	0.00	
16300.00†	90.139	89.583	7376.86	8381.28	-1436.77	8262.50	40.3784059	-104.8110911	0.00	
16400.00†	90.139	89.583	7376.62	8480.24	-1436.05	8362.50	40.3784058	-104.8107322	0.00	
16500.00†	90.139	89.583	7376.37	8579.20	-1435.32	8462.50	40.3784056	-104.8103732	0.00	
16600.00†	90.139	89.583	7376.13	8678.16	-1434.59	8562.50	40.3784055	-104.8100143	0.00	
16700.00†	90.139	89.583	7375.89	8777.13	-1433.86	8662.49	40.3784054	-104.8096554	0.00	
16800.00†	90.139	89.583	7375.65	8876.09	-1433.13	8762.49	40.3784052	-104.8092965	0.00	
16900.00†	90.139	89.583	7375.41	8975.05	-1432.40	8862.49	40.3784051	-104.8089376	0.00	
17000.00†	90.139	89.583	7375.16	9074.01	-1431.67	8962.48	40.3784049	-104.8085786	0.00	
17100.00†	90.139	89.583	7374.92	9172.97	-1430.95	9062.48	40.3784048	-104.8082197	0.00	
17200.00†	90.139	89.583	7374.68	9271.94	-1430.22	9162.48	40.3784047	-104.8078608	0.00	
17300.00†	90.139	89.583	7374.44	9370.90	-1429.49	9262.47	40.3784045	-104.8075019	0.00	
17400.00†	90.139	89.583	7374.20	9469.86	-1428.76	9362.47	40.3784044	-104.8071429	0.00	
17500.00†	90.139	89.583	7373.96	9568.82	-1428.03	9462.47	40.3784042	-104.8067840	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17600.00†	90.139	89.583	7373.71	9667.78	-1427.30	9562.47	40.3784041	-104.8064251	0.00	
17700.00†	90.139	89.583	7373.47	9766.75	-1426.57	9662.46	40.3784039	-104.8060662	0.00	
17800.00†	90.139	89.583	7373.23	9865.71	-1425.85	9762.46	40.3784038	-104.8057073	0.00	
17900.00†	90.139	89.583	7372.99	9964.67	-1425.12	9862.46	40.3784036	-104.8053483	0.00	
18000.00†	90.139	89.583	7372.75	10063.63	-1424.39	9962.45	40.3784035	-104.8049894	0.00	
18100.00†	90.139	89.583	7372.50	10162.60	-1423.66	10062.45	40.3784033	-104.8046305	0.00	
18200.00†	90.139	89.583	7372.26	10261.56	-1422.93	10162.45	40.3784032	-104.8042716	0.00	
18300.00†	90.139	89.583	7372.02	10360.52	-1422.20	10262.45	40.3784030	-104.8039126	0.00	
18308.82	90.139	89.583	7372.00‡	10369.25	-1422.14	10271.26	40.3784030	-104.8038810	0.00	BPZ
18358.82	90.139	89.583	7371.88	10418.73	-1421.78	10321.26	40.3784029	-104.8037015	0.00	BHL (235'FSL & 2597'FWL,SEC.20)

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.24-T05N-R67W	N/A	6.00	164.90	-408.90	3183256.41	1383040.89	40.3829830	-104.8421713	polygon
2D Polygon: dimensions not calculated									
SEC.19-T05N-R66W	N/A	10.00	165.04	-109.02	3183556.28	1383041.03	40.3829772	-104.8410949	polygon
2D Polygon: dimensions not calculated									
SEC.20-T05N-R66W	N/A	10.00	165.04	-109.02	3183556.28	1383041.03	40.3829772	-104.8410949	polygon
2D Polygon: dimensions not calculated									
WINDOM 24N BHL (235'FSL & 2597'FWL,SEC.20)	N/A	7372.00	-1421.75	10321.41	3193986.27	1381454.31	40.3784030	-104.8037010	point
2) WINDOM 24N BPZ (235'FSL&2547'FWL Sec.20)	18308.82	7372.00	-1422.14	10271.26	3193936.12	1381453.92	40.3784030	-104.8038810	point
WINDOM 24N LP (235'FSL & 2476'FEL,SEC.24)	N/A	7397.00	-1477.46	-67.59	3183597.71	1381398.60	40.3784680	-104.8409900	point
1) WINDOM 24N LP Rev-2 (215'FSL & 2476'FEL,SEC.24)	7969.66	7397.00	-1497.46	-67.59	3183597.71	1381378.60	40.3784131	-104.8409905	point



Planned Wellpath Report

WINDOM 24N (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

SURVEY PROGRAM - Ref Wellbore: WINDOM 24N PWB Ref Wellpath: WINDOM 24N (REV-A.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.50	1950.00	OWSG MWD rev2 - Standard		WINDOM 24N PWB
1950.00	18358.96	OWSG MWD rev2 (MS+IFR1)		WINDOM 24N PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.50	0.000	207.615	28.50	SHL
500.00	0.000	207.615	500.00	End of Tangent
1227.60	14.552	207.615	1219.81	Build (XS)
6892.81	14.552	207.615	6703.27	KOP
7969.66	90.139	89.583	7397.00	LP
18308.82	90.139	89.583	7372.00	BPZ
18358.82	90.139	89.583	7371.88	BHL (235'FSL & 2597'FWL,SEC.20)



Closest Approach Clearance Summary Report

WINDOM 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'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	0.999959	Report Generated	5/2/2024 at 10:42:08 AM
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	-164.90	-80.13	3183665.30	1382876.00	40°22'57.0792"N	104°50'26.5488"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	(5003'GL+28.5'KB@5032'RKB) (RKB) to Facility Vertical Datum	5031.50ft
Horizontal Reference Pt	Slot	(5003'GL+28.5'KB@5032'RKB) (RKB) to Mean Sea Level	5031.50ft
Vertical Reference Pt	(5003'GL+28.5'KB@5032'RKB) (RKB)	(5003'GL+28.5'KB@5032'RKB) (RKB) to Ground Level at Slot (SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24))	5031.50ft
MD Reference Pt	(5003'GL+28.5'KB@5032'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 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'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 24N PWB Ref Wellpath: WINDOM 24N (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.50	1950.00	OWSG MWD rev2 - Standard		WINDOM 24N PWB
1950.00	18358.96	OWSG MWD rev2 (MS+IFR1)		WINDOM 24N PWB



Closest Approach Clearance Summary Report

WINDOM 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18358.96ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (114 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.20-T5N-R66W (EXIST)	WIEDEMAN R J #20-13 (05-123-10815)	Wiedeman R J 20-13	Wiedeman R J 20-13	Wiedeman R J 20-13\Wiedeman R J 20-13 (Vert)	Drilling	16767.96	795.90	16767.96	16767.77	0.09	16767.77	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	28.50	803.46	500.00	7377.78	0.22	7377.78	FAIL	
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	7818.25	21.99	7818.25	7817.59	0.31	7817.59	FAIL	
SEC.20-T5N-R66W (EXIST)	BARNETT #5-20 (05-123-22662)	Barnett 5-20	Barnett 5-20	Barnett 5-20\Barnett 5-20 (Vert)	Drilling	16457.67	2948.82	16457.67	16455.20	0.33	16455.20	FAIL	
SEC.20-T5N-R66W (EXIST)	STUGART #6-20 (05-123-22661)	Stugart 6-20	Stugart 6-20	Stugart 6-20\Stugart 6-20 (Vert)	Drilling	17621.96	3266.37	17621.96	17618.98	0.37	17618.98	FAIL	
SEC.20-T5N-R66W (EXIST)	HAYES #1 (05-123-05178)	HAYES 1	HAYES 1	HAYES 1\HAYES 1 (VERT)	Drilling	18358.96	3682.66	18358.96	18358.96	0.42	18358.96	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	128.50	3269.01	500.00	7356.91	0.46	7356.91	FAIL	
SEC.20-T5N-R66W (EXIST)	STUGART #3-20 (05-123-22663)	STUGART 3-20	STUGART 3-20	STUGART 3-20\STUGART 3-20 (Vert)	Drilling	17902.81	4195.50	17902.81	17897.97	0.47	17897.97	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	128.50	2831.17	8476.90	8476.90	0.48	8476.90	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	128.50	3093.87	500.00	7522.83	0.48	7522.83	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	128.50	3316.07	9803.23	9803.23	0.48	9803.23	FAIL	
SEC.20-T5N-R66W (EXIST)	HAYES #2-20 (05-123-13227)	HAYES 2-20 (Vert)	HAYES 2-20	HAYES 2-20\HAYES 2-20	Drilling	18358.96	4384.42	18358.96	18358.96	0.49	18358.96	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	128.50	3251.11	500.00	7739.76	0.52	7739.76	FAIL	
SEC.20-T5N-R66W (EXIST)	HAYES #1-20 (05-123-13218)	HAYES 1-20	HAYES 1-20	HAYES 1-20\HAYES 1-20 (Vert)	Drilling	18358.96	4802.15	18358.96	18358.96	0.54	18358.96	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	128.50	3752.11	500.00	7536.74	0.55	7536.74	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	3100.59	1018.22	3100.59	7525.98	0.60	7525.98	FAIL	
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	6928.50	1522.24	6928.50	7374.65	0.65	7374.65	FAIL	
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	6756.67	55.74	6756.67	6762.04	0.82	6762.04	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	4048.58	2067.74	4048.58	7552.57	0.91	7552.57	FAIL	
Stugart State 6-20	Stugart #24N (05-123-51258) PR	Stugart 24N	Stugart 24N	Stugart 24N\Stugart 24N Final Surveys	Drilling	18358.96	179.43	18358.96	18358.96	0.93	18358.96	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	128.50	2353.33	9953.52	9953.52	1.00	9953.52	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	128.50	1727.52	500.00	7868.99	1.08	7868.99	WARN	
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	28.50	1858.80	8638.85	8638.85	1.13	8638.85	PASS	
Stugart State 6-20	Stugart #23N (05-123-51257) PR	Stugart 23N	Stugart 23N	Stugart 23N\Stugart 23N Final Surveys	Drilling	18358.96	213.15	18358.96	18358.96	1.23	18358.96	PASS	
SEC.20-T5N-R66W (EXIST)	HSR-WIEDEMAN #14-20 (05-123-19139)	HSR-Wiedeman 14-20	HSR-Wiedeman 14-20	HSR-Wiedeman 14-20\HSR-Wiedeman 14-20	Drilling	17853.55	292.64	17853.55	17851.91	1.24	17851.91	PASS	



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WINDOM 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18358.96ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (114 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#23 WINDOM 23N (1727'FSL & 2386'FEL,SEC.24)	WINDOM 23N	WINDOM 23N PWB	WINDOM 23N (REV-A.0) PWP	Planned	28.50	14.94	18349.61	18349.61	1.29	18349.61	PASS
Stugart State 6-20	Stugart #22N (05-123-51259) PR	Stugart 22N	Stugart 22N	Stugart 22N\Stugart 22N Final Surveys	Drilling	18358.96	343.13	18358.96	18358.96	1.45	18358.96	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	13798.21	401.14	13798.21	13798.26	1.48	13798.26	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	15131.90	423.09	15131.90	15132.40	2.35	15132.40	PASS
Stugart State 6-20	Stugart #21NA (05-123-51262) PR	Stugart 21NA	Stugart 21NA	Stugart 21NA\Stugart 21NA Final Surveys	Drilling	18358.96	576.14	18358.96	18358.96	2.43	18358.96	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	29.87	18328.50	18345.04	2.50	18345.04	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	11201.91	290.80	11201.91	11199.99	2.69	11199.99	PASS
Stugart State 6-20	Stugart #20N (05-123-51260) PR	Stugart 20N	Stugart 20N	Stugart 20N\Stugart 20N Final Surveys	Drilling	18358.96	776.45	18358.96	18358.96	3.24	18358.96	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	44.81	500.00	18355.68	3.76	18355.68	PASS
SEC.20-T5N-R66W (EXIST)	HSR-WIEDEMAN #15-20 (05-123-19140)	HSR-Wiedeman 15-20	HSR-Wiedeman 15-20	HSR-Wiedeman 15-20\HSR-Wiedeman 15-20	Drilling	18358.96	636.77	18358.96	18358.96	3.97	18358.96	PASS
Stugart State 6-20	Stugart #19N (05-123-51267) PR	Stugart 19N	Stugart 19N	Stugart 19N\Stugart 19N Final Surveys	Drilling	18358.96	976.72	18358.96	18358.96	4.02	18358.96	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	12585.89	552.61	12585.89	12593.95	4.22	12593.95	PASS
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	59.75	500.00	18358.96	5.02	18358.96	PASS
Stugart State 6-20	Stugart #18N (05-123-51274) PR	Stugart 18N	Stugart 18N	Stugart 18N\Stugart 18N Final Surveys	Drilling	18358.96	1221.69	18358.96	18358.96	5.06	18358.96	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	14532.01	920.20	14532.01	14562.96	5.48	14562.96	PASS
Stugart State 6-20	Stugart #17C (05-123-51268) PR	Stugart 17C	Stugart 17C	Stugart 17C\Stugart 17C Final Surveys	Drilling	18358.96	1426.42	18358.96	18358.96	5.84	18358.96	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	81.48	7493.51	7493.51	6.01	7493.51	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	75.05	500.00	18358.96	6.27	18358.96	PASS
Stugart State 6-20	Stugart #16N (05-123-51264) PR	Stugart 16N	Stugart 16N	Stugart 16N\Stugart 16N Final Surveys	Drilling	18351.94	1649.38	18351.94	18358.96	6.78	18358.96	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	9895.56	501.74	9895.56	9909.17	6.96	9909.17	PASS
SEC.20-T5N-R66W (EXIST)	LUNDVALL #11-20 (05-123-22759)	Ludvall 11-20	Ludvall 11-20	Ludvall 11-20\Ludvall 11-20	Drilling	17739.80	1736.53	17739.80	17859.14	7.44	17859.14	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	89.99	500.00	18358.96	7.58	18358.96	PASS
Stugart State 6-20	Stugart #15N (05-123-51255) PR	Stugart 15N	Stugart 15N	Stugart 15N\Stugart 15N Final Surveys	Drilling	18358.96	1855.81	18358.96	18358.96	7.67	18358.96	PASS
SEC.20-T5N-R66W (EXIST)	HSR-WIEDEMAN #10-20 (05-123-19138)	HSR-Wiedeman 10-20	HSR-Wiedeman 10-20	HSR-Wiedeman 10-20\HSR-Wiedeman 10-20	Drilling	18358.96	1848.70	18358.96	18358.96	7.83	18358.96	PASS
SEC.20-T5N-R66W (EXIST)	WIEDEMAN #20-20 (05-123-22699)	WIEDEMAN 20-20	WIEDEMAN 20-20	WIEDEMAN 20-20\WIEDEMAN 20-20	Drilling	18358.96	1603.00	18358.96	18358.96	7.86	18358.96	PASS



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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18358.96ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (114 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
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	8421.57	433.24	8421.57	8441.92	7.88	8441.92	PASS
Stugart State 6-20	Stugart #14N (05-123-51270) PR	Stugart 14N	Stugart 14N	Stugart 14N\Stugart 14N Final Surveys	Drilling	18358.96	2060.78	18358.96	18358.96	8.48	18358.96	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	3728.00	402.33	3728.00	4344.99	8.78	4344.99	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	104.92	500.00	18358.96	8.78	18358.96	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	11756.30	1051.13	11756.30	11819.47	9.04	11819.47	PASS
SEC.20-T5N-R66W (EXIST)	LUNDEVALL #12-20 (05-123-22760)	Lundvall 12-20	Lundvall 12-20	Lundvall 12-20\Lundvall 12-20	Drilling	16252.87	1863.06	16252.87	16388.99	9.24	16388.99	PASS
Stugart State 6-20	Stugart #13NA (05-123-51261) PR	Stugart 13NA	Stugart 13NA	Stugart 13NA\Stugart 13NA Final Surveys	Drilling	18358.96	2310.73	18358.96	18358.96	9.53	18358.96	PASS
SEC.20-T5N-R66W (EXIST)	WIEDEMAN #25-20 (05-123-27032)	WIEDEMAN 25-20	WIEDEMAN 25-20	WIEDEMAN 25-20\WIEDEMAN 25-20	Drilling	18358.96	2339.54	18358.96	18358.96	9.58	18358.96	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	15042.60	1754.46	15042.60	15187.62	9.84	15187.62	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	119.86	500.00	18358.96	10.04	18358.96	PASS
SEC.20-T5N-R66W (EXIST)	STUGART #22-20 (05-123-28089)	Stugart 22-20	Stugart 22-20	Stugart 22-20\Stugart 22-20	Drilling	17081.39	2275.29	17081.39	17304.82	10.39	17304.82	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	85.36	7528.50	752.09	10.41	7528.50	PASS
Stugart State 6-20	Stugart #12N (05-123-51271) PR	Stugart 12N	Stugart 12N	Stugart 12N\Stugart 12N Final Surveys	Drilling	18358.96	2534.51	18358.96	18358.96	10.45	18358.96	PASS
Stugart State 6-20	Stugart #11N (05-123-51278) PR	Stugart 11N	Stugart 11N	Stugart 11N\Stugart 11N Final Surveys	Drilling	18358.96	2735.38	18358.96	18358.96	11.25	18358.96	PASS
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	28.50	134.80	500.00	18358.96	11.28	18358.96	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	91.97	7128.50	748.89	11.29	7228.50	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	13711.51	1755.36	13711.51	13882.38	11.52	13882.38	PASS
SEC.20-T5N-R66W (EXIST)	WIEDEMAN #24-20 (05-123-27033)	WIEDEMAN 24-20	WIEDEMAN 24-20	WIEDEMAN 24-20\WIEDEMAN 24-20	Drilling	18358.96	2652.91	18358.96	18358.96	11.83	18358.96	PASS
Stugart State 6-20	Stugart #10N (05-123-51275) PR	Stugart 10N	Stugart 10N	Stugart 10N\Stugart 10N Final Surveys	Drilling	18358.96	2969.85	18358.96	18358.96	12.23	18358.96	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	100.04	8128.50	756.55	12.30	7428.50	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	149.74	500.00	18358.96	12.52	18358.96	PASS
Stugart State 6-20	Stugart #09C (05-123-51266) PR	Stugart 09C	Stugart 09C	Stugart 09C\Stugart 09C Final Surveys	Drilling	18224.88	3190.12	18224.88	18358.96	13.16	18358.96	PASS
SEC.20-T5N-R66W (EXIST)	HURST #7-20 (05-123-24976)	HURST 7-20	HURST 7-20	HURST 7-20\HURST 7-20	Drilling	18358.96	3166.92	18358.96	18358.96	13.23	18358.96	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	109.78	8128.50	772.96	13.48	7228.50	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	165.04	500.00	18358.96	13.77	18358.96	PASS



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WINDOM 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18358.96ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (114 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	
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	7003.25	899.73	7003.25	7079.81	13.85	7079.81	PASS	
Stugart State 6-20	Stugart #08N (05-123-51256) PR	Stugart 08N	Stugart 08N	Stugart 08N\Stugart 08N Final Surveys	Drilling	18358.96	3399.49	18358.96	18358.96	13.98	18358.96	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	12324.15	1866.54	12324.15	12556.40	14.65	12556.40	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	120.39	8328.50	793.88	14.71	9028.50	PASS	
SEC.20-T5N-R66W (EXIST)	HSR-WIEDEMAN #9-20 (05-123-19149)	HSR-Wiedeman 9-20	HSR-Wiedeman 9-20	HSR-Wiedeman 9-20\HSR-Wiedeman 9-20	Drilling	18358.96	2466.09	18358.96	18358.96	14.74	18358.96	PASS	
Stugart State 6-20	Stugart #07N (05-123-51263) PR	Stugart 07N	Stugart 07N	Stugart 07N\Stugart 07N Final Surveys	Drilling	18358.96	3628.58	18358.96	18358.96	14.95	18358.96	PASS	
SEC.20-T5N-R66W (EXIST)	GREELEY #21-20 (05-123-25782)	GREELEY 21-20	GREELEY 21-20	GREELEY 21-20\GREELEY 21-20	Drilling	18358.96	3678.57	18358.96	18358.96	15.11	18358.96	PASS	
Stugart State 6-20	Stugart #06N (05-123-51269) PR	Stugart 06N	Stugart 06N	Stugart 06N\Stugart 06N Final Surveys	Drilling	18297.18	3854.50	18297.18	18358.96	15.87	18358.96	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	131.85	8328.50	818.11	16.02	9428.50	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 AWP	Drilling	10853.91	1674.34	10853.91	11076.08	16.28	11076.08	PASS	
Stugart State 6-20	Stugart #05NA (05-123-51277) PR	Stugart 05NA	Stugart 05NA	Stugart 05NA\Stugart 05NA Final Surveys	Drilling	18358.96	4054.30	18358.96	18358.96	16.68	18358.96	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	15220.79	3143.30	15220.79	15724.94	16.97	15724.94	PASS	
SEC.20-T5N-R66W (EXIST)	HURST #8-20 (05-123-24996)	HURST 8-20	HURST 8-20	HURST 8-20\HURST 8-20	Drilling	18358.96	3755.07	18358.96	18358.96	16.99	18358.96	PASS	
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	144.10	8328.50	828.50	17.38	9828.50	PASS	
SEC.20-T5N-R66W (EXIST)	GREELEY #17-20 (05-123-26022)	GREELEY 17-20	GREELEY 17-20	GREELEY 17-20\GREELEY 17-20	Drilling	18358.96	4046.18	18358.96	18358.96	17.49	18358.96	PASS	
SEC.20-T5N-R66W (EXIST)	SW GREELEY #18-20 (05-123-26603)	SW GREELEY #18-20	SW GREELEY #18-20 AWB	SW GREELEY #18-20 AWP	Drilling	16996.79	3797.68	16996.79	17646.81	17.53	17646.81	PASS	
Stugart State 6-20	Stugart #04N (05-123-51276) PR	Stugart 04N	Stugart 04N	Stugart 04N\Stugart 04N Final Surveys	Drilling	18358.96	4285.36	18358.96	18358.96	17.62	18358.96	PASS	
SEC.20-T5N-R66W (EXIST)	SW GREELEY #31-20 (05-123-28090)	SW Greeley 31-20	SW Greeley 31-20	SW Greeley 31-20\SW Greeley 31-20	Drilling	15883.21	3588.68	15883.21	16502.97	18.16	16502.97	PASS	
Stugart State 6-20	Stugart #03N (05-123-51272) PR	Stugart 03N	Stugart 03N	Stugart 03N\Stugart 03N Final Surveys	Drilling	18182.28	4487.49	18182.28	18358.96	18.42	18358.96	PASS	
SEC.24-T05N-R67W	SLOT#03 WINDOM 03NA (1847'FSL & 2304'FEL,SEC.24)	WINDOM 03NA	WINDOM 03NA PWB	WINDOM 03NA (REV-A.1) PWP	Planned	28.50	156.98	8328.50	828.50	18.81	10228.50	PASS	
SEC.20-T5N-R66W (EXIST)	WIEDEMAN #40-20 (05-123-27034)	WIEDEMAN 40-20	WIEDEMAN 40-20	WIEDEMAN 40-20\WIEDEMAN 40-20	Drilling	18358.96	3541.58	18358.96	18358.96	19.08	18358.96	PASS	
Stugart State 6-20	Stugart State #02C (05-123-51273) PR	Stugart State 02C	Stugart State 02C	Stugart State 02C\Stugart State 02C Final Surveys	Drilling	18313.34	4705.28	18313.34	18358.96	19.29	18358.96	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	13530.54	2993.00	13530.54	14084.46	19.64	14084.46	PASS	
Stugart State 6-20	Stugart State #01N (05-123-51265) PR	Stugart State 01N	Stugart State 01N	Stugart State 01N\Stugart State 01N Final Surveys	Drilling	18358.96	4934.53	18358.96	18358.96	20.21	18358.96	PASS	
SEC.20-T5N-R66W (EXIST)	BARNETT 1-20 (05-123-13311)	BARNETT 1-20	BARNETT 1-20 AWB	BARNETT 1-20 AWP	Drilling	16340.62	4188.36	16340.62	17188.45	20.49	17188.45	PASS	



Closest Approach Clearance Summary Report

WINDOM 24N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 24N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 24N PWB
Slot	SLOT#24 WINDOM 24N (1712'FSL & 2386'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18358.96ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (114 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#02 WINDOM 02C (1862'FSL & 2304'FEL,SEC.24)	WINDOM 02C	WINDOM 02C PWB	WINDOM 02C (REV-A.0) PWP	Planned	28.50	170.08	8328.50	804.87	20.52	10528.50	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	11111.57	2333.29	11111.57	5224.52	21.88	12928.50	PASS
SEC.20-T5N-R66W (EXIST)	GREELEY #27-20 (05-123-26706)	Greeley 27-20 (Exist.)	Greeley 27-20	Greeley 27-20\Greeley 27-20	Drilling	18358.96	5253.21	18358.96	18358.96	22.01	18358.96	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	12565.98	2990.08	12565.98	13189.31	22.16	13189.31	PASS
SEC.20-T5N-R66W (EXIST)	HSR-WIEDEMAN #16-20 (05-123-19141)	HSR-Wiedeman 16-20	HSR-Wiedeman 16-20	HSR-Wiedeman 16-20\HSR-Wiedeman 16-20	Drilling	18358.96	2067.32	18358.96	18358.96	22.19	18358.96	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	183.34	8328.50	732.03	23.26	11028.50	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	11365.31	3001.27	11365.31	12093.66	26.11	12093.66	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	13848.72	4316.67	13848.72	14982.31	26.68	14982.31	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	732.97	819.06	732.97	860.50	27.35	7028.50	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	12190.64	4340.09	12190.64	13604.68	33.00	13604.68	PASS
Sec.19-T5N-R66W	CHISMAR #19-22 (05-123-19467) PA	CHISMAR 19-22	CHISMAR 19-22	CHISMAR 19-22\CHISMAR 19-22	Drilling	87.50	4060.19	10928.50	12530.81	38.73	12530.81	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	4823.69	2974.64	4823.69	7084.07	45.07	7084.07	PASS
Phillips PC N24-29 Pad Sec.24-T5N-R67W	PHILLIPS PC #N24-31D (05-123-29077)	Phillips PC N24-31D	Wellbore #1	Wellbore #1\Wellbore #1	Drilling	69.50	3729.18	69.50	7296.90	66.54	7296.90	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	68.50	3766.51	68.50	7377.79	72.56	7528.50	PASS