

PDC ENERGY INC

Location: COLORADO Slot: SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL, SEC.24)
 Field: WELD COUNTY (NAD83/GRID) Well: WINDOM 14N
 Facility: SEC.24-T05N-R67W Wellbore: WINDOM 14N PWB

Plot reference wellpath is WINDOM 14N (REV-A.0) PWP
 Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
 True vertical depths are referenced to (4998'GL+28.5KB@5027'RKB) (RKB)
 North Reference: Grid north
 Reference wellpath measured depths are referenced to (4998'GL+28.5KB@5027'RKB) (RKB)
 Scale: True distance
 (4998'GL+28.5KB@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#14 WINDOM 14N (1862'FSL & 2384'FEL, SEC.24)): 0 feet
 Depths are in feet
 Offset wellpath MDs are referenced to each path's default MD datum
 Created by: martsam01 on 2024-03-26; Database: WA_Darver

Location Information

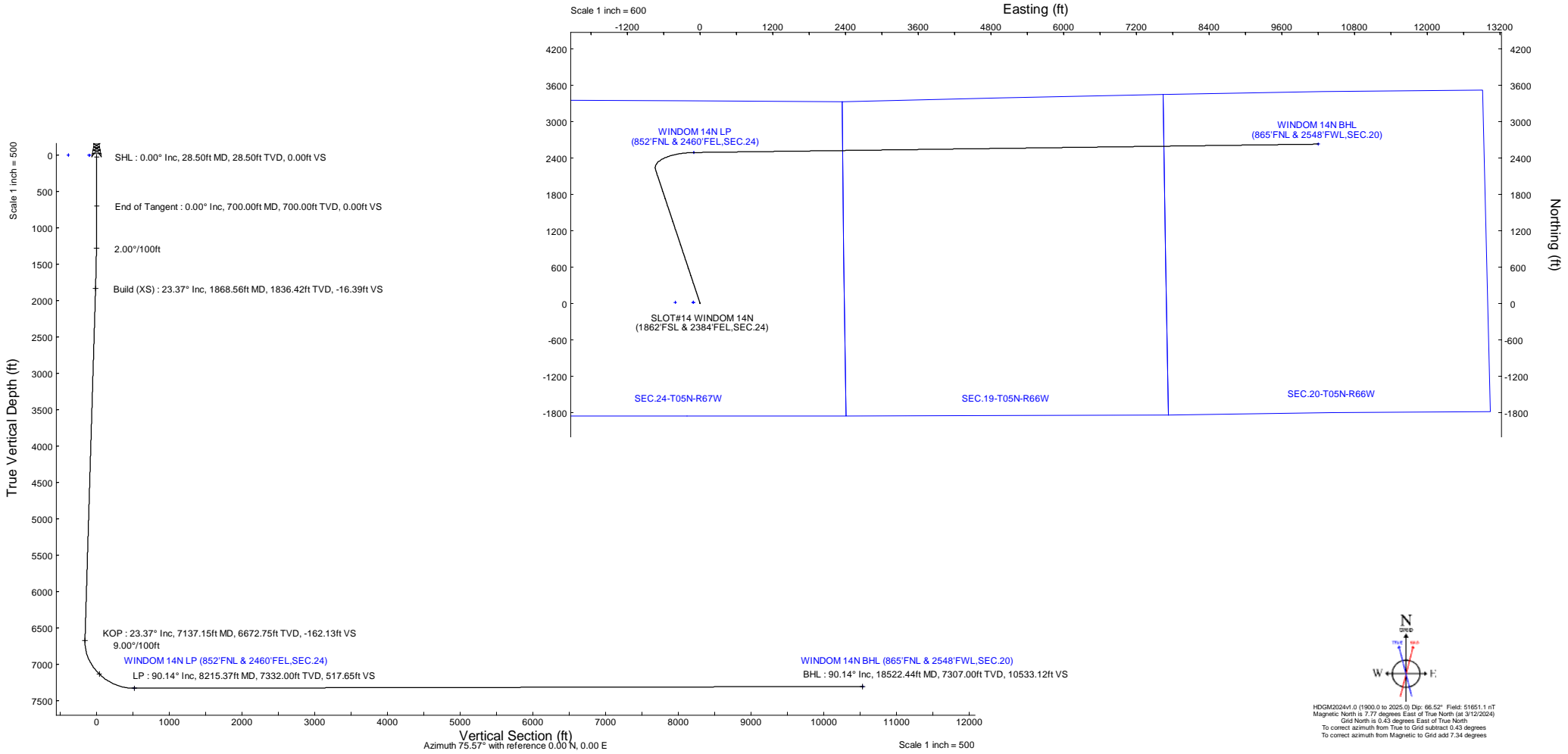
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.24-T05N-R67W		3183745.419	1383040.862	40°22'58.7028"N	104°50'25.4976"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL, SEC.24)	-15.17	-80.12	3183665.238	1383025.724	40°22'58.5588"N	104°50'26.5344"W
(4998'GL+28.5KB@5027'RKB) (RKB) to Ground level (At Slot: SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL, SEC.24))				5026.5ft		
Mean Sea Level to Ground level (At Slot: SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL, SEC.24))				0ft		
(4998'GL+28.5KB@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	341.569	28.50	0.00	0.00	0.00	0.00
End of Tangent	700.00	0.000	341.569	700.00	0.00	0.00	0.00	0.00
Build (XS)	1868.56	23.371	341.569	1836.42	222.99	-74.31	2.00	-16.39
KOP	7137.15	23.371	341.569	6672.75	2205.75	-735.10	0.00	-162.13
LP	8215.37	90.139	89.228	7332.00	2486.44	-105.40	9.00	517.65
BHL	18522.44	90.139	89.228	7307.00	2625.29	10200.70	0.00	10533.12

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.24-T05N-R67W	N/A	1.00	15.17	-408.90	3183266.41	1383040.89	40°22'58.7387"N	104°50'31.8167"W
SEC.19-T05N-R66W	N/A	5.00	15.30	-109.02	3183556.28	1383041.03	40°22'58.7180"N	104°50'27.9416"W
SEC.20-T05N-R66W	N/A	5.00	15.30	-109.02	3183556.28	1383041.03	40°22'58.7180"N	104°50'27.9416"W
WINDOM 14N BHL (865'FNL & 2548'FWL, SEC.20)	18522.44	7307.00	2625.29	10200.70	3193865.57	1385650.91	40°23'23.7300"N	104°48'14.4576"W
WINDOM 14N BPZ (865'FNL & 2498'FWL, SEC.20)	N/A	7307.00	2624.53	10150.57	3193815.43	1385650.15	40°23'23.7264"N	104°48'15.1056"W
WINDOM 14N LP (852'FNL & 2460'FEL, SEC.24)	8215.37	7332.00	2486.44	-105.40	3183559.90	1385512.06	40°23'23.1360"N	104°50'27.6576"W





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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'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 11:26:28 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	-15.17	-80.12	3183665.30	1383025.72	40.3829330°	-104.8407040°
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#14 WINDOM 14N (1862'FSL & 2384'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	75.57°



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Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

WELLPATH DATA (192 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	341.568	0.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
28.50	0.000	341.568	28.50	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	SHL
100.00†	0.000	341.568	100.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
200.00†	0.000	341.568	200.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
300.00†	0.000	341.568	300.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
400.00†	0.000	341.568	400.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
500.00†	0.000	341.568	500.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
600.00†	0.000	341.568	600.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	
700.00	0.000	341.568	700.00	0.00	0.00	0.00	40.3829330	-104.8407040	0.00	End of Tangent
800.00†	2.000	341.568	799.98	-0.12	1.66	-0.55	40.3829376	-104.8407059	2.00	
900.00†	4.000	341.568	899.84	-0.49	6.62	-2.21	40.3829512	-104.8407117	2.00	
1000.00†	6.000	341.568	999.45	-1.09	14.89	-4.96	40.3829740	-104.8407214	2.00	
1100.00†	8.000	341.568	1098.70	-1.94	26.45	-8.81	40.3830058	-104.8407349	2.00	
1200.00†	10.000	341.568	1197.47	-3.04	41.29	-13.76	40.3830466	-104.8407523	2.00	
1300.00†	12.000	341.568	1295.62	-4.37	59.39	-19.79	40.3830964	-104.8407735	2.00	
1400.00†	14.000	341.568	1393.06	-5.93	80.73	-26.91	40.3831551	-104.8407984	2.00	
1500.00†	16.000	341.568	1489.64	-7.74	105.28	-35.09	40.3832227	-104.8408271	2.00	
1600.00†	18.000	341.568	1585.27	-9.78	133.02	-44.33	40.3832990	-104.8408596	2.00	
1700.00†	20.000	341.568	1679.82	-12.05	163.91	-54.62	40.3833840	-104.8408957	2.00	
1800.00†	22.000	341.568	1773.17	-14.55	197.90	-65.95	40.3834776	-104.8409355	2.00	
1868.56	23.371	341.568	1836.42	-16.39	222.99	-74.31	40.3835466	-104.8409648	2.00	Build (XS)
1900.00†	23.371	341.568	1865.28	-17.26	234.82	-78.26	40.3835791	-104.8409786	0.00	
2000.00†	23.371	341.568	1957.08	-20.03	272.45	-90.80	40.3836827	-104.8410226	0.00	
2100.00†	23.371	341.568	2048.87	-22.80	310.09	-103.34	40.3837862	-104.8410667	0.00	
2200.00†	23.371	341.568	2140.67	-25.56	347.72	-115.88	40.3838898	-104.8411107	0.00	
2300.00†	23.371	341.568	2232.47	-28.33	385.35	-128.43	40.3839933	-104.8411547	0.00	
2400.00†	23.371	341.568	2324.26	-31.10	422.99	-140.97	40.3840969	-104.8411987	0.00	
2500.00†	23.371	341.568	2416.06	-33.86	460.62	-153.51	40.3842005	-104.8412427	0.00	
2600.00†	23.371	341.568	2507.85	-36.63	498.25	-166.05	40.3843040	-104.8412867	0.00	
2700.00†	23.371	341.568	2599.65	-39.40	535.89	-178.59	40.3844076	-104.8413308	0.00	
2800.00†	23.371	341.568	2691.44	-42.16	573.52	-191.14	40.3845111	-104.8413748	0.00	
2900.00†	23.371	341.568	2783.24	-44.93	611.16	-203.68	40.3846147	-104.8414188	0.00	
3000.00†	23.371	341.568	2875.03	-47.70	648.79	-216.22	40.3847182	-104.8414628	0.00	
3100.00†	23.371	341.568	2966.83	-50.46	686.42	-228.76	40.3848218	-104.8415068	0.00	
3200.00†	23.371	341.568	3058.62	-53.23	724.06	-241.31	40.3849253	-104.8415508	0.00	
3300.00†	23.371	341.568	3150.42	-55.99	761.69	-253.85	40.3850289	-104.8415949	0.00	
3400.00†	23.371	341.568	3242.22	-58.76	799.32	-266.39	40.3851324	-104.8416389	0.00	
3500.00†	23.371	341.568	3334.01	-61.53	836.96	-278.93	40.3852360	-104.8416829	0.00	
3600.00†	23.371	341.568	3425.81	-64.29	874.59	-291.47	40.3853395	-104.8417269	0.00	
3700.00†	23.371	341.568	3517.60	-67.06	912.22	-304.02	40.3854431	-104.8417709	0.00	
3800.00†	23.371	341.568	3609.40	-69.83	949.86	-316.56	40.3855467	-104.8418149	0.00	
3900.00†	23.371	341.568	3701.19	-72.59	987.49	-329.10	40.3856502	-104.8418590	0.00	
4000.00†	23.371	341.568	3792.99	-75.36	1025.13	-341.64	40.3857538	-104.8419030	0.00	
4100.00†	23.371	341.568	3884.78	-78.13	1062.76	-354.18	40.3858573	-104.8419470	0.00	
4200.00†	23.371	341.568	3976.58	-80.89	1100.39	-366.73	40.3859609	-104.8419910	0.00	



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Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4300.00†	23.371	341.568	4068.37	-83.66	1138.03	-379.27	40.3860644	-104.8420350	0.00	
4400.00†	23.371	341.568	4160.17	-86.43	1175.66	-391.81	40.3861680	-104.8420790	0.00	
4500.00†	23.371	341.568	4251.97	-89.19	1213.29	-404.35	40.3862715	-104.8421231	0.00	
4600.00†	23.371	341.568	4343.76	-91.96	1250.93	-416.89	40.3863751	-104.8421671	0.00	
4700.00†	23.371	341.568	4435.56	-94.73	1288.56	-429.44	40.3864786	-104.8422111	0.00	
4800.00†	23.371	341.568	4527.35	-97.49	1326.19	-441.98	40.3865822	-104.8422551	0.00	
4900.00†	23.371	341.568	4619.15	-100.26	1363.83	-454.52	40.3866857	-104.8422991	0.00	
5000.00†	23.371	341.568	4710.94	-103.03	1401.46	-467.06	40.3867893	-104.8423432	0.00	
5100.00†	23.371	341.568	4802.74	-105.79	1439.10	-479.61	40.3868928	-104.8423872	0.00	
5200.00†	23.371	341.568	4894.53	-108.56	1476.73	-492.15	40.3869964	-104.8424312	0.00	
5300.00†	23.371	341.568	4986.33	-111.33	1514.36	-504.69	40.3871000	-104.8424752	0.00	
5400.00†	23.371	341.568	5078.12	-114.09	1552.00	-517.23	40.3872035	-104.8425192	0.00	
5500.00†	23.371	341.568	5169.92	-116.86	1589.63	-529.77	40.3873071	-104.8425633	0.00	
5600.00†	23.371	341.568	5261.72	-119.63	1627.26	-542.32	40.3874106	-104.8426073	0.00	
5700.00†	23.371	341.568	5353.51	-122.39	1664.90	-554.86	40.3875142	-104.8426513	0.00	
5800.00†	23.371	341.568	5445.31	-125.16	1702.53	-567.40	40.3876177	-104.8426953	0.00	
5900.00†	23.371	341.568	5537.10	-127.93	1740.16	-579.94	40.3877213	-104.8427393	0.00	
6000.00†	23.371	341.568	5628.90	-130.69	1777.80	-592.48	40.3878248	-104.8427834	0.00	
6100.00†	23.371	341.568	5720.69	-133.46	1815.43	-605.03	40.3879284	-104.8428274	0.00	
6200.00†	23.371	341.568	5812.49	-136.23	1853.07	-617.57	40.3880319	-104.8428714	0.00	
6300.00†	23.371	341.568	5904.28	-138.99	1890.70	-630.11	40.3881355	-104.8429154	0.00	
6400.00†	23.371	341.568	5996.08	-141.76	1928.33	-642.65	40.3882390	-104.8429594	0.00	
6500.00†	23.371	341.568	6087.87	-144.53	1965.97	-655.19	40.3883426	-104.8430035	0.00	
6600.00†	23.371	341.568	6179.67	-147.29	2003.60	-667.74	40.3884461	-104.8430475	0.00	
6700.00†	23.371	341.568	6271.47	-150.06	2041.23	-680.28	40.3885497	-104.8430915	0.00	
6800.00†	23.371	341.568	6363.26	-152.83	2078.87	-692.82	40.3886532	-104.8431355	0.00	
6900.00†	23.371	341.568	6455.06	-155.59	2116.50	-705.36	40.3887568	-104.8431795	0.00	
7000.00†	23.371	341.568	6546.85	-158.36	2154.13	-717.91	40.3888604	-104.8432236	0.00	
7100.00†	23.371	341.568	6638.65	-161.13	2191.77	-730.45	40.3889639	-104.8432676	0.00	
7137.15	23.371	341.568	6672.75	-162.15	2205.75	-735.11	40.3890024	-104.8432839	0.00	KOP
7200.00†	22.419	355.936	6730.69	-160.86	2229.55	-739.90	40.3890678	-104.8433005	9.00	
7300.00†	23.630	18.874	6822.91	-146.40	2267.61	-734.76	40.3891722	-104.8432810	9.00	
7400.00†	27.709	37.517	6913.17	-117.02	2305.09	-714.08	40.3892746	-104.8432058	9.00	
7500.00†	33.623	50.897	6999.25	-73.47	2341.07	-678.36	40.3893727	-104.8430766	9.00	
7600.00†	40.574	60.419	7079.03	-16.80	2374.66	-628.49	40.3894638	-104.8428967	9.00	
7700.00†	48.107	67.487	7150.54	51.58	2405.03	-565.69	40.3895459	-104.8426705	9.00	
7800.00†	55.981	73.028	7212.02	129.99	2431.43	-491.52	40.3896169	-104.8424035	9.00	
7900.00†	64.061	77.613	7261.97	216.51	2453.21	-407.79	40.3896750	-104.8421024	9.00	
8000.00†	72.267	81.602	7299.15	308.99	2469.85	-316.57	40.3897188	-104.8417745	9.00	
8100.00†	80.545	85.238	7322.64	405.17	2480.92	-220.11	40.3897472	-104.8414279	9.00	
8200.00†	88.860	88.701	7331.87	502.68	2486.16	-120.78	40.3897596	-104.8410712	9.00	
8215.38	90.140	89.229	7332.00†	517.64	2486.44	-105.40	40.3897600	-104.8410160	9.00	LP
8300.00†	90.140	89.229	7331.79	599.86	2487.58	-20.79	40.3897614	-104.8407122	0.00	
8400.00†	90.140	89.229	7331.55	697.03	2488.92	79.20	40.3897631	-104.8403533	0.00	
8500.00†	90.140	89.229	7331.31	794.20	2490.27	179.19	40.3897647	-104.8399943	0.00	



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Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8600.00†	90.140	89.229	7331.06	891.37	2491.62	279.18	40.3897664	-104.8396353	0.00	
8700.00†	90.140	89.229	7330.82	988.55	2492.96	379.17	40.3897680	-104.8392763	0.00	
8800.00†	90.140	89.229	7330.58	1085.72	2494.31	479.16	40.3897697	-104.8389174	0.00	
8900.00†	90.140	89.229	7330.33	1182.89	2495.66	579.15	40.3897713	-104.8385584	0.00	
9000.00†	90.140	89.229	7330.09	1280.06	2497.00	679.14	40.3897730	-104.8381994	0.00	
9100.00†	90.140	89.229	7329.84	1377.23	2498.35	779.13	40.3897746	-104.8378404	0.00	
9200.00†	90.140	89.229	7329.60	1474.40	2499.70	879.12	40.3897763	-104.8374815	0.00	
9300.00†	90.140	89.229	7329.36	1571.57	2501.04	979.11	40.3897779	-104.8371225	0.00	
9400.00†	90.140	89.229	7329.11	1668.74	2502.39	1079.11	40.3897795	-104.8367635	0.00	
9500.00†	90.140	89.229	7328.87	1765.91	2503.73	1179.10	40.3897812	-104.8364045	0.00	
9600.00†	90.140	89.229	7328.63	1863.08	2505.08	1279.09	40.3897828	-104.8360456	0.00	
9700.00†	90.140	89.229	7328.38	1960.25	2506.43	1379.08	40.3897845	-104.8356866	0.00	
9800.00†	90.140	89.229	7328.14	2057.42	2507.77	1479.07	40.3897861	-104.8353276	0.00	
9900.00†	90.140	89.229	7327.89	2154.59	2509.12	1579.06	40.3897877	-104.8349686	0.00	
10000.00†	90.140	89.229	7327.65	2251.76	2510.47	1679.05	40.3897894	-104.8346096	0.00	
10100.00†	90.140	89.229	7327.41	2348.94	2511.81	1779.04	40.3897910	-104.8342507	0.00	
10200.00†	90.140	89.229	7327.16	2446.11	2513.16	1879.03	40.3897926	-104.8338917	0.00	
10300.00†	90.140	89.229	7326.92	2543.28	2514.51	1979.02	40.3897943	-104.8335327	0.00	
10400.00†	90.140	89.229	7326.68	2640.45	2515.85	2079.01	40.3897959	-104.8331737	0.00	
10500.00†	90.140	89.229	7326.43	2737.62	2517.20	2179.00	40.3897975	-104.8328148	0.00	
10600.00†	90.140	89.229	7326.19	2834.79	2518.54	2278.99	40.3897992	-104.8324558	0.00	
10700.00†	90.140	89.229	7325.94	2931.96	2519.89	2378.98	40.3898008	-104.8320968	0.00	
10800.00†	90.140	89.229	7325.70	3029.13	2521.24	2478.97	40.3898024	-104.8317378	0.00	
10900.00†	90.140	89.229	7325.46	3126.30	2522.58	2578.96	40.3898041	-104.8313789	0.00	
11000.00†	90.140	89.229	7325.21	3223.47	2523.93	2678.96	40.3898057	-104.8310199	0.00	
11100.00†	90.140	89.229	7324.97	3320.64	2525.28	2778.95	40.3898073	-104.8306609	0.00	
11200.00†	90.140	89.229	7324.73	3417.81	2526.62	2878.94	40.3898089	-104.8303019	0.00	
11300.00†	90.140	89.229	7324.48	3514.98	2527.97	2978.93	40.3898105	-104.8299430	0.00	
11400.00†	90.140	89.229	7324.24	3612.16	2529.32	3078.92	40.3898122	-104.8295840	0.00	
11500.00†	90.140	89.229	7323.99	3709.33	2530.66	3178.91	40.3898138	-104.8292250	0.00	
11600.00†	90.140	89.229	7323.75	3806.50	2532.01	3278.90	40.3898154	-104.8288660	0.00	
11700.00†	90.140	89.229	7323.51	3903.67	2533.35	3378.89	40.3898170	-104.8285070	0.00	
11800.00†	90.140	89.229	7323.26	4000.84	2534.70	3478.88	40.3898186	-104.8281481	0.00	
11900.00†	90.140	89.229	7323.02	4098.01	2536.05	3578.87	40.3898203	-104.8277891	0.00	
12000.00†	90.140	89.229	7322.78	4195.18	2537.39	3678.86	40.3898219	-104.8274301	0.00	
12100.00†	90.140	89.229	7322.53	4292.35	2538.74	3778.85	40.3898235	-104.8270711	0.00	
12200.00†	90.140	89.229	7322.29	4389.52	2540.09	3878.84	40.3898251	-104.8267122	0.00	
12300.00†	90.140	89.229	7322.04	4486.69	2541.43	3978.83	40.3898267	-104.8263532	0.00	
12400.00†	90.140	89.229	7321.80	4583.86	2542.78	4078.82	40.3898283	-104.8259942	0.00	
12500.00†	90.140	89.229	7321.56	4681.03	2544.13	4178.82	40.3898299	-104.8256352	0.00	
12600.00†	90.140	89.229	7321.31	4778.20	2545.47	4278.81	40.3898315	-104.8252763	0.00	
12700.00†	90.140	89.229	7321.07	4875.37	2546.82	4378.80	40.3898331	-104.8249173	0.00	
12800.00†	90.140	89.229	7320.83	4972.55	2548.16	4478.79	40.3898347	-104.8245583	0.00	
12900.00†	90.140	89.229	7320.58	5069.72	2549.51	4578.78	40.3898364	-104.8241993	0.00	
13000.00†	90.140	89.229	7320.34	5166.89	2550.86	4678.77	40.3898380	-104.8238404	0.00	



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WINDOM 14N (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

WELLPATH DATA (192 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13100.00†	90.140	89.229	7320.09	5264.06	2552.20	4778.76	40.3898396	-104.8234814	0.00	
13200.00†	90.140	89.229	7319.85	5361.23	2553.55	4878.75	40.3898412	-104.8231224	0.00	
13300.00†	90.140	89.229	7319.61	5458.40	2554.90	4978.74	40.3898428	-104.8227634	0.00	
13400.00†	90.140	89.229	7319.36	5555.57	2556.24	5078.73	40.3898444	-104.8224044	0.00	
13500.00†	90.140	89.229	7319.12	5652.74	2557.59	5178.72	40.3898460	-104.8220455	0.00	
13600.00†	90.140	89.229	7318.88	5749.91	2558.94	5278.71	40.3898476	-104.8216865	0.00	
13700.00†	90.140	89.229	7318.63	5847.08	2560.28	5378.70	40.3898491	-104.8213275	0.00	
13800.00†	90.140	89.229	7318.39	5944.25	2561.63	5478.69	40.3898507	-104.8209685	0.00	
13900.00†	90.140	89.229	7318.14	6041.42	2562.97	5578.68	40.3898523	-104.8206096	0.00	
14000.00†	90.140	89.229	7317.90	6138.59	2564.32	5678.67	40.3898539	-104.8202506	0.00	
14100.00†	90.140	89.229	7317.66	6235.76	2565.67	5778.67	40.3898555	-104.8198916	0.00	
14200.00†	90.140	89.229	7317.41	6332.94	2567.01	5878.66	40.3898571	-104.8195326	0.00	
14300.00†	90.140	89.229	7317.17	6430.11	2568.36	5978.65	40.3898587	-104.8191737	0.00	
14400.00†	90.140	89.229	7316.93	6527.28	2569.71	6078.64	40.3898603	-104.8188147	0.00	
14500.00†	90.140	89.229	7316.68	6624.45	2571.05	6178.63	40.3898619	-104.8184557	0.00	
14600.00†	90.140	89.229	7316.44	6721.62	2572.40	6278.62	40.3898635	-104.8180967	0.00	
14700.00†	90.140	89.229	7316.19	6818.79	2573.75	6378.61	40.3898650	-104.8177377	0.00	
14800.00†	90.140	89.229	7315.95	6915.96	2575.09	6478.60	40.3898666	-104.8173788	0.00	
14900.00†	90.140	89.229	7315.71	7013.13	2576.44	6578.59	40.3898682	-104.8170198	0.00	
15000.00†	90.140	89.229	7315.46	7110.30	2577.78	6678.58	40.3898698	-104.8166608	0.00	
15100.00†	90.140	89.229	7315.22	7207.47	2579.13	6778.57	40.3898714	-104.8163018	0.00	
15200.00†	90.140	89.229	7314.98	7304.64	2580.48	6878.56	40.3898729	-104.8159429	0.00	
15300.00†	90.140	89.229	7314.73	7401.81	2581.82	6978.55	40.3898745	-104.8155839	0.00	
15400.00†	90.140	89.229	7314.49	7498.98	2583.17	7078.54	40.3898761	-104.8152249	0.00	
15500.00†	90.140	89.229	7314.24	7596.16	2584.52	7178.53	40.3898777	-104.8148659	0.00	
15600.00†	90.140	89.229	7314.00	7693.33	2585.86	7278.52	40.3898793	-104.8145069	0.00	
15700.00†	90.140	89.229	7313.76	7790.50	2587.21	7378.52	40.3898808	-104.8141480	0.00	
15800.00†	90.140	89.229	7313.51	7887.67	2588.56	7478.51	40.3898824	-104.8137890	0.00	
15900.00†	90.140	89.229	7313.27	7984.84	2589.90	7578.50	40.3898840	-104.8134300	0.00	
16000.00†	90.140	89.229	7313.03	8082.01	2591.25	7678.49	40.3898855	-104.8130710	0.00	
16100.00†	90.140	89.229	7312.78	8179.18	2592.59	7778.48	40.3898871	-104.8127121	0.00	
16200.00†	90.140	89.229	7312.54	8276.35	2593.94	7878.47	40.3898887	-104.8123531	0.00	
16300.00†	90.140	89.229	7312.29	8373.52	2595.29	7978.46	40.3898902	-104.8119941	0.00	
16400.00†	90.140	89.229	7312.05	8470.69	2596.63	8078.45	40.3898918	-104.8116351	0.00	
16500.00†	90.140	89.229	7311.81	8567.86	2597.98	8178.44	40.3898934	-104.8112762	0.00	
16600.00†	90.140	89.229	7311.56	8665.03	2599.33	8278.43	40.3898949	-104.8109172	0.00	
16700.00†	90.140	89.229	7311.32	8762.20	2600.67	8378.42	40.3898965	-104.8105582	0.00	
16800.00†	90.140	89.229	7311.08	8859.37	2602.02	8478.41	40.3898981	-104.8101992	0.00	
16900.00†	90.140	89.229	7310.83	8956.55	2603.37	8578.40	40.3898996	-104.8098402	0.00	
17000.00†	90.140	89.229	7310.59	9053.72	2604.71	8678.39	40.3899012	-104.8094813	0.00	
17100.00†	90.140	89.229	7310.34	9150.89	2606.06	8778.38	40.3899027	-104.8091223	0.00	
17200.00†	90.140	89.229	7310.10	9248.06	2607.40	8878.38	40.3899043	-104.8087633	0.00	
17300.00†	90.140	89.229	7309.86	9345.23	2608.75	8978.37	40.3899058	-104.8084043	0.00	
17400.00†	90.140	89.229	7309.61	9442.40	2610.10	9078.36	40.3899074	-104.8080454	0.00	
17500.00†	90.140	89.229	7309.37	9539.57	2611.44	9178.35	40.3899090	-104.8076864	0.00	



Planned Wellpath Report

WINDOM 14N (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

WELLPATH DATA (192 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ["/100ft]	Comments
17600.00†	90.140	89.229	7309.13	9636.74	2612.79	9278.34	40.3899105	-104.8073274	0.00	
17700.00†	90.140	89.229	7308.88	9733.91	2614.14	9378.33	40.3899121	-104.8069684	0.00	
17800.00†	90.140	89.229	7308.64	9831.08	2615.48	9478.32	40.3899136	-104.8066094	0.00	
17900.00†	90.140	89.229	7308.39	9928.25	2616.83	9578.31	40.3899152	-104.8062505	0.00	
18000.00†	90.140	89.229	7308.15	10025.42	2618.18	9678.30	40.3899167	-104.8058915	0.00	
18100.00†	90.140	89.229	7307.91	10122.59	2619.52	9778.29	40.3899183	-104.8055325	0.00	
18200.00†	90.140	89.229	7307.66	10219.77	2620.87	9878.28	40.3899198	-104.8051735	0.00	
18300.00†	90.140	89.229	7307.42	10316.94	2622.21	9978.27	40.3899213	-104.8048146	0.00	
18400.00†	90.140	89.229	7307.18	10414.11	2623.56	10078.26	40.3899229	-104.8044556	0.00	
18472.31	90.140	89.229	7307.00 ²	10484.37	2624.53	10150.57	40.3899240	-104.8041960	0.00	BPZ
18500.00†	90.140	89.229	7306.93	10511.28	2624.91	10178.25	40.3899244	-104.8040966	0.00	
18522.31	90.140	89.229	7306.88	10532.96	2625.21	10200.56	40.3899248	-104.8040165	0.00	BHL (865'FNL & 2548'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	1.00	15.17	-408.90	3183256.41	1383040.89	40.3829830	-104.8421713	polygon
2D Polygon: dimensions not calculated									
SEC.19-T05N-R66W	N/A	5.00	15.30	-109.02	3183556.28	1383041.03	40.3829772	-104.8410949	polygon
2D Polygon: dimensions not calculated									
SEC.20-T05N-R66W	N/A	5.00	15.30	-109.02	3183556.28	1383041.03	40.3829772	-104.8410949	polygon
2D Polygon: dimensions not calculated									
WINDOM 14N BHL (865'FNL & 2548'FWL,SEC.20)	N/A	7307.00	2625.29	10200.70	3193865.57	1385650.91	40.3899250	-104.8040160	point
2) WINDOM 14N BPZ (865'FNL&2498'FWL Sec.20)	18472.31	7307.00	2624.53	10150.57	3193815.43	1385650.15	40.3899240	-104.8041960	point
1) WINDOM 14N LP (852'FNL & 2460'FEL,SEC.24)	8215.38	7332.00	2486.44	-105.40	3183559.90	1385512.06	40.3897600	-104.8410160	point

SURVEY PROGRAM - Ref Wellbore: WINDOM 14N PWB Ref Wellpath: WINDOM 14N (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 14N PWB
1950.00	18522.44	OWSG MWD rev2 (MS+IFR1)		WINDOM 14N PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.50	0.000	341.568	28.50	SHL
700.00	0.000	341.568	700.00	End of Tangent
1868.56	23.371	341.568	1836.42	Build (XS)
7137.15	23.371	341.568	6672.75	KOP
8215.38	90.140	89.229	7332.00	LP
18472.31	90.140	89.229	7307.00	BPZ
18522.31	90.140	89.229	7306.88	BHL (865'FNL & 2548'FWL,SEC.20)



Closest Approach Clearance Summary Report

WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'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 10:15:02 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	-15.17	-80.12	3183665.30	1383025.72	40°22'58.5588"N	104°50'26.5344"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#14 WINDOM 14N (1862'FSL & 2384'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 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'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 14N PWB Ref Wellpath: WINDOM 14N (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 14N PWB
1950.00	18522.44	OWSG MWD rev2 (MS+IFR1)		WINDOM 14N PWB



Closest Approach Clearance Summary Report

WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18522.44ft 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			Rule Status
						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]	
SEC.20-T5N-R66W (EXIST)	BARNETT 1-20 (05-123-13311)	BARNETT 1-20	BARNETT 1-20 AWB	BARNETT 1-20 AWP	Drilling	16594.11	2.39	16594.11	16593.87	-0.01	16593.87	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	18156.40	0.22	18156.40	18156.40	0.00	18156.40	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	8737.25	157.51	8737.25	8737.24	0.02	8737.24	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	10063.54	161.58	10063.54	10063.53	0.02	10063.53	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	7562.81	683.97	7562.81	7609.09	0.08	7609.09	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	18522.44	924.41	18522.44	18522.44	0.10	18522.44	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	17869.81	927.16	17869.81	17869.54	0.10	17869.54	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	7249.70	1041.55	7249.70	7331.92	0.13	7331.92	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	16703.58	1237.50	16703.58	16703.11	0.14	16703.11	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	2487.76	555.05	2487.76	3252.27	0.17	3252.27	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	7313.62	1610.03	7313.62	7442.54	0.19	7442.54	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	7164.95	1922.53	7164.95	7329.14	0.23	7329.14	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	18522.44	2210.68	18522.44	18522.44	0.25	18522.44	FAIL
SEC.20-T5N-R66W (EXIST)	HAYES #1 (05-123-05178)	HAYES 1	HAYES 1	HAYES 1\HAYES 1 (VERT)	Drilling	18522.44	2369.46	18522.44	18522.44	0.27	18522.44	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	8897.02	882.11	8897.02	8896.24	0.31	8896.24	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	5249.04	227.67	5249.04	7563.43	0.38	7563.43	FAIL
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	17000.56	3392.30	17000.56	16997.23	0.38	16997.23	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	10206.49	1278.32	10206.49	10204.92	0.45	10204.92	FAIL
Stugart State 6-20	Stugart #04N (05-123-51276) PR	Stugart 04N	Stugart 04N	Stugart 04N\Stugart 04N Final Surveys	Drilling	18522.44	136.69	18522.44	18522.44	0.67	18522.44	FAIL
Stugart State 6-20	Stugart #05NA (05-123-51277) PR	Stugart 05NA	Stugart 05NA	Stugart 05NA\Stugart 05NA Final Surveys	Drilling	18522.44	183.60	18522.44	18522.44	0.88	18522.44	FAIL
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	14108.05	152.53	14108.05	14115.90	0.97	14115.90	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	1778.24	1159.02	1778.24	7974.15	1.01	7974.15	WARN
Sec.19-T5N-R66W	CHISMAR #19-22 (05-123-19467) PA	CHISMAR 19-22	CHISMAR 19-22	CHISMAR 19-22\CHISMAR 19-22	Drilling	11167.35	113.68	11167.35	11174.56	1.08	11174.56	WARN
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	3269.42	2058.95	3269.42	7847.38	1.10	7847.38	WARN
Stugart State 6-20	Stugart #03N (05-123-51272) PR	Stugart 03N	Stugart 03N	Stugart 03N\Stugart 03N Final Surveys	Drilling	18522.44	290.27	18522.44	18520.34	1.17	18520.34	PASS



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WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18522.44ft 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#15 WINDOM 15N (1847'FSL & 2384'FEL,SEC.24)	WINDOM 15N	WINDOM 15N PWB	WINDOM 15N (REV-A.0) PWP	Planned	28.50	14.94	700.00	18522.44	1.26	18522.44	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	15.30	428.50	18522.44	1.30	18522.44	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	80.24	8366.82	8366.82	1.40	8366.82	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	12445.30	180.03	12445.30	12456.58	1.43	12456.58	PASS
Stugart State 6-20	Stugart #06N (05-123-51269) PR	Stugart 06N	Stugart 06N	Stugart 06N\Stugart 06N Final Surveys	Drilling	18522.44	348.83	18522.44	18522.44	1.44	18522.44	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	2495.89	700.00	8001.12	1.49	8001.12	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	17245.38	391.39	17245.38	17242.32	1.83	17242.32	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	18517.52	513.09	18517.52	18522.44	2.12	18522.44	PASS
Stugart State 6-20	Stugart #07N (05-123-51263) PR	Stugart 07N	Stugart 07N	Stugart 07N\Stugart 07N Final Surveys	Drilling	18522.44	585.30	18522.44	18522.44	2.46	18522.44	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	29.87	700.00	18522.44	2.56	18522.44	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	18522.44	584.95	18522.44	18522.44	2.57	18522.44	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	16132.85	593.45	16132.85	16135.67	3.04	16135.67	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	18522.44	750.92	18522.44	18522.44	3.09	18522.44	PASS
Stugart State 6-20	Stugart #08N (05-123-51256) PR	Stugart 08N	Stugart 08N	Stugart 08N\Stugart 08N Final Surveys	Drilling	18522.44	797.75	18522.44	18522.44	3.30	18522.44	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	44.81	700.00	18522.44	3.78	18522.44	PASS
Stugart State 6-20	Stugart #09C (05-123-51266) PR	Stugart 09C	Stugart 09C	Stugart 09C\Stugart 09C Final Surveys	Drilling	18522.44	1006.96	18522.44	18522.44	4.11	18522.44	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	81.55	8373.51	8373.51	4.84	8373.51	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	59.75	700.00	18522.44	5.11	18522.44	PASS
Stugart State 6-20	Stugart #10N (05-123-51275) PR	Stugart 10N	Stugart 10N	Stugart 10N\Stugart 10N Final Surveys	Drilling	18522.44	1238.11	18522.44	18522.44	5.13	18522.44	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	81.41	7595.30	7595.30	5.14	7595.30	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	15469.65	1034.31	15469.65	15497.35	5.64	15497.35	PASS
Stugart State 6-20	Stugart #11N (05-123-51278) PR	Stugart 11N	Stugart 11N	Stugart 11N\Stugart 11N Final Surveys	Drilling	18510.26	1460.91	18510.26	18522.44	6.04	18522.44	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	74.69	700.00	18522.44	6.26	18522.44	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	18522.44	1357.79	18522.44	18522.44	6.42	18522.44	PASS
Stugart State 6-20	Stugart #12N (05-123-51271) PR	Stugart 12N	Stugart 12N	Stugart 12N\Stugart 12N Final Surveys	Drilling	18522.44	1674.86	18522.44	18522.44	6.93	18522.44	PASS



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WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18522.44ft 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#20 WINDOM 20C (1772'FSL & 2385'FEL,SEC.24)	WINDOM 20C	WINDOM 20C PWB	WINDOM 20C (REV-A.0) PWP	Planned	28.50	89.99	700.00	18522.44	7.52	18522.44	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	18522.44	1871.21	18522.44	18522.44	7.66	18522.44	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	13776.84	1174.80	13776.84	13829.19	7.80	13829.19	PASS
Stugart State 6-20	Stugart #13NA (05-123-51261) PR	Stugart 13NA	Stugart 13NA	Stugart 13NA\Stugart 13NA Final Surveys	Drilling	18522.44	1895.94	18522.44	18522.44	7.85	18522.44	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	17322.25	1914.24	17322.25	17442.60	8.72	17442.60	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	104.92	700.00	18522.44	8.78	18522.44	PASS
Stugart State 6-20	Stugart #14N (05-123-51270) PR	Stugart 14N	Stugart 14N	Stugart 14N\Stugart 14N Final Surveys	Drilling	18522.44	2135.79	18522.44	18522.44	8.80	18522.44	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	12811.98	1171.98	12811.98	12872.12	8.81	12872.12	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	85.61	7628.50	961.84	8.89	7628.50	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	91.77	7328.50	928.50	9.61	7428.50	PASS
Stugart State 6-20	Stugart #15N (05-123-51255) PR	Stugart 15N	Stugart 15N	Stugart 15N\Stugart 15N Final Surveys	Drilling	18522.44	2357.02	18522.44	18522.44	9.70	18522.44	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	119.86	700.00	18522.44	10.04	18522.44	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	11611.74	1153.37	11611.74	11679.61	10.22	11679.61	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	18522.44	2214.56	18522.44	18522.44	10.25	18522.44	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	18522.44	2494.85	18522.44	18522.44	10.37	18522.44	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	17977.88	2457.59	17977.88	18175.92	10.44	18175.92	PASS
Stugart State 6-20	Stugart #16N (05-123-51264) PR	Stugart 16N	Stugart 16N	Stugart 16N\Stugart 16N Final Surveys	Drilling	18400.85	2549.32	18400.85	18522.44	10.47	18522.44	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	100.03	7228.50	928.50	10.51	7428.50	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	18522.44	1609.73	18522.44	18522.44	11.29	18522.44	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	134.80	700.00	18522.44	11.32	18522.44	PASS
Stugart State 6-20	Stugart #17C (05-123-51268) PR	Stugart 17C	Stugart 17C	Stugart 17C\Stugart 17C Final Surveys	Drilling	18522.44	2772.19	18522.44	18522.44	11.35	18522.44	PASS
SEC.20-T5N-R66W (EXIST)	LUNDVALL #12-20 (05-123-22760)	Lundvall 12-20	Lundvall 12-20	Lundvall 12-20\Lundvall 12-20	Drilling	16492.35	2322.02	16492.35	16723.69	11.36	16723.69	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	109.71	7028.50	974.26	11.54	7328.50	PASS
Stugart State 6-20	Stugart #18N (05-123-51274) PR	Stugart 18N	Stugart 18N	Stugart 18N\Stugart 18N Final Surveys	Drilling	18522.44	2994.69	18522.44	18522.44	12.31	18522.44	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	149.74	428.50	18522.44	12.57	18522.44	PASS



Closest Approach Clearance Summary Report

WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18522.44ft 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#08 WINDOM 08C (1772'FSL & 2305'FEL,SEC.24)	WINDOM 08C	WINDOM 08C PWB	WINDOM 08C (REV-A.0) PWP	Planned	28.50	120.28	700.00	1003.02	12.61	8928.50	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	18522.44	3105.39	18522.44	18522.44	13.21	18522.44	PASS
Stugart State 6-20	Stugart #19N (05-123-51267) PR	Stugart 19N	Stugart 19N	Stugart 19N\Stugart 19N Final Surveys	Drilling	18522.44	3229.14	18522.44	18522.44	13.23	18522.44	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	15281.14	2423.37	15281.14	15550.19	13.35	15550.19	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	131.87	700.00	1021.12	13.76	9528.50	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	14028.42	3768.68	14028.42	14423.80	13.91	14423.80	PASS
Stugart State 6-20	Stugart #20N (05-123-51260) PR	Stugart 20N	Stugart 20N	Stugart 20N\Stugart 20N Final Surveys	Drilling	18522.44	3445.25	18522.44	18522.44	14.13	18522.44	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	18522.44	1598.55	18522.44	18522.44	14.89	18522.44	PASS
Stugart State 6-20	Stugart #21NA (05-123-51262) PR	Stugart 21NA	Stugart 21NA	Stugart 21NA\Stugart 21NA Final Surveys	Drilling	18522.44	3649.73	18522.44	18522.44	14.93	18522.44	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	144.23	8528.50	1028.50	14.95	10028.50	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	13949.89	2414.33	13949.89	14259.88	15.45	14259.88	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	1952.90	550.93	1952.90	2029.28	15.60	8728.50	PASS
Stugart State 6-20	Stugart #22N (05-123-51259) PR	Stugart 22N	Stugart 22N	Stugart 22N\Stugart 22N Final Surveys	Drilling	18522.44	3874.80	18522.44	18522.44	15.82	18522.44	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	18522.44	3874.04	18522.44	18522.44	16.03	18522.44	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	18522.44	2204.74	18522.44	18522.44	16.08	18522.44	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	18522.44	3355.87	18522.44	18522.44	16.11	18522.44	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	18081.76	3901.59	18081.76	18522.44	16.36	18522.44	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	156.93	8528.50	928.50	16.72	10528.50	PASS
Stugart State 6-20	Stugart #23N (05-123-51257) PR	Stugart 23N	Stugart 23N	Stugart 23N\Stugart 23N Final Surveys	Drilling	18518.31	4094.28	18518.31	18522.44	16.80	18522.44	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	18522.44	3325.56	18522.44	18522.44	17.09	18522.44	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	12564.27	2294.38	12564.27	12889.47	17.58	12889.47	PASS
Stugart State 6-20	Stugart #24N (05-123-51258) PR	Stugart 24N	Stugart 24N	Stugart 24N\Stugart 24N Final Surveys	Drilling	18403.54	4306.86	18403.54	18522.44	17.71	18522.44	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	7452.88	1317.83	7452.88	7538.49	18.63	7538.49	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	14765.53	3253.77	14765.53	15314.19	18.76	15314.19	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	18522.44	4325.52	18522.44	18522.44	19.49	18522.44	PASS



Closest Approach Clearance Summary Report

WINDOM 14N (REV-A.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	PDC ENERGY INC	Well	WINDOM 14N
Field	WELD COUNTY (NAD83/GRID)	API/Legal	
Facility	SEC.24-T05N-R67W	Wellbore	WINDOM 14N PWB
Slot	SLOT#14 WINDOM 14N (1862'FSL & 2384'FEL,SEC.24)		

CALCULATION RANGE & CUTOFF		
From: 28.50ft MD	To: 18522.44ft 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.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	15362.15	3754.95	15362.15	16060.41	20.12	16060.41	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	170.00	8528.50	807.33	20.45	10928.50	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	836.89	757.97	836.89	5651.18	22.45	5651.18	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	11092.12	2477.36	11092.12	11564.08	23.14	11564.08	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	11989.31	3106.41	11989.31	12665.59	25.14	12665.59	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	12816.93	3610.14	12816.93	13671.63	25.86	13671.63	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	3306.09	11328.50	12433.38	27.28	12433.38	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	7221.21	2113.50	7221.21	7352.49	30.45	7352.49	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	755.78	3457.21	11428.50	12604.91	32.97	12604.91	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	4685.88	2348.66	4685.88	7224.85	34.83	7224.85	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	732.71	2227.69	10128.50	11565.33	43.13	11565.33	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	701.55	1283.22	8628.50	848.15	43.16	10428.50	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	1558.17	28.50	1277.33	51.46	7628.50	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	1531.45	28.50	864.60	51.60	7328.50	PASS