

# EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07)  
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: WESTWIND 4  
Facility: SEC.07-T06N-R67W Wellbore: WESTWIND 4 PWB

Plot reference wellpath is WESTWIND 4 (REV-A.0) PWP

True vertical depths are referenced to RIG (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to RIG (RKB)	North Reference: True north
RIG (RKB) to Mean Sea Level: 4843 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 7/18/2014

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T06N-R67W			3154839.470	1424332.263	40°29'48.692"N	104°56'35.682"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07)	-74.99	1.39	3154841.331	1424257.287	40°29'47.951"N	104°56'35.664"W
RIG (RKB) to Mud line (At Slot: SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07))					4843ft	
Mean Sea Level to Mud line (At Slot: SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07))					0ft	
RIG (RKB) to Mean Sea Level					4843ft	

## Targets

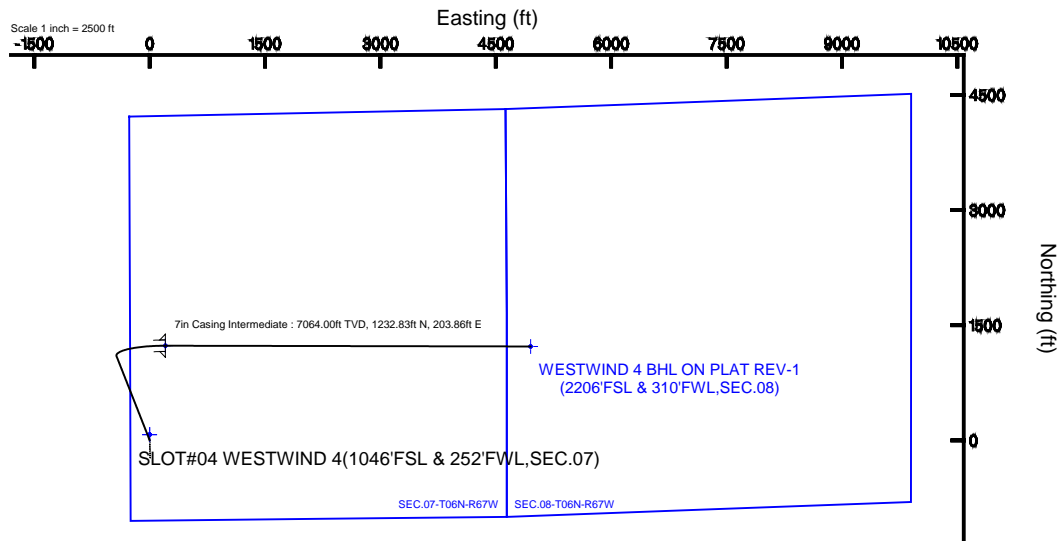
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T06N-R67W		0.00	75.03	-1.39	3154839.47	1424332.30	40°29'48.692"N	104°56'35.682"W
SEC.08-T06N-R67W		0.00	75.03	-1.39	3154839.47	1424332.30	40°29'48.692"N	104°56'35.682"W
WESTWIND 4 BHL ON PLAT REV-1(2206'FSL & 310'FWL,SEC.08)	12316.68	7064.00	1223.13	4951.74	3155785.12	1425511.44	40°30'00.032"N	104°55'31.566"W
WESTWIND 4 LANDING	7568.79	7064.00	1232.83	203.85	3155037.43	1425491.33	40°30'00.133"N	104°56'33.025"W

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
24.00	13000.00	NaviTrak	NaviTrak (Standard)		WESTWIND 4 PWB

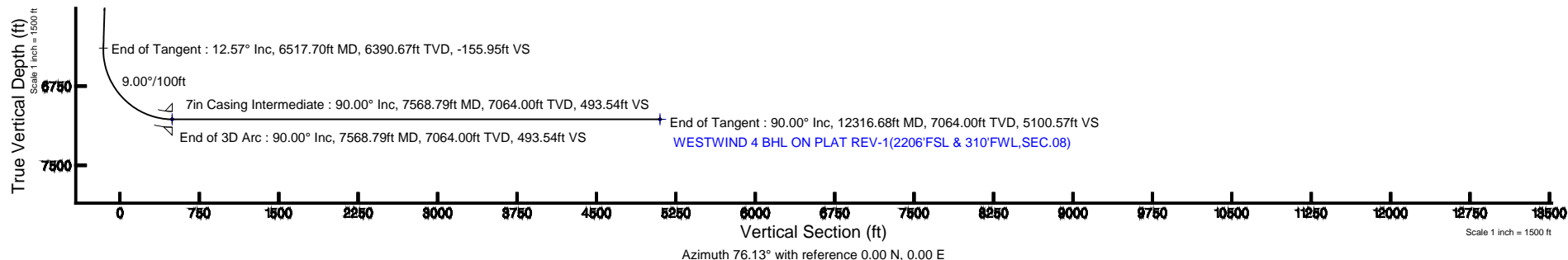
## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	24.00	0.000	338.507	24.00	0.00	0.00	0.00	0.00
End of Tangent	800.00	0.000	338.507	800.00	0.00	0.00	0.00	0.00
End of Build	1428.56	12.571	338.507	1423.52	63.90	-25.16	2.00	-9.11
End of Tangent	6517.70	12.571	338.507	6390.67	1094.53	-431.00	0.00	-155.95
End of 3D Arc	7568.79	90.000	90.117	7064.00	1232.83	203.85	9.00	493.54
End of Tangent	12316.68	90.000	90.117	7064.00	1223.13	4951.74	0.00	5100.57



BGGM (1945.0 to 2016.0) Dip: 66.99° Field: 52781.3 nT  
Magnetic North is 8.64 degrees East of True North (at 7/17/2014)

To correct azimuth from Magnetic to True add 8.64 degrees





# Planned Wellpath Report

WESTWIND 4 (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07)
Area	COLORADO	Well	WESTWIND 4
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Painsetr
Scale	0.999966	Report Generated	7/18/2014 at 8:11:15 AM
Convergence at slot	n/a	Database/Source file	WA_Denver/WESTWIND_4_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-74.99	1.39	3154841.33	1424257.29	40°29'47.951"N	104°56'35.664"W
Facility Reference Pt			3154839.47	1424332.26	40°29'48.692"N	104°56'35.682"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	RIG (RKB) to Facility Vertical Datum	4843.00ft
Horizontal Reference Pt	Slot	RIG (RKB) to Mean Sea Level	4843.00ft
Vertical Reference Pt	RIG (RKB)	RIG (RKB) to Mud Line at Slot (SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07))	4843.00ft
MD Reference Pt	RIG (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	76.13°



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

## WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	338.507	0.00	0.00	0.00	0.00	0.00	
24.00	0.000	338.507	24.00	0.00	0.00	0.00	0.00	Tie On
124.00†	0.000	338.507	124.00	0.00	0.00	0.00	0.00	
224.00†	0.000	338.507	224.00	0.00	0.00	0.00	0.00	
324.00†	0.000	338.507	324.00	0.00	0.00	0.00	0.00	
424.00†	0.000	338.507	424.00	0.00	0.00	0.00	0.00	
524.00†	0.000	338.507	524.00	0.00	0.00	0.00	0.00	
624.00†	0.000	338.507	624.00	0.00	0.00	0.00	0.00	
724.00†	0.000	338.507	724.00	0.00	0.00	0.00	0.00	
800.00	0.000	338.507	800.00	0.00	0.00	0.00	0.00	End of Tangent
824.00†	0.480	338.507	824.00	-0.01	0.09	-0.04	2.00	
924.00†	2.480	338.507	923.96	-0.36	2.50	-0.98	2.00	
1024.00†	4.480	338.507	1023.77	-1.16	8.14	-3.21	2.00	
1124.00†	6.480	338.507	1123.31	-2.43	17.03	-6.71	2.00	
1224.00†	8.480	338.507	1222.45	-4.15	29.14	-11.48	2.00	
1324.00†	10.480	338.507	1321.08	-6.34	44.47	-17.51	2.00	
1424.00†	12.480	338.507	1419.08	-8.97	62.98	-24.80	2.00	
1428.56	12.571	338.507	1423.52	-9.11	63.90	-25.16	2.00	End of Build
1524.00†	12.571	338.507	1516.68	-11.86	83.23	-32.77	0.00	
1624.00†	12.571	338.507	1614.28	-14.74	103.48	-40.75	0.00	
1724.00†	12.571	338.507	1711.89	-17.63	123.73	-48.72	0.00	
1824.00†	12.571	338.507	1809.49	-20.52	143.99	-56.70	0.00	
1924.00†	12.571	338.507	1907.09	-23.40	164.24	-64.67	0.00	
2024.00†	12.571	338.507	2004.69	-26.29	184.49	-72.65	0.00	
2124.00†	12.571	338.507	2102.30	-29.17	204.74	-80.62	0.00	
2224.00†	12.571	338.507	2199.90	-32.06	224.99	-88.60	0.00	
2324.00†	12.571	338.507	2297.50	-34.94	245.24	-96.57	0.00	
2424.00†	12.571	338.507	2395.10	-37.83	265.50	-104.55	0.00	
2524.00†	12.571	338.507	2492.71	-40.71	285.75	-112.52	0.00	
2624.00†	12.571	338.507	2590.31	-43.60	306.00	-120.49	0.00	



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REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	WESTWIND 4
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2724.00†	12.571	338.507	2687.91	-46.49	326.25	-128.47	0.00	
2824.00†	12.571	338.507	2785.52	-49.37	346.50	-136.44	0.00	
2924.00†	12.571	338.507	2883.12	-52.26	366.75	-144.42	0.00	
3024.00†	12.571	338.507	2980.72	-55.14	387.01	-152.39	0.00	
3124.00†	12.571	338.507	3078.32	-58.03	407.26	-160.37	0.00	
3224.00†	12.571	338.507	3175.93	-60.91	427.51	-168.34	0.00	
3324.00†	12.571	338.507	3273.53	-63.80	447.76	-176.32	0.00	
3424.00†	12.571	338.507	3371.13	-66.68	468.01	-184.29	0.00	
3524.00†	12.571	338.507	3468.73	-69.57	488.26	-192.27	0.00	
3624.00†	12.571	338.507	3566.34	-72.45	508.51	-200.24	0.00	
3724.00†	12.571	338.507	3663.94	-75.34	528.77	-208.22	0.00	
3824.00†	12.571	338.507	3761.54	-78.23	549.02	-216.19	0.00	
3924.00†	12.571	338.507	3859.14	-81.11	569.27	-224.16	0.00	
4024.00†	12.571	338.507	3956.75	-84.00	589.52	-232.14	0.00	
4124.00†	12.571	338.507	4054.35	-86.88	609.77	-240.11	0.00	
4224.00†	12.571	338.507	4151.95	-89.77	630.02	-248.09	0.00	
4324.00†	12.571	338.507	4249.56	-92.65	650.28	-256.06	0.00	
4424.00†	12.571	338.507	4347.16	-95.54	670.53	-264.04	0.00	
4524.00†	12.571	338.507	4444.76	-98.42	690.78	-272.01	0.00	
4624.00†	12.571	338.507	4542.36	-101.31	711.03	-279.99	0.00	
4724.00†	12.571	338.507	4639.97	-104.20	731.28	-287.96	0.00	
4824.00†	12.571	338.507	4737.57	-107.08	751.53	-295.94	0.00	
4924.00†	12.571	338.507	4835.17	-109.97	771.78	-303.91	0.00	
5024.00†	12.571	338.507	4932.77	-112.85	792.04	-311.88	0.00	
5124.00†	12.571	338.507	5030.38	-115.74	812.29	-319.86	0.00	
5224.00†	12.571	338.507	5127.98	-118.62	832.54	-327.83	0.00	
5324.00†	12.571	338.507	5225.58	-121.51	852.79	-335.81	0.00	
5424.00†	12.571	338.507	5323.18	-124.39	873.04	-343.78	0.00	
5524.00†	12.571	338.507	5420.79	-127.28	893.29	-351.76	0.00	
5624.00†	12.571	338.507	5518.39	-130.16	913.55	-359.73	0.00	



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Area	COLORADO	Well	WESTWIND 4
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

## WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5724.00†	12.571	338.507	5615.99	-133.05	933.80	-367.71	0.00	
5824.00†	12.571	338.507	5713.60	-135.94	954.05	-375.68	0.00	
5924.00†	12.571	338.507	5811.20	-138.82	974.30	-383.66	0.00	
6024.00†	12.571	338.507	5908.80	-141.71	994.55	-391.63	0.00	
6124.00†	12.571	338.507	6006.40	-144.59	1014.80	-399.60	0.00	
6224.00†	12.571	338.507	6104.01	-147.48	1035.06	-407.58	0.00	
6324.00†	12.571	338.507	6201.61	-150.36	1055.31	-415.55	0.00	
6424.00†	12.571	338.507	6299.21	-153.25	1075.56	-423.53	0.00	
6517.70	12.571	338.507	6390.67	-155.95	1094.53	-431.00	0.00	End of Tangent
6524.00†	12.378	340.974	6396.82	-156.10	1095.81	-431.47	9.00	
6624.00†	12.710	23.302	6494.63	-150.41	1116.09	-430.61	9.00	
6724.00†	18.155	50.900	6591.11	-129.62	1136.06	-414.14	9.00	
6824.00†	25.638	64.524	6683.89	-94.27	1155.23	-382.45	9.00	
6924.00†	33.832	72.099	6770.68	-45.20	1173.13	-336.34	9.00	
7024.00†	42.325	76.958	6849.35	16.36	1189.31	-276.92	9.00	
7124.00†	50.964	80.440	6917.94	88.90	1203.39	-205.68	9.00	
7224.00†	59.684	83.154	6974.79	170.63	1215.01	-124.36	9.00	
7324.00†	68.451	85.421	7018.48	259.55	1223.89	-34.97	9.00	
7424.00†	77.245	87.427	7047.95	353.45	1229.80	60.30	9.00	
7524.00†	86.053	89.298	7062.46	450.04	1232.61	159.10	9.00	
7568.79	90.000	90.117	7064.00 <sup>1</sup>	493.54	1232.83	203.85	9.00	End of 3D Arc
7624.00†	90.000	90.117	7064.00	547.12	1232.72	259.07	0.00	
7724.00†	90.000	90.117	7064.00	644.15	1232.52	359.07	0.00	
7824.00†	90.000	90.117	7064.00	741.18	1232.31	459.07	0.00	
7924.00†	90.000	90.117	7064.00	838.22	1232.11	559.07	0.00	
8024.00†	90.000	90.117	7064.00	935.25	1231.90	659.06	0.00	
8124.00†	90.000	90.117	7064.00	1032.28	1231.70	759.06	0.00	
8224.00†	90.000	90.117	7064.00	1129.31	1231.49	859.06	0.00	
8324.00†	90.000	90.117	7064.00	1226.35	1231.29	959.06	0.00	
8424.00†	90.000	90.117	7064.00	1323.38	1231.09	1059.06	0.00	



# Planned Wellpath Report

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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8524.00†	90.000	90.117	7064.00	1420.41	1230.88	1159.06	0.00	
8624.00†	90.000	90.117	7064.00	1517.45	1230.68	1259.06	0.00	
8724.00†	90.000	90.117	7064.00	1614.48	1230.47	1359.06	0.00	
8824.00†	90.000	90.117	7064.00	1711.51	1230.27	1459.06	0.00	
8924.00†	90.000	90.117	7064.00	1808.54	1230.06	1559.06	0.00	
9024.00†	90.000	90.117	7064.00	1905.58	1229.86	1659.06	0.00	
9124.00†	90.000	90.117	7064.00	2002.61	1229.66	1759.06	0.00	
9224.00†	90.000	90.117	7064.00	2099.64	1229.45	1859.06	0.00	
9324.00†	90.000	90.117	7064.00	2196.68	1229.25	1959.06	0.00	
9424.00†	90.000	90.117	7064.00	2293.71	1229.04	2059.06	0.00	
9524.00†	90.000	90.117	7064.00	2390.74	1228.84	2159.06	0.00	
9624.00†	90.000	90.117	7064.00	2487.78	1228.63	2259.06	0.00	
9724.00†	90.000	90.117	7064.00	2584.81	1228.43	2359.06	0.00	
9824.00†	90.000	90.117	7064.00	2681.84	1228.22	2459.06	0.00	
9924.00†	90.000	90.117	7064.00	2778.87	1228.02	2559.06	0.00	
10024.00†	90.000	90.117	7064.00	2875.91	1227.82	2659.06	0.00	
10124.00†	90.000	90.117	7064.00	2972.94	1227.61	2759.06	0.00	
10224.00†	90.000	90.117	7064.00	3069.97	1227.41	2859.06	0.00	
10324.00†	90.000	90.117	7064.00	3167.01	1227.20	2959.06	0.00	
10424.00†	90.000	90.117	7064.00	3264.04	1227.00	3059.06	0.00	
10524.00†	90.000	90.117	7064.00	3361.07	1226.79	3159.06	0.00	
10624.00†	90.000	90.117	7064.00	3458.10	1226.59	3259.06	0.00	
10724.00†	90.000	90.117	7064.00	3555.14	1226.38	3359.06	0.00	
10824.00†	90.000	90.117	7064.00	3652.17	1226.18	3459.06	0.00	
10924.00†	90.000	90.117	7064.00	3749.20	1225.98	3559.06	0.00	
11024.00†	90.000	90.117	7064.00	3846.24	1225.77	3659.06	0.00	
11124.00†	90.000	90.117	7064.00	3943.27	1225.57	3759.06	0.00	
11224.00†	90.000	90.117	7064.00	4040.30	1225.36	3859.06	0.00	
11324.00†	90.000	90.117	7064.00	4137.34	1225.16	3959.06	0.00	
11424.00†	90.000	90.117	7064.00	4234.37	1224.95	4059.06	0.00	



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11524.00†	90.000	90.117	7064.00	4331.40	1224.75	4159.06	0.00	
11624.00†	90.000	90.117	7064.00	4428.43	1224.55	4259.06	0.00	
11724.00†	90.000	90.117	7064.00	4525.47	1224.34	4359.06	0.00	
11824.00†	90.000	90.117	7064.00	4622.50	1224.14	4459.06	0.00	
11924.00†	90.000	90.117	7064.00	4719.53	1223.93	4559.06	0.00	
12024.00†	90.000	90.117	7064.00	4816.57	1223.73	4659.06	0.00	
12124.00†	90.000	90.117	7064.00	4913.60	1223.52	4759.06	0.00	
12224.00†	90.000	90.117	7064.00	5010.63	1223.32	4859.06	0.00	
12316.68	90.000	90.117	7064.00 <sup>2</sup>	5100.57	1223.13	4951.74	0.00	End of Tangent

## HOLE & CASING SECTIONS - Ref Wellbore: WESTWIND 4 PWB Ref Wellpath: WESTWIND 4 (REV-A.0) PWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
7in Casing Intermediate	24.00	7568.79	7544.79	24.00	7064.00	0.00	0.00	1232.83	203.86



# Planned Wellpath Report

WESTWIND 4 (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#04 WESTWIND 4(1046'FSL & 252'FWL,SEC.07)
Area	COLORADO	Well	WESTWIND 4
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WESTWIND 4 PWB
Facility	SEC.07-T06N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.07-T06N-R67W		0.00	75.03	-1.39	3154839.47	1424332.30	40°29'48.692"N	104°56'35.682"W	polygon
SEC.08-T06N-R67W		0.00	75.03	-1.39	3154839.47	1424332.30	40°29'48.692"N	104°56'35.682"W	polygon
2) WESTWIND 4 BHL ON PLAT REV-1(2206'FSL & 310'FWL,SEC.08)	12316.68	7064.00	1223.13	4951.74	3159785.12	1425511.44	40°30'00.032"N	104°55'31.566"W	point
1) WESTWIND 4 LANDING	7568.79	7064.00	1232.83	203.85	3155037.43	1425491.33	40°30'00.133"N	104°56'33.025"W	point

## SURVEY PROGRAM - Ref Wellbore: WESTWIND 4 PWB Ref Wellpath: WESTWIND 4 (REV-A.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	13000.00	NaviTrak (Standard)		WESTWIND 4 PWB