

# EXTRACTION OIL & GAS

Location: COLORADO Slot: SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)  
Field: WELD COUNTY (NAD83/TRUE NORTH) Well: WINDER #9  
Facility: SEC.09-T06N-R67W Wellbore: WINDER #9 PWB

Plot reference wellpath is WINDER #9 PWB (REV-B.0)

True vertical depths are referenced to SAVANNA 802 (15KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to SAVANNA 802 (15KB) (RKB)	North Reference: True north
SAVANNA 802 (15KB) (RKB) to Mean Sea Level: 4883 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingnjamr on 7/20/2015

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.09-T06N-R67W	3169265.228	1428175.850	40°30'25.736"N	104°53'28.612"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)	-207.97	-1.62	3169265.034	1427967.886
SAVANNA 802 (15KB) (RKB) to Mud line (At Slot: SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09))			4883R	
Mean Sea Level to Mud line (At Slot: SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09))			0ft	
SAVANNA 802 (15KB) (RKB) to Mean Sea Level			4883R	

## Targets

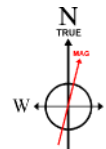
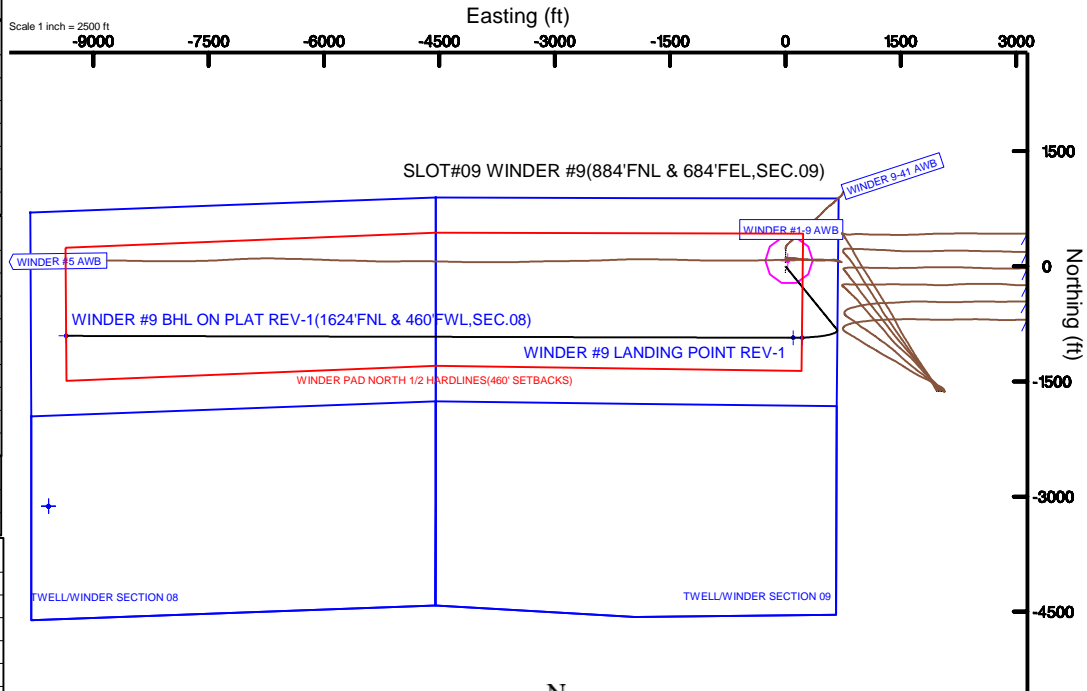
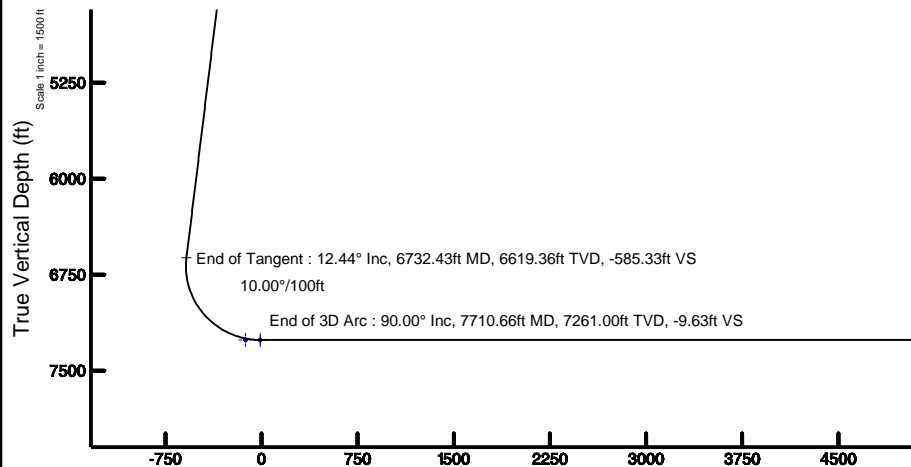
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TWELL/WINDER 1/2 SECTION 08		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER 1/2 SECTION 09		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 08		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
TWELL/WINDER SECTION 09		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W
WINDER #9 BHL ON PLAT REV-1(1624'FNL & 460'FWL,SEC.08)	17162.96	7261.00	-906.86	-9352.27	3159919.54	1426996.89	40°30'14.702"N	104°55'29.701"W
WINDER #9 LANDING POINT		7261.00	-931.58	216.08	3189487.48	1427037.84	40°30'14.476"N	104°53'25.836"W
WINDER #9 LANDING POINT REV-1	7710.66	7261.00	-931.54	100.00	3169371.42	1427037.09	40°30'14.476"N	104°53'27.338"W
WINDER PAD NORTH 1/2 HARDLINES(460' SETBACKS)		7437.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
15.00	17162.96	NaviTrak	NaviTrak (Standard)		WINDER #9 PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	15.00	0.000	140.951	15.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	140.951	1500.00	0.00	0.00	0.00	0.00
End of Build	2121.86	12.437	140.951	2116.99	-52.21	42.35	2.00	-37.12
End of Tangent	6732.43	12.437	140.951	6619.36	-823.36	667.91	0.00	-585.33
End of 3D Arc	7710.66	90.000	270.150	7261.00	-931.54	100.00	10.00	-9.63
End of Tangent	17162.96	90.000	270.150	7261.00	-906.86	-9352.27	0.00	9396.13



BGGM (1945.0 to 2017.0) Dip: 67.02° Field: 52646.3 nT  
Magnetic North is 8.64 degrees East of True North (at 7/20/2015)

To correct azimuth from Magnetic to True add 8.64 degrees

Vertical Section (ft)  
Azimuth 264.46° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500 ft



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 1 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Ingmjmr
Scale	0.999967	Report Generated	7/20/2015 at 11:01:11 AM
Convergence at slot	0.39° East	Database/Source file	Denver/WINDER_#9_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-207.97	-1.62	3169265.03	1427967.89	40°30'23.681"N	104°53'28.633"W
Facility Reference Pt			3169265.23	1428175.85	40°30'25.736"N	104°53'28.612"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	SAVANNA 802 (15'KB) (RKB) to Facility Vertical Datum	4883.00ft
Horizontal Reference Pt	Slot	SAVANNA 802 (15'KB) (RKB) to Mean Sea Level	4883.00ft
Vertical Reference Pt	SAVANNA 802 (15'KB) (RKB)	SAVANNA 802 (15'KB) (RKB) to Mud Line at Slot (SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09))	4883.00ft
MD Reference Pt	SAVANNA 802 (15'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	264.46°



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 2 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	140.951	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	140.951	15.00	0.00	0.00	0.00	0.00	Tie On
115.00†	0.000	140.951	115.00	0.00	0.00	0.00	0.00	
215.00†	0.000	140.951	215.00	0.00	0.00	0.00	0.00	
315.00†	0.000	140.951	315.00	0.00	0.00	0.00	0.00	
415.00†	0.000	140.951	415.00	0.00	0.00	0.00	0.00	
515.00†	0.000	140.951	515.00	0.00	0.00	0.00	0.00	
615.00†	0.000	140.951	615.00	0.00	0.00	0.00	0.00	
715.00†	0.000	140.951	715.00	0.00	0.00	0.00	0.00	
815.00†	0.000	140.951	815.00	0.00	0.00	0.00	0.00	
915.00†	0.000	140.951	915.00	0.00	0.00	0.00	0.00	
1015.00†	0.000	140.951	1015.00	0.00	0.00	0.00	0.00	
1115.00†	0.000	140.951	1115.00	0.00	0.00	0.00	0.00	
1215.00†	0.000	140.951	1215.00	0.00	0.00	0.00	0.00	
1315.00†	0.000	140.951	1315.00	0.00	0.00	0.00	0.00	
1415.00†	0.000	140.951	1415.00	0.00	0.00	0.00	0.00	
1500.00	0.000	140.951	1500.00	0.00	0.00	0.00	0.00	End of Tangent
1515.00†	0.300	140.951	1515.00	-0.02	-0.03	0.02	2.00	
1615.00†	2.300	140.951	1614.97	-1.27	-1.79	1.45	2.00	
1715.00†	4.300	140.951	1714.80	-4.45	-6.26	5.08	2.00	
1815.00†	6.300	140.951	1814.37	-9.55	-13.44	10.90	2.00	
1915.00†	8.300	140.951	1913.55	-16.57	-23.30	18.90	2.00	
2015.00†	10.300	140.951	2012.23	-25.49	-35.85	29.08	2.00	
2115.00†	12.300	140.951	2110.29	-36.31	-51.07	41.43	2.00	
2121.86	12.437	140.951	2116.99	-37.12	-52.21	42.35	2.00	End of Build
2215.00†	12.437	140.951	2207.94	-48.19	-67.79	54.99	0.00	
2315.00†	12.437	140.951	2305.60	-60.08	-84.51	68.56	0.00	
2415.00†	12.437	140.951	2403.25	-71.97	-101.24	82.13	0.00	
2515.00†	12.437	140.951	2500.90	-83.86	-117.97	95.69	0.00	
2615.00†	12.437	140.951	2598.56	-95.75	-134.69	109.26	0.00	



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 3 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2715.00†	12.437	140.951	2696.21	-107.64	-151.42	122.83	0.00	
2815.00†	12.437	140.951	2793.86	-119.53	-168.14	136.40	0.00	
2915.00†	12.437	140.951	2891.52	-131.42	-184.87	149.97	0.00	
3015.00†	12.437	140.951	2989.17	-143.31	-201.59	163.53	0.00	
3115.00†	12.437	140.951	3086.82	-155.20	-218.32	177.10	0.00	
3215.00†	12.437	140.951	3184.47	-167.09	-235.05	190.67	0.00	
3315.00†	12.437	140.951	3282.13	-178.98	-251.77	204.24	0.00	
3415.00†	12.437	140.951	3379.78	-190.87	-268.50	217.80	0.00	
3515.00†	12.437	140.951	3477.43	-202.76	-285.22	231.37	0.00	
3615.00†	12.437	140.951	3575.09	-214.66	-301.95	244.94	0.00	
3715.00†	12.437	140.951	3672.74	-226.55	-318.67	258.51	0.00	
3815.00†	12.437	140.951	3770.39	-238.44	-335.40	272.08	0.00	
3915.00†	12.437	140.951	3868.05	-250.33	-352.13	285.64	0.00	
4015.00†	12.437	140.951	3965.70	-262.22	-368.85	299.21	0.00	
4115.00†	12.437	140.951	4063.35	-274.11	-385.58	312.78	0.00	
4215.00†	12.437	140.951	4161.01	-286.00	-402.30	326.35	0.00	
4315.00†	12.437	140.951	4258.66	-297.89	-419.03	339.92	0.00	
4415.00†	12.437	140.951	4356.31	-309.78	-435.75	353.48	0.00	
4515.00†	12.437	140.951	4453.97	-321.67	-452.48	367.05	0.00	
4615.00†	12.437	140.951	4551.62	-333.56	-469.21	380.62	0.00	
4715.00†	12.437	140.951	4649.27	-345.45	-485.93	394.19	0.00	
4815.00†	12.437	140.951	4746.93	-357.34	-502.66	407.76	0.00	
4915.00†	12.437	140.951	4844.58	-369.23	-519.38	421.32	0.00	
5015.00†	12.437	140.951	4942.23	-381.12	-536.11	434.89	0.00	
5115.00†	12.437	140.951	5039.89	-393.01	-552.83	448.46	0.00	
5215.00†	12.437	140.951	5137.54	-404.90	-569.56	462.03	0.00	
5315.00†	12.437	140.951	5235.19	-416.79	-586.29	475.59	0.00	
5415.00†	12.437	140.951	5332.85	-428.68	-603.01	489.16	0.00	
5515.00†	12.437	140.951	5430.50	-440.57	-619.74	502.73	0.00	
5615.00†	12.437	140.951	5528.15	-452.46	-636.46	516.30	0.00	



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 4 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5715.00†	12.437	140.951	5625.81	-464.35	-653.19	529.87	0.00	
5815.00†	12.437	140.951	5723.46	-476.24	-669.91	543.43	0.00	
5915.00†	12.437	140.951	5821.11	-488.13	-686.64	557.00	0.00	
6015.00†	12.437	140.951	5918.77	-500.02	-703.37	570.57	0.00	
6115.00†	12.437	140.951	6016.42	-511.91	-720.09	584.14	0.00	
6215.00†	12.437	140.951	6114.07	-523.80	-736.82	597.71	0.00	
6315.00†	12.437	140.951	6211.73	-535.69	-753.54	611.27	0.00	
6415.00†	12.437	140.951	6309.38	-547.58	-770.27	624.84	0.00	
6515.00†	12.437	140.951	6407.03	-559.47	-786.99	638.41	0.00	
6615.00†	12.437	140.951	6504.69	-571.36	-803.72	651.98	0.00	
6715.00†	12.437	140.951	6602.34	-583.25	-820.44	665.55	0.00	
6732.43	12.437	140.951	6619.36	-585.33	-823.36	667.91	0.00	End of Tangent
6815.00†	9.708	182.725	6700.51	-589.24	-837.24	673.19	10.00	
6915.00†	14.209	227.696	6798.51	-578.17	-853.97	663.69	10.00	
7015.00†	22.530	245.818	6893.41	-550.11	-870.12	637.07	10.00	
7115.00†	31.801	254.149	6982.31	-505.93	-885.20	594.13	10.00	
7215.00†	41.386	258.966	7062.53	-446.95	-898.76	536.19	10.00	
7315.00†	51.108	262.225	7131.61	-374.97	-910.38	465.01	10.00	
7415.00†	60.898	264.690	7187.46	-292.19	-919.71	382.74	10.00	
7418.18†	61.210	264.760	7189.00	-289.41	-919.97	379.97	10.00	NIO A
7515.00†	70.725	266.723	7228.39	-201.11	-926.47	291.89	10.00	
7614.11†	80.484	268.508	7253.00	-105.38	-930.43	196.10	10.00	NIO B
7615.00†	80.572	268.523	7253.15	-104.51	-930.45	195.22	10.00	
7710.66	90.000	270.150	7261.00 <sup>1</sup>	-9.63	-931.54	100.00	10.00	End of 3D Arc
7715.00†	90.000	270.150	7261.00	-5.31	-931.53	95.66	0.00	
7815.00†	90.000	270.150	7261.00	94.20	-931.27	-4.34	0.00	
7915.00†	90.000	270.150	7261.00	193.71	-931.01	-104.34	0.00	
8015.00†	90.000	270.150	7261.00	293.22	-930.75	-204.34	0.00	
8115.00†	90.000	270.150	7261.00	392.72	-930.49	-304.34	0.00	
8215.00†	90.000	270.150	7261.00	492.23	-930.22	-404.34	0.00	



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 5 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8315.00†	90.000	270.150	7261.00	591.74	-929.96	-504.34	0.00	
8415.00†	90.000	270.150	7261.00	691.25	-929.70	-604.34	0.00	
8515.00†	90.000	270.150	7261.00	790.75	-929.44	-704.34	0.00	
8615.00†	90.000	270.150	7261.00	890.26	-929.18	-804.34	0.00	
8715.00†	90.000	270.150	7261.00	989.77	-928.92	-904.34	0.00	
8815.00†	90.000	270.150	7261.00	1089.28	-928.66	-1004.34	0.00	
8915.00†	90.000	270.150	7261.00	1188.79	-928.40	-1104.34	0.00	
9015.00†	90.000	270.150	7261.00	1288.29	-928.14	-1204.34	0.00	
9115.00†	90.000	270.150	7261.00	1387.80	-927.87	-1304.34	0.00	
9215.00†	90.000	270.150	7261.00	1487.31	-927.61	-1404.34	0.00	
9315.00†	90.000	270.150	7261.00	1586.82	-927.35	-1504.34	0.00	
9415.00†	90.000	270.150	7261.00	1686.32	-927.09	-1604.34	0.00	
9515.00†	90.000	270.150	7261.00	1785.83	-926.83	-1704.34	0.00	
9615.00†	90.000	270.150	7261.00	1885.34	-926.57	-1804.34	0.00	
9715.00†	90.000	270.150	7261.00	1984.85	-926.31	-1904.33	0.00	
9815.00†	90.000	270.150	7261.00	2084.35	-926.05	-2004.33	0.00	
9915.00†	90.000	270.150	7261.00	2183.86	-925.79	-2104.33	0.00	
10015.00†	90.000	270.150	7261.00	2283.37	-925.52	-2204.33	0.00	
10115.00†	90.000	270.150	7261.00	2382.88	-925.26	-2304.33	0.00	
10215.00†	90.000	270.150	7261.00	2482.38	-925.00	-2404.33	0.00	
10315.00†	90.000	270.150	7261.00	2581.89	-924.74	-2504.33	0.00	
10415.00†	90.000	270.150	7261.00	2681.40	-924.48	-2604.33	0.00	
10515.00†	90.000	270.150	7261.00	2780.91	-924.22	-2704.33	0.00	
10615.00†	90.000	270.150	7261.00	2880.41	-923.96	-2804.33	0.00	
10715.00†	90.000	270.150	7261.00	2979.92	-923.70	-2904.33	0.00	
10815.00†	90.000	270.150	7261.00	3079.43	-923.43	-3004.33	0.00	
10915.00†	90.000	270.150	7261.00	3178.94	-923.17	-3104.33	0.00	
11015.00†	90.000	270.150	7261.00	3278.45	-922.91	-3204.33	0.00	
11115.00†	90.000	270.150	7261.00	3377.95	-922.65	-3304.33	0.00	
11215.00†	90.000	270.150	7261.00	3477.46	-922.39	-3404.33	0.00	



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 6 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11315.00†	90.000	270.150	7261.00	3576.97	-922.13	-3504.33	0.00	
11415.00†	90.000	270.150	7261.00	3676.48	-921.87	-3604.33	0.00	
11515.00†	90.000	270.150	7261.00	3775.98	-921.61	-3704.33	0.00	
11615.00†	90.000	270.150	7261.00	3875.49	-921.35	-3804.33	0.00	
11715.00†	90.000	270.150	7261.00	3975.00	-921.08	-3904.33	0.00	
11815.00†	90.000	270.150	7261.00	4074.51	-920.82	-4004.33	0.00	
11915.00†	90.000	270.150	7261.00	4174.01	-920.56	-4104.33	0.00	
12015.00†	90.000	270.150	7261.00	4273.52	-920.30	-4204.33	0.00	
12115.00†	90.000	270.150	7261.00	4373.03	-920.04	-4304.33	0.00	
12215.00†	90.000	270.150	7261.00	4472.54	-919.78	-4404.33	0.00	
12315.00†	90.000	270.150	7261.00	4572.04	-919.52	-4504.33	0.00	
12415.00†	90.000	270.150	7261.00	4671.55	-919.26	-4604.33	0.00	
12515.00†	90.000	270.150	7261.00	4771.06	-919.00	-4704.33	0.00	
12615.00†	90.000	270.150	7261.00	4870.57	-918.73	-4804.33	0.00	
12715.00†	90.000	270.150	7261.00	4970.08	-918.47	-4904.32	0.00	
12815.00†	90.000	270.150	7261.00	5069.58	-918.21	-5004.32	0.00	
12915.00†	90.000	270.150	7261.00	5169.09	-917.95	-5104.32	0.00	
13015.00†	90.000	270.150	7261.00	5268.60	-917.69	-5204.32	0.00	
13115.00†	90.000	270.150	7261.00	5368.11	-917.43	-5304.32	0.00	
13215.00†	90.000	270.150	7261.00	5467.61	-917.17	-5404.32	0.00	
13315.00†	90.000	270.150	7261.00	5567.12	-916.91	-5504.32	0.00	
13415.00†	90.000	270.150	7261.00	5666.63	-916.65	-5604.32	0.00	
13515.00†	90.000	270.150	7261.00	5766.14	-916.38	-5704.32	0.00	
13615.00†	90.000	270.150	7261.00	5865.64	-916.12	-5804.32	0.00	
13715.00†	90.000	270.150	7261.00	5965.15	-915.86	-5904.32	0.00	
13815.00†	90.000	270.150	7261.00	6064.66	-915.60	-6004.32	0.00	
13915.00†	90.000	270.150	7261.00	6164.17	-915.34	-6104.32	0.00	
14015.00†	90.000	270.150	7261.00	6263.67	-915.08	-6204.32	0.00	
14115.00†	90.000	270.150	7261.00	6363.18	-914.82	-6304.32	0.00	
14215.00†	90.000	270.150	7261.00	6462.69	-914.56	-6404.32	0.00	





# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 7 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14315.00†	90.000	270.150	7261.00	6562.20	-914.29	-6504.32	0.00	
14415.00†	90.000	270.150	7261.00	6661.70	-914.03	-6604.32	0.00	
14515.00†	90.000	270.150	7261.00	6761.21	-913.77	-6704.32	0.00	
14615.00†	90.000	270.150	7261.00	6860.72	-913.51	-6804.32	0.00	
14715.00†	90.000	270.150	7261.00	6960.23	-913.25	-6904.32	0.00	
14815.00†	90.000	270.150	7261.00	7059.74	-912.99	-7004.32	0.00	
14915.00†	90.000	270.150	7261.00	7159.24	-912.73	-7104.32	0.00	
15015.00†	90.000	270.150	7261.00	7258.75	-912.47	-7204.32	0.00	
15115.00†	90.000	270.150	7261.00	7358.26	-912.21	-7304.32	0.00	
15215.00†	90.000	270.150	7261.00	7457.77	-911.94	-7404.32	0.00	
15315.00†	90.000	270.150	7261.00	7557.27	-911.68	-7504.32	0.00	
15415.00†	90.000	270.150	7261.00	7656.78	-911.42	-7604.32	0.00	
15515.00†	90.000	270.150	7261.00	7756.29	-911.16	-7704.32	0.00	
15615.00†	90.000	270.150	7261.00	7855.80	-910.90	-7804.31	0.00	
15715.00†	90.000	270.150	7261.00	7955.30	-910.64	-7904.31	0.00	
15815.00†	90.000	270.150	7261.00	8054.81	-910.38	-8004.31	0.00	
15915.00†	90.000	270.150	7261.00	8154.32	-910.12	-8104.31	0.00	
16015.00†	90.000	270.150	7261.00	8253.83	-909.86	-8204.31	0.00	
16115.00†	90.000	270.150	7261.00	8353.33	-909.59	-8304.31	0.00	
16215.00†	90.000	270.150	7261.00	8452.84	-909.33	-8404.31	0.00	
16315.00†	90.000	270.150	7261.00	8552.35	-909.07	-8504.31	0.00	
16415.00†	90.000	270.150	7261.00	8651.86	-908.81	-8604.31	0.00	
16515.00†	90.000	270.150	7261.00	8751.36	-908.55	-8704.31	0.00	
16615.00†	90.000	270.150	7261.00	8850.87	-908.29	-8804.31	0.00	
16715.00†	90.000	270.150	7261.00	8950.38	-908.03	-8904.31	0.00	
16815.00†	90.000	270.150	7261.00	9049.89	-907.77	-9004.31	0.00	
16915.00†	90.000	270.150	7261.00	9149.40	-907.51	-9104.31	0.00	
17015.00†	90.000	270.150	7261.00	9248.90	-907.24	-9204.31	0.00	
17115.00†	90.000	270.150	7261.00	9348.41	-906.98	-9304.31	0.00	
17162.96	90.000	270.150	7261.00 <sup>2</sup>	9396.13	-906.86	-9352.27	0.00	End of Tangent

## HOLE & CASING SECTIONS - Ref Wellbore: WINDER #9 PWB Ref Wellpath: WINDER #9 PWP (REV-B.0)

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]
7.875in Open Hole	1500.00	17162.96	15662.96	1500.00	N/A	0.00	0.00	N/A	N/A
5.5in Casing	15.00	17162.96	17147.96	15.00	N/A	0.00	0.00	N/A	N/A

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
TWELL/WINDER 1/2 SECTION 08		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
TWELL/WINDER 1/2 SECTION 09		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon



<b>TWELL/WINDER SECTION 08</b>									
<b>TWELL/WINDER SECTION 09</b>		47.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon
<b>2) WINDER #9 BHL ON PLAT REV-1(1624'FNL &amp; 460'FWL,SEC.08)</b>	17162.96	7261.00	-906.86	-9352.27	3159919.54	1426996.89	40°30'14.702"N	104°55'29.701"W	point
<b>WINDER #9 LANDING POINT</b>		7261.00	-931.58	216.06	3169487.48	1427037.84	40°30'14.476"N	104°53'25.836"W	point
<b>1) WINDER #9 LANDING POINT REV-1</b>	7710.66	7261.00	-931.54	100.00	3169371.42	1427037.09	40°30'14.476"N	104°53'27.338"W	point
<b>WINDER PAD NORTH 1/2 HARDLINES(460' SETBACKS)</b>		7437.00	-3126.22	-9583.08	3159703.97	1424776.07	40°29'52.771"N	104°55'32.678"W	polygon



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 8 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## SURVEY PROGRAM - Ref Wellbore: WINDER #9 PWB Ref Wellpath: WINDER #9 PWP (REV-B.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	17162.96	NaviTrak (Standard)		WINDER #9 PWB



# Planned Wellpath Report

WINDER #9 PWP (REV-B.0)

Page 9 of 9



## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#09 WINDER #9(884'FNL & 684'FEL,SEC.09)
Area	COLORADO	Well	WINDER #9
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDER #9 PWB
Facility	SEC.09-T06N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7418.18	61.210	264.760	7189.00	NIO A
7614.11	80.484	268.508	7253.00	NIO B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
15.00	0.000	140.951	15.00	Tie On
1500.00	0.000	140.951	1500.00	End of Tangent
2121.86	12.437	140.951	2116.99	End of Build
6732.43	12.437	140.951	6619.36	End of Tangent
7710.66	90.000	270.150	7261.00	End of 3D Arc
17162.96	90.000	270.150	7261.00	End of Tangent