

Whiting Oil & Gas

Well Name: WILDHORSE 02-0214H

Surface Location: Wildhorse 02-0214H Pad Sec.2-T9N-R59W
North American Datum 1983, US State Plane 1983 Colorado Northern Zone

Ground Elevation: 5003.0

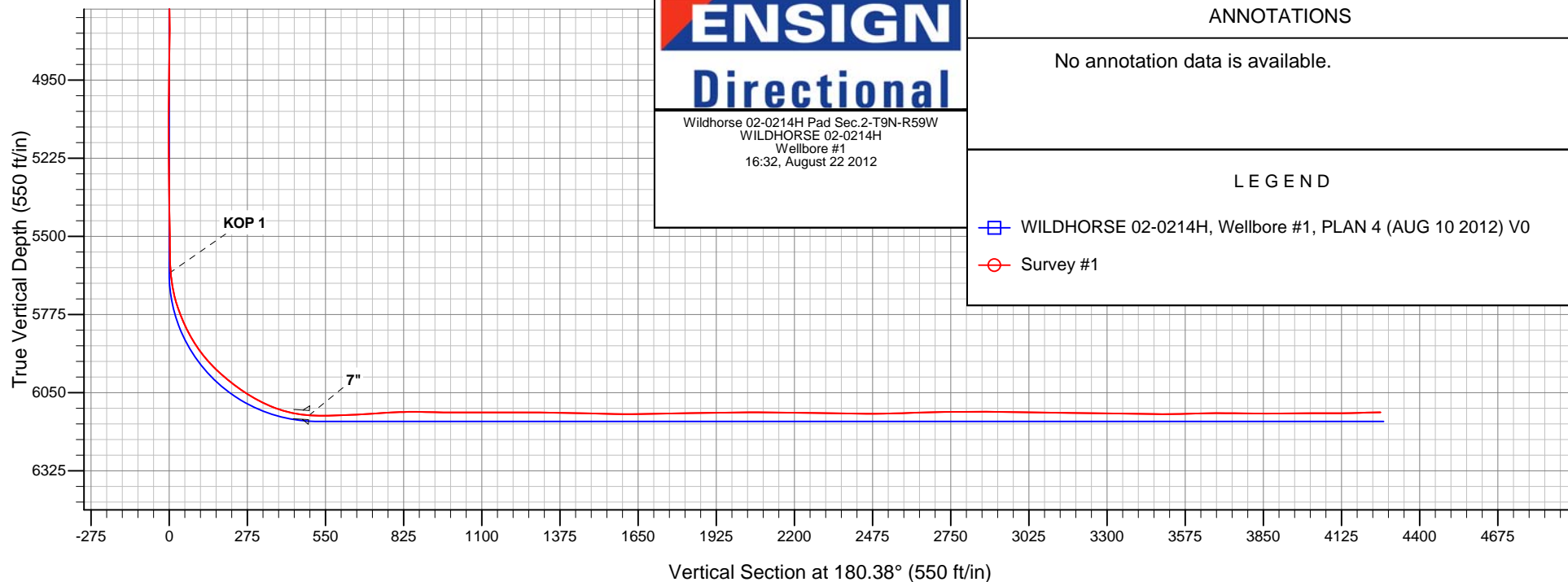
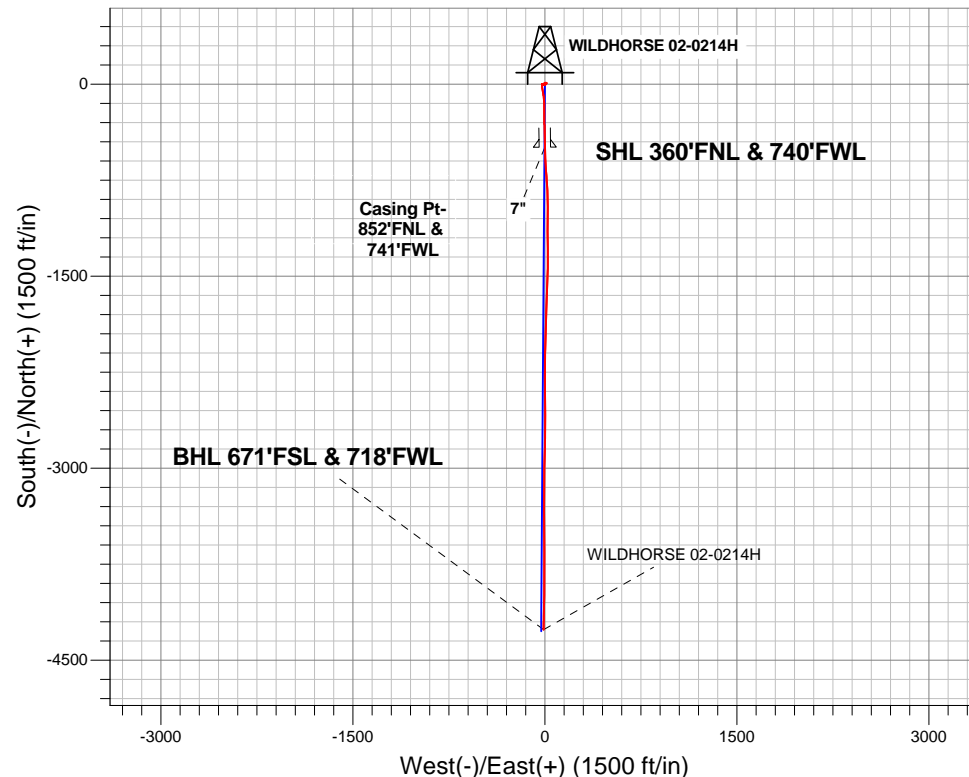
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1533007.03	3428571.21	40.786222	-103.952306	

KB Cade 21 16.5' RKB @ 5019.5ft (KB Cade 21 16.5')

FINAL SURVEY

Projected Bottom Hole Location
10158' MD 6119' TVD 4262' S & 10' W of SHL

91.50 degree Incl @ 180.90 degree AZM





Whiting Oil & Gas

SEC.2-T9N-R59W

Wildhorse 02-0214H Pad Sec.2-T9N-R59W

WILDHORSE 02-0214H

Wellbore #1

Survey: Survey #1

Standard Survey Report

22 August, 2012

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well WILDHORSE 02-0214H
Project:	SEC.2-T9N-R59W	TVD Reference:	RKB @ 5019.5ft (KB Cade 21 16.5')
Site:	Wildhorse 02-0214H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5019.5ft (KB Cade 21 16.5')
Well:	WILDHORSE 02-0214H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.2-T9N-R59W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Wildhorse 02-0214H Pad Sec.2-T9N-R59W			
Position:		Northing:		1,533,007.03ft	
From:	Lat/Long	Easting:		Longitude:	
		3,428,571.21ft		-103.952306	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 ft		"		1.00 °	

Well	WILDHORSE 02-0214H					
Well Position	+N-S	0.0 ft	Northing:	1,533,007.03 ft	Latitude:	40.786222
	+E-W	0.0 ft	Easting:	3,428,571.21 ft	Longitude:	-103.952306
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,003.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/26/2012	8.36	67.47	53,341
	IGRF2010	8/10/2012	8.29	67.45	53,293

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	180.38

Survey Program		Date	8/22/2012	
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
101.0	10,158.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
2.5	0.03	238.00	2.5	0.0	0.0	0.0	1.39	1.39	0.00	
SHL 360'FNL & 740'FWL										
32.6	0.45	238.00	32.6	-0.1	-0.1	0.1	1.39	1.39	0.00	
HARDLINE - 660'										
101.0	1.40	238.00	101.0	-0.7	-1.0	0.7	1.39	1.39	0.00	
188.0	1.20	237.30	188.0	-1.7	-2.7	1.7	0.23	-0.23	-0.80	
282.0	1.50	229.10	281.9	-3.0	-4.5	3.1	0.38	0.32	-8.72	
372.0	1.60	228.70	371.9	-4.6	-6.3	4.7	0.11	0.11	-0.44	
464.0	0.70	253.90	463.9	-5.7	-7.8	5.7	1.10	-0.98	27.39	
555.0	0.70	222.90	554.9	-6.2	-8.7	6.3	0.41	0.00	-34.07	
647.0	0.60	241.20	646.9	-6.9	-9.5	6.9	0.25	-0.11	19.89	

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well WILDHORSE 02-0214H
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Site:	Wildhorse 02-0214H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5019.5ft (KB Cade 21 16.5')
Well:	WILDHORSE 02-0214H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
739.0	0.40	70.70	738.9	-7.0	-9.6	7.0	1.08	-0.22	-185.33	
832.0	0.40	77.00	831.9	-6.8	-9.0	6.9	0.05	0.00	6.77	
924.0	0.70	68.60	923.9	-6.5	-8.2	6.6	0.34	0.33	-9.13	
1,015.0	0.60	41.20	1,014.9	-6.0	-7.4	6.0	0.35	-0.11	-30.11	
1,110.0	1.00	84.40	1,109.9	-5.5	-6.2	5.5	0.73	0.42	45.47	
1,230.0	1.20	86.70	1,229.8	-5.3	-3.9	5.4	0.17	0.17	1.92	
1,324.0	1.80	94.10	1,323.8	-5.4	-1.5	5.4	0.67	0.64	7.87	
1,420.0	1.60	80.40	1,419.8	-5.3	1.4	5.3	0.47	-0.21	-14.27	
1,500.0	1.20	60.00	1,499.7	-4.7	3.2	4.6	0.79	-0.50	-25.50	
1,546.0	1.50	52.60	1,545.7	-4.1	4.1	4.0	0.75	0.65	-16.09	
1,640.0	1.50	32.20	1,639.7	-2.3	5.7	2.2	0.57	0.00	-21.70	
1,733.0	1.60	40.80	1,732.7	-0.3	7.2	0.2	0.27	0.11	9.25	
1,827.0	1.70	41.30	1,826.6	1.8	9.0	-1.8	0.11	0.11	0.53	
1,923.0	1.60	48.50	1,922.6	3.7	10.9	-3.8	0.24	-0.10	7.50	
2,020.0	1.60	52.40	2,019.5	5.5	13.0	-5.6	0.11	0.00	4.02	
2,115.0	0.90	357.20	2,114.5	7.0	14.0	-7.1	1.38	-0.74	-58.11	
2,210.0	0.80	330.70	2,209.5	8.3	13.7	-8.4	0.42	-0.11	-27.89	
2,305.0	0.80	336.80	2,304.5	9.5	13.1	-9.6	0.09	0.00	6.42	
2,400.0	0.50	295.00	2,399.5	10.3	12.5	-10.4	0.57	-0.32	-44.00	
2,495.0	0.80	287.60	2,494.5	10.7	11.5	-10.8	0.33	0.32	-7.79	
2,590.0	1.70	271.80	2,589.5	10.9	9.4	-11.0	1.01	0.95	-16.63	
2,685.0	1.60	272.00	2,684.4	11.0	6.7	-11.1	0.11	-0.11	0.21	
2,779.0	1.20	249.50	2,778.4	10.7	4.4	-10.8	0.72	-0.43	-23.94	
2,874.0	1.20	247.00	2,873.4	10.0	2.6	-10.0	0.06	0.00	-2.63	
2,969.0	1.20	247.90	2,968.4	9.2	0.8	-9.2	0.02	0.00	0.95	
3,064.0	1.30	244.90	3,063.3	8.4	-1.1	-8.4	0.13	0.11	-3.16	
3,159.0	1.30	240.70	3,158.3	7.4	-3.1	-7.4	0.10	0.00	-4.42	
3,254.0	1.00	212.90	3,253.3	6.2	-4.4	-6.2	0.66	-0.32	-29.26	
3,349.0	1.70	214.70	3,348.3	4.3	-5.7	-4.3	0.74	0.74	1.89	
3,444.0	0.70	217.60	3,443.2	2.7	-6.8	-2.7	1.05	-1.05	3.05	
3,537.0	0.70	178.10	3,536.2	1.7	-7.2	-1.7	0.51	0.00	-42.47	
3,633.0	1.10	195.30	3,632.2	0.2	-7.4	-0.2	0.50	0.42	17.92	
3,728.0	1.10	194.30	3,727.2	-1.5	-7.9	1.6	0.02	0.00	-1.05	
3,823.0	1.10	190.90	3,822.2	-3.3	-8.3	3.4	0.07	0.00	-3.58	
3,918.0	1.10	201.50	3,917.2	-5.1	-8.8	5.1	0.21	0.00	11.16	
4,013.0	1.10	283.20	4,012.2	-5.7	-10.0	5.8	1.51	0.00	86.00	
4,108.0	2.60	309.40	4,107.1	-4.1	-12.5	4.2	1.77	1.58	27.58	
4,202.0	2.60	316.10	4,201.0	-1.2	-15.7	1.3	0.32	0.00	7.13	
4,298.0	1.60	285.50	4,296.9	0.7	-18.5	-0.6	1.53	-1.04	-31.88	
4,392.0	0.40	203.40	4,390.9	0.7	-19.9	-0.6	1.70	-1.28	-87.34	
4,487.0	0.90	107.40	4,485.9	0.2	-19.3	-0.1	1.08	0.53	-101.05	
4,582.0	0.60	125.50	4,580.9	-0.3	-18.2	0.4	0.40	-0.32	19.05	
4,676.0	0.70	201.50	4,674.9	-1.1	-18.0	1.2	0.86	0.11	80.85	
4,773.0	0.90	287.30	4,771.9	-1.4	-18.9	1.6	1.13	0.21	88.45	
4,898.0	1.50	309.40	4,896.9	-0.1	-21.1	0.2	0.60	0.48	17.68	
4,993.0	1.00	338.10	4,991.9	1.4	-22.4	-1.3	0.83	-0.53	30.21	
5,088.0	0.40	112.40	5,086.9	2.1	-22.4	-1.9	1.38	-0.63	141.37	
5,184.0	0.40	182.30	5,182.9	1.6	-22.1	-1.5	0.48	0.00	72.81	
5,405.0	0.80	180.20	5,403.8	-0.7	-22.1	0.8	0.18	0.18	-0.95	
5,499.0	0.70	204.30	5,497.8	-1.9	-22.4	2.0	0.35	-0.11	25.64	
5,531.0	0.80	212.70	5,529.8	-2.2	-22.6	2.4	0.46	0.31	26.25	
5,563.0	0.70	193.20	5,561.8	-2.6	-22.7	2.8	0.85	-0.31	-60.94	
5,594.0	2.10	160.70	5,592.8	-3.3	-22.6	3.5	5.02	4.52	-104.84	
5,626.0	4.60	165.10	5,624.8	-5.1	-22.1	5.3	7.85	7.81	13.75	

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Well:	WILDHORSE 02-0214H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
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5,658.0	7.80	173.70	5,656.6	-8.5	-21.5	8.7	10.39	10.00	26.88	
5,690.0	10.70	178.10	5,688.2	-13.7	-21.2	13.8	9.32	9.06	13.75	
5,721.0	14.90	177.40	5,718.4	-20.5	-20.9	20.6	13.56	13.55	-2.26	
5,753.0	18.70	174.20	5,749.0	-29.7	-20.2	29.9	12.22	11.88	-10.00	
5,785.0	22.20	169.70	5,779.0	-40.8	-18.6	40.9	11.98	10.94	-14.06	
5,816.0	24.70	168.80	5,807.4	-52.9	-16.3	53.0	8.15	8.06	-2.90	
5,848.0	27.30	170.00	5,836.2	-66.7	-13.7	66.8	8.29	8.13	3.75	
5,880.0	31.00	171.60	5,864.1	-82.1	-11.2	82.1	11.82	11.56	5.00	
5,911.0	34.60	174.10	5,890.2	-98.7	-9.2	98.8	12.41	11.61	8.06	
5,943.0	38.30	174.20	5,915.9	-117.6	-7.2	117.7	11.56	11.56	0.31	
5,975.0	41.90	176.50	5,940.4	-138.2	-5.6	138.2	12.16	11.25	7.19	
6,007.0	45.20	178.30	5,963.6	-160.2	-4.6	160.2	11.02	10.31	5.63	
6,038.0	48.30	179.70	5,984.8	-182.8	-4.2	182.8	10.53	10.00	4.52	
6,070.0	51.20	179.90	6,005.5	-207.2	-4.1	207.2	9.08	9.06	0.63	
6,102.0	53.60	180.40	6,025.0	-232.5	-4.2	232.6	7.60	7.50	1.56	
6,134.0	55.10	179.30	6,043.7	-258.5	-4.1	258.6	5.46	4.69	-3.44	
6,165.0	58.30	179.10	6,060.7	-284.5	-3.7	284.5	10.34	10.32	-0.65	
6,197.0	62.10	178.60	6,076.6	-312.2	-3.2	312.2	11.95	11.88	-1.56	
6,229.0	65.60	176.90	6,090.7	-340.9	-2.0	340.9	11.93	10.94	-5.31	
6,260.0	69.20	178.40	6,102.6	-369.5	-0.9	369.5	12.44	11.61	4.84	
6,291.0	73.10	179.00	6,112.6	-398.8	-0.2	398.8	12.71	12.58	1.94	
6,323.0	77.40	179.30	6,120.8	-429.8	0.2	429.7	13.47	13.44	0.94	
6,354.0	81.70	179.10	6,126.4	-460.2	0.7	460.2	13.89	13.87	-0.65	
6,386.0	86.00	179.10	6,129.8	-492.0	1.2	492.0	13.44	13.44	0.00	
7"										
6,460.0	92.20	177.70	6,131.0	-566.0	3.2	565.9	8.59	8.38	-1.89	
6,491.0	91.80	176.70	6,129.9	-596.9	4.7	596.9	3.47	-1.29	-3.23	
6,522.0	92.20	176.30	6,128.8	-627.8	6.6	627.8	1.82	1.29	-1.29	
6,552.0	93.20	176.70	6,127.4	-657.7	8.5	657.7	3.59	3.33	1.33	
6,582.0	93.60	176.30	6,125.6	-687.6	10.3	687.5	1.88	1.33	-1.33	
6,614.0	94.00	176.30	6,123.5	-719.5	12.4	719.4	1.25	1.25	0.00	
6,645.0	93.60	176.70	6,121.4	-750.4	14.2	750.3	1.82	-1.29	1.29	
6,676.0	92.70	175.50	6,119.7	-781.2	16.3	781.1	4.83	-2.90	-3.87	
6,707.0	92.10	176.20	6,118.4	-812.1	18.6	812.0	2.97	-1.94	2.26	
6,737.0	90.80	177.60	6,117.7	-842.1	20.2	841.9	6.37	-4.33	4.67	
6,768.0	89.20	177.70	6,117.7	-873.1	21.5	872.9	5.17	-5.16	0.32	
6,798.0	88.80	179.10	6,118.2	-903.0	22.3	902.9	4.85	-1.33	4.67	
6,829.0	88.40	180.00	6,119.0	-934.0	22.6	933.9	3.18	-1.29	2.90	
6,860.0	89.20	179.90	6,119.6	-965.0	22.6	964.9	2.60	2.58	-0.32	
6,891.0	90.00	180.70	6,119.8	-996.0	22.4	995.9	3.65	2.58	2.58	
6,923.0	89.90	180.40	6,119.9	-1,028.0	22.1	1,027.9	0.99	-0.31	-0.94	
6,954.0	90.50	180.60	6,119.7	-1,059.0	21.9	1,058.9	2.04	1.94	0.65	
6,986.0	90.10	180.70	6,119.6	-1,091.0	21.5	1,090.8	1.29	-1.25	0.31	
7,018.0	89.40	179.30	6,119.7	-1,123.0	21.5	1,122.8	4.89	-2.19	-4.38	
7,049.0	89.70	179.70	6,120.0	-1,154.0	21.8	1,153.8	1.61	0.97	1.29	
7,081.0	90.30	179.90	6,120.0	-1,186.0	21.9	1,185.8	1.98	1.88	0.63	
7,113.0	90.00	178.60	6,119.9	-1,218.0	22.3	1,217.8	4.17	-0.94	-4.06	
7,144.0	89.90	179.10	6,119.9	-1,249.0	22.9	1,248.8	1.64	-0.32	1.61	
7,176.0	89.60	179.70	6,120.0	-1,281.0	23.2	1,280.8	2.10	-0.94	1.88	
7,208.0	89.40	179.90	6,120.3	-1,313.0	23.4	1,312.8	0.88	-0.63	0.63	
7,239.0	89.80	179.90	6,120.5	-1,344.0	23.4	1,343.8	1.29	1.29	0.00	
7,271.0	89.40	180.40	6,120.8	-1,376.0	23.3	1,375.8	2.00	-1.25	1.56	
7,303.0	88.70	180.60	6,121.3	-1,408.0	23.0	1,407.8	2.28	-2.19	0.63	
7,334.0	88.70	180.40	6,122.0	-1,439.0	22.8	1,438.8	0.64	0.00	-0.65	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,366.0	88.50	181.30	6,122.8	-1,471.0	22.3	1,470.8	2.88	-0.63	2.81	
7,398.0	88.30	181.80	6,123.7	-1,502.9	21.4	1,502.8	1.68	-0.63	1.56	
7,429.0	88.50	180.90	6,124.5	-1,533.9	20.7	1,533.8	2.97	0.65	-2.90	
7,461.0	88.70	181.80	6,125.3	-1,565.9	20.0	1,565.7	2.88	0.63	2.81	
7,493.0	89.40	181.80	6,125.8	-1,597.9	18.9	1,597.7	2.19	2.19	0.00	
7,524.0	90.80	182.70	6,125.8	-1,628.9	17.7	1,628.7	5.37	4.52	2.90	
7,556.0	90.80	182.80	6,125.3	-1,660.8	16.2	1,660.7	0.31	0.00	0.31	
7,588.0	90.90	183.00	6,124.9	-1,692.8	14.6	1,692.6	0.70	0.31	0.63	
7,619.0	91.20	183.00	6,124.3	-1,723.7	13.0	1,723.6	0.97	0.97	0.00	
7,651.0	91.50	182.70	6,123.5	-1,755.7	11.4	1,755.6	1.33	0.94	-0.94	
7,683.0	91.40	181.30	6,122.7	-1,787.6	10.2	1,787.5	4.38	-0.31	-4.38	
7,714.0	90.50	181.30	6,122.2	-1,818.6	9.5	1,818.5	2.90	-2.90	0.00	
7,746.0	90.90	180.60	6,121.8	-1,850.6	9.0	1,850.5	2.52	1.25	-2.19	
7,778.0	91.10	180.40	6,121.3	-1,882.6	8.7	1,882.5	0.88	0.63	-0.63	
7,809.0	91.00	181.30	6,120.7	-1,913.6	8.3	1,913.5	2.92	-0.32	2.90	
7,841.0	90.30	181.80	6,120.3	-1,945.6	7.4	1,945.5	2.69	-2.19	1.56	
7,873.0	90.30	181.60	6,120.2	-1,977.6	6.5	1,977.5	0.62	0.00	-0.63	
7,904.0	90.70	181.80	6,119.9	-2,008.6	5.5	2,008.5	1.44	1.29	0.65	
7,936.0	90.70	181.80	6,119.5	-2,040.5	4.5	2,040.5	0.00	0.00	0.00	
7,968.0	89.90	182.10	6,119.3	-2,072.5	3.4	2,072.5	2.67	-2.50	0.94	
7,999.0	89.40	181.60	6,119.5	-2,103.5	2.4	2,103.5	2.28	-1.61	-1.61	
8,031.0	89.30	181.10	6,119.9	-2,135.5	1.7	2,135.4	1.59	-0.31	-1.56	
8,063.0	89.30	180.40	6,120.3	-2,167.5	1.3	2,167.4	2.19	0.00	-2.19	
8,095.0	89.40	180.70	6,120.7	-2,199.5	1.0	2,199.4	0.99	0.31	0.94	
8,126.0	89.30	180.20	6,121.0	-2,230.5	0.7	2,230.4	1.64	-0.32	-1.61	
8,158.0	89.00	179.10	6,121.5	-2,262.5	0.9	2,262.4	3.56	-0.94	-3.44	
8,189.0	89.00	179.50	6,122.0	-2,293.5	1.3	2,293.4	1.29	0.00	1.29	
8,221.0	89.30	179.90	6,122.5	-2,325.5	1.5	2,325.4	1.56	0.94	1.25	
8,253.0	89.30	180.20	6,122.9	-2,357.5	1.4	2,357.4	0.94	0.00	0.94	
8,284.0	89.10	179.50	6,123.3	-2,388.5	1.5	2,388.4	2.35	-0.65	-2.26	
8,316.0	89.00	179.50	6,123.9	-2,420.5	1.8	2,420.4	0.31	-0.31	0.00	
8,348.0	89.50	179.10	6,124.3	-2,452.5	2.2	2,452.4	2.00	1.56	-1.25	
8,379.0	90.70	180.20	6,124.2	-2,483.5	2.4	2,483.4	5.25	3.87	3.55	
8,411.0	91.00	180.00	6,123.7	-2,515.5	2.3	2,515.4	1.13	0.94	-0.63	
8,443.0	91.30	179.50	6,123.1	-2,547.4	2.5	2,547.4	1.82	0.94	-1.56	
8,474.0	91.60	179.10	6,122.3	-2,578.4	2.8	2,578.4	1.61	0.97	-1.29	
8,505.0	92.20	179.50	6,121.3	-2,609.4	3.2	2,609.3	2.33	1.94	1.29	
8,537.0	91.70	180.40	6,120.2	-2,641.4	3.2	2,641.3	3.22	-1.56	2.81	
8,569.0	92.10	180.40	6,119.1	-2,673.4	3.0	2,673.3	1.25	1.25	0.00	
8,600.0	91.30	180.90	6,118.2	-2,704.4	2.7	2,704.3	3.04	-2.58	1.61	
8,632.0	90.40	180.90	6,117.7	-2,736.4	2.2	2,736.3	2.81	-2.81	0.00	
8,663.0	90.60	181.30	6,117.5	-2,767.3	1.6	2,767.3	1.44	0.65	1.29	
8,695.0	90.60	180.60	6,117.1	-2,799.3	1.0	2,799.3	2.19	0.00	-2.19	
8,726.0	89.90	181.30	6,117.0	-2,830.3	0.5	2,830.3	3.19	-2.26	2.26	
8,758.0	89.30	182.00	6,117.2	-2,862.3	-0.4	2,862.3	2.88	-1.88	2.19	
8,790.0	89.30	182.70	6,117.6	-2,894.3	-1.7	2,894.2	2.19	0.00	2.19	
8,821.0	89.30	182.10	6,118.0	-2,925.3	-3.0	2,925.2	1.94	0.00	-1.94	
8,853.0	89.30	181.40	6,118.4	-2,957.2	-4.0	2,957.2	2.19	0.00	-2.19	
8,885.0	89.30	181.10	6,118.8	-2,989.2	-4.7	2,989.2	0.94	0.00	-0.94	
8,917.0	89.30	181.10	6,119.2	-3,021.2	-5.3	3,021.2	0.00	0.00	0.00	
8,948.0	89.70	180.70	6,119.4	-3,052.2	-5.8	3,052.2	1.82	1.29	-1.29	
8,980.0	89.50	180.60	6,119.7	-3,084.2	-6.1	3,084.2	0.70	-0.63	-0.31	
9,011.0	89.30	179.50	6,120.0	-3,115.2	-6.2	3,115.2	3.61	-0.65	-3.55	
9,043.0	89.20	179.30	6,120.4	-3,147.2	-5.8	3,147.2	0.70	-0.31	-0.63	

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well WILDHORSE 02-0214H
Project:	SEC.2-T9N-R59W	TVD Reference:	RKB @ 5019.5ft (KB Cade 21 16.5')
Site:	Wildhorse 02-0214H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5019.5ft (KB Cade 21 16.5')
Well:	WILDHORSE 02-0214H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,075.0	89.20	178.40	6,120.9	-3,179.2	-5.2	3,179.2	2.81	0.00	-2.81
9,107.0	88.50	179.10	6,121.5	-3,211.2	-4.5	3,211.1	3.09	-2.19	2.19
9,138.0	88.30	179.10	6,122.4	-3,242.2	-4.0	3,242.1	0.65	-0.65	0.00
9,170.0	88.80	179.90	6,123.2	-3,274.2	-3.7	3,274.1	2.95	1.56	2.50
9,201.0	90.00	180.70	6,123.5	-3,305.2	-3.9	3,305.1	4.65	3.87	2.58
9,233.0	89.80	181.10	6,123.6	-3,337.1	-4.4	3,337.1	1.40	-0.63	1.25
9,265.0	89.30	181.10	6,123.8	-3,369.1	-5.0	3,369.1	1.56	-1.56	0.00
9,296.0	89.10	179.90	6,124.2	-3,400.1	-5.3	3,400.1	3.92	-0.65	-3.87
9,328.0	88.70	179.00	6,124.8	-3,432.1	-5.0	3,432.1	3.08	-1.25	-2.81
9,359.0	89.20	179.00	6,125.4	-3,463.1	-4.4	3,463.1	1.61	1.61	0.00
9,391.0	89.50	179.00	6,125.8	-3,495.1	-3.9	3,495.1	0.94	0.94	0.00
9,423.0	90.70	179.10	6,125.7	-3,527.1	-3.3	3,527.1	3.76	3.75	0.31
9,454.0	91.70	180.90	6,125.1	-3,558.1	-3.3	3,558.0	6.64	3.23	5.81
9,486.0	92.10	180.00	6,124.0	-3,590.1	-3.6	3,590.0	3.08	1.25	-2.81
9,518.0	91.20	179.70	6,123.1	-3,622.1	-3.5	3,622.0	2.96	-2.81	-0.94
9,549.0	90.50	180.20	6,122.6	-3,653.1	-3.5	3,653.0	2.77	-2.26	1.61
9,581.0	89.80	180.40	6,122.5	-3,685.1	-3.6	3,685.0	2.28	-2.19	0.63
9,613.0	89.80	180.40	6,122.7	-3,717.1	-3.9	3,717.0	0.00	0.00	0.00
9,644.0	89.60	179.50	6,122.8	-3,748.1	-3.8	3,748.0	2.97	-0.65	-2.90
9,676.0	89.70	179.10	6,123.0	-3,780.1	-3.5	3,780.0	1.29	0.31	-1.25
9,708.0	89.90	179.90	6,123.1	-3,812.1	-3.2	3,812.0	2.58	0.63	2.50
9,739.0	89.60	180.20	6,123.3	-3,843.1	-3.2	3,843.0	1.37	-0.97	0.97
9,771.0	89.60	180.20	6,123.5	-3,875.1	-3.3	3,875.0	0.00	0.00	0.00
9,803.0	90.60	180.40	6,123.4	-3,907.1	-3.5	3,907.0	3.19	3.13	0.63
9,834.0	91.10	181.10	6,123.0	-3,938.0	-3.9	3,938.0	2.77	1.61	2.26
9,865.0	90.60	180.40	6,122.5	-3,969.0	-4.3	3,969.0	2.77	-1.61	-2.26
9,897.0	89.30	181.40	6,122.5	-4,001.0	-4.8	4,001.0	5.13	-4.06	3.13
9,929.0	89.80	181.30	6,122.8	-4,033.0	-5.5	4,033.0	1.59	1.56	-0.31
9,960.0	89.90	181.80	6,122.9	-4,064.0	-6.4	4,064.0	1.64	0.32	1.61
9,992.0	90.20	181.40	6,122.8	-4,096.0	-7.3	4,096.0	1.56	0.94	-1.25
10,024.0	90.80	181.10	6,122.6	-4,128.0	-8.0	4,128.0	2.10	1.88	-0.94
10,055.0	91.50	180.90	6,121.9	-4,159.0	-8.5	4,158.9	2.35	2.26	-0.65
10,087.0	91.70	180.90	6,121.1	-4,191.0	-9.0	4,190.9	0.63	0.63	0.00
10,108.0	91.60	180.90	6,120.4	-4,212.0	-9.4	4,211.9	0.48	-0.48	0.00
10,158.0	91.50	180.90	6,119.1	-4,261.9	-10.1	4,261.9	0.20	-0.20	0.00
BHL 660'FSL &660'FWL - DRILL TARGET 660'FSL & 700'FWL									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,386.0	6,129.8	7"	7	7-1/2

Checked By: _____ Approved By: _____ Date: _____