

Whiting Oil & Gas

Well Name: Wildhorse #02-0224H

Surface Location: Wildhorse #02-0224H Pad Sec.2-T9N-R59W
North American Datum 1983 , US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4992.6

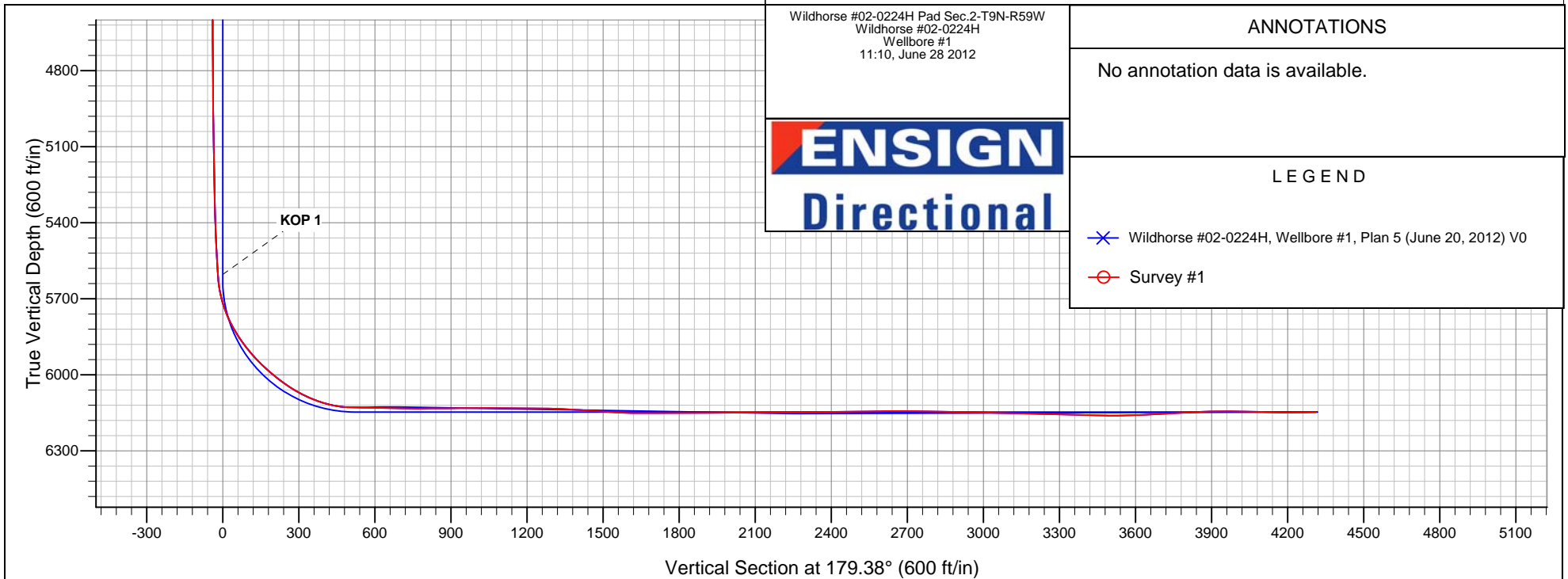
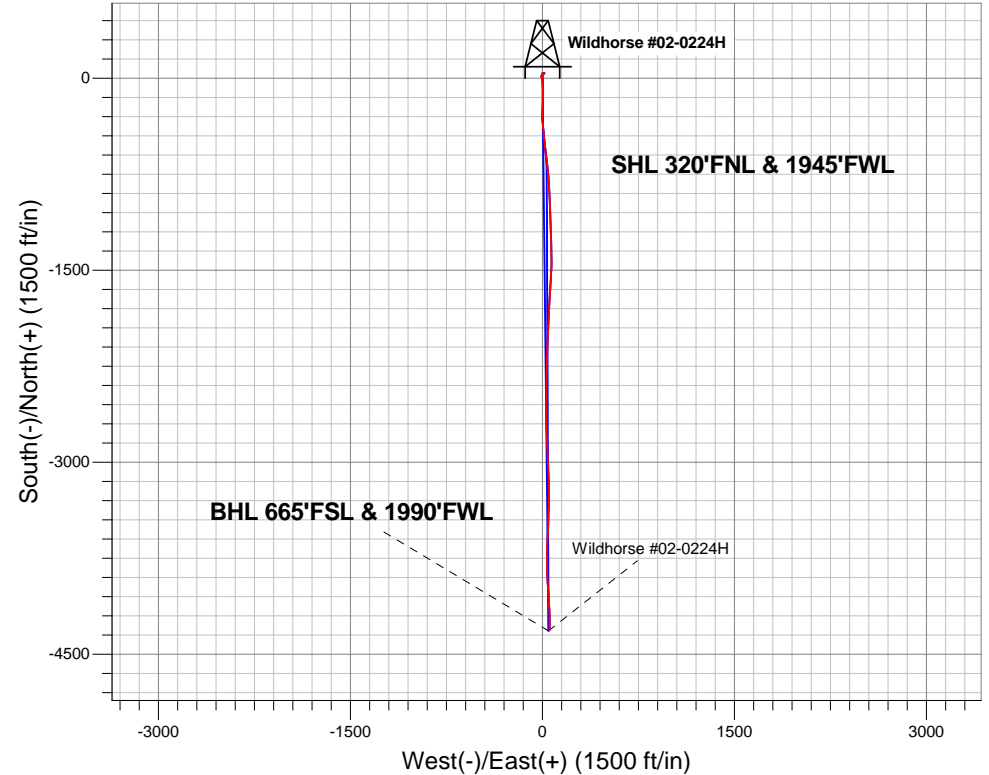
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1533083.79	3429774.67	40.786375	-103.947956	

KB CADE 21 16.5 RKB @ 5009.1ft (KB CADE 21 16.5)

FINAL SURVEY

Projected Bottom Hole Location
10224'MD 6149'TVD 4312'S & 57'E of SHL

91.00 degree Incl @ 179.40 degree AZM





Whiting Oil & Gas

SEC.2-T9N-R59W

Wildhorse #02-0224H Pad Sec.2-T9N-R59W

Wildhorse #02-0224H

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 June, 2012

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Wildhorse #02-0224H
Project:	SEC.2-T9N-R59W	TVD Reference:	RKB @ 5009.1ft (KB CADE 21 16.5)
Site:	Wildhorse #02-0224H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5009.1ft (KB CADE 21 16.5)
Well:	Wildhorse #02-0224H	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 #02-0224H Pad Sec.2-T9N-R59W			
Site Position:		Northing:	1,533,083.81 ft	Latitude:	40.786375
From:	Lat/Long	Easting:	3,429,774.67 ft	Longitude:	-103.947956
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	1.00 °

Well	Wildhorse #02-0224H					
Well Position	+N/-S	0.0 ft	Northing:	1,533,083.79 ft	Latitude:	40.786375
	+E/-W	0.0 ft	Easting:	3,429,774.67 ft	Longitude:	-103.947956
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,992.6 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/10/2011	8.39	67.48	53,374

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	179.38	

Survey Program		Date	6/27/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
1,541.0	10,224.0	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	0.00	0.00	2.5	0.0	0.0	0.0	0.00	0.00	0.00
	SHL HARDLINE 660'FNL - BHL HARDLINE 660'FSL									
	1,541.0	0.00	0.00	1,541.0	0.0	0.0	0.0	0.00	0.00	0.00
	1,602.0	0.40	250.80	1,602.0	-0.1	-0.2	0.1	0.66	0.66	0.00
	1,696.0	0.60	286.10	1,696.0	0.0	-1.0	0.0	0.38	0.21	37.55
	1,791.0	0.40	295.60	1,791.0	0.2	-1.8	-0.3	0.23	-0.21	10.00
	1,887.0	0.40	281.90	1,887.0	0.5	-2.4	-0.5	0.10	0.00	-14.27
	2,013.0	0.70	297.70	2,013.0	0.9	-3.5	-0.9	0.26	0.24	12.54
	2,108.0	0.40	326.90	2,108.0	1.4	-4.2	-1.5	0.42	-0.32	30.74
	2,202.0	0.60	349.30	2,202.0	2.2	-4.5	-2.3	0.29	0.21	23.83
	2,296.0	0.70	349.90	2,296.0	3.3	-4.7	-3.3	0.11	0.11	0.64
	2,392.0	0.70	330.80	2,392.0	4.3	-5.0	-4.4	0.24	0.00	-19.90

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Wildhorse #02-0224H
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Site:	Wildhorse #02-0224H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5009.1ft (KB CADE 21 16.5)
Well:	Wildhorse #02-0224H	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)	
2,487.0	1.10	348.00	2,487.0	5.7	-5.5	-5.8	0.50	0.42	18.11	
2,582.0	1.10	344.10	2,581.9	7.5	-6.0	-7.6	0.08	0.00	-4.11	
2,677.0	1.30	342.00	2,676.9	9.4	-6.5	-9.5	0.22	0.21	-2.21	
2,772.0	1.50	350.10	2,771.9	11.7	-7.1	-11.7	0.30	0.21	8.53	
2,867.0	1.80	350.10	2,866.8	14.4	-7.6	-14.4	0.32	0.32	0.00	
2,962.0	1.00	5.40	2,961.8	16.7	-7.7	-16.7	0.92	-0.84	16.11	
3,057.0	0.70	355.90	3,056.8	18.1	-7.7	-18.1	0.35	-0.32	-10.00	
3,152.0	0.60	27.60	3,151.8	19.1	-7.5	-19.2	0.39	-0.11	33.37	
3,247.0	0.80	66.40	3,246.8	19.8	-6.7	-19.9	0.53	0.21	40.84	
3,342.0	0.60	56.40	3,341.8	20.3	-5.7	-20.4	0.25	-0.21	-10.53	
3,436.0	0.50	21.60	3,435.8	21.0	-5.1	-21.0	0.36	-0.11	-37.02	
3,531.0	0.90	358.20	3,530.8	22.1	-5.0	-22.2	0.51	0.42	-24.63	
3,626.0	1.10	358.40	3,625.8	23.8	-5.0	-23.8	0.21	0.21	0.21	
3,721.0	1.40	357.10	3,720.7	25.8	-5.1	-25.9	0.32	0.32	-1.37	
3,816.0	1.80	357.00	3,815.7	28.5	-5.2	-28.5	0.42	0.42	-0.11	
3,911.0	2.20	17.40	3,910.6	31.7	-4.8	-31.8	0.85	0.42	21.47	
4,006.0	2.00	22.80	4,005.6	35.0	-3.6	-35.0	0.30	-0.21	5.68	
4,101.0	1.50	76.20	4,100.5	36.8	-1.7	-36.8	1.72	-0.53	56.21	
4,196.0	1.80	94.90	4,195.5	37.0	1.0	-37.0	0.64	0.32	19.68	
4,291.0	1.80	89.80	4,290.5	36.9	3.9	-36.8	0.17	0.00	-5.37	
4,386.0	1.80	78.70	4,385.4	37.2	6.9	-37.1	0.37	0.00	-11.68	
4,481.0	2.10	59.70	4,480.4	38.3	9.9	-38.2	0.75	0.32	-20.00	
4,576.0	1.70	74.10	4,575.3	39.6	12.7	-39.4	0.65	-0.42	15.16	
4,671.0	0.90	102.30	4,670.3	39.8	14.8	-39.7	1.05	-0.84	29.68	
4,766.0	0.40	175.00	4,765.3	39.3	15.6	-39.2	0.92	-0.53	76.53	
4,860.0	0.50	226.40	4,859.3	38.7	15.3	-38.5	0.43	0.11	54.68	
4,955.0	2.00	239.90	4,954.2	37.6	13.6	-37.5	1.60	1.58	14.21	
5,050.0	2.60	246.20	5,049.2	35.9	10.2	-35.8	0.68	0.63	6.63	
5,145.0	2.10	257.80	5,144.1	34.7	6.5	-34.6	0.72	-0.53	12.21	
5,240.0	1.70	243.40	5,239.0	33.7	3.5	-33.6	0.65	-0.42	-15.16	
5,335.0	2.20	203.70	5,334.0	31.4	1.5	-31.3	1.48	0.53	-41.79	
5,430.0	2.40	194.00	5,428.9	27.8	0.3	-27.8	0.46	0.21	-10.21	
5,524.0	2.60	181.20	5,522.8	23.7	-0.2	-23.7	0.63	0.21	-13.62	
5,547.0	2.60	180.10	5,545.8	22.7	-0.2	-22.7	0.22	0.00	-4.78	
5,579.0	2.90	176.40	5,577.8	21.1	-0.2	-21.1	1.09	0.94	-11.56	
5,610.0	4.70	190.70	5,608.7	19.1	-0.4	-19.1	6.52	5.81	46.13	
5,643.0	7.10	184.00	5,641.5	15.8	-0.7	-15.8	7.55	7.27	-20.30	
5,675.0	11.10	176.80	5,673.1	10.7	-0.7	-10.7	12.97	12.50	-22.50	
5,706.0	14.80	178.40	5,703.3	3.8	-0.4	-3.8	11.99	11.94	5.16	
5,738.0	19.10	176.10	5,733.9	-5.6	0.0	5.6	13.60	13.44	-7.19	
5,770.0	22.50	177.10	5,763.8	-16.9	0.7	16.9	10.68	10.63	3.13	
5,801.0	25.90	177.10	5,792.1	-29.6	1.3	29.6	10.97	10.97	0.00	
5,833.0	29.90	176.10	5,820.4	-44.5	2.2	44.5	12.58	12.50	-3.13	
5,865.0	33.20	177.70	5,847.6	-61.2	3.1	61.3	10.64	10.31	5.00	
5,897.0	35.30	178.50	5,874.1	-79.2	3.7	79.3	6.71	6.56	2.50	
5,928.0	39.10	178.00	5,898.8	-98.0	4.3	98.0	12.30	12.26	-1.61	
5,960.0	41.50	179.20	5,923.2	-118.7	4.8	118.7	7.88	7.50	3.75	
5,991.0	44.40	181.20	5,945.9	-139.8	4.7	139.8	10.34	9.35	6.45	
6,023.0	47.00	181.50	5,968.2	-162.7	4.2	162.7	8.15	8.13	0.94	
6,055.0	48.90	181.90	5,989.6	-186.4	3.5	186.4	6.01	5.94	1.25	
6,086.0	51.30	182.10	6,009.5	-210.2	2.6	210.2	7.76	7.74	0.65	
6,118.0	54.20	182.10	6,028.9	-235.6	1.7	235.6	9.06	9.06	0.00	
6,149.0	56.00	182.60	6,046.6	-261.0	0.7	261.0	5.96	5.81	1.61	
6,181.0	59.90	180.50	6,063.6	-288.1	-0.1	288.1	13.40	12.19	-6.56	

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Well:	Wildhorse #02-0224H	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)	
6,213.0	63.50	178.90	6,078.8	-316.3	0.1	316.3	12.08	11.25	-5.00	
6,244.0	66.90	177.10	6,091.8	-344.4	1.1	344.4	12.17	10.97	-5.81	
6,276.0	70.10	175.40	6,103.5	-374.1	3.0	374.2	11.15	10.00	-5.31	
6,308.0	74.20	174.70	6,113.3	-404.5	5.7	404.5	12.98	12.81	-2.19	
6,339.0	78.20	174.30	6,120.7	-434.4	8.6	434.5	12.96	12.90	-1.29	
6,371.0	82.90	173.80	6,126.0	-465.8	11.8	465.9	14.77	14.69	-1.56	
6,390.0	86.10	173.40	6,127.8	-484.6	13.9	484.7	16.97	16.84	-2.11	
6,440.0	91.30	173.40	6,128.9	-534.3	19.7	534.4	10.40	10.40	0.00	
6,455.0	89.30	172.00	6,128.8	-549.1	21.6	549.3	16.28	-13.33	-9.33	
6,486.0	88.50	173.60	6,129.4	-579.9	25.5	580.1	5.77	-2.58	5.16	
6,517.0	88.20	173.80	6,130.3	-610.7	28.9	611.0	1.16	-0.97	0.65	
6,549.0	87.90	173.80	6,131.4	-642.5	32.3	642.8	0.94	-0.94	0.00	
6,580.0	88.60	173.80	6,132.4	-673.3	35.7	673.6	2.26	2.26	0.00	
6,611.0	89.10	173.80	6,133.0	-704.1	39.0	704.5	1.61	1.61	0.00	
6,642.0	89.20	173.30	6,133.4	-734.9	42.5	735.3	1.64	0.32	-1.61	
6,673.0	89.80	174.70	6,133.7	-765.7	45.7	766.2	4.91	1.94	4.52	
6,704.0	91.40	176.30	6,133.4	-796.6	48.2	797.1	7.30	5.16	5.16	
6,735.0	91.20	176.30	6,132.7	-827.5	50.2	828.0	0.65	-0.65	0.00	
6,766.0	89.70	176.60	6,132.4	-858.5	52.1	859.0	4.93	-4.84	0.97	
6,797.0	90.30	177.10	6,132.4	-889.4	53.8	890.0	2.52	1.94	1.61	
6,828.0	90.70	178.00	6,132.2	-920.4	55.1	921.0	3.18	1.29	2.90	
6,859.0	90.60	178.50	6,131.8	-951.4	56.1	951.9	1.64	-0.32	1.61	
6,890.0	90.10	177.30	6,131.6	-982.4	57.2	982.9	4.19	-1.61	-3.87	
6,922.0	90.00	177.00	6,131.6	-1,014.3	58.8	1,014.9	0.99	-0.31	-0.94	
6,953.0	90.50	177.30	6,131.5	-1,045.3	60.3	1,045.9	1.88	1.61	0.97	
6,985.0	89.60	177.30	6,131.4	-1,077.3	61.8	1,077.9	2.81	-2.81	0.00	
7,016.0	89.10	178.40	6,131.8	-1,108.2	63.0	1,108.9	3.90	-1.61	3.55	
7,048.0	89.40	178.50	6,132.2	-1,140.2	63.9	1,140.8	0.99	0.94	0.31	
7,080.0	89.60	178.70	6,132.5	-1,172.2	64.6	1,172.8	0.88	0.63	0.63	
7,111.0	89.30	178.50	6,132.8	-1,203.2	65.4	1,203.8	1.16	-0.97	-0.65	
7,143.0	89.50	179.40	6,133.1	-1,235.2	66.0	1,235.8	2.88	0.63	2.81	
7,174.0	90.00	178.50	6,133.3	-1,266.2	66.6	1,266.8	3.32	1.61	-2.90	
7,206.0	88.60	178.00	6,133.7	-1,298.2	67.5	1,298.8	4.65	-4.38	-1.56	
7,238.0	87.10	178.00	6,134.9	-1,330.1	68.7	1,330.8	4.69	-4.69	0.00	
7,269.0	87.20	178.20	6,136.4	-1,361.1	69.7	1,361.7	0.72	0.32	0.65	
7,301.0	85.80	179.20	6,138.3	-1,393.0	70.4	1,393.7	5.37	-4.38	3.13	
7,332.0	86.10	180.10	6,140.5	-1,423.9	70.6	1,424.6	3.05	0.97	2.90	
7,364.0	86.10	181.40	6,142.7	-1,455.8	70.2	1,456.5	4.05	0.00	4.06	
7,396.0	86.20	181.90	6,144.9	-1,487.8	69.3	1,488.4	1.59	0.31	1.56	
7,427.0	86.80	182.60	6,146.8	-1,518.7	68.0	1,519.3	2.97	1.94	2.26	
7,459.0	87.30	182.90	6,148.4	-1,550.6	66.5	1,551.2	1.82	1.56	0.94	
7,490.0	87.20	183.60	6,149.9	-1,581.5	64.8	1,582.1	2.28	-0.32	2.26	
7,522.0	88.80	183.80	6,151.0	-1,613.4	62.7	1,614.0	5.04	5.00	0.63	
7,554.0	89.70	183.80	6,151.4	-1,645.3	60.6	1,645.9	2.81	2.81	0.00	
7,585.0	90.60	183.60	6,151.3	-1,676.3	58.6	1,676.8	2.97	2.90	-0.65	
7,617.0	90.30	182.60	6,151.1	-1,708.2	56.8	1,708.8	3.26	-0.94	-3.13	
7,648.0	90.20	183.30	6,151.0	-1,739.2	55.2	1,739.7	2.28	-0.32	2.26	
7,680.0	90.30	182.80	6,150.8	-1,771.1	53.5	1,771.6	1.59	0.31	-1.56	
7,711.0	90.00	182.20	6,150.7	-1,802.1	52.2	1,802.6	2.16	-0.97	-1.94	
7,743.0	90.00	183.30	6,150.7	-1,834.1	50.7	1,834.5	3.44	0.00	3.44	
7,774.0	90.00	182.60	6,150.7	-1,865.0	49.1	1,865.5	2.26	0.00	-2.26	
7,806.0	90.00	182.80	6,150.7	-1,897.0	47.5	1,897.4	0.63	0.00	0.63	
7,838.0	90.00	182.60	6,150.7	-1,929.0	46.0	1,929.4	0.63	0.00	-0.63	
7,869.0	90.50	183.30	6,150.6	-1,959.9	44.4	1,960.3	2.77	1.61	2.26	

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Well:	Wildhorse #02-0224H	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)
7,901.0	91.20	184.00	6,150.1	-1,991.9	42.4	1,992.2	3.09	2.19	2.19
7,933.0	90.80	184.00	6,149.6	-2,023.8	40.2	2,024.1	1.25	-1.25	0.00
7,964.0	90.00	182.60	6,149.4	-2,054.7	38.4	2,055.0	5.20	-2.58	-4.52
7,996.0	89.90	182.60	6,149.4	-2,086.7	36.9	2,087.0	0.31	-0.31	0.00
8,028.0	89.90	183.30	6,149.4	-2,118.6	35.3	2,118.9	2.19	0.00	2.19
8,059.0	90.50	181.50	6,149.3	-2,149.6	34.0	2,149.9	6.12	1.94	-5.81
8,091.0	90.60	181.20	6,149.0	-2,181.6	33.2	2,181.8	0.99	0.31	-0.94
8,123.0	92.30	181.00	6,148.2	-2,213.6	32.6	2,213.8	5.35	5.31	-0.63
8,133.9	91.84	180.68	6,147.8	-2,224.5	32.5	2,224.7	5.10	-4.19	-2.90
WP 1									
8,154.0	91.00	180.10	6,147.3	-2,244.6	32.3	2,244.8	5.10	-4.19	-2.90
8,186.0	89.90	179.80	6,147.1	-2,276.6	32.4	2,276.8	3.56	-3.44	-0.94
8,217.0	89.80	180.70	6,147.1	-2,307.6	32.2	2,307.8	2.92	-0.32	2.90
8,249.0	90.00	180.70	6,147.2	-2,339.6	31.8	2,339.8	0.63	0.63	0.00
8,281.0	90.30	180.50	6,147.1	-2,371.6	31.5	2,371.8	1.13	0.94	-0.63
8,312.0	90.40	180.10	6,146.9	-2,402.6	31.3	2,402.8	1.33	0.32	-1.29
8,344.0	90.60	181.00	6,146.7	-2,434.6	31.0	2,434.8	2.88	0.63	2.81
8,376.0	90.70	181.20	6,146.3	-2,466.6	30.4	2,466.7	0.70	0.31	0.63
8,407.0	90.90	180.70	6,145.9	-2,497.5	29.9	2,497.7	1.74	0.65	-1.61
8,439.0	91.10	180.50	6,145.3	-2,529.5	29.6	2,529.7	0.88	0.63	-0.63
8,471.0	91.80	179.10	6,144.5	-2,561.5	29.7	2,561.7	4.89	2.19	-4.38
8,502.0	90.70	178.50	6,143.8	-2,592.5	30.3	2,592.7	4.04	-3.55	-1.94
8,534.0	90.70	179.10	6,143.4	-2,624.5	31.0	2,624.7	1.87	0.00	1.88
8,565.0	88.90	178.90	6,143.5	-2,655.5	31.5	2,655.7	5.84	-5.81	-0.65
8,597.0	89.00	178.50	6,144.1	-2,687.5	32.3	2,687.7	1.29	0.31	-1.25
8,629.0	89.40	179.10	6,144.6	-2,719.5	32.9	2,719.7	2.25	1.25	1.88
8,661.0	89.60	179.20	6,144.8	-2,751.5	33.4	2,751.7	0.70	0.63	0.31
8,692.0	90.20	178.40	6,144.9	-2,782.5	34.1	2,782.7	3.23	1.94	-2.58
8,724.0	88.90	177.70	6,145.1	-2,814.4	35.1	2,814.7	4.61	-4.06	-2.19
8,755.0	89.30	177.70	6,145.6	-2,845.4	36.4	2,845.6	1.29	1.29	0.00
8,787.0	89.40	177.10	6,146.0	-2,877.4	37.8	2,877.6	1.90	0.31	-1.88
8,819.0	89.20	177.70	6,146.4	-2,909.3	39.3	2,909.6	1.98	-0.63	1.88
8,850.0	89.00	177.70	6,146.9	-2,940.3	40.5	2,940.6	0.65	-0.65	0.00
8,882.0	88.20	176.80	6,147.7	-2,972.3	42.1	2,972.6	3.76	-2.50	-2.81
8,914.0	87.90	178.20	6,148.7	-3,004.2	43.5	3,004.5	4.47	-0.94	4.38
8,945.0	87.90	178.40	6,149.9	-3,035.2	44.4	3,035.5	0.64	0.00	0.65
8,977.0	88.00	178.70	6,151.0	-3,067.2	45.2	3,067.5	0.99	0.31	0.94
9,009.0	89.30	178.00	6,151.8	-3,099.1	46.1	3,099.4	4.61	4.06	-2.19
9,040.0	88.90	178.70	6,152.3	-3,130.1	47.0	3,130.4	2.60	-1.29	2.26
9,072.0	88.60	179.20	6,153.0	-3,162.1	47.6	3,162.4	1.82	-0.94	1.56
9,104.0	88.50	179.20	6,153.8	-3,194.1	48.0	3,194.4	0.31	-0.31	0.00
9,135.0	88.00	178.40	6,154.7	-3,225.1	48.7	3,225.4	3.04	-1.61	-2.58
9,167.0	89.00	180.10	6,155.6	-3,257.1	49.1	3,257.4	6.16	3.13	5.31
9,199.0	89.00	179.20	6,156.1	-3,289.0	49.3	3,289.4	2.81	0.00	-2.81
9,230.0	89.30	181.00	6,156.6	-3,320.0	49.2	3,320.4	5.89	0.97	5.81
9,262.0	88.80	180.80	6,157.1	-3,352.0	48.7	3,352.4	1.68	-1.56	-0.63
9,294.0	87.80	180.70	6,158.1	-3,384.0	48.3	3,384.3	3.14	-3.13	-0.31
9,325.0	88.30	181.50	6,159.1	-3,415.0	47.7	3,415.3	3.04	1.61	2.58
9,357.0	88.10	182.10	6,160.1	-3,447.0	46.7	3,447.3	1.98	-0.63	1.88
9,389.0	88.50	182.10	6,161.1	-3,478.9	45.6	3,479.2	1.25	1.25	0.00
9,420.0	89.90	183.30	6,161.5	-3,509.9	44.1	3,510.2	5.95	4.52	3.87
9,452.0	91.40	183.50	6,161.1	-3,541.8	42.2	3,542.1	4.73	4.69	0.63
9,484.0	92.20	183.60	6,160.1	-3,573.7	40.2	3,574.0	2.52	2.50	0.31
9,516.0	91.90	183.50	6,159.0	-3,605.7	38.2	3,605.9	0.99	-0.94	-0.31

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Wildhorse #02-0224H
Project:	SEC.2-T9N-R59W	TVD Reference:	RKB @ 5009.1ft (KB CADE 21 16.5)
Site:	Wildhorse #02-0224H Pad Sec.2-T9N-R59W	MD Reference:	RKB @ 5009.1ft (KB CADE 21 16.5)
Well:	Wildhorse #02-0224H	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)
9,547.0	92.20	182.10	6,157.9	-3,636.6	36.7	3,636.8	4.62	0.97	-4.52
9,579.0	92.80	181.00	6,156.5	-3,668.6	35.9	3,668.7	3.91	1.88	-3.44
9,611.0	92.90	180.50	6,154.9	-3,700.5	35.4	3,700.7	1.59	0.31	-1.56
9,642.0	93.50	179.80	6,153.2	-3,731.5	35.4	3,731.6	2.97	1.94	-2.26
9,674.0	93.00	180.30	6,151.3	-3,763.4	35.3	3,763.6	2.21	-1.56	1.56
9,706.0	93.10	179.20	6,149.6	-3,795.4	35.5	3,795.5	3.45	0.31	-3.44
9,737.0	93.20	179.80	6,147.9	-3,826.3	35.7	3,826.5	1.96	0.32	1.94
9,769.0	92.00	177.70	6,146.5	-3,858.3	36.4	3,858.5	7.55	-3.75	-6.56
9,800.0	91.30	177.30	6,145.6	-3,889.2	37.8	3,889.4	2.60	-2.26	-1.29
9,832.0	91.40	177.50	6,144.8	-3,921.2	39.2	3,921.4	0.70	0.31	0.63
9,864.0	91.30	177.30	6,144.1	-3,953.2	40.7	3,953.4	0.70	-0.31	-0.63
9,895.0	89.00	175.20	6,144.0	-3,984.1	42.7	3,984.3	10.05	-7.42	-6.77
9,927.0	88.50	175.90	6,144.7	-4,016.0	45.2	4,016.2	2.69	-1.56	2.19
9,959.0	88.40	175.90	6,145.6	-4,047.9	47.5	4,048.2	0.31	-0.31	0.00
9,990.0	88.50	177.00	6,146.4	-4,078.8	49.4	4,079.1	3.56	0.32	3.55
10,022.0	88.10	177.30	6,147.4	-4,110.8	51.0	4,111.1	1.56	-1.25	0.94
10,053.0	88.60	176.60	6,148.3	-4,141.7	52.6	4,142.0	2.77	1.61	-2.26
10,085.0	89.70	177.70	6,148.7	-4,173.7	54.2	4,174.0	4.86	3.44	3.44
10,117.0	90.20	179.40	6,148.8	-4,205.7	55.0	4,206.0	5.54	1.56	5.31
10,148.0	90.70	179.80	6,148.5	-4,236.7	55.3	4,237.0	2.07	1.61	1.29
10,174.0	91.00	179.40	6,148.1	-4,262.6	55.4	4,263.0	1.92	1.15	-1.54
10,224.0	91.00	179.40	6,147.3	-4,312.6	56.0	4,313.0	0.00	0.00	0.00
BHL 660'FSL & 1981'FWL									

Checked By: _____ Approved By: _____ Date: _____