

Whiting Oil & Gas

Well Name: **Wildhorse #02-0214AH**

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

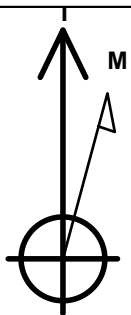
Ground Elevation: 5003.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1532974.64	3428615.82	40.786131	-103.952147	

Original Well Elev WELL @ 5019.5ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINES BHL 660'FSL	1.0	-4237.6	950.9	Polygon
HARDLINES SHL 660'FNL	1.0	-269.0	-100.0	Polygon
SHL 391'FNL, 781'FWL	1.0	0.0	0.0	Point
BHL 660'FSL, 1320'FWL	6056.0	-4237.6	550.9	Point



Azimuths to True North
Magnetic North: 8.31°

Magnetic Field
Strength: 53305.9nT
Dip Angle: 67.46°
Date: 6/27/2012
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
6056.0	6406.3	End of Build

Wildhorse #02-0214AH Pad Sec.2-T9N-R59W
Wildhorse #02-0214AH
Plan #2 (6-28-12)
8:26, June 28 2012

South(-)/North(+) (1400 ft/in)

SHL 391'FNL, 781'FWL Wildhorse #02-0214AH

HARDLINES SHL 660'FNL

7"

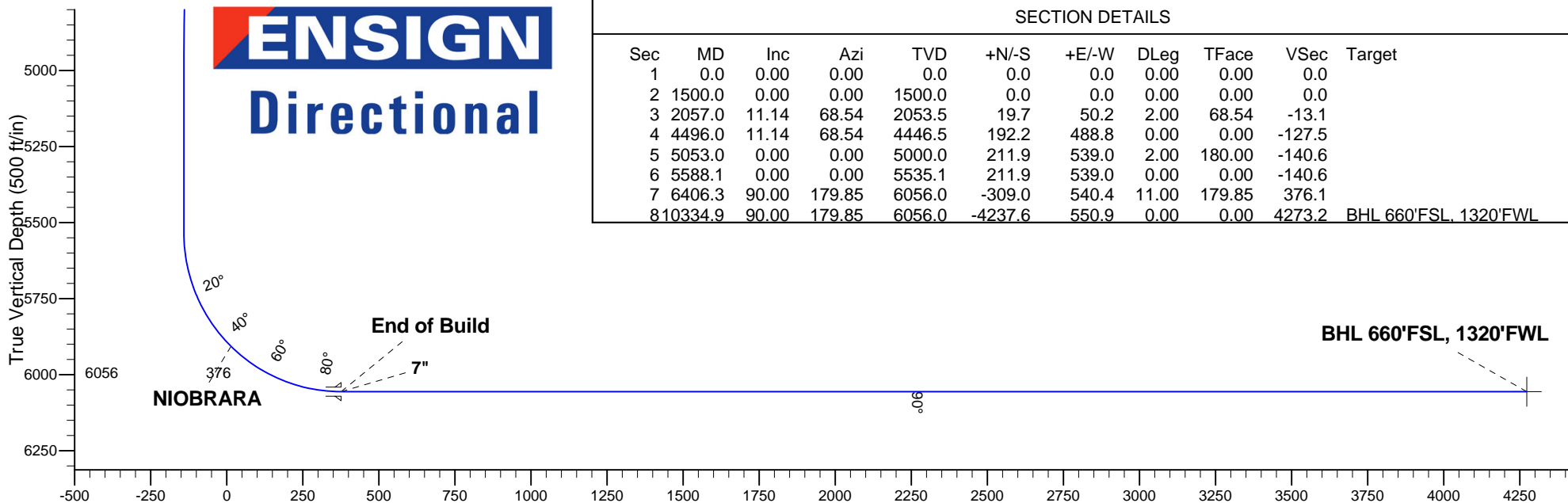
BHL 660'FSL, 1320'FWL

Wildhorse #02-0214AH

HARDLINES BHL 660'FSL

West(-)/East(+) (1400 ft/in)

ENSIGN
Directional



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2057.0	11.14	68.54	2053.5	19.7	50.2	2.00	68.54	-13.1	
4	4496.0	11.14	68.54	4446.5	192.2	488.8	0.00	0.00	-127.5	
5	5053.0	0.00	0.00	5000.0	211.9	539.0	2.00	180.00	-140.6	
6	5588.1	0.00	0.00	5535.1	211.9	539.0	0.00	0.00	-140.6	
7	6406.3	90.00	179.85	6056.0	-309.0	540.4	11.00	179.85	376.1	
8	10334.9	90.00	179.85	6056.0	-4237.6	550.9	0.00	0.00	4273.2	BHL 660'FSL, 1320'FWL

BHL 660'FSL, 1320'FWL

Vertical Section at 172.59° (500 ft/in)



Directional

Whiting Oil & Gas

SEC.2-T9N-R59W

Wildhorse #02-0214AH Pad Sec.2-T9N-R59W

Wildhorse #02-0214AH

Wellbore #1

Plan: Plan #2 (6-28-12)

Standard Planning Report

28 June, 2012

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,057.0	11.14	68.54	2,053.5	19.7	50.2	2.00	2.00	0.00	68.54	
4,496.0	11.14	68.54	4,446.5	192.2	488.8	0.00	0.00	0.00	0.00	
5,053.0	0.00	0.00	5,000.0	211.9	539.0	2.00	-2.00	0.00	180.00	
5,588.1	0.00	0.00	5,535.1	211.9	539.0	0.00	0.00	0.00	0.00	
6,406.3	90.00	179.85	6,056.0	-309.0	540.4	11.00	11.00	0.00	179.85	
10,334.9	90.00	179.85	6,056.0	-4,237.6	550.9	0.00	0.00	0.00	0.00	BHL 660'FSL, 1320

Database:	Landmark	Local Co-ordinate Reference:	Well Wildhorse #02-0214AH
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 5019.5ft (Original Well Elev)
Project:	SEC.2-T9N-R59W	MD Reference:	WELL @ 5019.5ft (Original Well Elev)
Site:	Wildhorse #02-0214AH Pad Sec.2-T9N-R59W	North Reference:	True
Well:	Wildhorse #02-0214AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.40	68.54	1,520.0	0.0	0.1	0.0	2.00	2.00	0.00
1,560.0	1.20	68.54	1,560.0	0.2	0.6	-0.2	2.00	2.00	0.00
1,600.0	2.00	68.54	1,600.0	0.6	1.6	-0.4	2.00	2.00	0.00
1,640.0	2.80	68.54	1,639.9	1.3	3.2	-0.8	2.00	2.00	0.00
1,680.0	3.60	68.54	1,679.9	2.1	5.3	-1.4	2.00	2.00	0.00
1,720.0	4.40	68.54	1,719.8	3.1	7.9	-2.1	2.00	2.00	0.00
1,760.0	5.20	68.54	1,759.6	4.3	11.0	-2.9	2.00	2.00	0.00
1,800.0	6.00	68.54	1,799.5	5.7	14.6	-3.8	2.00	2.00	0.00
1,840.0	6.80	68.54	1,839.2	7.4	18.8	-4.9	2.00	2.00	0.00
1,880.0	7.60	68.54	1,878.9	9.2	23.4	-6.1	2.00	2.00	0.00
1,920.0	8.40	68.54	1,918.5	11.2	28.6	-7.5	2.00	2.00	0.00
1,960.0	9.20	68.54	1,958.0	13.5	34.3	-8.9	2.00	2.00	0.00
2,000.0	10.00	68.54	1,997.5	15.9	40.5	-10.6	2.00	2.00	0.00
2,040.0	10.80	68.54	2,036.8	18.6	47.2	-12.3	2.00	2.00	0.00
2,057.0	11.14	68.54	2,053.5	19.7	50.2	-13.1	2.00	2.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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)
2,080.0	11.14	68.54	2,076.1	21.4	54.4	-14.2	0.00	0.00	0.00
2,120.0	11.14	68.54	2,115.3	24.2	61.6	-16.1	0.00	0.00	0.00
2,160.0	11.14	68.54	2,154.6	27.0	68.8	-17.9	0.00	0.00	0.00
2,200.0	11.14	68.54	2,193.8	29.9	75.9	-19.8	0.00	0.00	0.00
2,240.0	11.14	68.54	2,233.0	32.7	83.1	-21.7	0.00	0.00	0.00
2,280.0	11.14	68.54	2,272.3	35.5	90.3	-23.6	0.00	0.00	0.00
2,320.0	11.14	68.54	2,311.5	38.3	97.5	-25.4	0.00	0.00	0.00
2,360.0	11.14	68.54	2,350.8	41.2	104.7	-27.3	0.00	0.00	0.00
2,400.0	11.14	68.54	2,390.0	44.0	111.9	-29.2	0.00	0.00	0.00
2,440.0	11.14	68.54	2,429.3	46.8	119.1	-31.1	0.00	0.00	0.00
2,480.0	11.14	68.54	2,468.5	49.6	126.3	-33.0	0.00	0.00	0.00
2,520.0	11.14	68.54	2,507.8	52.5	133.5	-34.8	0.00	0.00	0.00
2,560.0	11.14	68.54	2,547.0	55.3	140.7	-36.7	0.00	0.00	0.00
2,600.0	11.14	68.54	2,586.3	58.1	147.9	-38.6	0.00	0.00	0.00
2,640.0	11.14	68.54	2,625.5	61.0	155.1	-40.5	0.00	0.00	0.00
2,680.0	11.14	68.54	2,664.8	63.8	162.3	-42.3	0.00	0.00	0.00
2,720.0	11.14	68.54	2,704.0	66.6	169.4	-44.2	0.00	0.00	0.00
2,760.0	11.14	68.54	2,743.3	69.4	176.6	-46.1	0.00	0.00	0.00
2,800.0	11.14	68.54	2,782.5	72.3	183.8	-48.0	0.00	0.00	0.00
2,840.0	11.14	68.54	2,821.7	75.1	191.0	-49.8	0.00	0.00	0.00
2,880.0	11.14	68.54	2,861.0	77.9	198.2	-51.7	0.00	0.00	0.00
2,920.0	11.14	68.54	2,900.2	80.8	205.4	-53.6	0.00	0.00	0.00
2,960.0	11.14	68.54	2,939.5	83.6	212.6	-55.5	0.00	0.00	0.00
3,000.0	11.14	68.54	2,978.7	86.4	219.8	-57.4	0.00	0.00	0.00
3,040.0	11.14	68.54	3,018.0	89.2	227.0	-59.2	0.00	0.00	0.00
3,080.0	11.14	68.54	3,057.2	92.1	234.2	-61.1	0.00	0.00	0.00
3,120.0	11.14	68.54	3,096.5	94.9	241.4	-63.0	0.00	0.00	0.00
3,160.0	11.14	68.54	3,135.7	97.7	248.6	-64.9	0.00	0.00	0.00
3,200.0	11.14	68.54	3,175.0	100.5	255.7	-66.7	0.00	0.00	0.00
3,240.0	11.14	68.54	3,214.2	103.4	262.9	-68.6	0.00	0.00	0.00
3,280.0	11.14	68.54	3,253.5	106.2	270.1	-70.5	0.00	0.00	0.00
3,320.0	11.14	68.54	3,292.7	109.0	277.3	-72.4	0.00	0.00	0.00
3,360.0	11.14	68.54	3,331.9	111.9	284.5	-74.2	0.00	0.00	0.00
3,400.0	11.14	68.54	3,371.2	114.7	291.7	-76.1	0.00	0.00	0.00
3,440.0	11.14	68.54	3,410.4	117.5	298.9	-78.0	0.00	0.00	0.00
3,480.0	11.14	68.54	3,449.7	120.3	306.1	-79.9	0.00	0.00	0.00
3,520.0	11.14	68.54	3,488.9	123.2	313.3	-81.7	0.00	0.00	0.00
3,560.0	11.14	68.54	3,528.2	126.0	320.5	-83.6	0.00	0.00	0.00
3,600.0	11.14	68.54	3,567.4	128.8	327.7	-85.5	0.00	0.00	0.00
3,640.0	11.14	68.54	3,606.7	131.6	334.9	-87.4	0.00	0.00	0.00
3,680.0	11.14	68.54	3,645.9	134.5	342.1	-89.3	0.00	0.00	0.00
3,720.0	11.14	68.54	3,685.2	137.3	349.2	-91.1	0.00	0.00	0.00
3,760.0	11.14	68.54	3,724.4	140.1	356.4	-93.0	0.00	0.00	0.00
3,800.0	11.14	68.54	3,763.7	143.0	363.6	-94.9	0.00	0.00	0.00
3,840.0	11.14	68.54	3,802.9	145.8	370.8	-96.8	0.00	0.00	0.00
3,880.0	11.14	68.54	3,842.2	148.6	378.0	-98.6	0.00	0.00	0.00
3,920.0	11.14	68.54	3,881.4	151.4	385.2	-100.5	0.00	0.00	0.00
3,960.0	11.14	68.54	3,920.6	154.3	392.4	-102.4	0.00	0.00	0.00
4,000.0	11.14	68.54	3,959.9	157.1	399.6	-104.3	0.00	0.00	0.00
4,040.0	11.14	68.54	3,999.1	159.9	406.8	-106.1	0.00	0.00	0.00
4,080.0	11.14	68.54	4,038.4	162.7	414.0	-108.0	0.00	0.00	0.00
4,120.0	11.14	68.54	4,077.6	165.6	421.2	-109.9	0.00	0.00	0.00
4,160.0	11.14	68.54	4,116.9	168.4	428.4	-111.8	0.00	0.00	0.00
4,200.0	11.14	68.54	4,156.1	171.2	435.6	-113.7	0.00	0.00	0.00

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Project:	SEC.2-T9N-R59W	MD Reference:	WELL @ 5019.5ft (Original Well Elev)
Site:	Wildhorse #02-0214AH Pad Sec.2-T9N-R59W	North Reference:	True
Well:	Wildhorse #02-0214AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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)
4,240.0	11.14	68.54	4,195.4	174.1	442.7	-115.5	0.00	0.00	0.00
4,280.0	11.14	68.54	4,234.6	176.9	449.9	-117.4	0.00	0.00	0.00
4,320.0	11.14	68.54	4,273.9	179.7	457.1	-119.3	0.00	0.00	0.00
4,360.0	11.14	68.54	4,313.1	182.5	464.3	-121.2	0.00	0.00	0.00
4,400.0	11.14	68.54	4,352.4	185.4	471.5	-123.0	0.00	0.00	0.00
4,440.0	11.14	68.54	4,391.6	188.2	478.7	-124.9	0.00	0.00	0.00
4,480.0	11.14	68.54	4,430.8	191.0	485.9	-126.8	0.00	0.00	0.00
4,496.0	11.14	68.54	4,446.5	192.2	488.8	-127.5	0.00	0.00	0.00
4,520.0	10.66	68.54	4,470.1	193.8	493.0	-128.6	2.00	-2.00	0.00
4,560.0	9.86	68.54	4,509.5	196.4	499.6	-130.4	2.00	-2.00	0.00
4,600.0	9.06	68.54	4,548.9	198.8	505.7	-132.0	2.00	-2.00	0.00
4,640.0	8.26	68.54	4,588.5	201.0	511.3	-133.4	2.00	-2.00	0.00
4,680.0	7.46	68.54	4,628.1	203.0	516.4	-134.8	2.00	-2.00	0.00
4,720.0	6.66	68.54	4,667.8	204.8	521.0	-136.0	2.00	-2.00	0.00
4,760.0	5.86	68.54	4,707.6	206.4	525.1	-137.0	2.00	-2.00	0.00
4,800.0	5.06	68.54	4,747.4	207.8	528.6	-137.9	2.00	-2.00	0.00
4,840.0	4.26	68.54	4,787.2	209.0	531.6	-138.7	2.00	-2.00	0.00
4,880.0	3.46	68.54	4,827.1	210.0	534.1	-139.4	2.00	-2.00	0.00
4,920.0	2.66	68.54	4,867.1	210.8	536.1	-139.9	2.00	-2.00	0.00
4,960.0	1.86	68.54	4,907.1	211.3	537.6	-140.3	2.00	-2.00	0.00
5,000.0	1.06	68.54	4,947.0	211.7	538.5	-140.5	2.00	-2.00	0.00
5,040.0	0.26	68.54	4,987.0	211.9	539.0	-140.6	2.00	-2.00	0.00
5,053.0	0.00	0.00	5,000.0	211.9	539.0	-140.6	2.00	-2.00	0.00
5,080.0	0.00	0.00	5,027.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,120.0	0.00	0.00	5,067.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,160.0	0.00	0.00	5,107.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,147.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,240.0	0.00	0.00	5,187.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,280.0	0.00	0.00	5,227.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,320.0	0.00	0.00	5,267.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,360.0	0.00	0.00	5,307.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,347.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,440.0	0.00	0.00	5,387.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,480.0	0.00	0.00	5,427.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,520.0	0.00	0.00	5,467.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,560.0	0.00	0.00	5,507.0	211.9	539.0	-140.6	0.00	0.00	0.00
5,588.1	0.00	0.00	5,535.1	211.9	539.0	-140.6	0.00	0.00	0.00
5,600.0	1.31	179.85	5,547.0	211.8	539.0	-140.5	11.00	11.00	0.00
5,640.0	5.71	179.85	5,587.0	209.3	539.0	-138.1	11.00	11.00	0.00
5,680.0	10.11	179.85	5,626.6	203.8	539.0	-132.6	11.00	11.00	0.00
5,720.0	14.51	179.85	5,665.6	195.3	539.0	-124.2	11.00	11.00	0.00
5,760.0	18.91	179.85	5,703.9	183.8	539.1	-112.8	11.00	11.00	0.00
5,800.0	23.31	179.85	5,741.2	169.4	539.1	-98.5	11.00	11.00	0.00
5,840.0	27.71	179.85	5,777.3	152.2	539.2	-81.4	11.00	11.00	0.00
5,880.0	32.11	179.85	5,812.0	132.2	539.2	-61.6	11.00	11.00	0.00
5,920.0	36.51	179.85	5,845.0	109.7	539.3	-39.2	11.00	11.00	0.00
5,960.0	40.91	179.85	5,876.2	84.7	539.3	-14.4	11.00	11.00	0.00
6,000.0	45.31	179.85	5,905.4	57.3	539.4	12.7	11.00	11.00	0.00
6,002.0	45.53	179.85	5,906.8	55.9	539.4	14.1	11.00	11.00	0.00
NI0BRARA									
6,040.0	49.71	179.85	5,932.4	27.8	539.5	41.9	11.00	11.00	0.00
6,080.0	54.11	179.85	5,957.1	-3.6	539.6	73.2	11.00	11.00	0.00
6,120.0	58.51	179.85	5,979.3	-36.9	539.7	106.2	11.00	11.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Wildhorse #02-0214AH
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 5019.5ft (Original Well Elev)
Project:	SEC.2-T9N-R59W	MD Reference:	WELL @ 5019.5ft (Original Well Elev)
Site:	Wildhorse #02-0214AH Pad Sec.2-T9N-R59W	North Reference:	True
Well:	Wildhorse #02-0214AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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)
6,160.0	62.91	179.85	5,998.9	-71.8	539.8	140.8	11.00	11.00	0.00
6,200.0	67.31	179.85	6,015.7	-108.1	539.9	176.7	11.00	11.00	0.00
6,240.0	71.71	179.85	6,029.7	-145.5	540.0	213.9	11.00	11.00	0.00
6,280.0	76.11	179.85	6,040.8	-183.9	540.1	252.0	11.00	11.00	0.00
6,320.0	80.51	179.85	6,048.9	-223.1	540.2	290.9	11.00	11.00	0.00
6,360.0	84.91	179.85	6,053.9	-262.8	540.3	330.2	11.00	11.00	0.00
6,400.0	89.31	179.85	6,056.0	-302.7	540.4	369.8	11.00	11.00	0.00
6,406.3	90.00	179.85	6,056.0	-309.0	540.4	376.1	10.94	10.94	0.00
End of Build - 7"									
6,440.0	90.00	179.85	6,056.0	-342.7	540.5	409.5	0.00	0.00	0.00
6,480.0	90.00	179.85	6,056.0	-382.7	540.6	449.2	0.00	0.00	0.00
6,520.0	90.00	179.85	6,056.0	-422.7	540.7	488.9	0.00	0.00	0.00
6,560.0	90.00	179.85	6,056.0	-462.7	540.8	528.6	0.00	0.00	0.00
6,600.0	90.00	179.85	6,056.0	-502.7	540.9	568.2	0.00	0.00	0.00
6,640.0	90.00	179.85	6,056.0	-542.7	541.0	607.9	0.00	0.00	0.00
6,680.0	90.00	179.85	6,056.0	-582.7	541.1	647.6	0.00	0.00	0.00
6,720.0	90.00	179.85	6,056.0	-622.7	541.2	687.3	0.00	0.00	0.00
6,760.0	90.00	179.85	6,056.0	-662.7	541.3	727.0	0.00	0.00	0.00
6,800.0	90.00	179.85	6,056.0	-702.7	541.4	766.6	0.00	0.00	0.00
6,840.0	90.00	179.85	6,056.0	-742.7	541.6	806.3	0.00	0.00	0.00
6,880.0	90.00	179.85	6,056.0	-782.7	541.7	846.0	0.00	0.00	0.00
6,920.0	90.00	179.85	6,056.0	-822.7	541.8	885.7	0.00	0.00	0.00
6,960.0	90.00	179.85	6,056.0	-862.7	541.9	925.4	0.00	0.00	0.00
7,000.0	90.00	179.85	6,056.0	-902.7	542.0	965.0	0.00	0.00	0.00
7,040.0	90.00	179.85	6,056.0	-942.7	542.1	1,004.7	0.00	0.00	0.00
7,080.0	90.00	179.85	6,056.0	-982.7	542.2	1,044.4	0.00	0.00	0.00
7,120.0	90.00	179.85	6,056.0	-1,022.7	542.3	1,084.1	0.00	0.00	0.00
7,160.0	90.00	179.85	6,056.0	-1,062.7	542.4	1,123.8	0.00	0.00	0.00
7,200.0	90.00	179.85	6,056.0	-1,102.7	542.5	1,163.4	0.00	0.00	0.00
7,240.0	90.00	179.85	6,056.0	-1,142.7	542.6	1,203.1	0.00	0.00	0.00
7,280.0	90.00	179.85	6,056.0	-1,182.7	542.7	1,242.8	0.00	0.00	0.00
7,320.0	90.00	179.85	6,056.0	-1,222.7	542.8	1,282.5	0.00	0.00	0.00
7,360.0	90.00	179.85	6,056.0	-1,262.7	542.9	1,322.2	0.00	0.00	0.00
7,400.0	90.00	179.85	6,056.0	-1,302.7	543.0	1,361.8	0.00	0.00	0.00
7,440.0	90.00	179.85	6,056.0	-1,342.7	543.2	1,401.5	0.00	0.00	0.00
7,480.0	90.00	179.85	6,056.0	-1,382.7	543.3	1,441.2	0.00	0.00	0.00
7,520.0	90.00	179.85	6,056.0	-1,422.7	543.4	1,480.9	0.00	0.00	0.00
7,560.0	90.00	179.85	6,056.0	-1,462.7	543.5	1,520.6	0.00	0.00	0.00
7,600.0	90.00	179.85	6,056.0	-1,502.7	543.6	1,560.2	0.00	0.00	0.00
7,640.0	90.00	179.85	6,056.0	-1,542.7	543.7	1,599.9	0.00	0.00	0.00
7,680.0	90.00	179.85	6,056.0	-1,582.7	543.8	1,639.6	0.00	0.00	0.00
7,720.0	90.00	179.85	6,056.0	-1,622.7	543.9	1,679.3	0.00	0.00	0.00
7,760.0	90.00	179.85	6,056.0	-1,662.7	544.0	1,719.0	0.00	0.00	0.00
7,800.0	90.00	179.85	6,056.0	-1,702.7	544.1	1,758.6	0.00	0.00	0.00
7,840.0	90.00	179.85	6,056.0	-1,742.7	544.2	1,798.3	0.00	0.00	0.00
7,880.0	90.00	179.85	6,056.0	-1,782.7	544.3	1,838.0	0.00	0.00	0.00
7,920.0	90.00	179.85	6,056.0	-1,822.7	544.4	1,877.7	0.00	0.00	0.00
7,960.0	90.00	179.85	6,056.0	-1,862.7	544.5	1,917.4	0.00	0.00	0.00
8,000.0	90.00	179.85	6,056.0	-1,902.7	544.7	1,957.0	0.00	0.00	0.00
8,040.0	90.00	179.85	6,056.0	-1,942.7	544.8	1,996.7	0.00	0.00	0.00
8,080.0	90.00	179.85	6,056.0	-1,982.7	544.9	2,036.4	0.00	0.00	0.00
8,120.0	90.00	179.85	6,056.0	-2,022.7	545.0	2,076.1	0.00	0.00	0.00
8,160.0	90.00	179.85	6,056.0	-2,062.7	545.1	2,115.8	0.00	0.00	0.00
8,200.0	90.00	179.85	6,056.0	-2,102.7	545.2	2,155.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Wildhorse #02-0214AH
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 5019.5ft (Original Well Elev)
Project:	SEC.2-T9N-R59W	MD Reference:	WELL @ 5019.5ft (Original Well Elev)
Site:	Wildhorse #02-0214AH Pad Sec.2-T9N-R59W	North Reference:	True
Well:	Wildhorse #02-0214AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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)
8,240.0	90.00	179.85	6,056.0	-2,142.7	545.3	2,195.1	0.00	0.00	0.00
8,280.0	90.00	179.85	6,056.0	-2,182.7	545.4	2,234.8	0.00	0.00	0.00
8,320.0	90.00	179.85	6,056.0	-2,222.7	545.5	2,274.5	0.00	0.00	0.00
8,360.0	90.00	179.85	6,056.0	-2,262.7	545.6	2,314.2	0.00	0.00	0.00
8,400.0	90.00	179.85	6,056.0	-2,302.7	545.7	2,353.8	0.00	0.00	0.00
8,440.0	90.00	179.85	6,056.0	-2,342.7	545.8	2,393.5	0.00	0.00	0.00
8,480.0	90.00	179.85	6,056.0	-2,382.7	545.9	2,433.2	0.00	0.00	0.00
8,520.0	90.00	179.85	6,056.0	-2,422.7	546.0	2,472.9	0.00	0.00	0.00
8,560.0	90.00	179.85	6,056.0	-2,462.7	546.2	2,512.6	0.00	0.00	0.00
8,600.0	90.00	179.85	6,056.0	-2,502.7	546.3	2,552.2	0.00	0.00	0.00
8,640.0	90.00	179.85	6,056.0	-2,542.7	546.4	2,591.9	0.00	0.00	0.00
8,680.0	90.00	179.85	6,056.0	-2,582.7	546.5	2,631.6	0.00	0.00	0.00
8,720.0	90.00	179.85	6,056.0	-2,622.7	546.6	2,671.3	0.00	0.00	0.00
8,760.0	90.00	179.85	6,056.0	-2,662.7	546.7	2,711.0	0.00	0.00	0.00
8,800.0	90.00	179.85	6,056.0	-2,702.7	546.8	2,750.6	0.00	0.00	0.00
8,840.0	90.00	179.85	6,056.0	-2,742.7	546.9	2,790.3	0.00	0.00	0.00
8,880.0	90.00	179.85	6,056.0	-2,782.7	547.0	2,830.0	0.00	0.00	0.00
8,920.0	90.00	179.85	6,056.0	-2,822.7	547.1	2,869.7	0.00	0.00	0.00
8,960.0	90.00	179.85	6,056.0	-2,862.7	547.2	2,909.4	0.00	0.00	0.00
9,000.0	90.00	179.85	6,056.0	-2,902.7	547.3	2,949.0	0.00	0.00	0.00
9,040.0	90.00	179.85	6,056.0	-2,942.7	547.4	2,988.7	0.00	0.00	0.00
9,080.0	90.00	179.85	6,056.0	-2,982.7	547.5	3,028.4	0.00	0.00	0.00
9,120.0	90.00	179.85	6,056.0	-3,022.7	547.6	3,068.1	0.00	0.00	0.00
9,160.0	90.00	179.85	6,056.0	-3,062.7	547.8	3,107.8	0.00	0.00	0.00
9,200.0	90.00	179.85	6,056.0	-3,102.7	547.9	3,147.4	0.00	0.00	0.00
9,240.0	90.00	179.85	6,056.0	-3,142.7	548.0	3,187.1	0.00	0.00	0.00
9,280.0	90.00	179.85	6,056.0	-3,182.7	548.1	3,226.8	0.00	0.00	0.00
9,320.0	90.00	179.85	6,056.0	-3,222.7	548.2	3,266.5	0.00	0.00	0.00
9,360.0	90.00	179.85	6,056.0	-3,262.7	548.3	3,306.2	0.00	0.00	0.00
9,400.0	90.00	179.85	6,056.0	-3,302.7	548.4	3,345.8	0.00	0.00	0.00
9,440.0	90.00	179.85	6,056.0	-3,342.7	548.5	3,385.5	0.00	0.00	0.00
9,480.0	90.00	179.85	6,056.0	-3,382.7	548.6	3,425.2	0.00	0.00	0.00
9,520.0	90.00	179.85	6,056.0	-3,422.7	548.7	3,464.9	0.00	0.00	0.00
9,560.0	90.00	179.85	6,056.0	-3,462.7	548.8	3,504.5	0.00	0.00	0.00
9,600.0	90.00	179.85	6,056.0	-3,502.7	548.9	3,544.2	0.00	0.00	0.00
9,640.0	90.00	179.85	6,056.0	-3,542.7	549.0	3,583.9	0.00	0.00	0.00
9,680.0	90.00	179.85	6,056.0	-3,582.7	549.1	3,623.6	0.00	0.00	0.00
9,720.0	90.00	179.85	6,056.0	-3,622.7	549.3	3,663.3	0.00	0.00	0.00
9,760.0	90.00	179.85	6,056.0	-3,662.7	549.4	3,702.9	0.00	0.00	0.00
9,800.0	90.00	179.85	6,056.0	-3,702.7	549.5	3,742.6	0.00	0.00	0.00
9,840.0	90.00	179.85	6,056.0	-3,742.7	549.6	3,782.3	0.00	0.00	0.00
9,880.0	90.00	179.85	6,056.0	-3,782.7	549.7	3,822.0	0.00	0.00	0.00
9,920.0	90.00	179.85	6,056.0	-3,822.7	549.8	3,861.7	0.00	0.00	0.00
9,960.0	90.00	179.85	6,056.0	-3,862.7	549.9	3,901.3	0.00	0.00	0.00
10,000.0	90.00	179.85	6,056.0	-3,902.7	550.0	3,941.0	0.00	0.00	0.00
10,040.0	90.00	179.85	6,056.0	-3,942.7	550.1	3,980.7	0.00	0.00	0.00
10,080.0	90.00	179.85	6,056.0	-3,982.7	550.2	4,020.4	0.00	0.00	0.00
10,120.0	90.00	179.85	6,056.0	-4,022.7	550.3	4,060.1	0.00	0.00	0.00
10,160.0	90.00	179.85	6,056.0	-4,062.7	550.4	4,099.7	0.00	0.00	0.00
10,200.0	90.00	179.85	6,056.0	-4,102.7	550.5	4,139.4	0.00	0.00	0.00
10,240.0	90.00	179.85	6,056.0	-4,142.7	550.6	4,179.1	0.00	0.00	0.00
10,280.0	90.00	179.85	6,056.0	-4,182.7	550.8	4,218.8	0.00	0.00	0.00
10,320.0	90.00	179.85	6,056.0	-4,222.7	550.9	4,258.5	0.00	0.00	0.00
10,334.9	90.00	179.85	6,056.0	-4,237.6	550.9	4,273.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Wildhorse #02-0214AH
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 5019.5ft (Original Well Elev)
Project:	SEC.2-T9N-R59W	MD Reference:	WELL @ 5019.5ft (Original Well Elev)
Site:	Wildhorse #02-0214AH Pad Sec.2-T9N-R59W	North Reference:	True
Well:	Wildhorse #02-0214AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-28-12)		

Planned 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)

Casing Points									
Measured Depth (ft)	Vertical Depth (ft)	Name			Casing Diameter (")	Hole Diameter (")			
6,406.3	6,056.0	7"			7	8-3/4			

Formations									
Measured Depth (ft)	Vertical Depth (ft)	Name		Lithology	Dip (°)	Dip Direction (°)			
6,002.0	5,906.8	NIOBRARA			0.00				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
6,406.3	6,056.0	-309.0	540.4	End of Build	