

# Great Western

Well Name: **Tailholt FD 11-373HC**

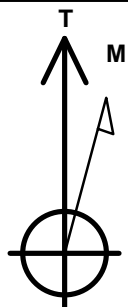
Surface Location: Tailholt FD Horizontal Pad Sec.11-T6N-R67W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4874.2

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1428644.78	3175778.38	40.508311	-104.867847	
RKB - 16.5' WELL @ 4890.7ft (RKB - 16.5')						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 242'FNL & 627'FWL	-0.3	0.0	0.0	Point
Landing Pt. 460'FNL & 1920'FWL	7325.7	-218.5	1291.4	Point
BHL 470'FSL & 1920'FWL	7335.7	-4660.3	1284.7	Point



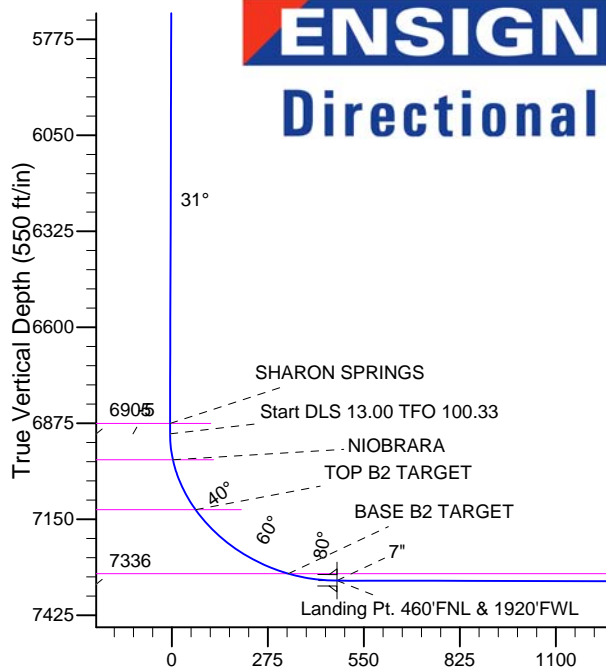
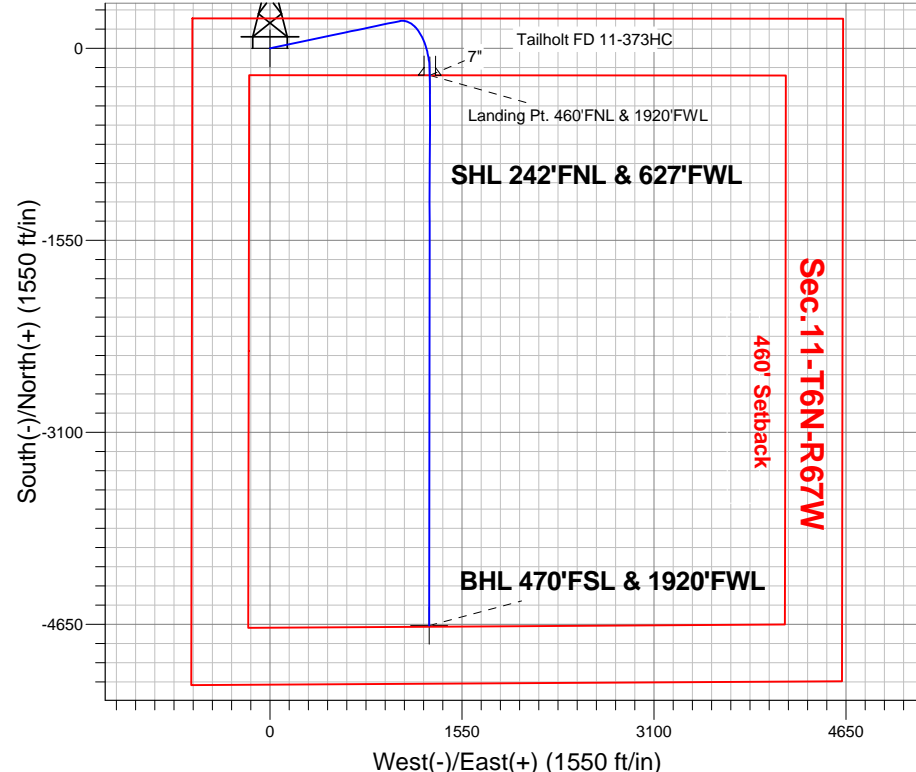
Azimuths to True North  
Magnetic North: 8.68°

Magnetic Field  
Strength: 52982.9snT  
Dip Angle: 67.06°  
Date: 4/17/2013  
Model: IGRF2010

Tailholt FD Horizontal Pad Sec.11-T6N-R67W  
Tailholt FD 11-373HC  
Plan #4 (10-22-13)  
14:37, October 22 2013

## ANNOTATIONS

TVD	MD	Annotation
4600.0	4600.0	KOP - Start Build 3.00
6905.1	7175.5	Start DLS 13.00 TFO 100.33
7335.7	12355.9	TD at 12355.9



## 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	4600.0	0.00	0.00	4600.0	0.0	0.0	0.00	0.00	0.0	
3	5634.5	31.03	78.15	5584.6	56.1	267.6	3.00	78.15	-1.3	
4	7175.5	31.03	78.15	6905.1	219.2	1045.1	0.00	0.00	-4.9	
5	7914.1	89.87	180.09	7325.7	-218.5	1291.4	13.00	100.33	473.4	Landing Pt. 460'FNL & 1920'FWL
6	7973.2	89.87	180.09	7325.8	-277.7	1291.3	0.01	-73.07	531.3	
7	12355.9	89.87	180.09	7335.7	-4660.3	1284.7	0.00	0.00	4823.3	BHL 470'FSL & 1920'FWL

Vertical Section at 168.42° (550 ft/in)



## **Great Western**

**SEC.11-T6N-R67W**

**Tailholt FD Horizontal Pad Sec.11-T6N-R67W**

**Tailholt FD 11-373HC**

**Wellbore #1**

**Plan: Plan #4 (10-22-13)**

## **Standard Planning Report**

**22 October, 2013**

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	
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,634.5	31.03	78.15	5,584.6	56.1	267.6	3.00	3.00	0.00	78.15	
7,175.5	31.03	78.15	6,905.1	219.2	1,045.1	0.00	0.00	0.00	0.00	
7,914.1	89.87	180.09	7,325.7	-218.5	1,291.4	13.00	7.97	13.80	100.33	Landing Pt. 460'FN
7,973.2	89.87	180.09	7,325.8	-277.7	1,291.3	0.01	0.00	-0.01	-73.07	
12,355.9	89.87	180.09	7,335.7	-4,660.3	1,284.7	0.00	0.00	0.00	0.00	BHL 470'FSL & 192

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Project:</b>	SEC.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (10-22-13)		

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
<b>SHL 242'FNL &amp; 627'FWL</b>									
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,051.7	0.00	0.00	1,051.7	0.0	0.0	0.0	0.00	0.00	0.00
<b>PIERRE</b>									
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,648.7	0.00	0.00	3,648.7	0.0	0.0	0.0	0.00	0.00	0.00
<b>PARKMAN</b>									
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,185.7	0.00	0.00	4,185.7	0.0	0.0	0.0	0.00	0.00	0.00
<b>SUSSEX</b>									
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Project:</b>	SEC.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (10-22-13)		

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)
<b>KOP - Start Build 3.00</b>									
4,700.0	3.00	78.15	4,700.0	0.5	2.6	0.0	3.00	3.00	0.00
4,753.9	4.62	78.15	4,753.7	1.3	6.1	0.0	3.00	3.00	0.00
<b>SHANNON</b>									
4,800.0	6.00	78.15	4,799.6	2.1	10.2	0.0	3.00	3.00	0.00
4,900.0	9.00	78.15	4,898.8	4.8	23.0	-0.1	3.00	3.00	0.00
5,000.0	12.00	78.15	4,997.1	8.6	40.8	-0.2	3.00	3.00	0.00
5,100.0	15.00	78.15	5,094.3	13.4	63.7	-0.3	3.00	3.00	0.00
5,200.0	18.00	78.15	5,190.2	19.2	91.5	-0.4	3.00	3.00	0.00
5,300.0	21.00	78.15	5,284.4	26.0	124.2	-0.6	3.00	3.00	0.00
5,400.0	24.00	78.15	5,376.8	33.9	161.6	-0.8	3.00	3.00	0.00
5,500.0	27.00	78.15	5,467.1	42.7	203.7	-1.0	3.00	3.00	0.00
5,600.0	30.00	78.15	5,554.9	52.5	250.4	-1.2	3.00	3.00	0.00
5,634.5	31.03	78.15	5,584.6	56.1	267.6	-1.3	3.00	3.00	0.00
5,700.0	31.03	78.15	5,640.8	63.1	300.6	-1.4	0.00	0.00	0.00
5,800.0	31.03	78.15	5,726.5	73.6	351.1	-1.7	0.00	0.00	0.00
5,900.0	31.03	78.15	5,812.1	84.2	401.5	-1.9	0.00	0.00	0.00
6,000.0	31.03	78.15	5,897.8	94.8	452.0	-2.1	0.00	0.00	0.00
6,100.0	31.03	78.15	5,983.5	105.4	502.4	-2.4	0.00	0.00	0.00
6,200.0	31.03	78.15	6,069.2	116.0	552.9	-2.6	0.00	0.00	0.00
6,300.0	31.03	78.15	6,154.9	126.6	603.4	-2.8	0.00	0.00	0.00
6,400.0	31.03	78.15	6,240.6	137.1	653.8	-3.1	0.00	0.00	0.00
6,500.0	31.03	78.15	6,326.3	147.7	704.3	-3.3	0.00	0.00	0.00
6,600.0	31.03	78.15	6,411.9	158.3	754.7	-3.6	0.00	0.00	0.00
6,700.0	31.03	78.15	6,497.6	168.9	805.2	-3.8	0.00	0.00	0.00
6,800.0	31.03	78.15	6,583.3	179.5	855.7	-4.0	0.00	0.00	0.00
6,900.0	31.03	78.15	6,669.0	190.0	906.1	-4.3	0.00	0.00	0.00
7,000.0	31.03	78.15	6,754.7	200.6	956.6	-4.5	0.00	0.00	0.00
7,100.0	31.03	78.15	6,840.4	211.2	1,007.0	-4.7	0.00	0.00	0.00
7,141.2	31.03	78.15	6,875.7	215.6	1,027.8	-4.8	0.00	0.00	0.00
<b>SHARON SPRINGS</b>									
7,175.5	31.03	78.15	6,905.1	219.2	1,045.1	-4.9	0.00	0.00	0.00
<b>Start DLS 13.00 TFO 100.33</b>									
7,200.0	30.61	84.31	6,926.1	221.1	1,057.5	-4.3	12.98	-1.74	25.11
7,262.2	30.86	100.17	6,979.7	219.9	1,089.0	3.2	13.00	0.41	25.48
<b>NIOBRARA</b>									
7,300.0	31.93	109.37	7,011.9	214.8	1,108.0	12.0	13.00	2.83	24.38
7,400.0	37.51	130.12	7,094.4	186.3	1,156.4	49.6	13.00	5.58	20.75
7,436.4	40.29	136.21	7,122.7	170.7	1,173.1	68.3	13.00	7.65	16.76
<b>TOP B2 TARGET</b>									
7,500.0	45.81	145.27	7,169.2	137.0	1,200.3	106.7	13.00	8.66	14.23
7,600.0	55.58	156.39	7,232.6	69.5	1,237.4	180.4	13.00	9.78	11.12
7,700.0	66.15	165.09	7,281.3	-12.8	1,265.9	266.7	13.00	10.57	8.70
7,771.6	73.98	170.44	7,305.7	-78.5	1,280.0	333.9	13.00	10.94	7.48
<b>BASE B2 TARGET</b>									
7,800.0	77.13	172.44	7,312.8	-105.8	1,284.1	361.4	13.00	11.07	7.03
7,900.0	88.29	179.16	7,325.5	-204.5	1,291.3	459.6	13.00	11.17	6.72
7,914.1	89.87	180.09	7,325.7	-218.5	1,291.4	473.4	12.97	11.18	6.58
<b>7" - Landing Pt. 460'FNL &amp; 1920'FWL</b>									
7,973.2	89.87	180.09	7,325.8	-277.7	1,291.3	531.3	0.01	0.01	0.00
8,000.0	89.87	180.09	7,325.9	-304.5	1,291.3	557.5	0.00	0.00	0.00
8,100.0	89.87	180.09	7,326.1	-404.5	1,291.1	655.4	0.00	0.00	0.00
8,200.0	89.87	180.09	7,326.3	-504.5	1,291.0	753.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
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<b>Project:</b>	SEC.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (10-22-13)		

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)
8,300.0	89.87	180.09	7,326.6	-604.5	1,290.8	851.3	0.00	0.00	0.00
8,400.0	89.87	180.09	7,326.8	-704.5	1,290.7	949.2	0.00	0.00	0.00
8,500.0	89.87	180.09	7,327.0	-804.5	1,290.5	1,047.2	0.00	0.00	0.00
8,600.0	89.87	180.09	7,327.2	-904.5	1,290.4	1,145.1	0.00	0.00	0.00
8,700.0	89.87	180.09	7,327.5	-1,004.5	1,290.2	1,243.0	0.00	0.00	0.00
8,800.0	89.87	180.09	7,327.7	-1,104.5	1,290.1	1,341.0	0.00	0.00	0.00
8,900.0	89.87	180.09	7,327.9	-1,204.5	1,289.9	1,438.9	0.00	0.00	0.00
9,000.0	89.87	180.09	7,328.1	-1,304.5	1,289.7	1,536.8	0.00	0.00	0.00
9,100.0	89.87	180.09	7,328.4	-1,404.5	1,289.6	1,634.8	0.00	0.00	0.00
9,200.0	89.87	180.09	7,328.6	-1,504.5	1,289.4	1,732.7	0.00	0.00	0.00
9,300.0	89.87	180.09	7,328.8	-1,604.5	1,289.3	1,830.6	0.00	0.00	0.00
9,400.0	89.87	180.09	7,329.0	-1,704.5	1,289.1	1,928.6	0.00	0.00	0.00
9,500.0	89.87	180.09	7,329.3	-1,804.5	1,289.0	2,026.5	0.00	0.00	0.00
9,600.0	89.87	180.09	7,329.5	-1,904.5	1,288.8	2,124.4	0.00	0.00	0.00
9,700.0	89.87	180.09	7,329.7	-2,004.5	1,288.7	2,222.4	0.00	0.00	0.00
9,800.0	89.87	180.09	7,329.9	-2,104.5	1,288.5	2,320.3	0.00	0.00	0.00
9,900.0	89.87	180.09	7,330.2	-2,204.5	1,288.4	2,418.2	0.00	0.00	0.00
10,000.0	89.87	180.09	7,330.4	-2,304.5	1,288.2	2,516.2	0.00	0.00	0.00
10,100.0	89.87	180.09	7,330.6	-2,404.5	1,288.1	2,614.1	0.00	0.00	0.00
10,200.0	89.87	180.09	7,330.8	-2,504.5	1,287.9	2,712.0	0.00	0.00	0.00
10,300.0	89.87	180.09	7,331.1	-2,604.5	1,287.8	2,810.0	0.00	0.00	0.00
10,400.0	89.87	180.09	7,331.3	-2,704.5	1,287.6	2,907.9	0.00	0.00	0.00
10,500.0	89.87	180.09	7,331.5	-2,804.5	1,287.5	3,005.8	0.00	0.00	0.00
10,600.0	89.87	180.09	7,331.7	-2,904.5	1,287.3	3,103.8	0.00	0.00	0.00
10,700.0	89.87	180.09	7,332.0	-3,004.5	1,287.2	3,201.7	0.00	0.00	0.00
10,800.0	89.87	180.09	7,332.2	-3,104.5	1,287.0	3,299.6	0.00	0.00	0.00
10,900.0	89.87	180.09	7,332.4	-3,204.5	1,286.9	3,397.6	0.00	0.00	0.00
11,000.0	89.87	180.09	7,332.6	-3,304.5	1,286.7	3,495.5	0.00	0.00	0.00
11,100.0	89.87	180.09	7,332.9	-3,404.5	1,286.6	3,593.4	0.00	0.00	0.00
11,200.0	89.87	180.09	7,333.1	-3,504.5	1,286.4	3,691.4	0.00	0.00	0.00
11,300.0	89.87	180.09	7,333.3	-3,604.5	1,286.3	3,789.3	0.00	0.00	0.00
11,400.0	89.87	180.09	7,333.5	-3,704.5	1,286.1	3,887.2	0.00	0.00	0.00
11,500.0	89.87	180.09	7,333.8	-3,804.5	1,286.0	3,985.2	0.00	0.00	0.00
11,600.0	89.87	180.09	7,334.0	-3,904.5	1,285.8	4,083.1	0.00	0.00	0.00
11,700.0	89.87	180.09	7,334.2	-4,004.5	1,285.7	4,181.0	0.00	0.00	0.00
11,800.0	89.87	180.09	7,334.4	-4,104.5	1,285.5	4,279.0	0.00	0.00	0.00
11,900.0	89.87	180.09	7,334.7	-4,204.5	1,285.4	4,376.9	0.00	0.00	0.00
12,000.0	89.87	180.09	7,334.9	-4,304.5	1,285.2	4,474.8	0.00	0.00	0.00
12,100.0	89.87	180.09	7,335.1	-4,404.5	1,285.1	4,572.8	0.00	0.00	0.00
12,200.0	89.87	180.09	7,335.3	-4,504.5	1,284.9	4,670.7	0.00	0.00	0.00
12,300.0	89.87	180.09	7,335.6	-4,604.5	1,284.8	4,768.6	0.00	0.00	0.00
12,355.9	89.87	180.09	7,335.7	-4,660.3	1,284.7	4,823.3	0.00	0.00	0.00
BHL 470'FSL & 1920'FWL									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,914.1	7,325.7	7"	7	7-1/2	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Company:</b>	Great Western	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Project:</b>	SEC.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (10-22-13)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,051.7	1,051.7	PIERRE		0.00		
3,648.7	3,648.7	PARKMAN		0.00		
4,185.7	4,185.7	SUSSEX		0.00		
4,753.9	4,753.7	SHANNON		0.00		
7,141.2	6,875.7	SHARON SPRINGS		0.00		
7,262.2	6,979.7	NIOBRARA		0.00		
7,436.4	7,122.7	TOP B2 TARGET		0.00		
7,771.6	7,305.7	BASE B2 TARGET		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
4,600.0	4,600.0	0.0	0.0	KOP - Start Build 3.00	
7,175.5	6,905.1	219.2	1,045.1	Start DLS 13.00 TFO 100.33	
12,355.9	7,335.7	-4,660.4	1,284.7	TD at 12355.9	



## **Great Western**

**SEC.11-T6N-R67W**

**Tailholt FD Horizontal Pad Sec.11-T6N-R67W**

**Tailholt FD 11-373HC**

**Wellbore #1**

**Plan #4 (10-22-13)**

## **Anticollision Report**

**22 October, 2013**





<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS, 7648-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,000.0	2,000.0	2,001.9	2,001.7	5.2	4.0	-95.17	-5.0	-54.9	55.1	45.9	9.20	5.992	
2,100.0	2,100.0	2,102.1	2,101.9	5.4	4.1	-93.94	-3.8	-55.1	55.2	45.7	9.57	5.770	
2,200.0	2,200.0	2,202.2	2,202.0	5.7	4.2	-93.03	-2.9	-54.8	54.9	45.0	9.92	5.533	
2,300.0	2,300.0	2,302.5	2,302.2	6.0	4.3	-92.28	-2.2	-54.4	54.5	44.2	10.28	5.300	
2,400.0	2,400.0	2,403.2	2,402.9	6.2	4.4	-91.52	-1.4	-53.1	53.1	42.5	10.63	4.996	
2,500.0	2,500.0	2,503.2	2,502.9	6.5	4.5	-90.81	-0.7	-50.9	51.0	40.0	10.99	4.635	
2,600.0	2,600.0	2,602.9	2,602.6	6.8	4.6	-90.03	0.0	-49.1	49.1	37.7	11.37	4.317	
2,700.0	2,700.0	2,702.8	2,702.5	7.0	4.7	-89.27	0.6	-47.5	47.5	35.7	11.76	4.039	
2,800.0	2,800.0	2,802.6	2,802.2	7.3	4.9	-88.61	1.1	-46.3	46.3	34.1	12.16	3.805	
2,900.0	2,900.0	2,902.4	2,902.0	7.6	5.0	-88.15	1.5	-45.5	45.5	33.0	12.57	3.621	
2,989.8	2,989.8	2,991.9	2,991.6	7.8	5.2	-88.33	1.3	-45.2	45.3	32.3	12.96	3.493	
3,000.0	3,000.0	3,002.1	3,001.8	7.8	5.2	-88.45	1.2	-45.3	45.3	32.3	13.01	3.480	
3,100.0	3,100.0	3,102.1	3,101.7	8.1	5.4	-89.68	0.3	-45.4	45.4	32.0	13.46	3.374	
3,200.0	3,200.0	3,202.0	3,201.7	8.4	5.6	-90.65	-0.5	-45.7	45.7	31.7	13.93	3.280	
3,300.0	3,300.0	3,302.0	3,301.7	8.6	5.8	-91.49	-1.2	-45.9	46.0	31.6	14.40	3.193	
3,400.0	3,400.0	3,402.1	3,401.7	8.9	6.0	-92.50	-2.0	-46.1	46.2	31.3	14.87	3.104	
3,500.0	3,500.0	3,502.0	3,501.6	9.2	6.2	-93.55	-2.9	-46.3	46.4	31.0	15.35	3.021 ES	
3,600.0	3,600.0	3,601.7	3,601.4	9.4	6.4	-94.40	-3.6	-46.8	47.0	31.1	15.83	2.968	
3,700.0	3,700.0	3,701.5	3,701.1	9.7	6.6	-95.12	-4.3	-47.9	48.1	31.8	16.31	2.947	
3,800.0	3,800.0	3,801.1	3,800.7	10.0	6.8	-95.35	-4.6	-49.6	49.8	33.0	16.78	2.969	
3,900.0	3,900.0	3,901.0	3,900.5	10.2	7.0	-95.42	-4.9	-52.0	52.3	35.0	17.25	3.031	
4,000.0	4,000.0	4,001.6	4,001.1	10.5	7.2	-95.21	-4.9	-54.0	54.2	36.5	17.72	3.057	
4,100.0	4,100.0	4,101.9	4,101.5	10.8	7.4	-95.10	-4.9	-54.8	55.0	36.8	18.20	3.024	
4,200.0	4,200.0	4,201.8	4,201.3	11.0	7.6	-94.75	-4.6	-55.5	55.7	37.1	18.66	2.987	
4,300.0	4,300.0	4,301.3	4,300.9	11.3	7.9	-94.63	-4.6	-56.9	57.1	38.0	19.14	2.983	
4,400.0	4,400.0	4,401.6	4,401.1	11.5	8.1	-95.09	-5.2	-58.3	58.6	38.9	19.63	2.982	
4,500.0	4,500.0	4,502.1	4,501.6	11.8	8.3	-95.60	-5.8	-59.2	59.4	39.3	20.13	2.952	
4,600.0	4,600.0	4,602.7	4,602.3	12.1	8.5	-95.91	-6.1	-59.0	59.3	38.7	20.59	2.880	
4,615.7	4,615.7	4,618.5	4,618.0	12.1	8.5	-174.15	-6.2	-58.8	59.2	38.6	20.64	2.870 SF	
4,700.0	4,700.0	4,703.2	4,702.7	12.3	8.6	-174.41	-6.1	-57.8	60.7	39.9	20.88	2.909	
4,800.0	4,799.6	4,802.8	4,802.3	12.4	8.7	-174.59	-5.4	-56.5	67.1	46.1	21.04	3.190	
4,900.0	4,898.8	4,902.2	4,901.7	12.6	8.8	-175.05	-4.7	-55.1	78.7	57.6	21.16	3.721	
5,000.0	4,997.1	5,000.9	5,000.4	12.7	9.0	-175.84	-4.3	-53.7	95.4	74.2	21.24	4.492	
5,100.0	5,094.3	5,098.1	5,097.5	12.9	9.1	-176.71	-4.3	-52.3	117.3	96.0	21.27	5.515	
5,200.0	5,190.2	5,194.0	5,193.4	13.1	9.2	-177.47	-4.5	-51.1	144.6	123.3	21.26	6.800	
5,300.0	5,284.4	5,288.4	5,287.8	13.3	9.4	-178.10	-4.9	-50.1	177.0	155.8	21.20	8.348	
5,400.0	5,376.8	5,380.7	5,380.2	13.5	9.5	-178.56	-5.3	-49.3	214.5	193.4	21.09	10.169	
5,500.0	5,467.1	5,471.2	5,470.7	13.7	9.7	-178.85	-5.5	-48.6	256.9	236.0	20.92	12.278	
5,600.0	5,554.9	5,564.0	5,563.5	13.9	9.8	-179.05	-5.5	-47.7	303.8	283.1	20.70	14.675	
5,700.0	5,640.8	5,657.1	5,656.5	14.1	10.0	-178.93	-3.5	-44.6	351.9	331.1	20.80	16.914	
5,800.0	5,726.5	5,747.2	5,746.4	14.4	10.1	-178.80	-1.1	-41.5	400.0	378.9	21.11	18.949	
5,900.0	5,812.1	5,842.3	5,841.4	14.6	10.2	-178.27	4.3	-38.0	447.6	426.1	21.43	20.889	
6,000.0	5,897.8	5,952.1	5,950.2	14.9	10.4	-177.07	16.8	-30.5	491.4	469.6	21.77	22.568	
6,100.0	5,983.5	6,047.2	6,044.0	15.2	10.5	-176.06	29.4	-22.1	533.3	511.2	22.11	24.115	
6,200.0	6,069.2	6,159.1	6,153.9	15.5	10.7	-174.70	47.8	-10.9	574.0	551.5	22.50	25.513	
6,300.0	6,154.9	6,290.3	6,281.9	15.8	10.9	-173.60	67.6	8.9	610.3	587.4	22.93	26.621	
6,400.0	6,240.6	6,424.4	6,410.3	16.1	11.2	-172.22	93.3	37.9	640.0	616.6	23.39	27.363	
6,500.0	6,326.3	6,723.7	6,666.8	16.5	11.8	-165.63	196.6	148.3	652.9	628.5	24.34	26.822	
6,600.0	6,411.9	6,850.0	6,767.9	16.8	12.1	-164.48	222.0	218.7	645.6	620.8	24.87	25.960	
6,700.0	6,497.6	6,950.0	6,850.9	17.2	12.4	-166.15	213.4	273.2	639.2	614.0	25.22	25.344	
6,776.4	6,563.1	6,991.7	6,885.5	17.4	12.5	-167.50	202.6	293.9	637.0	611.5	25.42	25.058	
6,800.0	6,583.3	7,000.0	6,892.3	17.5	12.5	-167.80	200.0	297.8	637.2	611.7	25.48	25.011	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS, 7648-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
6,900.0	6,669.0	7,050.0	6,933.9	17.9	12.6	-169.87	181.8	318.8	643.6	617.9	25.73	25.016		
7,000.0	6,754.7	7,100.0	6,974.7	18.3	12.7	-172.31	158.9	336.3	658.8	632.9	25.98	25.359		
7,100.0	6,840.4	7,161.3	7,022.6	18.6	12.8	-175.63	125.6	354.7	682.2	656.0	26.26	25.979		
7,200.0	6,926.1	7,218.4	7,063.6	19.0	12.8	174.59	89.0	370.4	712.8	686.1	26.69	26.705		
7,300.0	7,011.9	7,300.0	7,111.8	19.4	12.9	144.08	27.4	392.8	745.9	717.8	28.00	26.637		
7,400.0	7,094.4	7,350.0	7,138.1	19.6	13.0	120.78	-13.0	406.3	777.3	748.1	29.22	26.601		
7,500.0	7,169.2	7,400.0	7,161.6	19.9	13.1	104.42	-55.7	417.5	806.3	776.3	29.94	26.931		
7,600.0	7,232.6	7,440.0	7,176.6	20.0	13.1	93.72	-92.0	424.8	830.6	800.6	30.00	27.690		
7,700.0	7,281.3	7,475.0	7,186.3	20.1	13.2	86.89	-125.2	429.8	849.1	819.5	29.59	28.690		
7,800.0	7,312.8	7,545.4	7,199.0	20.2	14.3	82.81	-194.0	437.4	859.1	830.0	29.10	29.523		
7,900.0	7,325.5	7,603.3	7,203.2	20.3	15.3	81.63	-251.6	441.4	860.2	831.4	28.79	29.877		
8,000.0	7,325.9	7,673.8	7,201.2	20.4	16.1	81.51	-322.0	443.8	857.0	828.1	28.89	29.663		
8,100.0	7,326.1	7,761.6	7,196.2	20.5	16.1	81.14	-409.6	446.1	855.3	826.0	29.23	29.255		
8,200.0	7,326.3	7,866.4	7,189.3	20.6	16.2	80.65	-514.2	447.9	854.5	824.6	29.91	28.569		
8,250.8	7,326.5	7,906.7	7,186.4	20.7	16.2	80.44	-554.3	448.6	854.1	823.9	30.26	28.224		
8,300.0	7,326.6	7,949.0	7,184.0	20.8	16.2	80.27	-596.6	448.7	854.4	823.8	30.66	27.873		
8,400.0	7,326.8	8,029.0	7,181.9	21.0	16.3	80.13	-676.6	448.0	855.8	824.2	31.54	27.131		
8,500.0	7,327.0	8,113.1	7,181.6	21.2	16.4	80.14	-760.6	444.5	859.9	827.2	32.69	26.306		
8,600.0	7,327.2	8,220.0	7,180.1	21.5	17.5	80.06	-867.4	440.5	863.6	829.4	34.19	25.261		
8,700.0	7,327.5	8,321.6	7,176.7	21.8	18.7	79.88	-968.8	436.3	868.2	832.4	35.79	24.261		
8,800.0	7,327.7	8,433.8	7,171.1	22.1	20.2	79.53	-1,080.9	433.3	871.5	834.0	37.59	23.184		
8,900.0	7,327.9	8,528.4	7,166.7	22.5	21.6	79.25	-1,175.3	431.2	874.5	835.2	39.32	22.243		
9,000.0	7,328.1	8,640.7	7,159.5	22.9	23.2	78.79	-1,287.4	430.0	876.6	835.3	41.31	21.220		
9,100.0	7,328.4	8,737.9	7,152.5	23.3	24.7	78.33	-1,384.3	429.2	878.8	835.6	43.19	20.348		
9,200.0	7,328.6	8,839.0	7,146.2	23.8	26.3	77.91	-1,485.2	429.6	879.6	834.4	45.13	19.491		
9,300.0	7,328.8	8,943.2	7,143.3	24.2	27.9	77.74	-1,589.3	427.7	881.8	834.6	47.23	18.670		
9,400.0	7,329.0	9,039.5	7,141.1	24.7	29.4	77.61	-1,685.6	425.4	884.5	835.2	49.28	17.949		
9,500.0	7,329.3	9,145.9	7,140.7	25.3	31.1	77.58	-1,792.0	424.4	885.4	833.9	51.53	17.182		
9,600.0	7,329.5	9,228.0	7,141.2	25.8	32.4	77.63	-1,874.1	422.0	888.0	834.5	53.49	16.600		
9,700.0	7,329.7	9,318.4	7,140.0	26.4	34.0	77.60	-1,964.3	418.4	892.1	836.4	55.62	16.038		
9,800.0	7,329.9	9,427.7	7,139.3	27.0	35.8	77.59	-2,073.6	414.6	895.4	837.4	58.04	15.426		
9,900.0	7,330.2	9,569.5	7,140.9	27.6	38.1	77.70	-2,215.3	412.1	896.9	835.9	61.06	14.691		
10,000.0	7,330.4	9,682.1	7,142.7	28.2	40.0	77.76	-2,327.9	414.8	894.1	830.5	63.65	14.048		
10,100.0	7,330.6	9,764.2	7,140.3	28.9	41.4	77.56	-2,409.9	416.8	892.2	826.5	65.70	13.579		
10,200.0	7,330.8	9,865.3	7,134.3	29.5	43.2	77.14	-2,510.9	418.6	891.7	823.7	68.00	13.112		
10,282.1	7,331.0	9,940.3	7,130.3	30.1	44.4	76.86	-2,585.7	419.9	891.3	821.5	69.76	12.775		
10,300.0	7,331.1	9,955.9	7,129.6	30.2	44.7	76.82	-2,601.3	420.0	891.3	821.1	70.14	12.707		
10,364.4	7,331.2	10,022.7	7,128.4	30.7	45.8	76.73	-2,668.0	420.3	891.2	819.5	71.70	12.429		
10,400.0	7,331.3	10,049.8	7,128.1	30.9	46.3	76.70	-2,695.2	420.2	891.4	819.0	72.42	12.309		
10,500.0	7,331.5	10,142.4	7,127.9	31.6	47.9	76.70	-2,787.7	419.0	892.6	817.9	74.73	11.945		
10,600.0	7,331.7	10,254.7	7,129.7	32.3	49.8	76.82	-2,900.0	416.9	894.0	816.6	77.42	11.548		
10,700.0	7,332.0	10,343.0	7,131.3	33.1	51.3	76.91	-2,988.3	416.2	894.4	814.6	79.73	11.218		
10,800.0	7,332.2	10,468.1	7,133.1	33.8	53.5	76.99	-3,113.4	417.1	892.9	810.2	82.68	10.799		
10,835.8	7,332.3	10,494.2	7,133.4	34.1	54.0	77.01	-3,139.4	417.1	892.7	809.2	83.42	10.701		
10,900.0	7,332.4	10,542.1	7,133.7	34.5	54.8	77.03	-3,187.3	416.5	893.3	808.6	84.76	10.539		
11,000.0	7,332.6	10,658.5	7,133.9	35.3	56.9	77.04	-3,303.8	415.2	894.3	806.7	87.56	10.213		
11,002.1	7,332.7	10,660.4	7,133.9	35.3	56.9	77.04	-3,305.6	415.2	894.3	806.7	87.61	10.207		
11,100.0	7,332.9	10,736.7	7,133.0	36.1	58.3	76.99	-3,381.9	414.3	895.5	805.8	89.70	9.984		
11,200.0	7,333.1	10,837.6	7,130.2	36.8	60.0	76.82	-3,482.7	412.5	897.8	805.6	92.15	9.742		
11,300.0	7,333.3	10,933.9	7,127.9	37.6	61.7	76.69	-3,579.0	410.6	900.2	805.7	94.56	9.520		
11,400.0	7,333.5	11,057.3	7,124.6	38.4	63.9	76.50	-3,702.3	408.6	902.5	805.0	97.43	9.263		
11,482.5	7,333.7	11,141.1	7,124.8	39.1	65.3	76.49	-3,786.1	409.1	901.8	802.3	99.56	9.058		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>												<b>Offset Site Error:</b>	0.0 ft
Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-35HN - Wellbore #1 - Wellbore #1												<b>Offset Well Error:</b>	0.0 ft
Survey Program: 100-NS-GYRO-MS, 7648-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
11,500.0	7,333.8	11,150.0	7,124.8	39.2	65.5	76.49	-3,795.1	409.1	901.9	802.0	99.86	9.032	
11,600.0	7,334.0	11,263.6	7,124.2	40.0	67.5	76.43	-3,908.7	408.9	902.1	799.4	102.65	8.788	
11,611.6	7,334.0	11,270.1	7,124.1	40.1	67.7	76.43	-3,915.2	408.9	902.1	799.2	102.86	8.770	
11,700.0	7,334.2	11,331.3	7,123.1	40.8	68.7	76.37	-3,976.3	407.9	903.7	799.0	104.64	8.636	
11,800.0	7,334.4	11,430.4	7,117.5	41.6	70.5	76.04	-4,075.2	405.8	907.0	799.9	107.03	8.474	
11,900.0	7,334.7	11,559.2	7,109.8	42.5	72.7	75.56	-4,203.8	405.3	908.8	798.9	109.85	8.273	
12,000.0	7,334.9	11,663.9	7,105.6	43.3	74.6	75.26	-4,308.4	406.8	908.3	796.0	112.35	8.084	
12,100.0	7,335.1	11,788.3	7,104.7	44.1	76.8	75.13	-4,432.8	409.9	905.9	790.6	115.27	7.859	
12,200.0	7,335.3	11,895.4	7,107.5	44.9	78.7	75.24	-4,539.8	413.1	902.3	784.3	118.01	7.646	
12,300.0	7,335.6	11,990.0	7,111.0	45.8	80.4	75.39	-4,634.2	416.0	898.2	777.6	120.57	7.450	
12,330.6	7,335.6	11,990.0	7,111.0	46.0	80.4	75.39	-4,634.2	416.0	897.7	776.9	120.83	7.429	
12,355.9	7,335.7	11,990.0	7,111.0	46.2	80.4	75.39	-4,634.2	416.0	898.1	777.0	121.05	7.419	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.01	0.0	39.2	39.2					
100.0	100.0	100.0	100.0	0.1	0.1	90.01	0.0	39.2	39.2	38.9	0.27	147.708		
200.0	200.0	200.0	200.0	0.4	0.4	90.01	0.0	39.2	39.2	38.4	0.80	49.236		
300.0	300.0	300.0	300.0	0.7	0.7	90.01	0.0	39.2	39.2	37.9	1.33	29.542		
400.0	400.0	400.0	400.0	0.9	0.9	90.01	0.0	39.2	39.2	37.4	1.86	21.101		
500.0	500.0	500.0	500.0	1.2	1.2	90.01	0.0	39.2	39.2	36.8	2.39	16.412		
600.0	600.0	600.0	600.0	1.5	1.5	90.01	0.0	39.2	39.2	36.3	2.92	13.428		
700.0	700.0	700.0	700.0	1.7	1.7	90.01	0.0	39.2	39.2	35.8	3.45	11.362		
800.0	800.0	800.0	800.0	2.0	2.0	90.01	0.0	39.2	39.2	35.2	3.98	9.847		
900.0	900.0	900.0	900.0	2.3	2.3	90.01	0.0	39.2	39.2	34.7	4.51	8.689		
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	90.01	0.0	39.2	39.2	34.2	5.04	7.774		
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	90.01	0.0	39.2	39.2	33.6	5.57	7.034		
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	90.01	0.0	39.2	39.2	33.1	6.11	6.422		
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	90.01	0.0	39.2	39.2	32.6	6.64	5.908		
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	90.01	0.0	39.2	39.2	32.0	7.17	5.471		
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	90.01	0.0	39.2	39.2	31.5	7.70	5.093		
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	90.01	0.0	39.2	39.2	31.0	8.23	4.765		
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	90.01	0.0	39.2	39.2	30.4	8.76	4.476		
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	90.01	0.0	39.2	39.2	29.9	9.29	4.220		
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	90.01	0.0	39.2	39.2	29.4	9.82	3.992		
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	90.01	0.0	39.2	39.2	28.9	10.35	3.787		
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	90.01	0.0	39.2	39.2	28.3	10.88	3.603		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	90.01	0.0	39.2	39.2	27.8	11.41	3.435		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	90.01	0.0	39.2	39.2	27.3	11.95	3.282		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	90.01	0.0	39.2	39.2	26.7	12.48	3.143		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	90.01	0.0	39.2	39.2	26.2	13.01	3.014		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	90.01	0.0	39.2	39.2	25.7	13.54	2.896		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	90.01	0.0	39.2	39.2	25.1	14.07	2.787		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	90.01	0.0	39.2	39.2	24.6	14.60	2.686		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	90.01	0.0	39.2	39.2	24.1	15.13	2.591		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	90.01	0.0	39.2	39.2	23.5	15.66	2.504		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	90.01	0.0	39.2	39.2	23.0	16.19	2.421		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	90.01	0.0	39.2	39.2	22.5	16.72	2.345 CC, ES, SF		
3,300.0	3,300.0	3,297.9	3,297.9	8.6	8.6	89.57	0.3	41.7	41.8	24.6	17.18	2.430		
3,400.0	3,400.0	3,395.3	3,395.0	8.9	8.7	88.52	1.3	49.1	49.4	31.8	17.59	2.808		
3,500.0	3,500.0	3,491.7	3,490.6	9.2	8.8	87.35	2.8	61.3	62.0	44.1	17.99	3.448		
3,600.0	3,600.0	3,586.6	3,584.0	9.4	9.0	86.35	5.0	77.9	79.7	61.3	18.40	4.329		
3,700.0	3,700.0	3,679.7	3,674.6	9.7	9.1	85.57	7.6	98.6	102.1	83.3	18.82	5.427		
3,800.0	3,800.0	3,770.4	3,762.0	10.0	9.3	84.99	10.8	123.1	129.3	110.0	19.24	6.719		
3,900.0	3,900.0	3,858.6	3,845.6	10.2	9.4	84.56	14.4	150.7	160.9	141.2	19.66	8.182		
4,000.0	4,000.0	3,944.0	3,925.3	10.5	9.6	84.24	18.3	181.1	196.8	176.7	20.09	9.794		
4,100.0	4,100.0	4,026.3	4,000.8	10.8	9.8	84.00	22.5	213.7	236.7	216.2	20.52	11.535		
4,200.0	4,200.0	4,100.0	4,067.1	11.0	10.0	83.82	26.6	245.7	280.6	259.6	20.95	13.395		
4,300.0	4,300.0	4,181.4	4,138.8	11.3	10.1	83.67	31.5	283.9	327.9	306.5	21.40	15.322		
4,400.0	4,400.0	4,264.4	4,210.7	11.5	10.4	83.54	36.8	325.0	377.9	356.0	21.88	17.275		
4,500.0	4,500.0	4,350.9	4,285.6	11.8	10.6	83.44	42.3	368.0	428.0	405.6	22.37	19.133		
4,600.0	4,600.0	4,437.5	4,360.5	12.1	10.8	83.35	47.9	411.0	478.1	455.2	22.88	20.899		
4,700.0	4,700.0	4,525.3	4,436.4	12.3	11.1	5.02	53.5	454.6	525.9	503.2	22.77	23.102		
4,800.0	4,799.6	4,615.5	4,514.5	12.4	11.4	4.91	59.3	499.5	569.1	546.1	23.03	24.713		
4,900.0	4,898.8	4,707.8	4,594.4	12.6	11.7	4.87	65.2	545.3	607.5	584.3	23.25	26.128		
5,000.0	4,997.1	4,802.0	4,675.9	12.7	12.0	4.88	71.2	592.1	641.1	617.7	23.44	27.356		
5,100.0	5,094.3	4,897.8	4,758.8	12.9	12.3	4.94	77.3	639.7	669.7	646.1	23.58	28.406		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.0	5,190.2	4,994.9	4,842.9	13.1	12.7	5.03	83.6	688.0	693.3	669.6	23.67	29.284		
5,300.0	5,284.4	5,093.2	4,927.9	13.3	13.0	5.17	89.9	736.8	711.7	688.0	23.73	29.997		
5,400.0	5,376.8	5,192.2	5,013.6	13.5	13.4	5.35	96.2	786.1	725.1	701.3	23.73	30.549		
5,500.0	5,467.1	5,291.8	5,099.8	13.7	13.8	5.58	102.6	835.6	733.2	709.5	23.70	30.944		
5,600.0	5,554.9	5,391.7	5,186.3	13.9	14.2	5.85	109.0	885.2	736.2	712.6	23.61	31.182		
5,700.0	5,640.8	5,491.6	5,272.7	14.1	14.6	6.17	115.4	934.8	735.1	711.3	23.85	30.817		
5,800.0	5,726.5	5,591.5	5,359.2	14.4	15.0	6.49	121.8	984.5	733.8	709.5	24.30	30.200		
5,900.0	5,812.1	5,691.4	5,445.6	14.6	15.4	6.81	128.1	1,034.1	732.4	707.7	24.75	29.595		
6,000.0	5,897.8	5,791.3	5,532.1	14.9	15.8	7.13	134.5	1,083.8	731.1	705.9	25.21	29.002		
6,100.0	5,983.5	5,891.2	5,618.6	15.2	16.2	7.46	140.9	1,133.4	729.8	704.1	25.68	28.423		
6,200.0	6,069.2	5,991.2	5,705.0	15.5	16.7	7.78	147.3	1,183.1	728.5	702.3	26.15	27.856		
6,300.0	6,154.9	6,091.1	5,791.5	15.8	17.1	8.11	153.7	1,232.7	727.2	700.6	26.64	27.302		
6,400.0	6,240.6	6,191.0	5,878.0	16.1	17.5	8.44	160.1	1,282.4	726.0	698.9	27.13	26.762		
6,500.0	6,326.3	6,290.9	5,964.4	16.5	17.9	8.77	166.5	1,332.0	724.8	697.2	27.63	26.234		
6,600.0	6,411.9	6,390.8	6,050.9	16.8	18.4	9.10	172.9	1,381.7	723.6	695.5	28.13	25.720		
6,700.0	6,497.6	6,490.7	6,137.3	17.2	18.8	9.43	179.3	1,431.3	722.5	693.8	28.65	25.218		
6,800.0	6,583.3	6,590.6	6,223.8	17.5	19.3	9.76	185.7	1,481.0	721.3	692.1	29.17	24.729		
6,900.0	6,669.0	6,690.5	6,310.3	17.9	19.7	10.09	192.1	1,530.6	720.2	690.5	29.70	24.252		
7,000.0	6,754.7	6,790.4	6,396.7	18.3	20.2	10.43	198.5	1,580.2	719.1	688.9	30.23	23.788		
7,100.0	6,840.4	6,890.3	6,483.2	18.6	20.6	10.76	204.9	1,629.9	718.1	687.3	30.77	23.335		
7,200.0	6,926.1	6,990.2	6,569.7	19.0	21.1	5.72	211.3	1,679.6	717.0	685.7	31.31	22.903		
7,300.0	7,011.9	7,089.2	6,655.3	19.4	21.5	-16.93	217.6	1,728.7	715.9	684.1	31.78	22.527		
7,354.6	7,057.6	7,141.3	6,700.4	19.5	21.8	-28.31	220.9	1,754.6	715.6	683.5	32.07	22.317		
7,400.0	7,094.4	7,184.4	6,737.7	19.6	22.0	-36.67	223.3	1,776.0	715.9	683.5	32.36	22.123		
7,500.0	7,169.2	7,289.3	6,828.0	19.9	22.4	-51.15	213.1	1,827.9	718.4	685.3	33.09	21.708		
7,600.0	7,232.6	7,407.6	6,924.1	20.0	22.8	-61.24	172.5	1,883.1	723.0	689.2	33.81	21.384		
7,700.0	7,281.3	7,542.9	7,017.8	20.1	23.2	-68.23	92.1	1,937.1	728.7	694.3	34.36	21.207		
7,800.0	7,312.8	7,696.2	7,092.9	20.2	23.5	-72.64	-33.5	1,980.3	733.7	699.0	34.66	21.165		
7,900.0	7,325.5	7,862.9	7,127.2	20.3	23.7	-74.38	-194.4	2,000.2	736.2	701.4	34.77	21.173		
8,000.0	7,325.9	7,973.3	7,127.3	20.4	23.7	-74.35	-304.7	2,000.3	736.4	701.4	34.94	21.075		
8,100.0	7,326.1	8,073.3	7,126.8	20.5	23.9	-74.30	-404.7	2,000.2	736.6	701.3	35.22	20.915		
8,200.0	7,326.3	8,173.3	7,126.3	20.6	24.0	-74.24	-504.7	2,000.0	736.7	701.2	35.58	20.705		
8,300.0	7,326.6	8,273.3	7,125.8	20.8	24.2	-74.19	-604.7	1,999.8	736.9	700.9	36.04	20.449		
8,400.0	7,326.8	8,373.3	7,125.3	21.0	24.4	-74.14	-704.7	1,999.7	737.1	700.5	36.57	20.153		
8,500.0	7,327.0	8,473.3	7,124.8	21.2	24.7	-74.08	-804.7	1,999.5	737.3	700.1	37.19	19.823		
8,600.0	7,327.2	8,573.3	7,124.3	21.5	25.0	-74.03	-904.6	1,999.3	737.5	699.6	37.89	19.464		
8,700.0	7,327.5	8,673.2	7,123.8	21.8	25.3	-73.97	-1,004.6	1,999.2	737.6	699.0	38.66	19.083		
8,800.0	7,327.7	8,773.2	7,123.3	22.1	25.6	-73.92	-1,104.6	1,999.0	737.8	698.3	39.49	18.684		
8,900.0	7,327.9	8,873.2	7,122.8	22.5	26.0	-73.86	-1,204.6	1,998.8	738.0	697.6	40.39	18.273		
9,000.0	7,328.1	8,973.2	7,122.3	22.9	26.4	-73.81	-1,304.6	1,998.7	738.2	696.9	41.35	17.854		
9,100.0	7,328.4	9,073.2	7,121.8	23.3	26.8	-73.76	-1,404.6	1,998.5	738.4	696.0	42.36	17.431		
9,200.0	7,328.6	9,173.2	7,121.3	23.8	27.2	-73.70	-1,504.6	1,998.3	738.6	695.1	43.43	17.008		
9,300.0	7,328.8	9,273.2	7,120.8	24.2	27.7	-73.65	-1,604.6	1,998.2	738.8	694.2	44.54	16.587		
9,400.0	7,329.0	9,373.2	7,120.3	24.7	28.2	-73.59	-1,704.6	1,998.0	738.9	693.3	45.69	16.172		
9,500.0	7,329.3	9,473.2	7,119.8	25.3	28.7	-73.54	-1,804.6	1,997.8	739.1	692.2	46.89	15.763		
9,600.0	7,329.5	9,573.2	7,119.3	25.8	29.2	-73.49	-1,904.6	1,997.7	739.3	691.2	48.12	15.363		
9,700.0	7,329.7	9,673.2	7,118.8	26.4	29.7	-73.43	-2,004.6	1,997.5	739.5	690.1	49.39	14.972		
9,800.0	7,329.9	9,773.2	7,118.4	27.0	30.3	-73.38	-2,104.6	1,997.3	739.7	689.0	50.69	14.592		
9,900.0	7,330.2	9,873.2	7,117.9	27.6	30.9	-73.32	-2,204.6	1,997.2	739.9	687.9	52.02	14.222		
10,000.0	7,330.4	9,973.2	7,117.4	28.2	31.4	-73.27	-2,304.6	1,997.0	740.1	686.7	53.38	13.864		
10,100.0	7,330.6	10,073.2	7,116.9	28.9	32.0	-73.22	-2,404.6	1,996.8	740.3	685.5	54.76	13.518		
10,200.0	7,330.8	10,173.2	7,116.4	29.5	32.7	-73.16	-2,504.6	1,996.7	740.5	684.3	56.17	13.183		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-371HN - Wellbore #1 - Plan #2 (10-22-13)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-NS-GYRO-MS												<b>Offset Well Error:</b>	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.0	7,331.1	10,273.2	7,115.9	30.2	33.3	-73.11	-2,604.6	1,996.5	740.7	683.1	57.59	12.860	
10,400.0	7,331.3	10,373.2	7,115.4	30.9	33.9	-73.06	-2,704.6	1,996.3	740.9	681.8	59.04	12.548	
10,500.0	7,331.5	10,473.2	7,114.9	31.6	34.6	-73.00	-2,804.6	1,996.2	741.1	680.5	60.50	12.248	
10,600.0	7,331.7	10,573.2	7,114.4	32.3	35.3	-72.95	-2,904.6	1,996.0	741.2	679.3	61.99	11.958	
10,700.0	7,332.0	10,673.2	7,113.9	33.1	35.9	-72.89	-3,004.6	1,995.8	741.4	678.0	63.48	11.679	
10,800.0	7,332.2	10,773.2	7,113.4	33.8	36.6	-72.84	-3,104.6	1,995.7	741.6	676.6	64.99	11.411	
10,900.0	7,332.4	10,873.2	7,112.9	34.5	37.3	-72.79	-3,204.6	1,995.5	741.8	675.3	66.52	11.152	
11,000.0	7,332.6	10,973.2	7,112.4	35.3	38.0	-72.73	-3,304.6	1,995.3	742.0	674.0	68.06	10.903	
11,100.0	7,332.9	11,073.2	7,111.9	36.1	38.7	-72.68	-3,404.5	1,995.2	742.2	672.6	69.60	10.664	
11,200.0	7,333.1	11,173.2	7,111.4	36.8	39.5	-72.63	-3,504.5	1,995.0	742.4	671.3	71.16	10.433	
11,300.0	7,333.3	11,273.2	7,110.9	37.6	40.2	-72.57	-3,604.5	1,994.8	742.6	669.9	72.73	10.210	
11,400.0	7,333.5	11,373.2	7,110.4	38.4	40.9	-72.52	-3,704.5	1,994.6	742.8	668.5	74.31	9.996	
11,500.0	7,333.8	11,473.2	7,109.9	39.2	41.7	-72.47	-3,804.5	1,994.5	743.0	667.1	75.90	9.790	
11,600.0	7,334.0	11,573.2	7,109.4	40.0	42.4	-72.41	-3,904.5	1,994.3	743.2	665.7	77.49	9.591	
11,700.0	7,334.2	11,673.2	7,108.9	40.8	43.2	-72.36	-4,004.5	1,994.1	743.4	664.3	79.10	9.399	
11,800.0	7,334.4	11,773.2	7,108.4	41.6	44.0	-72.31	-4,104.5	1,994.0	743.6	662.9	80.71	9.214	
11,900.0	7,334.7	11,873.2	7,107.9	42.5	44.7	-72.25	-4,204.5	1,993.8	743.8	661.5	82.32	9.036	
12,000.0	7,334.9	11,973.2	7,107.4	43.3	45.5	-72.20	-4,304.5	1,993.6	744.1	660.1	83.95	8.863	
12,100.0	7,335.1	12,073.2	7,106.9	44.1	46.3	-72.15	-4,404.5	1,993.5	744.3	658.7	85.57	8.697	
12,200.0	7,335.3	12,173.2	7,106.5	44.9	47.1	-72.09	-4,504.5	1,993.3	744.5	657.3	87.21	8.537	
12,300.0	7,335.6	12,273.2	7,106.0	45.8	47.9	-72.04	-4,604.5	1,993.1	744.7	655.8	88.85	8.382	
12,355.9	7,335.7	12,324.6	7,105.7	46.2	48.3	-72.01	-4,655.9	1,993.1	744.8	655.1	89.73	8.301	



<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	19.2	19.2	19.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	19.2	19.2	18.9	0.27	72.283		
200.0	200.0	200.0	200.0	0.4	0.4	90.00	0.0	19.2	19.2	18.4	0.80	24.094		
300.0	300.0	300.0	300.0	0.7	0.7	90.00	0.0	19.2	19.2	17.9	1.33	14.457		
400.0	400.0	400.0	400.0	0.9	0.9	90.00	0.0	19.2	19.2	17.3	1.86	10.326		
500.0	500.0	500.0	500.0	1.2	1.2	90.00	0.0	19.2	19.2	16.8	2.39	8.031		
600.0	600.0	600.0	600.0	1.5	1.5	90.00	0.0	19.2	19.2	16.3	2.92	6.571		
700.0	700.0	700.0	700.0	1.7	1.7	90.00	0.0	19.2	19.2	15.7	3.45	5.560		
800.0	800.0	800.0	800.0	2.0	2.0	90.00	0.0	19.2	19.2	15.2	3.98	4.819		
900.0	900.0	900.0	900.0	2.3	2.3	90.00	0.0	19.2	19.2	14.7	4.51	4.252		
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	90.00	0.0	19.2	19.2	14.1	5.04	3.804		
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	90.00	0.0	19.2	19.2	13.6	5.57	3.442		
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	90.00	0.0	19.2	19.2	13.1	6.11	3.143		
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	90.00	0.0	19.2	19.2	12.6	6.64	2.891		
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	90.00	0.0	19.2	19.2	12.0	7.17	2.677		
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	90.00	0.0	19.2	19.2	11.5	7.70	2.493		
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	90.00	0.0	19.2	19.2	11.0	8.23	2.332		
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	90.00	0.0	19.2	19.2	10.4	8.76	2.190		
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	90.00	0.0	19.2	19.2	9.9	9.29	2.065		
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	90.00	0.0	19.2	19.2	9.4	9.82	1.954		
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	90.00	0.0	19.2	19.2	8.8	10.35	1.853		
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	90.00	0.0	19.2	19.2	8.3	10.88	1.763		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	90.00	0.0	19.2	19.2	7.8	11.41	1.681		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	90.00	0.0	19.2	19.2	7.2	11.95	1.606		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	90.00	0.0	19.2	19.2	6.7	12.48	1.538		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	90.00	0.0	19.2	19.2	6.2	13.01	1.475 Level 3		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	90.00	0.0	19.2	19.2	5.6	13.54	1.417 Level 3		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	90.00	0.0	19.2	19.2	5.1	14.07	1.364 Level 3		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	90.00	0.0	19.2	19.2	4.6	14.60	1.314 Level 3		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	90.00	0.0	19.2	19.2	4.1	15.13	1.268 Level 3		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	90.00	0.0	19.2	19.2	3.5	15.66	1.225 Level 2		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	90.00	0.0	19.2	19.2	3.0	16.19	1.185 Level 2		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	90.00	0.0	19.2	19.2	2.5	16.72	1.147 Level 2		
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	90.00	0.0	19.2	19.2	1.9	17.25	1.112 Level 2		
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	90.00	0.0	19.2	19.2	1.4	17.78	1.079 Level 2		
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	90.00	0.0	19.2	19.2	0.9	18.32	1.048 Level 2		
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	90.00	0.0	19.2	19.2	0.3	18.85	1.018 Level 2		
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	90.00	0.0	19.2	19.2	-0.2	19.38	0.990 Level 1		
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	90.00	0.0	19.2	19.2	-0.7	19.91	0.964 Level 1		
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	90.00	0.0	19.2	19.2	-1.3	20.44	0.939 Level 1		
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	90.00	0.0	19.2	19.2	-1.8	20.97	0.915 Level 1, CC, ES, SF		
4,100.0	4,100.0	4,098.9	4,098.9	10.8	10.7	88.84	0.4	21.7	21.7	0.3	21.44	1.014 Level 2		
4,200.0	4,200.0	4,197.3	4,197.0	11.0	10.8	86.57	1.8	29.2	29.4	7.6	21.85	1.347 Level 3		
4,300.0	4,300.0	4,294.7	4,293.5	11.3	11.0	84.63	3.9	41.5	42.2	20.0	22.26	1.897		
4,400.0	4,400.0	4,390.5	4,387.8	11.5	11.1	83.32	6.8	58.4	60.0	37.4	22.67	2.648		
4,500.0	4,500.0	4,484.4	4,479.3	11.8	11.3	82.46	10.5	79.4	82.7	59.6	23.09	3.583		
4,600.0	4,600.0	4,576.0	4,567.3	12.1	11.4	81.90	14.8	104.1	110.1	86.6	23.51	4.685		
4,700.0	4,700.0	4,665.7	4,652.3	12.3	11.6	3.36	19.7	132.3	139.6	115.8	23.81	5.863		
4,800.0	4,799.6	4,754.3	4,734.8	12.4	11.8	3.17	25.3	164.0	168.5	144.5	24.01	7.017		
4,900.0	4,898.8	4,841.8	4,814.8	12.6	11.9	3.07	31.4	199.0	196.8	172.6	24.16	8.146		
5,000.0	4,997.1	4,928.4	4,892.2	12.7	12.1	3.04	38.0	237.1	224.5	200.2	24.25	9.257		
5,100.0	5,094.3	5,014.2	4,967.2	12.9	12.3	3.04	45.2	278.3	251.4	227.2	24.28	10.354		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13)													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.0	5,190.2	5,111.2	5,050.9	13.1	12.6	3.09	53.7	326.6	275.5	251.2	24.28	11.344		
5,300.0	5,284.4	5,209.4	5,135.6	13.3	12.8	3.20	62.2	375.5	294.4	270.1	24.23	12.147		
5,400.0	5,376.8	5,308.5	5,221.1	13.5	13.1	3.35	70.8	424.9	308.1	284.0	24.14	12.765		
5,500.0	5,467.1	5,408.1	5,307.0	13.7	13.4	3.56	79.5	474.5	316.7	292.7	23.99	13.200		
5,600.0	5,554.9	5,508.0	5,393.2	13.9	13.7	3.82	88.2	524.3	320.0	296.2	23.80	13.448		
5,700.0	5,640.8	5,608.0	5,479.5	14.1	14.0	4.14	96.9	574.1	319.3	295.3	23.98	13.315		
5,800.0	5,726.5	5,708.0	5,565.7	14.4	14.3	4.46	105.6	623.9	318.3	293.9	24.38	13.052		
5,900.0	5,812.1	5,807.9	5,652.0	14.6	14.7	4.79	114.3	673.7	317.2	292.4	24.80	12.793		
6,000.0	5,897.8	5,907.9	5,738.2	14.9	15.0	5.12	122.9	723.5	316.2	291.0	25.22	12.537		
6,100.0	5,983.5	6,007.9	5,824.5	15.2	15.4	5.44	131.6	773.3	315.2	289.5	25.65	12.286		
6,200.0	6,069.2	6,107.9	5,910.7	15.5	15.7	5.78	140.3	823.1	314.2	288.1	26.10	12.040		
6,300.0	6,154.9	6,207.8	5,997.0	15.8	16.1	6.11	149.0	872.9	313.2	286.7	26.55	11.798		
6,400.0	6,240.6	6,307.8	6,083.2	16.1	16.5	6.45	157.7	922.7	312.2	285.2	27.01	11.561		
6,500.0	6,326.3	6,407.8	6,169.5	16.5	16.8	6.78	166.4	972.5	311.3	283.8	27.48	11.329		
6,600.0	6,411.9	6,507.8	6,255.7	16.8	17.2	7.12	175.1	1,022.3	310.3	282.4	27.95	11.102		
6,700.0	6,497.6	6,607.8	6,342.0	17.2	17.6	7.47	183.8	1,072.1	309.4	280.9	28.44	10.879		
6,800.0	6,583.3	6,707.7	6,428.2	17.5	18.0	7.81	192.5	1,121.9	308.4	279.5	28.93	10.662		
6,900.0	6,669.0	6,807.7	6,514.5	17.9	18.4	8.16	201.2	1,171.7	307.5	278.1	29.43	10.450		
7,000.0	6,754.7	6,907.7	6,600.7	18.3	18.8	8.50	209.9	1,221.6	306.6	276.7	29.93	10.243		
7,100.0	6,840.4	7,007.7	6,687.0	18.6	19.3	8.85	218.6	1,271.4	305.7	275.3	30.45	10.040		
7,200.0	6,926.1	7,108.1	6,773.7	19.0	19.7	4.58	223.0	1,321.5	304.8	273.8	30.98	9.837		
7,300.0	7,011.9	7,206.7	6,857.8	19.4	20.0	-15.11	206.8	1,370.0	304.1	272.7	31.38	9.692		
7,400.0	7,094.4	7,303.2	6,935.0	19.6	20.3	-30.51	170.4	1,414.7	303.9	272.4	31.50	9.646		
7,407.0	7,099.9	7,309.9	6,940.1	19.7	20.3	-31.36	167.2	1,417.6	303.9	272.4	31.50	9.646		
7,500.0	7,169.2	7,397.9	7,002.4	19.9	20.5	-40.31	116.8	1,453.7	304.0	272.6	31.40	9.682		
7,600.0	7,232.6	7,491.0	7,057.4	20.0	20.7	-46.05	49.0	1,485.6	304.4	273.3	31.17	9.769		
7,700.0	7,281.3	7,583.0	7,098.5	20.1	20.8	-49.27	-29.5	1,509.5	305.0	274.1	30.93	9.861		
7,800.0	7,312.8	7,675.0	7,124.6	20.2	20.9	-50.89	-116.2	1,524.7	305.6	274.7	30.85	9.905		
7,900.0	7,325.5	7,765.0	7,134.6	20.3	21.0	-51.41	-205.3	1,530.6	306.1	275.0	31.05	9.857		
8,000.0	7,325.9	7,863.5	7,134.2	20.4	21.0	-51.31	-303.8	1,530.5	306.6	275.2	31.37	9.772		
8,100.0	7,326.1	7,963.5	7,133.7	20.5	21.2	-51.19	-403.8	1,530.4	307.1	275.3	31.75	9.672		
8,200.0	7,326.3	8,063.5	7,133.1	20.6	21.3	-51.07	-503.8	1,530.2	307.6	275.4	32.19	9.553		
8,300.0	7,326.6	8,163.4	7,132.5	20.8	21.5	-50.96	-603.8	1,530.1	308.0	275.3	32.71	9.418		
8,400.0	7,326.8	8,263.4	7,132.0	21.0	21.8	-50.84	-703.8	1,529.9	308.5	275.3	33.29	9.269		
8,500.0	7,327.0	8,363.4	7,131.4	21.2	22.0	-50.73	-803.7	1,529.7	309.0	275.1	33.92	9.110		
8,600.0	7,327.2	8,463.4	7,130.8	21.5	22.3	-50.62	-903.7	1,529.6	309.5	274.9	34.62	8.941		
8,700.0	7,327.5	8,563.4	7,130.3	21.8	22.6	-50.50	-1,003.7	1,529.4	310.0	274.7	35.36	8.766		
8,800.0	7,327.7	8,663.4	7,129.7	22.1	23.0	-50.39	-1,103.7	1,529.3	310.5	274.4	36.16	8.587		
8,900.0	7,327.9	8,763.4	7,129.2	22.5	23.4	-50.28	-1,203.7	1,529.1	311.0	274.0	37.00	8.405		
9,000.0	7,328.1	8,863.4	7,128.6	22.9	23.8	-50.16	-1,303.7	1,528.9	311.5	273.6	37.89	8.222		
9,100.0	7,328.4	8,963.4	7,128.0	23.3	24.2	-50.05	-1,403.7	1,528.8	312.0	273.2	38.81	8.040		
9,200.0	7,328.6	9,063.4	7,127.5	23.8	24.7	-49.94	-1,503.7	1,528.6	312.5	272.7	39.77	7.859		
9,300.0	7,328.8	9,163.4	7,126.9	24.2	25.1	-49.83	-1,603.7	1,528.5	313.0	272.2	40.76	7.680		
9,400.0	7,329.0	9,263.4	7,126.3	24.7	25.6	-49.72	-1,703.7	1,528.3	313.5	271.7	41.78	7.504		
9,500.0	7,329.3	9,363.4	7,125.8	25.3	26.2	-49.61	-1,803.7	1,528.1	314.0	271.2	42.83	7.332		
9,600.0	7,329.5	9,463.4	7,125.2	25.8	26.7	-49.50	-1,903.7	1,528.0	314.5	270.6	43.90	7.165		
9,700.0	7,329.7	9,563.4	7,124.7	26.4	27.3	-49.39	-2,003.7	1,527.8	315.0	270.0	45.00	7.001		
9,800.0	7,329.9	9,663.4	7,124.1	27.0	27.8	-49.28	-2,103.7	1,527.7	315.5	269.4	46.11	6.843		
9,900.0	7,330.2	9,763.4	7,123.5	27.6	28.4	-49.17	-2,203.7	1,527.5	316.0	268.8	47.25	6.689		
10,000.0	7,330.4	9,863.4	7,123.0	28.2	29.1	-49.06	-2,303.7	1,527.3	316.5	268.1	48.40	6.540		
10,100.0	7,330.6	9,963.4	7,122.4	28.9	29.7	-48.95	-2,403.7	1,527.2	317.1	267.5	49.58	6.396		
10,200.0	7,330.8	10,063.4	7,121.8	29.5	30.3	-48.84	-2,503.7	1,527.0	317.6	266.8	50.76	6.256		

Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-372HN - Wellbore #1 - Plan #5 (10-22-13)													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.0	7,331.1	10,163.4	7,121.3	30.2	31.0	-48.73	-2,603.7	1,526.9	318.1	266.1	51.96	6.122		
10,400.0	7,331.3	10,263.4	7,120.7	30.9	31.7	-48.63	-2,703.7	1,526.7	318.6	265.4	53.17	5.992		
10,500.0	7,331.5	10,363.4	7,120.1	31.6	32.3	-48.52	-2,803.7	1,526.5	319.1	264.7	54.39	5.867		
10,600.0	7,331.7	10,463.4	7,119.6	32.3	33.0	-48.41	-2,903.6	1,526.4	319.6	264.0	55.63	5.746		
10,700.0	7,332.0	10,563.4	7,119.0	33.1	33.7	-48.31	-3,003.6	1,526.2	320.1	263.3	56.87	5.630		
10,800.0	7,332.2	10,663.4	7,118.5	33.8	34.5	-48.20	-3,103.6	1,526.1	320.7	262.5	58.12	5.518		
10,900.0	7,332.4	10,763.4	7,117.9	34.5	35.2	-48.09	-3,203.6	1,525.9	321.2	261.8	59.37	5.409		
11,000.0	7,332.6	10,863.4	7,117.3	35.3	35.9	-47.99	-3,303.6	1,525.7	321.7	261.1	60.64	5.305		
11,100.0	7,332.9	10,963.4	7,116.8	36.1	36.6	-47.88	-3,403.6	1,525.6	322.2	260.3	61.91	5.205		
11,200.0	7,333.1	11,063.4	7,116.2	36.8	37.4	-47.78	-3,503.6	1,525.4	322.7	259.6	63.19	5.108		
11,300.0	7,333.3	11,163.4	7,115.6	37.6	38.2	-47.67	-3,603.6	1,525.3	323.3	258.8	64.47	5.014		
11,400.0	7,333.5	11,263.4	7,115.1	38.4	38.9	-47.57	-3,703.6	1,525.1	323.8	258.0	65.75	4.924		
11,500.0	7,333.8	11,363.4	7,114.5	39.2	39.7	-47.47	-3,803.6	1,524.9	324.3	257.3	67.05	4.837		
11,600.0	7,334.0	11,463.3	7,114.0	40.0	40.5	-47.36	-3,903.6	1,524.8	324.9	256.5	68.34	4.753		
11,700.0	7,334.2	11,563.3	7,113.4	40.8	41.3	-47.26	-4,003.6	1,524.6	325.4	255.7	69.64	4.672		
11,800.0	7,334.4	11,663.3	7,112.8	41.6	42.0	-47.16	-4,103.6	1,524.5	325.9	255.0	70.94	4.594		
11,900.0	7,334.7	11,763.3	7,112.3	42.5	42.8	-47.05	-4,203.6	1,524.3	326.4	254.2	72.24	4.519		
12,000.0	7,334.9	11,863.3	7,111.7	43.3	43.6	-46.95	-4,303.6	1,524.1	327.0	253.4	73.55	4.446		
12,100.0	7,335.1	11,963.3	7,111.1	44.1	44.4	-46.85	-4,403.6	1,524.0	327.5	252.6	74.85	4.375		
12,200.0	7,335.3	12,063.3	7,110.6	44.9	45.2	-46.75	-4,503.6	1,523.8	328.0	251.9	76.16	4.307		
12,300.0	7,335.6	12,163.3	7,110.0	45.8	46.1	-46.65	-4,603.6	1,523.7	328.6	251.1	77.47	4.241		
12,355.9	7,335.7	12,219.0	7,109.7	46.2	46.5	-46.59	-4,659.2	1,523.6	328.9	250.7	78.21	4.205		

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-86.99	1.1	-20.0	20.0					
100.0	100.0	100.0	100.0	0.1	0.1	-86.99	1.1	-20.0	20.0	19.8	0.27	75.530		
200.0	200.0	200.0	200.0	0.4	0.4	-86.99	1.1	-20.0	20.0	19.3	0.80	25.177		
300.0	300.0	300.0	300.0	0.7	0.7	-86.99	1.1	-20.0	20.0	18.7	1.33	15.106		
400.0	400.0	400.0	400.0	0.9	0.9	-86.99	1.1	-20.0	20.0	18.2	1.86	10.790		
500.0	500.0	500.0	500.0	1.2	1.2	-86.99	1.1	-20.0	20.0	17.7	2.39	8.392		
600.0	600.0	600.0	600.0	1.5	1.5	-86.99	1.1	-20.0	20.0	17.1	2.92	6.866		
700.0	700.0	700.0	700.0	1.7	1.7	-86.99	1.1	-20.0	20.0	16.6	3.45	5.810		
800.0	800.0	800.0	800.0	2.0	2.0	-86.99	1.1	-20.0	20.0	16.1	3.98	5.035		
900.0	900.0	900.0	900.0	2.3	2.3	-86.99	1.1	-20.0	20.0	15.5	4.51	4.443		
1,000.0	1,000.0	1,000.0	1,000.0	2.5	2.5	-86.99	1.1	-20.0	20.0	15.0	5.04	3.975		
1,100.0	1,100.0	1,100.0	1,100.0	2.8	2.8	-86.99	1.1	-20.0	20.0	14.5	5.57	3.597		
1,200.0	1,200.0	1,200.0	1,200.0	3.1	3.1	-86.99	1.1	-20.0	20.0	13.9	6.11	3.284		
1,300.0	1,300.0	1,300.0	1,300.0	3.3	3.3	-86.99	1.1	-20.0	20.0	13.4	6.64	3.021		
1,400.0	1,400.0	1,400.0	1,400.0	3.6	3.6	-86.99	1.1	-20.0	20.0	12.9	7.17	2.797		
1,500.0	1,500.0	1,500.0	1,500.0	3.8	3.8	-86.99	1.1	-20.0	20.0	12.4	7.70	2.604		
1,600.0	1,600.0	1,600.0	1,600.0	4.1	4.1	-86.99	1.1	-20.0	20.0	11.8	8.23	2.436		
1,700.0	1,700.0	1,700.0	1,700.0	4.4	4.4	-86.99	1.1	-20.0	20.0	11.3	8.76	2.289		
1,800.0	1,800.0	1,800.0	1,800.0	4.6	4.6	-86.99	1.1	-20.0	20.0	10.8	9.29	2.158		
1,900.0	1,900.0	1,900.0	1,900.0	4.9	4.9	-86.99	1.1	-20.0	20.0	10.2	9.82	2.041		
2,000.0	2,000.0	2,000.0	2,000.0	5.2	5.2	-86.99	1.1	-20.0	20.0	9.7	10.35	1.937		
2,100.0	2,100.0	2,100.0	2,100.0	5.4	5.4	-86.99	1.1	-20.0	20.0	9.2	10.88	1.842		
2,200.0	2,200.0	2,200.0	2,200.0	5.7	5.7	-86.99	1.1	-20.0	20.0	8.6	11.41	1.757		
2,300.0	2,300.0	2,300.0	2,300.0	6.0	6.0	-86.99	1.1	-20.0	20.0	8.1	11.95	1.678		
2,400.0	2,400.0	2,400.0	2,400.0	6.2	6.2	-86.99	1.1	-20.0	20.0	7.6	12.48	1.607		
2,500.0	2,500.0	2,500.0	2,500.0	6.5	6.5	-86.99	1.1	-20.0	20.0	7.0	13.01	1.541		
2,600.0	2,600.0	2,600.0	2,600.0	6.8	6.8	-86.99	1.1	-20.0	20.0	6.5	13.54	1.481 Level 3		
2,700.0	2,700.0	2,700.0	2,700.0	7.0	7.0	-86.99	1.1	-20.0	20.0	6.0	14.07	1.425 Level 3		
2,800.0	2,800.0	2,800.0	2,800.0	7.3	7.3	-86.99	1.1	-20.0	20.0	5.4	14.60	1.373 Level 3		
2,900.0	2,900.0	2,900.0	2,900.0	7.6	7.6	-86.99	1.1	-20.0	20.0	4.9	15.13	1.325 Level 3		
3,000.0	3,000.0	3,000.0	3,000.0	7.8	7.8	-86.99	1.1	-20.0	20.0	4.4	15.66	1.280 Level 3		
3,100.0	3,100.0	3,100.0	3,100.0	8.1	8.1	-86.99	1.1	-20.0	20.0	3.9	16.19	1.238 Level 2		
3,200.0	3,200.0	3,200.0	3,200.0	8.4	8.4	-86.99	1.1	-20.0	20.0	3.3	16.72	1.199 Level 2		
3,300.0	3,300.0	3,300.0	3,300.0	8.6	8.6	-86.99	1.1	-20.0	20.0	2.8	17.25	1.162 Level 2		
3,400.0	3,400.0	3,400.0	3,400.0	8.9	8.9	-86.99	1.1	-20.0	20.0	2.3	17.78	1.127 Level 2		
3,500.0	3,500.0	3,500.0	3,500.0	9.2	9.2	-86.99	1.1	-20.0	20.0	1.7	18.32	1.095 Level 2		
3,600.0	3,600.0	3,600.0	3,600.0	9.4	9.4	-86.99	1.1	-20.0	20.0	1.2	18.85	1.064 Level 2		
3,700.0	3,700.0	3,700.0	3,700.0	9.7	9.7	-86.99	1.1	-20.0	20.0	0.7	19.38	1.035 Level 2		
3,800.0	3,800.0	3,800.0	3,800.0	10.0	10.0	-86.99	1.1	-20.0	20.0	0.1	19.91	1.007 Level 2		
3,900.0	3,900.0	3,900.0	3,900.0	10.2	10.2	-86.99	1.1	-20.0	20.0	-0.4	20.44	0.981 Level 1		
4,000.0	4,000.0	4,000.0	4,000.0	10.5	10.5	-86.99	1.1	-20.0	20.0	-0.9	20.97	0.956 Level 1		
4,100.0	4,100.0	4,100.0	4,100.0	10.8	10.8	-86.99	1.1	-20.0	20.0	-1.5	21.50	0.932 Level 1		
4,200.0	4,200.0	4,200.0	4,200.0	11.0	11.0	-86.99	1.1	-20.0	20.0	-2.0	22.03	0.910 Level 1		
4,300.0	4,300.0	4,300.0	4,300.0	11.3	11.3	-86.99	1.1	-20.0	20.0	-2.5	22.56	0.889 Level 1		
4,400.0	4,400.0	4,400.0	4,400.0	11.5	11.5	-86.99	1.1	-20.0	20.0	-3.0	23.09	0.868 Level 1		
4,500.0	4,500.0	4,500.0	4,500.0	11.8	11.8	-86.99	1.1	-20.0	20.0	-3.6	23.62	0.849 Level 1		
4,600.0	4,600.0	4,600.0	4,600.0	12.1	12.1	-86.99	1.1	-20.0	20.0	-4.1	24.16	0.830 Level 1, CC, ES, SF		
4,700.0	4,700.0	4,700.0	4,700.0	12.3	12.3	-166.83	1.1	-20.0	22.6	-2.0	24.60	0.918 Level 1		
4,800.0	4,799.6	4,799.6	4,799.6	12.4	12.6	-170.17	1.1	-20.0	30.3	5.4	24.91	1.215 Level 2		
4,900.0	4,898.8	4,898.8	4,898.8	12.6	12.9	-173.08	1.1	-20.0	43.2	18.0	25.16	1.717		
5,000.0	4,997.1	5,000.2	5,000.1	12.7	13.1	-174.71	1.8	-17.5	58.8	33.5	25.29	2.326		
5,100.0	5,094.3	5,102.5	5,102.1	12.9	13.3	-175.29	4.1	-9.8	74.4	49.1	25.31	2.941		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-NS-GYRO-MS													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.0	5,190.2	5,205.6	5,204.3	13.1	13.4	-175.36	8.0	3.4	89.9	64.7	25.27	3.560		
5,300.0	5,284.4	5,309.7	5,306.5	13.3	13.6	-175.15	13.6	21.9	105.3	80.2	25.17	4.186		
5,400.0	5,376.8	5,414.6	5,408.4	13.5	13.8	-174.75	20.8	46.0	120.6	95.5	25.00	4.821		
5,500.0	5,467.1	5,520.5	5,509.6	13.7	14.0	-174.22	29.7	75.7	135.5	110.8	24.79	5.468		
5,600.0	5,554.9	5,627.2	5,609.8	13.9	14.2	-173.59	40.2	111.0	150.3	125.8	24.52	6.130		
5,700.0	5,640.8	5,735.0	5,708.7	14.1	14.4	-172.88	52.5	152.1	163.6	139.0	24.66	6.635		
5,800.0	5,726.5	5,844.1	5,806.1	14.4	14.6	-171.87	66.5	199.0	171.8	146.7	25.06	6.856		
5,900.0	5,812.1	5,951.4	5,899.2	14.6	14.9	-170.52	81.9	250.2	174.6	149.1	25.47	6.854		
6,000.0	5,897.8	6,051.3	5,984.9	14.9	15.1	-169.17	96.5	299.3	175.8	149.9	25.89	6.790		
6,100.0	5,983.5	6,151.2	6,070.7	15.2	15.4	-167.83	111.2	348.4	177.1	150.7	26.32	6.728		
6,200.0	6,069.2	6,251.2	6,156.5	15.5	15.7	-166.51	125.9	397.6	178.5	151.7	26.77	6.666		
6,300.0	6,154.9	6,351.1	6,242.2	15.8	15.9	-165.22	140.6	446.7	179.9	152.7	27.24	6.606		
6,400.0	6,240.6	6,451.0	6,328.0	16.1	16.2	-163.95	155.3	495.8	181.5	153.8	27.73	6.547		
6,500.0	6,326.3	6,550.9	6,413.7	16.5	16.5	-162.70	169.9	544.9	183.2	155.0	28.23	6.489		
6,600.0	6,411.9	6,650.8	6,499.5	16.8	16.9	-161.47	184.6	594.0	184.9	156.2	28.75	6.432		
6,700.0	6,497.6	6,750.7	6,585.2	17.2	17.2	-160.26	199.3	643.1	186.8	157.5	29.29	6.376		
6,800.0	6,583.3	6,850.6	6,671.0	17.5	17.5	-159.08	214.0	692.2	188.7	158.8	29.85	6.320		
6,900.0	6,669.0	6,955.4	6,761.3	17.9	17.9	-159.02	225.5	743.9	190.0	159.6	30.35	6.258		
7,000.0	6,754.7	7,059.5	6,850.9	18.3	18.2	-165.56	214.8	795.3	188.3	157.9	30.38	6.199		
7,025.6	6,776.6	7,084.1	6,871.6	18.4	18.2	-168.17	208.7	807.2	188.1	157.8	30.36	6.197		
7,100.0	6,840.4	7,150.0	6,925.2	18.6	18.3	-176.98	186.0	837.9	190.8	160.4	30.43	6.272		
7,200.0	6,926.1	7,222.3	6,979.9	19.0	18.4	165.22	150.8	869.4	207.9	176.6	31.32	6.639		
7,300.0	7,011.9	7,287.9	7,024.5	19.4	18.5	131.12	110.3	895.1	237.5	204.0	33.57	7.076		
7,400.0	7,094.4	7,350.0	7,061.6	19.6	18.6	104.47	65.4	916.4	270.8	235.9	34.85	7.769		
7,500.0	7,169.2	7,412.0	7,092.7	19.9	18.6	86.19	15.0	934.4	302.4	268.0	34.45	8.778		
7,600.0	7,232.6	7,475.0	7,117.8	20.0	18.7	74.32	-41.0	948.9	329.6	296.9	32.70	10.079		
7,700.0	7,281.3	7,531.1	7,134.1	20.1	18.7	67.10	-93.7	958.4	350.3	320.0	30.36	11.538		
7,800.0	7,312.8	7,589.7	7,144.7	20.2	18.7	62.99	-151.0	964.7	363.8	335.5	28.31	12.848		
7,900.0	7,325.5	7,650.0	7,148.7	20.3	18.8	61.40	-211.1	967.1	369.3	341.9	27.35	13.504		
8,000.0	7,325.9	7,741.4	7,148.0	20.4	18.9	61.26	-302.5	967.0	369.8	342.6	27.26	13.566		
8,100.0	7,326.1	7,841.4	7,147.3	20.5	19.0	61.12	-402.5	966.8	370.3	343.1	27.27	13.579		
8,200.0	7,326.3	7,941.4	7,146.5	20.6	19.1	60.98	-502.5	966.7	370.8	343.5	27.39	13.540		
8,300.0	7,326.6	8,041.4	7,145.7	20.8	19.3	60.85	-602.5	966.5	371.4	343.7	27.61	13.452		
8,400.0	7,326.8	8,141.4	7,144.9	21.0	19.5	60.71	-702.5	966.3	371.9	343.9	27.92	13.319		
8,500.0	7,327.0	8,241.4	7,144.1	21.2	19.8	60.58	-802.5	966.2	372.4	344.1	28.33	13.145		
8,600.0	7,327.2	8,341.4	7,143.3	21.5	20.1	60.45	-902.5	966.0	372.9	344.1	28.83	12.935		
8,700.0	7,327.5	8,441.4	7,142.5	21.8	20.4	60.31	-1,002.5	965.8	373.4	344.0	29.41	12.696		
8,800.0	7,327.7	8,541.4	7,141.7	22.1	20.7	60.18	-1,102.4	965.6	373.9	343.9	30.08	12.433		
8,900.0	7,327.9	8,641.4	7,141.0	22.5	21.1	60.05	-1,202.4	965.5	374.5	343.6	30.81	12.153		
9,000.0	7,328.1	8,741.4	7,140.2	22.9	21.5	59.91	-1,302.4	965.3	375.0	343.4	31.62	11.860		
9,100.0	7,328.4	8,841.4	7,139.4	23.3	22.0	59.78	-1,402.4	965.1	375.5	343.0	32.48	11.559		
9,200.0	7,328.6	8,941.4	7,138.6	23.8	22.4	59.65	-1,502.4	965.0	376.0	342.6	33.41	11.255		
9,300.0	7,328.8	9,041.4	7,137.8	24.2	22.9	59.52	-1,602.4	964.8	376.6	342.2	34.39	10.951		
9,400.0	7,329.0	9,141.4	7,137.0	24.7	23.4	59.39	-1,702.4	964.6	377.1	341.7	35.41	10.649		
9,500.0	7,329.3	9,241.4	7,136.2	25.3	24.0	59.26	-1,802.4	964.4	377.6	341.2	36.48	10.352		
9,600.0	7,329.5	9,341.4	7,135.4	25.8	24.5	59.13	-1,902.4	964.3	378.2	340.6	37.58	10.062		
9,700.0	7,329.7	9,441.4	7,134.7	26.4	25.1	59.00	-2,002.4	964.1	378.7	340.0	38.72	9.780		
9,800.0	7,329.9	9,541.3	7,133.9	27.0	25.7	58.87	-2,102.4	963.9	379.2	339.3	39.90	9.506		
9,900.0	7,330.2	9,641.3	7,133.1	27.6	26.4	58.74	-2,202.4	963.8	379.8	338.7	41.10	9.241		
10,000.0	7,330.4	9,741.3	7,132.3	28.2	27.0	58.61	-2,302.3	963.6	380.3	338.0	42.32	8.986		
10,100.0	7,330.6	9,841.3	7,131.5	28.9	27.6	58.48	-2,402.3	963.4	380.9	337.3	43.57	8.741		
10,200.0	7,330.8	9,941.3	7,130.7	29.5	28.3	58.35	-2,502.3	963.2	381.4	336.6	44.85	8.505		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Tailholt FD Horizontal Pad Sec.11-T6N-R67W - Tailholt FD 11-374HN - Wellbore #1 - Plan #4 (10-22-13)												Offset Site Error:	0.0 ft
Survey Program: 0-N5-GYRO-MS												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.0	7,331.1	10,041.3	7,129.9	30.2	29.0	58.22	-2,602.3	963.1	382.0	335.8	46.14	8.279	
10,400.0	7,331.3	10,141.3	7,129.1	30.9	29.7	58.10	-2,702.3	962.9	382.5	335.1	47.44	8.063	
10,500.0	7,331.5	10,241.3	7,128.3	31.6	30.4	57.97	-2,802.3	962.7	383.1	334.3	48.77	7.855	
10,600.0	7,331.7	10,341.3	7,127.6	32.3	31.1	57.84	-2,902.3	962.6	383.6	333.5	50.10	7.657	
10,700.0	7,332.0	10,441.3	7,126.8	33.1	31.9	57.72	-3,002.3	962.4	384.2	332.7	51.45	7.467	
10,800.0	7,332.2	10,541.3	7,126.0	33.8	32.6	57.59	-3,102.3	962.2	384.7	331.9	52.81	7.285	
10,900.0	7,332.4	10,641.3	7,125.2	34.5	33.3	57.47	-3,202.3	962.0	385.3	331.1	54.18	7.111	
11,000.0	7,332.6	10,741.3	7,124.4	35.3	34.1	57.34	-3,302.3	961.9	385.9	330.3	55.56	6.945	
11,100.0	7,332.9	10,841.3	7,123.6	36.1	34.9	57.22	-3,402.3	961.7	386.4	329.5	56.95	6.786	
11,200.0	7,333.1	10,941.3	7,122.8	36.8	35.6	57.09	-3,502.2	961.5	387.0	328.7	58.34	6.633	
11,300.0	7,333.3	11,041.3	7,122.0	37.6	36.4	56.97	-3,602.2	961.4	387.6	327.8	59.74	6.487	
11,400.0	7,333.5	11,141.3	7,121.3	38.4	37.2	56.84	-3,702.2	961.2	388.1	327.0	61.15	6.347	
11,500.0	7,333.8	11,241.3	7,120.5	39.2	38.0	56.72	-3,802.2	961.0	388.7	326.1	62.56	6.213	
11,600.0	7,334.0	11,341.3	7,119.7	40.0	38.8	56.60	-3,902.2	960.8	389.3	325.3	63.98	6.084	
11,700.0	7,334.2	11,441.2	7,118.9	40.8	39.6	56.47	-4,002.2	960.7	389.9	324.5	65.40	5.961	
11,800.0	7,334.4	11,541.2	7,118.1	41.6	40.4	56.35	-4,102.2	960.5	390.4	323.6	66.83	5.843	
11,900.0	7,334.7	11,641.2	7,117.3	42.5	41.2	56.23	-4,202.2	960.3	391.0	322.8	68.25	5.729	
12,000.0	7,334.9	11,741.2	7,116.5	43.3	42.1	56.11	-4,302.2	960.2	391.6	321.9	69.68	5.620	
12,100.0	7,335.1	11,841.2	7,115.7	44.1	42.9	55.99	-4,402.2	960.0	392.2	321.1	71.12	5.515	
12,200.0	7,335.3	11,941.2	7,115.0	44.9	43.7	55.87	-4,502.2	959.8	392.8	320.2	72.55	5.414	
12,300.0	7,335.6	12,041.2	7,114.2	45.8	44.5	55.75	-4,602.2	959.6	393.3	319.4	73.99	5.316	
12,355.9	7,335.7	12,097.1	7,113.7	46.2	45.0	55.68	-4,658.0	959.6	393.7	318.9	74.79	5.264	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4890.7ft (RKB - 16.5')  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Tailholt FD 11-373HC  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.41°



<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Tailholt FD 11-373HC
<b>Project:</b>	SEC.11-T6N-R67W	<b>TVD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Reference Site:</b>	Tailholt FD Horizontal Pad Sec.11-T6N-R67W	<b>MD Reference:</b>	WELL @ 4890.7ft (RKB - 16.5')
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Tailholt FD 11-373HC	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #4 (10-22-13)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4890.7ft (RKB - 16.5')  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °

Coordinates are relative to: Tailholt FD 11-373HC  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.41°

