

Great Western

Well Name: **Raindance FD 30-029HN**

Surface Location: Raindance West Pad Sec.30-T6N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

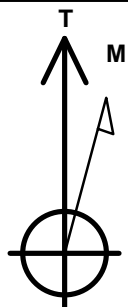
Ground Elevation: 4995.9

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1407828.18	3157124.72	40.451517	-104.935406	

RKB - 16.5' WELL @ 5012.4ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 352'FSL & 2479'FEL	1.0	0.0	0.0	Point
BHL 470'FNL & 2150'FWL	7220.4	4398.0	-279.7	Point
Entry Pt. 460'FSL & 2150'FWL	7220.4	100.2	-291.4	Point



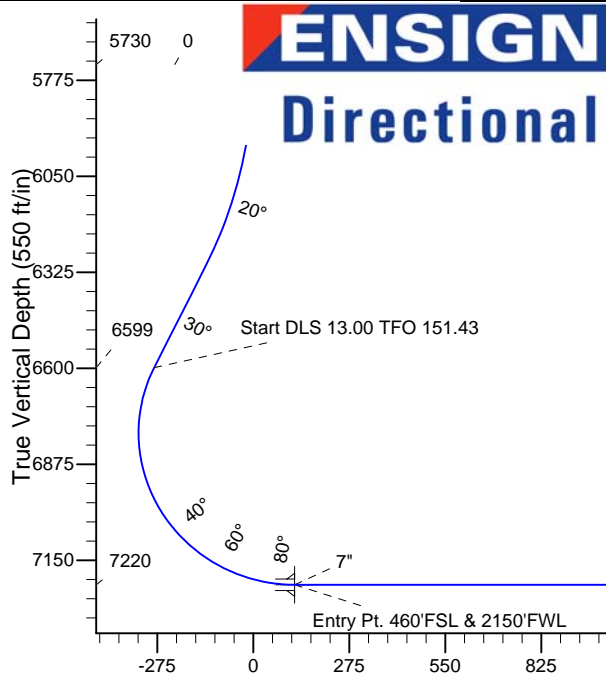
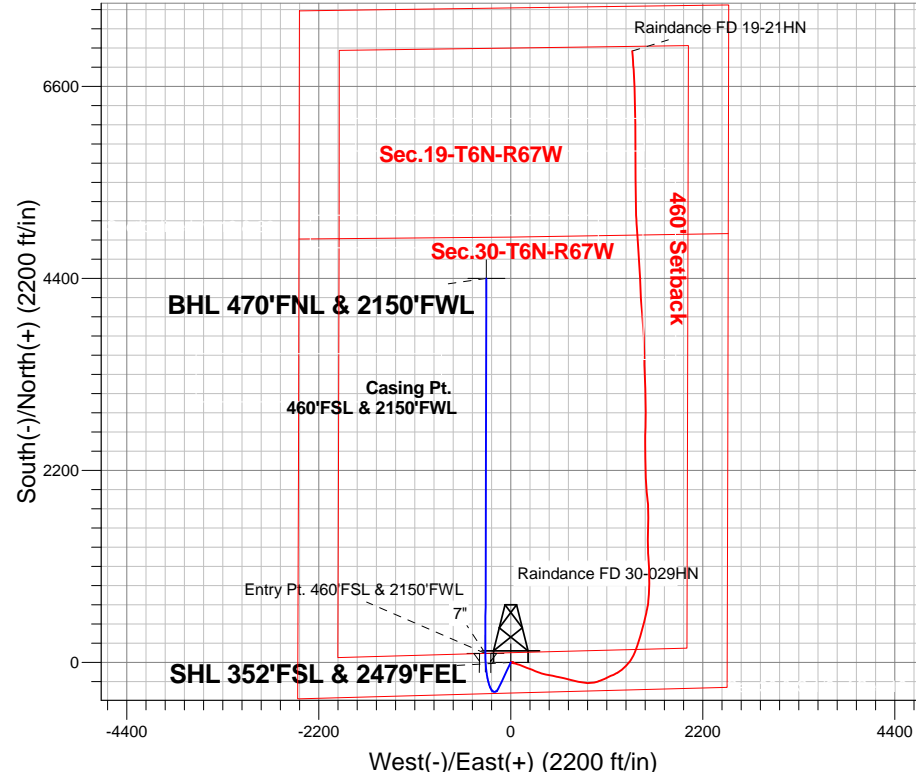
Azimuths to True North
Magnetic North: 8.63°

Magnetic Field
Strength: 52884.4snT
Dip Angle: 66.98°
Date: 11/13/2013
Model: IGRF2010

Raindance West Pad Sec.30-T6N-R67W
Raindance FD 30-029HN
Plan #1 (11-13-13)
9:11, November 14 2013

ANNOTATIONS

TVD	MD	Annotation
5730.0	5730.0	KOP - Start Build 5.00
6598.7	6671.6	Start DLS 13.00 TFO 151.43
7220.4	11868.9	TD at 11868.9



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	5730.0	0.00	0.00	5730.0	0.0	0.0	0.00	0.00	0.0	
3	6330.8	30.04	205.40	6303.7	-139.1	-66.0	5.00	205.40	-134.6	
4	6671.6	30.04	205.40	6598.7	-293.2	-139.2	0.00	0.00	-283.8	
5	7571.1	90.00	0.16	7220.4	100.2	-291.4	13.00	151.43	118.5	Entry Pt. 460'FSL & 2150'FWL
6	7571.4	90.00	0.16	7220.4	100.5	-291.4	1.00	-90.00	118.8	
7	11868.9	90.00	0.16	7220.4	4398.0	-279.7	0.00	0.00	4406.9	BHL 470'FNL & 2150'FWL

Vertical Section at 356.36° (550 ft/in)



Great Western

SEC.30-T6N-R67W

Raindance West Pad Sec.30-T6N-R67W

Raindance FD 30-029HN

Wellbore #1

Plan: Plan #1 (11-13-13)

Standard Planning Report

14 November, 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	
5,730.0	0.00	0.00	5,730.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,330.8	30.04	205.40	6,303.7	-139.1	-66.0	5.00	5.00	0.00	205.40	
6,671.6	30.04	205.40	6,598.7	-293.2	-139.2	0.00	0.00	0.00	0.00	
7,571.1	90.00	0.16	7,220.4	100.2	-291.4	13.00	6.67	17.21	151.43	Entry Pt. 460'FSL &
7,571.4	90.00	0.16	7,220.4	100.5	-291.4	1.00	0.00	-1.00	-90.00	
11,868.9	90.00	0.16	7,220.4	4,398.0	-279.7	0.00	0.00	0.00	0.00	BHL 470'FNL & 215'

Database:	Landmark	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Company:	Great Western	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Project:	SEC.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site:	Raindance West Pad Sec.30-T6N-R67W	North Reference:	True
Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-13-13)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 352'FSL & 2479'FEL									
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
1,100.0	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
3,700.0	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
4,200.0	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
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
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Site:	Raindance West Pad Sec.30-T6N-R67W	North Reference:	True
Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-13-13)		

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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,730.0	0.00	0.00	5,730.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 5.00									
5,800.0	3.50	205.40	5,800.0	-1.9	-0.9	-1.9	5.00	5.00	0.00
5,900.0	8.50	205.40	5,899.4	-11.4	-5.4	-11.0	5.00	5.00	0.00
6,000.0	13.50	205.40	5,997.5	-28.6	-13.6	-27.7	5.00	5.00	0.00
6,100.0	18.50	205.40	6,093.6	-53.5	-25.4	-51.8	5.00	5.00	0.00
6,200.0	23.50	205.40	6,186.9	-85.9	-40.8	-83.1	5.00	5.00	0.00
6,300.0	28.50	205.40	6,276.8	-125.4	-59.6	-121.4	5.00	5.00	0.00
6,330.8	30.04	205.40	6,303.7	-139.1	-66.0	-134.6	5.00	5.00	0.00
6,400.0	30.04	205.40	6,363.6	-170.3	-80.9	-164.9	0.00	0.00	0.00
6,500.0	30.04	205.40	6,450.1	-215.6	-102.3	-208.6	0.00	0.00	0.00
6,600.0	30.04	205.40	6,536.7	-260.8	-123.8	-252.4	0.00	0.00	0.00
6,671.6	30.04	205.40	6,598.7	-293.2	-139.2	-283.7	0.00	0.00	0.00
Start DLS 13.00 TFO 151.43									
6,700.0	26.86	209.30	6,623.6	-305.2	-145.4	-295.4	12.98	-11.22	13.75
6,800.0	17.16	233.13	6,716.4	-333.9	-168.3	-322.5	13.00	-9.69	23.83
6,900.0	14.12	281.55	6,813.1	-340.3	-192.2	-327.4	13.00	-3.05	48.43
7,000.0	20.87	319.86	6,908.7	-324.2	-215.7	-309.8	13.00	6.75	38.30
7,100.0	31.66	336.60	6,998.4	-286.3	-237.7	-270.7	13.00	10.80	16.74
7,200.0	43.59	345.15	7,077.5	-228.7	-257.1	-211.9	13.00	11.93	8.56
7,300.0	55.93	350.56	7,142.0	-154.2	-272.8	-136.5	13.00	12.34	5.41
7,400.0	68.44	354.57	7,188.6	-66.6	-284.0	-48.5	13.00	12.51	4.01
7,500.0	81.03	357.93	7,214.8	29.4	-290.2	47.8	13.00	12.59	3.36
7,571.1	90.00	0.16	7,220.4	100.2	-291.4	118.5	12.99	12.61	3.14
7" - Entry Pt. 460'FSL & 2150'FWL									
7,571.4	90.00	0.16	7,220.4	100.5	-291.4	118.8	1.39	1.20	-0.70
7,600.0	90.00	0.16	7,220.4	129.1	-291.3	147.4	0.00	0.00	0.00
7,700.0	90.00	0.16	7,220.4	229.1	-291.0	247.1	0.00	0.00	0.00
7,800.0	90.00	0.16	7,220.4	329.1	-290.8	346.9	0.00	0.00	0.00
7,900.0	90.00	0.16	7,220.4	429.1	-290.5	446.7	0.00	0.00	0.00
8,000.0	90.00	0.16	7,220.4	529.1	-290.2	546.5	0.00	0.00	0.00
8,100.0	90.00	0.16	7,220.4	629.1	-289.9	646.3	0.00	0.00	0.00
8,200.0	90.00	0.16	7,220.4	729.1	-289.7	746.0	0.00	0.00	0.00
8,300.0	90.00	0.16	7,220.4	829.1	-289.4	845.8	0.00	0.00	0.00
8,400.0	90.00	0.16	7,220.4	929.1	-289.1	945.6	0.00	0.00	0.00
8,500.0	90.00	0.16	7,220.4	1,029.1	-288.9	1,045.4	0.00	0.00	0.00
8,600.0	90.00	0.16	7,220.4	1,129.1	-288.6	1,145.2	0.00	0.00	0.00
8,700.0	90.00	0.16	7,220.4	1,229.1	-288.3	1,244.9	0.00	0.00	0.00
8,800.0	90.00	0.16	7,220.4	1,329.1	-288.0	1,344.7	0.00	0.00	0.00
8,900.0	90.00	0.16	7,220.4	1,429.1	-287.8	1,444.5	0.00	0.00	0.00
9,000.0	90.00	0.16	7,220.4	1,529.1	-287.5	1,544.3	0.00	0.00	0.00
9,100.0	90.00	0.16	7,220.4	1,629.1	-287.2	1,644.1	0.00	0.00	0.00
9,200.0	90.00	0.16	7,220.4	1,729.1	-286.9	1,743.8	0.00	0.00	0.00
9,300.0	90.00	0.16	7,220.4	1,829.1	-286.7	1,843.6	0.00	0.00	0.00
9,400.0	90.00	0.16	7,220.4	1,929.1	-286.4	1,943.4	0.00	0.00	0.00
9,500.0	90.00	0.16	7,220.4	2,029.1	-286.1	2,043.2	0.00	0.00	0.00
9,600.0	90.00	0.16	7,220.4	2,129.1	-285.8	2,143.0	0.00	0.00	0.00

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Company:	Great Western	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Project:	SEC.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site:	Raindance West Pad Sec.30-T6N-R67W	North Reference:	True
Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-13-13)		

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)	
9,700.0	90.00	0.16	7,220.4	2,229.1	-285.6	2,242.8	0.00	0.00	0.00	
9,800.0	90.00	0.16	7,220.4	2,329.1	-285.3	2,342.5	0.00	0.00	0.00	
9,900.0	90.00	0.16	7,220.4	2,429.1	-285.0	2,442.3	0.00	0.00	0.00	
10,000.0	90.00	0.16	7,220.4	2,529.1	-284.8	2,542.1	0.00	0.00	0.00	
10,100.0	90.00	0.16	7,220.4	2,629.1	-284.5	2,641.9	0.00	0.00	0.00	
10,200.0	90.00	0.16	7,220.4	2,729.1	-284.2	2,741.7	0.00	0.00	0.00	
10,300.0	90.00	0.16	7,220.4	2,829.1	-283.9	2,841.4	0.00	0.00	0.00	
10,400.0	90.00	0.16	7,220.4	2,929.1	-283.7	2,941.2	0.00	0.00	0.00	
10,500.0	90.00	0.16	7,220.4	3,029.1	-283.4	3,041.0	0.00	0.00	0.00	
10,600.0	90.00	0.16	7,220.4	3,129.1	-283.1	3,140.8	0.00	0.00	0.00	
10,700.0	90.00	0.16	7,220.4	3,229.1	-282.8	3,240.6	0.00	0.00	0.00	
10,800.0	90.00	0.16	7,220.4	3,329.1	-282.6	3,340.3	0.00	0.00	0.00	
10,900.0	90.00	0.16	7,220.4	3,429.1	-282.3	3,440.1	0.00	0.00	0.00	
11,000.0	90.00	0.16	7,220.4	3,529.1	-282.0	3,539.9	0.00	0.00	0.00	
11,100.0	90.00	0.16	7,220.4	3,629.1	-281.8	3,639.7	0.00	0.00	0.00	
11,200.0	90.00	0.16	7,220.4	3,729.1	-281.5	3,739.5	0.00	0.00	0.00	
11,300.0	90.00	0.16	7,220.4	3,829.1	-281.2	3,839.2	0.00	0.00	0.00	
11,400.0	90.00	0.16	7,220.4	3,929.1	-280.9	3,939.0	0.00	0.00	0.00	
11,500.0	90.00	0.16	7,220.4	4,029.1	-280.7	4,038.8	0.00	0.00	0.00	
11,600.0	90.00	0.16	7,220.4	4,129.1	-280.4	4,138.6	0.00	0.00	0.00	
11,700.0	90.00	0.16	7,220.4	4,229.1	-280.1	4,238.4	0.00	0.00	0.00	
11,800.0	90.00	0.16	7,220.4	4,329.1	-279.8	4,338.1	0.00	0.00	0.00	
11,868.9	90.00	0.16	7,220.4	4,398.0	-279.7	4,406.9	0.00	0.00	0.00	
TD at 11868.9 - BHL 470'FNL & 2150'FWL										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,571.1	7,220.4	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
5,730.0	5,730.0	0.0	0.0	KOP - Start Build 5.00	
6,671.6	6,598.7	-293.2	-139.2	Start DLS 13.00 TFO 151.43	
11,868.9	7,220.4	4,398.0	-279.7	TD at 11868.9	



Great Western

SEC.30-T6N-R67W

Raindance West Pad Sec.30-T6N-R67W

Raindance FD 30-029HN

Wellbore #1

Plan #1 (11-13-13)

Anticollision Report

14 November, 2013

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS, 7105-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		
1,575.7	1,575.7	1,582.5	1,582.3	3.4	3.3	78.22	1.9	8.9	9.1	2.4	6.73	1.352 Level 3		
1,600.0	1,600.0	1,606.8	1,606.6	3.5	3.3	78.53	1.8	9.0	9.2	2.4	6.82	1.347 Level 3		
1,700.0	1,700.0	1,706.9	1,706.6	3.7	3.5	79.14	1.8	9.2	9.4	2.2	7.19	1.309 Level 3		
1,800.0	1,800.0	1,806.9	1,806.6	3.9	3.7	78.10	1.9	9.1	9.3	1.7	7.63	1.220 Level 2		
1,900.0	1,900.0	1,906.9	1,906.6	4.2	3.9	79.34	1.7	8.9	9.0	1.0	8.05	1.123 Level 2		
2,000.0	2,000.0	2,006.9	2,006.6	4.4	4.1	83.49	1.0	8.6	8.6	0.1	8.49	1.018 Level 2		
2,100.0	2,100.0	2,106.9	2,106.6	4.6	4.3	86.84	0.4	8.1	8.2	-0.8	8.94	0.912 Level 1		
2,200.0	2,200.0	2,206.9	2,206.7	4.8	4.6	86.38	0.5	7.5	7.6	-1.9	9.41	0.803 Level 1		
2,300.0	2,300.0	2,306.9	2,306.6	5.1	4.8	82.01	1.0	6.8	6.9	-3.0	9.85	0.700 Level 1		
2,400.0	2,400.0	2,406.9	2,406.6	5.3	5.0	74.18	1.7	6.1	6.4	-3.9	10.28	0.618 Level 1		
2,433.8	2,433.8	2,440.7	2,440.4	5.4	5.1	70.97	2.0	5.9	6.3	-4.1	10.41	0.604 Level 1, CC, SF		
2,500.0	2,500.0	2,506.8	2,506.6	5.5	5.2	65.43	2.7	5.9	6.5	-4.1	10.66	0.613 Level 1		
2,600.0	2,600.0	2,606.9	2,606.6	5.7	5.2	64.48	3.0	6.3	7.0	-4.0	10.98	0.634 Level 1		
2,700.0	2,700.0	2,706.9	2,706.6	6.0	5.4	70.12	2.4	6.6	7.0	-4.3	11.31	0.618 Level 1		
2,702.6	2,702.6	2,709.5	2,709.2	6.0	5.4	70.32	2.4	6.6	7.0	-4.3	11.31	0.617 Level 1		
2,800.0	2,800.0	2,806.8	2,806.5	6.2	5.5	79.36	1.4	7.5	7.7	-4.0	11.64	0.658 Level 1		
2,900.0	2,900.0	2,906.8	2,906.5	6.4	5.6	88.26	0.3	8.9	8.9	-3.1	11.97	0.741 Level 1		
3,000.0	3,000.0	3,006.8	3,006.5	6.6	5.7	95.49	-0.9	9.8	9.9	-2.4	12.32	0.801 Level 1		
3,100.0	3,100.0	3,106.9	3,106.5	6.9	5.8	101.34	-2.1	10.4	10.6	-2.0	12.69	0.839 Level 1		
3,200.0	3,200.0	3,206.9	3,206.6	7.1	6.0	105.59	-3.0	10.6	11.0	-2.1	13.10	0.840 Level 1		
3,300.0	3,300.0	3,307.0	3,306.7	7.3	6.2	108.59	-3.4	10.2	10.8	-2.7	13.55	0.798 Level 1		
3,400.0	3,400.0	3,407.0	3,406.7	7.5	6.5	113.37	-4.0	9.3	10.1	-3.9	14.02	0.723 Level 1		
3,500.0	3,500.0	3,507.0	3,506.7	7.8	6.7	123.40	-5.1	7.7	9.3	-5.2	14.49	0.639 Level 1		
3,569.5	3,569.5	3,576.5	3,576.1	7.9	6.9	133.94	-6.2	6.5	9.0	-5.8	14.82	0.605 Level 1		
3,600.0	3,600.0	3,607.0	3,606.6	8.0	7.0	139.09	-6.8	5.9	9.0	-5.9	14.96	0.604 Level 1		
3,700.0	3,700.0	3,706.9	3,706.5	8.2	7.2	150.10	-8.4	4.8	9.7	-5.7	15.42	0.628 Level 1		
3,800.0	3,800.0	3,807.0	3,806.5	8.4	7.4	150.69	-9.0	5.1	10.3	-5.5	15.80	0.655 Level 1		
3,900.0	3,900.0	3,907.0	3,906.5	8.7	7.5	147.47	-9.2	5.8	10.9	-5.3	16.12	0.674 Level 1		
4,000.0	4,000.0	4,006.9	4,006.5	8.9	7.6	143.04	-9.2	6.9	11.5	-5.0	16.44	0.697 Level 1		
4,100.0	4,100.0	4,107.0	4,106.6	9.1	7.6	138.94	-8.9	7.7	11.7	-5.0	16.75	0.701 Level 1		
4,200.0	4,200.0	4,207.1	4,206.7	9.3	7.7	134.72	-8.0	8.0	11.3	-5.8	17.07	0.663 Level 1		
4,255.5	4,255.5	4,262.5	4,262.1	9.5	7.8	131.91	-7.4	8.3	11.1	-6.1	17.26	0.646 Level 1		
4,300.0	4,300.0	4,307.0	4,306.5	9.6	7.9	129.77	-7.2	8.6	11.3	-6.2	17.40	0.647 Level 1, ES		
4,400.0	4,400.0	4,406.8	4,406.4	9.8	8.0	124.65	-7.0	10.2	12.4	-5.3	17.74	0.699 Level 1		
4,500.0	4,500.0	4,506.9	4,506.4	10.0	8.1	120.52	-7.1	12.0	13.9	-4.2	18.09	0.770 Level 1		
4,600.0	4,600.0	4,606.9	4,606.4	10.2	8.2	116.98	-6.9	13.5	15.1	-3.3	18.44	0.820 Level 1		
4,700.0	4,700.0	4,706.8	4,706.4	10.5	8.3	113.91	-6.6	15.0	16.4	-2.4	18.80	0.871 Level 1		
4,800.0	4,800.0	4,806.8	4,806.3	10.7	8.5	112.80	-7.0	16.7	18.1	-1.1	19.17	0.944 Level 1		
4,900.0	4,900.0	4,906.9	4,906.4	10.9	8.7	112.82	-7.6	18.2	19.7	0.1	19.56	1.007 Level 2		
5,000.0	5,000.0	5,006.9	5,006.4	11.1	8.8	112.87	-8.1	19.1	20.7	0.8	19.96	1.039 Level 2		
5,100.0	5,100.0	5,106.0	5,105.4	11.4	9.0	113.72	-9.5	21.7	23.8	3.4	20.36	1.167 Level 2		
5,200.0	5,200.0	5,204.3	5,203.5	11.6	9.2	110.62	-11.0	29.1	31.3	10.5	20.75	1.506		
5,300.0	5,300.0	5,302.3	5,300.7	11.8	9.3	107.24	-12.7	40.8	43.2	22.0	21.15	2.041		
5,400.0	5,400.0	5,400.0	5,397.1	12.0	9.5	106.99	-17.0	55.8	59.1	37.5	21.55	2.742		
5,500.0	5,500.0	5,493.8	5,489.0	12.2	9.7	107.35	-23.0	73.7	79.2	57.3	21.94	3.611		
5,600.0	5,600.0	5,589.9	5,582.5	12.5	9.9	107.41	-29.7	94.8	102.2	79.9	22.35	4.574		
5,700.0	5,700.0	5,687.3	5,677.1	12.7	10.1	107.83	-37.4	116.4	125.8	103.0	22.76	5.527		
5,800.0	5,800.0	5,778.1	5,765.0	12.9	10.3	-96.75	-46.0	137.6	151.2	128.1	23.12	6.539		
5,900.0	5,899.4	5,863.3	5,846.3	13.1	10.5	-97.58	-55.4	161.5	182.6	159.2	23.45	7.789		
6,000.0	5,997.5	5,945.8	5,923.5	13.3	10.7	-99.36	-65.9	188.6	220.8	197.1	23.76	9.296		
6,100.0	6,093.6	6,028.7	6,000.1	13.4	10.9	-101.64	-76.8	218.4	264.6	240.6	24.06	10.998		
6,200.0	6,186.9	6,113.7	6,078.3	13.7	11.1	-104.04	-88.7	249.4	312.2	287.8	24.37	12.811		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Raindance FD Horizontal Pad Sec.30-T6N-R67W - Raindance FD 19-21HN - Wellbore #1 - Wellbore #1												Offset Well Error:	0.0 ft
Survey Program: 100-NS-GYRO-MS, 7105-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
6,300.0	6,276.8	6,192.5	6,150.7	13.9	11.3	-105.93	-100.3	278.4	363.9	339.2	24.68	14.742	
6,400.0	6,363.6	6,261.9	6,214.0	14.3	11.5	-109.05	-110.9	304.8	420.3	395.2	25.02	16.797	
6,500.0	6,450.1	6,322.5	6,268.6	14.7	11.6	-111.90	-120.6	329.2	480.2	454.8	25.40	18.906	
6,600.0	6,536.7	6,371.3	6,311.7	15.1	11.8	-113.82	-128.0	350.9	544.7	518.8	25.83	21.088	
6,700.0	6,623.6	6,400.0	6,336.5	15.6	11.8	-121.97	-132.1	364.6	613.5	587.4	26.09	23.512	
6,800.0	6,716.4	6,458.9	6,386.4	16.1	12.0	-157.55	-139.8	395.0	684.4	658.2	26.21	26.109	
6,900.0	6,813.1	6,500.0	6,420.2	16.4	12.2	144.75	-144.6	417.9	755.1	728.2	26.81	28.166	
7,000.0	6,908.7	6,541.1	6,453.3	16.6	12.3	99.82	-149.2	441.8	822.5	795.1	27.36	30.056	
7,100.0	6,998.4	6,577.8	6,482.4	16.6	12.4	78.55	-153.3	463.8	884.8	857.4	27.41	32.277	
7,200.0	7,077.5	6,600.0	6,499.8	16.6	12.5	66.44	-155.7	477.4	941.4	914.6	26.77	35.164	
7,300.0	7,142.0	6,626.3	6,520.1	16.5	12.6	59.35	-158.8	493.7	991.2	965.5	25.70	38.563	

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 19-232HN - Wellbore #1 - Plan #1 (11-12-13)													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	89.31	0.7	60.4	60.4					
100.0	100.0	100.0	100.0	0.1	0.1	89.31	0.7	60.4	60.4	60.2	0.22	268.713		
200.0	200.0	200.0	200.0	0.3	0.3	89.31	0.7	60.4	60.4	59.7	0.67	89.571		
300.0	300.0	300.0	300.0	0.6	0.6	89.31	0.7	60.4	60.4	59.3	1.12	53.743		
400.0	400.0	400.0	400.0	0.8	0.8	89.31	0.7	60.4	60.4	58.8	1.57	38.388		
500.0	500.0	500.0	500.0	1.0	1.0	89.31	0.7	60.4	60.4	58.4	2.02	29.857		
600.0	600.0	600.0	600.0	1.2	1.2	89.31	0.7	60.4	60.4	57.9	2.47	24.428		
700.0	700.0	700.0	700.0	1.5	1.5	89.31	0.7	60.4	60.4	57.5	2.92	20.670		
800.0	800.0	800.0	800.0	1.7	1.7	89.31	0.7	60.4	60.4	57.0	3.37	17.914		
900.0	900.0	900.0	900.0	1.9	1.9	89.31	0.7	60.4	60.4	56.6	3.82	15.807		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.31	0.7	60.4	60.4	56.1	4.27	14.143		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	89.31	0.7	60.4	60.4	55.7	4.72	12.796		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.31	0.7	60.4	60.4	55.2	5.17	11.683		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.31	0.7	60.4	60.4	54.8	5.62	10.749		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.31	0.7	60.4	60.4	54.3	6.07	9.952		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	89.31	0.7	60.4	60.4	53.9	6.52	9.266		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	89.31	0.7	60.4	60.4	53.4	6.97	8.668		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	89.31	0.7	60.4	60.4	53.0	7.42	8.143		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	89.31	0.7	60.4	60.4	52.5	7.87	7.678		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	89.31	0.7	60.4	60.4	52.1	8.32	7.263		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	89.31	0.7	60.4	60.4	51.6	8.77	6.890		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	89.31	0.7	60.4	60.4	51.2	9.22	6.554		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	89.31	0.7	60.4	60.4	50.7	9.66	6.249		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	89.31	0.7	60.4	60.4	50.3	10.11	5.971		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	89.31	0.7	60.4	60.4	49.8	10.56	5.717		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	89.31	0.7	60.4	60.4	49.4	11.01	5.484		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	89.31	0.7	60.4	60.4	48.9	11.46	5.269		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	89.31	0.7	60.4	60.4	48.5	11.91	5.070		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	89.31	0.7	60.4	60.4	48.0	12.36	4.886		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	89.31	0.7	60.4	60.4	47.6	12.81	4.714		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	89.31	0.7	60.4	60.4	47.1	13.26	4.554		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	89.31	0.7	60.4	60.4	46.7	13.71	4.405		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	89.31	0.7	60.4	60.4	46.2	14.16	4.265		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	89.31	0.7	60.4	60.4	45.8	14.61	4.134		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	89.31	0.7	60.4	60.4	45.3	15.06	4.011		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	89.31	0.7	60.4	60.4	44.9	15.51	3.894		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	89.31	0.7	60.4	60.4	44.4	15.96	3.785		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	89.31	0.7	60.4	60.4	44.0	16.41	3.681		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	89.31	0.7	60.4	60.4	43.5	16.86	3.583		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	89.31	0.7	60.4	60.4	43.1	17.31	3.490		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	89.31	0.7	60.4	60.4	42.6	17.76	3.401		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	89.31	0.7	60.4	60.4	42.2	18.21	3.317		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	89.31	0.7	60.4	60.4	41.7	18.66	3.238		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	89.31	0.7	60.4	60.4	41.3	19.11	3.161		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	89.31	0.7	60.4	60.4	40.8	19.55	3.089		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	89.31	0.7	60.4	60.4	40.4	20.00	3.019		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	89.31	0.7	60.4	60.4	39.9	20.45	2.953		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	89.31	0.7	60.4	60.4	39.5	20.90	2.889		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	89.31	0.7	60.4	60.4	39.0	21.35	2.829		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	89.31	0.7	60.4	60.4	38.6	21.80	2.770		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	89.31	0.7	60.4	60.4	38.1	22.25	2.714		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	89.31	0.7	60.4	60.4	37.7	22.70	2.661		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design													Rairandance West Pad Sec.30-T6N-R67W - Rairandance FD 19-232HN - Wellbore #1 - Plan #1 (11-12-13)		Offset Site Error:	0.0 ft
Survey Program: 0-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				
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	89.31	0.7	60.4	60.4	37.2	23.15	2.609				
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	89.31	0.7	60.4	60.4	36.8	23.60	2.559				
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	89.31	0.7	60.4	60.4	36.3	24.05	2.511				
5,500.0	5,500.0	5,500.0	5,500.0	12.2	12.2	89.31	0.7	60.4	60.4	35.9	24.50	2.465				
5,544.7	5,544.7	5,544.7	5,544.7	12.4	12.4	89.31	0.7	60.4	60.4	35.7	24.70	2.445 CC				
5,600.0	5,600.0	5,599.5	5,599.5	12.5	12.5	89.67	0.4	60.6	60.6	35.6	24.94	2.429 ES, SF				
5,700.0	5,700.0	5,698.0	5,697.9	12.7	12.6	93.50	-3.8	62.4	62.6	37.3	25.33	2.471				
5,800.0	5,800.0	5,795.9	5,795.3	12.9	12.8	-106.16	-12.6	66.3	68.3	42.6	25.69	2.657				
5,900.0	5,899.4	5,893.2	5,891.5	13.1	13.0	-103.95	-25.7	72.3	79.4	53.3	26.01	3.051				
6,000.0	5,997.5	5,989.3	5,985.7	13.3	13.2	-104.53	-43.1	80.1	95.5	69.2	26.33	3.626				
6,100.0	6,093.6	6,084.1	6,077.5	13.4	13.3	-106.55	-64.5	89.6	116.7	90.0	26.64	4.379				
6,200.0	6,186.9	6,177.1	6,166.4	13.7	13.6	-108.98	-89.5	100.8	143.1	116.2	26.96	5.309				
6,300.0	6,276.8	6,268.1	6,252.0	13.9	13.8	-111.27	-117.7	113.5	175.0	147.7	27.29	6.413				
6,400.0	6,363.6	6,357.4	6,334.4	14.3	14.1	-113.94	-149.0	127.5	211.5	183.8	27.72	7.631				
6,500.0	6,450.1	6,446.0	6,414.6	14.7	14.4	-115.33	-183.5	143.0	250.0	221.7	28.30	8.833				
6,600.0	6,536.7	6,533.8	6,492.1	15.1	14.8	-115.52	-220.9	159.8	289.8	260.8	29.01	9.991				
6,700.0	6,623.6	6,623.5	6,569.9	15.6	15.2	-120.02	-261.8	178.1	330.8	301.0	29.76	11.114				
6,800.0	6,716.4	6,707.5	6,643.9	16.1	15.6	-145.76	-297.2	195.7	373.0	342.6	30.39	12.272				
6,900.0	6,813.1	6,788.9	6,720.4	16.4	15.9	163.98	-318.1	213.8	417.1	386.1	30.98	13.463				
7,000.0	6,908.7	6,872.9	6,801.7	16.6	16.2	124.10	-324.2	233.2	461.5	430.0	31.48	14.662				
7,100.0	6,998.4	6,961.8	6,887.4	16.6	16.4	106.31	-313.2	253.6	504.5	472.7	31.80	15.863				
7,200.0	7,077.5	7,058.5	6,976.0	16.6	16.5	97.49	-281.5	274.8	544.1	512.2	31.92	17.048				
7,300.0	7,142.0	7,166.4	7,064.3	16.5	16.5	92.75	-223.8	296.0	578.3	546.4	31.86	18.151				
7,400.0	7,188.6	7,288.4	7,144.4	16.5	16.4	90.44	-134.3	315.3	604.7	572.9	31.80	19.015				
7,500.0	7,214.8	7,425.0	7,201.9	16.5	16.3	89.73	-11.7	329.3	621.0	589.0	32.04	19.384				
7,600.0	7,220.4	7,566.3	7,220.4	16.8	16.6	90.00	127.6	334.0	625.3	592.5	32.76	19.085				
7,700.0	7,220.4	7,666.3	7,220.4	17.4	17.1	90.00	227.6	334.2	625.3	591.5	33.79	18.507				
7,800.0	7,220.4	7,766.3	7,220.4	18.1	17.9	90.00	327.6	334.5	625.2	590.0	35.21	17.757				
7,900.0	7,220.4	7,866.3	7,220.4	19.0	18.8	90.00	427.6	334.7	625.2	588.2	36.98	16.906				
8,000.0	7,220.4	7,966.3	7,220.4	20.1	19.8	90.00	527.6	334.9	625.2	586.1	39.05	16.009				
8,100.0	7,220.4	8,066.3	7,220.4	21.2	21.0	90.00	627.6	335.2	625.1	583.8	41.38	15.109				
8,200.0	7,220.4	8,166.3	7,220.4	22.5	22.2	90.00	727.6	335.4	625.1	581.2	43.91	14.235				
8,300.0	7,220.4	8,266.3	7,220.4	23.8	23.6	90.00	827.6	335.7	625.1	578.4	46.63	13.404				
8,400.0	7,220.4	8,366.3	7,220.4	25.2	25.0	90.00	927.6	335.9	625.0	575.5	49.50	12.627				
8,500.0	7,220.4	8,466.3	7,220.4	26.7	26.5	90.00	1,027.6	336.1	625.0	572.5	52.49	11.907				
8,600.0	7,220.4	8,566.3	7,220.4	28.3	28.0	90.00	1,127.6	336.4	624.9	569.4	55.59	11.243				
8,700.0	7,220.4	8,666.3	7,220.4	29.8	29.6	90.00	1,227.6	336.6	624.9	566.1	58.77	10.633				
8,800.0	7,220.4	8,766.3	7,220.4	31.4	31.2	90.00	1,327.6	336.8	624.9	562.8	62.03	10.074				
8,900.0	7,220.4	8,866.3	7,220.4	33.1	32.8	90.00	1,427.6	337.1	624.8	559.5	65.35	9.561				
9,000.0	7,220.4	8,966.3	7,220.4	34.8	34.5	90.00	1,527.6	337.3	624.8	556.1	68.73	9.091				
9,100.0	7,220.4	9,066.3	7,220.4	36.5	36.2	90.00	1,627.6	337.6	624.8	552.6	72.15	8.659				
9,200.0	7,220.4	9,166.3	7,220.4	38.2	37.9	90.00	1,727.6	337.8	624.7	549.1	75.62	8.262				
9,300.0	7,220.4	9,266.3	7,220.4	39.9	39.7	90.00	1,827.6	338.0	624.7	545.6	79.12	7.896				
9,400.0	7,220.4	9,366.3	7,220.4	41.7	41.4	90.00	1,927.6	338.3	624.7	542.0	82.65	7.558				
9,500.0	7,220.4	9,466.3	7,220.4	43.4	43.2	90.00	2,027.6	338.5	624.6	538.4	86.20	7.246				
9,600.0	7,220.4	9,566.3	7,220.4	45.2	45.0	90.00	2,127.6	338.7	624.6	534.8	89.78	6.957				
9,700.0	7,220.4	9,666.3	7,220.4	47.0	46.8	90.00	2,227.6	339.0	624.6	531.2	93.38	6.688				
9,800.0	7,220.4	9,766.3	7,220.4	48.8	48.6	90.00	2,327.6	339.2	624.5	527.5	97.00	6.438				
9,900.0	7,220.4	9,866.3	7,220.4	50.6	50.4	90.00	2,427.6	339.5	624.5	523.8	100.64	6.205				
10,000.0	7,220.4	9,966.3	7,220.4	52.4	52.2	90.00	2,527.6	339.7	624.4	520.2	104.29	5.987				
10,100.0	7,220.4	10,066.3	7,220.4	54.3	54.0	90.00	2,627.6	339.9	624.4	516.5	107.96	5.784				
10,200.0	7,220.4	10,166.3	7,220.4	56.1	55.9	90.00	2,727.6	340.2	624.4	512.7	111.63	5.593				

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 19-232HN - Wellbore #1 - Plan #1 (11-12-13)													Offset Site Error: 0.0 ft	
Survey Program: 0-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		
10,300.0	7,220.4	10,266.3	7,220.4	57.9	57.7	90.00	2,827.6	340.4	624.3	509.0	115.32	5.414		
10,400.0	7,220.4	10,366.3	7,220.4	59.8	59.6	90.00	2,927.6	340.6	624.3	505.3	119.02	5.245		
10,500.0	7,220.4	10,466.3	7,220.4	61.6	61.4	90.00	3,027.6	340.9	624.3	501.5	122.72	5.087		
10,600.0	7,220.4	10,566.3	7,220.4	63.5	63.3	90.00	3,127.6	341.1	624.2	497.8	126.44	4.937		
10,700.0	7,220.4	10,666.3	7,220.4	65.3	65.1	90.00	3,227.6	341.3	624.2	494.0	130.16	4.796		
10,800.0	7,220.4	10,766.3	7,220.4	67.2	67.0	90.00	3,327.6	341.6	624.2	490.3	133.89	4.662		
10,900.0	7,220.4	10,866.3	7,220.4	69.1	68.9	90.00	3,427.6	341.8	624.1	486.5	137.62	4.535		
11,000.0	7,220.4	10,966.3	7,220.4	70.9	70.7	90.00	3,527.6	342.1	624.1	482.7	141.36	4.415		
11,100.0	7,220.4	11,066.3	7,220.4	72.8	72.6	90.00	3,627.6	342.3	624.1	478.9	145.11	4.301		
11,200.0	7,220.4	11,166.3	7,220.4	74.7	74.5	90.00	3,727.6	342.5	624.0	475.2	148.86	4.192		
11,300.0	7,220.4	11,266.3	7,220.4	76.5	76.3	90.00	3,827.6	342.8	624.0	471.4	152.62	4.089		
11,400.0	7,220.4	11,366.3	7,220.4	78.4	78.2	90.00	3,927.6	343.0	623.9	467.6	156.38	3.990		
11,500.0	7,220.4	11,466.3	7,220.4	80.3	80.1	90.00	4,027.6	343.2	623.9	463.8	160.14	3.896		
11,600.0	7,220.4	11,566.3	7,220.4	82.2	82.0	90.00	4,127.6	343.5	623.9	460.0	163.91	3.806		
11,700.0	7,220.4	11,666.3	7,220.4	84.1	83.9	90.00	4,227.6	343.7	623.8	456.2	167.68	3.720		
11,800.0	7,220.4	11,766.3	7,220.4	85.9	85.7	90.00	4,327.6	344.0	623.8	452.3	171.45	3.638		
11,868.9	7,220.4	11,835.2	7,220.4	87.2	87.0	90.00	4,396.6	344.1	623.8	449.7	174.05	3.584		

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	88.84	1.8	89.9	89.9					
100.0	100.0	100.0	100.0	0.1	0.1	88.84	1.8	89.9	89.9	89.7	0.22	400.026		
200.0	200.0	200.0	200.0	0.3	0.3	88.84	1.8	89.9	89.9	89.2	0.67	133.342		
300.0	300.0	300.0	300.0	0.6	0.6	88.84	1.8	89.9	89.9	88.8	1.12	80.005		
400.0	400.0	400.0	400.0	0.8	0.8	88.84	1.8	89.9	89.9	88.3	1.57	57.147		
500.0	500.0	500.0	500.0	1.0	1.0	88.84	1.8	89.9	89.9	87.9	2.02	44.447		
600.0	600.0	600.0	600.0	1.2	1.2	88.84	1.8	89.9	89.9	87.4	2.47	36.366		
700.0	700.0	700.0	700.0	1.5	1.5	88.84	1.8	89.9	89.9	87.0	2.92	30.771		
800.0	800.0	800.0	800.0	1.7	1.7	88.84	1.8	89.9	89.9	86.5	3.37	26.668		
900.0	900.0	900.0	900.0	1.9	1.9	88.84	1.8	89.9	89.9	86.1	3.82	23.531		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	88.84	1.8	89.9	89.9	85.6	4.27	21.054		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	88.84	1.8	89.9	89.9	85.2	4.72	19.049		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	88.84	1.8	89.9	89.9	84.7	5.17	17.392		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	88.84	1.8	89.9	89.9	84.3	5.62	16.001		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	88.84	1.8	89.9	89.9	83.8	6.07	14.816		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	88.84	1.8	89.9	89.9	83.4	6.52	13.794		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	88.84	1.8	89.9	89.9	82.9	6.97	12.904		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	88.84	1.8	89.9	89.9	82.5	7.42	12.122		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	88.84	1.8	89.9	89.9	82.0	7.87	11.429		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	88.84	1.8	89.9	89.9	81.6	8.32	10.812		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	88.84	1.8	89.9	89.9	81.1	8.77	10.257		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	88.84	1.8	89.9	89.9	80.7	9.22	9.757		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	88.84	1.8	89.9	89.9	80.2	9.66	9.303		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	88.84	1.8	89.9	89.9	79.8	10.11	8.889		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	88.84	1.8	89.9	89.9	79.3	10.56	8.511		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	88.84	1.8	89.9	89.9	78.9	11.01	8.164		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	88.84	1.8	89.9	89.9	78.4	11.46	7.844		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	88.84	1.8	89.9	89.9	78.0	11.91	7.548		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	88.84	1.8	89.9	89.9	77.6	12.36	7.273		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	88.84	1.8	89.9	89.9	77.1	12.81	7.018		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	88.84	1.8	89.9	89.9	76.7	13.26	6.780		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	88.84	1.8	89.9	89.9	76.2	13.71	6.558		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	88.84	1.8	89.9	89.9	75.8	14.16	6.350		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	88.84	1.8	89.9	89.9	75.3	14.61	6.154		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	88.84	1.8	89.9	89.9	74.9	15.06	5.971		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	88.84	1.8	89.9	89.9	74.4	15.51	5.797		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	88.84	1.8	89.9	89.9	74.0	15.96	5.634		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	88.84	1.8	89.9	89.9	73.5	16.41	5.480		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	88.84	1.8	89.9	89.9	73.1	16.86	5.334		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	88.84	1.8	89.9	89.9	72.6	17.31	5.195		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	88.84	1.8	89.9	89.9	72.2	17.76	5.064		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	88.84	1.8	89.9	89.9	71.7	18.21	4.939		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	88.84	1.8	89.9	89.9	71.3	18.66	4.820		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	88.84	1.8	89.9	89.9	70.8	19.11	4.706		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	88.84	1.8	89.9	89.9	70.4	19.55	4.598		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	88.84	1.8	89.9	89.9	69.9	20.00	4.495		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	88.84	1.8	89.9	89.9	69.5	20.45	4.396		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	88.84	1.8	89.9	89.9	69.0	20.90	4.301		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	88.84	1.8	89.9	89.9	68.6	21.35	4.211		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	88.84	1.8	89.9	89.9	68.1	21.80	4.124		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	88.84	1.8	89.9	89.9	67.7	22.25	4.041		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	88.84	1.8	89.9	89.9	67.2	22.70	3.961		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 19-233HC - Wellbore #1 - Plan #1 (11-12-13)													Offset Site Error:	0.0 ft
Survey Program: 0-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		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	88.84	1.8	89.9	89.9	66.8	23.15	3.884		
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	88.84	1.8	89.9	89.9	66.3	23.60	3.810		
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	88.84	1.8	89.9	89.9	65.9	24.05	3.739 CC, ES, SF		
5,500.0	5,500.0	5,496.6	5,496.6	12.2	12.2	89.90	0.2	91.7	91.8	67.3	24.47	3.750		
5,600.0	5,600.0	5,592.8	5,592.4	12.5	12.4	92.81	-4.8	97.1	97.5	72.6	24.86	3.920		
5,700.0	5,700.0	5,687.9	5,686.8	12.7	12.6	96.91	-12.8	105.8	107.4	82.2	25.26	4.253		
5,800.0	5,800.0	5,781.8	5,779.2	12.9	12.8	-104.31	-23.9	117.9	122.6	97.0	25.63	4.784		
5,900.0	5,899.4	5,873.9	5,869.0	13.1	13.0	-102.67	-37.7	133.0	144.1	118.1	25.95	5.553		
6,000.0	5,997.5	5,963.6	5,955.5	13.3	13.2	-102.86	-54.0	150.7	171.5	145.2	26.27	6.527		
6,100.0	6,093.6	6,050.4	6,037.9	13.4	13.4	-103.92	-72.4	170.7	204.7	178.1	26.59	7.697		
6,200.0	6,186.9	6,133.7	6,115.7	13.7	13.7	-105.19	-92.3	192.4	243.9	217.0	26.93	9.057		
6,300.0	6,276.8	6,213.7	6,189.3	13.9	13.9	-106.33	-113.7	215.6	289.0	261.7	27.29	10.591		
6,400.0	6,363.6	6,298.9	6,267.0	14.3	14.3	-109.34	-137.3	241.3	338.0	310.3	27.72	12.195		
6,500.0	6,450.1	6,383.9	6,344.6	14.7	14.6	-112.28	-160.8	267.0	388.0	359.8	28.22	13.748		
6,600.0	6,536.7	6,468.9	6,422.1	15.1	15.0	-114.57	-184.4	292.7	438.6	409.8	28.80	15.229		
6,700.0	6,623.6	6,554.0	6,499.8	15.6	15.5	-121.90	-208.0	318.3	489.7	460.4	29.37	16.677		
6,800.0	6,716.4	6,639.7	6,577.9	16.1	15.9	-151.12	-231.7	344.2	540.7	510.7	29.96	18.045		
6,900.0	6,813.1	6,722.5	6,653.4	16.4	16.4	157.66	-254.7	369.2	589.9	559.1	30.76	19.178		
7,000.0	6,908.7	6,798.1	6,722.4	16.6	16.8	118.13	-275.6	392.0	637.5	606.0	31.50	20.239		
7,100.0	6,998.4	6,862.8	6,781.4	16.6	17.2	100.63	-293.6	411.5	684.6	652.5	32.05	21.359		
7,200.0	7,077.5	6,919.4	6,833.3	16.6	17.5	91.29	-307.9	428.7	732.2	699.9	32.38	22.618		
7,300.0	7,142.0	6,982.8	6,893.0	16.5	17.8	85.79	-316.2	448.5	780.0	747.5	32.49	24.009		
7,400.0	7,188.6	7,064.1	6,970.0	16.5	18.1	83.25	-313.4	474.0	826.6	794.1	32.50	25.431		
7,500.0	7,214.8	7,210.3	7,102.3	16.5	18.4	85.71	-271.5	518.0	869.7	837.1	32.62	26.661		
7,600.0	7,220.4	7,704.0	7,335.4	16.8	18.5	97.38	127.1	596.1	894.9	861.9	33.02	27.099		
7,700.0	7,220.4	7,804.0	7,335.4	17.4	18.7	97.38	227.1	596.4	894.8	860.9	33.91	26.387		
7,800.0	7,220.4	7,904.0	7,335.4	18.1	19.2	97.38	327.1	596.6	894.8	859.5	35.29	25.355		
7,900.0	7,220.4	8,004.0	7,335.4	19.0	19.9	97.38	427.1	596.8	894.8	857.7	37.01	24.175		
8,000.0	7,220.4	8,104.0	7,335.4	20.1	20.9	97.38	527.1	597.1	894.7	855.7	39.03	22.923		
8,100.0	7,220.4	8,204.0	7,335.4	21.2	21.9	97.39	627.1	597.3	894.7	853.4	41.30	21.661		
8,200.0	7,220.4	8,304.0	7,335.4	22.5	23.1	97.39	727.1	597.5	894.6	850.8	43.79	20.429		
8,300.0	7,220.4	8,404.0	7,335.4	23.8	24.4	97.39	827.1	597.8	894.6	848.1	46.46	19.254		
8,400.0	7,220.4	8,504.0	7,335.4	25.2	25.8	97.39	927.1	598.0	894.6	845.3	49.28	18.152		
8,500.0	7,220.4	8,604.0	7,335.4	26.7	27.2	97.39	1,027.1	598.2	894.5	842.3	52.23	17.127		
8,600.0	7,220.4	8,704.0	7,335.4	28.3	28.7	97.39	1,127.1	598.5	894.5	839.2	55.28	16.180		
8,700.0	7,220.4	8,804.0	7,335.4	29.8	30.2	97.39	1,227.1	598.7	894.4	836.0	58.42	15.309		
8,800.0	7,220.4	8,904.0	7,335.4	31.4	31.8	97.39	1,327.1	598.9	894.4	832.7	61.64	14.509		
8,900.0	7,220.4	9,004.0	7,335.4	33.1	33.4	97.39	1,427.1	599.2	894.4	829.4	64.93	13.775		
9,000.0	7,220.4	9,104.0	7,335.4	34.8	35.1	97.39	1,527.1	599.4	894.3	826.0	68.27	13.100		
9,100.0	7,220.4	9,204.0	7,335.4	36.5	36.7	97.39	1,627.1	599.6	894.3	822.6	71.65	12.481		
9,200.0	7,220.4	9,304.0	7,335.4	38.2	38.4	97.39	1,727.1	599.9	894.2	819.1	75.08	11.910		
9,300.0	7,220.4	9,404.0	7,335.4	39.9	40.1	97.39	1,827.1	600.1	894.2	815.6	78.54	11.385		
9,400.0	7,220.4	9,504.0	7,335.4	41.7	41.9	97.39	1,927.1	600.3	894.1	812.1	82.04	10.899		
9,500.0	7,220.4	9,604.0	7,335.4	43.4	43.6	97.39	2,027.1	600.6	894.1	808.5	85.56	10.450		
9,600.0	7,220.4	9,704.0	7,335.4	45.2	45.4	97.39	2,127.1	600.8	894.1	805.0	89.11	10.034		
9,700.0	7,220.4	9,804.0	7,335.4	47.0	47.1	97.39	2,227.1	601.0	894.0	801.4	92.67	9.647		
9,800.0	7,220.4	9,904.0	7,335.4	48.8	48.9	97.39	2,327.1	601.3	894.0	797.7	96.26	9.287		
9,900.0	7,220.4	10,004.0	7,335.4	50.6	50.7	97.39	2,427.1	601.5	893.9	794.1	99.86	8.952		
10,000.0	7,220.4	10,104.0	7,335.4	52.4	52.5	97.39	2,527.1	601.7	893.9	790.4	103.48	8.638		
10,100.0	7,220.4	10,204.0	7,335.4	54.3	54.3	97.39	2,627.1	602.0	893.9	786.8	107.11	8.345		
10,200.0	7,220.4	10,304.0	7,335.4	56.1	56.2	97.39	2,727.1	602.2	893.8	783.1	110.76	8.070		
10,300.0	7,220.4	10,404.0	7,335.4	57.9	58.0	97.39	2,827.1	602.4	893.8	779.4	114.41	7.812		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design										Raindance West Pad Sec.30-T6N-R67W - Raindance FD 19-233HC - Wellbore #1 - Plan #1 (11-12-13)			Offset Site Error:	0.0 ft
Survey Program: 0-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		
10,400.0	7,220.4	10,504.0	7,335.4	59.8	59.8	97.39	2,927.1	602.6	893.7	775.7	118.08	7.569		
10,500.0	7,220.4	10,604.0	7,335.4	61.6	61.7	97.39	3,027.1	602.9	893.7	771.9	121.76	7.340		
10,600.0	7,220.4	10,704.0	7,335.4	63.5	63.5	97.39	3,127.1	603.1	893.7	768.2	125.44	7.124		
10,700.0	7,220.4	10,804.0	7,335.4	65.3	65.3	97.39	3,227.1	603.3	893.6	764.5	129.13	6.920		
10,800.0	7,220.4	10,904.0	7,335.4	67.2	67.2	97.39	3,327.1	603.6	893.6	760.8	132.83	6.727		
10,900.0	7,220.4	11,004.0	7,335.4	69.1	69.0	97.39	3,427.1	603.8	893.5	757.0	136.53	6.545		
11,000.0	7,220.4	11,104.0	7,335.4	70.9	70.9	97.39	3,527.1	604.0	893.5	753.3	140.24	6.371		
11,100.0	7,220.4	11,204.0	7,335.4	72.8	72.8	97.40	3,627.1	604.3	893.5	749.5	143.96	6.206		
11,200.0	7,220.4	11,304.0	7,335.4	74.7	74.6	97.40	3,727.1	604.5	893.4	745.7	147.68	6.050		
11,300.0	7,220.4	11,404.0	7,335.4	76.5	76.5	97.40	3,827.1	604.7	893.4	742.0	151.41	5.901		
11,400.0	7,220.4	11,504.0	7,335.4	78.4	78.4	97.40	3,927.1	605.0	893.3	738.2	155.14	5.758		
11,500.0	7,220.4	11,604.0	7,335.4	80.3	80.2	97.40	4,027.1	605.2	893.3	734.4	158.87	5.623		
11,600.0	7,220.4	11,704.0	7,335.4	82.2	82.1	97.40	4,127.1	605.4	893.3	730.7	162.61	5.493		
11,700.0	7,220.4	11,804.0	7,335.4	84.1	84.0	97.40	4,227.1	605.7	893.2	726.9	166.35	5.370		
11,800.0	7,220.4	11,904.0	7,335.4	85.9	85.9	97.40	4,327.1	605.9	893.2	723.1	170.09	5.251		
11,868.9	7,220.4	11,972.9	7,335.4	87.2	87.2	97.40	4,396.0	606.1	893.1	720.5	172.68	5.172		

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-91.93	-4.0	-119.7	119.7					
100.0	100.0	100.0	100.0	0.1	0.1	-91.93	-4.0	-119.7	119.7	119.5	0.22	532.735		
200.0	200.0	200.0	200.0	0.3	0.3	-91.93	-4.0	-119.7	119.7	119.1	0.67	177.578		
300.0	300.0	300.0	300.0	0.6	0.6	-91.93	-4.0	-119.7	119.7	118.6	1.12	106.547		
400.0	400.0	400.0	400.0	0.8	0.8	-91.93	-4.0	-119.7	119.7	118.2	1.57	76.105		
500.0	500.0	500.0	500.0	1.0	1.0	-91.93	-4.0	-119.7	119.7	117.7	2.02	59.193		
600.0	600.0	600.0	600.0	1.2	1.2	-91.93	-4.0	-119.7	119.7	117.3	2.47	48.430		
700.0	700.0	700.0	700.0	1.5	1.5	-91.93	-4.0	-119.7	119.7	116.8	2.92	40.980		
800.0	800.0	800.0	800.0	1.7	1.7	-91.93	-4.0	-119.7	119.7	116.4	3.37	35.516		
900.0	900.0	900.0	900.0	1.9	1.9	-91.93	-4.0	-119.7	119.7	115.9	3.82	31.337		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-91.93	-4.0	-119.7	119.7	115.5	4.27	28.039		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-91.93	-4.0	-119.7	119.7	115.0	4.72	25.368		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-91.93	-4.0	-119.7	119.7	114.6	5.17	23.162		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-91.93	-4.0	-119.7	119.7	114.1	5.62	21.309		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-91.93	-4.0	-119.7	119.7	113.7	6.07	19.731		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-91.93	-4.0	-119.7	119.7	113.2	6.52	18.370		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-91.93	-4.0	-119.7	119.7	112.8	6.97	17.185		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-91.93	-4.0	-119.7	119.7	112.3	7.42	16.143		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-91.93	-4.0	-119.7	119.7	111.9	7.87	15.221		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-91.93	-4.0	-119.7	119.7	111.4	8.32	14.398		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-91.93	-4.0	-119.7	119.7	111.0	8.77	13.660		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-91.93	-4.0	-119.7	119.7	110.5	9.22	12.994		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-91.93	-4.0	-119.7	119.7	110.1	9.66	12.389		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-91.93	-4.0	-119.7	119.7	109.6	10.11	11.839		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-91.93	-4.0	-119.7	119.7	109.2	10.56	11.335		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-91.93	-4.0	-119.7	119.7	108.7	11.01	10.872		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-91.93	-4.0	-119.7	119.7	108.3	11.46	10.446		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-91.93	-4.0	-119.7	119.7	107.8	11.91	10.052		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-91.93	-4.0	-119.7	119.7	107.4	12.36	9.686		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-91.93	-4.0	-119.7	119.7	106.9	12.81	9.346		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-91.93	-4.0	-119.7	119.7	106.5	13.26	9.029		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-91.93	-4.0	-119.7	119.7	106.0	13.71	8.733		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-91.93	-4.0	-119.7	119.7	105.6	14.16	8.456		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-91.93	-4.0	-119.7	119.7	105.1	14.61	8.196		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-91.93	-4.0	-119.7	119.7	104.7	15.06	7.951		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-91.93	-4.0	-119.7	119.7	104.2	15.51	7.721		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-91.93	-4.0	-119.7	119.7	103.8	15.96	7.503		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-91.93	-4.0	-119.7	119.7	103.3	16.41	7.298		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-91.93	-4.0	-119.7	119.7	102.9	16.86	7.103		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-91.93	-4.0	-119.7	119.7	102.4	17.31	6.919		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-91.93	-4.0	-119.7	119.7	102.0	17.76	6.743 CC, ES		
4,100.0	4,100.0	4,094.2	4,094.1	9.1	9.1	-92.18	-4.6	-121.9	122.1	104.0	18.18	6.720 SF		
4,200.0	4,200.0	4,187.9	4,187.6	9.3	9.3	-92.90	-6.5	-128.6	129.3	110.7	18.58	6.960		
4,300.0	4,300.0	4,280.7	4,279.7	9.6	9.4	-93.92	-9.6	-139.5	141.3	122.3	18.99	7.443		
4,400.0	4,400.0	4,372.2	4,369.9	9.8	9.6	-95.08	-13.7	-154.5	158.0	138.6	19.39	8.149		
4,500.0	4,500.0	4,462.1	4,457.6	10.0	9.9	-96.25	-19.0	-173.3	179.4	159.6	19.80	9.061		
4,600.0	4,600.0	4,549.8	4,542.3	10.2	10.1	-97.33	-25.1	-195.4	205.3	185.1	20.20	10.161		
4,700.0	4,700.0	4,635.3	4,623.6	10.5	10.4	-98.29	-32.1	-220.5	235.6	215.0	20.61	11.430		
4,800.0	4,800.0	4,718.2	4,701.4	10.7	10.6	-99.12	-39.9	-248.2	270.1	249.0	21.02	12.848		
4,900.0	4,900.0	4,800.0	4,776.8	10.9	11.0	-99.84	-48.4	-278.7	308.5	287.1	21.43	14.395		
5,000.0	5,000.0	4,875.6	4,845.2	11.1	11.3	-100.43	-57.0	-309.6	350.8	329.0	21.85	16.057		
5,100.0	5,100.0	4,949.9	4,911.2	11.4	11.8	-100.93	-66.2	-342.6	396.7	374.4	22.27	17.812		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-024HC - Wellbore #1 - Plan #1 (11-13-13)												Offset Well Error:	0.0 ft
Survey Program: 0-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
5,200.0	5,200.0	5,025.7	4,977.2	11.6	12.2	-101.38	-76.2	-378.6	445.8	423.1	22.71	19.634	
5,300.0	5,300.0	5,112.3	5,052.1	11.8	12.8	-101.80	-87.8	-420.3	495.8	472.6	23.18	21.386	
5,400.0	5,400.0	5,198.9	5,127.1	12.0	13.5	-102.15	-99.5	-462.1	545.8	522.1	23.67	23.056	
5,500.0	5,500.0	5,285.4	5,202.0	12.2	14.1	-102.44	-111.1	-503.8	595.8	571.6	24.18	24.641	
5,600.0	5,600.0	5,372.0	5,276.9	12.5	14.8	-102.68	-122.8	-545.6	645.8	621.1	24.70	26.147	
5,700.0	5,700.0	5,458.5	5,351.9	12.7	15.6	-102.89	-134.4	-587.3	695.9	670.6	25.23	27.579	
5,800.0	5,800.0	5,545.8	5,427.4	12.9	16.3	50.18	-146.1	-629.4	744.7	719.7	25.02	29.763	
5,900.0	5,899.4	5,635.3	5,504.8	13.1	17.1	48.80	-158.2	-672.6	788.9	763.5	25.39	31.068	
6,000.0	5,997.5	5,726.5	5,583.8	13.3	18.0	48.15	-170.4	-716.6	827.9	802.2	25.72	32.194	
6,100.0	6,093.6	5,818.7	5,663.6	13.4	18.8	48.10	-182.8	-761.0	861.9	835.8	26.01	33.141	
6,200.0	6,186.9	5,911.2	5,743.7	13.7	19.7	48.58	-195.3	-805.7	890.8	864.5	26.29	33.884	
6,300.0	6,276.8	6,003.4	5,823.5	13.9	20.6	49.52	-207.7	-850.1	915.0	888.4	26.62	34.376	
6,400.0	6,363.6	6,094.8	5,902.6	14.3	21.5	51.30	-219.9	-894.2	936.2	909.0	27.24	34.372	
6,500.0	6,450.1	6,186.2	5,981.7	14.7	22.4	53.28	-232.2	-938.3	958.4	930.4	28.03	34.192	
6,600.0	6,536.7	6,277.6	6,060.8	15.1	23.3	55.18	-244.5	-982.4	981.8	952.8	28.91	33.964	

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-025HN - Wellbore #1 - Plan #1 (11-13-13)													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-92.10	-3.3	-89.6	89.7					
100.0	100.0	100.0	100.0	0.1	0.1	-92.10	-3.3	-89.6	89.7	89.5	0.22	398.974		
200.0	200.0	200.0	200.0	0.3	0.3	-92.10	-3.3	-89.6	89.7	89.0	0.67	132.991		
300.0	300.0	300.0	300.0	0.6	0.6	-92.10	-3.3	-89.6	89.7	88.6	1.12	79.795		
400.0	400.0	400.0	400.0	0.8	0.8	-92.10	-3.3	-89.6	89.7	88.1	1.57	56.996		
500.0	500.0	500.0	500.0	1.0	1.0	-92.10	-3.3	-89.6	89.7	87.7	2.02	44.330		
600.0	600.0	600.0	600.0	1.2	1.2	-92.10	-3.3	-89.6	89.7	87.2	2.47	36.270		
700.0	700.0	700.0	700.0	1.5	1.5	-92.10	-3.3	-89.6	89.7	86.8	2.92	30.690		
800.0	800.0	800.0	800.0	1.7	1.7	-92.10	-3.3	-89.6	89.7	86.3	3.37	26.598		
900.0	900.0	900.0	900.0	1.9	1.9	-92.10	-3.3	-89.6	89.7	85.9	3.82	23.469		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-92.10	-3.3	-89.6	89.7	85.4	4.27	20.999		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-92.10	-3.3	-89.6	89.7	85.0	4.72	18.999		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-92.10	-3.3	-89.6	89.7	84.5	5.17	17.347		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-92.10	-3.3	-89.6	89.7	84.1	5.62	15.959		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-92.10	-3.3	-89.6	89.7	83.6	6.07	14.777		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-92.10	-3.3	-89.6	89.7	83.2	6.52	13.758		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-92.10	-3.3	-89.6	89.7	82.7	6.97	12.870		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-92.10	-3.3	-89.6	89.7	82.3	7.42	12.090		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-92.10	-3.3	-89.6	89.7	81.8	7.87	11.399		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-92.10	-3.3	-89.6	89.7	81.4	8.32	10.783		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-92.10	-3.3	-89.6	89.7	80.9	8.77	10.230		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-92.10	-3.3	-89.6	89.7	80.5	9.22	9.731		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-92.10	-3.3	-89.6	89.7	80.0	9.66	9.278		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-92.10	-3.3	-89.6	89.7	79.6	10.11	8.866		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-92.10	-3.3	-89.6	89.7	79.1	10.56	8.489		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-92.10	-3.3	-89.6	89.7	78.7	11.01	8.142		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-92.10	-3.3	-89.6	89.7	78.2	11.46	7.823		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-92.10	-3.3	-89.6	89.7	77.8	11.91	7.528		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-92.10	-3.3	-89.6	89.7	77.3	12.36	7.254		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-92.10	-3.3	-89.6	89.7	76.9	12.81	7.000		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-92.10	-3.3	-89.6	89.7	76.4	13.26	6.762		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-92.10	-3.3	-89.6	89.7	76.0	13.71	6.541		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-92.10	-3.3	-89.6	89.7	75.5	14.16	6.333		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-92.10	-3.3	-89.6	89.7	75.1	14.61	6.138		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-92.10	-3.3	-89.6	89.7	74.6	15.06	5.955		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-92.10	-3.3	-89.6	89.7	74.2	15.51	5.782		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-92.10	-3.3	-89.6	89.7	73.7	15.96	5.619		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-92.10	-3.3	-89.6	89.7	73.3	16.41	5.465		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-92.10	-3.3	-89.6	89.7	72.8	16.86	5.320		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-92.10	-3.3	-89.6	89.7	72.4	17.31	5.181		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-92.10	-3.3	-89.6	89.7	71.9	17.76	5.050		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-92.10	-3.3	-89.6	89.7	71.5	18.21	4.926		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-92.10	-3.3	-89.6	89.7	71.0	18.66	4.807		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-92.10	-3.3	-89.6	89.7	70.6	19.11	4.694 CC, ES, SF		
4,400.0	4,400.0	4,395.6	4,395.6	9.8	9.8	-92.52	-4.0	-91.9	92.1	72.6	19.53	4.716		
4,500.0	4,500.0	4,490.7	4,490.4	10.0	9.9	-93.67	-6.3	-98.6	99.3	79.4	19.93	4.982		
4,600.0	4,600.0	4,584.9	4,583.9	10.2	10.1	-95.24	-10.1	-109.7	111.4	91.0	20.34	5.475		
4,700.0	4,700.0	4,677.8	4,675.3	10.5	10.3	-96.94	-15.2	-124.9	128.2	107.5	20.74	6.181		
4,800.0	4,800.0	4,768.8	4,764.1	10.7	10.5	-98.54	-21.6	-143.9	149.8	128.7	21.15	7.084		
4,900.0	4,900.0	4,857.7	4,849.8	10.9	10.8	-99.94	-29.1	-166.2	176.1	154.5	21.56	8.167		
5,000.0	5,000.0	4,944.2	4,932.1	11.1	11.0	-101.13	-37.7	-191.6	206.7	184.8	21.97	9.412		
5,100.0	5,100.0	5,028.1	5,010.6	11.4	11.3	-102.12	-47.1	-219.5	241.7	219.3	22.37	10.801		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-025HN - Wellbore #1 - Plan #1 (11-13-13)										Offset Site Error: 0.0 ft			
Survey Program: 0-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
5,200.0	5,200.0	5,109.1	5,085.1	11.6	11.6	-102.93	-57.3	-249.6	280.7	257.9	22.79	12.317	
5,300.0	5,300.0	5,187.1	5,155.5	11.8	12.0	-103.59	-68.0	-281.3	323.5	300.3	23.20	13.941	
5,400.0	5,400.0	5,262.0	5,221.9	12.0	12.4	-104.13	-79.2	-314.4	369.9	346.3	23.63	15.657	
5,500.0	5,500.0	5,340.8	5,290.2	12.2	12.9	-104.62	-91.6	-351.4	419.4	395.3	24.07	17.427	
5,600.0	5,600.0	5,427.3	5,365.1	12.5	13.5	-105.05	-105.5	-392.5	469.4	444.9	24.54	19.129	
5,700.0	5,700.0	5,513.8	5,440.0	12.7	14.1	-105.39	-119.4	-433.6	519.5	494.5	25.03	20.757	
5,800.0	5,800.0	5,601.1	5,515.5	12.9	14.8	47.66	-133.4	-475.0	568.3	543.2	25.07	22.672	
5,900.0	5,899.4	5,690.8	5,593.1	13.1	15.5	46.44	-147.7	-517.6	612.2	586.8	25.39	24.110	
6,000.0	5,997.5	5,782.3	5,672.3	13.3	16.2	46.03	-162.4	-561.1	650.7	625.0	25.66	25.355	
6,100.0	6,093.6	5,875.1	5,752.6	13.4	17.0	46.28	-177.3	-605.1	683.9	658.0	25.90	26.402	
6,200.0	6,186.9	5,968.3	5,833.3	13.7	17.9	47.10	-192.2	-649.4	711.9	685.8	26.14	27.233	
6,300.0	6,276.8	6,061.3	5,913.8	13.9	18.7	48.42	-207.1	-693.6	735.1	708.7	26.44	27.804	
6,400.0	6,363.6	6,153.8	5,993.7	14.3	19.6	50.58	-222.0	-737.4	755.3	728.3	27.07	27.906	
6,500.0	6,450.1	6,246.1	6,073.7	14.7	20.4	52.89	-236.8	-781.3	776.6	748.7	27.88	27.856	
6,600.0	6,536.7	6,338.5	6,153.6	15.1	21.3	55.09	-251.6	-825.1	799.2	770.4	28.78	27.767	
6,700.0	6,623.6	6,431.1	6,233.7	15.6	22.2	54.60	-266.4	-869.1	823.0	793.1	29.88	27.542	
6,800.0	6,716.4	6,526.8	6,316.6	16.1	23.2	36.62	-281.8	-914.6	848.2	817.0	31.19	27.196	
6,900.0	6,813.1	6,622.9	6,399.7	16.4	24.1	-7.57	-297.1	-960.2	873.3	841.1	32.21	27.114	
7,000.0	6,908.7	6,714.2	6,478.7	16.6	25.0	-43.03	-311.8	-1,003.6	897.6	864.8	32.83	27.344	
7,100.0	6,998.4	6,796.2	6,549.7	16.6	25.8	-57.65	-324.9	-1,042.5	922.2	889.1	33.11	27.857	
7,200.0	7,077.5	6,864.6	6,608.8	16.6	26.5	-63.95	-335.9	-1,075.0	948.7	915.5	33.18	28.591	
7,300.0	7,142.0	6,915.9	6,653.3	16.5	27.1	-66.06	-344.1	-1,099.3	978.8	945.7	33.13	29.548	

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-027HN - Wellbore #1 - Plan #1 (11-13-13)													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-92.12	-2.2	-59.3	59.3					
100.0	100.0	100.0	100.0	0.1	0.1	-92.12	-2.2	-59.3	59.3	59.1	0.22	263.921		
200.0	200.0	200.0	200.0	0.3	0.3	-92.12	-2.2	-59.3	59.3	58.6	0.67	87.974		
300.0	300.0	300.0	300.0	0.6	0.6	-92.12	-2.2	-59.3	59.3	58.2	1.12	52.784		
400.0	400.0	400.0	400.0	0.8	0.8	-92.12	-2.2	-59.3	59.3	57.7	1.57	37.703		
500.0	500.0	500.0	500.0	1.0	1.0	-92.12	-2.2	-59.3	59.3	57.3	2.02	29.325		
600.0	600.0	600.0	600.0	1.2	1.2	-92.12	-2.2	-59.3	59.3	56.8	2.47	23.993		
700.0	700.0	700.0	700.0	1.5	1.5	-92.12	-2.2	-59.3	59.3	56.4	2.92	20.302		
800.0	800.0	800.0	800.0	1.7	1.7	-92.12	-2.2	-59.3	59.3	55.9	3.37	17.595		
900.0	900.0	900.0	900.0	1.9	1.9	-92.12	-2.2	-59.3	59.3	55.5	3.82	15.525		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-92.12	-2.2	-59.3	59.3	55.0	4.27	13.891		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-92.12	-2.2	-59.3	59.3	54.6	4.72	12.568		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-92.12	-2.2	-59.3	59.3	54.2	5.17	11.475		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-92.12	-2.2	-59.3	59.3	53.7	5.62	10.557		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-92.12	-2.2	-59.3	59.3	53.3	6.07	9.775		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-92.12	-2.2	-59.3	59.3	52.8	6.52	9.101		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-92.12	-2.2	-59.3	59.3	52.4	6.97	8.514		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-92.12	-2.2	-59.3	59.3	51.9	7.42	7.998		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-92.12	-2.2	-59.3	59.3	51.5	7.87	7.541		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-92.12	-2.2	-59.3	59.3	51.0	8.32	7.133		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-92.12	-2.2	-59.3	59.3	50.6	8.77	6.767		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-92.12	-2.2	-59.3	59.3	50.1	9.22	6.437		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-92.12	-2.2	-59.3	59.3	49.7	9.66	6.138		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-92.12	-2.2	-59.3	59.3	49.2	10.11	5.865		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-92.12	-2.2	-59.3	59.3	48.8	10.56	5.615		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-92.12	-2.2	-59.3	59.3	48.3	11.01	5.386		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-92.12	-2.2	-59.3	59.3	47.9	11.46	5.175		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-92.12	-2.2	-59.3	59.3	47.4	11.91	4.980		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-92.12	-2.2	-59.3	59.3	47.0	12.36	4.799		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-92.12	-2.2	-59.3	59.3	46.5	12.81	4.630		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-92.12	-2.2	-59.3	59.3	46.1	13.26	4.473		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-92.12	-2.2	-59.3	59.3	45.6	13.71	4.327		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-92.12	-2.2	-59.3	59.3	45.2	14.16	4.189		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-92.12	-2.2	-59.3	59.3	44.7	14.61	4.060		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-92.12	-2.2	-59.3	59.3	44.3	15.06	3.939		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-92.12	-2.2	-59.3	59.3	43.8	15.51	3.825		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-92.12	-2.2	-59.3	59.3	43.4	15.96	3.717		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-92.12	-2.2	-59.3	59.3	42.9	16.41	3.615		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-92.12	-2.2	-59.3	59.3	42.5	16.86	3.519		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-92.12	-2.2	-59.3	59.3	42.0	17.31	3.428		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-92.12	-2.2	-59.3	59.3	41.6	17.76	3.341		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-92.12	-2.2	-59.3	59.3	41.1	18.21	3.258		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-92.12	-2.2	-59.3	59.3	40.7	18.66	3.180		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-92.12	-2.2	-59.3	59.3	40.2	19.11	3.105		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-92.12	-2.2	-59.3	59.3	39.8	19.55	3.034		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-92.12	-2.2	-59.3	59.3	39.3	20.00	2.965		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-92.12	-2.2	-59.3	59.3	38.9	20.45	2.900		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-92.12	-2.2	-59.3	59.3	38.4	20.90	2.838		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-92.12	-2.2	-59.3	59.3	38.0	21.35	2.778		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-92.12	-2.2	-59.3	59.3	37.5	21.80	2.721		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-92.12	-2.2	-59.3	59.3	37.1	22.25	2.666		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	-92.12	-2.2	-59.3	59.3	36.6	22.70	2.613 CC, ES, SF		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
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
5,200.0	5,200.0	5,197.3	5,197.2	11.6	11.5	-93.26	-3.5	-61.4	61.5	38.4	23.12	2.662	
5,300.0	5,300.0	5,294.1	5,293.7	11.8	11.7	-96.22	-7.4	-67.7	68.3	44.8	23.52	2.905	
5,400.0	5,400.0	5,389.9	5,388.8	12.0	11.9	-100.00	-13.7	-78.0	79.9	56.0	23.93	3.341	
5,500.0	5,500.0	5,484.2	5,481.6	12.2	12.1	-103.71	-22.5	-92.0	96.5	72.2	24.33	3.967	
5,600.0	5,600.0	5,576.7	5,571.8	12.5	12.3	-106.91	-33.3	-109.6	118.0	93.3	24.73	4.771	
5,700.0	5,700.0	5,667.0	5,658.7	12.7	12.5	-109.50	-46.1	-130.3	144.3	119.2	25.13	5.742	
5,800.0	5,800.0	5,755.2	5,742.4	12.9	12.8	42.80	-60.7	-153.9	173.7	148.3	25.46	6.823	
5,900.0	5,899.4	5,842.7	5,824.1	13.1	13.1	42.02	-77.2	-180.6	201.7	176.0	25.69	7.850	
6,000.0	5,997.5	5,929.5	5,903.7	13.3	13.4	42.47	-95.5	-210.1	227.8	201.9	25.85	8.811	
6,100.0	6,093.6	6,015.4	5,980.8	13.4	13.8	43.73	-115.4	-242.3	252.2	226.2	25.97	9.711	
6,200.0	6,186.9	6,100.5	6,055.3	13.7	14.2	45.58	-136.9	-277.1	275.3	249.2	26.10	10.546	
6,300.0	6,276.8	6,195.7	6,137.6	13.9	14.7	48.44	-162.1	-317.8	295.7	269.3	26.36	11.215	
6,400.0	6,363.6	6,291.7	6,220.6	14.3	15.3	52.32	-187.6	-358.9	313.1	286.1	27.05	11.573	
6,500.0	6,450.1	6,387.7	6,303.5	14.7	16.0	56.04	-213.0	-400.0	331.8	303.8	27.96	11.868	
6,600.0	6,536.7	6,483.6	6,386.4	15.1	16.7	59.36	-238.4	-441.0	351.7	322.8	28.95	12.148	
6,700.0	6,623.6	6,579.7	6,469.5	15.6	17.4	59.56	-263.8	-482.2	372.7	342.6	30.10	12.384	
6,800.0	6,716.4	6,677.3	6,553.8	16.1	18.2	40.19	-289.7	-524.0	393.5	362.4	31.13	12.639	
6,900.0	6,813.1	6,772.8	6,636.3	16.4	18.9	-7.05	-314.9	-564.8	413.2	381.5	31.73	13.020	
7,000.0	6,908.7	6,861.2	6,712.7	16.6	19.7	-46.16	-338.4	-602.7	434.0	401.9	32.02	13.555	
7,100.0	6,998.4	6,951.4	6,792.1	16.6	20.3	-64.32	-354.9	-641.9	458.9	426.8	32.17	14.268	
7,200.0	7,077.5	7,056.3	6,885.9	16.6	20.9	-74.24	-351.1	-688.3	487.5	455.2	32.26	15.109	
7,300.0	7,142.0	7,184.7	6,995.4	16.5	21.5	-81.09	-313.2	-742.3	517.0	484.7	32.29	16.009	
7,400.0	7,188.6	7,349.1	7,113.7	16.5	22.0	-86.45	-216.5	-800.5	543.0	510.7	32.29	16.819	
7,500.0	7,214.8	7,556.9	7,204.9	16.5	22.2	-89.74	-37.5	-845.1	559.0	526.4	32.61	17.141	
7,600.0	7,220.4	7,726.6	7,220.4	16.8	22.3	-90.00	130.6	-852.3	561.0	527.6	33.45	16.770	
7,700.0	7,220.4	7,826.6	7,220.4	17.4	22.5	-90.00	230.6	-852.1	561.0	526.6	34.48	16.273	
7,800.0	7,220.4	7,926.6	7,220.4	18.1	22.9	-90.00	330.6	-851.8	561.0	525.2	35.88	15.635	
7,900.0	7,220.4	8,026.6	7,220.4	19.0	23.4	-90.00	430.6	-851.5	561.0	523.4	37.63	14.909	
8,000.0	7,220.4	8,126.6	7,220.4	20.1	24.1	-90.00	530.6	-851.3	561.0	521.4	39.68	14.141	
8,100.0	7,220.4	8,226.6	7,220.4	21.2	25.0	-90.00	630.6	-851.0	561.1	519.1	41.97	13.367	
8,200.0	7,220.4	8,326.6	7,220.4	22.5	26.0	-90.00	730.6	-850.7	561.1	516.6	44.48	12.612	
8,300.0	7,220.4	8,426.6	7,220.4	23.8	27.1	-90.00	830.6	-850.5	561.1	513.9	47.18	11.893	
8,400.0	7,220.4	8,526.6	7,220.4	25.2	28.3	-90.00	930.6	-850.2	561.1	511.1	50.02	11.217	
8,500.0	7,220.4	8,626.6	7,220.4	26.7	29.6	-90.00	1,030.6	-849.9	561.1	508.1	52.99	10.589	
8,600.0	7,220.4	8,726.6	7,220.4	28.3	31.0	-90.00	1,130.6	-849.7	561.1	505.0	56.06	10.008	
8,700.0	7,220.4	8,826.6	7,220.4	29.8	32.5	-90.00	1,230.6	-849.4	561.1	501.9	59.22	9.474	
8,800.0	7,220.4	8,926.6	7,220.4	31.4	33.9	-90.00	1,330.6	-849.1	561.1	498.6	62.47	8.982	
8,900.0	7,220.4	9,026.6	7,220.4	33.1	35.5	-90.00	1,430.6	-848.9	561.1	495.3	65.77	8.531	
9,000.0	7,220.4	9,126.6	7,220.4	34.8	37.0	-90.00	1,530.6	-848.6	561.1	492.0	69.13	8.116	
9,100.0	7,220.4	9,226.6	7,220.4	36.5	38.6	-90.00	1,630.6	-848.3	561.1	488.6	72.54	7.735	
9,200.0	7,220.4	9,326.6	7,220.4	38.2	40.2	-90.00	1,730.6	-848.0	561.1	485.1	75.99	7.384	
9,300.0	7,220.4	9,426.6	7,220.4	39.9	41.9	-90.00	1,830.6	-847.8	561.1	481.6	79.48	7.060	
9,400.0	7,220.4	9,526.6	7,220.4	41.7	43.6	-90.00	1,930.6	-847.5	561.1	478.1	83.00	6.761	
9,500.0	7,220.4	9,626.6	7,220.4	43.4	45.3	-90.00	2,030.6	-847.2	561.1	474.6	86.54	6.484	
9,600.0	7,220.4	9,726.6	7,220.4	45.2	47.0	-90.00	2,130.6	-847.0	561.1	471.0	90.11	6.227	
9,700.0	7,220.4	9,826.6	7,220.4	47.0	48.7	-90.00	2,230.6	-846.7	561.1	467.4	93.70	5.988	
9,800.0	7,220.4	9,926.6	7,220.4	48.8	50.4	-90.00	2,330.6	-846.4	561.1	463.8	97.31	5.766	
9,900.0	7,220.4	10,026.6	7,220.4	50.6	52.2	-90.00	2,430.6	-846.2	561.1	460.2	100.94	5.559	
10,000.0	7,220.4	10,126.6	7,220.4	52.4	54.0	-90.00	2,530.6	-845.9	561.1	456.6	104.58	5.365	
10,100.0	7,220.4	10,226.6	7,220.4	54.3	55.7	-90.00	2,630.6	-845.6	561.2	452.9	108.24	5.184	
10,200.0	7,220.4	10,326.6	7,220.4	56.1	57.5	-90.00	2,730.6	-845.4	561.2	449.2	111.91	5.014	
10,300.0	7,220.4	10,426.6	7,220.4	57.9	59.3	-90.00	2,830.6	-845.1	561.2	445.6	115.59	4.855	

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-027HN - Wellbore #1 - Plan #1 (11-13-13)												Offset Well Error:	0.0 ft
Survey Program: 0-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
10,400.0	7,220.4	10,526.6	7,220.4	59.8	61.1	-90.00	2,930.6	-844.8	561.2	441.9	119.28	4.704	
10,500.0	7,220.4	10,626.6	7,220.4	61.6	62.9	-90.00	3,030.6	-844.6	561.2	438.2	122.98	4.563	
10,600.0	7,220.4	10,726.6	7,220.4	63.5	64.7	-90.00	3,130.6	-844.3	561.2	434.5	126.69	4.429	
10,700.0	7,220.4	10,826.6	7,220.4	65.3	66.5	-90.00	3,230.6	-844.0	561.2	430.8	130.41	4.303	
10,800.0	7,220.4	10,926.6	7,220.4	67.2	68.4	-90.00	3,330.6	-843.8	561.2	427.1	134.13	4.184	
10,900.0	7,220.4	11,026.6	7,220.4	69.1	70.2	-90.00	3,430.6	-843.5	561.2	423.3	137.86	4.071	
11,000.0	7,220.4	11,126.6	7,220.4	70.9	72.0	-90.00	3,530.6	-843.2	561.2	419.6	141.60	3.963	
11,100.0	7,220.4	11,226.6	7,220.4	72.8	73.9	-90.00	3,630.6	-843.0	561.2	415.9	145.34	3.861	
11,200.0	7,220.4	11,326.6	7,220.4	74.7	75.7	-90.00	3,730.6	-842.7	561.2	412.1	149.09	3.764	
11,300.0	7,220.4	11,426.6	7,220.4	76.5	77.6	-90.00	3,830.6	-842.4	561.2	408.4	152.84	3.672	
11,400.0	7,220.4	11,526.6	7,220.4	78.4	79.4	-90.00	3,930.6	-842.1	561.2	404.6	156.60	3.584	
11,500.0	7,220.4	11,626.6	7,220.4	80.3	81.3	-90.00	4,030.6	-841.9	561.2	400.9	160.36	3.500	
11,600.0	7,220.4	11,726.6	7,220.4	82.2	83.1	-90.00	4,130.6	-841.6	561.2	397.1	164.12	3.420	
11,700.0	7,220.4	11,826.6	7,220.4	84.1	85.0	-90.00	4,230.6	-841.3	561.2	393.3	167.89	3.343	
11,800.0	7,220.4	11,926.6	7,220.4	85.9	86.8	-90.00	4,330.6	-841.1	561.2	389.6	171.66	3.269	
11,836.9	7,220.4	11,963.5	7,220.4	86.6	87.5	-90.00	4,367.5	-841.0	561.2	388.2	173.05	3.243	
11,868.9	7,220.4	11,986.7	7,220.4	87.2	88.0	-90.00	4,390.8	-840.9	561.3	387.2	174.09	3.224	

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design Raindance West Pad Sec.30-T6N-R67W - Raindance FD 30-028HC - Wellbore #1 - Plan #1 (11-13-13)													Offset Site Error:	0.0 ft
Survey Program: 0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-92.09	-1.1	-30.1	30.1					
100.0	100.0	100.0	100.0	0.1	0.1	-92.09	-1.1	-30.1	30.1	29.9	0.22	133.817		
200.0	200.0	200.0	200.0	0.3	0.3	-92.09	-1.1	-30.1	30.1	29.4	0.67	44.606		
300.0	300.0	300.0	300.0	0.6	0.6	-92.09	-1.1	-30.1	30.1	29.0	1.12	26.763		
400.0	400.0	400.0	400.0	0.8	0.8	-92.09	-1.1	-30.1	30.1	28.5	1.57	19.117		
500.0	500.0	500.0	500.0	1.0	1.0	-92.09	-1.1	-30.1	30.1	28.1	2.02	14.869		
600.0	600.0	600.0	600.0	1.2	1.2	-92.09	-1.1	-30.1	30.1	27.6	2.47	12.165		
700.0	700.0	700.0	700.0	1.5	1.5	-92.09	-1.1	-30.1	30.1	27.2	2.92	10.294		
800.0	800.0	800.0	800.0	1.7	1.7	-92.09	-1.1	-30.1	30.1	26.7	3.37	8.921		
900.0	900.0	900.0	900.0	1.9	1.9	-92.09	-1.1	-30.1	30.1	26.3	3.82	7.872		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-92.09	-1.1	-30.1	30.1	25.8	4.27	7.043		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-92.09	-1.1	-30.1	30.1	25.4	4.72	6.372		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-92.09	-1.1	-30.1	30.1	24.9	5.17	5.818		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-92.09	-1.1	-30.1	30.1	24.5	5.62	5.353		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-92.09	-1.1	-30.1	30.1	24.0	6.07	4.956		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-92.09	-1.1	-30.1	30.1	23.6	6.52	4.614		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-92.09	-1.1	-30.1	30.1	23.1	6.97	4.317		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-92.09	-1.1	-30.1	30.1	22.7	7.42	4.055		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-92.09	-1.1	-30.1	30.1	22.2	7.87	3.823		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-92.09	-1.1	-30.1	30.1	21.8	8.32	3.617		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-92.09	-1.1	-30.1	30.1	21.3	8.77	3.431		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-92.09	-1.1	-30.1	30.1	20.9	9.22	3.264		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-92.09	-1.1	-30.1	30.1	20.4	9.66	3.112		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-92.09	-1.1	-30.1	30.1	20.0	10.11	2.974		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-92.09	-1.1	-30.1	30.1	19.5	10.56	2.847		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-92.09	-1.1	-30.1	30.1	19.1	11.01	2.731		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-92.09	-1.1	-30.1	30.1	18.6	11.46	2.624		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-92.09	-1.1	-30.1	30.1	18.2	11.91	2.525		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-92.09	-1.1	-30.1	30.1	17.7	12.36	2.433		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-92.09	-1.1	-30.1	30.1	17.3	12.81	2.348		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-92.09	-1.1	-30.1	30.1	16.8	13.26	2.268		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-92.09	-1.1	-30.1	30.1	16.4	13.71	2.194		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-92.09	-1.1	-30.1	30.1	15.9	14.16	2.124		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-92.09	-1.1	-30.1	30.1	15.5	14.61	2.059		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-92.09	-1.1	-30.1	30.1	15.0	15.06	1.997		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-92.09	-1.1	-30.1	30.1	14.6	15.51	1.939		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-92.09	-1.1	-30.1	30.1	14.1	15.96	1.885		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-92.09	-1.1	-30.1	30.1	13.7	16.41	1.833		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-92.09	-1.1	-30.1	30.1	13.2	16.86	1.784		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-92.09	-1.1	-30.1	30.1	12.8	17.31	1.738		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-92.09	-1.1	-30.1	30.1	12.3	17.76	1.694		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-92.09	-1.1	-30.1	30.1	11.9	18.21	1.652		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-92.09	-1.1	-30.1	30.1	11.4	18.66	1.612		
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-92.09	-1.1	-30.1	30.1	11.0	19.11	1.574		
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-92.09	-1.1	-30.1	30.1	10.5	19.55	1.538		
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-92.09	-1.1	-30.1	30.1	10.1	20.00	1.504		
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-92.09	-1.1	-30.1	30.1	9.6	20.45	1.471 Level 3		
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-92.09	-1.1	-30.1	30.1	9.2	20.90	1.439 Level 3		
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-92.09	-1.1	-30.1	30.1	8.7	21.35	1.409 Level 3		
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-92.09	-1.1	-30.1	30.1	8.3	21.80	1.380 Level 3		
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-92.09	-1.1	-30.1	30.1	7.8	22.25	1.352 Level 3		
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	-92.09	-1.1	-30.1	30.1	7.4	22.70	1.325 Level 3		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Raindance FD 30-029HN
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Reference Site:	Raindance West Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5012.4ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Raindance FD 30-029HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-13-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-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		
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	-92.09	-1.1	-30.1	30.1	6.9	23.15	1.299	Level 3	
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	-92.09	-1.1	-30.1	30.1	6.5	23.60	1.274	Level 3	
5,400.0	5,400.0	5,400.0	5,400.0	12.0	12.0	-92.09	-1.1	-30.1	30.1	6.0	24.05	1.251	Level 3	
5,500.0	5,500.0	5,500.0	5,500.0	12.2	12.2	-92.09	-1.1	-30.1	30.1	5.6	24.50	1.228	Level 2, CC, ES, SF	
5,600.0	5,600.0	5,599.1	5,599.0	12.5	12.5	-94.21	-2.3	-31.2	31.3	6.3	24.93	1.255	Level 3	
5,700.0	5,700.0	5,697.5	5,697.2	12.7	12.6	-101.29	-7.1	-35.7	36.5	11.2	25.32	1.441	Level 3	
5,800.0	5,800.0	5,795.2	5,794.3	12.9	12.8	46.59	-15.6	-43.6	45.1	19.5	25.68	1.758		
5,900.0	5,899.4	5,892.7	5,890.4	13.1	13.0	45.66	-27.6	-54.8	52.8	26.8	25.92	2.036		
6,000.0	5,997.5	5,990.0	5,985.3	13.3	13.2	48.58	-43.2	-69.3	58.9	32.8	26.12	2.254		
6,100.0	6,093.6	6,087.1	6,078.8	13.4	13.4	54.36	-62.2	-87.1	64.0	37.6	26.38	2.427		
6,200.0	6,186.9	6,183.9	6,170.6	13.7	13.7	62.46	-84.6	-108.0	69.2	42.4	26.81	2.581		
6,300.0	6,276.8	6,280.6	6,260.6	13.9	13.9	72.22	-110.4	-132.0	75.7	48.2	27.49	2.755		
6,400.0	6,363.6	6,377.2	6,348.7	14.3	14.3	81.67	-139.4	-159.1	85.4	57.0	28.36	3.011		
6,500.0	6,450.1	6,474.4	6,435.2	14.7	14.7	86.69	-171.9	-189.3	98.5	69.3	29.22	3.371		
6,600.0	6,536.7	6,572.2	6,520.0	15.1	15.2	88.26	-207.5	-222.6	113.5	83.3	30.14	3.765		
6,700.0	6,623.6	6,671.1	6,605.2	15.6	15.7	85.71	-244.2	-256.8	128.4	97.2	31.16	4.119		
6,800.0	6,716.4	6,769.6	6,690.1	16.1	16.3	58.55	-280.7	-290.9	136.1	104.3	31.82	4.278		
6,900.0	6,813.1	6,863.6	6,771.1	16.4	16.9	-0.84	-315.6	-323.4	139.9	108.2	31.77	4.404		
7,000.0	6,908.7	6,952.0	6,849.6	16.6	17.4	-51.46	-340.6	-354.9	152.0	120.4	31.61	4.810		
7,100.0	6,998.4	7,049.1	6,939.4	16.6	17.8	-78.18	-348.0	-390.8	175.3	143.7	31.59	5.548		
7,200.0	7,077.5	7,159.1	7,040.0	16.6	18.2	-93.93	-330.8	-431.0	205.1	173.8	31.35	6.543		
7,300.0	7,142.0	7,287.2	7,147.8	16.5	18.5	-104.03	-277.8	-474.0	236.2	205.5	30.76	7.680		
7,400.0	7,188.6	7,438.0	7,250.4	16.5	18.6	-110.45	-176.1	-514.7	262.8	232.7	30.07	8.738		
7,500.0	7,214.8	7,611.3	7,321.3	16.5	18.6	-113.73	-21.7	-542.7	278.7	248.9	29.84	9.341		
7,600.0	7,220.4	7,764.1	7,335.4	16.8	18.8	-114.14	129.8	-547.9	281.2	250.8	30.37	9.259		
7,700.0	7,220.4	7,864.1	7,335.4	17.4	19.2	-114.14	229.8	-547.6	281.2	249.9	31.27	8.992		
7,800.0	7,220.4	7,964.1	7,335.4	18.1	19.8	-114.14	329.8	-547.4	281.2	248.6	32.57	8.635		
7,900.0	7,220.4	8,064.1	7,335.4	19.0	20.6	-114.14	429.8	-547.1	281.2	247.0	34.19	8.226		
8,000.0	7,220.4	8,164.1	7,335.4	20.1	21.5	-114.14	529.8	-546.9	281.2	245.2	36.08	7.794		
8,100.0	7,220.4	8,264.1	7,335.4	21.2	22.6	-114.13	629.8	-546.6	281.3	243.0	38.22	7.359		
8,200.0	7,220.4	8,364.1	7,335.4	22.5	23.8	-114.13	729.8	-546.4	281.3	240.7	40.55	6.936		
8,300.0	7,220.4	8,464.1	7,335.4	23.8	25.0	-114.13	829.8	-546.1	281.3	238.2	43.06	6.533		
8,400.0	7,220.4	8,564.1	7,335.4	25.2	26.4	-114.13	929.8	-545.9	281.3	235.6	45.70	6.155		
8,500.0	7,220.4	8,664.1	7,335.4	26.7	27.8	-114.13	1,029.8	-545.6	281.3	232.9	48.46	5.805		
8,600.0	7,220.4	8,764.1	7,335.4	28.3	29.3	-114.13	1,129.8	-545.4	281.4	230.0	51.32	5.482		
8,700.0	7,220.4	8,864.1	7,335.4	29.8	30.8	-114.12	1,229.8	-545.1	281.4	227.1	54.27	5.185		
8,800.0	7,220.4	8,964.1	7,335.4	31.4	32.4	-114.12	1,329.8	-544.8	281.4	224.1	57.28	4.912		
8,900.0	7,220.4	9,064.1	7,335.4	33.1	34.0	-114.12	1,429.8	-544.6	281.4	221.0	60.35	4.663		
9,000.0	7,220.4	9,164.1	7,335.4	34.8	35.6	-114.12	1,529.8	-544.3	281.4	217.9	63.48	4.433		
9,100.0	7,220.4	9,264.1	7,335.4	36.5	37.3	-114.12	1,629.8	-544.1	281.4	214.8	66.64	4.223		
9,200.0	7,220.4	9,364.1	7,335.4	38.2	39.0	-114.12	1,729.8	-543.8	281.5	211.6	69.85	4.029		
9,300.0	7,220.4	9,464.1	7,335.4	39.9	40.7	-114.11	1,829.8	-543.6	281.5	208.4	73.09	3.851		
9,400.0	7,220.4	9,564.1	7,335.4	41.7	42.4	-114.11	1,929.8	-543.3	281.5	205.1	76.36	3.687		
9,500.0	7,220.4	9,664.1	7,335.4	43.4	44.1	-114.11	2,029.8	-543.1	281.5	201.9	79.65	3.534		
9,600.0	7,220.4	9,764.1	7,335.4	45.2	45.9	-114.11	2,129.8	-542.8	281.5	198.6	82.96	3.393		
9,700.0	7,220.4	9,864.1	7,335.4	47.0	47.6	-114.11	2,229.8	-542.6	281.5	195.2	86.30	3.262		
9,800.0	7,220.4	9,964.1	7,335.4	48.8	49.4	-114.11	2,329.8	-542.3	281.6	191.9	89.65	3.141		
9,900.0	7,220.4	10,064.1	7,335.4	50.6	51.2	-114.11	2,429.8	-542.0	281.6	188.6	93.02	3.027		
10,000.0	7,220.4	10,164.1	7,335.4	52.4	53.0	-114.10	2,529.8	-541.8	281.6	185.2	96.40	2.921		
10,100.0	7,220.4	10,264.1	7,335.4	54.3	54.8	-114.10	2,629.8	-541.5	281.6	181.8	99.79	2.822		
10,200.0	7,220.4	10,364.1	7,335.4	56.1	56.6	-114.10	2,729.8	-541.3	281.6	178.4	103.20	2.729		
10,300.0	7,220.4	10,464.1	7,335.4	57.9	58.4	-114.10	2,829.8	-541.0	281.6	175.0	106.61	2.642		

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

Rairandance West Pad Sec.30-T6N-R67W - Rairandance FD 30-028HC - Wellbore #1 - Plan #1 (11-13-13)											Offset Site Error:	0.0 ft	
Survey Program: 0-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
10,400.0	7,220.4	10,564.1	7,335.4	59.8	60.3	-114.10	2,929.8	-540.8	281.7	171.6	110.04	2.560	
10,500.0	7,220.4	10,664.1	7,335.4	61.6	62.1	-114.10	3,029.8	-540.5	281.7	168.2	113.47	2.482	
10,600.0	7,220.4	10,764.1	7,335.4	63.5	63.9	-114.09	3,129.8	-540.3	281.7	164.8	116.91	2.410	
10,700.0	7,220.4	10,864.1	7,335.4	65.3	65.8	-114.09	3,229.8	-540.0	281.7	161.4	120.36	2.341	
10,800.0	7,220.4	10,964.1	7,335.4	67.2	67.6	-114.09	3,329.8	-539.8	281.7	157.9	123.81	2.275	
10,900.0	7,220.4	11,064.1	7,335.4	69.1	69.5	-114.09	3,429.8	-539.5	281.7	154.5	127.27	2.214	
11,000.0	7,220.4	11,164.1	7,335.4	70.9	71.3	-114.09	3,529.8	-539.2	281.8	151.0	130.74	2.155	
11,100.0	7,220.4	11,264.1	7,335.4	72.8	73.2	-114.09	3,629.8	-539.0	281.8	147.6	134.21	2.100	
11,200.0	7,220.4	11,364.1	7,335.4	74.7	75.1	-114.09	3,729.8	-538.7	281.8	144.1	137.68	2.047	
11,300.0	7,220.4	11,464.1	7,335.4	76.5	76.9	-114.08	3,829.8	-538.5	281.8	140.7	141.16	1.996	
11,400.0	7,220.4	11,564.1	7,335.4	78.4	78.8	-114.08	3,929.8	-538.2	281.8	137.2	144.65	1.948	
11,500.0	7,220.4	11,664.1	7,335.4	80.3	80.7	-114.08	4,029.8	-538.0	281.8	133.7	148.13	1.903	
11,600.0	7,220.4	11,764.1	7,335.4	82.2	82.5	-114.08	4,129.8	-537.7	281.9	130.2	151.63	1.859	
11,700.0	7,220.4	11,864.1	7,335.4	84.1	84.4	-114.08	4,229.8	-537.5	281.9	126.8	155.12	1.817	
11,800.0	7,220.4	11,964.1	7,335.4	85.9	86.3	-114.08	4,329.8	-537.2	281.9	123.3	158.62	1.777	
11,838.6	7,220.4	12,002.7	7,335.4	86.7	87.0	-114.08	4,368.4	-537.1	281.9	121.9	159.97	1.762	
11,868.9	7,220.4	12,029.4	7,335.4	87.2	87.5	-114.07	4,395.1	-537.0	281.9	121.0	160.97	1.752	

Reference Depths are relative to WELL @ 5012.4ft (RKB - 16.5')	Coordinates are relative to: Raindance FD 30-029HN
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: 0.36°



Company: Great Western
Project: SEC.30-T6N-R67W
Reference Site: Raindance West Pad Sec.30-T6N-R67W
Site Error: 0.0ft
Reference Well: Raindance FD 30-029HN
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1 (11-13-13)

Local Co-ordinate Reference: Well Raindance FD 30-029HN
TVD Reference: WELL @ 5012.4ft (RKB - 16.5')
MD Reference: WELL @ 5012.4ft (RKB - 16.5')
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Landmark
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5012.4ft (RKB - 16.5')

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Raindance FD 30-029HN

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.36°

