Well Name: **Postle IC 11-122HN**

Surface Location: Postle West Pad Sec.11-T3N-R68W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4976.9

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1332149.54	3145696.06	40.243972	-104.978072	

RKB - 16.5' WELL @ 4993.4ft (RKB - 16.5')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1456'FNL & 478'FWL	1.0	0.0	0.0	Point
BHL 1714'FNL & 470'FEL	7152.4	-235.3	4343.3	Point
Entry Pt. 1709'FNL & 460'FWL	7152.4	-252.8	-16.5	Point

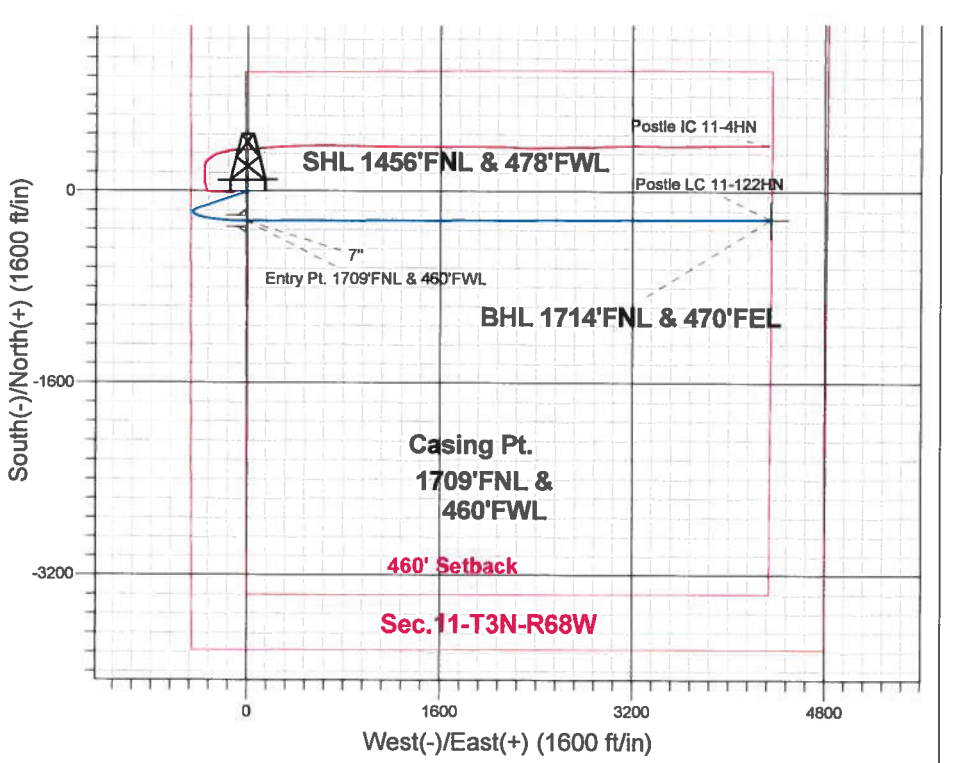
Azimuths to True North
Magnetic North: 8.63°

Magnetic Field
Strength: 52763.4snT
Dip Angle: 66.80°
Date: 12/10/2013
Model: IGRF2010

Postle West Pad Sec.11-T3N-R68W
Postle IC 11-122HN
Plan #1 (12-10-13)
15:27, December 11 2013

ANNOTATIONS

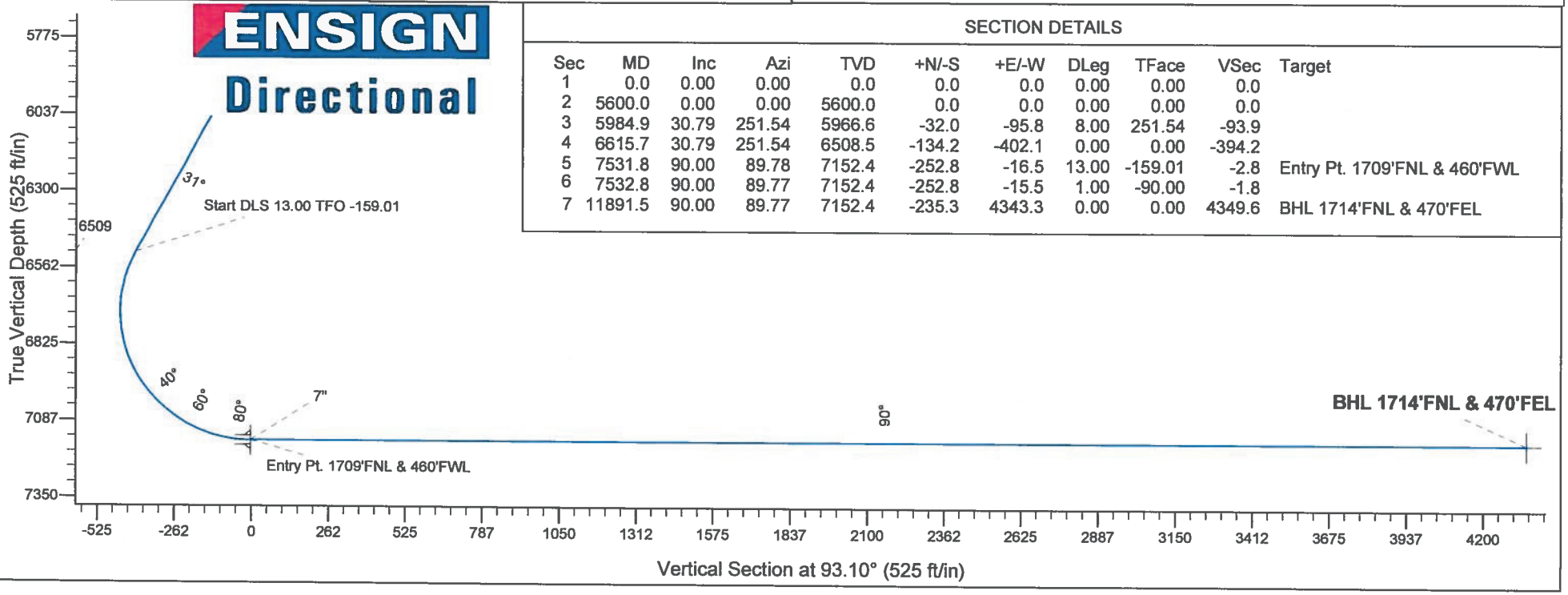
TVD	MD	Annotation
5600.0	5600.0	KOP - Start Build 8.00
6508.5	6615.7	Start DLS 13.00 TFO -159.01
7152.4	11891.5	TD at 11891.5



ENSIGN Directional

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	
3	5984.9	30.79	251.54	5966.6	-32.0	-95.8	8.00	251.54	-93.9	
4	6615.7	30.79	251.54	6508.5	-134.2	-402.1	0.00	0.00	-394.2	
5	7531.8	90.00	89.78	7152.4	-252.8	-16.5	13.00	-159.01	-2.8	Entry Pt. 1709'FNL & 460'FWL
6	7532.8	90.00	89.77	7152.4	-252.8	-15.5	1.00	-90.00	-1.8	
7	11891.5	90.00	89.77	7152.4	-235.3	4343.3	0.00	0.00	4349.6	BHL 1714'FNL & 470'FEL



ENSIGN
Directional

Great Western

SEC.11-T3N-R68W
Postle West Pad Sec.11-T3N-R68W
Postle 1C 11-122HN

Wellbore #1

Plan: Plan #1 (12-10-13)

Standard Planning Report

11 December, 2013

ENSIGN Directional

Planning Report

Database:	Landmark	**Local Co-ordinate Reference:**	Well Postle 11-122HN
Company:	Great Western	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	**North Reference:**	True
Well:	Postle 11-122HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

Project	SEC.11-T3N-R68W, Weld County, CO		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Postle West Pad Sec.11-T3N-R68W				
Site Position:		**Northing:**	1,332,143.74 ft	**Latitude:**	40.243958
From:	Lat/Long	**Easting:**	3,145,575.78 ft	**Longitude:**	-104.978503
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.34 °

Well	Postle 11-122HN				
Well Position	**+N/-S**	5.1 ft	**Northing:**	1,332,149.54 ft	**Latitude:**	40.243972
	+E/-W	120.3 ft	**Easting:**	3,145,696.06 ft	**Longitude:**	-104.978072
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,976.9 ft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/10/2013	8.63	66.80	52,763

Design	Plan #1 (12-10-13)			
Audit Notes:				
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.0	0.0	0.0	93.10

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	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,984.9	30.79	251.54	5,966.6	-32.0	-95.8	8.00	8.00	0.00	251.54	
6,615.7	30.79	251.54	6,508.5	-134.2	-402.1	0.00	0.00	0.00	0.00	
7,531.8	90.00	89.78	7,152.4	-252.8	-16.5	13.00	6.46	-17.66	-159.01	Entry Pt. 1709'FNL
7,532.8	90.00	89.77	7,152.4	-252.8	-15.5	1.00	0.00	-1.00	-90.00	
11,891.5	90.00	89.77	7,152.4	-235.3	4,343.3	0.00	0.00	0.00	0.00	BHL 1714'FNL & 47

ENSIGN Directional

Planning Report

Database:	Landmark	**Local Co-ordinate Reference:**	Well Postle 11-122HN
Company:	Great Western	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	**North Reference:**	True
Well:	Postle 11-122HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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 1456'FNL & 478'FWL									
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 Postle 11-122HN
Company:	Great Western	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	**North Reference:**	True
Well:	Postle 11-122HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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
KOP - Start Build 8.00									
5,700.0	8.00	251.54	5,699.7	-2.2	-6.6	-6.5	8.00	8.00	0.00
5,800.0	16.00	251.54	5,797.4	-8.8	-26.3	-25.8	8.00	8.00	0.00
5,900.0	24.00	251.54	5,891.3	-19.6	-58.7	-57.6	8.00	8.00	0.00
5,984.9	30.79	251.54	5,966.6	-32.0	-95.8	-93.9	8.00	8.00	0.00
6,000.0	30.79	251.54	5,979.6	-34.4	-103.1	-101.1	0.00	0.00	0.00
6,100.0	30.79	251.54	6,065.5	-50.6	-151.7	-148.7	0.00	0.00	0.00
6,200.0	30.79	251.54	6,151.4	-66.8	-200.2	-196.3	0.00	0.00	0.00
6,300.0	30.79	251.54	6,237.3	-83.0	-248.8	-243.9	0.00	0.00	0.00
6,400.0	30.79	251.54	6,323.2	-99.2	-297.3	-291.5	0.00	0.00	0.00
6,500.0	30.79	251.54	6,409.1	-115.5	-345.9	-339.1	0.00	0.00	0.00
6,600.0	30.79	251.54	6,495.0	-131.7	-394.5	-386.8	0.00	0.00	0.00
6,615.7	30.79	251.54	6,508.5	-134.2	-402.1	-394.2	0.00	0.00	0.00
Start DLS 13.00 TFO -159.01									
6,700.0	20.89	240.53	6,584.3	-148.5	-435.7	-427.1	13.01	-11.75	-13.06
6,800.0	11.73	205.86	6,680.4	-166.5	-455.8	-446.1	13.00	-9.16	-34.67
6,900.0	13.15	142.76	6,778.5	-184.8	-453.3	-442.7	13.00	1.42	-63.10
7,000.0	23.29	115.46	6,873.5	-202.4	-428.5	-416.9	13.00	10.14	-27.30
7,100.0	35.29	105.06	6,960.6	-218.5	-382.5	-370.2	13.00	12.01	-10.40
7,200.0	47.78	99.52	7,035.3	-232.1	-317.9	-304.8	13.00	12.48	-5.53
7,300.0	60.43	95.85	7,093.9	-242.8	-237.7	-224.2	13.00	12.66	-3.67
7,400.0	73.17	93.01	7,133.2	-249.7	-146.3	-132.6	13.00	12.74	-2.84
7,500.0	85.94	90.54	7,151.3	-252.7	-48.2	-34.5	13.00	12.77	-2.48
7,531.8	89.99	89.78	7,152.4	-252.8	-16.5	-2.8	12.98	12.76	-2.38
7" - Entry Pt. 1709'FNL & 460'FWL									
7,532.8	90.00	89.77	7,152.4	-252.8	-15.5	-1.8	1.27	0.61	-1.11
7,600.0	90.00	89.77	7,152.4	-252.5	51.8	65.4	0.00	0.00	0.00
7,700.0	90.00	89.77	7,152.4	-252.1	151.8	165.2	0.00	0.00	0.00
7,800.0	90.00	89.77	7,152.4	-251.7	251.8	265.0	0.00	0.00	0.00
7,900.0	90.00	89.77	7,152.4	-251.3	351.8	364.9	0.00	0.00	0.00
8,000.0	90.00	89.77	7,152.4	-250.9	451.8	464.7	0.00	0.00	0.00
8,100.0	90.00	89.77	7,152.4	-250.5	551.8	564.5	0.00	0.00	0.00
8,200.0	90.00	89.77	7,152.4	-250.1	651.8	664.3	0.00	0.00	0.00
8,300.0	90.00	89.77	7,152.4	-249.7	751.8	764.2	0.00	0.00	0.00
8,400.0	90.00	89.77	7,152.4	-249.3	851.8	864.0	0.00	0.00	0.00
8,500.0	90.00	89.77	7,152.4	-248.9	951.8	963.8	0.00	0.00	0.00
8,600.0	90.00	89.77	7,152.4	-248.5	1,051.8	1,063.7	0.00	0.00	0.00
8,700.0	90.00	89.77	7,152.4	-248.1	1,151.8	1,163.5	0.00	0.00	0.00
8,800.0	90.00	89.77	7,152.4	-247.7	1,251.8	1,263.3	0.00	0.00	0.00
8,900.0	90.00	89.77	7,152.4	-247.3	1,351.8	1,363.2	0.00	0.00	0.00
9,000.0	90.00	89.77	7,152.4	-246.9	1,451.8	1,463.0	0.00	0.00	0.00
9,100.0	90.00	89.77	7,152.4	-246.5	1,551.8	1,562.8	0.00	0.00	0.00
9,200.0	90.00	89.77	7,152.4	-246.1	1,651.8	1,662.7	0.00	0.00	0.00
9,300.0	90.00	89.77	7,152.4	-245.7	1,751.8	1,762.5	0.00	0.00	0.00
9,400.0	90.00	89.77	7,152.4	-245.3	1,851.8	1,862.3	0.00	0.00	0.00
9,500.0	90.00	89.77	7,152.4	-244.9	1,951.8	1,962.2	0.00	0.00	0.00
9,600.0	90.00	89.77	7,152.4	-244.5	2,051.8	2,062.0	0.00	0.00	0.00
9,700.0	90.00	89.77	7,152.4	-244.1	2,151.8	2,161.8	0.00	0.00	0.00

Database:	Landmark	**Local Co-ordinate Reference:**	Well Postle 11-122HN
Company:	Great Western	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Project:	SEC.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site:	Postle West Pad Sec.11-T3N-R68W	**North Reference:**	True
Well:	Postle 11-122HN	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-10-13)		

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)
9,800.0	90.00	89.77	7,152.4	-243.7	2,251.8	2,261.6	0.00	0.00	0.00
9,900.0	90.00	89.77	7,152.4	-243.3	2,351.8	2,361.5	0.00	0.00	0.00
10,000.0	90.00	89.77	7,152.4	-242.9	2,451.8	2,461.3	0.00	0.00	0.00
10,100.0	90.00	89.77	7,152.4	-242.5	2,551.8	2,561.1	0.00	0.00	0.00
10,200.0	90.00	89.77	7,152.4	-242.1	2,651.8	2,661.0	0.00	0.00	0.00
10,300.0	90.00	89.77	7,152.4	-241.7	2,751.8	2,760.8	0.00	0.00	0.00
10,400.0	90.00	89.77	7,152.4	-241.3	2,851.8	2,860.6	0.00	0.00	0.00
10,500.0	90.00	89.77	7,152.4	-240.9	2,951.8	2,960.5	0.00	0.00	0.00
10,600.0	90.00	89.77	7,152.4	-240.5	3,051.8	3,060.3	0.00	0.00	0.00
10,700.0	90.00	89.77	7,152.4	-240.1	3,151.8	3,160.1	0.00	0.00	0.00
10,800.0	90.00	89.77	7,152.4	-239.7	3,251.8	3,260.0	0.00	0.00	0.00
10,900.0	90.00	89.77	7,152.4	-239.3	3,351.8	3,359.8	0.00	0.00	0.00
11,000.0	90.00	89.77	7,152.4	-238.9	3,451.7	3,459.6	0.00	0.00	0.00
11,100.0	90.00	89.77	7,152.4	-238.5	3,551.7	3,559.4	0.00	0.00	0.00
11,200.0	90.00	89.77	7,152.4	-238.1	3,651.7	3,659.3	0.00	0.00	0.00
11,300.0	90.00	89.77	7,152.4	-237.7	3,751.7	3,759.1	0.00	0.00	0.00
11,400.0	90.00	89.77	7,152.4	-237.3	3,851.7	3,858.9	0.00	0.00	0.00
11,500.0	90.00	89.77	7,152.4	-236.9	3,951.7	3,958.8	0.00	0.00	0.00
11,600.0	90.00	89.77	7,152.4	-236.5	4,051.7	4,058.6	0.00	0.00	0.00
11,700.0	90.00	89.77	7,152.4	-236.1	4,151.7	4,158.4	0.00	0.00	0.00
11,800.0	90.00	89.77	7,152.4	-235.7	4,251.7	4,258.3	0.00	0.00	0.00
11,891.5	90.00	89.77	7,152.4	-235.3	4,343.2	4,349.6	0.00	0.00	0.00
TD at 11891.5 - BHL 1714'FNL & 470'FEL									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,531.8	7,152.4	7"	7	7-1/2

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 8.00
6,615.7	6,508.5	-134.2	-402.1	Start DLS 13.00 TFO -159.01
11,891.5	7,152.4	-235.3	4,343.2	TD at 11891.5

ENSIGN
Directional

Great Western

SEC.11-T3N-R68W
Postle West Pad Sec.11-T3N-R68W
PostleIC 11-122HN

Wellbore #1
Plan #1 (12-10-13)

Anticollision Report

11 December, 2013

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1 (12-10-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program **Date** 12/11/2013

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,891.1	Plan #1 (12-10-13) (Wellbore #1)	MWD	MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Postle West Pad Sec.11-T3N-R68W						
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	0.0	2.6	120.4	120.4	10,000.000	CC
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	500.0	502.2	120.6	118.8	65.270	ES
Postle IC 11-4HN - Wellbore #1 - Wellbore #1	11,891.5	11,715.0	628.9	369.5	2.425	SF
Postle IC 11-039HN - Wellbore #1 - Plan #1 (12-10-13)	4,700.0	4,700.0	60.6	39.7	2.899	CC, ES
Postle IC 11-039HN - Wellbore #1 - Plan #1 (12-10-13)	4,800.0	4,798.7	61.6	40.2	2.883	SF
Postle IC 11-042HC - Wellbore #1 - Plan #1 (12-10-13)	5,200.0	5,200.0	30.4	7.3	1.315	Level 3, CC, ES, SF
Postle IC 11-159HC - Wellbore #1 - Plan #1 (12-10-13)	5,300.0	5,300.0	103.7	80.1	4.396	CC, ES
Postle IC 11-159HC - Wellbore #1 - Plan #1 (12-10-13)	11,891.5	12,083.0	353.7	119.9	1.513	SF
Postle IC 11-162HN - Wellbore #1 - Plan #1 (12-10-13)	4,900.0	4,900.0	99.2	77.4	4.548	CC, ES
Postle IC 11-162HN - Wellbore #1 - Plan #1 (12-10-13)	11,891.5	11,974.5	622.2	360.2	2.375	SF
Postle IC 11-239HN - Wellbore #1 - Plan #1 (12-10-13)	4,100.0	4,100.0	104.5	86.3	5.739	CC, ES
Postle IC 11-239HN - Wellbore #1 - Plan #1 (12-10-13)	11,891.5	12,123.4	1,248.8	987.1	4.771	SF

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	2.6	2.6	0.0	0.0	-92.43	-5.1	-120.3	120.4	120.4	0.00	N/A	CC
100.0	100.0	102.5	102.5	0.1	0.1	-92.46	-5.2	-120.3	120.5	120.2	0.23	528.928	
200.0	200.0	202.5	202.5	0.3	0.2	-92.57	-5.4	-120.4	120.5	120.0	0.56	213.450	
300.0	300.0	302.6	302.6	0.6	0.4	-92.72	-5.7	-120.5	120.6	119.6	0.97	123.865	
400.0	400.0	402.7	402.7	0.8	0.6	-92.91	-6.1	-120.4	120.6	119.1	1.41	85.455	
438.9	438.9	441.5	441.5	0.9	0.7	-93.02	-6.4	-120.4	120.5	119.0	1.58	76.238	
500.0	500.0	502.2	502.2	1.0	0.8	-93.23	-6.8	-120.4	120.6	118.8	1.85	65.270	ES
600.0	600.0	601.5	601.5	1.2	1.1	-93.56	-7.5	-121.0	121.3	119.0	2.29	53.061	
700.0	700.0	701.4	701.4	1.5	1.3	-93.86	-8.2	-122.0	122.3	119.5	2.71	45.039	
800.0	800.0	801.4	801.4	1.7	1.5	-94.08	-8.8	-122.9	123.3	120.1	3.14	39.227	
900.0	900.0	900.8	900.7	1.9	1.7	-94.25	-9.2	-124.1	124.4	120.9	3.57	34.830	
1,000.0	1,000.0	999.9	999.8	2.1	1.9	-94.46	-9.8	-125.9	126.3	122.3	4.01	31.477	
1,100.0	1,100.0	1,099.3	1,099.2	2.4	2.1	-94.63	-10.4	-128.3	128.7	124.3	4.45	28.914	
1,200.0	1,200.0	1,199.5	1,199.4	2.6	2.3	-94.52	-10.3	-130.9	131.4	126.5	4.89	26.884	
1,300.0	1,300.0	1,300.1	1,300.0	2.8	2.5	-94.29	-10.0	-133.1	133.5	128.2	5.31	25.123	
1,400.0	1,400.0	1,400.3	1,400.2	3.0	2.7	-94.06	-9.6	-135.0	135.4	129.6	5.74	23.565	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,500.0	1,500.0	1,501.6	1,501.4	3.3	2.9	-93.61	-8.6	-136.5	136.8	130.6	6.18	22.139	
1,600.0	1,600.0	1,601.9	1,601.7	3.5	3.1	-92.95	-7.1	-137.3	137.5	130.9	6.61	20.790	
1,700.0	1,700.0	1,702.1	1,701.9	3.7	3.3	-92.54	-6.1	-138.0	138.1	131.1	7.05	19.595	
1,800.0	1,800.0	1,801.5	1,801.3	3.9	3.6	-92.25	-5.4	-138.7	138.8	131.3	7.48	18.550	
1,900.0	1,900.0	1,901.1	1,900.9	4.2	3.8	-91.90	-4.6	-139.8	139.9	132.0	7.92	17.665	
2,000.0	2,000.0	2,002.3	2,002.1	4.4	4.0	-91.63	-4.0	-140.6	140.6	132.3	8.36	16.831	
2,100.0	2,100.0	2,102.2	2,101.9	4.6	4.2	-91.25	-3.1	-141.0	141.0	132.2	8.79	16.047	
2,200.0	2,200.0	2,201.5	2,201.3	4.8	4.4	-90.82	-2.0	-141.7	141.7	132.5	9.22	15.369	
2,300.0	2,300.0	2,301.4	2,301.1	5.1	4.6	-90.52	-1.3	-142.6	142.7	133.0	9.66	14.769	
2,400.0	2,400.0	2,400.1	2,399.9	5.3	4.8	-90.60	-1.5	-144.2	144.3	134.2	10.09	14.292	
2,500.0	2,500.0	2,501.1	2,500.8	5.5	5.0	-90.85	-2.2	-145.8	145.8	135.3	10.53	13.848	
2,600.0	2,600.0	2,601.9	2,601.7	5.7	5.2	-91.05	-2.7	-146.7	146.7	135.7	10.96	13.381	
2,700.0	2,700.0	2,702.2	2,701.9	6.0	5.4	-91.25	-3.2	-147.2	147.2	135.8	11.40	12.918	
2,800.0	2,800.0	2,802.0	2,801.8	6.2	5.7	-91.52	-3.9	-147.7	147.7	135.9	11.83	12.484	
2,900.0	2,900.0	2,901.7	2,901.4	6.4	5.9	-91.84	-4.8	-148.3	148.4	136.1	12.27	12.096	
3,000.0	3,000.0	3,000.8	3,000.5	6.6	6.1	-92.19	-5.7	-149.3	149.5	136.8	12.70	11.765	
3,100.0	3,100.0	3,100.2	3,099.9	6.9	6.3	-92.38	-6.3	-151.0	151.1	138.0	13.14	11.501	
3,200.0	3,200.0	3,199.7	3,199.4	7.1	6.5	-92.55	-6.8	-152.9	153.1	139.5	13.58	11.275	
3,300.0	3,300.0	3,298.5	3,298.2	7.3	6.7	-92.84	-7.7	-155.2	155.5	141.5	14.01	11.096	
3,400.0	3,400.0	3,397.7	3,397.3	7.5	6.9	-92.98	-8.2	-158.3	158.6	144.2	14.45	10.977	
3,500.0	3,500.0	3,495.4	3,494.9	7.8	7.1	-93.07	-8.7	-162.1	162.5	147.6	14.89	10.917	
3,600.0	3,600.0	3,594.5	3,593.9	8.0	7.4	-92.88	-8.4	-167.2	167.7	152.3	15.33	10.938	
3,700.0	3,700.0	3,693.7	3,692.9	8.2	7.6	-92.62	-7.9	-172.6	173.0	157.2	15.77	10.971	
3,800.0	3,800.0	3,791.5	3,790.5	8.4	7.8	-92.38	-7.4	-178.6	179.1	162.9	16.22	11.047	
3,900.0	3,900.0	3,889.5	3,888.3	8.7	8.0	-92.13	-6.9	-185.7	186.4	169.7	16.67	11.182	
4,000.0	4,000.0	3,989.0	3,987.5	8.9	8.2	-91.86	-6.3	-193.5	194.2	177.0	17.12	11.342	
4,100.0	4,100.0	4,090.6	4,088.8	9.1	8.5	-91.67	-5.8	-201.0	201.5	183.9	17.57	11.471	
4,200.0	4,200.0	4,189.0	4,187.0	9.3	8.7	-91.62	-5.9	-207.8	208.5	190.5	18.01	11.574	
4,300.0	4,300.0	4,287.6	4,285.2	9.6	8.9	-91.63	-6.1	-215.3	216.1	197.6	18.47	11.700	
4,400.0	4,400.0	4,386.1	4,383.4	9.8	9.2	-91.65	-6.4	-223.5	224.4	205.5	18.93	11.854	
4,500.0	4,500.0	4,485.5	4,482.5	10.0	9.4	-91.66	-6.7	-232.0	232.9	213.5	19.39	12.014	
4,600.0	4,600.0	4,583.2	4,579.8	10.2	9.6	-91.64	-6.9	-240.8	242.0	222.2	19.85	12.193	
4,700.0	4,700.0	4,682.4	4,678.5	10.5	9.9	-91.54	-6.7	-250.3	251.5	231.2	20.31	12.382	
4,800.0	4,800.0	4,782.1	4,777.7	10.7	10.1	-91.40	-6.3	-259.8	261.1	240.3	20.77	12.567	
4,900.0	4,900.0	4,882.1	4,877.3	10.9	10.4	-91.27	-6.0	-269.3	270.5	249.3	21.23	12.740	
5,000.0	5,000.0	4,982.5	4,977.3	11.1	10.6	-91.13	-5.5	-278.5	279.7	258.0	21.69	12.896	
5,100.0	5,100.0	5,083.3	5,077.7	11.4	10.8	-90.99	-5.0	-287.4	288.5	266.4	22.15	13.025	
5,200.0	5,200.0	5,183.7	5,177.8	11.6	11.1	-90.85	-4.4	-296.0	297.0	274.4	22.61	13.136	
5,300.0	5,300.0	5,285.0	5,278.7	11.8	11.3	-90.71	-3.8	-304.2	305.2	282.1	23.07	13.226	
5,400.0	5,400.0	5,386.8	5,380.2	12.0	11.5	-90.57	-3.1	-311.8	312.6	289.1	23.53	13.285	
5,500.0	5,500.0	5,489.7	5,482.9	12.2	11.8	-90.44	-2.4	-318.8	319.4	295.4	24.00	13.311	
5,600.0	5,600.0	5,590.6	5,583.5	12.5	12.0	-90.37	-2.1	-324.7	325.3	300.8	24.45	13.303	
5,700.0	5,699.7	5,690.3	5,683.1	12.7	12.2	18.59	-1.6	-330.6	324.5	300.2	24.31	13.353	
5,800.0	5,797.4	5,792.6	5,785.3	12.9	12.5	20.45	-0.5	-336.2	310.3	286.1	24.25	12.795	
5,900.0	5,891.3	5,892.2	5,884.7	13.1	12.7	24.31	1.5	-340.1	282.3	258.3	23.96	11.782	
6,000.0	5,979.6	5,984.5	5,977.0	13.4	12.9	31.10	4.6	-342.1	242.3	218.4	23.82	10.171	
6,100.0	6,065.5	6,067.9	6,060.2	13.8	13.1	39.23	9.3	-343.5	201.2	176.5	24.68	8.150	
6,200.0	6,151.4	6,149.0	6,141.0	14.3	13.2	50.50	16.0	-345.7	167.9	142.0	25.89	6.487	
6,300.0	6,237.3	6,224.9	6,215.8	14.9	13.4	64.89	28.0	-349.6	151.9	124.5	27.37	5.549	
6,335.0	6,267.4	6,254.1	6,244.6	15.1	13.5	70.84	32.8	-351.1	150.6	122.7	27.94	5.391	
6,400.0	6,323.2	6,301.7	6,291.3	15.5	13.6	80.54	41.9	-353.8	155.9	127.1	28.80	5.412	
6,500.0	6,409.1	6,372.3	6,359.5	16.2	13.8	93.47	59.4	-358.8	182.9	153.1	29.81	6.138	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1

Offset Site Error: 0.0ft

Survey Program: 229-MWD

Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,600.0	6,495.0	6,435.0	6,418.9	16.9	14.0	103.15	79.0	-361.1	227.3	196.8	30.50	7.453	
6,700.0	6,584.3	6,500.5	6,479.7	17.5	14.1	127.21	103.3	-360.8	283.7	253.2	30.57	9.283	
6,800.0	6,680.4	6,590.6	6,563.1	17.8	14.4	170.96	137.3	-358.9	340.7	309.9	30.77	11.072	
6,900.0	6,778.5	6,669.2	6,636.2	18.0	14.6	-122.71	166.3	-360.0	391.1	359.9	31.23	12.525	
7,000.0	6,873.5	6,758.7	6,718.8	18.1	14.9	-96.11	200.6	-362.2	437.7	406.0	31.70	13.807	
7,100.0	6,960.6	6,831.4	6,786.3	18.1	15.1	-86.52	227.0	-358.7	479.9	447.9	31.98	15.007	
7,200.0	7,035.3	6,921.0	6,867.7	18.2	15.4	-83.01	257.4	-337.2	518.7	486.4	32.27	16.074	
7,300.0	7,093.9	6,992.0	6,928.5	18.4	15.5	-80.59	280.2	-308.7	553.9	521.2	32.62	16.976	
7,400.0	7,133.2	7,121.0	7,024.8	19.0	15.7	-82.66	318.7	-232.7	585.5	552.0	33.56	17.446	
7,500.0	7,151.3	7,301.4	7,117.2	20.0	16.2	-86.78	347.9	-82.3	602.7	567.2	35.50	16.977	
7,600.0	7,152.4	7,408.9	7,140.3	21.3	17.2	-88.61	353.2	22.3	606.6	568.8	37.86	16.021	
7,700.0	7,152.4	7,495.1	7,141.4	22.9	18.3	-88.73	358.8	108.2	612.7	572.1	40.54	15.114	
7,800.0	7,152.4	7,582.0	7,139.3	24.7	19.6	-88.54	365.3	194.8	619.8	576.2	43.67	14.194	
7,900.0	7,152.4	7,684.1	7,134.3	26.6	21.4	-88.11	374.6	296.4	628.7	581.3	47.46	13.249	
8,000.0	7,152.4	7,819.7	7,131.0	28.7	24.2	-87.83	382.9	431.7	634.6	582.3	52.31	12.131	
8,100.0	7,152.4	7,923.4	7,128.0	31.0	26.4	-87.56	384.8	535.3	636.1	579.3	56.81	11.196	
8,200.0	7,152.4	8,042.8	7,127.1	33.3	29.2	-87.50	386.9	654.7	637.6	575.7	61.89	10.302	
8,300.0	7,152.4	8,147.8	7,126.9	35.7	31.7	-87.47	385.7	759.7	636.1	569.3	66.80	9.522	
8,400.0	7,152.4	8,267.9	7,129.1	38.1	34.6	-87.65	382.2	879.6	632.7	560.4	72.23	8.759	
8,500.0	7,152.4	8,350.7	7,128.9	40.6	36.7	-87.62	379.3	962.4	628.9	552.1	76.81	8.188	
8,600.0	7,152.4	8,445.9	7,127.9	43.1	39.1	-87.52	378.4	1,057.6	627.6	545.8	81.76	7.676	
8,700.0	7,152.4	8,557.6	7,127.9	45.7	41.9	-87.51	375.9	1,169.2	624.9	537.7	87.22	7.164	
8,800.0	7,152.4	8,649.4	7,127.3	48.3	44.3	-87.45	373.7	1,261.0	622.1	529.9	92.20	6.747	
8,867.6	7,152.4	8,705.3	7,126.1	50.0	45.8	-87.33	373.3	1,316.9	621.4	526.0	95.43	6.512	
8,900.0	7,152.4	8,733.3	7,125.3	50.9	46.5	-87.26	373.5	1,344.9	621.6	524.6	97.00	6.408	
9,000.0	7,152.4	8,840.2	7,123.4	53.5	49.3	-87.09	374.3	1,451.8	622.0	519.6	102.45	6.072	
9,087.8	7,152.4	8,925.4	7,122.5	55.8	51.6	-87.00	374.1	1,537.0	621.5	514.5	107.04	5.806	
9,100.0	7,152.4	8,934.5	7,122.5	56.1	51.9	-87.00	374.2	1,546.1	621.6	514.0	107.61	5.776	
9,200.0	7,152.4	9,028.7	7,123.2	58.8	54.4	-87.07	376.0	1,640.2	623.0	510.2	112.79	5.524	
9,300.0	7,152.4	9,131.8	7,123.2	61.5	57.1	-87.08	377.7	1,743.4	624.2	506.0	118.23	5.280	
9,400.0	7,152.4	9,242.3	7,124.0	64.2	60.1	-87.15	378.4	1,853.9	624.5	500.6	123.91	5.040	
9,500.0	7,152.4	9,349.4	7,124.3	66.8	63.0	-87.17	376.9	1,960.9	622.7	493.2	129.51	4.808	
9,600.0	7,152.4	9,453.5	7,123.7	69.5	65.8	-87.11	375.4	2,065.0	620.9	485.8	135.04	4.598	
9,700.0	7,152.4	9,558.0	7,123.3	72.3	68.7	-87.05	372.5	2,169.4	617.6	477.0	140.59	4.393	
9,800.0	7,152.4	9,652.3	7,120.1	75.0	71.3	-86.75	370.1	2,263.7	614.9	469.0	145.85	4.216	
9,900.0	7,152.4	9,742.1	7,119.3	77.7	73.7	-86.67	368.7	2,353.4	613.0	462.0	151.02	4.059	
9,920.5	7,152.4	9,758.5	7,119.4	78.3	74.2	-86.67	368.7	2,369.8	612.9	460.9	152.03	4.032	
10,000.0	7,152.4	9,838.0	7,118.8	80.4	76.3	-86.62	369.2	2,449.4	613.2	456.8	156.36	3.921	
10,100.0	7,152.4	9,940.0	7,117.5	83.2	79.1	-86.49	369.0	2,551.3	612.6	450.7	161.88	3.785	
10,115.2	7,152.4	9,953.2	7,117.4	83.6	79.5	-86.48	369.0	2,564.5	612.6	449.9	162.65	3.766	
10,200.0	7,152.4	10,037.2	7,118.2	85.9	81.8	-86.55	369.6	2,648.6	612.8	445.5	167.29	3.663	
10,300.0	7,152.4	10,131.8	7,119.4	88.6	84.4	-86.67	370.4	2,743.1	613.2	440.5	172.65	3.552	
10,400.0	7,152.4	10,213.6	7,119.2	91.4	86.6	-86.66	372.6	2,824.9	615.6	437.9	177.63	3.465	
10,500.0	7,152.4	10,317.6	7,118.8	94.1	89.5	-86.65	377.5	2,928.8	619.9	436.7	183.23	3.383	
10,600.0	7,152.4	10,419.6	7,118.9	96.9	92.3	-86.68	380.5	3,030.7	622.4	433.6	188.79	3.297	
10,700.0	7,152.4	10,532.4	7,117.8	99.6	95.4	-86.59	383.5	3,143.5	624.7	430.1	194.63	3.210	
10,800.0	7,152.4	10,645.3	7,118.0	102.4	98.6	-86.60	383.3	3,256.3	624.1	423.6	200.51	3.113	
10,900.0	7,152.4	10,749.4	7,117.8	105.2	101.4	-86.58	382.5	3,360.4	622.9	416.8	206.14	3.022	
11,000.0	7,152.4	10,845.8	7,118.3	107.9	104.1	-86.61	381.7	3,456.9	621.7	410.1	211.58	2.938	
11,100.0	7,152.4	10,942.0	7,119.4	110.7	106.8	-86.71	381.1	3,553.0	620.6	403.6	217.03	2.860	
11,146.3	7,152.4	10,984.5	7,120.0	112.0	107.9	-86.77	381.2	3,595.6	620.5	401.0	219.50	2.827	
11,200.0	7,152.4	11,032.7	7,120.6	113.5	109.3	-86.82	381.6	3,643.7	620.7	398.4	222.32	2.792	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-4HN - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.0ft

Survey Program: 229-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
11,300.0	7,152.4	11,131.1	7,120.3	116.2	112.0	-86.80	383.2	3,742.1	622.0	394.2	227.81	2.730	
11,400.0	7,152.4	11,224.8	7,117.8	119.0	114.6	-86.58	385.0	3,835.8	623.6	390.5	233.12	2.675	
11,500.0	7,152.4	11,335.7	7,115.6	121.8	117.7	-86.38	387.0	3,946.7	625.2	386.3	238.92	2.617	
11,600.0	7,152.4	11,432.4	7,113.3	124.5	120.4	-86.18	388.1	4,043.3	626.0	381.7	244.32	2.562	
11,700.0	7,152.4	11,526.5	7,113.0	127.3	123.0	-86.16	389.5	4,137.4	627.2	377.5	249.69	2.512	
11,800.0	7,152.4	11,634.9	7,115.0	130.1	126.0	-86.35	390.9	4,245.8	627.9	372.3	255.52	2.457	
11,891.5	7,152.4	11,715.0	7,115.1	131.7	128.2	-86.36	392.1	4,325.8	628.9	369.5	259.35	2.425 SF	

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.72	-1.8	-60.6	60.6				
100.0	100.0	100.0	100.0	0.1	0.1	-91.72	-1.8	-60.6	60.6	60.4	0.22	269.640	
200.0	200.0	200.0	200.0	0.3	0.3	-91.72	-1.8	-60.6	60.6	59.9	0.67	89.880	
300.0	300.0	300.0	300.0	0.6	0.6	-91.72	-1.8	-60.6	60.6	59.5	1.12	53.928	
400.0	400.0	400.0	400.0	0.8	0.8	-91.72	-1.8	-60.6	60.6	59.0	1.57	38.520	
500.0	500.0	500.0	500.0	1.0	1.0	-91.72	-1.8	-60.6	60.6	58.6	2.02	29.960	
600.0	600.0	600.0	600.0	1.2	1.2	-91.72	-1.8	-60.6	60.6	58.1	2.47	24.513	
700.0	700.0	700.0	700.0	1.5	1.5	-91.72	-1.8	-60.6	60.6	57.7	2.92	20.742	
800.0	800.0	800.0	800.0	1.7	1.7	-91.72	-1.8	-60.6	60.6	57.2	3.37	17.976	
900.0	900.0	900.0	900.0	1.9	1.9	-91.72	-1.8	-60.6	60.6	56.8	3.82	15.861	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-91.72	-1.8	-60.6	60.6	56.3	4.27	14.192	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-91.72	-1.8	-60.6	60.6	55.9	4.72	12.840	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-91.72	-1.8	-60.6	60.6	55.4	5.17	11.723	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-91.72	-1.8	-60.6	60.6	55.0	5.62	10.786	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-91.72	-1.8	-60.6	60.6	54.5	6.07	9.987	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-91.72	-1.8	-60.6	60.6	54.1	6.52	9.298	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-91.72	-1.8	-60.6	60.6	53.6	6.97	8.698	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-91.72	-1.8	-60.6	60.6	53.2	7.42	8.171	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-91.72	-1.8	-60.6	60.6	52.7	7.87	7.704	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-91.72	-1.8	-60.6	60.6	52.3	8.32	7.288	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-91.72	-1.8	-60.6	60.6	51.8	8.77	6.914	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-91.72	-1.8	-60.6	60.6	51.4	9.22	6.577	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-91.72	-1.8	-60.6	60.6	50.9	9.66	6.271	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-91.72	-1.8	-60.6	60.6	50.5	10.11	5.992	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-91.72	-1.8	-60.6	60.6	50.0	10.56	5.737	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-91.72	-1.8	-60.6	60.6	49.6	11.01	5.503	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-91.72	-1.8	-60.6	60.6	49.1	11.46	5.287	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-91.72	-1.8	-60.6	60.6	48.7	11.91	5.088	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-91.72	-1.8	-60.6	60.6	48.2	12.36	4.903	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-91.72	-1.8	-60.6	60.6	47.8	12.81	4.731	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-91.72	-1.8	-60.6	60.6	47.3	13.26	4.570	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-91.72	-1.8	-60.6	60.6	46.9	13.71	4.420	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-91.72	-1.8	-60.6	60.6	46.4	14.16	4.280	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-91.72	-1.8	-60.6	60.6	46.0	14.61	4.148	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-91.72	-1.8	-60.6	60.6	45.5	15.06	4.024	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-91.72	-1.8	-60.6	60.6	45.1	15.51	3.908	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-91.72	-1.8	-60.6	60.6	44.6	15.96	3.798	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-91.72	-1.8	-60.6	60.6	44.2	16.41	3.694	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-91.72	-1.8	-60.6	60.6	43.7	16.86	3.595	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-91.72	-1.8	-60.6	60.6	43.3	17.31	3.502	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-91.72	-1.8	-60.6	60.6	42.8	17.76	3.413	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-91.72	-1.8	-60.6	60.6	42.4	18.21	3.329	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-91.72	-1.8	-60.6	60.6	42.0	18.66	3.249	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-91.72	-1.8	-60.6	60.6	41.5	19.11	3.172	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-91.72	-1.8	-60.6	60.6	41.1	19.55	3.099	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-91.72	-1.8	-60.6	60.6	40.6	20.00	3.030	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-91.72	-1.8	-60.6	60.6	40.2	20.45	2.963	
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-91.72	-1.8	-60.6	60.6	39.7	20.90	2.899	CC, ES
4,800.0	4,800.0	4,798.7	4,798.7	10.7	10.7	-90.00	0.0	-61.5	61.6	40.2	21.35	2.883	SF
4,900.0	4,900.0	4,896.8	4,896.5	10.9	10.9	-84.49	6.3	-64.8	65.2	43.4	21.79	2.993	
5,000.0	5,000.0	4,993.9	4,992.9	11.1	11.1	-76.57	16.8	-70.4	72.7	50.5	22.23	3.271	
5,100.0	5,100.0	5,089.6	5,087.1	11.4	11.3	-68.08	31.4	-78.1	85.2	62.5	22.68	3.756	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well PostleIC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	PostleIC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - PostleIC 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,183.3	5,178.5	11.6	11.6	-60.44	49.8	-87.8	103.2	80.1	23.13	4.461	
5,300.0	5,300.0	5,274.8	5,266.6	11.8	11.8	-54.22	71.5	-99.3	126.8	103.2	23.60	5.374	
5,400.0	5,400.0	5,363.7	5,351.0	12.0	12.1	-49.41	96.2	-112.3	155.7	131.6	24.08	6.467	
5,500.0	5,500.0	5,449.8	5,431.4	12.2	12.3	-45.74	123.3	-126.6	189.6	165.0	24.59	7.710	
5,600.0	5,600.0	5,532.8	5,507.6	12.5	12.7	-42.95	152.5	-142.0	228.0	202.8	25.12	9.076	
5,700.0	5,699.7	5,612.8	5,579.5	12.7	13.0	65.75	183.4	-158.3	268.1	243.0	25.13	10.671	
5,800.0	5,797.4	5,689.1	5,646.8	12.9	13.4	67.24	215.4	-175.1	308.3	282.9	25.43	12.127	
5,900.0	5,891.3	5,769.3	5,716.2	13.1	13.8	69.81	250.8	-193.8	349.3	323.5	25.76	13.559	
6,000.0	5,979.6	5,849.5	5,785.6	13.4	14.3	73.37	286.4	-212.5	390.5	364.3	26.23	14.886	
6,100.0	6,065.5	5,928.0	5,853.5	13.8	14.8	79.21	321.2	-230.9	435.3	408.3	26.94	16.156	
6,200.0	6,151.4	6,006.5	5,921.5	14.3	15.3	84.15	356.0	-249.2	483.8	456.1	27.69	17.472	
6,300.0	6,237.3	6,085.0	5,989.4	14.9	15.8	88.31	390.8	-267.6	535.1	506.6	28.49	18.780	
6,400.0	6,323.2	6,163.5	6,057.3	15.5	16.4	91.84	425.6	-286.0	588.5	559.1	29.35	20.050	
6,500.0	6,409.1	6,242.0	6,125.2	16.2	17.0	94.84	460.4	-304.3	643.4	613.1	30.26	21.262	
6,600.0	6,495.0	6,320.4	6,193.1	16.9	17.6	97.42	495.2	-322.7	699.5	668.3	31.22	22.408	
6,700.0	6,584.3	6,399.9	6,261.9	17.5	18.2	116.70	530.5	-341.2	757.5	725.6	31.92	23.729	
6,800.0	6,680.4	6,479.8	6,331.0	17.8	18.8	159.24	565.9	-359.9	817.1	784.4	32.74	24.958	
6,900.0	6,778.5	6,555.9	6,396.9	18.0	19.4	-131.71	599.7	-377.7	875.6	841.8	33.75	25.940	
7,000.0	6,873.5	6,624.5	6,456.2	18.1	20.0	-99.98	630.1	-393.8	931.8	897.2	34.68	26.866	
7,100.0	6,960.6	6,682.0	6,506.0	18.1	20.5	-86.05	655.6	-407.2	985.5	950.2	35.29	27.930	
7,200.0	7,035.3	6,725.5	6,543.6	18.2	20.9	-77.33	674.9	-417.4	1,036.5	1,001.1	35.43	29.253	
7,300.0	7,093.9	6,752.7	6,567.1	18.4	21.1	-70.54	686.9	-423.7	1,084.6	1,049.5	35.10	30.898	
7,400.0	7,133.2	6,762.2	6,575.4	19.0	21.2	-64.62	691.1	-426.0	1,129.0	1,094.6	34.36	32.860	
7,500.0	7,151.3	6,753.6	6,567.9	20.0	21.1	-59.36	687.3	-424.0	1,168.4	1,135.0	33.41	34.972	
7,600.0	7,152.4	6,731.3	6,548.6	21.3	20.9	-57.06	677.4	-418.7	1,204.5	1,170.9	33.62	35.830	
7,700.0	7,152.4	7,834.4	7,152.4	22.9	23.9	-90.00	987.7	145.7	1,239.8	1,194.6	45.18	27.444	
7,800.0	7,152.4	7,934.4	7,152.4	24.7	24.8	-90.00	988.2	245.7	1,239.9	1,191.2	48.67	25.476	
7,900.0	7,152.4	8,034.4	7,152.4	26.6	26.6	-90.00	988.7	345.7	1,240.0	1,187.5	52.53	23.604	
8,000.0	7,152.4	8,134.4	7,152.4	28.7	28.6	-90.00	989.1	445.7	1,240.1	1,183.4	56.69	21.876	
8,100.0	7,152.4	8,234.4	7,152.4	31.0	30.7	-90.00	989.6	545.6	1,240.2	1,179.1	61.08	20.305	
8,200.0	7,152.4	8,334.4	7,152.4	33.3	33.0	-90.00	990.1	645.6	1,240.3	1,174.6	65.65	18.892	
8,300.0	7,152.4	8,434.4	7,152.4	35.7	35.3	-90.00	990.6	745.6	1,240.4	1,170.0	70.38	17.625	
8,400.0	7,152.4	8,534.4	7,152.4	38.1	37.7	-90.00	991.1	845.6	1,240.5	1,165.2	75.22	16.490	
8,500.0	7,152.4	8,634.4	7,152.4	40.6	40.2	-90.00	991.6	945.6	1,240.6	1,160.4	80.17	15.474	
8,600.0	7,152.4	8,734.4	7,152.4	43.1	42.7	-90.00	992.1	1,045.6	1,240.7	1,155.5	85.20	14.562	
8,700.0	7,152.4	8,834.4	7,152.4	45.7	45.2	-90.00	992.6	1,145.6	1,240.7	1,150.4	90.30	13.741	
8,800.0	7,152.4	8,934.4	7,152.4	48.3	47.8	-90.00	993.1	1,245.6	1,240.8	1,145.4	95.45	12.999	
8,900.0	7,152.4	9,034.4	7,152.4	50.9	50.3	-90.00	993.6	1,345.6	1,240.9	1,140.3	100.66	12.328	
9,000.0	7,152.4	9,134.4	7,152.4	53.5	52.9	-90.00	994.1	1,445.6	1,241.0	1,135.1	105.90	11.719	
9,100.0	7,152.4	9,234.4	7,152.4	56.1	55.6	-90.00	994.6	1,545.6	1,241.1	1,129.9	111.18	11.163	
9,200.0	7,152.4	9,334.4	7,152.4	58.8	58.2	-90.00	995.1	1,645.6	1,241.2	1,124.7	116.49	10.655	
9,300.0	7,152.4	9,434.4	7,152.4	61.5	60.9	-90.00	995.6	1,745.6	1,241.3	1,119.5	121.83	10.189	
9,400.0	7,152.4	9,534.4	7,152.4	64.2	63.5	-90.00	996.1	1,845.6	1,241.4	1,114.2	127.19	9.760	
9,500.0	7,152.4	9,634.4	7,152.4	66.8	66.2	-90.00	996.6	1,945.6	1,241.5	1,108.9	132.58	9.364	
9,600.0	7,152.4	9,734.4	7,152.4	69.5	68.9	-90.00	997.0	2,045.6	1,241.6	1,103.6	137.98	8.998	
9,700.0	7,152.4	9,834.4	7,152.4	72.3	71.6	-90.00	997.5	2,145.6	1,241.7	1,098.3	143.39	8.659	
9,800.0	7,152.4	9,934.4	7,152.4	75.0	74.3	-90.00	998.0	2,245.6	1,241.8	1,092.9	148.82	8.344	
9,900.0	7,152.4	10,034.4	7,152.4	77.7	77.0	-90.00	998.5	2,345.6	1,241.9	1,087.6	154.27	8.050	
10,000.0	7,152.4	10,134.4	7,152.4	80.4	79.7	-90.00	999.0	2,445.6	1,241.9	1,082.2	159.72	7.776	
10,100.0	7,152.4	10,234.4	7,152.4	83.2	82.4	-90.00	999.5	2,545.6	1,242.0	1,076.8	165.19	7.519	
10,200.0	7,152.4	10,334.4	7,152.4	85.9	85.2	-90.00	1,000.0	2,645.6	1,242.1	1,071.5	170.66	7.278	
10,300.0	7,152.4	10,434.4	7,152.4	88.6	87.9	-90.00	1,000.5	2,745.6	1,242.2	1,066.1	176.15	7.052	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well PostleIC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	PostleIC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - PostleIC 11-039HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,152.4	10,534.4	7,152.4	91.4	90.6	-90.00	1,001.0	2,845.6	1,242.3	1,060.7	181.64	6.840	
10,500.0	7,152.4	10,634.4	7,152.4	94.1	93.4	-90.00	1,001.5	2,945.6	1,242.4	1,055.3	187.13	6.639	
10,600.0	7,152.4	10,734.4	7,152.4	96.9	96.1	-90.00	1,002.0	3,045.6	1,242.5	1,049.9	192.64	6.450	
10,700.0	7,152.4	10,834.4	7,152.4	99.6	98.9	-90.00	1,002.5	3,145.6	1,242.6	1,044.4	198.15	6.271	
10,800.0	7,152.4	10,934.4	7,152.4	102.4	101.6	-90.00	1,003.0	3,245.6	1,242.7	1,039.0	203.66	6.102	
10,900.0	7,152.4	11,034.4	7,152.4	105.2	104.4	-90.00	1,003.5	3,345.6	1,242.8	1,033.6	209.19	5.941	
11,000.0	7,152.4	11,134.4	7,152.4	107.9	107.1	-90.00	1,004.0	3,445.6	1,242.9	1,028.2	214.71	5.789	
11,100.0	7,152.4	11,234.4	7,152.4	110.7	109.9	-90.00	1,004.5	3,545.6	1,243.0	1,022.7	220.24	5.644	
11,200.0	7,152.4	11,334.4	7,152.4	113.5	112.6	-90.00	1,004.9	3,645.6	1,243.1	1,017.3	225.77	5.506	
11,300.0	7,152.4	11,434.4	7,152.4	116.2	115.4	-90.00	1,005.4	3,745.6	1,243.1	1,011.8	231.31	5.374	
11,400.0	7,152.4	11,534.4	7,152.4	119.0	118.2	-90.00	1,005.9	3,845.6	1,243.2	1,006.4	236.85	5.249	
11,500.0	7,152.4	11,634.4	7,152.4	121.8	120.9	-90.00	1,006.4	3,945.6	1,243.3	1,000.9	242.39	5.129	
11,600.0	7,152.4	11,734.4	7,152.4	124.5	123.7	-90.00	1,006.9	4,045.6	1,243.4	995.5	247.94	5.015	
11,700.0	7,152.4	11,834.4	7,152.4	127.3	126.5	-90.00	1,007.4	4,145.6	1,243.5	990.0	253.49	4.906	
11,800.0	7,152.4	11,934.4	7,152.4	130.1	129.2	-90.00	1,007.9	4,245.6	1,243.6	984.6	259.04	4.801	
11,891.5	7,152.4	12,026.0	7,152.4	131.7	131.8	-90.00	1,008.4	4,337.1	1,243.7	980.5	263.20	4.725	

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well PostleIC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	PostleIC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - PostleIC 11-042HC - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-92.06	-1.1	-30.4	30.4				
100.0	100.0	100.0	100.0	0.1	0.1	-92.06	-1.1	-30.4	30.4	30.2	0.22	135.468	
200.0	200.0	200.0	200.0	0.3	0.3	-92.06	-1.1	-30.4	30.4	29.8	0.67	45.156	
300.0	300.0	300.0	300.0	0.6	0.6	-92.06	-1.1	-30.4	30.4	29.3	1.12	27.094	
400.0	400.0	400.0	400.0	0.8	0.8	-92.06	-1.1	-30.4	30.4	28.9	1.57	19.353	
500.0	500.0	500.0	500.0	1.0	1.0	-92.06	-1.1	-30.4	30.4	28.4	2.02	15.052	
600.0	600.0	600.0	600.0	1.2	1.2	-92.06	-1.1	-30.4	30.4	28.0	2.47	12.315	
700.0	700.0	700.0	700.0	1.5	1.5	-92.06	-1.1	-30.4	30.4	27.5	2.92	10.421	
800.0	800.0	800.0	800.0	1.7	1.7	-92.06	-1.1	-30.4	30.4	27.1	3.37	9.031	
900.0	900.0	900.0	900.0	1.9	1.9	-92.06	-1.1	-30.4	30.4	26.6	3.82	7.969	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-92.06	-1.1	-30.4	30.4	26.2	4.27	7.130	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-92.06	-1.1	-30.4	30.4	25.7	4.72	6.451	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-92.06	-1.1	-30.4	30.4	25.3	5.17	5.890	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-92.06	-1.1	-30.4	30.4	24.8	5.62	5.419	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-92.06	-1.1	-30.4	30.4	24.4	6.07	5.017	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-92.06	-1.1	-30.4	30.4	23.9	6.52	4.671	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-92.06	-1.1	-30.4	30.4	23.5	6.97	4.370	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-92.06	-1.1	-30.4	30.4	23.0	7.42	4.105	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-92.06	-1.1	-30.4	30.4	22.6	7.87	3.871	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-92.06	-1.1	-30.4	30.4	22.1	8.32	3.661	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-92.06	-1.1	-30.4	30.4	21.7	8.77	3.474	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-92.06	-1.1	-30.4	30.4	21.2	9.22	3.304	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-92.06	-1.1	-30.4	30.4	20.8	9.66	3.150	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-92.06	-1.1	-30.4	30.4	20.3	10.11	3.010	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-92.06	-1.1	-30.4	30.4	19.9	10.56	2.882	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-92.06	-1.1	-30.4	30.4	19.4	11.01	2.765	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-92.06	-1.1	-30.4	30.4	19.0	11.46	2.656	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-92.06	-1.1	-30.4	30.4	18.5	11.91	2.556	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-92.06	-1.1	-30.4	30.4	18.1	12.36	2.463	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-92.06	-1.1	-30.4	30.4	17.6	12.81	2.377	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-92.06	-1.1	-30.4	30.4	17.2	13.26	2.296	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-92.06	-1.1	-30.4	30.4	16.7	13.71	2.221	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-92.06	-1.1	-30.4	30.4	16.3	14.16	2.150	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-92.06	-1.1	-30.4	30.4	15.8	14.61	2.084	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-92.06	-1.1	-30.4	30.4	15.4	15.06	2.022	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-92.06	-1.1	-30.4	30.4	14.9	15.51	1.963	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-92.06	-1.1	-30.4	30.4	14.5	15.96	1.908	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-92.06	-1.1	-30.4	30.4	14.0	16.41	1.856	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-92.06	-1.1	-30.4	30.4	13.6	16.86	1.806	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-92.06	-1.1	-30.4	30.4	13.1	17.31	1.759	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-92.06	-1.1	-30.4	30.4	12.7	17.76	1.715	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-92.06	-1.1	-30.4	30.4	12.2	18.21	1.672	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-92.06	-1.1	-30.4	30.4	11.8	18.66	1.632	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	-92.06	-1.1	-30.4	30.4	11.3	19.11	1.594	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	-92.06	-1.1	-30.4	30.4	10.9	19.55	1.557	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	-92.06	-1.1	-30.4	30.4	10.4	20.00	1.522	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	-92.06	-1.1	-30.4	30.4	10.0	20.45	1.489	Level 3
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	-92.06	-1.1	-30.4	30.4	9.5	20.90	1.457	Level 3
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	-92.06	-1.1	-30.4	30.4	9.1	21.35	1.426	Level 3
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	-92.06	-1.1	-30.4	30.4	8.6	21.80	1.397	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	-92.06	-1.1	-30.4	30.4	8.2	22.25	1.368	Level 3
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	-92.06	-1.1	-30.4	30.4	7.7	22.70	1.341	Level 3

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 1C 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 1C 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 1C 11-042HC - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	-92.06	-1.1	-30.4	30.4	7.3	23.15	1.315	Level 3, CC, ES, SF
5,300.0	5,300.0	5,299.3	5,299.2	11.8	11.8	-90.30	-0.2	-31.3	31.3	7.7	23.60	1.326	Level 3
5,400.0	5,400.0	5,397.8	5,397.6	12.0	12.0	-82.99	4.4	-35.4	35.7	11.7	24.04	1.487	Level 3
5,500.0	5,500.0	5,495.5	5,494.7	12.2	12.2	-73.71	12.5	-42.8	45.0	20.5	24.48	1.837	
5,600.0	5,600.0	5,591.8	5,589.7	12.5	12.5	-65.68	24.2	-53.5	59.6	34.6	24.92	2.390	
5,700.0	5,699.7	5,686.7	5,682.3	12.7	12.7	51.57	39.1	-67.0	75.2	50.0	25.23	2.981	
5,800.0	5,797.4	5,779.2	5,771.7	12.9	12.9	64.07	56.9	-83.3	90.6	65.1	25.56	3.546	
5,900.0	5,891.3	5,868.3	5,856.5	13.1	13.2	77.46	77.0	-101.6	111.3	85.2	26.08	4.266	
6,000.0	5,979.6	5,952.7	5,935.6	13.4	13.5	89.44	98.7	-121.5	141.4	114.7	26.71	5.295	
6,100.0	6,065.5	6,034.5	6,010.9	13.8	13.7	99.23	122.3	-142.9	181.5	154.2	27.28	6.653	
6,200.0	6,151.4	6,115.0	6,083.7	14.3	14.1	104.95	147.7	-166.1	227.6	199.7	27.89	8.161	
6,300.0	6,237.3	6,194.0	6,153.6	14.9	14.5	108.21	174.9	-190.9	277.3	248.7	28.58	9.701	
6,400.0	6,323.2	6,274.9	6,223.7	15.5	14.9	110.11	204.6	-218.0	329.4	300.1	29.39	11.209	
6,500.0	6,409.1	6,359.6	6,297.0	16.2	15.4	111.51	236.1	-246.7	382.1	351.8	30.29	12.613	
6,600.0	6,495.0	6,444.3	6,370.2	16.9	15.9	112.56	267.5	-275.4	434.9	403.6	31.27	13.909	
6,700.0	6,584.3	6,529.2	6,443.6	17.5	16.5	128.94	299.1	-304.1	487.3	455.3	32.02	15.217	
6,800.0	6,680.4	6,612.4	6,515.5	17.8	17.1	167.00	330.0	-332.3	537.5	504.6	32.90	16.339	
6,900.0	6,778.5	6,689.5	6,582.2	18.0	17.6	-128.42	358.6	-358.4	585.5	551.7	33.76	17.345	
7,000.0	6,873.5	6,756.7	6,640.3	18.1	18.1	-100.31	383.6	-381.2	632.4	598.0	34.45	18.358	
7,100.0	6,960.6	6,810.5	6,686.8	18.1	18.5	-88.75	403.6	-399.4	679.8	644.9	34.94	19.459	
7,200.0	7,035.3	6,848.1	6,719.3	18.2	18.8	-80.98	417.5	-412.1	728.6	693.4	35.18	20.710	
7,300.0	7,093.9	6,867.7	6,736.2	18.4	19.0	-73.71	424.8	-418.8	778.6	743.6	35.04	22.220	
7,400.0	7,133.2	6,868.1	6,736.6	19.0	19.0	-66.22	424.9	-418.9	828.7	794.4	34.34	24.134	
7,500.0	7,151.3	6,849.4	6,720.4	20.0	18.8	-58.84	418.0	-412.6	876.5	843.4	33.10	26.483	
7,600.0	7,152.4	6,816.6	6,692.1	21.3	18.6	-55.11	405.8	-401.5	922.4	889.5	32.86	28.068	
7,700.0	7,152.4	7,930.4	7,321.4	22.9	22.7	-100.31	676.9	147.4	944.3	899.6	44.71	21.120	
7,800.0	7,152.4	8,030.4	7,321.4	24.7	24.5	-100.31	677.3	247.4	944.3	896.2	48.16	19.607	
7,900.0	7,152.4	8,130.4	7,321.4	26.6	26.4	-100.31	677.8	347.4	944.4	892.4	51.98	18.170	
8,000.0	7,152.4	8,230.4	7,321.4	28.7	28.5	-100.31	678.3	447.4	944.5	888.4	56.07	16.844	
8,100.0	7,152.4	8,330.4	7,321.4	31.0	30.7	-100.31	678.8	547.4	944.5	884.1	60.40	15.639	
8,200.0	7,152.4	8,430.4	7,321.4	33.3	33.0	-100.31	679.2	647.4	944.6	879.7	64.91	14.553	
8,300.0	7,152.4	8,530.4	7,321.4	35.7	35.4	-100.31	679.7	747.4	944.7	875.1	69.56	13.580	
8,400.0	7,152.4	8,630.4	7,321.4	38.1	37.8	-100.30	680.2	847.4	944.7	870.4	74.34	12.709	
8,500.0	7,152.4	8,730.4	7,321.4	40.6	40.2	-100.30	680.6	947.4	944.8	865.6	79.21	11.928	
8,600.0	7,152.4	8,830.4	7,321.4	43.1	42.7	-100.30	681.1	1,047.4	944.9	860.7	84.16	11.227	
8,700.0	7,152.4	8,930.4	7,321.4	45.7	45.3	-100.30	681.6	1,147.4	944.9	855.8	89.18	10.596	
8,800.0	7,152.4	9,030.4	7,321.4	48.3	47.8	-100.30	682.0	1,247.4	945.0	850.8	94.26	10.026	
8,900.0	7,152.4	9,130.4	7,321.4	50.9	50.4	-100.30	682.5	1,347.4	945.1	845.7	99.38	9.510	
9,000.0	7,152.4	9,230.4	7,321.4	53.5	53.0	-100.30	683.0	1,447.4	945.1	840.6	104.54	9.041	
9,100.0	7,152.4	9,330.4	7,321.4	56.1	55.7	-100.30	683.4	1,547.4	945.2	835.5	109.74	8.613	
9,200.0	7,152.4	9,430.4	7,321.4	58.8	58.3	-100.30	683.9	1,647.4	945.3	830.3	114.97	8.222	
9,300.0	7,152.4	9,530.4	7,321.4	61.5	61.0	-100.30	684.4	1,747.4	945.3	825.1	120.23	7.863	
9,400.0	7,152.4	9,630.4	7,321.4	64.2	63.7	-100.30	684.9	1,847.4	945.4	819.9	125.51	7.533	
9,500.0	7,152.4	9,730.4	7,321.4	66.8	66.3	-100.30	685.3	1,947.4	945.5	814.7	130.81	7.228	
9,600.0	7,152.4	9,830.4	7,321.4	69.5	69.0	-100.30	685.8	2,047.4	945.5	809.4	136.13	6.946	
9,700.0	7,152.4	9,930.4	7,321.4	72.3	71.7	-100.30	686.3	2,147.4	945.6	804.1	141.46	6.685	
9,800.0	7,152.4	10,030.4	7,321.4	75.0	74.4	-100.29	686.7	2,247.4	945.7	798.9	146.81	6.442	
9,900.0	7,152.4	10,130.4	7,321.4	77.7	77.2	-100.29	687.2	2,347.4	945.7	793.6	152.17	6.215	
10,000.0	7,152.4	10,230.4	7,321.4	80.4	79.9	-100.29	687.7	2,447.4	945.8	788.3	157.54	6.004	
10,100.0	7,152.4	10,330.4	7,321.4	83.2	82.6	-100.29	688.1	2,547.4	945.9	783.0	162.92	5.806	
10,200.0	7,152.4	10,430.4	7,321.4	85.9	85.3	-100.29	688.6	2,647.4	945.9	777.6	168.31	5.620	
10,300.0	7,152.4	10,530.4	7,321.4	88.6	88.1	-100.29	689.1	2,747.4	946.0	772.3	173.71	5.446	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle⌶C 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle⌶C 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle⌶C 11-042HC - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,152.4	10,630.4	7,321.4	91.4	90.8	-100.29	689.5	2,847.4	946.1	767.0	179.12	5.282	
10,500.0	7,152.4	10,730.4	7,321.4	94.1	93.6	-100.29	690.0	2,947.4	946.1	761.6	184.53	5.127	
10,600.0	7,152.4	10,830.4	7,321.4	96.9	96.3	-100.29	690.5	3,047.4	946.2	756.3	189.95	4.981	
10,700.0	7,152.4	10,930.4	7,321.4	99.6	99.1	-100.29	690.9	3,147.4	946.3	750.9	195.38	4.843	
10,800.0	7,152.4	11,030.4	7,321.4	102.4	101.8	-100.29	691.4	3,247.4	946.3	745.5	200.81	4.713	
10,900.0	7,152.4	11,130.4	7,321.4	105.2	104.6	-100.29	691.9	3,347.4	946.4	740.2	206.24	4.589	
11,000.0	7,152.4	11,230.4	7,321.4	107.9	107.3	-100.29	692.4	3,447.4	946.5	734.8	211.68	4.471	
11,100.0	7,152.4	11,330.4	7,321.4	110.7	110.1	-100.29	692.8	3,547.4	946.5	729.4	217.13	4.359	
11,200.0	7,152.4	11,430.4	7,321.4	113.5	112.8	-100.28	693.3	3,647.4	946.6	724.0	222.58	4.253	
11,300.0	7,152.4	11,530.4	7,321.4	116.2	115.6	-100.28	693.8	3,747.4	946.7	718.6	228.03	4.151	
11,400.0	7,152.4	11,630.4	7,321.4	119.0	118.4	-100.28	694.2	3,847.4	946.7	713.2	233.49	4.055	
11,500.0	7,152.4	11,730.4	7,321.4	121.8	121.1	-100.28	694.7	3,947.4	946.8	707.9	238.95	3.962	
11,600.0	7,152.4	11,830.4	7,321.4	124.5	123.9	-100.28	695.2	4,047.4	946.9	702.5	244.41	3.874	
11,700.0	7,152.4	11,930.4	7,321.4	127.3	126.7	-100.28	695.6	4,147.4	946.9	697.1	249.87	3.790	
11,800.0	7,152.4	12,030.4	7,321.4	130.1	129.5	-100.28	696.1	4,247.4	947.0	691.7	255.34	3.709	
11,891.5	7,152.4	12,122.0	7,321.4	131.7	132.0	-100.28	696.5	4,338.9	947.1	687.6	259.44	3.650	

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 11-159HC - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	160.84	-98.0	34.1	103.7				
100.0	100.0	100.0	100.0	0.1	0.1	160.84	-98.0	34.1	103.7	103.5	0.22	461.577	
200.0	200.0	200.0	200.0	0.3	0.3	160.84	-98.0	34.1	103.7	103.1	0.67	153.859	
300.0	300.0	300.0	300.0	0.6	0.6	160.84	-98.0	34.1	103.7	102.6	1.12	92.315	
400.0	400.0	400.0	400.0	0.8	0.8	160.84	-98.0	34.1	103.7	102.2	1.57	65.940	
500.0	500.0	500.0	500.0	1.0	1.0	160.84	-98.0	34.1	103.7	101.7	2.02	51.286	
600.0	600.0	600.0	600.0	1.2	1.2	160.84	-98.0	34.1	103.7	101.3	2.47	41.962	
700.0	700.0	700.0	700.0	1.5	1.5	160.84	-98.0	34.1	103.7	100.8	2.92	35.506	
800.0	800.0	800.0	800.0	1.7	1.7	160.84	-98.0	34.1	103.7	100.4	3.37	30.772	
900.0	900.0	900.0	900.0	1.9	1.9	160.84	-98.0	34.1	103.7	99.9	3.82	27.152	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	160.84	-98.0	34.1	103.7	99.5	4.27	24.294	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	160.84	-98.0	34.1	103.7	99.0	4.72	21.980	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	160.84	-98.0	34.1	103.7	98.6	5.17	20.069	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	160.84	-98.0	34.1	103.7	98.1	5.62	18.463	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	160.84	-98.0	34.1	103.7	97.7	6.07	17.095	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	160.84	-98.0	34.1	103.7	97.2	6.52	15.916	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	160.84	-98.0	34.1	103.7	96.8	6.97	14.890	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	160.84	-98.0	34.1	103.7	96.3	7.42	13.987	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	160.84	-98.0	34.1	103.7	95.9	7.87	13.188	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	160.84	-98.0	34.1	103.7	95.4	8.32	12.475	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	160.84	-98.0	34.1	103.7	95.0	8.77	11.835	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	160.84	-98.0	34.1	103.7	94.5	9.22	11.258	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	160.84	-98.0	34.1	103.7	94.1	9.66	10.734	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	160.84	-98.0	34.1	103.7	93.6	10.11	10.257	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	160.84	-98.0	34.1	103.7	93.2	10.56	9.821	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	160.84	-98.0	34.1	103.7	92.7	11.01	9.420	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	160.84	-98.0	34.1	103.7	92.3	11.46	9.051	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	160.84	-98.0	34.1	103.7	91.8	11.91	8.709	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	160.84	-98.0	34.1	103.7	91.4	12.36	8.392	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	160.84	-98.0	34.1	103.7	90.9	12.81	8.098	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	160.84	-98.0	34.1	103.7	90.5	13.26	7.823	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	160.84	-98.0	34.1	103.7	90.0	13.71	7.567	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	160.84	-98.0	34.1	103.7	89.6	14.16	7.327	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	160.84	-98.0	34.1	103.7	89.1	14.61	7.101	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	160.84	-98.0	34.1	103.7	88.7	15.06	6.889	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	160.84	-98.0	34.1	103.7	88.2	15.51	6.690	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	160.84	-98.0	34.1	103.7	87.8	15.96	6.501	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	160.84	-98.0	34.1	103.7	87.3	16.41	6.323	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	160.84	-98.0	34.1	103.7	86.9	16.86	6.154	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	160.84	-98.0	34.1	103.7	86.4	17.31	5.995	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	160.84	-98.0	34.1	103.7	86.0	17.76	5.843	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	160.84	-98.0	34.1	103.7	85.5	18.21	5.698	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	160.84	-98.0	34.1	103.7	85.1	18.66	5.561	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	160.84	-98.0	34.1	103.7	84.6	19.11	5.430	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	160.84	-98.0	34.1	103.7	84.2	19.55	5.305	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	160.84	-98.0	34.1	103.7	83.7	20.00	5.186	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	160.84	-98.0	34.1	103.7	83.3	20.45	5.072	
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	160.84	-98.0	34.1	103.7	82.8	20.90	4.963	
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	160.84	-98.0	34.1	103.7	82.4	21.35	4.859	
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	160.84	-98.0	34.1	103.7	81.9	21.80	4.759	
5,000.0	5,000.0	5,000.0	5,000.0	11.1	11.1	160.84	-98.0	34.1	103.7	81.5	22.25	4.662	
5,100.0	5,100.0	5,100.0	5,100.0	11.4	11.4	160.84	-98.0	34.1	103.7	81.0	22.70	4.570	

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well PostleTC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	PostleTC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - PostleTC 11-159HC - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,200.0	5,200.0	11.6	11.6	160.84	-98.0	34.1	103.7	80.6	23.15	4.481	
5,300.0	5,300.0	5,300.0	5,300.0	11.8	11.8	160.84	-98.0	34.1	103.7	80.1	23.60	4.396	CC, ES
5,400.0	5,400.0	5,398.7	5,398.7	12.0	12.0	162.20	-99.4	31.9	104.4	80.3	24.02	4.344	
5,500.0	5,500.0	5,496.9	5,496.6	12.2	12.2	166.16	-103.4	25.5	106.5	82.1	24.43	4.361	
5,600.0	5,600.0	5,594.1	5,592.9	12.5	12.4	172.28	-110.0	14.9	111.2	86.4	24.83	4.479	
5,700.0	5,699.7	5,690.7	5,688.0	12.7	12.6	-74.30	-119.1	0.3	117.7	92.5	25.22	4.666	
5,800.0	5,797.4	5,787.5	5,782.3	12.9	12.8	-73.91	-130.8	-18.4	123.2	97.6	25.59	4.815	
5,900.0	5,891.3	5,884.1	5,875.0	13.1	13.0	-77.51	-145.0	-41.1	127.7	101.6	26.04	4.902	
6,000.0	5,979.6	5,980.0	5,965.8	13.4	13.3	-84.52	-161.5	-67.5	132.7	106.1	26.69	4.974	
6,100.0	6,065.5	6,076.6	6,055.4	13.8	13.6	-91.32	-180.6	-98.0	141.0	113.6	27.44	5.139	
6,200.0	6,151.4	6,174.4	6,144.2	14.3	14.0	-95.51	-202.3	-132.7	151.6	123.3	28.27	5.360	
6,300.0	6,237.3	6,272.9	6,231.4	14.9	14.5	-97.40	-226.6	-171.5	163.2	133.9	29.26	5.577	
6,400.0	6,323.2	6,371.9	6,317.0	15.5	15.0	-97.67	-253.0	-213.7	175.1	144.7	30.40	5.762	
6,500.0	6,409.1	6,471.2	6,402.7	16.2	15.6	-97.78	-279.6	-256.2	187.2	155.5	31.66	5.912	
6,600.0	6,495.0	6,570.5	6,488.3	16.9	16.2	-97.88	-306.2	-298.7	199.2	166.2	33.02	6.033	
6,700.0	6,584.3	6,669.7	6,574.0	17.5	16.9	-86.80	-332.8	-341.3	207.4	173.1	34.31	6.044	
6,800.0	6,680.4	6,766.1	6,657.1	17.8	17.6	-46.36	-358.6	-382.5	207.0	171.9	35.08	5.900	
6,882.4	6,761.3	6,839.6	6,720.6	18.0	18.2	16.12	-378.4	-414.1	205.2	169.9	35.24	5.822	
6,900.0	6,778.5	6,853.3	6,732.5	18.0	18.3	26.82	-382.1	-419.7	205.4	170.1	35.24	5.828	
7,000.0	6,873.5	6,935.3	6,806.8	18.1	18.7	64.03	-405.1	-445.1	214.1	179.0	35.08	6.103	
7,100.0	6,960.6	7,026.9	6,893.5	18.1	19.1	83.37	-431.9	-456.0	235.5	200.6	34.86	6.756	
7,200.0	7,035.3	7,133.9	6,994.9	18.2	19.3	96.51	-463.2	-444.6	266.6	232.1	34.50	7.729	
7,300.0	7,093.9	7,265.8	7,111.7	18.4	19.4	106.52	-499.1	-396.2	301.9	267.9	33.99	8.883	
7,400.0	7,133.2	7,436.1	7,233.4	19.0	19.3	114.14	-536.3	-284.6	333.6	299.8	33.75	9.885	
7,500.0	7,151.3	7,650.9	7,315.3	20.0	19.8	118.33	-560.9	-89.8	351.5	316.4	35.15	10.000	
7,600.0	7,152.4	7,794.0	7,321.4	21.3	21.2	118.62	-562.2	52.9	352.8	315.1	37.71	9.354	
7,700.0	7,152.4	7,894.0	7,321.4	22.9	22.6	118.62	-561.8	152.9	352.8	312.4	40.40	8.734	
7,800.0	7,152.4	7,994.0	7,321.4	24.7	24.4	118.62	-561.5	252.9	352.8	309.4	43.48	8.115	
7,900.0	7,152.4	8,094.0	7,321.4	26.6	26.3	118.62	-561.1	352.9	352.9	306.0	46.90	7.524	
8,000.0	7,152.4	8,194.0	7,321.4	28.7	28.4	118.61	-560.7	452.9	352.9	302.3	50.57	6.978	
8,100.0	7,152.4	8,294.0	7,321.4	31.0	30.6	118.61	-560.3	552.9	352.9	298.4	54.45	6.481	
8,200.0	7,152.4	8,394.0	7,321.4	33.3	32.8	118.61	-560.0	652.9	352.9	294.4	58.50	6.033	
8,300.0	7,152.4	8,494.0	7,321.4	35.7	35.2	118.61	-559.6	752.9	352.9	290.3	62.69	5.630	
8,400.0	7,152.4	8,594.0	7,321.4	38.1	37.6	118.61	-559.2	852.9	353.0	286.0	66.98	5.270	
8,500.0	7,152.4	8,694.0	7,321.4	40.6	40.1	118.61	-558.8	952.9	353.0	281.6	71.36	4.946	
8,600.0	7,152.4	8,794.0	7,321.4	43.1	42.6	118.60	-558.5	1,052.9	353.0	277.2	75.82	4.656	
8,700.0	7,152.4	8,894.0	7,321.4	45.7	45.1	118.60	-558.1	1,152.9	353.0	272.7	80.34	4.394	
8,800.0	7,152.4	8,994.0	7,321.4	48.3	47.7	118.60	-557.7	1,252.9	353.1	268.1	84.91	4.158	
8,900.0	7,152.4	9,094.0	7,321.4	50.9	50.3	118.60	-557.3	1,352.9	353.1	263.6	89.52	3.944	
9,000.0	7,152.4	9,194.0	7,321.4	53.5	52.9	118.60	-556.9	1,452.9	353.1	258.9	94.18	3.749	
9,100.0	7,152.4	9,294.0	7,321.4	56.1	55.5	118.59	-556.6	1,552.9	353.1	254.3	98.86	3.572	
9,200.0	7,152.4	9,394.0	7,321.4	58.8	58.2	118.59	-556.2	1,652.9	353.1	249.6	103.57	3.410	
9,300.0	7,152.4	9,494.0	7,321.4	61.5	60.8	118.59	-555.8	1,752.9	353.2	244.9	108.31	3.261	
9,400.0	7,152.4	9,594.0	7,321.4	64.2	63.5	118.59	-555.4	1,852.9	353.2	240.1	113.07	3.124	
9,500.0	7,152.4	9,694.0	7,321.4	66.8	66.2	118.59	-555.1	1,952.9	353.2	235.4	117.84	2.997	
9,600.0	7,152.4	9,794.0	7,321.4	69.5	68.9	118.58	-554.7	2,052.9	353.2	230.6	122.64	2.880	
9,700.0	7,152.4	9,894.0	7,321.4	72.3	71.6	118.58	-554.3	2,152.9	353.3	225.8	127.45	2.772	
9,800.0	7,152.4	9,994.0	7,321.4	75.0	74.3	118.58	-553.9	2,252.9	353.3	221.0	132.27	2.671	
9,900.0	7,152.4	10,094.0	7,321.4	77.7	77.0	118.58	-553.6	2,352.9	353.3	216.2	137.10	2.577	
10,000.0	7,152.4	10,194.0	7,321.4	80.4	79.8	118.58	-553.2	2,452.9	353.3	211.4	141.94	2.489	
10,100.0	7,152.4	10,294.0	7,321.4	83.2	82.5	118.57	-552.8	2,552.9	353.3	206.5	146.80	2.407	
10,200.0	7,152.4	10,394.0	7,321.4	85.9	85.2	118.57	-552.4	2,652.9	353.4	201.7	151.66	2.330	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle IC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle IC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle IC 11-159HC - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	7,152.4	10,494.0	7,321.4	88.6	88.0	118.57	-552.1	2,752.9	353.4	196.9	156.53	2.258	
10,400.0	7,152.4	10,594.0	7,321.4	91.4	90.7	118.57	-551.7	2,852.9	353.4	192.0	161.40	2.190	
10,500.0	7,152.4	10,694.0	7,321.4	94.1	93.4	118.57	-551.3	2,952.9	353.4	187.1	166.29	2.125	
10,600.0	7,152.4	10,794.0	7,321.4	96.9	96.2	118.56	-550.9	3,052.9	353.4	182.3	171.18	2.065	
10,700.0	7,152.4	10,894.0	7,321.4	99.6	98.9	118.56	-550.5	3,152.9	353.5	177.4	176.07	2.008	
10,800.0	7,152.4	10,994.0	7,321.4	102.4	101.7	118.56	-550.2	3,252.9	353.5	172.5	180.97	1.953	
10,900.0	7,152.4	11,094.0	7,321.4	105.2	104.5	118.56	-549.8	3,352.9	353.5	167.6	185.88	1.902	
11,000.0	7,152.4	11,194.0	7,321.4	107.9	107.2	118.56	-549.4	3,452.9	353.5	162.8	190.78	1.853	
11,100.0	7,152.4	11,294.0	7,321.4	110.7	110.0	118.55	-549.0	3,552.9	353.6	157.9	195.70	1.807	
11,200.0	7,152.4	11,394.0	7,321.4	113.5	112.7	118.55	-548.7	3,652.9	353.6	153.0	200.61	1.762	
11,300.0	7,152.4	11,494.0	7,321.4	116.2	115.5	118.55	-548.3	3,752.9	353.6	148.1	205.53	1.720	
11,400.0	7,152.4	11,594.0	7,321.4	119.0	118.3	118.55	-547.9	3,852.9	353.6	143.2	210.46	1.680	
11,500.0	7,152.4	11,694.0	7,321.4	121.8	121.0	118.55	-547.5	3,952.9	353.6	138.3	215.38	1.642	
11,600.0	7,152.4	11,794.0	7,321.4	124.5	123.8	118.55	-547.2	4,052.9	353.7	133.4	220.31	1.605	
11,700.0	7,152.4	11,894.0	7,321.4	127.3	126.6	118.54	-546.8	4,152.9	353.7	128.4	225.24	1.570	
11,800.0	7,152.4	11,994.0	7,321.4	130.1	129.4	118.54	-546.4	4,252.9	353.7	123.5	230.18	1.537	
11,853.1	7,152.4	12,047.1	7,321.4	131.0	130.8	118.54	-546.2	4,306.0	353.7	121.4	232.32	1.523	
11,891.5	7,152.4	12,083.0	7,321.4	131.7	131.8	118.54	-546.1	4,341.9	353.7	119.9	233.81	1.513 SF	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 1C 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 1C 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 1C 11-162HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	177.74	-99.1	3.9	99.2				
100.0	100.0	100.0	100.0	0.1	0.1	177.74	-99.1	3.9	99.2	98.9	0.22	441.202	
200.0	200.0	200.0	200.0	0.3	0.3	177.74	-99.1	3.9	99.2	98.5	0.67	147.067	
300.0	300.0	300.0	300.0	0.6	0.6	177.74	-99.1	3.9	99.2	98.0	1.12	88.240	
400.0	400.0	400.0	400.0	0.8	0.8	177.74	-99.1	3.9	99.2	97.6	1.57	63.029	
500.0	500.0	500.0	500.0	1.0	1.0	177.74	-99.1	3.9	99.2	97.1	2.02	49.022	
600.0	600.0	600.0	600.0	1.2	1.2	177.74	-99.1	3.9	99.2	96.7	2.47	40.109	
700.0	700.0	700.0	700.0	1.5	1.5	177.74	-99.1	3.9	99.2	96.2	2.92	33.939	
800.0	800.0	800.0	800.0	1.7	1.7	177.74	-99.1	3.9	99.2	95.8	3.37	29.413	
900.0	900.0	900.0	900.0	1.9	1.9	177.74	-99.1	3.9	99.2	95.3	3.82	25.953	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	177.74	-99.1	3.9	99.2	94.9	4.27	23.221	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	177.74	-99.1	3.9	99.2	94.4	4.72	21.010	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	177.74	-99.1	3.9	99.2	94.0	5.17	19.183	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	177.74	-99.1	3.9	99.2	93.5	5.62	17.648	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	177.74	-99.1	3.9	99.2	93.1	6.07	16.341	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	177.74	-99.1	3.9	99.2	92.6	6.52	15.214	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	177.74	-99.1	3.9	99.2	92.2	6.97	14.232	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	177.74	-99.1	3.9	99.2	91.7	7.42	13.370	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	177.74	-99.1	3.9	99.2	91.3	7.87	12.606	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	177.74	-99.1	3.9	99.2	90.9	8.32	11.924	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	177.74	-99.1	3.9	99.2	90.4	8.77	11.313	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	177.74	-99.1	3.9	99.2	90.0	9.22	10.761	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	177.74	-99.1	3.9	99.2	89.5	9.66	10.261	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	177.74	-99.1	3.9	99.2	89.1	10.11	9.804	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	177.74	-99.1	3.9	99.2	88.6	10.56	9.387	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	177.74	-99.1	3.9	99.2	88.2	11.01	9.004	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	177.74	-99.1	3.9	99.2	87.7	11.46	8.651	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	177.74	-99.1	3.9	99.2	87.3	11.91	8.325	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	177.74	-99.1	3.9	99.2	86.8	12.36	8.022	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	177.74	-99.1	3.9	99.2	86.4	12.81	7.740	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	177.74	-99.1	3.9	99.2	85.9	13.26	7.478	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	177.74	-99.1	3.9	99.2	85.5	13.71	7.233	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	177.74	-99.1	3.9	99.2	85.0	14.16	7.003	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	177.74	-99.1	3.9	99.2	84.6	14.61	6.788	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	177.74	-99.1	3.9	99.2	84.1	15.06	6.585	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	177.74	-99.1	3.9	99.2	83.7	15.51	6.394	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	177.74	-99.1	3.9	99.2	83.2	15.96	6.214	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	177.74	-99.1	3.9	99.2	82.8	16.41	6.044	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	177.74	-99.1	3.9	99.2	82.3	16.86	5.883	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	177.74	-99.1	3.9	99.2	81.9	17.31	5.730	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	177.74	-99.1	3.9	99.2	81.4	17.76	5.585	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	177.74	-99.1	3.9	99.2	81.0	18.21	5.447	
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	177.74	-99.1	3.9	99.2	80.5	18.66	5.316	
4,300.0	4,300.0	4,300.0	4,300.0	9.6	9.6	177.74	-99.1	3.9	99.2	80.1	19.11	5.191	
4,400.0	4,400.0	4,400.0	4,400.0	9.8	9.8	177.74	-99.1	3.9	99.2	79.6	19.55	5.071	
4,500.0	4,500.0	4,500.0	4,500.0	10.0	10.0	177.74	-99.1	3.9	99.2	79.2	20.00	4.957	
4,600.0	4,600.0	4,600.0	4,600.0	10.2	10.2	177.74	-99.1	3.9	99.2	78.7	20.45	4.848	
4,700.0	4,700.0	4,700.0	4,700.0	10.5	10.5	177.74	-99.1	3.9	99.2	78.3	20.90	4.744	
4,800.0	4,800.0	4,800.0	4,800.0	10.7	10.7	177.74	-99.1	3.9	99.2	77.8	21.35	4.644	
4,900.0	4,900.0	4,900.0	4,900.0	10.9	10.9	177.74	-99.1	3.9	99.2	77.4	21.80	4.548	CC, ES
5,000.0	5,000.0	4,997.0	4,996.9	11.1	11.1	178.33	-100.3	2.9	100.4	78.2	22.22	4.517	
5,100.0	5,100.0	5,092.8	5,092.5	11.4	11.3	-179.44	-105.1	-1.0	105.4	82.8	22.61	4.661	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 1C 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 1C 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 1C 11-162HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,187.7	5,186.9	11.6	11.4	-176.01	-113.6	-7.9	114.6	91.6	23.01	4.983	
5,300.0	5,300.0	5,281.4	5,279.2	11.8	11.6	-172.01	-125.5	-17.6	128.4	105.0	23.40	5.488	
5,400.0	5,400.0	5,373.3	5,369.1	12.0	11.8	-167.99	-140.6	-29.9	147.0	123.2	23.81	6.175	
5,500.0	5,500.0	5,463.1	5,455.8	12.2	12.0	-164.31	-158.6	-44.5	170.5	146.3	24.24	7.036	
5,600.0	5,600.0	5,550.6	5,539.2	12.5	12.2	-161.12	-179.1	-61.2	198.8	174.1	24.68	8.053	
5,700.0	5,699.7	5,637.0	5,620.3	12.7	12.5	-49.38	-202.2	-80.1	227.4	202.5	24.88	9.139	
5,800.0	5,797.4	5,723.6	5,700.1	12.9	12.8	-48.71	-228.2	-101.3	251.5	226.5	25.01	10.056	
5,900.0	5,891.3	5,809.7	5,777.9	13.1	13.1	-49.92	-256.9	-124.6	271.1	246.1	25.07	10.814	
6,000.0	5,979.6	5,900.0	5,857.6	13.4	13.5	-52.95	-289.8	-151.4	287.1	261.8	25.33	11.336	
6,100.0	6,065.5	5,986.5	5,932.4	13.8	14.0	-56.68	-323.4	-178.8	304.7	278.6	26.15	11.653	
6,200.0	6,151.4	6,082.5	6,015.4	14.3	14.5	-60.37	-360.9	-209.3	324.1	297.0	27.12	11.950	
6,300.0	6,237.3	6,178.5	6,098.3	14.9	15.1	-63.64	-398.3	-239.8	344.7	316.5	28.19	12.225	
6,400.0	6,323.2	6,274.5	6,181.3	15.5	15.7	-66.55	-435.7	-270.3	366.2	336.8	29.36	12.472	
6,500.0	6,409.1	6,370.5	6,264.2	16.2	16.4	-69.15	-473.2	-300.8	388.6	358.0	30.62	12.689	
6,600.0	6,495.0	6,466.5	6,347.2	16.9	17.1	-71.46	-510.6	-331.3	411.7	379.7	31.97	12.877	
6,700.0	6,584.3	6,563.3	6,430.9	17.5	17.8	-65.08	-548.4	-362.1	434.6	401.3	33.33	13.041	
6,800.0	6,680.4	6,659.7	6,514.2	17.8	18.6	-32.49	-586.0	-392.7	455.6	421.4	34.21	13.321	
6,900.0	6,778.5	6,750.8	6,593.0	18.0	19.3	30.90	-621.6	-421.6	475.6	441.0	34.64	13.731	
7,000.0	6,873.5	6,834.1	6,665.7	18.1	19.9	59.31	-654.4	-445.5	497.8	463.0	34.81	14.301	
7,100.0	6,960.6	6,924.3	6,747.3	18.1	20.4	70.73	-691.1	-455.3	523.7	488.8	34.91	15.000	
7,200.0	7,035.3	7,029.5	6,842.4	18.2	20.8	77.38	-733.9	-443.5	552.1	517.0	35.10	15.729	
7,300.0	7,093.9	7,159.6	6,952.2	18.4	21.1	82.49	-783.2	-395.4	580.5	545.0	35.50	16.354	
7,400.0	7,133.2	7,328.7	7,067.7	19.0	21.1	86.95	-834.8	-284.7	604.8	568.5	36.37	16.629	
7,500.0	7,151.3	7,544.2	7,146.4	20.0	20.8	89.79	-869.7	-89.6	618.4	579.7	38.63	16.009	
7,600.0	7,152.4	7,688.0	7,152.4	21.3	20.5	90.00	-871.9	53.9	619.4	577.8	41.54	14.911	
7,700.0	7,152.4	7,788.0	7,152.4	22.9	21.9	90.00	-871.6	153.9	619.4	574.8	44.59	13.892	
7,800.0	7,152.4	7,888.0	7,152.4	24.7	23.7	90.00	-871.2	253.9	619.5	571.4	48.10	12.879	
7,900.0	7,152.4	7,988.0	7,152.4	26.6	25.7	90.00	-870.9	353.9	619.6	567.6	51.98	11.918	
8,000.0	7,152.4	8,088.0	7,152.4	28.7	27.8	90.00	-870.6	453.8	619.6	563.5	56.16	11.033	
8,100.0	7,152.4	8,188.0	7,152.4	31.0	30.0	90.00	-870.2	553.8	619.7	559.1	60.57	10.231	
8,200.0	7,152.4	8,288.0	7,152.4	33.3	32.3	90.00	-869.9	653.8	619.8	554.6	65.16	9.511	
8,300.0	7,152.4	8,388.0	7,152.4	35.7	34.7	90.00	-869.6	753.8	619.8	549.9	69.90	8.867	
8,400.0	7,152.4	8,488.0	7,152.4	38.1	37.1	90.00	-869.2	853.8	619.9	545.1	74.77	8.291	
8,500.0	7,152.4	8,588.0	7,152.4	40.6	39.6	90.00	-868.9	953.8	620.0	540.2	79.73	7.776	
8,600.0	7,152.4	8,688.0	7,152.4	43.1	42.1	90.00	-868.6	1,053.8	620.0	535.3	84.77	7.314	
8,700.0	7,152.4	8,788.0	7,152.4	45.7	44.7	90.00	-868.2	1,153.8	620.1	530.2	89.88	6.899	
8,800.0	7,152.4	8,888.0	7,152.4	48.3	47.2	90.00	-867.9	1,253.8	620.2	525.1	95.04	6.525	
8,900.0	7,152.4	8,988.0	7,152.4	50.9	49.8	90.00	-867.5	1,353.8	620.2	520.0	100.26	6.186	
9,000.0	7,152.4	9,088.0	7,152.4	53.5	52.4	90.00	-867.2	1,453.8	620.3	514.8	105.51	5.879	
9,100.0	7,152.4	9,188.0	7,152.4	56.1	55.1	90.00	-866.9	1,553.8	620.4	509.6	110.80	5.599	
9,200.0	7,152.4	9,288.0	7,152.4	58.8	57.7	90.00	-866.5	1,653.8	620.4	504.3	116.12	5.343	
9,300.0	7,152.4	9,388.0	7,152.4	61.5	60.4	90.00	-866.2	1,753.8	620.5	499.0	121.47	5.108	
9,400.0	7,152.4	9,488.0	7,152.4	64.2	63.1	90.00	-865.9	1,853.8	620.6	493.7	126.83	4.893	
9,500.0	7,152.4	9,588.0	7,152.4	66.8	65.8	90.00	-865.5	1,953.8	620.6	488.4	132.22	4.694	
9,600.0	7,152.4	9,688.0	7,152.4	69.5	68.4	90.00	-865.2	2,053.8	620.7	483.1	137.63	4.510	
9,700.0	7,152.4	9,788.0	7,152.4	72.3	71.2	90.00	-864.9	2,153.8	620.8	477.7	143.05	4.339	
9,800.0	7,152.4	9,888.0	7,152.4	75.0	73.9	90.00	-864.5	2,253.8	620.8	472.3	148.49	4.181	
9,900.0	7,152.4	9,988.0	7,152.4	77.7	76.6	90.00	-864.2	2,353.8	620.9	467.0	153.93	4.033	
10,000.0	7,152.4	10,088.0	7,152.4	80.4	79.3	90.00	-863.9	2,453.8	621.0	461.6	159.39	3.896	
10,100.0	7,152.4	10,188.0	7,152.4	83.2	82.0	90.00	-863.5	2,553.8	621.0	456.2	164.86	3.767	
10,200.0	7,152.4	10,288.0	7,152.4	85.9	84.8	90.00	-863.2	2,653.8	621.1	450.8	170.34	3.646	
10,300.0	7,152.4	10,388.0	7,152.4	88.6	87.5	90.00	-862.9	2,753.8	621.2	445.3	175.83	3.533	

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-162HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,152.4	10,488.0	7,152.4	91.4	90.2	90.00	-862.5	2,853.8	621.2	439.9	181.32	3.426	
10,500.0	7,152.4	10,588.0	7,152.4	94.1	93.0	90.00	-862.2	2,953.8	621.3	434.5	186.82	3.326	
10,600.0	7,152.4	10,688.0	7,152.4	96.9	95.7	90.00	-861.9	3,053.8	621.4	429.0	192.33	3.231	
10,700.0	7,152.4	10,788.0	7,152.4	99.6	98.5	90.00	-861.5	3,153.8	621.4	423.6	197.85	3.141	
10,800.0	7,152.4	10,888.0	7,152.4	102.4	101.2	90.00	-861.2	3,253.8	621.5	418.1	203.36	3.056	
10,900.0	7,152.4	10,988.0	7,152.4	105.2	104.0	90.00	-860.8	3,353.8	621.6	412.7	208.89	2.976	
11,000.0	7,152.4	11,088.0	7,152.4	107.9	106.8	90.00	-860.5	3,453.8	621.6	407.2	214.42	2.899	
11,100.0	7,152.4	11,188.0	7,152.4	110.7	109.5	90.00	-860.2	3,553.8	621.7	401.7	219.95	2.827	
11,200.0	7,152.4	11,288.0	7,152.4	113.5	112.3	90.00	-859.8	3,653.8	621.8	396.3	225.48	2.757	
11,300.0	7,152.4	11,388.0	7,152.4	116.2	115.0	90.00	-859.5	3,753.8	621.8	390.8	231.02	2.692	
11,400.0	7,152.4	11,488.0	7,152.4	119.0	117.8	90.00	-859.2	3,853.8	621.9	385.3	236.57	2.629	
11,500.0	7,152.4	11,588.0	7,152.4	121.8	120.6	90.00	-858.8	3,953.8	622.0	379.8	242.11	2.569	
11,600.0	7,152.4	11,688.0	7,152.4	124.5	123.4	90.00	-858.5	4,053.8	622.0	374.4	247.66	2.512	
11,700.0	7,152.4	11,788.0	7,152.4	127.3	126.1	90.00	-858.2	4,153.8	622.1	368.9	253.21	2.457	
11,800.0	7,152.4	11,888.0	7,152.4	130.1	128.9	90.00	-857.8	4,253.8	622.2	363.4	258.77	2.404	
11,849.3	7,152.4	11,937.3	7,152.4	131.0	129.9	90.00	-857.7	4,303.1	622.2	361.6	260.63	2.387	
11,891.5	7,152.4	11,974.5	7,152.4	131.7	130.6	90.00	-857.5	4,340.3	622.2	360.2	262.04	2.375 SF	

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle 1C 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle 1C 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle 1C 11-239HN - Wellbore #1 - Plan #1 (12-10-13) — Offset Site Error: 0.0ft

Survey Program: 0-MWD — Offset Well Error: 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-165.77	-101.3	-25.7	104.5				
100.0	100.0	100.0	100.0	0.1	0.1	-165.77	-101.3	-25.7	104.5	103.3	0.22	464.847	
200.0	200.0	200.0	200.0	0.3	0.3	-165.77	-101.3	-25.7	104.5	103.8	0.67	154.949	
300.0	300.0	300.0	300.0	0.6	0.6	-165.77	-101.3	-25.7	104.5	103.4	1.12	92.969	
400.0	400.0	400.0	400.0	0.8	0.8	-165.77	-101.3	-25.7	104.5	102.9	1.57	66.407	
500.0	500.0	500.0	500.0	1.0	1.0	-165.77	-101.3	-25.7	104.5	102.5	2.02	51.650	
600.0	600.0	600.0	600.0	1.2	1.2	-165.77	-101.3	-25.7	104.5	102.0	2.47	42.259	
700.0	700.0	700.0	700.0	1.5	1.5	-165.77	-101.3	-25.7	104.5	101.6	2.92	35.757	
800.0	800.0	800.0	800.0	1.7	1.7	-165.77	-101.3	-25.7	104.5	101.1	3.37	30.990	
900.0	900.0	900.0	900.0	1.9	1.9	-165.77	-101.3	-25.7	104.5	100.7	3.82	27.344	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-165.77	-101.3	-25.7	104.5	100.2	4.27	24.466	
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	-165.77	-101.3	-25.7	104.5	99.8	4.72	22.136	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-165.77	-101.3	-25.7	104.5	99.3	5.17	20.211	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-165.77	-101.3	-25.7	104.5	98.9	5.62	18.594	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-165.77	-101.3	-25.7	104.5	98.4	6.07	17.217	
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	-165.77	-101.3	-25.7	104.5	98.0	6.52	16.029	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-165.77	-101.3	-25.7	104.5	97.5	6.97	14.995	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-165.77	-101.3	-25.7	104.5	97.1	7.42	14.086	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-165.77	-101.3	-25.7	104.5	96.6	7.87	13.281	
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	-165.77	-101.3	-25.7	104.5	96.2	8.32	12.563	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-165.77	-101.3	-25.7	104.5	95.7	8.77	11.919	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-165.77	-101.3	-25.7	104.5	95.3	9.22	11.338	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	-165.77	-101.3	-25.7	104.5	94.8	9.66	10.810	
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	-165.77	-101.3	-25.7	104.5	94.4	10.11	10.330	
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	-165.77	-101.3	-25.7	104.5	93.9	10.56	9.890	
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	-165.77	-101.3	-25.7	104.5	93.5	11.01	9.487	
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	-165.77	-101.3	-25.7	104.5	93.0	11.46	9.115	
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	-165.77	-101.3	-25.7	104.5	92.6	11.91	8.771	
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	-165.77	-101.3	-25.7	104.5	92.1	12.36	8.452	
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	-165.77	-101.3	-25.7	104.5	91.7	12.81	8.155	
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	-165.77	-101.3	-25.7	104.5	91.2	13.26	7.879	
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	-165.77	-101.3	-25.7	104.5	90.8	13.71	7.620	
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	-165.77	-101.3	-25.7	104.5	90.3	14.16	7.379	
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	-165.77	-101.3	-25.7	104.5	89.9	14.61	7.151	
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	-165.77	-101.3	-25.7	104.5	89.4	15.06	6.938	
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	-165.77	-101.3	-25.7	104.5	89.0	15.51	6.737	
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	-165.77	-101.3	-25.7	104.5	88.5	15.96	6.547	
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	-165.77	-101.3	-25.7	104.5	88.1	16.41	6.368	
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	-165.77	-101.3	-25.7	104.5	87.6	16.86	6.198	
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	-165.77	-101.3	-25.7	104.5	87.2	17.31	6.037	
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	-165.77	-101.3	-25.7	104.5	86.7	17.76	5.884	
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	-165.77	-101.3	-25.7	104.5	86.3	18.21	5.739	CC, ES
4,200.0	4,200.0	4,194.8	4,194.7	9.3	9.3	-165.64	-103.5	-26.5	107.0	88.3	18.62	5.745	
4,300.0	4,300.0	4,289.1	4,288.7	9.6	9.5	-165.29	-110.1	-28.9	114.3	95.3	19.00	6.018	
4,400.0	4,400.0	4,382.4	4,381.4	9.8	9.6	-164.79	-120.8	-32.9	126.6	107.2	19.39	6.531	
4,500.0	4,500.0	4,474.5	4,472.1	10.0	9.8	-164.24	-135.6	-38.3	143.7	123.9	19.78	7.264	
4,600.0	4,600.0	4,564.8	4,560.2	10.2	10.0	-163.70	-154.1	-45.1	165.4	145.2	20.18	8.196	
4,700.0	4,700.0	4,653.0	4,645.3	10.5	10.2	-163.22	-175.9	-53.1	191.7	171.1	20.61	9.304	
4,800.0	4,800.0	4,738.9	4,727.1	10.7	10.4	-162.80	-200.7	-62.1	222.4	201.3	21.05	10.565	
4,900.0	4,900.0	4,822.2	4,805.1	10.9	10.6	-162.44	-228.0	-72.1	257.2	235.7	21.51	11.957	
5,000.0	5,000.0	4,900.0	4,876.8	11.1	10.9	-162.15	-256.3	-82.5	296.1	274.1	22.00	13.462	
5,100.0	5,100.0	4,980.3	4,949.4	11.4	11.2	-161.90	-288.4	-94.3	338.7	316.2	22.53	15.032	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-239HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.0	5,200.0	5,054.8	5,015.5	11.6	11.6	-161.69	-320.7	-106.1	384.9	361.8	23.09	16.672	
5,300.0	5,300.0	5,129.5	5,080.4	11.8	11.9	-161.51	-355.5	-118.9	434.4	410.8	23.68	18.348	
5,400.0	5,400.0	5,215.7	5,154.8	12.0	12.4	-161.34	-396.4	-133.9	485.0	460.6	24.37	19.901	
5,500.0	5,500.0	5,302.0	5,229.2	12.2	13.0	-161.20	-437.4	-148.9	535.5	510.5	25.10	21.340	
5,600.0	5,600.0	5,388.3	5,303.6	12.5	13.5	-161.09	-478.4	-163.9	586.1	560.3	25.86	22.669	
5,700.0	5,699.7	5,476.5	5,379.7	12.7	14.1	-49.79	-520.2	-179.3	632.9	608.5	24.38	25.955	
5,800.0	5,797.4	5,567.3	5,458.1	12.9	14.8	-48.63	-563.4	-195.1	671.7	647.1	24.62	27.287	
5,900.0	5,891.3	5,659.1	5,537.3	13.1	15.5	-48.78	-607.0	-211.1	702.5	677.8	24.75	28.387	
6,000.0	5,979.6	5,750.0	5,615.7	13.4	16.2	-50.16	-650.1	-226.9	725.8	700.9	24.96	29.078	
6,100.0	6,065.5	5,840.3	5,693.6	13.8	16.9	-52.89	-693.0	-242.6	747.8	722.1	25.71	29.086	
6,200.0	6,151.4	5,930.6	5,771.5	14.3	17.6	-55.48	-735.8	-258.3	771.6	745.0	26.55	29.060	
6,300.0	6,237.3	6,020.8	5,849.3	14.9	18.4	-57.93	-778.7	-274.0	796.9	769.5	27.49	28.995	
6,400.0	6,323.2	6,111.1	5,927.2	15.5	19.1	-60.25	-821.6	-289.7	823.8	795.3	28.51	28.892	
6,500.0	6,409.1	6,201.3	6,005.1	16.2	19.9	-62.43	-864.4	-305.4	852.0	822.3	29.63	28.756	
6,600.0	6,495.0	6,291.6	6,082.9	16.9	20.7	-64.49	-907.3	-321.2	881.4	850.5	30.82	28.592	
6,700.0	6,584.3	6,383.8	6,162.5	17.5	21.5	-59.55	-951.1	-337.2	912.0	879.7	32.33	28.206	
6,800.0	6,680.4	6,478.7	6,244.4	17.8	22.3	-30.31	-996.1	-353.7	942.8	909.2	33.63	28.034	
6,900.0	6,778.5	6,571.6	6,324.5	18.0	23.1	28.96	-1,040.2	-369.9	972.1	937.5	34.52	28.162	
7,000.0	6,873.5	6,657.6	6,398.7	18.1	23.9	53.61	-1,081.1	-384.9	999.7	964.7	34.98	28.580	
7,100.0	6,960.6	6,732.4	6,463.2	18.1	24.6	61.87	-1,116.6	-397.9	1,026.8	991.6	35.15	29.214	
7,200.0	7,035.3	6,792.1	6,514.7	18.2	25.1	64.98	-1,144.9	-408.3	1,054.7	1,019.5	35.18	29.980	
7,300.0	7,093.9	6,833.7	6,550.6	18.4	25.5	65.22	-1,164.7	-415.5	1,084.8	1,049.6	35.14	30.867	
7,400.0	7,133.2	6,855.0	6,569.0	19.0	25.7	63.13	-1,174.8	-419.2	1,117.4	1,082.5	34.92	31.995	
7,500.0	7,151.3	6,854.9	6,568.9	20.0	25.7	59.04	-1,174.8	-419.2	1,151.9	1,117.6	34.35	33.535	
7,600.0	7,152.4	6,838.4	6,554.7	21.3	25.5	56.77	-1,166.9	-416.3	1,188.5	1,153.8	34.67	34.275	
7,700.0	7,152.4	6,820.8	6,539.5	22.9	25.4	55.87	-1,158.6	-413.3	1,231.5	1,195.8	35.70	34.498	
7,800.0	7,152.4	8,040.8	7,152.4	24.7	30.1	90.00	-1,494.1	254.8	1,242.3	1,194.4	47.98	25.893	
7,900.0	7,152.4	8,140.8	7,152.4	26.6	30.7	90.00	-1,493.8	354.8	1,242.5	1,190.7	51.78	23.994	
8,000.0	7,152.4	8,240.8	7,152.4	28.7	31.7	90.00	-1,493.6	454.8	1,242.7	1,186.8	55.89	22.232	
8,100.0	7,152.4	8,340.8	7,152.4	31.0	33.1	90.00	-1,493.3	554.8	1,242.8	1,182.6	60.25	20.629	
8,200.0	7,152.4	8,440.8	7,152.4	33.3	34.9	90.00	-1,493.1	654.8	1,243.0	1,178.2	64.79	19.183	
8,300.0	7,152.4	8,540.8	7,152.4	35.7	36.8	90.00	-1,492.9	754.8	1,243.1	1,173.6	69.50	17.887	
8,400.0	7,152.4	8,640.8	7,152.4	38.1	38.9	90.00	-1,492.6	854.8	1,243.3	1,169.0	74.33	16.727	
8,500.0	7,152.4	8,740.8	7,152.4	40.6	41.2	90.00	-1,492.4	954.8	1,243.4	1,164.2	79.26	15.688	
8,600.0	7,152.4	8,840.8	7,152.4	43.1	43.5	90.00	-1,492.1	1,054.8	1,243.6	1,159.3	84.28	14.756	
8,700.0	7,152.4	8,940.8	7,152.4	45.7	45.9	90.00	-1,491.9	1,154.8	1,243.8	1,154.4	89.37	13.917	
8,800.0	7,152.4	9,040.8	7,152.4	48.3	48.3	90.00	-1,491.6	1,254.8	1,243.9	1,149.4	94.51	13.161	
8,900.0	7,152.4	9,140.8	7,152.4	50.9	50.8	90.00	-1,491.4	1,354.8	1,244.1	1,144.4	99.71	12.477	
9,000.0	7,152.4	9,240.8	7,152.4	53.5	53.3	90.00	-1,491.2	1,454.8	1,244.2	1,139.3	104.95	11.855	
9,100.0	7,152.4	9,340.8	7,152.4	56.1	55.9	90.00	-1,490.9	1,554.8	1,244.4	1,134.2	110.23	11.289	
9,200.0	7,152.4	9,440.8	7,152.4	58.8	58.5	90.00	-1,490.7	1,654.8	1,244.6	1,129.0	115.54	10.772	
9,300.0	7,152.4	9,540.8	7,152.4	61.5	61.1	90.00	-1,490.4	1,754.8	1,244.7	1,123.8	120.87	10.298	
9,400.0	7,152.4	9,640.8	7,152.4	64.2	63.7	90.00	-1,490.2	1,854.8	1,244.9	1,118.6	126.23	9.862	
9,500.0	7,152.4	9,740.8	7,152.4	66.8	66.3	90.00	-1,489.9	1,954.8	1,245.0	1,113.4	131.61	9.460	
9,600.0	7,152.4	9,840.8	7,152.4	69.5	68.9	90.00	-1,489.7	2,054.8	1,245.2	1,108.2	137.01	9.088	
9,700.0	7,152.4	9,940.8	7,152.4	72.3	71.6	90.00	-1,489.5	2,154.8	1,245.3	1,102.9	142.43	8.744	
9,800.0	7,152.4	10,040.8	7,152.4	75.0	74.3	90.00	-1,489.2	2,254.8	1,245.5	1,097.6	147.86	8.424	
9,900.0	7,152.4	10,140.8	7,152.4	77.7	76.9	90.00	-1,489.0	2,354.8	1,245.7	1,092.4	153.30	8.126	
10,000.0	7,152.4	10,240.8	7,152.4	80.4	79.6	90.00	-1,488.7	2,454.8	1,245.8	1,087.1	158.75	7.848	
10,100.0	7,152.4	10,340.8	7,152.4	83.2	82.3	90.00	-1,488.5	2,554.8	1,246.0	1,081.8	164.22	7.587	
10,200.0	7,152.4	10,440.8	7,152.4	85.9	85.0	90.00	-1,488.2	2,654.8	1,246.1	1,076.4	169.69	7.344	
10,300.0	7,152.4	10,540.8	7,152.4	88.6	87.7	90.00	-1,488.0	2,754.8	1,246.3	1,071.1	175.17	7.115	

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

ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Offset Design Postle West Pad Sec.11-T3N-R68W - Postle LC 11-239HN - Wellbore #1 - Plan #1 (12-10-13) — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.0	7,152.4	10,640.8	7,152.4	91.4	90.4	90.00	-1,487.7	2,854.8	1,246.4	1,065.8	180.67	6.899	
10,500.0	7,152.4	10,740.8	7,152.4	94.1	93.2	90.00	-1,487.5	2,954.8	1,246.6	1,060.4	186.16	6.696	
10,600.0	7,152.4	10,840.8	7,152.4	96.9	95.9	90.00	-1,487.3	3,054.8	1,246.8	1,055.1	191.67	6.505	
10,700.0	7,152.4	10,940.8	7,152.4	99.6	98.6	90.00	-1,487.0	3,154.8	1,246.9	1,049.7	197.18	6.324	
10,800.0	7,152.4	11,040.8	7,152.4	102.4	101.3	90.00	-1,486.8	3,254.8	1,247.1	1,044.4	202.69	6.153	
10,900.0	7,152.4	11,140.8	7,152.4	105.2	104.1	90.00	-1,486.5	3,354.8	1,247.2	1,039.0	208.21	5.990	
11,000.0	7,152.4	11,240.8	7,152.4	107.9	106.8	90.00	-1,486.3	3,454.8	1,247.4	1,033.7	213.74	5.836	
11,100.0	7,152.4	11,340.8	7,152.4	110.7	109.6	90.00	-1,486.0	3,554.8	1,247.6	1,028.3	219.27	5.690	
11,200.0	7,152.4	11,440.8	7,152.4	113.5	112.3	90.00	-1,485.8	3,654.8	1,247.7	1,022.9	224.80	5.550	
11,300.0	7,152.4	11,540.8	7,152.4	116.2	115.0	90.00	-1,485.6	3,754.8	1,247.9	1,017.5	230.34	5.418	
11,400.0	7,152.4	11,640.8	7,152.4	119.0	117.8	90.00	-1,485.3	3,854.8	1,248.0	1,012.1	235.88	5.291	
11,500.0	7,152.4	11,740.8	7,152.4	121.8	120.6	90.00	-1,485.1	3,954.8	1,248.2	1,006.8	241.43	5.170	
11,600.0	7,152.4	11,840.8	7,152.4	124.5	123.3	90.00	-1,484.8	4,054.8	1,248.3	1,001.4	246.97	5.055	
11,700.0	7,152.4	11,940.8	7,152.4	127.3	126.1	90.00	-1,484.6	4,154.8	1,248.5	996.0	252.52	4.944	
11,800.0	7,152.4	12,040.8	7,152.4	130.1	128.8	90.00	-1,484.3	4,254.8	1,248.7	990.6	258.07	4.838	
11,891.5	7,152.4	12,123.4	7,152.4	131.7	130.9	90.00	-1,484.1	4,337.4	1,248.8	987.1	261.75	4.771 SF	

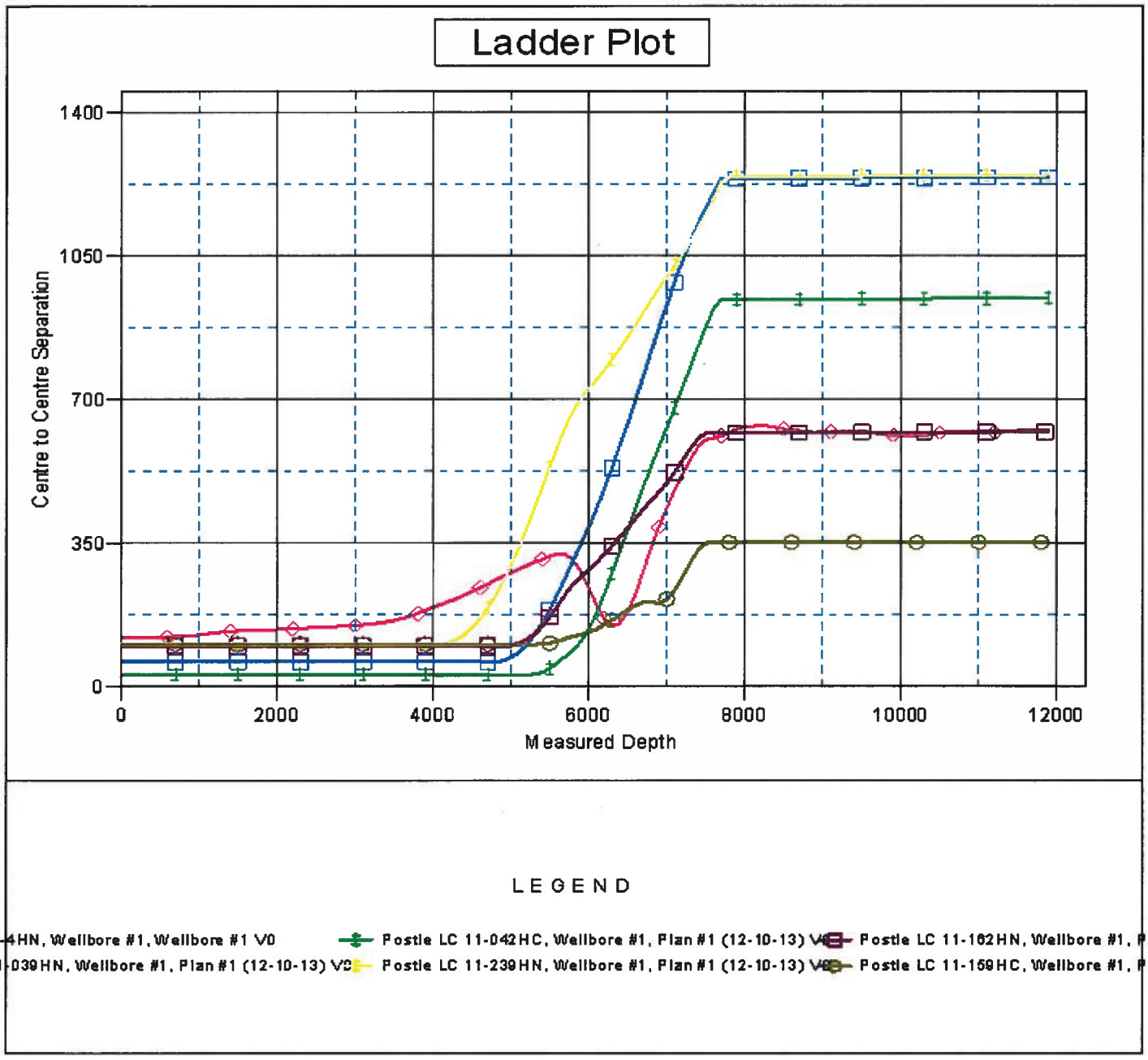
ENSIGN Directional

Anticollision Report

Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4993.4ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Postle LC 11-122HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.34°



Company:	Great Western	**Local Co-ordinate Reference:**	Well Postle LC 11-122HN
Project:	SEC.11-T3N-R68W	**TVD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Reference Site:	Postle West Pad Sec.11-T3N-R68W	**MD Reference:**	WELL @ 4993.4ft (RKB - 16.5')
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Postle LC 11-122HN	**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 (12-10-13)	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 4993.4ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Postle LC 11-122HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.34°