

Great Western

Well Name: **Taoka KF 01-021HN**

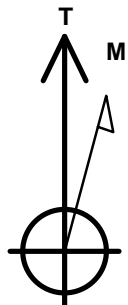
Surface Location: Taoka West PadSec.1-T1N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4959.7

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1270989.37	3247135.46	40.073878	-104.616886	
RKB - 16.5' WELL @ 4976.2ft (RKB - 16.5')						

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 240'FSL & 1324'FWL	1.0	0.0	0.0	Point
BHL 470'FNL & 1'FWL	6966.2	4500.1	-1283.2	Point
Entry Pt. 460'FSL & 1'FWL	6966.2	218.6	-1321.5	Point



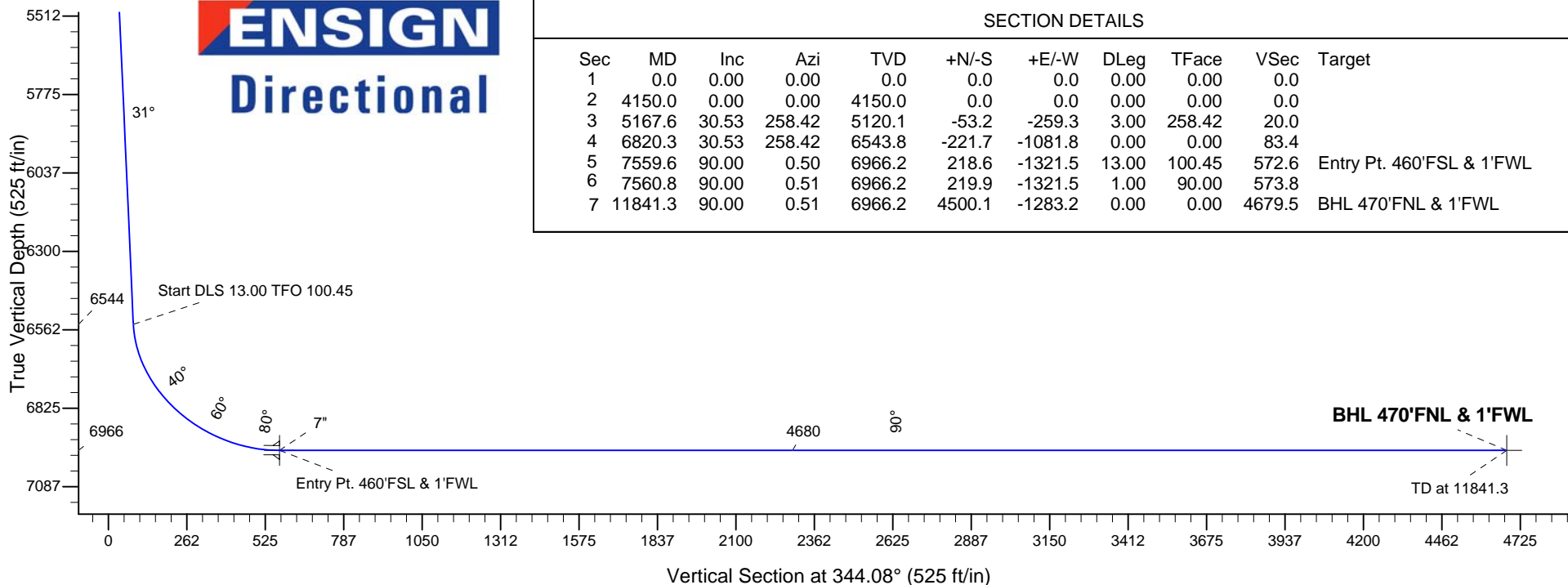
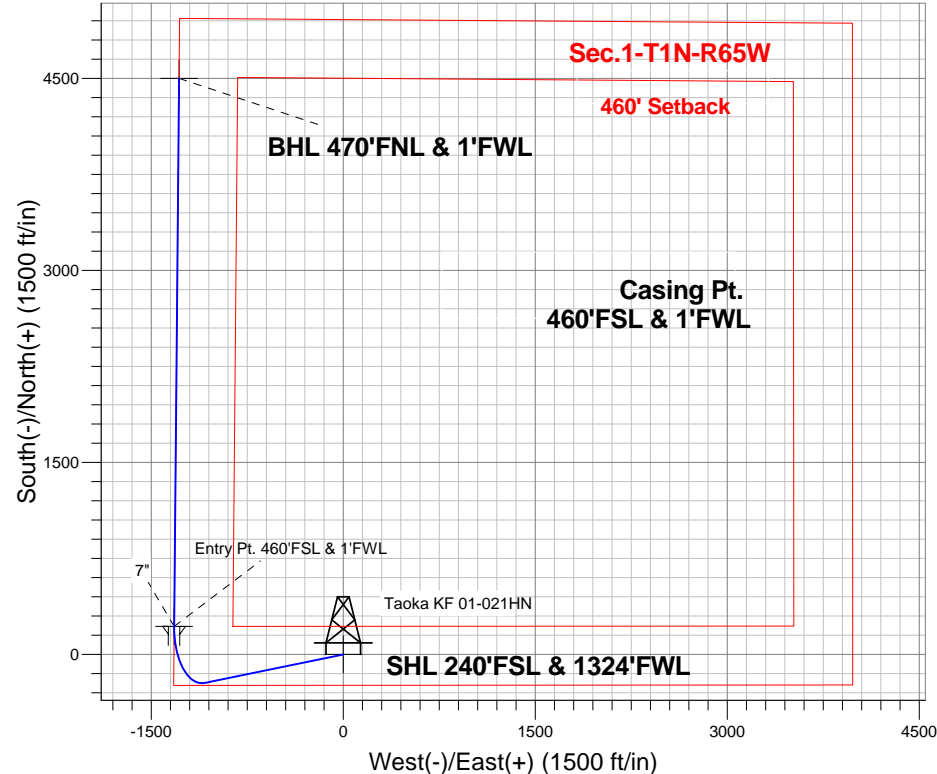
Azimuths to True North
Magnetic North: 8.43°

Magnetic Field
Strength: 52719.6snT
Dip Angle: 66.73°
Date: 11/15/2013
Model: IGRF2010

Taoka West PadSec.1-T1N-R65W
Taoka KF 01-021HN
Plan #1 (11-15-13)
11:30, November 18 2013

ANNOTATIONS

TVD	MD	Annotation
4150.0	4150.0	KOP - Start Build 3.00
6543.7	6820.3	Start DLS 13.00 TFO 100.45
6966.2	11841.3	TD at 11841.3



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	4150.0	0.00	0.00	4150.0	0.0	0.0	0.00	0.00	0.0	
3	5167.6	30.53	258.42	5120.1	-53.2	-259.3	3.00	258.42	20.0	
4	6820.3	30.53	258.42	6543.8	-221.7	-1081.8	0.00	0.00	83.4	
5	7559.6	90.00	0.50	6966.2	218.6	-1321.5	13.00	100.45	572.6	Entry Pt. 460'FSL & 1'FWL
6	7560.8	90.00	0.51	6966.2	219.9	-1321.5	1.00	90.00	573.8	
7	11841.3	90.00	0.51	6966.2	4500.1	-1283.2	0.00	0.00	4679.5	BHL 470'FNL & 1'FWL



Great Western

SEC.1-T1N-R65W

Taoka West PadSec.1-T1N-R65W

Taoka KF 01-021HN

Wellbore #1

Plan: Plan #1 (11-15-13)

Standard Planning Report

18 November, 2013

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,150.0	0.00	0.00	4,150.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,167.6	30.53	258.42	5,120.1	-53.2	-259.3	3.00	3.00	0.00	258.42	
6,820.3	30.53	258.42	6,543.8	-221.7	-1,081.8	0.00	0.00	0.00	0.00	
7,559.6	90.00	0.50	6,966.2	218.6	-1,321.5	13.00	8.04	13.81	100.45	Entry Pt. 460'FSL &
7,560.8	90.00	0.51	6,966.2	219.9	-1,321.5	1.00	0.00	1.00	90.00	
11,841.3	90.00	0.51	6,966.2	4,500.1	-1,283.2	0.00	0.00	0.00	0.00	BHL 470'FNL & 1'F

Database:	Landmark	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Company:	Great Western	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Project:	SEC.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site:	Taoka West PadSec.1-T1N-R65W	North Reference:	True
Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-15-13)		

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 240'FSL & 1324'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
4,150.0	0.00	0.00	4,150.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 3.00									
4,200.0	1.50	258.42	4,200.0	-0.1	-0.6	0.0	3.00	3.00	0.00
4,300.0	4.50	258.42	4,299.8	-1.2	-5.8	0.4	3.00	3.00	0.00
4,400.0	7.50	258.42	4,399.3	-3.3	-16.0	1.2	3.00	3.00	0.00
4,500.0	10.50	258.42	4,498.0	-6.4	-31.3	2.4	3.00	3.00	0.00
4,600.0	13.50	258.42	4,595.8	-10.6	-51.7	4.0	3.00	3.00	0.00
4,700.0	16.50	258.42	4,692.4	-15.8	-77.0	5.9	3.00	3.00	0.00
4,800.0	19.50	258.42	4,787.5	-22.0	-107.3	8.3	3.00	3.00	0.00
4,900.0	22.50	258.42	4,880.9	-29.2	-142.4	11.0	3.00	3.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Company:	Great Western	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Project:	SEC.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site:	Taoka West PadSec.1-T1N-R65W	North Reference:	True
Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-15-13)		

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)
5,000.0	25.50	258.42	4,972.2	-37.4	-182.3	14.1	3.00	3.00	0.00
5,100.0	28.50	258.42	5,061.3	-46.5	-226.7	17.5	3.00	3.00	0.00
5,167.6	30.53	258.42	5,120.1	-53.2	-259.3	20.0	3.00	3.00	0.00
5,200.0	30.53	258.42	5,148.0	-56.5	-275.5	21.2	0.00	0.00	0.00
5,300.0	30.53	258.42	5,234.2	-66.7	-325.2	25.1	0.00	0.00	0.00
5,400.0	30.53	258.42	5,320.3	-76.9	-375.0	28.9	0.00	0.00	0.00
5,500.0	30.53	258.42	5,406.5	-87.1	-424.8	32.8	0.00	0.00	0.00
5,600.0	30.53	258.42	5,492.6	-97.3	-474.5	36.6	0.00	0.00	0.00
5,700.0	30.53	258.42	5,578.7	-107.5	-524.3	40.4	0.00	0.00	0.00
5,800.0	30.53	258.42	5,664.9	-117.7	-574.0	44.3	0.00	0.00	0.00
5,900.0	30.53	258.42	5,751.0	-127.9	-623.8	48.1	0.00	0.00	0.00
6,000.0	30.53	258.42	5,837.2	-138.1	-673.6	51.9	0.00	0.00	0.00
6,100.0	30.53	258.42	5,923.3	-148.3	-723.3	55.8	0.00	0.00	0.00
6,200.0	30.53	258.42	6,009.4	-158.5	-773.1	59.6	0.00	0.00	0.00
6,300.0	30.53	258.42	6,095.6	-168.7	-822.8	63.4	0.00	0.00	0.00
6,400.0	30.53	258.42	6,181.7	-178.9	-872.6	67.3	0.00	0.00	0.00
6,500.0	30.53	258.42	6,267.8	-189.1	-922.4	71.1	0.00	0.00	0.00
6,600.0	30.53	258.42	6,354.0	-199.3	-972.1	75.0	0.00	0.00	0.00
6,700.0	30.53	258.42	6,440.1	-209.5	-1,021.9	78.8	0.00	0.00	0.00
6,800.0	30.53	258.42	6,526.3	-219.6	-1,071.6	82.6	0.00	0.00	0.00
6,820.3	30.53	258.42	6,543.7	-221.7	-1,081.7	83.4	0.00	0.00	0.00
Start DLS 13.00 TFO 100.45									
6,900.0	30.24	278.96	6,612.7	-222.7	-1,121.5	93.4	12.99	-0.36	25.78
7,000.0	34.17	302.37	6,697.6	-203.6	-1,170.3	125.1	13.00	3.93	23.40
7,100.0	41.55	319.92	6,776.7	-163.0	-1,215.6	176.5	13.00	7.38	17.55
7,200.0	50.88	332.53	6,846.0	-103.0	-1,255.0	245.1	13.00	9.32	12.61
7,300.0	61.23	342.04	6,901.9	-26.5	-1,286.5	327.3	13.00	10.35	9.51
7,400.0	72.13	349.78	6,941.4	62.4	-1,308.6	418.8	13.00	10.90	7.74
7,500.0	83.29	356.61	6,962.7	159.2	-1,320.0	515.0	13.00	11.17	6.83
7,559.6	90.00	0.50	6,966.2	218.6	-1,321.5	572.6	13.00	11.25	6.52
7" - Entry Pt. 460'FSL & 1'FWL									
7,560.8	90.00	0.51	6,966.2	219.9	-1,321.5	573.8	1.06	0.09	1.05
7,600.0	90.00	0.51	6,966.2	259.0	-1,321.1	611.4	0.00	0.00	0.00
7,700.0	90.00	0.51	6,966.2	359.0	-1,320.2	707.3	0.00	0.00	0.00
7,800.0	90.00	0.51	6,966.2	459.0	-1,319.3	803.2	0.00	0.00	0.00
7,900.0	90.00	0.51	6,966.2	559.0	-1,318.5	899.1	0.00	0.00	0.00
8,000.0	90.00	0.51	6,966.2	659.0	-1,317.6	995.0	0.00	0.00	0.00
8,100.0	90.00	0.51	6,966.2	759.0	-1,316.7	1,091.0	0.00	0.00	0.00
8,200.0	90.00	0.51	6,966.2	859.0	-1,315.8	1,186.9	0.00	0.00	0.00
8,300.0	90.00	0.51	6,966.2	959.0	-1,314.9	1,282.8	0.00	0.00	0.00
8,400.0	90.00	0.51	6,966.2	1,059.0	-1,314.0	1,378.7	0.00	0.00	0.00
8,500.0	90.00	0.51	6,966.2	1,159.0	-1,313.1	1,474.6	0.00	0.00	0.00
8,600.0	90.00	0.51	6,966.2	1,259.0	-1,312.2	1,570.5	0.00	0.00	0.00
8,700.0	90.00	0.51	6,966.2	1,359.0	-1,311.3	1,666.5	0.00	0.00	0.00
8,800.0	90.00	0.51	6,966.2	1,459.0	-1,310.4	1,762.4	0.00	0.00	0.00
8,900.0	90.00	0.51	6,966.2	1,559.0	-1,309.5	1,858.3	0.00	0.00	0.00
9,000.0	90.00	0.51	6,966.2	1,659.0	-1,308.6	1,954.2	0.00	0.00	0.00
9,100.0	90.00	0.51	6,966.2	1,759.0	-1,307.7	2,050.1	0.00	0.00	0.00
9,200.0	90.00	0.51	6,966.2	1,858.9	-1,306.8	2,146.0	0.00	0.00	0.00
9,300.0	90.00	0.51	6,966.2	1,958.9	-1,305.9	2,242.0	0.00	0.00	0.00
9,400.0	90.00	0.51	6,966.2	2,058.9	-1,305.0	2,337.9	0.00	0.00	0.00
9,500.0	90.00	0.51	6,966.2	2,158.9	-1,304.1	2,433.8	0.00	0.00	0.00
9,600.0	90.00	0.51	6,966.2	2,258.9	-1,303.3	2,529.7	0.00	0.00	0.00
9,700.0	90.00	0.51	6,966.2	2,358.9	-1,302.4	2,625.6	0.00	0.00	0.00

Plan Annotations					
	Measured	Vertical	Local Coordinates		Comment
	Depth	Depth	+N/-S	+E/-W	
	(ft)	(ft)	(ft)	(ft)	
	4,150.0	4,150.0	0.0	0.0	
	6,820.3	6,543.7	-221.7	-1,081.7	
11,841.3	6,966.2	4,500.1	-1,283.2	TD at 11841.3	



Great Western

SEC.1-T1N-R65W

Taoka West PadSec.1-T1N-R65W

Taoka KF 01-021HN

Wellbore #1

Plan #1 (11-15-13)

Anticollision Report

18 November, 2013

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (11-15-13)		
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 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 11/18/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	11,841.3	Plan #1 (11-15-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Taoka West PadSec.1-T1N-R65W						
Taoka KF 01-022HN - Wellbore #1 - Plan #1 (11-15-13)	4,100.0	4,100.0	30.2	12.0	1.660	CC
Taoka KF 01-022HN - Wellbore #1 - Plan #1 (11-15-13)	4,127.8	4,127.8	30.3	12.0	1.655	ES, SF
Taoka KF 01-023HC - Wellbore #1 - Plan #1 (11-15-13)	4,100.0	4,100.0	59.9	41.7	3.290	CC
Taoka KF 01-023HC - Wellbore #1 - Plan #1 (11-15-13)	4,127.8	4,127.8	60.0	41.7	3.273	ES
Taoka KF 01-023HC - Wellbore #1 - Plan #1 (11-15-13)	4,200.0	4,200.0	60.5	41.9	3.247	SF
Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)	4,100.0	4,100.0	90.1	71.9	4.950	CC
Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)	4,127.8	4,127.8	90.2	71.9	4.922	ES
Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)	4,200.0	4,200.0	90.8	72.1	4.869	SF

Offset Design Taoka West PadSec.1-T1N-R65W - Taoka KF 01-022HN - Wellbore #1 - Plan #1 (11-15-13)											
Survey Program: 0-MWD											
Offset Site Error: 0.0ft											
Offset Well Error: 0.0ft											
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	30.2	30.2		
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	30.2	30.2	30.0	0.22 134.473
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	30.2	30.2	29.6	0.67 44.824
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	30.2	30.2	29.1	1.12 26.895
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	30.2	30.2	28.7	1.57 19.210
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	30.2	30.2	28.2	2.02 14.941
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	30.2	30.2	27.8	2.47 12.225
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	30.2	30.2	27.3	2.92 10.344
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	30.2	30.2	26.9	3.37 8.965
900.0	900.0	900.0	900.0	1.9	1.9	90.02	0.0	30.2	30.2	26.4	3.82 7.910
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.02	0.0	30.2	30.2	26.0	4.27 7.078
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.02	0.0	30.2	30.2	25.5	4.72 6.403
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.02	0.0	30.2	30.2	25.1	5.17 5.847
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.02	0.0	30.2	30.2	24.6	5.62 5.379
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.02	0.0	30.2	30.2	24.2	6.07 4.980
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.02	0.0	30.2	30.2	23.7	6.52 4.637
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.02	0.0	30.2	30.2	23.3	6.97 4.338
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.02	0.0	30.2	30.2	22.8	7.42 4.075
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.02	0.0	30.2	30.2	22.4	7.87 3.842
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.02	0.0	30.2	30.2	21.9	8.32 3.634

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West PadSec.1-T1N-R65W - Taoka KF 01-022HN - Wellbore #1 - Plan #1 (11-15-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.02	0.0	30.2	30.2	21.5	8.77	3.448		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.02	0.0	30.2	30.2	21.0	9.22	3.280		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.02	0.0	30.2	30.2	20.6	9.66	3.127		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.02	0.0	30.2	30.2	20.1	10.11	2.988		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.02	0.0	30.2	30.2	19.7	10.56	2.861		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.02	0.0	30.2	30.2	19.2	11.01	2.744		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.02	0.0	30.2	30.2	18.8	11.46	2.637		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.02	0.0	30.2	30.2	18.3	11.91	2.537		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.02	0.0	30.2	30.2	17.9	12.36	2.445		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.02	0.0	30.2	30.2	17.4	12.81	2.359		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.02	0.0	30.2	30.2	17.0	13.26	2.279		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.02	0.0	30.2	30.2	16.5	13.71	2.204		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.02	0.0	30.2	30.2	16.1	14.16	2.134		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.02	0.0	30.2	30.2	15.6	14.61	2.069		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.02	0.0	30.2	30.2	15.2	15.06	2.007		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.02	0.0	30.2	30.2	14.7	15.51	1.949		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.02	0.0	30.2	30.2	14.3	15.96	1.894		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.02	0.0	30.2	30.2	13.8	16.41	1.842		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.02	0.0	30.2	30.2	13.4	16.86	1.793		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.02	0.0	30.2	30.2	12.9	17.31	1.746		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.02	0.0	30.2	30.2	12.5	17.76	1.702		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.02	0.0	30.2	30.2	12.0	18.21	1.660 CC		
4,127.8	4,127.8	4,127.8	4,127.8	9.2	9.2	-168.43	0.0	30.2	30.3	12.0	18.33	1.655 ES, SF		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-168.63	0.0	30.2	30.9	12.2	18.64	1.656		
4,300.0	4,299.8	4,299.8	4,299.8	9.5	9.6	-170.25	0.0	30.2	36.0	17.0	19.01	1.894		
4,400.0	4,399.3	4,399.3	4,399.3	9.7	9.8	-172.40	0.0	30.2	46.3	27.0	19.34	2.397		
4,500.0	4,498.0	4,498.0	4,498.0	9.9	10.0	-174.27	0.0	30.2	61.9	42.3	19.62	3.155		
4,600.0	4,595.8	4,595.8	4,595.8	10.2	10.2	-175.66	0.0	30.2	82.6	62.8	19.85	4.162		
4,700.0	4,692.4	4,692.4	4,692.4	10.4	10.4	-176.65	0.0	30.2	108.4	88.4	20.03	5.414		
4,800.0	4,787.5	4,787.5	4,787.5	10.7	10.6	-177.35	0.0	30.2	139.3	119.1	20.16	6.910		
4,900.0	4,880.9	4,883.9	4,883.9	11.1	10.9	-177.84	-0.1	29.9	174.8	154.6	20.24	8.637		
5,000.0	4,972.2	4,987.3	4,987.2	11.5	11.1	-178.05	-1.6	25.6	211.4	191.1	20.27	10.430		
5,100.0	5,061.3	5,093.0	5,092.4	12.1	11.3	-178.01	-5.0	15.6	247.8	227.6	20.26	12.232		
5,200.0	5,148.0	5,201.2	5,199.3	12.7	11.5	-177.82	-10.4	-0.3	283.7	263.3	20.38	13.921		
5,300.0	5,234.2	5,313.5	5,308.9	13.4	11.7	-177.51	-18.1	-22.7	315.4	294.5	20.83	15.136		
5,400.0	5,320.3	5,429.7	5,420.9	14.2	12.0	-177.06	-28.2	-52.4	341.4	320.1	21.31	16.016		
5,500.0	5,406.5	5,549.3	5,533.8	15.0	12.4	-176.46	-40.8	-89.6	361.5	339.6	21.83	16.560		
5,600.0	5,492.6	5,671.5	5,646.4	15.8	12.9	-175.70	-56.1	-134.4	375.5	353.1	22.38	16.779		
5,700.0	5,578.7	5,795.2	5,757.0	16.7	13.5	-174.77	-73.9	-186.7	383.3	360.3	22.97	16.683		
5,800.0	5,664.9	5,908.3	5,855.2	17.6	14.1	-173.75	-92.0	-239.9	385.4	361.8	23.59	16.338		
5,900.0	5,751.0	6,008.1	5,941.3	18.6	14.8	-172.82	-108.3	-287.7	386.8	362.5	24.22	15.971		
6,000.0	5,837.2	6,107.9	6,027.4	19.5	15.5	-171.90	-124.6	-335.4	388.2	363.3	24.89	15.599		
6,100.0	5,923.3	6,207.7	6,113.5	20.5	16.2	-170.99	-140.8	-383.2	389.7	364.1	25.60	15.225		
6,200.0	6,009.4	6,307.5	6,199.6	21.5	17.0	-170.09	-157.1	-431.0	391.3	365.0	26.36	14.849		
6,300.0	6,095.6	6,407.3	6,285.7	22.5	17.8	-169.19	-173.4	-478.8	393.1	365.9	27.16	14.472		
6,400.0	6,181.7	6,507.1	6,371.7	23.5	18.7	-168.30	-189.7	-526.6	394.9	366.9	28.02	14.095		
6,500.0	6,267.8	6,606.9	6,457.8	24.5	19.6	-167.42	-205.9	-574.4	396.8	367.9	28.92	13.721		
6,600.0	6,354.0	6,708.2	6,545.3	25.6	20.5	-166.72	-221.2	-623.0	398.7	368.9	29.84	13.364		
6,700.0	6,440.1	6,810.4	6,634.6	26.6	21.2	-166.64	-238.3	-672.3	400.1	369.9	30.16	13.265		
6,800.0	6,526.3	6,902.1	6,712.3	27.7	21.8	-173.13	-195.7	-715.2	402.8	372.8	30.00	13.426		
6,900.0	6,612.7	6,981.7	6,775.3	28.6	22.3	163.18	-161.6	-749.7	410.3	380.0	30.28	13.549		
7,000.0	6,697.6	7,056.5	6,828.7	29.4	22.7	137.69	-118.3	-778.9	421.4	390.0	31.48	13.387		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West PadSec.1-T1N-R65W - Taoka KF 01-022HN - Wellbore #1 - Plan #1 (11-15-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,100.0	6,776.7	7,125.0	6,871.4	30.2	23.0	119.04	-70.2	-802.2	434.1	401.2	32.95	13.178		
7,200.0	6,846.0	7,200.0	6,910.1	30.8	23.2	106.11	-9.6	-823.1	446.5	412.4	34.14	13.079		
7,300.0	6,901.9	7,265.2	6,936.0	31.2	23.4	97.86	48.6	-836.9	457.1	422.6	34.57	13.223		
7,400.0	6,941.4	7,331.9	6,954.5	31.6	23.6	92.79	111.9	-846.6	464.8	430.3	34.52	13.463		
7,500.0	6,962.7	7,400.0	6,964.5	31.8	23.8	90.34	178.9	-851.6	468.8	434.4	34.37	13.639		
7,600.0	6,966.2	7,476.0	6,966.2	32.0	23.9	90.00	254.9	-851.9	469.3	434.5	34.83	13.473		
7,700.0	6,966.2	7,576.0	6,966.2	32.2	24.3	90.00	354.9	-851.0	469.3	433.1	36.15	12.981		
7,800.0	6,966.2	7,676.0	6,966.2	32.5	24.8	90.00	454.9	-850.1	469.3	431.5	37.80	12.413		
7,900.0	6,966.2	7,776.0	6,966.2	32.9	25.4	90.00	554.9	-849.2	469.2	429.5	39.76	11.803		
8,000.0	6,966.2	7,876.0	6,966.2	33.4	26.1	90.00	654.9	-848.3	469.2	427.3	41.97	11.181		
8,100.0	6,966.2	7,976.0	6,966.2	34.0	27.0	90.00	754.9	-847.5	469.2	424.8	44.40	10.568		
8,200.0	6,966.2	8,076.0	6,966.2	34.7	28.0	90.00	854.9	-846.6	469.2	422.2	47.02	9.979		
8,300.0	6,966.2	8,176.0	6,966.2	35.5	29.1	90.00	954.9	-845.7	469.2	419.4	49.79	9.423		
8,400.0	6,966.2	8,276.0	6,966.2	36.4	30.3	90.00	1,054.8	-844.8	469.2	416.5	52.70	8.903		
8,500.0	6,966.2	8,376.0	6,966.2	37.3	31.6	90.00	1,154.8	-843.9	469.2	413.4	55.72	8.420		
8,600.0	6,966.2	8,476.0	6,966.2	38.4	33.0	90.00	1,254.8	-843.1	469.2	410.3	58.83	7.974		
8,700.0	6,966.2	8,576.0	6,966.2	39.5	34.4	90.00	1,354.8	-842.2	469.1	407.1	62.02	7.564		
8,800.0	6,966.2	8,676.0	6,966.2	40.7	35.8	90.00	1,454.8	-841.3	469.1	403.8	65.28	7.186		
8,900.0	6,966.2	8,776.0	6,966.2	42.0	37.3	90.00	1,554.8	-840.4	469.1	400.5	68.60	6.838		
9,000.0	6,966.2	8,876.0	6,966.2	43.3	38.9	90.00	1,654.8	-839.5	469.1	397.1	71.97	6.518		
9,100.0	6,966.2	8,976.0	6,966.2	44.7	40.4	90.00	1,754.8	-838.7	469.1	393.7	75.39	6.222		
9,200.0	6,966.2	9,076.0	6,966.2	46.1	42.0	90.00	1,854.8	-837.8	469.1	390.2	78.84	5.950		
9,300.0	6,966.2	9,176.0	6,966.2	47.5	43.7	90.00	1,954.8	-836.9	469.1	386.7	82.32	5.698		
9,400.0	6,966.2	9,276.0	6,966.2	49.0	45.3	90.00	2,054.8	-836.0	469.0	383.2	85.84	5.464		
9,500.0	6,966.2	9,376.0	6,966.2	50.6	47.0	90.00	2,154.8	-835.1	469.0	379.6	89.38	5.248		
9,600.0	6,966.2	9,476.0	6,966.2	52.1	48.7	90.00	2,254.8	-834.3	469.0	376.1	92.94	5.046		
9,700.0	6,966.2	9,576.0	6,966.2	53.7	50.4	90.00	2,354.8	-833.4	469.0	372.5	96.52	4.859		
9,800.0	6,966.2	9,676.0	6,966.2	55.3	52.1	90.00	2,454.8	-832.5	469.0	368.9	100.12	4.684		
9,900.0	6,966.2	9,776.0	6,966.2	56.9	53.9	90.00	2,554.8	-831.6	469.0	365.2	103.74	4.521		
10,000.0	6,966.2	9,876.0	6,966.2	58.6	55.6	90.00	2,654.8	-830.7	469.0	361.6	107.37	4.368		
10,100.0	6,966.2	9,976.0	6,966.2	60.2	57.4	90.00	2,754.8	-829.9	468.9	357.9	111.02	4.224		
10,200.0	6,966.2	10,076.0	6,966.2	61.9	59.2	90.00	2,854.8	-829.0	468.9	354.3	114.67	4.089		
10,300.0	6,966.2	10,176.0	6,966.2	63.6	60.9	90.00	2,954.8	-828.1	468.9	350.6	118.34	3.962		
10,400.0	6,966.2	10,276.0	6,966.2	65.3	62.7	90.00	3,054.8	-827.2	468.9	346.9	122.02	3.843		
10,500.0	6,966.2	10,376.0	6,966.2	67.0	64.5	90.00	3,154.8	-826.3	468.9	343.2	125.70	3.730		
10,600.0	6,966.2	10,476.0	6,966.2	68.8	66.3	90.00	3,254.8	-825.5	468.9	339.5	129.40	3.624		
10,700.0	6,966.2	10,576.0	6,966.2	70.5	68.1	90.00	3,354.8	-824.6	468.9	335.8	133.10	3.523		
10,800.0	6,966.2	10,676.0	6,966.2	72.2	69.9	90.00	3,454.8	-823.7	468.8	332.0	136.81	3.427		
10,900.0	6,966.2	10,776.0	6,966.2	74.0	71.8	90.00	3,554.8	-822.8	468.8	328.3	140.52	3.336		
11,000.0	6,966.2	10,876.0	6,966.2	75.8	73.6	90.00	3,654.7	-821.9	468.8	324.6	144.24	3.250		
11,100.0	6,966.2	10,976.0	6,966.2	77.5	75.4	90.00	3,754.7	-821.1	468.8	320.8	147.97	3.168		
11,200.0	6,966.2	11,076.0	6,966.2	79.3	77.2	90.00	3,854.7	-820.2	468.8	317.1	151.70	3.090		
11,300.0	6,966.2	11,176.0	6,966.2	81.1	79.1	90.00	3,954.7	-819.3	468.8	313.3	155.44	3.016		
11,400.0	6,966.2	11,276.0	6,966.2	82.9	80.9	90.00	4,054.7	-818.4	468.8	309.6	159.18	2.945		
11,500.0	6,966.2	11,376.0	6,966.2	84.7	82.8	90.00	4,154.7	-817.5	468.7	305.8	162.92	2.877		
11,600.0	6,966.2	11,476.0	6,966.2	86.5	84.6	90.00	4,254.7	-816.7	468.7	302.1	166.67	2.812		
11,700.0	6,966.2	11,576.0	6,966.2	88.3	86.4	90.00	4,354.7	-815.8	468.7	298.3	170.42	2.750		
11,800.0	6,966.2	11,676.0	6,966.2	90.1	88.3	90.00	4,454.7	-814.9	468.7	294.5	174.18	2.691		
11,841.3	6,966.2	11,717.3	6,966.2	90.9	89.1	90.00	4,496.0	-814.5	468.7	293.0	175.73	2.667		

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	59.9	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	59.9	59.9	59.7	0.22	266.456		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	59.9	59.9	59.2	0.67	88.819		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	59.9	59.9	58.8	1.12	53.291		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	59.9	59.9	58.3	1.57	38.065		
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	59.9	59.9	57.9	2.02	29.606		
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	59.9	59.9	57.4	2.47	24.223		
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	59.9	59.9	57.0	2.92	20.497		
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	59.9	59.9	56.5	3.37	17.764		
900.0	900.0	900.0	900.0	1.9	1.9	90.02	0.0	59.9	59.9	56.1	3.82	15.674		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.02	0.0	59.9	59.9	55.6	4.27	14.024		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.02	0.0	59.9	59.9	55.2	4.72	12.688		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.02	0.0	59.9	59.9	54.7	5.17	11.585		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.02	0.0	59.9	59.9	54.3	5.62	10.658		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.02	0.0	59.9	59.9	53.8	6.07	9.869		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.02	0.0	59.9	59.9	53.4	6.52	9.188		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.02	0.0	59.9	59.9	52.9	6.97	8.595		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.02	0.0	59.9	59.9	52.5	7.42	8.074		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.02	0.0	59.9	59.9	52.0	7.87	7.613		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.02	0.0	59.9	59.9	51.6	8.32	7.202		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.02	0.0	59.9	59.9	51.1	8.77	6.832		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.02	0.0	59.9	59.9	50.7	9.22	6.499		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.02	0.0	59.9	59.9	50.2	9.66	6.197		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.02	0.0	59.9	59.9	49.8	10.11	5.921		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.02	0.0	59.9	59.9	49.3	10.56	5.669		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.02	0.0	59.9	59.9	48.9	11.01	5.438		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.02	0.0	59.9	59.9	48.4	11.46	5.225		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.02	0.0	59.9	59.9	48.0	11.91	5.027		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.02	0.0	59.9	59.9	47.5	12.36	4.845		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.02	0.0	59.9	59.9	47.1	12.81	4.675		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.02	0.0	59.9	59.9	46.6	13.26	4.516		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.02	0.0	59.9	59.9	46.2	13.71	4.368		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.02	0.0	59.9	59.9	45.7	14.16	4.229		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.02	0.0	59.9	59.9	45.3	14.61	4.099		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.02	0.0	59.9	59.9	44.8	15.06	3.977		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.02	0.0	59.9	59.9	44.4	15.51	3.862		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.02	0.0	59.9	59.9	43.9	15.96	3.753		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.02	0.0	59.9	59.9	43.5	16.41	3.650		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.02	0.0	59.9	59.9	43.0	16.86	3.553		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.02	0.0	59.9	59.9	42.6	17.31	3.460		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.02	0.0	59.9	59.9	42.1	17.76	3.373		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.02	0.0	59.9	59.9	41.7	18.21	3.290 CC		
4,127.8	4,127.8	4,127.8	4,127.8	9.2	9.2	-168.41	0.0	59.9	60.0	41.7	18.33	3.273 ES		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-168.51	0.0	59.9	60.5	41.9	18.64	3.247 SF		
4,300.0	4,299.8	4,299.8	4,299.8	9.5	9.6	-169.39	0.0	59.9	65.7	46.7	19.01	3.454		
4,400.0	4,399.3	4,399.3	4,399.3	9.7	9.8	-170.80	0.0	59.9	76.0	56.6	19.34	3.928		
4,500.0	4,498.0	4,498.0	4,498.0	9.9	10.0	-172.30	0.0	59.9	91.4	71.8	19.62	4.661		
4,600.0	4,595.8	4,595.8	4,595.8	10.2	10.2	-173.65	0.0	59.9	112.1	92.2	19.85	5.647		
4,700.0	4,692.4	4,692.4	4,692.4	10.4	10.4	-174.77	0.0	59.9	137.8	117.8	20.03	6.882		
4,800.0	4,787.5	4,787.5	4,787.5	10.7	10.6	-175.65	0.0	59.9	168.6	148.5	20.16	8.364		
4,900.0	4,880.9	4,880.9	4,880.9	11.1	10.9	-176.34	0.0	59.9	204.4	184.2	20.25	10.096		
5,000.0	4,972.2	4,972.2	4,972.2	11.5	11.1	-176.88	0.0	59.9	245.0	224.7	20.28	12.079		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West PadSec.1-T1N-R65W - Taoka KF 01-023HC - Wellbore #1 - Plan #1 (11-15-13)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	5,061.3	5,061.3	5,061.3	12.1	11.3	-177.29	0.0	59.9	290.4	270.1	20.28	14.318		
5,200.0	5,148.0	5,148.0	5,148.0	12.7	11.5	-177.64	0.0	59.9	340.1	319.7	20.39	16.681		
5,300.0	5,234.2	5,234.2	5,234.2	13.4	11.7	-177.95	0.0	59.9	390.8	370.0	20.81	18.781		
5,400.0	5,320.3	5,320.3	5,320.3	14.2	11.8	-178.18	0.0	59.9	441.6	420.4	21.25	20.786		
5,500.0	5,406.5	5,406.5	5,406.5	15.0	12.0	-178.37	0.0	59.9	492.4	470.7	21.69	22.700		
5,600.0	5,492.6	5,492.6	5,492.6	15.8	12.2	-178.52	0.0	59.9	543.2	521.0	22.15	24.526		
5,700.0	5,578.7	5,611.1	5,611.0	16.7	12.5	-178.57	-1.7	57.1	591.8	569.2	22.65	26.126		
5,800.0	5,664.9	5,740.2	5,739.6	17.6	12.7	-178.33	-7.7	46.9	635.0	611.8	23.16	27.413		
5,900.0	5,751.0	5,876.8	5,874.4	18.6	13.0	-177.82	-18.8	27.9	672.2	648.5	23.71	28.354		
6,000.0	5,837.2	6,020.0	6,013.6	19.5	13.3	-177.05	-35.7	-0.8	703.0	678.7	24.29	28.944		
6,100.0	5,923.3	6,168.5	6,154.9	20.5	13.7	-176.01	-58.7	-39.9	727.1	702.2	24.92	29.174		
6,200.0	6,009.4	6,320.8	6,295.7	21.5	14.2	-174.69	-88.0	-89.8	744.2	718.5	25.63	29.039		
6,300.0	6,095.6	6,475.0	6,433.2	22.5	14.9	-173.07	-123.4	-150.1	754.1	727.7	26.43	28.530		
6,400.0	6,181.7	6,594.1	6,535.7	23.5	15.5	-171.63	-154.1	-202.2	758.5	731.3	27.23	27.856		
6,500.0	6,267.8	6,692.7	6,620.3	24.5	16.2	-170.43	-179.8	-245.9	762.8	734.8	28.03	27.217		
6,600.0	6,354.0	6,791.3	6,704.9	25.6	16.8	-169.24	-205.5	-289.6	767.4	738.5	28.89	26.564		
6,700.0	6,440.1	6,892.0	6,792.9	26.6	17.4	-168.76	-222.1	-335.1	772.2	742.6	29.68	26.021		
6,800.0	6,526.3	6,990.5	6,880.2	27.7	18.0	-169.93	-216.4	-379.9	777.0	746.9	30.12	25.798		
6,900.0	6,612.7	7,080.8	6,957.5	28.6	18.4	-169.71	-192.1	-419.5	782.8	752.4	30.34	25.803		
7,000.0	6,697.6	7,166.4	7,025.4	29.4	18.8	-147.25	-153.2	-454.0	789.3	758.6	30.74	25.681		
7,100.0	6,776.7	7,250.0	7,084.0	30.2	19.0	-131.01	-101.7	-483.7	796.1	764.7	31.38	25.369		
7,200.0	6,846.0	7,328.1	7,130.1	30.8	19.3	-120.34	-43.2	-506.9	802.4	770.2	32.18	24.932		
7,300.0	6,901.9	7,405.9	7,166.2	31.2	19.5	-113.51	23.2	-524.9	807.7	774.7	33.04	24.444		
7,400.0	6,941.4	7,482.5	7,191.1	31.6	19.7	-109.43	94.5	-537.1	811.5	777.6	33.88	23.949		
7,500.0	6,962.7	7,558.4	7,204.6	31.8	19.9	-107.49	168.8	-543.4	813.4	778.8	34.69	23.450		
7,600.0	6,966.2	7,641.9	7,207.2	32.0	20.2	-107.23	252.2	-544.0	813.6	778.0	35.63	22.838		
7,700.0	6,966.2	7,741.9	7,207.2	32.2	20.7	-107.23	352.2	-543.2	813.6	776.6	36.98	22.003		
7,800.0	6,966.2	7,841.9	7,207.2	32.5	21.4	-107.23	452.2	-542.3	813.6	775.0	38.63	21.061		
7,900.0	6,966.2	7,941.9	7,207.2	32.9	22.2	-107.23	552.2	-541.4	813.6	773.0	40.55	20.063		
8,000.0	6,966.2	8,041.9	7,207.2	33.4	23.2	-107.23	652.2	-540.5	813.6	770.9	42.70	19.052		
8,100.0	6,966.2	8,141.9	7,207.2	34.0	24.3	-107.23	752.2	-539.6	813.6	768.5	45.05	18.057		
8,200.0	6,966.2	8,241.9	7,207.2	34.7	25.5	-107.23	852.2	-538.8	813.6	766.0	47.57	17.101		
8,300.0	6,966.2	8,341.9	7,207.2	35.5	26.7	-107.23	952.1	-537.9	813.5	763.3	50.24	16.194		
8,400.0	6,966.2	8,441.9	7,207.2	36.4	28.1	-107.23	1,052.1	-537.0	813.5	760.5	53.02	15.343		
8,500.0	6,966.2	8,541.9	7,207.2	37.3	29.5	-107.23	1,152.1	-536.1	813.5	757.6	55.91	14.550		
8,600.0	6,966.2	8,641.9	7,207.2	38.4	31.0	-107.23	1,252.1	-535.2	813.5	754.6	58.89	13.814		
8,700.0	6,966.2	8,741.9	7,207.2	39.5	32.5	-107.23	1,352.1	-534.4	813.5	751.5	61.94	13.133		
8,800.0	6,966.2	8,841.9	7,207.2	40.7	34.1	-107.23	1,452.1	-533.5	813.5	748.4	65.06	12.504		
8,900.0	6,966.2	8,941.9	7,207.2	42.0	35.7	-107.23	1,552.1	-532.6	813.5	745.2	68.23	11.922		
9,000.0	6,966.2	9,041.9	7,207.2	43.3	37.3	-107.23	1,652.1	-531.7	813.4	742.0	71.45	11.384		
9,100.0	6,966.2	9,141.9	7,207.2	44.7	38.9	-107.23	1,752.1	-530.8	813.4	738.7	74.72	10.886		
9,200.0	6,966.2	9,241.9	7,207.2	46.1	40.6	-107.23	1,852.1	-530.0	813.4	735.4	78.02	10.426		
9,300.0	6,966.2	9,341.9	7,207.2	47.5	42.3	-107.23	1,952.1	-529.1	813.4	732.0	81.36	9.998		
9,400.0	6,966.2	9,441.9	7,207.2	49.0	44.0	-107.24	2,052.1	-528.2	813.4	728.7	84.72	9.601		
9,500.0	6,966.2	9,541.9	7,207.2	50.6	45.7	-107.24	2,152.1	-527.3	813.4	725.3	88.11	9.232		
9,600.0	6,966.2	9,641.9	7,207.2	52.1	47.5	-107.24	2,252.1	-526.5	813.4	721.8	91.52	8.887		
9,700.0	6,966.2	9,741.9	7,207.2	53.7	49.2	-107.24	2,352.1	-525.6	813.3	718.4	94.95	8.566		
9,800.0	6,966.2	9,841.9	7,207.2	55.3	51.0	-107.24	2,452.1	-524.7	813.3	714.9	98.40	8.266		
9,900.0	6,966.2	9,941.9	7,207.2	56.9	52.8	-107.24	2,552.1	-523.8	813.3	711.5	101.86	7.985		
10,000.0	6,966.2	10,041.9	7,207.2	58.6	54.6	-107.24	2,652.1	-522.9	813.3	708.0	105.34	7.721		
10,100.0	6,966.2	10,141.9	7,207.2	60.2	56.4	-107.24	2,752.1	-522.1	813.3	704.5	108.83	7.473		
10,200.0	6,966.2	10,241.9	7,207.2	61.9	58.2	-107.24	2,852.1	-521.2	813.3	700.9	112.34	7.239		

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

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design Taoka West PadSec.1-T1N-R65W - Taoka KF 01-023HC - Wellbore #1 - Plan #1 (11-15-13)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.0	6,966.2	10,341.9	7,207.2	63.6	60.0	107.24	2,952.1	-520.3	813.3	697.4	115.85	7.020	
10,400.0	6,966.2	10,441.9	7,207.2	65.3	61.8	107.24	3,052.1	-519.4	813.2	693.9	119.38	6.812	
10,500.0	6,966.2	10,541.9	7,207.2	67.0	63.6	107.24	3,152.1	-518.5	813.2	690.3	122.91	6.616	
10,600.0	6,966.2	10,641.9	7,207.2	68.8	65.4	107.24	3,252.1	-517.7	813.2	686.8	126.46	6.431	
10,700.0	6,966.2	10,741.9	7,207.2	70.5	67.3	107.24	3,352.1	-516.8	813.2	683.2	130.01	6.255	
10,800.0	6,966.2	10,841.9	7,207.2	72.2	69.1	107.24	3,452.1	-515.9	813.2	679.6	133.56	6.088	
10,900.0	6,966.2	10,941.9	7,207.2	74.0	71.0	107.24	3,552.0	-515.0	813.2	676.0	137.13	5.930	
11,000.0	6,966.2	11,041.9	7,207.2	75.8	72.8	107.24	3,652.0	-514.1	813.2	672.5	140.70	5.779	
11,100.0	6,966.2	11,141.9	7,207.2	77.5	74.6	107.24	3,752.0	-513.3	813.1	668.9	144.27	5.636	
11,200.0	6,966.2	11,241.9	7,207.2	79.3	76.5	107.24	3,852.0	-512.4	813.1	665.3	147.85	5.500	
11,300.0	6,966.2	11,341.9	7,207.2	81.1	78.3	107.24	3,952.0	-511.5	813.1	661.7	151.44	5.369	
11,400.0	6,966.2	11,441.9	7,207.2	82.9	80.2	107.24	4,052.0	-510.6	813.1	658.1	155.03	5.245	
11,500.0	6,966.2	11,541.9	7,207.2	84.7	82.1	107.24	4,152.0	-509.7	813.1	654.5	158.62	5.126	
11,600.0	6,966.2	11,641.9	7,207.2	86.5	83.9	107.24	4,252.0	-508.9	813.1	650.9	162.22	5.012	
11,700.0	6,966.2	11,741.9	7,207.2	88.3	85.8	107.24	4,352.0	-508.0	813.1	647.2	165.82	4.903	
11,800.0	6,966.2	11,841.9	7,207.2	90.1	87.7	107.24	4,452.0	-507.1	813.0	643.6	169.43	4.799	
11,841.3	6,966.2	11,883.2	7,207.2	90.9	88.4	107.24	4,493.3	-506.7	813.0	642.1	170.92	4.757	

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	90.1	90.1					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	90.1	90.1	89.9	0.22	400.930		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	90.1	90.1	89.4	0.67	133.643		
300.0	300.0	300.0	300.0	0.6	0.6	90.02	0.0	90.1	90.1	89.0	1.12	80.186		
400.0	400.0	400.0	400.0	0.8	0.8	90.02	0.0	90.1	90.1	88.5	1.57	57.276		
500.0	500.0	500.0	500.0	1.0	1.0	90.02	0.0	90.1	90.1	88.1	2.02	44.548		
600.0	600.0	600.0	600.0	1.2	1.2	90.02	0.0	90.1	90.1	87.6	2.47	36.448		
700.0	700.0	700.0	700.0	1.5	1.5	90.02	0.0	90.1	90.1	87.2	2.92	30.841		
800.0	800.0	800.0	800.0	1.7	1.7	90.02	0.0	90.1	90.1	86.7	3.37	26.729		
900.0	900.0	900.0	900.0	1.9	1.9	90.02	0.0	90.1	90.1	86.3	3.82	23.584		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	90.02	0.0	90.1	90.1	85.8	4.27	21.102		
1,100.0	1,100.0	1,100.0	1,100.0	2.4	2.4	90.02	0.0	90.1	90.1	85.4	4.72	19.092		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	90.02	0.0	90.1	90.1	84.9	5.17	17.432		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	90.02	0.0	90.1	90.1	84.5	5.62	16.037		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	90.02	0.0	90.1	90.1	84.0	6.07	14.849		
1,500.0	1,500.0	1,500.0	1,500.0	3.3	3.3	90.02	0.0	90.1	90.1	83.6	6.52	13.825		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	90.02	0.0	90.1	90.1	83.1	6.97	12.933		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	90.02	0.0	90.1	90.1	82.7	7.42	12.149		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	90.02	0.0	90.1	90.1	82.2	7.87	11.455		
1,900.0	1,900.0	1,900.0	1,900.0	4.2	4.2	90.02	0.0	90.1	90.1	81.8	8.32	10.836		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	90.02	0.0	90.1	90.1	81.3	8.77	10.280		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	90.02	0.0	90.1	90.1	80.9	9.22	9.779		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	90.02	0.0	90.1	90.1	80.5	9.66	9.324		
2,300.0	2,300.0	2,300.0	2,300.0	5.1	5.1	90.02	0.0	90.1	90.1	80.0	10.11	8.910		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	90.02	0.0	90.1	90.1	79.6	10.56	8.530		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	90.02	0.0	90.1	90.1	79.1	11.01	8.182		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	90.02	0.0	90.1	90.1	78.7	11.46	7.861		
2,700.0	2,700.0	2,700.0	2,700.0	6.0	6.0	90.02	0.0	90.1	90.1	78.2	11.91	7.565		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	90.02	0.0	90.1	90.1	77.8	12.36	7.290		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	90.02	0.0	90.1	90.1	77.3	12.81	7.034		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	90.02	0.0	90.1	90.1	76.9	13.26	6.795		
3,100.0	3,100.0	3,100.0	3,100.0	6.9	6.9	90.02	0.0	90.1	90.1	76.4	13.71	6.573		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	90.02	0.0	90.1	90.1	76.0	14.16	6.364		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	90.02	0.0	90.1	90.1	75.5	14.61	6.168		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	90.02	0.0	90.1	90.1	75.1	15.06	5.984		
3,500.0	3,500.0	3,500.0	3,500.0	7.8	7.8	90.02	0.0	90.1	90.1	74.6	15.51	5.811		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	8.0	90.02	0.0	90.1	90.1	74.2	15.96	5.647		
3,700.0	3,700.0	3,700.0	3,700.0	8.2	8.2	90.02	0.0	90.1	90.1	73.7	16.41	5.492		
3,800.0	3,800.0	3,800.0	3,800.0	8.4	8.4	90.02	0.0	90.1	90.1	73.3	16.86	5.346		
3,900.0	3,900.0	3,900.0	3,900.0	8.7	8.7	90.02	0.0	90.1	90.1	72.8	17.31	5.207		
4,000.0	4,000.0	4,000.0	4,000.0	8.9	8.9	90.02	0.0	90.1	90.1	72.4	17.76	5.075		
4,100.0	4,100.0	4,100.0	4,100.0	9.1	9.1	90.02	0.0	90.1	90.1	71.9	18.21	4.950 CC		
4,127.8	4,127.8	4,127.8	4,127.8	9.2	9.2	-168.41	0.0	90.1	90.2	71.9	18.33	4.922 ES		
4,200.0	4,200.0	4,200.0	4,200.0	9.3	9.3	-168.47	0.0	90.1	90.8	72.1	18.64	4.869 SF		
4,300.0	4,299.8	4,299.8	4,299.8	9.5	9.6	-169.07	0.0	90.1	95.9	76.9	19.01	5.043		
4,400.0	4,399.3	4,399.3	4,399.3	9.7	9.8	-170.08	0.0	90.1	106.2	86.8	19.34	5.489		
4,500.0	4,498.0	4,498.0	4,498.0	9.9	10.0	-171.28	0.0	90.1	121.6	102.0	19.62	6.198		
4,600.0	4,595.8	4,595.8	4,595.8	10.2	10.2	-172.47	0.0	90.1	142.2	122.4	19.85	7.163		
4,700.0	4,692.4	4,692.4	4,692.4	10.4	10.4	-173.54	0.0	90.1	167.9	147.9	20.03	8.381		
4,800.0	4,787.5	4,787.5	4,787.5	10.7	10.6	-174.45	0.0	90.1	198.6	178.5	20.17	9.851		
4,900.0	4,880.9	4,880.9	4,880.9	11.1	10.9	-175.20	0.0	90.1	234.4	214.1	20.25	11.572		
5,000.0	4,972.2	4,972.2	4,972.2	11.5	11.1	-175.81	0.0	90.1	274.9	254.6	20.29	13.549		

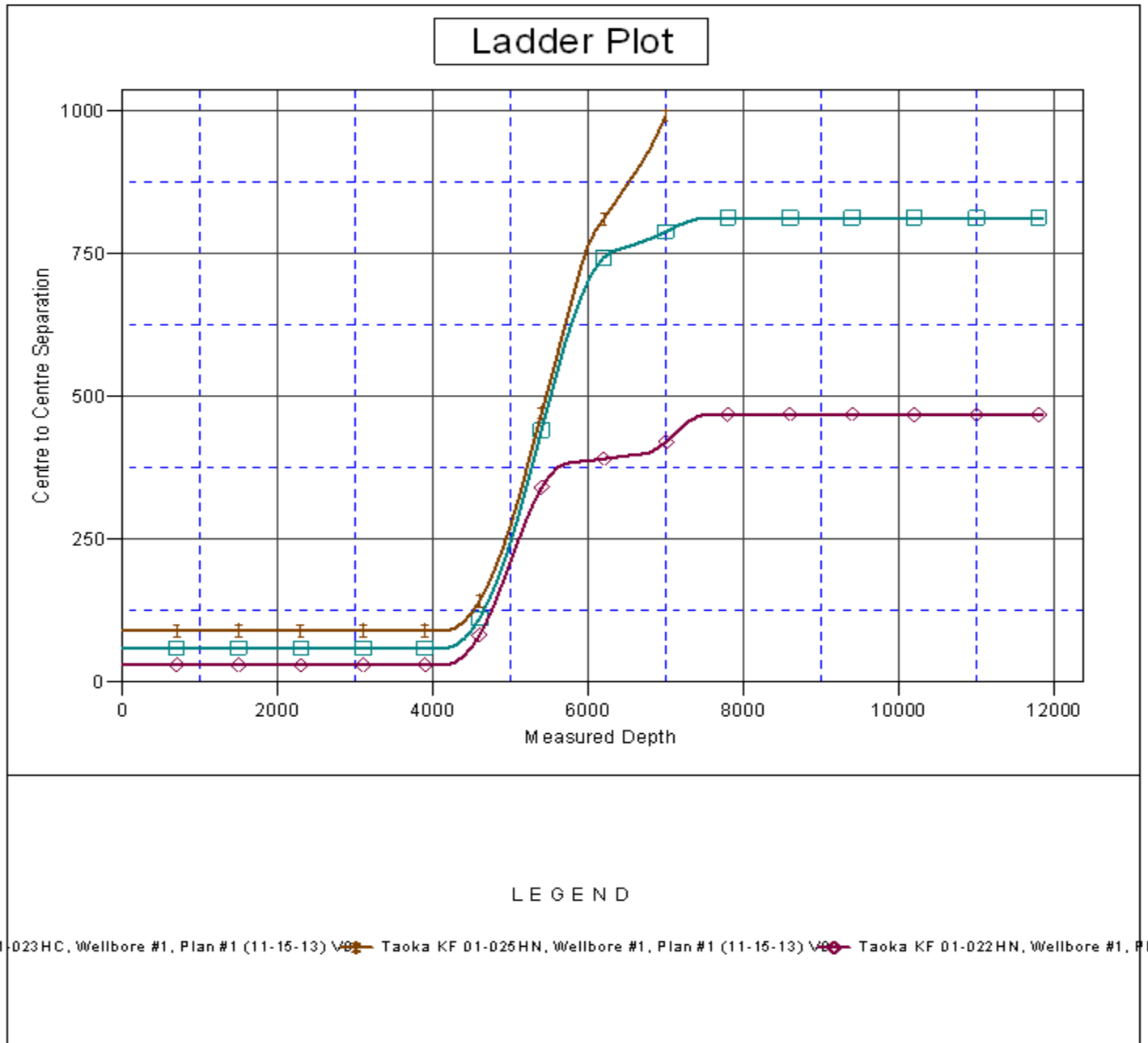
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Taoka West PadSec.1-T1N-R65W - Taoka KF 01-025HN - Wellbore #1 - Plan #1 (11-15-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,100.0	5,061.3	5,061.3	5,061.3	12.1	11.3	-176.31	0.0	90.1	320.2	299.9	20.29	15.786		
5,200.0	5,148.0	5,148.0	5,148.0	12.7	11.5	-176.74	0.0	90.1	369.9	349.5	20.39	18.139		
5,300.0	5,234.2	5,234.2	5,234.2	13.4	11.7	-177.13	0.0	90.1	420.7	399.8	20.82	20.208		
5,400.0	5,320.3	5,320.3	5,320.3	14.2	11.8	-177.44	0.0	90.1	471.4	450.2	21.25	22.183		
5,500.0	5,406.5	5,406.5	5,406.5	15.0	12.0	-177.69	0.0	90.1	522.2	500.5	21.70	24.067		
5,600.0	5,492.6	5,492.6	5,492.6	15.8	12.2	-177.89	0.0	90.1	572.9	550.8	22.15	25.864		
5,700.0	5,578.7	5,578.7	5,578.7	16.7	12.4	-178.07	0.0	90.1	623.7	601.1	22.62	27.577		
5,800.0	5,664.9	5,664.9	5,664.9	17.6	12.6	-178.21	0.0	90.1	674.5	651.4	23.09	29.211		
5,900.0	5,751.0	5,775.9	5,775.8	18.6	12.9	-178.30	-0.9	89.5	724.9	701.3	23.60	30.712		
6,000.0	5,837.2	5,979.9	5,977.0	19.5	13.2	-176.79	-26.5	71.3	766.0	741.8	24.25	31.585		
6,100.0	5,923.3	6,197.3	6,178.8	20.5	13.7	-173.01	-91.4	25.2	793.0	767.9	25.12	31.569		
6,200.0	6,009.4	6,309.3	6,276.1	21.5	14.1	-170.43	-136.7	-7.0	811.5	785.6	25.92	31.312		
6,300.0	6,095.6	6,402.4	6,356.8	22.5	14.4	-168.36	-174.7	-33.9	831.0	804.3	26.75	31.065		
6,400.0	6,181.7	6,500.0	6,443.4	23.5	14.9	-166.71	-208.5	-62.9	851.5	823.8	27.65	30.789		
6,500.0	6,267.8	6,604.2	6,541.2	24.5	15.3	-166.57	-222.1	-95.4	871.6	843.2	28.37	30.723		
6,600.0	6,354.0	6,704.0	6,635.3	25.6	15.6	-167.94	-212.2	-126.4	891.3	862.6	28.77	30.976		
6,700.0	6,440.1	6,791.0	6,713.9	26.6	15.8	-170.22	-185.5	-152.2	912.0	883.1	28.97	31.482		
6,800.0	6,526.3	6,862.2	6,773.5	27.7	15.9	-172.73	-151.9	-171.7	935.7	906.6	29.13	32.123		
6,900.0	6,612.7	6,925.0	6,821.2	28.6	15.9	-164.12	-114.3	-187.2	963.4	934.0	29.42	32.744		
7,000.0	6,697.6	6,980.8	6,859.0	29.4	16.0	138.58	-75.1	-199.4	992.6	962.2	30.42	32.632		

Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4976.2ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Taoka KF 01-021HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



Company:	Great Western	Local Co-ordinate Reference:	Well Taoka KF 01-021HN
Project:	SEC.1-T1N-R65W	TVD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Reference Site:	Taoka West PadSec.1-T1N-R65W	MD Reference:	WELL @ 4976.2ft (RKB - 16.5')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Taoka KF 01-021HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-15-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4976.2ft (RKB - 16.5')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Taoka KF 01-021HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

