



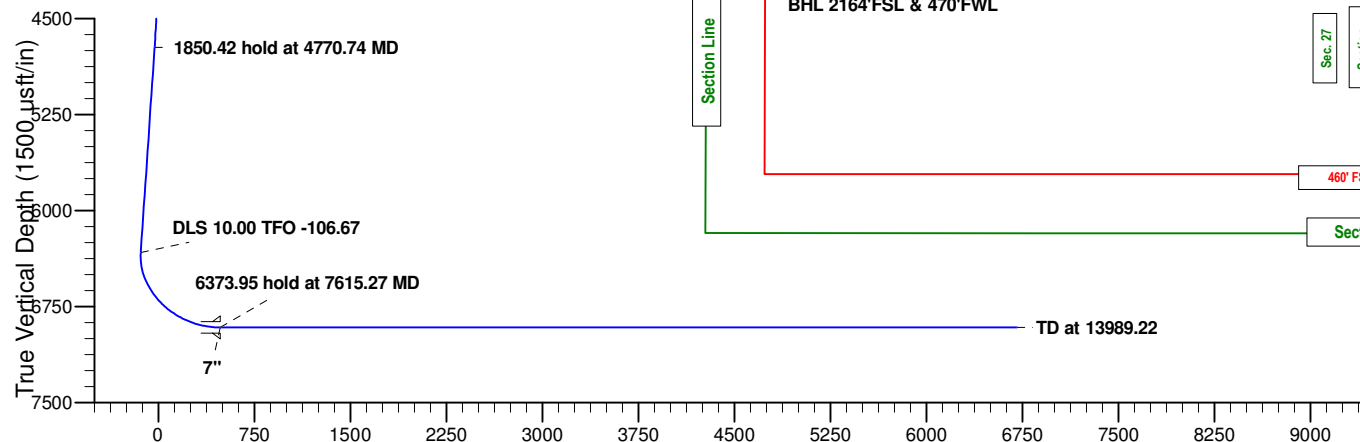
Project: Weld Co., CO
Site: Sec.26-T6N-R7W
Well: Kodak South FD 27-222HN
Wellbore: Wellbore #1
Design: Design #1
Lat: 40° 27' 9.680 N
Long: 104° 51' 50.090 W
GL: 4742.60
KB: WELL @ 4758.80usft (Original Well Elev)



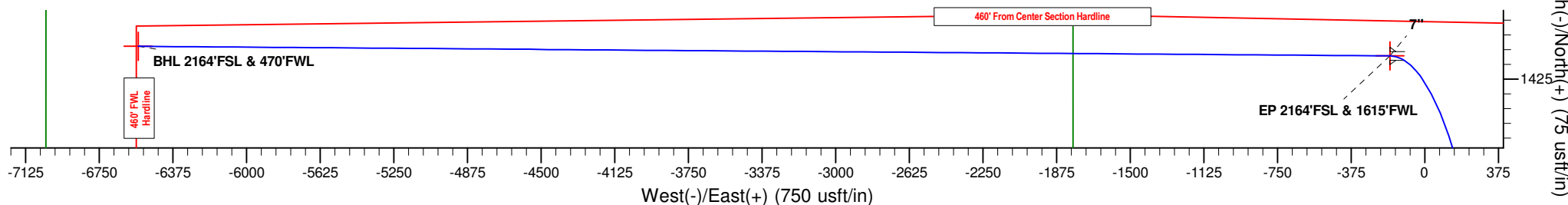
M Azimuths to True North
Magnetic North: 8.55°

Magnetic Field
Strength: 52859.8snT
Dip Angle: 66.98°
Date: 03/14/2014
Model: IGRF2010

CASING DETAILS:
TVD MD Name Size
6912.80 7615.27 7" 7"



Vertical Section at 282.41° (1500 usft/in)



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 2164'FSL & 470'FWL	6912.80	1441.70	-6551.77	40° 27' 23.918 N	104° 53' 14.849 W	
EP 2164'FSL & 1615'FWL	6912.80	1436.82	-177.82	40° 27' 23.879 N	104° 51' 52.391 W	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3770.00	0.00	0.00	3770.00	0.00	0.00	0.00	0.00	0.00	Build 3.00
4770.74	30.02	19.12	4725.57	242.11	83.93	3.00	19.12	-29.94	1850.42 hold at 4770.74 MD
6621.15	30.02	19.12	6327.72	1116.86	387.18	0.00	0.00	-138.12	DLS 10.00 TFO -106.67
7615.27	90.00	270.04	6912.80	1436.82	-177.82	10.00	-106.67	482.45	6373.95 hold at 7615.27 MD
13989.22	90.00	270.04	6912.80	1441.70	-6551.77	0.00	0.00	6708.51	TD at 13989.22



Great Western Oil & Gas

Weld Co., CO

Sec.26-T6N-R7W

Kodak South FD 27-222HN

Wellbore #1

Plan: Design #1

Standard Planning Report

18 March, 2014



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site:	Sec.26-T6N-R7W	North Reference:	True
Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec.26-T6N-R7W				
Site Position:		Northing:	1,408,389.86 usft	Latitude:	40° 27' 9.691 N
From:	Lat/Long	Easting:	3,176,867.33 usft	Longitude:	104° 51' 52.031 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41

Well	Kodak South FD 27-222HN					
Well Position	+N/-S	-1.11 usft	Northing:	1,408,389.83 usft	Latitude:	40° 27' 9.680 N
	+E/-W	150.00 usft	Easting:	3,177,017.33 usft	Longitude:	104° 51' 50.090 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,742.60 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/14/14	8.55	66.98	52,860

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	282.41

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,770.00	0.00	0.00	3,770.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,770.74	30.02	19.12	4,725.57	242.11	83.93	3.00	3.00	0.00	19.12	
6,621.15	30.02	19.12	6,327.72	1,116.86	387.18	0.00	0.00	0.00	0.00	
7,615.27	90.00	270.04	6,912.80	1,436.82	-177.82	10.00	6.03	-10.97	-106.67	EP 2164'FSL & 1615'
13,989.22	90.00	270.04	6,912.80	1,441.70	-6,551.77	0.00	0.00	0.00	0.00	BHL 2164'FSL & 470'

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site:	Sec.26-T6N-R7W	North Reference:	True
Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,770.00	0.00	0.00	3,770.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 3.00									
3,800.00	0.90	19.12	3,800.00	0.22	0.08	-0.03	3.00	3.00	0.00
3,900.00	3.90	19.12	3,899.90	4.18	1.45	-0.52	3.00	3.00	0.00
4,000.00	6.90	19.12	3,999.44	13.07	4.53	-1.62	3.00	3.00	0.00
4,100.00	9.90	19.12	4,098.36	26.87	9.32	-3.32	3.00	3.00	0.00
4,200.00	12.90	19.12	4,196.38	45.54	15.79	-5.63	3.00	3.00	0.00
4,300.00	15.90	19.12	4,293.22	69.04	23.93	-8.54	3.00	3.00	0.00
4,400.00	18.90	19.12	4,388.64	97.29	33.73	-12.03	3.00	3.00	0.00
4,500.00	21.90	19.12	4,482.35	130.22	45.14	-16.10	3.00	3.00	0.00
4,600.00	24.90	19.12	4,574.12	167.74	58.15	-20.74	3.00	3.00	0.00
4,700.00	27.90	19.12	4,663.68	209.75	72.71	-25.94	3.00	3.00	0.00
4,770.74	30.02	19.12	4,725.57	242.11	83.93	-29.94	3.00	3.00	0.00
1850.42 hold at 4770.74 MD									
4,800.00	30.02	19.12	4,750.90	255.94	88.73	-31.65	0.00	0.00	0.00
4,900.00	30.02	19.12	4,837.49	303.21	105.11	-37.50	0.00	0.00	0.00

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Project:	Weld Co., CO	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site:	Sec.26-T6N-R7W	North Reference:	True
Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,000.00	30.02	19.12	4,924.07	350.49	121.50	-43.34	0.00	0.00	0.00	
5,100.00	30.02	19.12	5,010.65	397.76	137.89	-49.19	0.00	0.00	0.00	
5,200.00	30.02	19.12	5,097.24	445.03	154.28	-55.03	0.00	0.00	0.00	
5,300.00	30.02	19.12	5,183.82	492.31	170.67	-60.88	0.00	0.00	0.00	
5,400.00	30.02	19.12	5,270.40	539.58	187.06	-66.73	0.00	0.00	0.00	
5,500.00	30.02	19.12	5,356.99	586.85	203.44	-72.57	0.00	0.00	0.00	
5,600.00	30.02	19.12	5,443.57	634.13	219.83	-78.42	0.00	0.00	0.00	
5,700.00	30.02	19.12	5,530.15	681.40	236.22	-84.26	0.00	0.00	0.00	
5,800.00	30.02	19.12	5,616.74	728.67	252.61	-90.11	0.00	0.00	0.00	
5,900.00	30.02	19.12	5,703.32	775.95	269.00	-95.96	0.00	0.00	0.00	
6,000.00	30.02	19.12	5,789.90	823.22	285.39	-101.80	0.00	0.00	0.00	
6,100.00	30.02	19.12	5,876.49	870.49	301.77	-107.65	0.00	0.00	0.00	
6,200.00	30.02	19.12	5,963.07	917.77	318.16	-113.50	0.00	0.00	0.00	
6,300.00	30.02	19.12	6,049.65	965.04	334.55	-119.34	0.00	0.00	0.00	
6,400.00	30.02	19.12	6,136.24	1,012.31	350.94	-125.19	0.00	0.00	0.00	
6,500.00	30.02	19.12	6,222.82	1,059.59	367.33	-131.03	0.00	0.00	0.00	
6,600.00	30.02	19.12	6,309.40	1,106.86	383.71	-136.88	0.00	0.00	0.00	
6,621.15	30.02	19.12	6,327.72	1,116.86	387.18	-138.12	0.00	0.00	0.00	
DLS 10.00 TFO -106.67										
6,650.00	29.31	13.47	6,352.79	1,130.55	391.19	-139.09	10.00	-2.46	-19.59	
6,700.00	28.68	3.23	6,396.55	1,154.44	394.72	-137.40	10.00	-1.27	-20.48	
6,750.00	28.83	352.83	6,440.41	1,178.40	393.89	-131.44	10.00	0.31	-20.80	
6,800.00	29.77	342.78	6,484.04	1,202.23	388.70	-121.26	10.00	1.87	-20.10	
6,850.00	31.41	333.49	6,527.11	1,225.76	379.21	-106.93	10.00	3.28	-18.59	
6,900.00	33.65	325.17	6,569.28	1,248.80	365.47	-88.56	10.00	4.49	-16.64	
6,950.00	36.39	317.87	6,610.24	1,271.18	347.60	-66.29	10.00	5.47	-14.60	
7,000.00	39.51	311.51	6,649.68	1,292.74	325.72	-40.30	10.00	6.25	-12.71	
7,050.00	42.94	305.98	6,687.29	1,313.30	300.01	-10.77	10.00	6.85	-11.06	
7,100.00	46.60	301.14	6,722.80	1,332.71	270.67	22.06	10.00	7.32	-9.68	
7,150.00	50.44	296.86	6,755.92	1,350.83	237.91	57.95	10.00	7.68	-8.55	
7,200.00	54.42	293.04	6,786.41	1,367.50	201.98	96.62	10.00	7.96	-7.64	
7,250.00	58.51	289.59	6,814.03	1,382.62	163.16	137.78	10.00	8.18	-6.91	
7,300.00	62.68	286.43	6,838.58	1,396.06	121.75	181.12	10.00	8.35	-6.32	
7,350.00	66.92	283.50	6,859.86	1,407.72	78.05	226.30	10.00	8.48	-5.86	
7,400.00	71.21	280.75	6,877.72	1,417.50	32.40	272.98	10.00	8.58	-5.50	
7,450.00	75.54	278.14	6,892.03	1,425.35	-14.84	320.81	10.00	8.66	-5.22	
7,500.00	79.90	275.63	6,902.66	1,431.20	-63.33	369.43	10.00	8.71	-5.02	
7,550.00	84.27	273.18	6,909.54	1,434.99	-112.70	418.45	10.00	8.75	-4.89	
7,600.00	88.66	270.78	6,912.62	1,436.71	-162.55	467.51	10.00	8.77	-4.81	
7,615.27	90.00	270.04	6,912.80	1,436.82	-177.82	482.45	10.00	8.78	-4.79	
6373.95 hold at 7615.27 MD										
7,700.00	90.00	270.04	6,912.80	1,436.89	-262.55	565.21	0.00	0.00	0.00	
7,800.00	90.00	270.04	6,912.80	1,436.96	-362.55	662.89	0.00	0.00	0.00	
7,900.00	90.00	270.04	6,912.80	1,437.04	-462.55	760.57	0.00	0.00	0.00	
8,000.00	90.00	270.04	6,912.80	1,437.12	-562.55	858.25	0.00	0.00	0.00	
8,100.00	90.00	270.04	6,912.80	1,437.19	-662.55	955.93	0.00	0.00	0.00	
8,200.00	90.00	270.04	6,912.80	1,437.27	-762.55	1,053.61	0.00	0.00	0.00	
8,300.00	90.00	270.04	6,912.80	1,437.35	-862.55	1,151.29	0.00	0.00	0.00	
8,400.00	90.00	270.04	6,912.80	1,437.42	-962.55	1,248.97	0.00	0.00	0.00	
8,500.00	90.00	270.04	6,912.80	1,437.50	-1,062.55	1,346.65	0.00	0.00	0.00	
8,600.00	90.00	270.04	6,912.80	1,437.58	-1,162.55	1,444.33	0.00	0.00	0.00	
8,700.00	90.00	270.04	6,912.80	1,437.65	-1,262.55	1,542.01	0.00	0.00	0.00	
8,800.00	90.00	270.04	6,912.80	1,437.73	-1,362.55	1,639.69	0.00	0.00	0.00	
8,900.00	90.00	270.04	6,912.80	1,437.80	-1,462.55	1,737.37	0.00	0.00	0.00	

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Project:	Weld Co., CO	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site:	Sec.26-T6N-R7W	North Reference:	True
Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,000.00	90.00	270.04	6,912.80	1,437.88	-1,562.55	1,835.05	0.00	0.00	0.00	
9,100.00	90.00	270.04	6,912.80	1,437.96	-1,662.55	1,932.73	0.00	0.00	0.00	
9,200.00	90.00	270.04	6,912.80	1,438.03	-1,762.55	2,030.41	0.00	0.00	0.00	
9,300.00	90.00	270.04	6,912.80	1,438.11	-1,862.55	2,128.09	0.00	0.00	0.00	
9,400.00	90.00	270.04	6,912.80	1,438.19	-1,962.55	2,225.77	0.00	0.00	0.00	
9,500.00	90.00	270.04	6,912.80	1,438.26	-2,062.55	2,323.45	0.00	0.00	0.00	
9,600.00	90.00	270.04	6,912.80	1,438.34	-2,162.55	2,421.13	0.00	0.00	0.00	
9,700.00	90.00	270.04	6,912.80	1,438.42	-2,262.55	2,518.81	0.00	0.00	0.00	
9,800.00	90.00	270.04	6,912.80	1,438.49	-2,362.55	2,616.49	0.00	0.00	0.00	
9,900.00	90.00	270.04	6,912.80	1,438.57	-2,462.55	2,714.17	0.00	0.00	0.00	
10,000.00	90.00	270.04	6,912.80	1,438.65	-2,562.55	2,811.85	0.00	0.00	0.00	
10,100.00	90.00	270.04	6,912.80	1,438.72	-2,662.55	2,909.53	0.00	0.00	0.00	
10,200.00	90.00	270.04	6,912.80	1,438.80	-2,762.55	3,007.21	0.00	0.00	0.00	
10,300.00	90.00	270.04	6,912.80	1,438.88	-2,862.55	3,104.89	0.00	0.00	0.00	
10,400.00	90.00	270.04	6,912.80	1,438.95	-2,962.55	3,202.57	0.00	0.00	0.00	
10,500.00	90.00	270.04	6,912.80	1,439.03	-3,062.55	3,300.25	0.00	0.00	0.00	
10,600.00	90.00	270.04	6,912.80	1,439.11	-3,162.55	3,397.93	0.00	0.00	0.00	
10,700.00	90.00	270.04	6,912.80	1,439.18	-3,262.55	3,495.61	0.00	0.00	0.00	
10,800.00	90.00	270.04	6,912.80	1,439.26	-3,362.55	3,593.29	0.00	0.00	0.00	
10,900.00	90.00	270.04	6,912.80	1,439.33	-3,462.55	3,690.97	0.00	0.00	0.00	
11,000.00	90.00	270.04	6,912.80	1,439.41	-3,562.55	3,788.65	0.00	0.00	0.00	
11,100.00	90.00	270.04	6,912.80	1,439.49	-3,662.55	3,886.33	0.00	0.00	0.00	
11,200.00	90.00	270.04	6,912.80	1,439.56	-3,762.55	3,984.01	0.00	0.00	0.00	
11,300.00	90.00	270.04	6,912.80	1,439.64	-3,862.55	4,081.69	0.00	0.00	0.00	
11,400.00	90.00	270.04	6,912.80	1,439.72	-3,962.55	4,179.37	0.00	0.00	0.00	
11,500.00	90.00	270.04	6,912.80	1,439.79	-4,062.55	4,277.05	0.00	0.00	0.00	
11,600.00	90.00	270.04	6,912.80	1,439.87	-4,162.55	4,374.73	0.00	0.00	0.00	
11,700.00	90.00	270.04	6,912.80	1,439.95	-4,262.55	4,472.41	0.00	0.00	0.00	
11,800.00	90.00	270.04	6,912.80	1,440.02	-4,362.55	4,570.09	0.00	0.00	0.00	
11,900.00	90.00	270.04	6,912.80	1,440.10	-4,462.55	4,667.77	0.00	0.00	0.00	
12,000.00	90.00	270.04	6,912.80	1,440.18	-4,562.55	4,765.45	0.00	0.00	0.00	
12,100.00	90.00	270.04	6,912.80	1,440.25	-4,662.55	4,863.13	0.00	0.00	0.00	
12,200.00	90.00	270.04	6,912.80	1,440.33	-4,762.55	4,960.81	0.00	0.00	0.00	
12,300.00	90.00	270.04	6,912.80	1,440.41	-4,862.55	5,058.49	0.00	0.00	0.00	
12,400.00	90.00	270.04	6,912.80	1,440.48	-4,962.55	5,156.17	0.00	0.00	0.00	
12,500.00	90.00	270.04	6,912.80	1,440.56	-5,062.55	5,253.85	0.00	0.00	0.00	
12,600.00	90.00	270.04	6,912.80	1,440.64	-5,162.55	5,351.53	0.00	0.00	0.00	
12,700.00	90.00	270.04	6,912.80	1,440.71	-5,262.55	5,449.21	0.00	0.00	0.00	
12,800.00	90.00	270.04	6,912.80	1,440.79	-5,362.55	5,546.89	0.00	0.00	0.00	
12,900.00	90.00	270.04	6,912.80	1,440.86	-5,462.55	5,644.57	0.00	0.00	0.00	
13,000.00	90.00	270.04	6,912.80	1,440.94	-5,562.55	5,742.25	0.00	0.00	0.00	
13,100.00	90.00	270.04	6,912.80	1,441.02	-5,662.55	5,839.93	0.00	0.00	0.00	
13,200.00	90.00	270.04	6,912.80	1,441.09	-5,762.55	5,937.61	0.00	0.00	0.00	
13,300.00	90.00	270.04	6,912.80	1,441.17	-5,862.55	6,035.29	0.00	0.00	0.00	
13,400.00	90.00	270.04	6,912.80	1,441.25	-5,962.55	6,132.97	0.00	0.00	0.00	
13,500.00	90.00	270.04	6,912.80	1,441.32	-6,062.55	6,230.65	0.00	0.00	0.00	
13,600.00	90.00	270.04	6,912.80	1,441.40	-6,162.55	6,328.33	0.00	0.00	0.00	
13,700.00	90.00	270.04	6,912.80	1,441.48	-6,262.55	6,426.01	0.00	0.00	0.00	
13,800.00	90.00	270.04	6,912.80	1,441.55	-6,362.55	6,523.69	0.00	0.00	0.00	
13,900.00	90.00	270.04	6,912.80	1,441.63	-6,462.55	6,621.37	0.00	0.00	0.00	
13,989.22	90.00	270.04	6,912.80	1,441.70	-6,551.77	6,708.51	0.00	0.00	0.00	
TD at 13989.22										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site:	Sec.26-T6N-R7W	North Reference:	True
Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
EP 2164'FSL & 1615'FM - plan hits target center - Point	0.00	0.00	6,912.80	1,436.82	-177.82	1,409,825.33	3,176,829.21	40° 27' 23.879 N	104° 51' 52.391 W
BHL 2164'FSL & 470'FM - plan hits target center - Point	0.00	0.00	6,912.80	1,441.70	-6,551.77	1,409,784.49	3,170,455.39	40° 27' 23.918 N	104° 53' 14.849 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
7,615.27	6,912.80	7"	7	7-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,770.00	3,770.00	0.00	0.00	Build 3.00
4,770.74	4,725.57	242.11	83.93	1850.42 hold at 4770.74 MD
6,621.15	6,327.72	1,116.86	387.18	DLS 10.00 TFO -106.67
7,615.27	6,912.80	1,436.82	-177.82	6373.95 hold at 7615.27 MD
13,989.22	6,912.80	1,441.70	-6,551.77	TD at 13989.22



Precision
Directional Services

Great Western Oil & Gas

Weld Co., CO

Sec.26-T6N-R7W

Kodak South FD 27-222HN

Wellbore #1

Design #1

Anticollision Summary Report

18 March, 2014



Company:	Great Western Oil & Gas	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Project:	Weld Co., CO	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Reference Site:	Sec.26-T6N-R7W	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

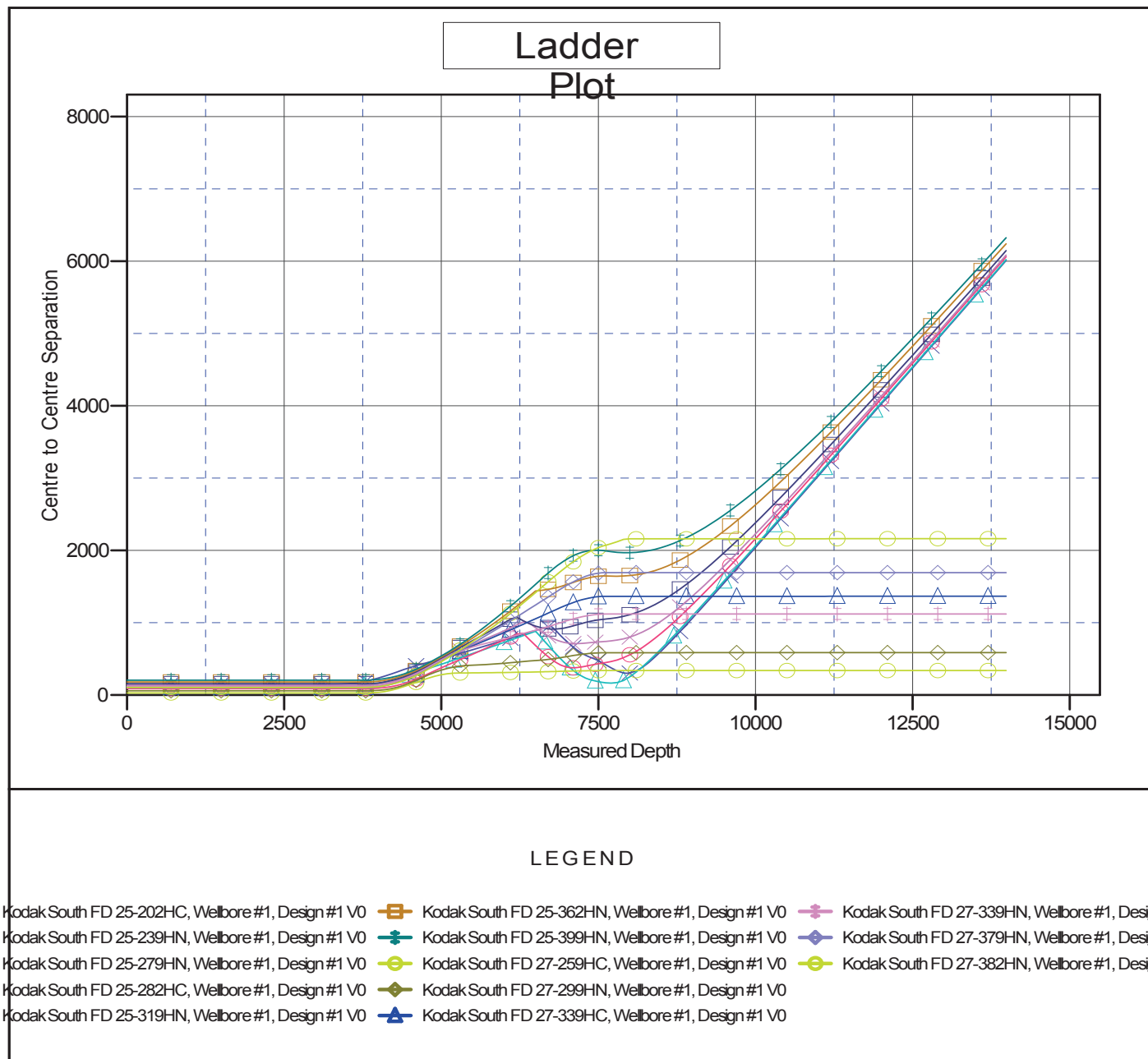
Survey Tool Program		Date	03/18/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	13,989.22	Design #1 (Wellbore #1)	MWD	Std MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec.26-T6N-R7W						
Kodak South FD 25-202HC - Wellbore #1 - Design #1	3,200.00	3,200.00	150.00	133.33	8.998	CC
Kodak South FD 25-202HC - Wellbore #1 - Design #1	3,300.00	3,298.40	150.43	133.24	8.751	ES
Kodak South FD 25-202HC - Wellbore #1 - Design #1	7,952.88	7,214.07	301.82	259.45	7.123	SF
Kodak South FD 25-239HN - Wellbore #1 - Design #1	3,433.81	3,433.81	119.67	101.78	6.688	CC
Kodak South FD 25-239HN - Wellbore #1 - Design #1	3,500.00	3,499.01	119.88	101.64	6.573	ES
Kodak South FD 25-239HN - Wellbore #1 - Design #1	7,700.00	7,356.43	164.27	122.88	3.968	SF
Kodak South FD 25-279HN - Wellbore #1 - Design #1	3,770.00	3,770.00	89.62	69.96	4.560	CC
Kodak South FD 25-279HN - Wellbore #1 - Design #1	3,800.00	3,800.00	89.69	69.88	4.527	ES
Kodak South FD 25-279HN - Wellbore #1 - Design #1	3,900.00	3,899.90	91.11	70.78	4.482	SF
Kodak South FD 25-282HC - Wellbore #1 - Design #1	3,770.00	3,770.00	134.16	114.51	6.826	CC, ES
Kodak South FD 25-282HC - Wellbore #1 - Design #1	3,800.00	3,800.00	134.38	114.57	6.783	SF
Kodak South FD 25-319HN - Wellbore #1 - Design #1	3,770.00	3,770.00	156.01	136.35	7.937	CC, ES
Kodak South FD 25-319HN - Wellbore #1 - Design #1	3,900.00	3,899.90	159.80	139.49	7.869	SF
Kodak South FD 25-362HN - Wellbore #1 - Design #1	3,770.00	3,770.00	180.08	160.42	9.162	CC, ES
Kodak South FD 25-362HN - Wellbore #1 - Design #1	3,900.00	3,899.90	183.59	163.28	9.039	SF
Kodak South FD 25-399HN - Wellbore #1 - Design #1	3,770.00	3,770.00	205.17	185.52	10.439	CC, ES
Kodak South FD 25-399HN - Wellbore #1 - Design #1	3,900.00	3,899.90	208.47	188.15	10.263	SF
Kodak South FD 27-259HC - Wellbore #1 - Design #1	3,770.00	3,770.00	29.22	9.57	1.487	Level 3, CC
Kodak South FD 27-259HC - Wellbore #1 - Design #1	3,800.00	3,800.00	29.30	9.49	1.479	Level 3, ES, SF
Kodak South FD 27-299HN - Wellbore #1 - Design #1	3,770.00	3,770.00	59.56	39.91	3.031	CC
Kodak South FD 27-299HN - Wellbore #1 - Design #1	3,800.00	3,800.00	59.64	39.83	3.010	ES
Kodak South FD 27-299HN - Wellbore #1 - Design #1	3,900.00	3,899.90	61.08	40.75	3.005	SF
Kodak South FD 27-339HC - Wellbore #1 - Design #1	3,770.00	3,770.00	103.80	84.14	5.281	CC, ES
Kodak South FD 27-339HC - Wellbore #1 - Design #1	3,800.00	3,800.00	104.03	84.22	5.252	SF
Kodak South FD 27-339HN - Wellbore #1 - Design #1	3,770.00	3,770.00	116.05	96.39	5.904	CC, ES
Kodak South FD 27-339HN - Wellbore #1 - Design #1	3,800.00	3,800.00	116.28	96.47	5.870	SF
Kodak South FD 27-379HN - Wellbore #1 - Design #1	3,770.00	3,770.00	100.19	80.53	5.097	CC, ES
Kodak South FD 27-379HN - Wellbore #1 - Design #1	3,800.00	3,800.00	100.41	80.60	5.069	SF
Kodak South FD 27-382HN - Wellbore #1 - Design #1	3,770.00	3,770.00	104.44	84.78	5.314	CC, ES
Kodak South FD 27-382HN - Wellbore #1 - Design #1	3,800.00	3,800.00	104.63	84.82	5.282	SF

Company:	Great Western Oil & Gas	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Project:	Weld Co., CO	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Reference Site:	Sec.26-T6N-R7W	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4758.80usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Kodak South FD 27-222HN
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



Company:	Great Western Oil & Gas	Local Co-ordinate Reference:	Well Kodak South FD 27-222HN
Project:	Weld Co., CO	TVD Reference:	WELL @ 4758.80usft (Original Well Elev)
Reference Site:	Sec.26-T6N-R7W	MD Reference:	WELL @ 4758.80usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Kodak South FD 27-222HN	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4758.80usft (Original Well E

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Kodak South FD 27-222HN

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.41°

