



Project: Weld Co., CO
 Site: Sec.22-T1N-R65W
 Well: Drake 01N-65W-22-7N
 Wellbore: Wellbore #1
 Design: Design #1
 Lat: 40° 1' 48.846 N
 Long: 104° 38' 43.724 W
 GL: 5090.00

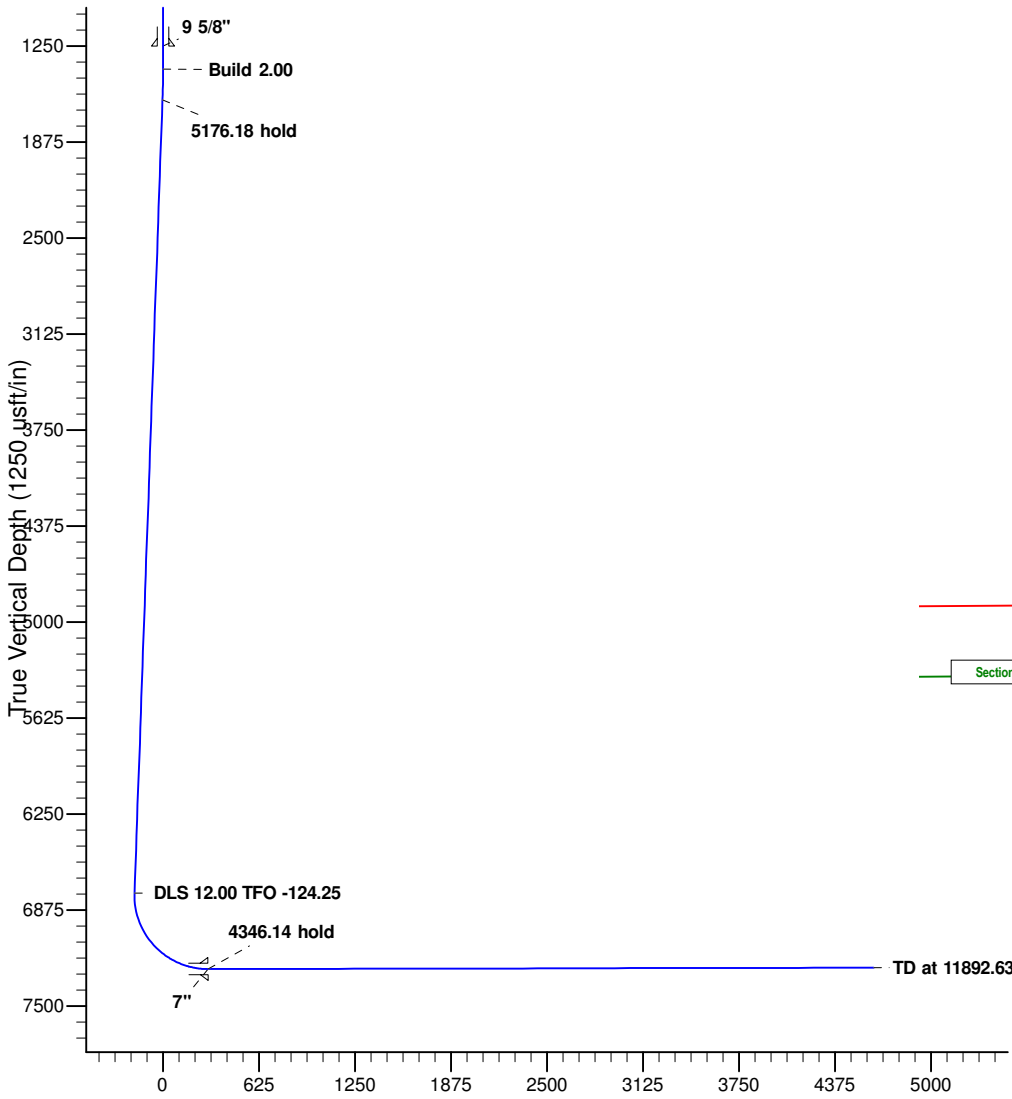


KB: WELL @ 5114.30usft (Original Well Elev)

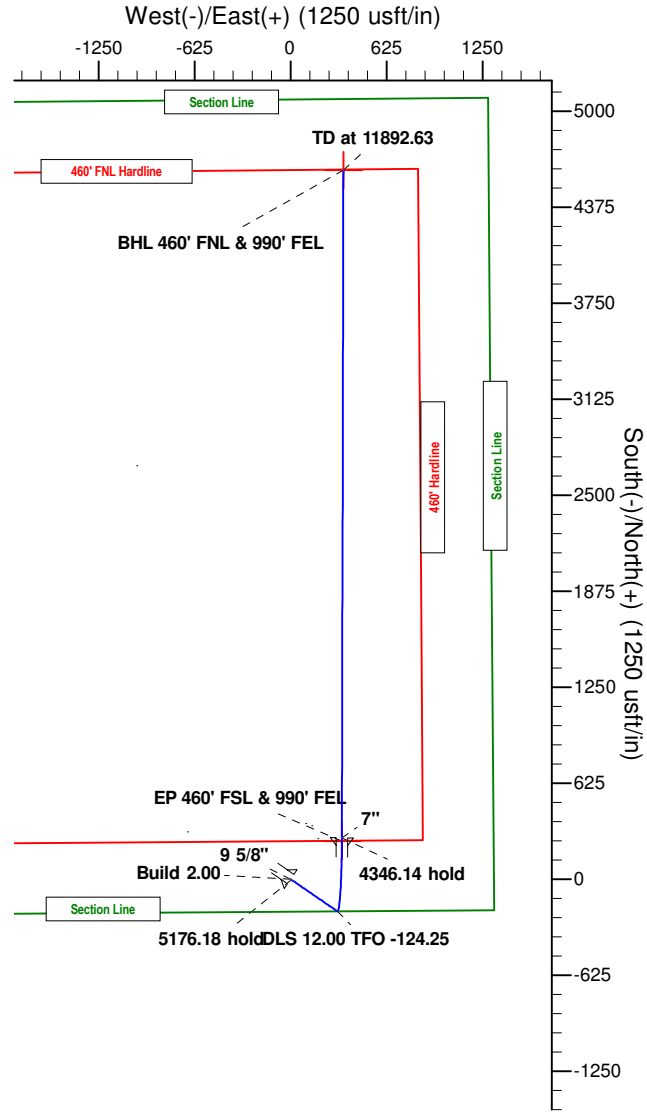


M Azimuths to True North
 Magnetic North: 8.33°
 Magnetic Field
 Strength: 52605.6snT
 Dip Angle: 66.66°
 Date: 09/12/2014
 Model: IGRF2010

CASING DETAILS:		Name	Size
TVD	MD	9 5/8"	9-5/8
1250.00	1250.00	7"	7
7259.30	7546.50		



Vertical Section at 4.26° (1250 usft/in)



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 460' FNL & 990' FEL	7250.30	4615.39	343.81	40° 2' 34.458 N	104° 38' 39.304 W	Shape
EP 460' FSL & 990' FEL	7259.30	246.27	334.07	40° 1' 51.280 N	104° 38' 39.430 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	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	Build 2.00
1600.50	4.01	124.45	1600.33	-3.97	5.78	2.00	124.45	-3.53	5176.18 hold
6776.68	4.01	124.45	6763.84	-208.75	304.26	0.00	0.00	-185.57	DLS 12.00 TFO -124.25
7546.50	90.12	0.13	7259.30	269.27	334.07	12.00	-124.25	293.34	4346.14 hold
11892.63	90.12	0.13	7250.30	4615.39	343.81	0.00	0.00	4628.17	TD at 11892.63



Precision
Directional Services

Verdad Oil & Gas

Weld Co., CO

Sec.22-T1N-R65W

Drake 01N-65W-22-7N

Wellbore #1

Plan: Design #1

Standard Planning Report

12 September, 2014



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-7N	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.22-T1N-R65W				
Site Position:		Northing:	1,255,012.76 usft	Latitude:	40° 1' 48.846 N
From:	Lat/Long	Easting:	3,239,197.12 usft	Longitude:	104° 38' 44.884 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.55 °

Well	Drake 01N-65W-22-7N					
Well Position	+N/-S	-0.02 usft	Northing:	1,255,013.61 usft	Latitude:	40° 1' 48.846 N
	+E/-W	90.17 usft	Easting:	3,239,287.29 usft	Longitude:	104° 38' 43.724 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,090.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/12/14	8.33	66.66	52,606

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	4.26

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	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.50	4.01	124.45	1,600.33	-3.97	5.78	2.00	2.00	0.00	124.45	
6,776.68	4.01	124.45	6,763.84	-208.75	304.26	0.00	0.00	0.00	0.00	
7,546.50	90.12	0.13	7,259.30	269.27	334.07	12.00	11.19	-16.15	-124.25	EP 460' FSL & 990' F
11,892.63	90.12	0.13	7,250.30	4,615.39	343.81	0.00	0.00	0.00	0.00	BHL 460' FNL & 990'

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-7N	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	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	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	0.00
1,100.00	0.00	0.00	1,100.00	0.00	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	0.00
1,300.00	0.00	0.00	1,300.00	0.00	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	0.00
Build 2.00										
1,500.00	2.00	124.45	1,499.98	-0.99	1.44	-0.88	2.00	2.00	0.00	0.00
1,600.50	4.01	124.45	1,600.33	-3.97	5.78	-3.53	2.00	2.00	0.00	0.00
5176.18 hold										
1,700.00	4.01	124.45	1,699.59	-7.90	11.52	-7.03	0.00	0.00	0.00	0.00
1,800.00	4.01	124.45	1,799.35	-11.86	17.29	-10.54	0.00	0.00	0.00	0.00
1,900.00	4.01	124.45	1,899.10	-15.82	23.05	-14.06	0.00	0.00	0.00	0.00
2,000.00	4.01	124.45	1,998.86	-19.77	28.82	-17.58	0.00	0.00	0.00	0.00
2,100.00	4.01	124.45	2,098.61	-23.73	34.59	-21.09	0.00	0.00	0.00	0.00
2,200.00	4.01	124.45	2,198.37	-27.68	40.35	-24.61	0.00	0.00	0.00	0.00
2,300.00	4.01	124.45	2,298.12	-31.64	46.12	-28.13	0.00	0.00	0.00	0.00
2,400.00	4.01	124.45	2,397.88	-35.60	51.88	-31.64	0.00	0.00	0.00	0.00
2,500.00	4.01	124.45	2,497.63	-39.55	57.65	-35.16	0.00	0.00	0.00	0.00
2,600.00	4.01	124.45	2,597.39	-43.51	63.42	-38.68	0.00	0.00	0.00	0.00
2,700.00	4.01	124.45	2,697.14	-47.47	69.18	-42.20	0.00	0.00	0.00	0.00
2,800.00	4.01	124.45	2,796.90	-51.42	74.95	-45.71	0.00	0.00	0.00	0.00
2,900.00	4.01	124.45	2,896.66	-55.38	80.72	-49.23	0.00	0.00	0.00	0.00
3,000.00	4.01	124.45	2,996.41	-59.33	86.48	-52.75	0.00	0.00	0.00	0.00
3,100.00	4.01	124.45	3,096.17	-63.29	92.25	-56.26	0.00	0.00	0.00	0.00
3,200.00	4.01	124.45	3,195.92	-67.25	98.02	-59.78	0.00	0.00	0.00	0.00
3,300.00	4.01	124.45	3,295.68	-71.20	103.78	-63.30	0.00	0.00	0.00	0.00
3,400.00	4.01	124.45	3,395.43	-75.16	109.55	-66.81	0.00	0.00	0.00	0.00
3,500.00	4.01	124.45	3,495.19	-79.12	115.31	-70.33	0.00	0.00	0.00	0.00
3,600.00	4.01	124.45	3,594.94	-83.07	121.08	-73.85	0.00	0.00	0.00	0.00
3,700.00	4.01	124.45	3,694.70	-87.03	126.85	-77.36	0.00	0.00	0.00	0.00
3,800.00	4.01	124.45	3,794.45	-90.98	132.61	-80.88	0.00	0.00	0.00	0.00
3,900.00	4.01	124.45	3,894.21	-94.94	138.38	-84.40	0.00	0.00	0.00	0.00
4,000.00	4.01	124.45	3,993.96	-98.90	144.15	-87.91	0.00	0.00	0.00	0.00
4,100.00	4.01	124.45	4,093.72	-102.85	149.91	-91.43	0.00	0.00	0.00	0.00
4,200.00	4.01	124.45	4,193.47	-106.81	155.68	-94.95	0.00	0.00	0.00	0.00
4,300.00	4.01	124.45	4,293.23	-110.76	161.44	-98.47	0.00	0.00	0.00	0.00
4,400.00	4.01	124.45	4,392.98	-114.72	167.21	-101.98	0.00	0.00	0.00	0.00
4,500.00	4.01	124.45	4,492.74	-118.68	172.98	-105.50	0.00	0.00	0.00	0.00
4,600.00	4.01	124.45	4,592.49	-122.63	178.74	-109.02	0.00	0.00	0.00	0.00
4,700.00	4.01	124.45	4,692.25	-126.59	184.51	-112.53	0.00	0.00	0.00	0.00
4,800.00	4.01	124.45	4,792.00	-130.55	190.28	-116.05	0.00	0.00	0.00	0.00
4,900.00	4.01	124.45	4,891.76	-134.50	196.04	-119.57	0.00	0.00	0.00	0.00
5,000.00	4.01	124.45	4,991.51	-138.46	201.81	-123.08	0.00	0.00	0.00	0.00
5,100.00	4.01	124.45	5,091.27	-142.41	207.57	-126.60	0.00	0.00	0.00	0.00

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Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-7N	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)	
5,200.00	4.01	124.45	5,191.02	-146.37	213.34	-130.12	0.00	0.00	0.00	
5,300.00	4.01	124.45	5,290.78	-150.33	219.11	-133.63	0.00	0.00	0.00	
5,400.00	4.01	124.45	5,390.54	-154.28	224.87	-137.15	0.00	0.00	0.00	
5,500.00	4.01	124.45	5,490.29	-158.24	230.64	-140.67	0.00	0.00	0.00	
5,600.00	4.01	124.45	5,590.05	-162.19	236.41	-144.18	0.00	0.00	0.00	
5,700.00	4.01	124.45	5,689.80	-166.15	242.17	-147.70	0.00	0.00	0.00	
5,800.00	4.01	124.45	5,789.56	-170.11	247.94	-151.22	0.00	0.00	0.00	
5,900.00	4.01	124.45	5,889.31	-174.06	253.71	-154.74	0.00	0.00	0.00	
6,000.00	4.01	124.45	5,989.07	-178.02	259.47	-158.25	0.00	0.00	0.00	
6,100.00	4.01	124.45	6,088.82	-181.98	265.24	-161.77	0.00	0.00	0.00	
6,200.00	4.01	124.45	6,188.58	-185.93	271.00	-165.29	0.00	0.00	0.00	
6,300.00	4.01	124.45	6,288.33	-189.89	276.77	-168.80	0.00	0.00	0.00	
6,400.00	4.01	124.45	6,388.09	-193.84	282.54	-172.32	0.00	0.00	0.00	
6,500.00	4.01	124.45	6,487.84	-197.80	288.30	-175.84	0.00	0.00	0.00	
6,600.00	4.01	124.45	6,587.60	-201.76	294.07	-179.35	0.00	0.00	0.00	
6,700.00	4.01	124.45	6,687.35	-205.71	299.84	-182.87	0.00	0.00	0.00	
6,776.68	4.01	124.45	6,763.84	-208.75	304.26	-185.57	0.00	0.00	0.00	
DLS 12.00 TFO -124.25										
6,800.00	3.36	80.89	6,787.12	-209.10	305.60	-185.82	12.00	-2.80	-186.80	
6,825.00	4.85	43.20	6,812.06	-208.21	307.05	-184.83	12.00	5.96	-150.76	
6,850.00	7.33	26.89	6,836.92	-206.02	308.49	-182.53	12.00	9.92	-65.21	
6,875.00	10.09	19.12	6,861.63	-202.53	309.93	-178.94	12.00	11.06	-31.11	
6,900.00	12.96	14.70	6,886.12	-197.75	311.36	-174.07	12.00	11.48	-17.65	
6,925.00	15.88	11.88	6,910.33	-191.68	312.78	-167.92	12.00	11.67	-11.30	
6,950.00	18.82	9.91	6,934.19	-184.36	314.18	-160.51	12.00	11.77	-7.85	
6,975.00	21.78	8.47	6,957.64	-175.80	315.56	-151.87	12.00	11.83	-5.79	
7,000.00	24.75	7.35	6,980.60	-166.02	316.91	-142.02	12.00	11.87	-4.46	
7,025.00	27.72	6.46	7,003.02	-155.05	318.23	-130.98	12.00	11.90	-3.56	
7,050.00	30.70	5.73	7,024.84	-142.92	319.52	-118.79	12.00	11.92	-2.92	
7,075.00	33.68	5.12	7,046.00	-129.66	320.78	-105.47	12.00	11.93	-2.45	
7,100.00	36.67	4.60	7,066.43	-115.31	322.00	-91.07	12.00	11.94	-2.09	
7,125.00	39.66	4.14	7,086.08	-99.91	323.17	-75.63	12.00	11.95	-1.82	
7,150.00	42.64	3.74	7,104.91	-83.50	324.30	-59.18	12.00	11.95	-1.60	
7,175.00	45.63	3.38	7,122.85	-66.13	325.38	-41.77	12.00	11.96	-1.43	
7,200.00	48.62	3.06	7,139.85	-47.84	326.41	-23.46	12.00	11.96	-1.29	
7,225.00	51.62	2.76	7,155.88	-28.68	327.38	-4.28	12.00	11.97	-1.18	
7,250.00	54.61	2.49	7,170.89	-8.71	328.30	15.70	12.00	11.97	-1.08	
7,275.00	57.60	2.24	7,184.83	12.02	329.15	36.44	12.00	11.97	-1.01	
7,300.00	60.59	2.01	7,197.66	33.46	329.95	57.88	12.00	11.97	-0.94	
7,325.00	63.59	1.78	7,209.37	55.54	330.68	79.95	12.00	11.97	-0.89	
7,350.00	66.58	1.57	7,219.90	78.20	331.34	102.59	12.00	11.98	-0.84	
7,375.00	69.58	1.37	7,229.23	101.38	331.93	125.76	12.00	11.98	-0.81	
7,400.00	72.57	1.18	7,237.34	125.02	332.46	149.37	12.00	11.98	-0.78	
7,425.00	75.56	0.99	7,244.20	149.05	332.91	173.37	12.00	11.98	-0.75	
7,450.00	78.56	0.81	7,249.80	173.41	333.30	197.69	12.00	11.98	-0.73	
7,475.00	81.55	0.63	7,254.11	198.03	333.60	222.26	12.00	11.98	-0.72	
7,500.00	84.55	0.45	7,257.14	222.84	333.84	247.03	12.00	11.98	-0.70	
7,525.00	87.54	0.28	7,258.86	247.78	334.00	271.91	12.00	11.98	-0.70	
7,546.50	90.12	0.13	7,259.30	269.27	334.07	293.34	12.00	11.98	-0.69	
4346.14 hold										
7,600.00	90.12	0.13	7,259.19	322.77	334.19	346.71	0.00	0.00	0.00	
7,700.00	90.12	0.13	7,258.98	422.77	334.42	446.45	0.00	0.00	0.00	
7,800.00	90.12	0.13	7,258.78	522.77	334.64	546.19	0.00	0.00	0.00	
7,900.00	90.12	0.13	7,258.57	622.77	334.86	645.93	0.00	0.00	0.00	

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Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-7N	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)
8,000.00	90.12	0.13	7,258.36	722.77	335.09	745.67	0.00	0.00	0.00
8,100.00	90.12	0.13	7,258.15	822.77	335.31	845.41	0.00	0.00	0.00
8,200.00	90.12	0.13	7,257.95	922.77	335.54	945.15	0.00	0.00	0.00
8,300.00	90.12	0.13	7,257.74	1,022.77	335.76	1,044.89	0.00	0.00	0.00
8,400.00	90.12	0.13	7,257.53	1,122.77	335.98	1,144.63	0.00	0.00	0.00
8,500.00	90.12	0.13	7,257.33	1,222.77	336.21	1,244.37	0.00	0.00	0.00
8,600.00	90.12	0.13	7,257.12	1,322.77	336.43	1,344.11	0.00	0.00	0.00
8,700.00	90.12	0.13	7,256.91	1,422.77	336.66	1,443.85	0.00	0.00	0.00
8,800.00	90.12	0.13	7,256.70	1,522.77	336.88	1,543.58	0.00	0.00	0.00
8,900.00	90.12	0.13	7,256.50	1,622.77	337.11	1,643.32	0.00	0.00	0.00
9,000.00	90.12	0.13	7,256.29	1,722.77	337.33	1,743.06	0.00	0.00	0.00
9,100.00	90.12	0.13	7,256.08	1,822.77	337.55	1,842.80	0.00	0.00	0.00
9,200.00	90.12	0.13	7,255.88	1,922.76	337.78	1,942.54	0.00	0.00	0.00
9,300.00	90.12	0.13	7,255.67	2,022.76	338.00	2,042.28	0.00	0.00	0.00
9,400.00	90.12	0.13	7,255.46	2,122.76	338.23	2,142.02	0.00	0.00	0.00
9,500.00	90.12	0.13	7,255.25	2,222.76	338.45	2,241.76	0.00	0.00	0.00
9,600.00	90.12	0.13	7,255.05	2,322.76	338.67	2,341.50	0.00	0.00	0.00
9,700.00	90.12	0.13	7,254.84	2,422.76	338.90	2,441.24	0.00	0.00	0.00
9,800.00	90.12	0.13	7,254.63	2,522.76	339.12	2,540.98	0.00	0.00	0.00
9,900.00	90.12	0.13	7,254.43	2,622.76	339.35	2,640.72	0.00	0.00	0.00
10,000.00	90.12	0.13	7,254.22	2,722.76	339.57	2,740.46	0.00	0.00	0.00
10,100.00	90.12	0.13	7,254.01	2,822.76	339.79	2,840.20	0.00	0.00	0.00
10,200.00	90.12	0.13	7,253.81	2,922.76	340.02	2,939.94	0.00	0.00	0.00
10,300.00	90.12	0.13	7,253.60	3,022.76	340.24	3,039.68	0.00	0.00	0.00
10,400.00	90.12	0.13	7,253.39	3,122.76	340.47	3,139.42	0.00	0.00	0.00
10,500.00	90.12	0.13	7,253.18	3,222.76	340.69	3,239.16	0.00	0.00	0.00
10,600.00	90.12	0.13	7,252.98	3,322.76	340.92	3,338.90	0.00	0.00	0.00
10,700.00	90.12	0.13	7,252.77	3,422.76	341.14	3,438.64	0.00	0.00	0.00
10,800.00	90.12	0.13	7,252.56	3,522.76	341.36	3,538.38	0.00	0.00	0.00
10,900.00	90.12	0.13	7,252.36	3,622.76	341.59	3,638.12	0.00	0.00	0.00
11,000.00	90.12	0.13	7,252.15	3,722.76	341.81	3,737.86	0.00	0.00	0.00
11,100.00	90.12	0.13	7,251.94	3,822.76	342.04	3,837.60	0.00	0.00	0.00
11,200.00	90.12	0.13	7,251.73	3,922.76	342.26	3,937.34	0.00	0.00	0.00
11,300.00	90.12	0.13	7,251.53	4,022.76	342.48	4,037.08	0.00	0.00	0.00
11,400.00	90.12	0.13	7,251.32	4,122.75	342.71	4,136.82	0.00	0.00	0.00
11,500.00	90.12	0.13	7,251.11	4,222.75	342.93	4,236.56	0.00	0.00	0.00
11,600.00	90.12	0.13	7,250.91	4,322.75	343.16	4,336.30	0.00	0.00	0.00
11,700.00	90.12	0.13	7,250.70	4,422.75	343.38	4,436.04	0.00	0.00	0.00
11,800.00	90.12	0.13	7,250.49	4,522.75	343.60	4,535.78	0.00	0.00	0.00
11,892.63	90.12	0.13	7,250.30	4,615.39	343.81	4,628.17	0.00	0.00	0.00
TD at 11892.63									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Company:	Verdad Oil & Gas	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site:	Sec.22-T1N-R65W	North Reference:	True
Well:	Drake 01N-65W-22-7N	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
BHL 460' FNL & 990' FE - plan hits target center - Point	0.00	0.00	7,250.30	4,615.39	343.81	1,259,632.10	3,239,586.61	40° 2' 34.458 N	104° 38' 39.304 W
EP 460' FSL & 990' FEL - plan misses target center by 0.51usft at 7523.52usft MD (7258.80 TVD, 246.30 N, 333.99 E) - Point	0.00	0.00	7,259.30	246.27	334.07	1,255,263.09	3,239,618.97	40° 1' 51.280 N	104° 38' 39.430 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,250.00	1,250.00	9 5/8"	9-5/8	12-1/4	
7,546.50	7,259.30	7"	7	7-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,400.00	1,400.00	0.00	0.00	Build 2.00
1,600.50	1,600.33	-3.97	5.78	5176.18 hold
6,776.68	6,763.84	-208.75	304.26	DLS 12.00 TFO -124.25
7,546.50	7,259.30	269.27	334.07	4346.14 hold
11,892.63	7,250.30	4,615.39	343.81	TD at 11892.63



Precision
Directional Services

Verdad Oil & Gas

Weld Co., CO
Sec.22-T1N-R65W
Drake 01N-65W-22-7N

Wellbore #1
Design #1

Anticollision Summary Report

12 September, 2014



Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-7N	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

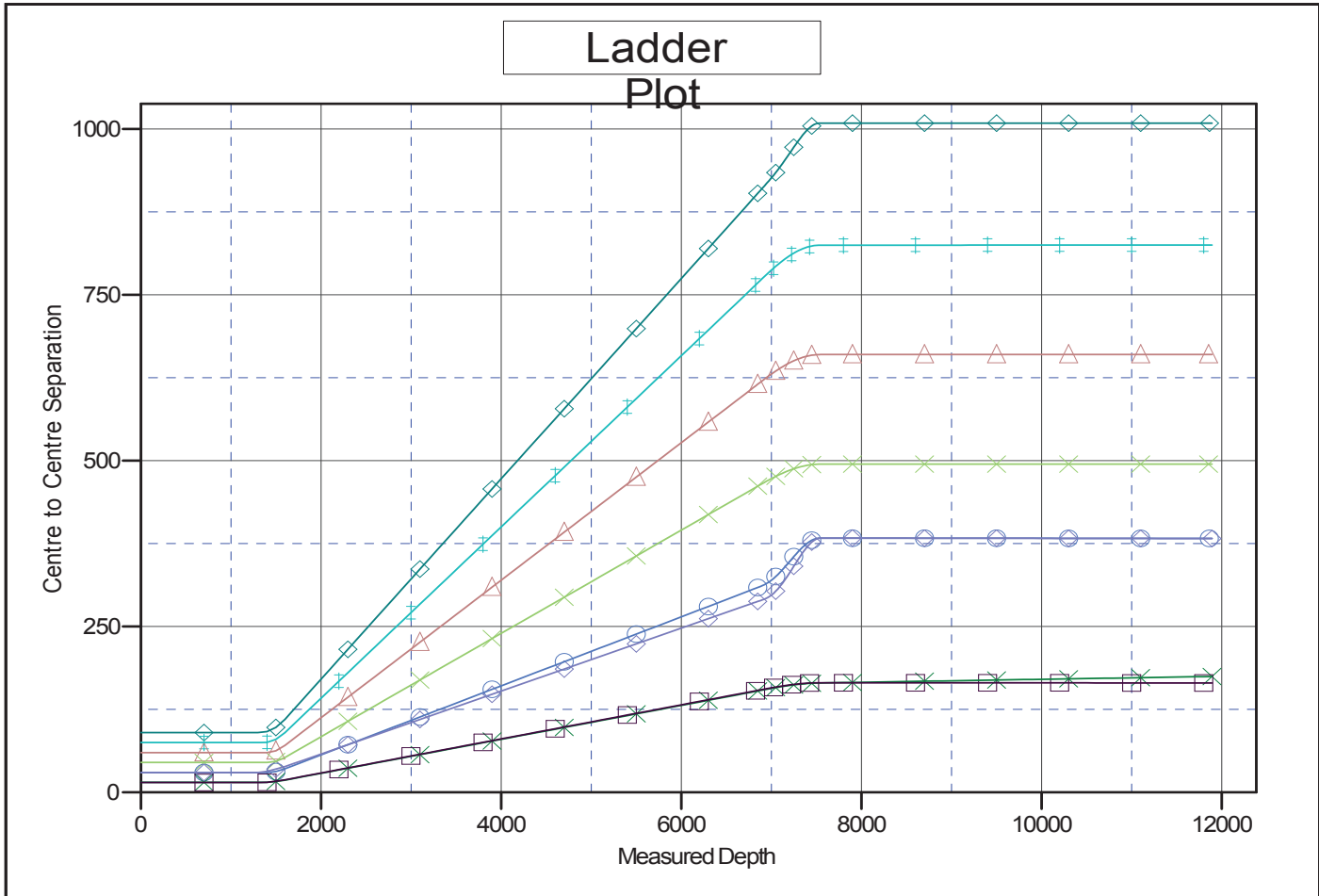
Survey Tool Program	Date	09/12/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	11,892.63	Design #1 (Wellbore #1)	MWD	Std MWD

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.22-T1N-R65W						
Drake 01N-65W-22-1C - Wellbore #1 - Design #1	1,300.00	1,300.00	90.17	83.49	13.499	CC, ES
Drake 01N-65W-22-1C - Wellbore #1 - Design #1	1,500.00	1,493.97	97.88	90.17	12.694	SF
Drake 01N-65W-22-2N - Wellbore #1 - Design #1	1,333.38	1,333.38	75.05	68.19	10.949	CC, ES
Drake 01N-65W-22-2N - Wellbore #1 - Design #1	1,500.00	1,496.47	79.83	72.12	10.346	SF
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	1,400.00	1,400.00	59.93	52.72	8.319	CC, ES
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	1,500.00	1,498.38	62.66	54.94	8.115	SF
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	1,400.00	1,400.00	45.08	37.88	6.259	CC, ES
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	1,500.00	1,499.63	46.72	39.00	6.049	SF
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,400.00	1,400.00	29.96	22.76	4.160	CC, ES
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,500.00	1,499.98	31.42	23.69	4.067	SF
Drake 01N-65W-22-6N - Wellbore #1 - Design #1	1,400.00	1,400.00	15.12	7.92	2.099	CC, ES, SF
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	1,333.51	1,333.51	14.84	7.99	2.165	CC, ES
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	11,892.63	11,902.05	164.91	86.03	2.091	SF
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	1,300.00	1,300.00	29.96	23.28	4.486	CC, ES
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	1,400.00	1,398.98	31.60	24.40	4.388	SF

Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-7N	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 @ 5114.30usft (Original Well E
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Drake 01N-65W-22-7N
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.55°

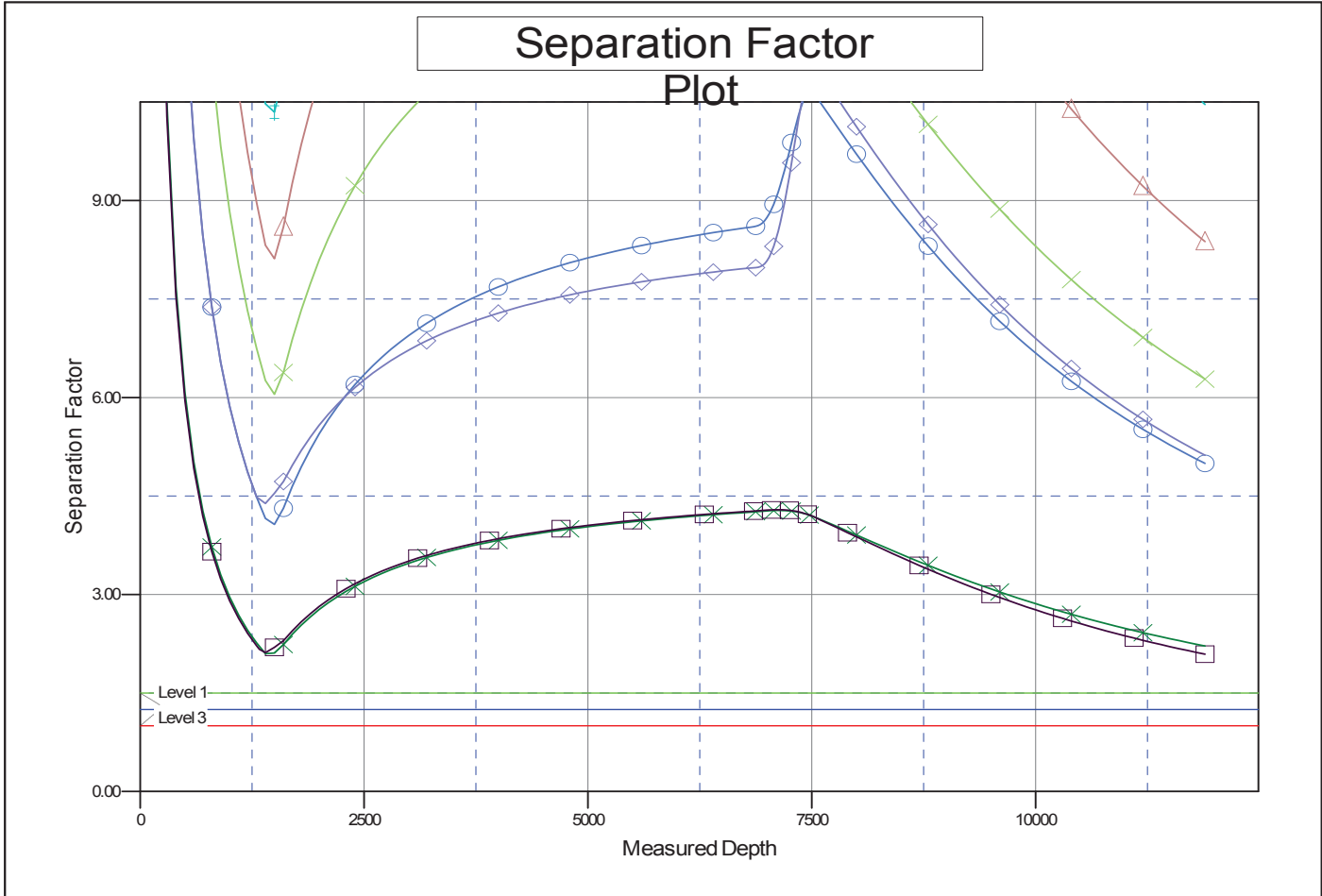


LEGEND

- ◆ Drake 01N-65W-22-1C, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-2N, Wellbore #1, Design #1 V0
- ▲ Drake 01N-65W-22-3N, Wellbore #1, Design #1 V0
- ✕ Drake 01N-65W-22-4N, Wellbore #1, Design #1 V0
- Drake 01N-65W-22-5C, Wellbore #1, Design #1 V0
- ✕ Drake 01N-65W-22-6N, Wellbore #1, Design #1 V0
- Drake 01N-65W-22-8N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-9C, Wellbore #1, Design #1 V0

Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-7N
Project:	Weld Co., CO	TVD Reference:	WELL @ 5114.30usft (Original Well Elev)
Reference Site:	Sec.22-T1N-R65W	MD Reference:	WELL @ 5114.30usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Drake 01N-65W-22-7N	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 @ 5114.30usft (Original Well E) Coordinates are relative to: Drake 01N-65W-22-7N
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is 105° 30' 0.000 W Grid Convergence at Surface is: 0.55°



LEGEND

- ◆ Drake 01N-65W-22-1C, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-2N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-3N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-4N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-5C, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-6N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-8N, Wellbore #1, Design #1 V0
- ◆ Drake 01N-65W-22-9C, Wellbore #1, Design #1 V0