



Project: Weld Co., CO
 Site: Sec.22-T1N-R65W
 Well: Drake 01N-65W-22-2N
 Wellbore: Wellbore #1
 Design: Design #1
 Lat: 40° 1' 48.846 N
 Long: 104° 38' 44.689 W
 GL: 5090.00



Precision
 Directional Services

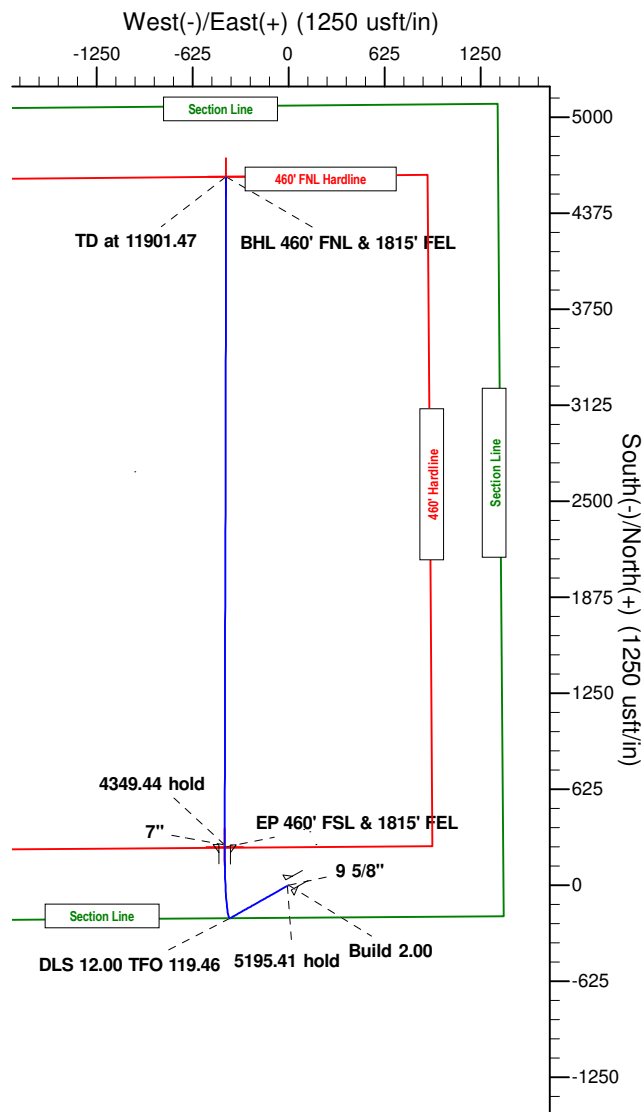
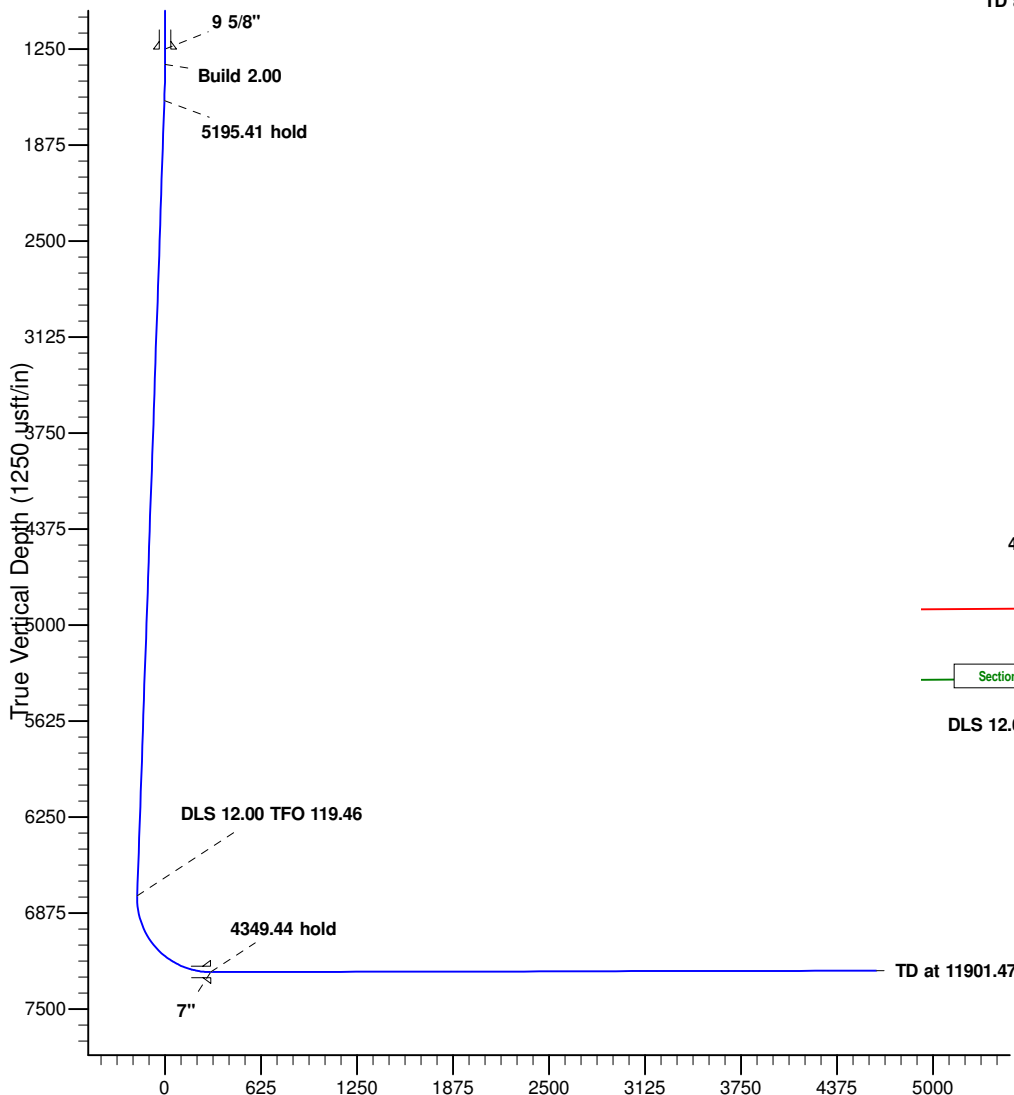
KB: WELL @ 5114.30usft (Original Well Elev)



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:

TVD	MD	Name	Size
7259.30	7552.03	7"	7
1250.00	1250.00	9 5/8"	9-5/8



WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 460' FNL & 1815' FEL	7250.30	4612.51	-406.26	40° 2' 34.430 N	104° 38' 49.913 W	Shape
EP 460' FSL & 1815' FEL	7259.30	248.09	-415.84	40° 1' 51.298 N	104° 38' 50.035 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	
1350.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	0.00	Build 2.00
1586.23	4.72	240.57	1585.96	-4.78	-8.48	2.00	240.57	-4.02	5195.41 hold
6781.64	4.72	240.57	6763.72	-215.04	-381.19	0.00	0.00	-180.77	DLS 12.00 TFO 119.46
7552.03	90.12	0.13	7259.30	263.09	-415.84	12.00	119.46	298.56	4349.44 hold
11901.47	90.12	0.13	7250.30	4612.51	-406.26	0.00	0.00	4630.37	TD at 11901.47



Verdad Oil & Gas

Weld Co., CO

Sec.22-T1N-R65W

Drake 01N-65W-22-2N

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-22-2N
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-22-2N	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-22-2N					
Well Position	+N/-S	-0.02 usft	Northing:	1,255,012.89 usft	Latitude:	40° 1' 48.846 N
	+E/-W	15.12 usft	Easting:	3,239,212.25 usft	Longitude:	104° 38' 44.689 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	354.97

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	
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,586.23	4.72	240.57	1,585.96	-4.78	-8.48	2.00	2.00	0.00	240.57	
6,781.64	4.72	240.57	6,763.72	-215.04	-381.19	0.00	0.00	0.00	0.00	
7,552.03	90.12	0.13	7,259.30	263.09	-415.84	12.00	11.08	15.52	119.46	EP 460' FSL & 1815' I
11,901.47	90.12	0.13	7,250.30	4,612.51	-406.26	0.00	0.00	0.00	0.00	BHL 460' FNL & 1815

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-2N
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-22-2N	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
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2.00									
1,400.00	1.00	240.57	1,400.00	-0.21	-0.38	-0.18	2.00	2.00	0.00
1,500.00	3.00	240.57	1,499.93	-1.93	-3.42	-1.62	2.00	2.00	0.00
1,586.23	4.72	240.57	1,585.96	-4.78	-8.48	-4.02	2.00	2.00	0.00
5195.41 hold									
1,600.00	4.72	240.57	1,599.69	-5.34	-9.47	-4.49	0.00	0.00	0.00
1,700.00	4.72	240.57	1,699.35	-9.39	-16.64	-7.89	0.00	0.00	0.00
1,800.00	4.72	240.57	1,799.01	-13.43	-23.81	-11.29	0.00	0.00	0.00
1,900.00	4.72	240.57	1,898.67	-17.48	-30.99	-14.69	0.00	0.00	0.00
2,000.00	4.72	240.57	1,998.33	-21.53	-38.16	-18.10	0.00	0.00	0.00
2,100.00	4.72	240.57	2,097.99	-25.58	-45.34	-21.50	0.00	0.00	0.00
2,200.00	4.72	240.57	2,197.65	-29.62	-52.51	-24.90	0.00	0.00	0.00
2,300.00	4.72	240.57	2,297.31	-33.67	-59.68	-28.30	0.00	0.00	0.00
2,400.00	4.72	240.57	2,396.97	-37.72	-66.86	-31.70	0.00	0.00	0.00
2,500.00	4.72	240.57	2,496.63	-41.76	-74.03	-35.11	0.00	0.00	0.00
2,600.00	4.72	240.57	2,596.29	-45.81	-81.20	-38.51	0.00	0.00	0.00
2,700.00	4.72	240.57	2,695.95	-49.86	-88.38	-41.91	0.00	0.00	0.00
2,800.00	4.72	240.57	2,795.61	-53.90	-95.55	-45.31	0.00	0.00	0.00
2,900.00	4.72	240.57	2,895.27	-57.95	-102.73	-48.71	0.00	0.00	0.00
3,000.00	4.72	240.57	2,994.93	-62.00	-109.90	-52.12	0.00	0.00	0.00
3,100.00	4.72	240.57	3,094.59	-66.05	-117.07	-55.52	0.00	0.00	0.00
3,200.00	4.72	240.57	3,194.25	-70.09	-124.25	-58.92	0.00	0.00	0.00
3,300.00	4.72	240.57	3,293.91	-74.14	-131.42	-62.32	0.00	0.00	0.00
3,400.00	4.72	240.57	3,393.57	-78.19	-138.60	-65.72	0.00	0.00	0.00
3,500.00	4.72	240.57	3,493.23	-82.23	-145.77	-69.13	0.00	0.00	0.00
3,600.00	4.72	240.57	3,592.89	-86.28	-152.94	-72.53	0.00	0.00	0.00
3,700.00	4.72	240.57	3,692.55	-90.33	-160.12	-75.93	0.00	0.00	0.00
3,800.00	4.72	240.57	3,792.21	-94.37	-167.29	-79.33	0.00	0.00	0.00
3,900.00	4.72	240.57	3,891.87	-98.42	-174.46	-82.73	0.00	0.00	0.00
4,000.00	4.72	240.57	3,991.53	-102.47	-181.64	-86.14	0.00	0.00	0.00
4,100.00	4.72	240.57	4,091.19	-106.52	-188.81	-89.54	0.00	0.00	0.00
4,200.00	4.72	240.57	4,190.85	-110.56	-195.99	-92.94	0.00	0.00	0.00
4,300.00	4.72	240.57	4,290.51	-114.61	-203.16	-96.34	0.00	0.00	0.00
4,400.00	4.72	240.57	4,390.17	-118.66	-210.33	-99.74	0.00	0.00	0.00
4,500.00	4.72	240.57	4,489.83	-122.70	-217.51	-103.15	0.00	0.00	0.00
4,600.00	4.72	240.57	4,589.49	-126.75	-224.68	-106.55	0.00	0.00	0.00
4,700.00	4.72	240.57	4,689.15	-130.80	-231.86	-109.95	0.00	0.00	0.00
4,800.00	4.72	240.57	4,788.81	-134.84	-239.03	-113.35	0.00	0.00	0.00
4,900.00	4.72	240.57	4,888.47	-138.89	-246.20	-116.75	0.00	0.00	0.00

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Well:	Drake 01N-65W-22-2N	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	4.72	240.57	4,988.13	-142.94	-253.38	-120.16	0.00	0.00	0.00
5,100.00	4.72	240.57	5,087.79	-146.99	-260.55	-123.56	0.00	0.00	0.00
5,200.00	4.72	240.57	5,187.45	-151.03	-267.72	-126.96	0.00	0.00	0.00
5,300.00	4.72	240.57	5,287.11	-155.08	-274.90	-130.36	0.00	0.00	0.00
5,400.00	4.72	240.57	5,386.77	-159.13	-282.07	-133.76	0.00	0.00	0.00
5,500.00	4.72	240.57	5,486.43	-163.17	-289.25	-137.17	0.00	0.00	0.00
5,600.00	4.72	240.57	5,586.09	-167.22	-296.42	-140.57	0.00	0.00	0.00
5,700.00	4.72	240.57	5,685.75	-171.27	-303.59	-143.97	0.00	0.00	0.00
5,800.00	4.72	240.57	5,785.41	-175.31	-310.77	-147.37	0.00	0.00	0.00
5,900.00	4.72	240.57	5,885.07	-179.36	-317.94	-150.77	0.00	0.00	0.00
6,000.00	4.72	240.57	5,984.73	-183.41	-325.12	-154.18	0.00	0.00	0.00
6,100.00	4.72	240.57	6,084.40	-187.46	-332.29	-157.58	0.00	0.00	0.00
6,200.00	4.72	240.57	6,184.06	-191.50	-339.46	-160.98	0.00	0.00	0.00
6,300.00	4.72	240.57	6,283.72	-195.55	-346.64	-164.38	0.00	0.00	0.00
6,400.00	4.72	240.57	6,383.38	-199.60	-353.81	-167.78	0.00	0.00	0.00
6,500.00	4.72	240.57	6,483.04	-203.64	-360.98	-171.19	0.00	0.00	0.00
6,600.00	4.72	240.57	6,582.70	-207.69	-368.16	-174.59	0.00	0.00	0.00
6,700.00	4.72	240.57	6,682.36	-211.74	-375.33	-177.99	0.00	0.00	0.00
6,781.64	4.72	240.57	6,763.72	-215.04	-381.19	-180.77	0.00	0.00	0.00
DLS 12.00 TFO 119.46									
6,800.00	4.11	268.37	6,782.03	-215.43	-382.51	-181.04	12.00	-3.32	151.46
6,825.00	5.02	305.12	6,806.95	-214.83	-384.30	-180.28	12.00	3.61	146.98
6,850.00	7.17	325.24	6,831.81	-212.92	-386.08	-178.22	12.00	8.60	80.49
6,875.00	9.77	335.45	6,856.54	-209.71	-387.85	-174.87	12.00	10.43	40.83
6,900.00	12.56	341.29	6,881.06	-205.20	-389.61	-170.23	12.00	11.13	23.34
6,925.00	15.42	345.01	6,905.32	-199.41	-391.34	-164.31	12.00	11.45	14.89
6,950.00	18.33	347.58	6,929.24	-192.36	-393.04	-157.14	12.00	11.63	10.29
6,975.00	21.26	349.47	6,952.76	-184.07	-394.72	-148.73	12.00	11.73	7.55
7,000.00	24.21	350.91	6,975.82	-174.55	-396.36	-139.10	12.00	11.79	5.79
7,025.00	27.16	352.06	6,998.35	-163.83	-397.95	-128.29	12.00	11.83	4.60
7,050.00	30.13	353.00	7,020.28	-151.95	-399.51	-116.31	12.00	11.86	3.75
7,075.00	33.10	353.79	7,041.57	-138.93	-401.01	-103.21	12.00	11.89	3.14
7,100.00	36.08	354.45	7,062.15	-124.82	-402.46	-89.02	12.00	11.90	2.67
7,125.00	39.06	355.03	7,081.96	-109.64	-403.85	-73.78	12.00	11.92	2.32
7,150.00	42.04	355.54	7,100.96	-93.44	-405.19	-57.53	12.00	11.93	2.04
7,175.00	45.02	356.00	7,119.08	-76.27	-406.45	-40.32	12.00	11.93	1.82
7,200.00	48.01	356.41	7,136.28	-58.18	-407.65	-22.19	12.00	11.94	1.64
7,225.00	50.99	356.78	7,152.52	-39.20	-408.78	-3.18	12.00	11.95	1.49
7,250.00	53.98	357.12	7,167.74	-19.40	-409.84	16.63	12.00	11.95	1.37
7,275.00	56.97	357.44	7,181.90	1.17	-410.81	37.21	12.00	11.95	1.27
7,300.00	59.96	357.73	7,194.98	22.46	-411.71	58.49	12.00	11.96	1.19
7,325.00	62.95	358.01	7,206.92	44.40	-412.52	80.42	12.00	11.96	1.12
7,350.00	65.94	358.28	7,217.70	66.94	-413.25	102.94	12.00	11.96	1.06
7,375.00	68.93	358.53	7,227.30	90.02	-413.89	125.98	12.00	11.96	1.01
7,400.00	71.92	358.77	7,235.67	113.56	-414.45	149.49	12.00	11.97	0.97
7,425.00	74.91	359.01	7,242.80	137.52	-414.91	173.39	12.00	11.97	0.94
7,450.00	77.91	359.23	7,248.68	161.81	-415.28	197.62	12.00	11.97	0.91
7,475.00	80.90	359.46	7,253.27	186.38	-415.56	222.12	12.00	11.97	0.89
7,500.00	83.89	359.68	7,256.58	211.16	-415.75	246.82	12.00	11.97	0.88
7,525.00	86.88	359.89	7,258.59	236.07	-415.84	271.65	12.00	11.97	0.87
7,552.03	90.12	0.13	7,259.30	263.09	-415.84	298.56	12.00	11.97	0.86
4349.44 hold									
7,600.00	90.12	0.13	7,259.20	311.06	-415.73	346.34	0.00	0.00	0.00
7,700.00	90.12	0.13	7,258.99	411.06	-415.51	445.93	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-22-2N	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)	
7,800.00	90.12	0.13	7,258.79	511.06	-415.29	545.52	0.00	0.00	0.00	
7,900.00	90.12	0.13	7,258.58	611.06	-415.07	645.12	0.00	0.00	0.00	
8,000.00	90.12	0.13	7,258.37	711.06	-414.85	744.71	0.00	0.00	0.00	
8,100.00	90.12	0.13	7,258.17	811.06	-414.63	844.31	0.00	0.00	0.00	
8,200.00	90.12	0.13	7,257.96	911.06	-414.41	943.90	0.00	0.00	0.00	
8,300.00	90.12	0.13	7,257.75	1,011.06	-414.19	1,043.50	0.00	0.00	0.00	
8,400.00	90.12	0.13	7,257.55	1,111.06	-413.97	1,143.09	0.00	0.00	0.00	
8,500.00	90.12	0.13	7,257.34	1,211.05	-413.75	1,242.69	0.00	0.00	0.00	
8,600.00	90.12	0.13	7,257.13	1,311.05	-413.53	1,342.28	0.00	0.00	0.00	
8,700.00	90.12	0.13	7,256.92	1,411.05	-413.31	1,441.88	0.00	0.00	0.00	
8,800.00	90.12	0.13	7,256.72	1,511.05	-413.09	1,541.47	0.00	0.00	0.00	
8,900.00	90.12	0.13	7,256.51	1,611.05	-412.87	1,641.06	0.00	0.00	0.00	
9,000.00	90.12	0.13	7,256.30	1,711.05	-412.65	1,740.66	0.00	0.00	0.00	
9,100.00	90.12	0.13	7,256.10	1,811.05	-412.43	1,840.25	0.00	0.00	0.00	
9,200.00	90.12	0.13	7,255.89	1,911.05	-412.21	1,939.85	0.00	0.00	0.00	
9,300.00	90.12	0.13	7,255.68	2,011.05	-411.99	2,039.44	0.00	0.00	0.00	
9,400.00	90.12	0.13	7,255.48	2,111.05	-411.77	2,139.04	0.00	0.00	0.00	
9,500.00	90.12	0.13	7,255.27	2,211.05	-411.55	2,238.63	0.00	0.00	0.00	
9,600.00	90.12	0.13	7,255.06	2,311.05	-411.33	2,338.23	0.00	0.00	0.00	
9,700.00	90.12	0.13	7,254.86	2,411.05	-411.11	2,437.82	0.00	0.00	0.00	
9,800.00	90.12	0.13	7,254.65	2,511.05	-410.89	2,537.42	0.00	0.00	0.00	
9,900.00	90.12	0.13	7,254.44	2,611.05	-410.67	2,637.01	0.00	0.00	0.00	
10,000.00	90.12	0.13	7,254.23	2,711.05	-410.45	2,736.60	0.00	0.00	0.00	
10,100.00	90.12	0.13	7,254.03	2,811.05	-410.23	2,836.20	0.00	0.00	0.00	
10,200.00	90.12	0.13	7,253.82	2,911.05	-410.01	2,935.79	0.00	0.00	0.00	
10,300.00	90.12	0.13	7,253.61	3,011.05	-409.79	3,035.39	0.00	0.00	0.00	
10,400.00	90.12	0.13	7,253.41	3,111.05	-409.57	3,134.98	0.00	0.00	0.00	
10,500.00	90.12	0.13	7,253.20	3,211.05	-409.35	3,234.58	0.00	0.00	0.00	
10,600.00	90.12	0.13	7,252.99	3,311.05	-409.13	3,334.17	0.00	0.00	0.00	
10,700.00	90.12	0.13	7,252.79	3,411.04	-408.91	3,433.77	0.00	0.00	0.00	
10,800.00	90.12	0.13	7,252.58	3,511.04	-408.69	3,533.36	0.00	0.00	0.00	
10,900.00	90.12	0.13	7,252.37	3,611.04	-408.47	3,632.96	0.00	0.00	0.00	
11,000.00	90.12	0.13	7,252.17	3,711.04	-408.25	3,732.55	0.00	0.00	0.00	
11,100.00	90.12	0.13	7,251.96	3,811.04	-408.03	3,832.15	0.00	0.00	0.00	
11,200.00	90.12	0.13	7,251.75	3,911.04	-407.80	3,931.74	0.00	0.00	0.00	
11,300.00	90.12	0.13	7,251.54	4,011.04	-407.58	4,031.33	0.00	0.00	0.00	
11,400.00	90.12	0.13	7,251.34	4,111.04	-407.36	4,130.93	0.00	0.00	0.00	
11,500.00	90.12	0.13	7,251.13	4,211.04	-407.14	4,230.52	0.00	0.00	0.00	
11,600.00	90.12	0.13	7,250.92	4,311.04	-406.92	4,330.12	0.00	0.00	0.00	
11,700.00	90.12	0.13	7,250.72	4,411.04	-406.70	4,429.71	0.00	0.00	0.00	
11,800.00	90.12	0.13	7,250.51	4,511.04	-406.48	4,529.31	0.00	0.00	0.00	
11,901.47	90.12	0.13	7,250.30	4,612.51	-406.26	4,630.37	0.00	0.00	0.00	
TD at 11901.47										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Drake 01N-65W-22-2N
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-22-2N	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
BHL 460' FNL & 1815' F	0.00	0.00	7,250.30	4,612.51	-406.26	1,259,621.27	3,238,761.57	40° 2' 34.430 N	104° 38' 49.913 W
- plan hits target center									
- Point									
EP 460' FSL & 1815' FE	0.00	0.00	7,259.30	248.09	-415.84	1,255,256.96	3,238,794.04	40° 1' 51.298 N	104° 38' 50.035 W
- plan misses target center by 0.20usft at 7537.04usft MD (7259.10 TVD, 248.10 N, -415.86 E)									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
1,250.00	1,250.00	9 5/8"		9-5/8	12-1/4
7,552.03	7,259.30	7"		7	7-1/2

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	
1,350.00	1,350.00	0.00	0.00	Build 2.00
1,586.23	1,585.96	-4.78	-8.48	5195.41 hold
6,781.64	6,763.72	-215.04	-381.19	DLS 12.00 TFO 119.46
7,552.03	7,259.30	263.09	-415.84	4349.44 hold
11,901.47	7,250.30	4,612.51	-406.26	TD at 11901.47



Precision
Directional Services

Verdad Oil & Gas

Weld Co., CO
Sec.22-T1N-R65W
Drake 01N-65W-22-2N

Wellbore #1
Design #1

Anticollision Summary Report

12 September, 2014



Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-2N
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-22-2N	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

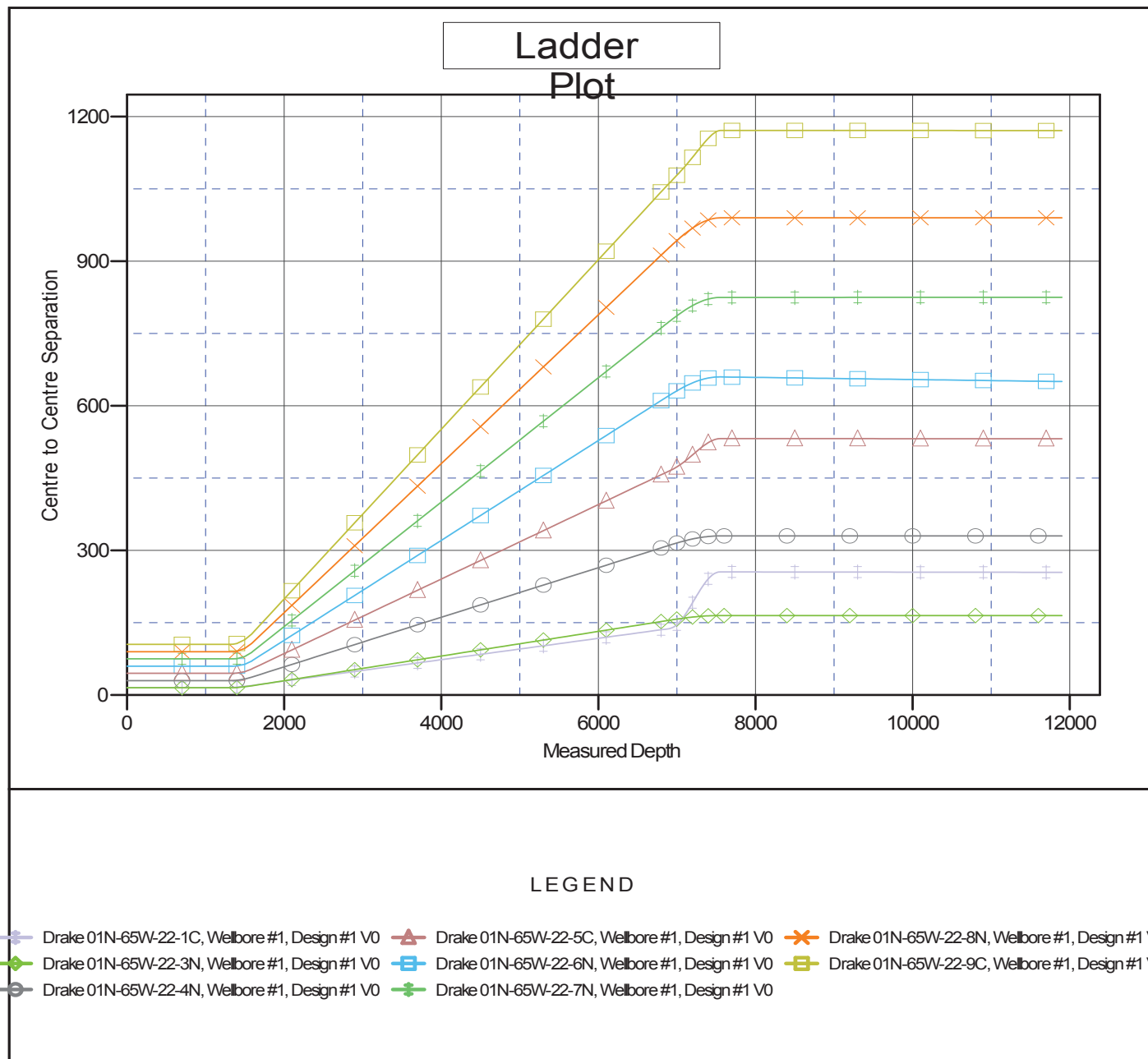
Survey Tool Program		Date	09/12/14		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,901.47	Design #1 (Wellbore #1)	MWD	Std MWD	

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	15.12	8.44	2.264	CC, ES
Drake 01N-65W-22-1C - Wellbore #1 - Design #1	1,350.00	1,349.75	15.52	8.58	2.236	SF
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	1,350.00	1,350.00	15.12	8.18	2.178	CC, ES
Drake 01N-65W-22-3N - Wellbore #1 - Design #1	11,901.47	11,890.70	164.92	86.09	2.092	SF
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	1,350.00	1,350.00	29.96	23.02	4.317	CC, ES
Drake 01N-65W-22-4N - Wellbore #1 - Design #1	11,901.47	11,884.75	330.10	251.29	4.189	SF
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,350.00	1,350.00	45.08	38.14	6.495	CC, ES
Drake 01N-65W-22-5C - Wellbore #1 - Design #1	1,500.00	1,499.93	48.54	40.82	6.287	SF
Drake 01N-65W-22-6N - Wellbore #1 - Design #1	1,350.00	1,350.00	59.93	52.98	8.633	CC, ES
Drake 01N-65W-22-6N - Wellbore #1 - Design #1	1,500.00	1,499.27	63.63	55.91	8.244	SF
Drake 01N-65W-22-7N - Wellbore #1 - Design #1	1,350.00	1,350.00	75.05	68.11	10.812	CC, ES
Drake 01N-65W-22-7N - Wellbore #1 - Design #1	1,500.00	1,497.72	79.88	72.16	10.353	SF
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	1,350.00	1,350.00	89.89	82.95	12.950	CC, ES
Drake 01N-65W-22-8N - Wellbore #1 - Design #1	1,500.00	1,495.55	96.76	89.05	12.549	SF
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	1,300.00	1,300.00	105.01	98.33	15.721	CC, ES
Drake 01N-65W-22-9C - Wellbore #1 - Design #1	11,901.47	12,103.74	1,171.09	1,092.22	14.848	SF

Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-2N
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-22-2N	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-22-2N
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.55°



Company:	Verdad Oil & Gas	Local Co-ordinate Reference:	Well Drake 01N-65W-22-2N
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-22-2N	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-22-2N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.55°

