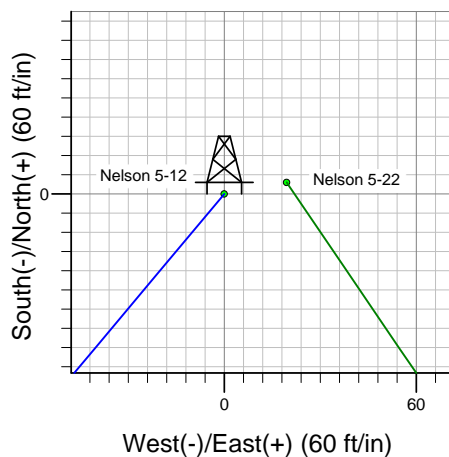
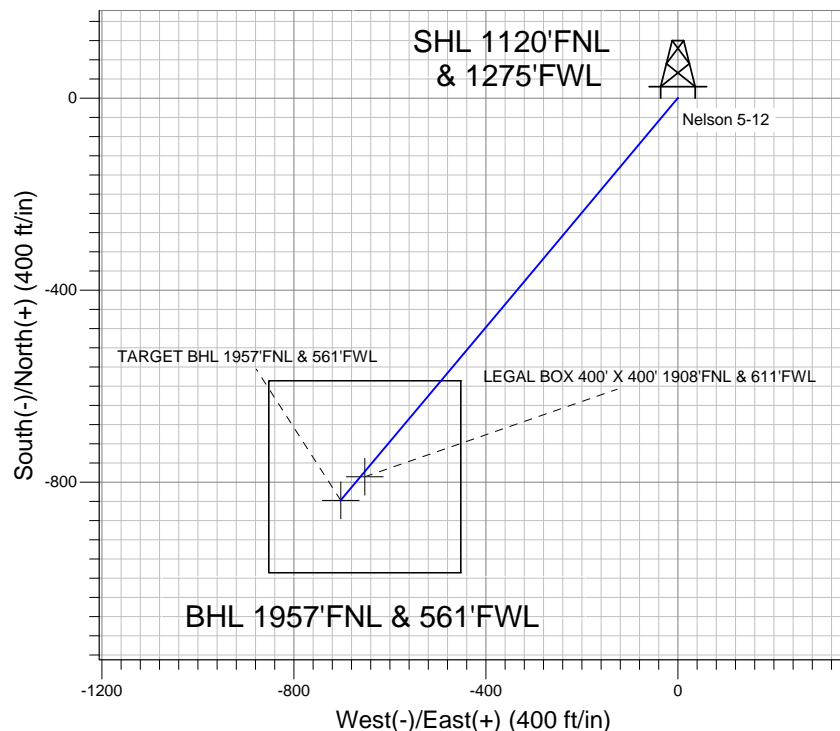
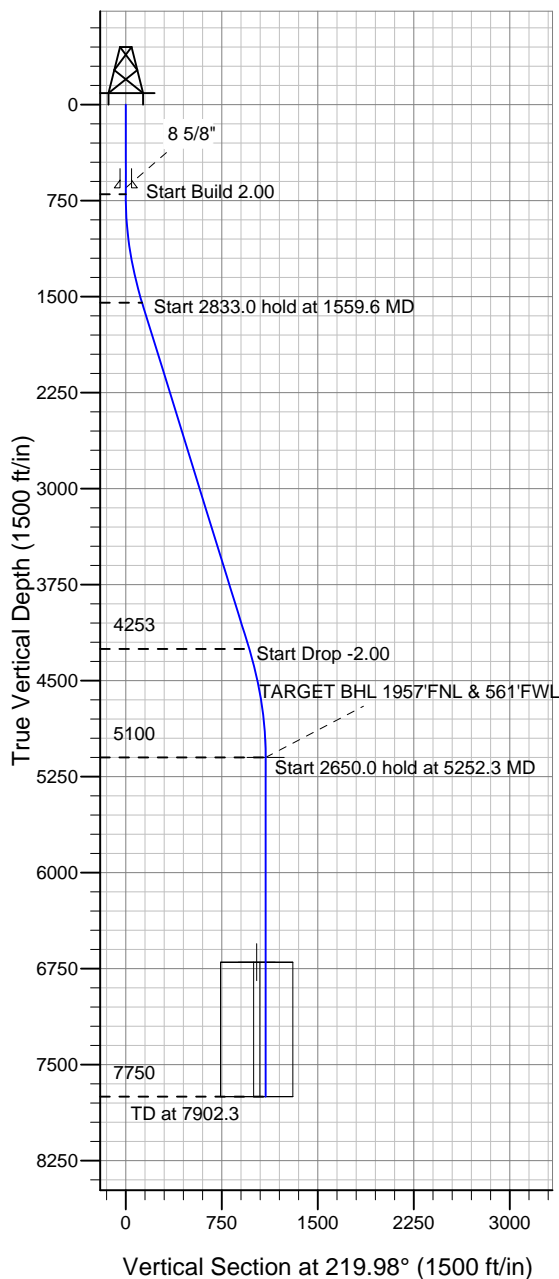


### Well Name: Nelson 5-12

Surface Location: Nelson 5-12 Pad Sec.5-T4N-R67W  
 North American Datum 1983, US State Plane 1983 Colorado Northern Zone  
 Ground Elevation: 4851.0  
 +N/-S 0.0 +E/-W 0.0 Northing 1369407.58 Easting 3161869.85 Latitude 40.345970 Longitude -104.919260  
 Original Well Elev @ 4864.0ft (Original Well Elev)

### TRILLOGY RESOURCES, LLC. Weld County, CO



Nelson 5-12 Pad Sec.5-T4N-R67W  
 Nelson 5-12  
 Plan #2 (9-23-11)  
 14:44, September 23 2011



Azimuths to True North  
 Magnetic North: 8.91°  
 Magnetic Field  
 Strength: 53057.8snT  
 Dip Angle: 66.97°  
 Date: 9/21/2011  
 Model: IGRF2010

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1957'FNL & 561'FWL	5100.0	-837.9	-702.5	40.343670	-104.921780	Point
LEGAL BOX 400' X 400' 1908'FNL & 611'FWL	6700.0	-788.9	-652.5	40.343804	-104.921601	Rectangle (Sides: L400.0 W400.0)

#### 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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1559.6	17.19	219.98	1546.8	-98.1	-82.2	2.00	219.98	128.0	
4	4392.7	17.19	219.98	4253.2	-739.8	-620.2	0.00	0.00	965.4	
5	5252.3	0.00	0.00	5100.0	-837.9	-702.5	2.00	180.00	1093.4	TARGET BHL 1957'FNL & 561'FWL
6	7902.3	0.00	0.00	7750.0	-837.9	-702.5	0.00	0.00	1093.4	



# **TRILLOGY RESOURCES, LLC. Weld County, CO**

**SEC.5-T4N-R67W**

**Nelson 5-12 Pad Sec.5-T4N-R67W**

**Nelson 5-12**

**Wellbore #1**

**Plan: Plan #2 (9-23-11)**

## **Standard Planning Report**

**23 September, 2011**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

<b>Project</b>	SEC.5-T4N-R67W, Weld County, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	Nelson 5-12 Pad Sec.5-T4N-R67W		
<b>Site Position:</b>		<b>Northing:</b>	1,369,407.60 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,161,869.85 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40.345970
		<b>Longitude:</b>	-104.919260
		<b>Grid Convergence:</b>	0.38 °

<b>Well</b>	Nelson 5-12		
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b> 1,369,407.58 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b> 3,161,869.85 ft
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b> ft
			<b>Latitude:</b> 40.345970
			<b>Longitude:</b> -104.919260
			<b>Ground Level:</b> 4,851.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/21/2011	8.91	66.97	53,058

<b>Design</b>	Plan #2 (9-23-11)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	219.98

<b>Plan Sections</b>										
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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,559.6	17.19	219.98	1,546.8	-98.1	-82.2	2.00	2.00	0.00	219.98	
4,392.7	17.19	219.98	4,253.2	-739.8	-620.2	0.00	0.00	0.00	0.00	
5,252.3	0.00	0.00	5,100.0	-837.9	-702.5	2.00	-2.00	0.00	180.00	TARGET BHL 1957
7,902.3	0.00	0.00	7,750.0	-837.9	-702.5	0.00	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
650.0	0.00	0.00	650.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
680.0	0.00	0.00	680.0	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
720.0	0.40	219.98	720.0	-0.1	0.0	0.1	2.00	2.00	0.00
760.0	1.20	219.98	760.0	-0.5	-0.4	0.6	2.00	2.00	0.00
800.0	2.00	219.98	800.0	-1.3	-1.1	1.7	2.00	2.00	0.00
840.0	2.80	219.98	839.9	-2.6	-2.2	3.4	2.00	2.00	0.00
880.0	3.60	219.98	879.9	-4.3	-3.6	5.7	2.00	2.00	0.00
920.0	4.40	219.98	919.8	-6.5	-5.4	8.4	2.00	2.00	0.00
960.0	5.20	219.98	959.6	-9.0	-7.6	11.8	2.00	2.00	0.00
1,000.0	6.00	219.98	999.5	-12.0	-10.1	15.7	2.00	2.00	0.00
1,040.0	6.80	219.98	1,039.2	-15.4	-12.9	20.2	2.00	2.00	0.00
1,080.0	7.60	219.98	1,078.9	-19.3	-16.2	25.2	2.00	2.00	0.00
1,120.0	8.40	219.98	1,118.5	-23.6	-19.7	30.7	2.00	2.00	0.00
1,160.0	9.20	219.98	1,158.0	-28.2	-23.7	36.9	2.00	2.00	0.00
1,200.0	10.00	219.98	1,197.5	-33.4	-28.0	43.5	2.00	2.00	0.00
1,240.0	10.80	219.98	1,236.8	-38.9	-32.6	50.7	2.00	2.00	0.00
1,280.0	11.60	219.98	1,276.0	-44.8	-37.6	58.5	2.00	2.00	0.00
1,320.0	12.40	219.98	1,315.2	-51.2	-42.9	66.8	2.00	2.00	0.00
1,360.0	13.20	219.98	1,354.2	-58.0	-48.6	75.7	2.00	2.00	0.00
1,400.0	14.00	219.98	1,393.1	-65.2	-54.7	85.1	2.00	2.00	0.00
1,440.0	14.80	219.98	1,431.8	-72.8	-61.1	95.0	2.00	2.00	0.00
1,480.0	15.60	219.98	1,470.4	-80.9	-67.8	105.5	2.00	2.00	0.00
1,520.0	16.40	219.98	1,508.8	-89.3	-74.9	116.6	2.00	2.00	0.00
1,559.6	17.19	219.98	1,546.8	-98.1	-82.2	128.0	2.00	2.00	0.00
1,560.0	17.19	219.98	1,547.1	-98.2	-82.3	128.1	0.00	0.00	0.00
1,600.0	17.19	219.98	1,585.4	-107.2	-89.9	139.9	0.00	0.00	0.00
1,640.0	17.19	219.98	1,623.6	-116.3	-97.5	151.8	0.00	0.00	0.00
1,680.0	17.19	219.98	1,661.8	-125.4	-105.1	163.6	0.00	0.00	0.00
1,720.0	17.19	219.98	1,700.0	-134.4	-112.7	175.4	0.00	0.00	0.00
1,760.0	17.19	219.98	1,738.2	-143.5	-120.3	187.2	0.00	0.00	0.00
1,800.0	17.19	219.98	1,776.4	-152.5	-127.9	199.1	0.00	0.00	0.00
1,840.0	17.19	219.98	1,814.6	-161.6	-135.5	210.9	0.00	0.00	0.00
1,880.0	17.19	219.98	1,852.8	-170.7	-143.1	222.7	0.00	0.00	0.00
1,920.0	17.19	219.98	1,891.1	-179.7	-150.7	234.5	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

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)
1,960.0	17.19	219.98	1,929.3	-188.8	-158.3	246.3	0.00	0.00	0.00
2,000.0	17.19	219.98	1,967.5	-197.8	-165.9	258.2	0.00	0.00	0.00
2,040.0	17.19	219.98	2,005.7	-206.9	-173.5	270.0	0.00	0.00	0.00
2,080.0	17.19	219.98	2,043.9	-216.0	-181.1	281.8	0.00	0.00	0.00
2,120.0	17.19	219.98	2,082.1	-225.0	-188.7	293.6	0.00	0.00	0.00
2,160.0	17.19	219.98	2,120.3	-234.1	-196.2	305.5	0.00	0.00	0.00
2,200.0	17.19	219.98	2,158.5	-243.1	-203.8	317.3	0.00	0.00	0.00
2,240.0	17.19	219.98	2,196.8	-252.2	-211.4	329.1	0.00	0.00	0.00
2,280.0	17.19	219.98	2,235.0	-261.3	-219.0	340.9	0.00	0.00	0.00
2,320.0	17.19	219.98	2,273.2	-270.3	-226.6	352.8	0.00	0.00	0.00
2,360.0	17.19	219.98	2,311.4	-279.4	-234.2	364.6	0.00	0.00	0.00
2,400.0	17.19	219.98	2,349.6	-288.4	-241.8	376.4	0.00	0.00	0.00
2,440.0	17.19	219.98	2,387.8	-297.5	-249.4	388.2	0.00	0.00	0.00
2,480.0	17.19	219.98	2,426.0	-306.6	-257.0	400.0	0.00	0.00	0.00
2,520.0	17.19	219.98	2,464.2	-315.6	-264.6	411.9	0.00	0.00	0.00
2,560.0	17.19	219.98	2,502.5	-324.7	-272.2	423.7	0.00	0.00	0.00
2,600.0	17.19	219.98	2,540.7	-333.7	-279.8	435.5	0.00	0.00	0.00
2,640.0	17.19	219.98	2,578.9	-342.8	-287.4	447.3	0.00	0.00	0.00
2,680.0	17.19	219.98	2,617.1	-351.9	-295.0	459.2	0.00	0.00	0.00
2,720.0	17.19	219.98	2,655.3	-360.9	-302.6	471.0	0.00	0.00	0.00
2,760.0	17.19	219.98	2,693.5	-370.0	-310.2	482.8	0.00	0.00	0.00
2,800.0	17.19	219.98	2,731.7	-379.0	-317.8	494.6	0.00	0.00	0.00
2,840.0	17.19	219.98	2,769.9	-388.1	-325.4	506.5	0.00	0.00	0.00
2,880.0	17.19	219.98	2,808.2	-397.2	-333.0	518.3	0.00	0.00	0.00
2,920.0	17.19	219.98	2,846.4	-406.2	-340.6	530.1	0.00	0.00	0.00
2,960.0	17.19	219.98	2,884.6	-415.3	-348.2	541.9	0.00	0.00	0.00
3,000.0	17.19	219.98	2,922.8	-424.3	-355.8	553.8	0.00	0.00	0.00
3,040.0	17.19	219.98	2,961.0	-433.4	-363.4	565.6	0.00	0.00	0.00
3,080.0	17.19	219.98	2,999.2	-442.5	-371.0	577.4	0.00	0.00	0.00
3,120.0	17.19	219.98	3,037.4	-451.5	-378.5	589.2	0.00	0.00	0.00
3,160.0	17.19	219.98	3,075.7	-460.6	-386.1	601.0	0.00	0.00	0.00
3,200.0	17.19	219.98	3,113.9	-469.7	-393.7	612.9	0.00	0.00	0.00
3,240.0	17.19	219.98	3,152.1	-478.7	-401.3	624.7	0.00	0.00	0.00
3,280.0	17.19	219.98	3,190.3	-487.8	-408.9	636.5	0.00	0.00	0.00
3,320.0	17.19	219.98	3,228.5	-496.8	-416.5	648.3	0.00	0.00	0.00
3,360.0	17.19	219.98	3,266.7	-505.9	-424.1	660.2	0.00	0.00	0.00
3,400.0	17.19	219.98	3,304.9	-515.0	-431.7	672.0	0.00	0.00	0.00
3,440.0	17.19	219.98	3,343.1	-524.0	-439.3	683.8	0.00	0.00	0.00
3,480.0	17.19	219.98	3,381.4	-533.1	-446.9	695.6	0.00	0.00	0.00
3,520.0	17.19	219.98	3,419.6	-542.1	-454.5	707.5	0.00	0.00	0.00
3,560.0	17.19	219.98	3,457.8	-551.2	-462.1	719.3	0.00	0.00	0.00
3,600.0	17.19	219.98	3,496.0	-560.3	-469.7	731.1	0.00	0.00	0.00
3,640.0	17.19	219.98	3,534.2	-569.3	-477.3	742.9	0.00	0.00	0.00
3,680.0	17.19	219.98	3,572.4	-578.4	-484.9	754.7	0.00	0.00	0.00
3,720.0	17.19	219.98	3,610.6	-587.4	-492.5	766.6	0.00	0.00	0.00
3,760.0	17.19	219.98	3,648.8	-596.5	-500.1	778.4	0.00	0.00	0.00
3,800.0	17.19	219.98	3,687.1	-605.6	-507.7	790.2	0.00	0.00	0.00
3,840.0	17.19	219.98	3,725.3	-614.6	-515.3	802.0	0.00	0.00	0.00
3,880.0	17.19	219.98	3,763.5	-623.7	-522.9	813.9	0.00	0.00	0.00
3,920.0	17.19	219.98	3,801.7	-632.7	-530.5	825.7	0.00	0.00	0.00
3,960.0	17.19	219.98	3,839.9	-641.8	-538.1	837.5	0.00	0.00	0.00
4,000.0	17.19	219.98	3,878.1	-650.9	-545.7	849.3	0.00	0.00	0.00
4,040.0	17.19	219.98	3,916.3	-659.9	-553.3	861.2	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

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)
4,080.0	17.19	219.98	3,954.5	-669.0	-560.9	873.0	0.00	0.00	0.00
4,120.0	17.19	219.98	3,992.8	-678.0	-568.4	884.8	0.00	0.00	0.00
4,160.0	17.19	219.98	4,031.0	-687.1	-576.0	896.6	0.00	0.00	0.00
4,200.0	17.19	219.98	4,069.2	-696.2	-583.6	908.4	0.00	0.00	0.00
4,240.0	17.19	219.98	4,107.4	-705.2	-591.2	920.3	0.00	0.00	0.00
4,280.0	17.19	219.98	4,145.6	-714.3	-598.8	932.1	0.00	0.00	0.00
4,320.0	17.19	219.98	4,183.8	-723.3	-606.4	943.9	0.00	0.00	0.00
4,360.0	17.19	219.98	4,222.0	-732.4	-614.0	955.7	0.00	0.00	0.00
4,392.7	17.19	219.98	4,253.2	-739.8	-620.2	965.4	0.00	0.00	0.00
4,400.0	17.05	219.98	4,260.2	-741.5	-621.6	967.6	2.00	-2.00	0.00
4,440.0	16.25	219.98	4,298.6	-750.2	-629.0	979.0	2.00	-2.00	0.00
4,480.0	15.45	219.98	4,337.1	-758.6	-636.0	989.9	2.00	-2.00	0.00
4,520.0	14.65	219.98	4,375.7	-766.6	-642.7	1,000.3	2.00	-2.00	0.00
4,560.0	13.85	219.98	4,414.5	-774.1	-649.0	1,010.2	2.00	-2.00	0.00
4,600.0	13.05	219.98	4,453.4	-781.2	-655.0	1,019.5	2.00	-2.00	0.00
4,640.0	12.25	219.98	4,492.4	-787.9	-660.6	1,028.2	2.00	-2.00	0.00
4,680.0	11.45	219.98	4,531.5	-794.2	-665.9	1,036.4	2.00	-2.00	0.00
4,720.0	10.65	219.98	4,570.8	-800.1	-670.8	1,044.1	2.00	-2.00	0.00
4,760.0	9.85	219.98	4,610.2	-805.6	-675.4	1,051.2	2.00	-2.00	0.00
4,800.0	9.05	219.98	4,649.6	-810.6	-679.6	1,057.8	2.00	-2.00	0.00
4,840.0	8.25	219.98	4,689.2	-815.2	-683.4	1,063.8	2.00	-2.00	0.00
4,880.0	7.45	219.98	4,728.8	-819.4	-686.9	1,069.2	2.00	-2.00	0.00
4,920.0	6.65	219.98	4,768.5	-823.1	-690.1	1,074.1	2.00	-2.00	0.00
4,960.0	5.85	219.98	4,808.2	-826.5	-692.9	1,078.5	2.00	-2.00	0.00
5,000.0	5.05	219.98	4,848.1	-829.4	-695.3	1,082.3	2.00	-2.00	0.00
5,040.0	4.25	219.98	4,887.9	-831.9	-697.4	1,085.5	2.00	-2.00	0.00
5,080.0	3.45	219.98	4,927.8	-833.9	-699.1	1,088.2	2.00	-2.00	0.00
5,120.0	2.65	219.98	4,967.8	-835.5	-700.5	1,090.3	2.00	-2.00	0.00
5,160.0	1.85	219.98	5,007.7	-836.7	-701.5	1,091.9	2.00	-2.00	0.00
5,200.0	1.05	219.98	5,047.7	-837.5	-702.2	1,092.9	2.00	-2.00	0.00
5,240.0	0.25	219.98	5,087.7	-837.9	-702.4	1,093.4	2.00	-2.00	0.00
5,252.3	0.00	0.00	5,100.0	-837.9	-702.5	1,093.4	2.00	-2.00	1,141.45
TARGET BHL 1957'FNL & 561'FWL									
5,280.0	0.00	0.00	5,127.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,320.0	0.00	0.00	5,167.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,360.0	0.00	0.00	5,207.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,247.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,440.0	0.00	0.00	5,287.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,480.0	0.00	0.00	5,327.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,520.0	0.00	0.00	5,367.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,560.0	0.00	0.00	5,407.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,447.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,640.0	0.00	0.00	5,487.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,680.0	0.00	0.00	5,527.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,720.0	0.00	0.00	5,567.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,760.0	0.00	0.00	5,607.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,647.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,840.0	0.00	0.00	5,687.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,880.0	0.00	0.00	5,727.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,920.0	0.00	0.00	5,767.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
5,960.0	0.00	0.00	5,807.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,847.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,040.0	0.00	0.00	5,887.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

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)
6,080.0	0.00	0.00	5,927.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,120.0	0.00	0.00	5,967.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,160.0	0.00	0.00	6,007.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,047.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,240.0	0.00	0.00	6,087.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,280.0	0.00	0.00	6,127.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,320.0	0.00	0.00	6,167.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,360.0	0.00	0.00	6,207.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,247.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,440.0	0.00	0.00	6,287.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,480.0	0.00	0.00	6,327.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,520.0	0.00	0.00	6,367.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,560.0	0.00	0.00	6,407.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,447.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,640.0	0.00	0.00	6,487.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,680.0	0.00	0.00	6,527.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,720.0	0.00	0.00	6,567.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,760.0	0.00	0.00	6,607.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,647.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,840.0	0.00	0.00	6,687.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,852.3	0.00	0.00	6,700.0	-837.9	-702.5	1,093.4	0.00	0.00	0.00
LEGAL BOX 400' X 400' 1908'FNL & 611'FWL									
6,880.0	0.00	0.00	6,727.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,920.0	0.00	0.00	6,767.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
6,960.0	0.00	0.00	6,807.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,847.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,040.0	0.00	0.00	6,887.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,080.0	0.00	0.00	6,927.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,120.0	0.00	0.00	6,967.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,160.0	0.00	0.00	7,007.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,047.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,240.0	0.00	0.00	7,087.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,280.0	0.00	0.00	7,127.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,320.0	0.00	0.00	7,167.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,360.0	0.00	0.00	7,207.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,247.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,440.0	0.00	0.00	7,287.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,480.0	0.00	0.00	7,327.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,520.0	0.00	0.00	7,367.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,560.0	0.00	0.00	7,407.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,447.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,640.0	0.00	0.00	7,487.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,680.0	0.00	0.00	7,527.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,720.0	0.00	0.00	7,567.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,760.0	0.00	0.00	7,607.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,647.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,840.0	0.00	0.00	7,687.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,880.0	0.00	0.00	7,727.7	-837.9	-702.5	1,093.4	0.00	0.00	0.00
7,902.3	0.00	0.00	7,750.0	-837.9	-702.5	1,093.4	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Project:</b>	SEC.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (9-23-11)		

### Targets

#### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
LEGAL BOX 400' X 400'	0.00	0.00	6,700.0	-788.9	-652.5	1,368,614.47	3,161,222.56	40.343804	-104.921601
- plan misses target center by 70.0ft at 6852.3ft MD (6700.0 TVD, -837.9 N, -702.5 E)									
- Rectangle (sides W400.0 H400.0 D1,050.0)									
TARGET BHL 1957'F	0.00	0.00	5,100.0	-837.9	-702.5	1,368,565.15	3,161,172.93	40.343670	-104.921780
- plan hits target center									
- Point									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
650.0	650.0	8 5/8"	8-5/8	12-1/4





## **Directional**

# **TRILLOGY RESOURCES, LLC. Weld County, CO**

**SEC.5-T4N-R67W**

**Nelson 5-12 Pad Sec.5-T4N-R67W**

**Nelson 5-12**

**Wellbore #1**

**Plan #1 (9-21-11)**

## **Anticollision Report**

**23 September, 2011**

<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Project:</b>	SEC.5-T4N-R67W	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Reference Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (9-21-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (9-21-11)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	9/23/2011		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	7,902.3	Plan #2 (9-23-11) (Wellbore #1)		

<b>Summary</b>							
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>	
<b>Offset Well - Wellbore - Design</b>							
Nelson 5-12 Pad Sec.5-T4N-R67W							
Nelson 5-22 - Wellbore #1 - Plan #1 (9-21-11)	700.0	699.0	19.8	16.9	6.798	CC, ES	
Nelson 5-22 - Wellbore #1 - Plan #1 (9-21-11)	800.0	799.0	21.2	17.9	6.346	SF	

<b>Offset Design</b>	Nelson 5-12 Pad Sec.5-T4N-R67W - Nelson 5-22 - Wellbore #1 - Plan #1 (9-21-11)												<b>Offset Site Error:</b>	0.0ft
<b>Survey Program:</b>	0-MWD												<b>Offset Well Error:</b>	0.0ft
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>		<b>Minimum Separation</b>		<b>Warning</b>						
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>		
0.0	0.0	0.0	0.0	0.0	0.0	79.42	3.6	19.5	19.9	19.9	0.00	N/A		
100.0	100.0	99.0	99.0	0.1	0.1	79.42	3.6	19.5	19.8	19.6	0.22	88.754		
200.0	200.0	199.0	199.0	0.3	0.3	79.42	3.6	19.5	19.8	19.2	0.67	29.535		
300.0	300.0	299.0	299.0	0.6	0.6	79.42	3.6	19.5	19.8	18.7	1.12	17.698		
400.0	400.0	399.0	399.0	0.8	0.8	79.42	3.6	19.5	19.8	18.3	1.57	12.634		
500.0	500.0	499.0	499.0	1.0	1.0	79.42	3.6	19.5	19.8	17.8	2.02	9.823		
600.0	600.0	599.0	599.0	1.2	1.2	79.42	3.6	19.5	19.8	17.4	2.47	8.036		
700.0	700.0	699.0	699.0	1.5	1.5	79.42	3.6	19.5	19.8	16.9	2.92	6.798	CC, ES	
800.0	800.0	799.0	799.0	1.7	1.7	-143.53	3.6	19.5	21.2	17.9	3.34	6.346	SF	
900.0	899.8	898.8	898.8	1.9	1.9	-150.46	3.6	19.5	25.6	21.9	3.75	6.827		
1,000.0	999.5	998.3	998.3	2.1	2.1	-154.89	2.2	20.5	33.7	29.6	4.14	8.134		
1,100.0	1,098.7	1,097.4	1,097.2	2.3	2.3	-154.90	-2.0	23.3	45.6	41.0	4.53	10.061		
1,200.0	1,197.5	1,195.8	1,195.3	2.6	2.5	-153.04	-9.0	28.1	61.1	56.2	4.94	12.362		
1,300.0	1,295.6	1,293.4	1,292.2	2.9	2.7	-150.63	-18.7	34.7	80.4	75.0	5.40	14.890		
1,400.0	1,393.1	1,389.9	1,387.5	3.3	3.0	-148.23	-30.9	43.0	103.6	97.7	5.92	17.507		
1,500.0	1,489.6	1,485.0	1,480.9	3.7	3.2	-146.02	-45.6	52.9	130.6	124.1	6.50	20.090		
1,559.6	1,546.8	1,541.0	1,535.7	4.0	3.4	-144.81	-55.4	59.6	148.5	141.6	6.88	21.566		
1,600.0	1,585.4	1,578.7	1,572.3	4.2	3.6	-144.13	-62.6	64.5	161.2	154.0	7.17	22.490		
1,700.0	1,680.9	1,671.3	1,662.0	4.8	4.0	-142.22	-81.7	77.5	193.3	185.4	7.92	24.417		
1,800.0	1,776.4	1,763.6	1,750.6	5.3	4.4	-140.14	-103.1	92.0	226.7	218.0	8.74	25.944		
1,900.0	1,871.9	1,857.4	1,840.5	5.9	4.9	-138.42	-125.4	107.1	260.6	251.0	9.61	27.117		
2,000.0	1,967.5	1,951.3	1,930.4	6.5	5.4	-137.09	-147.7	122.3	294.7	284.2	10.50	28.060		
2,100.0	2,063.0	2,045.1	2,020.2	7.1	5.9	-136.03	-170.0	137.4	328.9	317.5	11.41	28.817		
2,200.0	2,158.5	2,138.9	2,110.1	7.7	6.4	-135.17	-192.3	152.6	363.1	350.8	12.34	29.434		

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

<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Project:</b>	SEC.5-T4N-R67W	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Reference Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (9-21-11)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Nelson 5-12 Pad Sec.5-T4N-R67W - Nelson 5-22 - Wellbore #1 - Plan #1 (9-21-11)													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		
2,300.0	2,254.1	2,232.7	2,200.0	8.3	6.9	-134.46	-214.6	167.7	397.5	384.2	13.27	29.944		
2,400.0	2,349.6	2,326.6	2,289.8	8.9	7.4	-133.87	-236.9	182.9	431.8	417.6	14.22	30.370		
2,500.0	2,445.1	2,420.4	2,379.7	9.5	8.0	-133.36	-259.2	198.0	466.2	451.0	15.17	30.731		
2,600.0	2,540.7	2,514.2	2,469.6	10.1	8.5	-132.92	-281.5	213.1	500.6	484.5	16.13	31.040		
2,700.0	2,636.2	2,608.0	2,559.4	10.7	9.1	-132.54	-303.8	228.3	535.1	518.0	17.09	31.305		
2,800.0	2,731.7	2,701.8	2,649.3	11.3	9.6	-132.20	-326.1	243.4	569.5	551.5	18.06	31.536		
2,900.0	2,827.3	2,795.7	2,739.2	11.9	10.2	-131.90	-348.4	258.6	604.0	585.0	19.03	31.739		
3,000.0	2,922.8	2,889.5	2,829.1	12.5	10.7	-131.64	-370.7	273.7	638.5	618.5	20.01	31.917		
3,100.0	3,018.3	2,983.3	2,918.9	13.1	11.3	-131.40	-393.0	288.8	673.0	652.0	20.98	32.075		
3,200.0	3,113.9	3,077.1	3,008.8	13.7	11.9	-131.18	-415.3	304.0	707.5	685.6	21.96	32.216		
3,300.0	3,209.4	3,171.0	3,098.7	14.3	12.4	-130.99	-437.6	319.1	742.1	719.1	22.94	32.343		
3,400.0	3,304.9	3,264.8	3,188.5	14.9	13.0	-130.81	-459.9	334.3	776.6	752.7	23.93	32.458		
3,500.0	3,400.5	3,358.6	3,278.4	15.5	13.5	-130.65	-482.2	349.4	811.1	786.2	24.91	32.561		
3,600.0	3,496.0	3,452.4	3,368.3	16.2	14.1	-130.50	-504.5	364.6	845.7	819.8	25.90	32.655		
3,700.0	3,591.5	3,546.3	3,458.1	16.8	14.7	-130.36	-526.8	379.7	880.2	853.3	26.88	32.741		
3,800.0	3,687.1	3,640.1	3,548.0	17.4	15.2	-130.23	-549.1	394.8	914.8	886.9	27.87	32.820		
3,900.0	3,782.6	3,733.9	3,637.9	18.0	15.8	-130.11	-571.4	410.0	949.3	920.5	28.86	32.892		
4,000.0	3,878.1	3,827.7	3,727.7	18.6	16.4	-130.00	-593.7	425.1	983.9	954.0	29.85	32.958		
4,100.0	3,973.7	3,921.6	3,817.6	19.2	16.9	-129.90	-616.0	440.3	1,018.4	987.6	30.84	33.020		
4,200.0	4,069.2	4,015.4	3,907.5	19.9	17.5	-129.81	-638.3	455.4	1,053.0	1,021.2	31.83	33.077		
4,300.0	4,164.7	4,109.2	3,997.3	20.5	18.1	-129.72	-660.6	470.5	1,087.6	1,054.7	32.83	33.130		
4,392.7	4,253.2	4,196.1	4,080.6	21.0	18.6	-129.64	-681.3	484.6	1,119.6	1,085.8	33.75	33.175		
4,400.0	4,260.2	4,203.0	4,087.2	21.1	18.6	-129.67	-682.9	485.7	1,122.1	1,088.3	33.82	33.177		
4,500.0	4,356.3	4,297.4	4,177.6	21.5	19.2	-130.06	-705.3	500.9	1,155.5	1,120.7	34.76	33.237		
4,600.0	4,453.4	4,419.4	4,295.2	21.9	19.7	-130.28	-732.3	519.2	1,185.6	1,150.0	35.64	33.271		
4,700.0	4,551.1	4,544.2	4,416.8	22.2	20.2	-130.50	-755.5	535.0	1,211.4	1,175.0	36.43	33.257		
4,800.0	4,649.6	4,671.2	4,541.7	22.5	20.6	-130.70	-774.6	547.9	1,232.7	1,195.5	37.13	33.202		
4,900.0	4,748.6	4,800.1	4,669.3	22.8	20.9	-130.90	-789.3	557.9	1,249.3	1,211.6	37.73	33.111		
5,000.0	4,848.1	4,930.4	4,799.0	23.0	21.2	-131.09	-799.3	564.7	1,261.3	1,223.1	38.22	32.999		
5,100.0	4,947.8	5,061.5	4,930.0	23.2	21.4	-131.28	-804.4	568.2	1,268.5	1,229.9	38.60	32.859		
5,200.0	5,047.7	5,178.3	5,046.7	23.3	21.5	-131.43	-805.1	568.7	1,271.2	1,232.3	38.88	32.696		
5,252.3	5,100.0	5,230.5	5,099.0	23.4	21.6	88.52	-805.1	568.7	1,271.5	1,232.5	39.00	32.607		
5,300.0	5,147.7	5,278.3	5,146.7	23.4	21.6	88.52	-805.1	568.7	1,271.5	1,232.4	39.10	32.520		
5,400.0	5,247.7	5,378.3	5,246.7	23.5	21.7	88.52	-805.1	568.7	1,271.5	1,232.2	39.31	32.344		
5,500.0	5,347.7	5,478.3	5,346.7	23.6	21.8	88.52	-805.1	568.7	1,271.5	1,232.0	39.53	32.167		
5,600.0	5,447.7	5,578.3	5,446.7	23.7	21.9	88.52	-805.1	568.7	1,271.5	1,231.8	39.75	31.989		
5,700.0	5,547.7	5,678.3	5,546.7	23.8	22.0	88.52	-805.1	568.7	1,271.5	1,231.6	39.97	31.810		
5,800.0	5,647.7	5,778.3	5,646.7	23.9	22.1	88.52	-805.1	568.7	1,271.5	1,231.3	40.20	31.629		
5,900.0	5,747.7	5,878.3	5,746.7	24.0	22.2	88.52	-805.1	568.7	1,271.5	1,231.1	40.43	31.448		
6,000.0	5,847.7	5,978.3	5,846.7	24.1	22.4	88.52	-805.1	568.7	1,271.5	1,230.9	40.67	31.267		
6,100.0	5,947.7	6,078.3	5,946.7	24.2	22.5	88.52	-805.1	568.7	1,271.5	1,230.6	40.91	31.084		
6,200.0	6,047.7	6,178.3	6,046.7	24.3	22.6	88.52	-805.1	568.7	1,271.5	1,230.4	41.15	30.901		
6,300.0	6,147.7	6,278.3	6,146.7	24.4	22.7	88.52	-805.1	568.7	1,271.5	1,230.1	41.39	30.718		
6,400.0	6,247.7	6,378.3	6,246.7	24.5	22.8	88.52	-805.1	568.7	1,271.5	1,229.9	41.64	30.534		
6,500.0	6,347.7	6,478.3	6,346.7	24.6	22.9	88.52	-805.1	568.7	1,271.5	1,229.6	41.90	30.350		
6,600.0	6,447.7	6,578.3	6,446.7	24.7	23.1	88.52	-805.1	568.7	1,271.5	1,229.4	42.15	30.166		
6,700.0	6,547.7	6,678.3	6,546.7	24.8	23.2	88.52	-805.1	568.7	1,271.5	1,229.1	42.41	29.981		
6,800.0	6,647.7	6,778.3	6,646.7	24.9	23.3	88.52	-805.1	568.7	1,271.5	1,228.9	42.67	29.797		
6,900.0	6,747.7	6,878.3	6,746.7	25.1	23.4	88.52	-805.1	568.7	1,271.5	1,228.6	42.94	29.613		
7,000.0	6,847.7	6,978.3	6,846.7	25.2	23.5	88.52	-805.1	568.7	1,271.5	1,228.3	43.21	29.429		
7,100.0	6,947.7	7,078.3	6,946.7	25.3	23.7	88.52	-805.1	568.7	1,271.5	1,228.1	43.48	29.246		

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

<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Project:</b>	SEC.5-T4N-R67W	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Reference Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (9-21-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Nelson 5-12 Pad Sec.5-T4N-R67W - Nelson 5-22 - Wellbore #1 - Plan #1 (9-21-11)													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b>	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		
7,200.0	7,047.7	7,178.3	7,046.7	25.4	23.8	88.52	-805.1	568.7	1,271.5	1,227.8	43.75	29.062		
7,300.0	7,147.7	7,278.3	7,146.7	25.5	23.9	88.52	-805.1	568.7	1,271.5	1,227.5	44.03	28.879		
7,400.0	7,247.7	7,378.3	7,246.7	25.7	24.1	88.52	-805.1	568.7	1,271.5	1,227.2	44.31	28.697		
7,500.0	7,347.7	7,478.3	7,346.7	25.8	24.2	88.52	-805.1	568.7	1,271.5	1,226.9	44.59	28.515		
7,600.0	7,447.7	7,578.3	7,446.7	25.9	24.3	88.52	-805.1	568.7	1,271.5	1,226.7	44.88	28.334		
7,700.0	7,547.7	7,678.3	7,546.7	26.0	24.5	88.52	-805.1	568.7	1,271.5	1,226.4	45.17	28.153		
7,800.0	7,647.7	7,778.3	7,646.7	26.2	24.6	88.52	-805.1	568.7	1,271.5	1,226.1	45.46	27.973		
7,902.3	7,750.0	7,880.5	7,749.0	26.3	24.8	88.52	-805.1	568.7	1,271.5	1,225.8	45.76	27.790		

<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Project:</b>	SEC.5-T4N-R67W	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Reference Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (9-21-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4864.0ft (Original Well Elev) Coordinates are relative to: Nelson 5-12  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.38°



<b>Company:</b>	TRILLOGY RESOURCES, LLC. Weld County, CO	<b>Local Co-ordinate Reference:</b>	Well Nelson 5-12
<b>Project:</b>	SEC.5-T4N-R67W	<b>TVD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Reference Site:</b>	Nelson 5-12 Pad Sec.5-T4N-R67W	<b>MD Reference:</b>	WELL @ 4864.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Nelson 5-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (9-21-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4864.0ft (Original Well Elev) Coordinates are relative to: Nelson 5-12  
Offset Depths are relative to Offset Datum  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is -105.500000 °  
Grid Convergence at Surface is: 0.38°

