

Condor Energy, Weld County, CO

Well Name: **Logan 2H**

Surface Location: Logan 2H Pad Sec.19-T7N-R59W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4939.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1448209.89	3411571.45	40.554300	-104.018800

RKB - 13' WELL @ 4952.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINE 600' BHL	1.0	4314.1	5673.4	Polygon
HARDLINE 600' SHL	1.0	270.0	-200.0	Polygon
SECTION LINE 330'S of SHL	1.0	-330.0	-200.0	Polygon
BHL 640'FNL & 1660'FEL	6119.4	4274.1	5473.4	Point
WP12	6123.5	4058.7	5203.0	Point
WP6	6123.9	2186.1	2857.3	Point
WP5	6124.6	1874.0	2466.3	Point
Landing Point 645'FSL & 1240'FEL	6126.1	313.3	511.3	Point
WP7	6126.2	2498.2	3248.2	Point
WP11	6126.2	3746.6	4812.1	Point
WP4	6130.4	1561.9	2075.4	Point
WP3	6131.2	1249.8	1684.4	Point
WP1	6131.7	625.6	902.5	Point
WP2	6132.2	937.7	1293.4	Point
WP10	6132.3	3434.5	4421.1	Point
WP8	6142.3	2810.3	3639.2	Point
WP9	6148.4	3122.4	4030.2	Point

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	3200.0	0.00	0.00	3200.0	0.0	0.0	0.00	0.00	0.0	
3	3814.3	6.14	200.47	3813.2	-30.8	-11.5	1.00	200.47	-28.0	
4	4699.7	6.14	200.47	4693.4	-119.6	-44.6	0.00	0.00	-108.8	
5	5006.8	0.00	0.00	5000.0	-135.0	-50.4	2.00	180.00	-122.8	
6	5416.8	0.00	0.00	5409.9	-135.0	-50.4	0.00	0.00	-122.8	
7	6541.8	90.00	51.40	6126.1	311.8	509.4	8.00	51.40	593.3	
8	6544.3	90.00	51.40	6126.1	313.3	511.3	0.00	0.00	595.8	Landing Point 645'FSL & 1240'FEL
9	6577.2	89.34	51.40	6126.3	333.9	537.1	2.00	-179.52	628.8	
10	7044.8	89.34	51.40	6131.7	625.6	902.5	0.00	0.00	1096.3	WP1
11	7076.2	89.97	51.40	6131.9	645.1	926.9	2.00	0.05	1127.6	
12	7545.1	89.97	51.40	6132.2	937.7	1293.4	0.00	0.00	1596.6	WP2
13	7552.4	90.11	51.40	6132.2	942.3	1299.2	2.00	-0.01	1603.9	
14	8045.4	90.11	51.40	6131.2	1249.8	1684.4	0.00	0.00	2096.8	WP3
15	8046.8	90.08	51.40	6131.2	1250.7	1685.5	2.00	180.00	2098.2	
16	8545.6	90.08	51.40	6130.4	1561.9	2075.4	0.00	0.00	2597.0	WP4
17	8575.8	90.69	51.40	6130.2	1580.7	2098.9	2.00	0.00	2627.2	
18	9045.9	90.69	51.40	6124.6	1874.0	2466.3	0.00	0.00	3097.2	WP5
19	9077.3	90.06	51.40	6124.4	1893.6	2490.8	2.00	180.00	3128.6	
20	9546.2	90.06	51.40	6123.9	2186.1	2857.3	0.00	0.00	3597.5	WP6
21	9562.5	89.73	51.40	6123.9	2196.3	2870.0	2.00	180.00	3613.8	
22	10046.4	89.73	51.40	6126.2	2498.2	3248.2	0.00	0.00	4097.7	WP7
23	10133.1	88.00	51.40	6127.9	2552.3	3316.0	2.00	-180.00	4184.4	
24	10547.0	88.00	51.40	6142.3	2810.3	3639.2	0.00	0.00	4597.9	WP8
25	10617.2	89.41	51.40	6143.9	2854.1	3694.1	2.00	0.00	4668.2	
26	11047.3	89.41	51.40	6148.4	3122.4	4030.2	0.00	0.00	5098.2	WP9
27	11136.2	92.07	51.40	6147.2	3177.9	4099.6	3.00	0.00	5187.1	
28	11547.8	92.07	51.40	6132.3	3434.5	4421.1	0.00	0.00	5598.4	WP10
29	11622.1	90.59	51.40	6130.6	3480.9	4479.2	2.00	180.00	5672.7	
30	12048.1	90.59	51.40	6126.2	3746.6	4812.1	0.00	0.00	6098.6	WP11
31	12062.2	90.31	51.40	6126.1	3755.4	4823.1	2.00	180.00	6112.7	
32	12548.4	90.31	51.40	6123.5	4058.7	5203.0	0.00	0.00	6598.8	WP12
33	12568.6	90.71	51.45	6123.4	4071.3	5218.9	2.00	7.69	6619.1	
34	12894.1	90.71	51.45	6119.4	4274.1	5473.4	0.00	0.00	6944.5	BHL 640'FNL & 1660'FEL

ANNOTATIONS

TVD	MD	Annotation
3200.0	3200.0	KOP #1
5410.0	5416.8	KOP #2

Logan 2H Pad Sec.19-T7N-R59W

Logan 2H

Plan #1 (9-25-12)

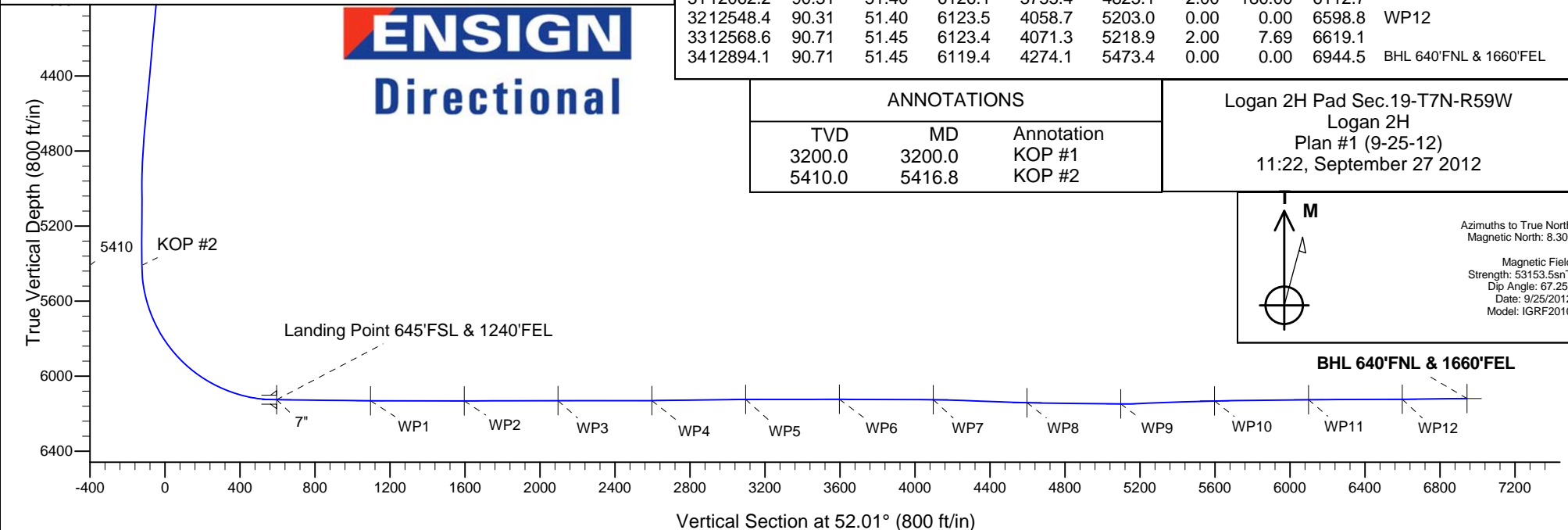
11:22, September 27 2012



Azimuths to True North
Magnetic North: 8.30°

Magnetic Field
Strength: 53153.5snT
Dip Angle: 67.25°
Date: 9/25/2012
Model: IGRF2010

BHL 640'FNL & 1660'FEL

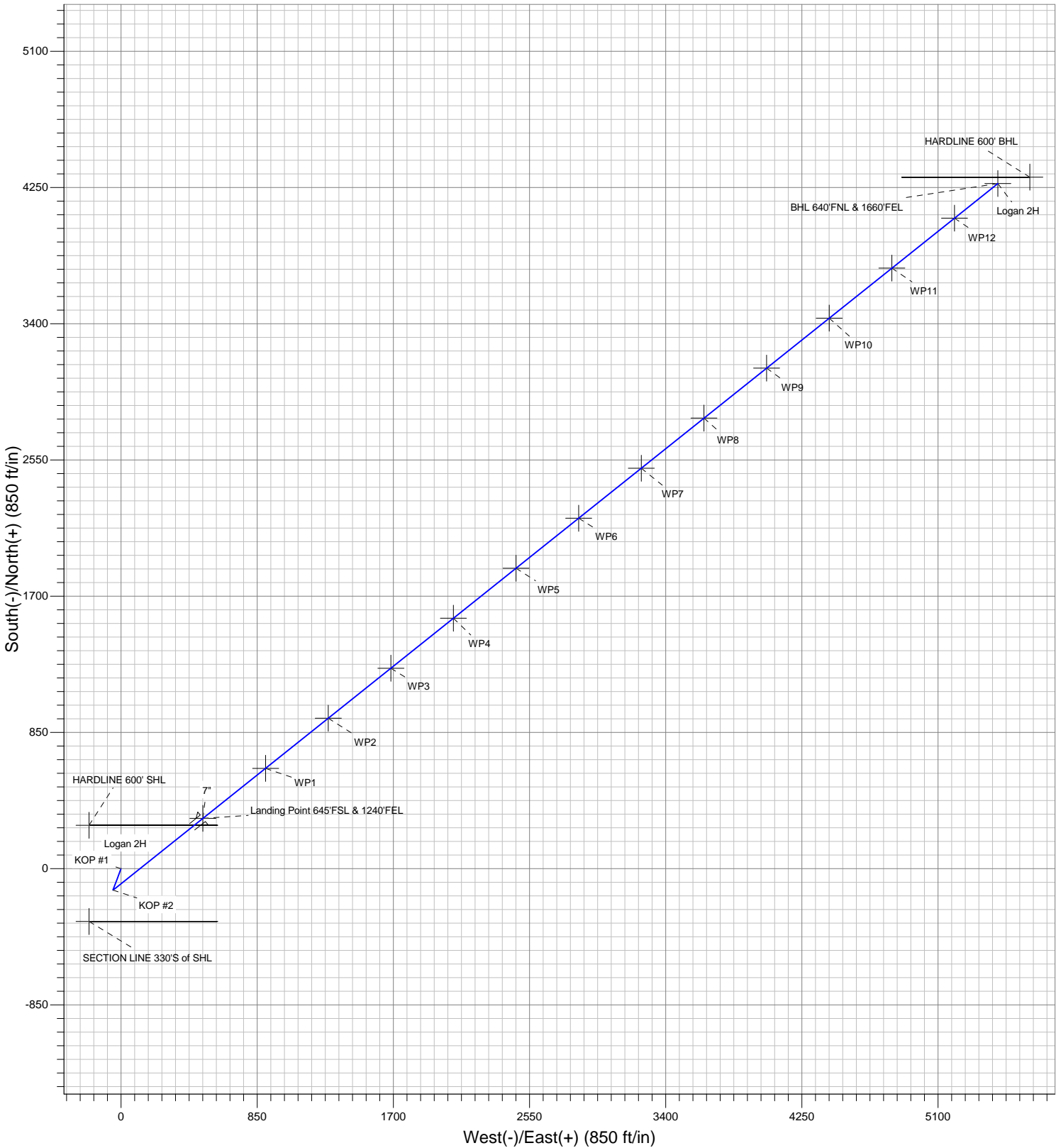




Surface Location: Logan 2H Pad Sec.19-T7N-R59W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4939.0					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1448209.89	3411571.45	40.554300	-104.018800
Design Version: Plan #1 (9-25-12)					
Slot					





Condor Energy, Weld County, CO

SEC.19-T7N-R59W

Logan 2H Pad Sec.19-T7N-R59W

Logan 2H

Wellbore #1

Plan: Plan #1 (9-25-12)

Standard Planning Report

27 September, 2012

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

Project	SEC.19-T7N-R59W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Logan 2H Pad Sec.19-T7N-R59W				
Site Position:		Northing:	1,448,209.89ft	Latitude:	40.554300
From:	Lat/Long	Easting:	3,411,571.45ft	Longitude:	-104.018800
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.96 °

Well	Logan 2H					
Well Position	+N-S	0.0 ft	Northing:	1,448,209.89 ft	Latitude:	40.554300
	+E-W	0.0 ft	Easting:	3,411,571.45 ft	Longitude:	-104.018800
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,939.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/25/2012	8.30	67.25	53,154

Design	Plan #1 (9-25-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	0.0	0.0	0.0	52.01

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,814.3	6.14	200.47	3,813.2	-30.8	-11.5	1.00	1.00	0.00	200.47	
4,699.7	6.14	200.47	4,693.4	-119.6	-44.6	0.00	0.00	0.00	0.00	
5,006.8	0.00	0.00	5,000.0	-135.0	-50.4	2.00	-2.00	0.00	180.00	
5,416.8	0.00	0.00	5,409.9	-135.0	-50.4	0.00	0.00	0.00	0.00	
6,541.8	90.00	51.40	6,126.1	311.8	509.4	8.00	8.00	0.00	51.40	
6,544.3	90.00	51.40	6,126.1	313.3	511.3	0.00	0.00	0.00	0.00	Landing Point 645'F
6,577.2	89.34	51.40	6,126.3	333.9	537.1	2.00	-2.00	-0.02	-179.52	
7,044.8	89.34	51.40	6,131.7	625.6	902.5	0.00	0.00	0.00	0.00	WP1
7,076.2	89.97	51.40	6,131.9	645.1	926.9	2.00	2.00	0.00	0.05	
7,545.1	89.97	51.40	6,132.2	937.7	1,293.4	0.00	0.00	0.00	0.00	WP2
7,552.4	90.11	51.40	6,132.2	942.3	1,299.2	2.00	2.00	0.00	-0.01	
8,045.4	90.11	51.40	6,131.2	1,249.8	1,684.4	0.00	0.00	0.00	0.00	WP3
8,046.8	90.08	51.40	6,131.2	1,250.7	1,685.5	2.00	-2.00	0.00	180.00	
8,545.6	90.08	51.40	6,130.4	1,561.9	2,075.4	0.00	0.00	0.00	0.00	WP4
8,575.8	90.69	51.40	6,130.2	1,580.7	2,098.9	2.00	2.00	0.00	0.00	
9,045.9	90.69	51.40	6,124.6	1,874.0	2,466.3	0.00	0.00	0.00	0.00	WP5
9,077.3	90.06	51.40	6,124.4	1,893.6	2,490.8	2.00	-2.00	0.00	180.00	
9,546.2	90.06	51.40	6,123.9	2,186.1	2,857.3	0.00	0.00	0.00	0.00	WP6
9,562.5	89.73	51.40	6,123.9	2,196.3	2,870.0	2.00	-2.00	0.00	-180.00	
10,046.4	89.73	51.40	6,126.2	2,498.2	3,248.2	0.00	0.00	0.00	0.00	WP7
10,133.1	88.00	51.40	6,127.9	2,552.3	3,316.0	2.00	-2.00	0.00	180.00	
10,547.0	88.00	51.40	6,142.3	2,810.3	3,639.2	0.00	0.00	0.00	0.00	WP8
10,617.2	89.41	51.40	6,143.9	2,854.1	3,694.1	2.00	2.00	0.00	0.00	
11,047.3	89.41	51.40	6,148.4	3,122.4	4,030.2	0.00	0.00	0.00	0.00	WP9
11,136.2	92.07	51.40	6,147.2	3,177.9	4,099.6	3.00	3.00	0.00	0.00	
11,547.8	92.07	51.40	6,132.3	3,434.5	4,421.1	0.00	0.00	0.00	0.00	WP10
11,622.1	90.59	51.40	6,130.6	3,480.9	4,479.2	2.00	-2.00	0.00	180.00	
12,048.1	90.59	51.40	6,126.2	3,746.6	4,812.1	0.00	0.00	0.00	0.00	WP11
12,062.2	90.31	51.40	6,126.1	3,755.4	4,823.1	2.00	-2.00	0.00	180.00	
12,548.4	90.31	51.40	6,123.5	4,058.7	5,203.0	0.00	0.00	0.00	0.00	WP12
12,568.6	90.71	51.45	6,123.4	4,071.3	5,218.9	2.00	1.98	0.27	7.69	
12,894.1	90.71	51.45	6,119.4	4,274.1	5,473.4	0.00	0.00	0.00	0.00	BHL 640'FNL & 166'

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	0.0	0.0	0.0	0.00	0.00	0.00
1,720.0	0.00	0.00	1,720.0	0.0	0.0	0.0	0.00	0.00	0.00
1,760.0	0.00	0.00	1,760.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,840.0	0.00	0.00	1,840.0	0.0	0.0	0.0	0.00	0.00	0.00
1,880.0	0.00	0.00	1,880.0	0.0	0.0	0.0	0.00	0.00	0.00
1,920.0	0.00	0.00	1,920.0	0.0	0.0	0.0	0.00	0.00	0.00
1,960.0	0.00	0.00	1,960.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,040.0	0.00	0.00	2,040.0	0.0	0.0	0.0	0.00	0.00	0.00
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
2,120.0	0.00	0.00	2,120.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)
2,160.0	0.00	0.00	2,160.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,240.0	0.00	0.00	2,240.0	0.0	0.0	0.0	0.00	0.00	0.00
2,280.0	0.00	0.00	2,280.0	0.0	0.0	0.0	0.00	0.00	0.00
2,320.0	0.00	0.00	2,320.0	0.0	0.0	0.0	0.00	0.00	0.00
2,360.0	0.00	0.00	2,360.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,440.0	0.00	0.00	2,440.0	0.0	0.0	0.0	0.00	0.00	0.00
2,480.0	0.00	0.00	2,480.0	0.0	0.0	0.0	0.00	0.00	0.00
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,560.0	0.00	0.00	2,560.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,640.0	0.00	0.00	2,640.0	0.0	0.0	0.0	0.00	0.00	0.00
2,680.0	0.00	0.00	2,680.0	0.0	0.0	0.0	0.00	0.00	0.00
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	0.00
2,760.0	0.00	0.00	2,760.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,840.0	0.00	0.00	2,840.0	0.0	0.0	0.0	0.00	0.00	0.00
2,880.0	0.00	0.00	2,880.0	0.0	0.0	0.0	0.00	0.00	0.00
2,920.0	0.00	0.00	2,920.0	0.0	0.0	0.0	0.00	0.00	0.00
2,960.0	0.00	0.00	2,960.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,040.0	0.00	0.00	3,040.0	0.0	0.0	0.0	0.00	0.00	0.00
3,080.0	0.00	0.00	3,080.0	0.0	0.0	0.0	0.00	0.00	0.00
3,120.0	0.00	0.00	3,120.0	0.0	0.0	0.0	0.00	0.00	0.00
3,160.0	0.00	0.00	3,160.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
3,240.0	0.40	200.47	3,240.0	-0.1	0.0	-0.1	1.00	1.00	0.00
3,280.0	0.80	200.47	3,280.0	-0.5	-0.2	-0.5	1.00	1.00	0.00
3,320.0	1.20	200.47	3,320.0	-1.2	-0.4	-1.1	1.00	1.00	0.00
3,360.0	1.60	200.47	3,360.0	-2.1	-0.8	-1.9	1.00	1.00	0.00
3,400.0	2.00	200.47	3,400.0	-3.3	-1.2	-3.0	1.00	1.00	0.00
3,440.0	2.40	200.47	3,439.9	-4.7	-1.8	-4.3	1.00	1.00	0.00
3,480.0	2.80	200.47	3,479.9	-6.4	-2.4	-5.8	1.00	1.00	0.00
3,520.0	3.20	200.47	3,519.8	-8.4	-3.1	-7.6	1.00	1.00	0.00
3,560.0	3.60	200.47	3,559.8	-10.6	-4.0	-9.6	1.00	1.00	0.00
3,600.0	4.00	200.47	3,599.7	-13.1	-4.9	-11.9	1.00	1.00	0.00
3,640.0	4.40	200.47	3,639.6	-15.8	-5.9	-14.4	1.00	1.00	0.00
3,680.0	4.80	200.47	3,679.4	-18.8	-7.0	-17.1	1.00	1.00	0.00
3,720.0	5.20	200.47	3,719.3	-22.1	-8.2	-20.1	1.00	1.00	0.00
3,760.0	5.60	200.47	3,759.1	-25.6	-9.6	-23.3	1.00	1.00	0.00
3,800.0	6.00	200.47	3,798.9	-29.4	-11.0	-26.7	1.00	1.00	0.00
3,814.3	6.14	200.47	3,813.2	-30.8	-11.5	-28.0	1.00	1.00	0.00
3,840.0	6.14	200.47	3,838.7	-33.4	-12.5	-30.4	0.00	0.00	0.00
3,880.0	6.14	200.47	3,878.4	-37.4	-14.0	-34.0	0.00	0.00	0.00
3,920.0	6.14	200.47	3,918.2	-41.4	-15.5	-37.7	0.00	0.00	0.00
3,960.0	6.14	200.47	3,958.0	-45.4	-17.0	-41.3	0.00	0.00	0.00
4,000.0	6.14	200.47	3,997.8	-49.4	-18.5	-45.0	0.00	0.00	0.00
4,040.0	6.14	200.47	4,037.5	-53.4	-20.0	-48.6	0.00	0.00	0.00
4,080.0	6.14	200.47	4,077.3	-57.5	-21.5	-52.3	0.00	0.00	0.00
4,120.0	6.14	200.47	4,117.1	-61.5	-22.9	-55.9	0.00	0.00	0.00
4,160.0	6.14	200.47	4,156.8	-65.5	-24.4	-59.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)
4,200.0	6.14	200.47	4,196.6	-69.5	-25.9	-63.2	0.00	0.00	0.00
4,240.0	6.14	200.47	4,236.4	-73.5	-27.4	-66.9	0.00	0.00	0.00
4,280.0	6.14	200.47	4,276.1	-77.5	-28.9	-70.5	0.00	0.00	0.00
4,320.0	6.14	200.47	4,315.9	-81.5	-30.4	-74.2	0.00	0.00	0.00
4,360.0	6.14	200.47	4,355.7	-85.5	-31.9	-77.8	0.00	0.00	0.00
4,400.0	6.14	200.47	4,395.5	-89.5	-33.4	-81.5	0.00	0.00	0.00
4,440.0	6.14	200.47	4,435.2	-93.6	-34.9	-85.1	0.00	0.00	0.00
4,480.0	6.14	200.47	4,475.0	-97.6	-36.4	-88.8	0.00	0.00	0.00
4,520.0	6.14	200.47	4,514.8	-101.6	-37.9	-92.4	0.00	0.00	0.00
4,560.0	6.14	200.47	4,554.5	-105.6	-39.4	-96.1	0.00	0.00	0.00
4,600.0	6.14	200.47	4,594.3	-109.6	-40.9	-99.7	0.00	0.00	0.00
4,640.0	6.14	200.47	4,634.1	-113.6	-42.4	-103.3	0.00	0.00	0.00
4,680.0	6.14	200.47	4,673.9	-117.6	-43.9	-107.0	0.00	0.00	0.00
4,699.7	6.14	200.47	4,693.4	-119.6	-44.6	-108.8	0.00	0.00	0.00
4,720.0	5.74	200.47	4,713.6	-121.6	-45.4	-110.6	2.00	-2.00	0.00
4,760.0	4.94	200.47	4,753.5	-125.0	-46.7	-113.8	2.00	-2.00	0.00
4,800.0	4.14	200.47	4,793.3	-128.0	-47.8	-116.4	2.00	-2.00	0.00
4,840.0	3.34	200.47	4,833.2	-130.4	-48.7	-118.7	2.00	-2.00	0.00
4,880.0	2.54	200.47	4,873.2	-132.4	-49.4	-120.4	2.00	-2.00	0.00
4,920.0	1.74	200.47	4,913.2	-133.8	-49.9	-121.7	2.00	-2.00	0.00
4,960.0	0.94	200.47	4,953.2	-134.6	-50.3	-122.5	2.00	-2.00	0.00
5,000.0	0.14	200.47	4,993.2	-135.0	-50.4	-122.8	2.00	-2.00	0.00
5,006.8	0.00	0.00	5,000.0	-135.0	-50.4	-122.8	2.00	-2.00	0.00
5,040.0	0.00	0.00	5,033.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,080.0	0.00	0.00	5,073.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,120.0	0.00	0.00	5,113.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,160.0	0.00	0.00	5,153.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,200.0	0.00	0.00	5,193.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,240.0	0.00	0.00	5,233.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,280.0	0.00	0.00	5,273.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,320.0	0.00	0.00	5,313.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,360.0	0.00	0.00	5,353.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,393.2	-135.0	-50.4	-122.8	0.00	0.00	0.00
5,416.8	0.00	0.00	5,410.0	-135.0	-50.4	-122.8	0.00	0.00	0.00
KOP #2									
5,440.0	1.86	51.40	5,433.1	-134.8	-50.1	-122.4	8.00	8.00	0.00
5,480.0	5.06	51.40	5,473.1	-133.3	-48.2	-120.0	8.00	8.00	0.00
5,520.0	8.26	51.40	5,512.8	-130.4	-44.6	-115.4	8.00	8.00	0.00
5,560.0	11.46	51.40	5,552.2	-126.1	-39.2	-108.5	8.00	8.00	0.00
5,600.0	14.66	51.40	5,591.2	-120.5	-32.2	-99.5	8.00	8.00	0.00
5,640.0	17.86	51.40	5,629.6	-113.5	-23.4	-88.3	8.00	8.00	0.00
5,680.0	21.06	51.40	5,667.3	-105.2	-13.0	-75.0	8.00	8.00	0.00
5,720.0	24.26	51.40	5,704.2	-95.6	-1.0	-59.6	8.00	8.00	0.00
5,760.0	27.46	51.40	5,740.2	-84.7	12.7	-42.1	8.00	8.00	0.00
5,800.0	30.66	51.40	5,775.1	-72.6	27.8	-22.7	8.00	8.00	0.00
5,840.0	33.86	51.40	5,808.9	-59.2	44.5	-1.4	8.00	8.00	0.00
5,880.0	37.06	51.40	5,841.5	-44.8	62.6	21.8	8.00	8.00	0.00
5,920.0	40.26	51.40	5,872.8	-29.2	82.2	46.8	8.00	8.00	0.00
5,960.0	43.46	51.40	5,902.5	-12.5	103.0	73.5	8.00	8.00	0.00
6,000.0	46.66	51.40	5,930.8	5.1	125.2	101.8	8.00	8.00	0.00
6,040.0	49.86	51.40	5,957.4	23.7	148.5	131.6	8.00	8.00	0.00
6,080.0	53.06	51.40	5,982.3	43.3	172.9	162.9	8.00	8.00	0.00
6,120.0	56.26	51.40	6,005.5	63.6	198.4	195.5	8.00	8.00	0.00
6,160.0	59.46	51.40	6,026.8	84.7	224.9	229.4	8.00	8.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)
6,200.0	62.66	51.40	6,046.1	106.6	252.3	264.4	8.00	8.00	0.00
6,240.0	65.86	51.40	6,063.5	129.0	280.4	300.4	8.00	8.00	0.00
6,280.0	69.06	51.40	6,078.8	152.1	309.3	337.4	8.00	8.00	0.00
6,320.0	72.26	51.40	6,092.1	175.6	338.8	375.1	8.00	8.00	0.00
6,360.0	75.46	51.40	6,103.2	199.6	368.8	413.5	8.00	8.00	0.00
6,400.0	78.66	51.40	6,112.1	223.9	399.3	452.5	8.00	8.00	0.00
6,440.0	81.86	51.40	6,118.9	248.5	430.1	491.9	8.00	8.00	0.00
6,480.0	85.06	51.40	6,123.5	273.3	461.1	531.6	8.00	8.00	0.00
6,520.0	88.26	51.40	6,125.8	298.2	492.3	571.6	8.00	8.00	0.00
6,541.8	90.00	51.40	6,126.1	311.8	509.4	593.3	8.00	8.00	0.00
6,544.3	90.00	51.40	6,126.1	313.3	511.3	595.8	0.00	0.00	0.00
7" - Landing Point 645'FSL & 1240'FEL									
6,560.0	89.69	51.40	6,126.2	323.1	523.6	611.6	2.00	-2.00	-0.02
6,577.2	89.34	51.40	6,126.3	333.9	537.1	628.8	2.00	-2.00	-0.02
6,600.0	89.34	51.40	6,126.6	348.1	554.9	651.5	0.00	0.00	0.00
6,640.0	89.34	51.40	6,127.1	373.0	586.1	691.5	0.00	0.00	0.00
6,680.0	89.34	51.40	6,127.5	398.0	617.4	731.5	0.00	0.00	0.00
6,720.0	89.34	51.40	6,128.0	422.9	648.6	771.5	0.00	0.00	0.00
6,760.0	89.34	51.40	6,128.4	447.9	679.9	811.5	0.00	0.00	0.00
6,800.0	89.34	51.40	6,128.9	472.9	711.1	851.5	0.00	0.00	0.00
6,840.0	89.34	51.40	6,129.4	497.8	742.4	891.5	0.00	0.00	0.00
6,880.0	89.34	51.40	6,129.8	522.8	773.7	931.5	0.00	0.00	0.00
6,920.0	89.34	51.40	6,130.3	547.7	804.9	971.5	0.00	0.00	0.00
6,960.0	89.34	51.40	6,130.7	572.7	836.2	1,011.5	0.00	0.00	0.00
7,000.0	89.34	51.40	6,131.2	597.6	867.4	1,051.5	0.00	0.00	0.00
7,040.0	89.34	51.40	6,131.7	622.6	898.7	1,091.5	0.00	0.00	0.00
7,044.8	89.34	51.40	6,131.7	625.6	902.5	1,096.3	0.00	0.00	0.00
WP1									
7,076.2	89.97	51.40	6,131.9	645.1	926.9	1,127.6	2.00	2.00	0.00
7,080.0	89.97	51.40	6,131.9	647.5	930.0	1,131.5	0.00	0.00	0.00
7,120.0	89.97	51.40	6,131.9	672.5	961.2	1,171.5	0.00	0.00	0.00
7,160.0	89.97	51.40	6,131.9	697.4	992.5	1,211.5	0.00	0.00	0.00
7,200.0	89.97	51.40	6,132.0	722.4	1,023.7	1,251.5	0.00	0.00	0.00
7,240.0	89.97	51.40	6,132.0	747.4	1,055.0	1,291.5	0.00	0.00	0.00
7,280.0	89.97	51.40	6,132.0	772.3	1,086.3	1,331.5	0.00	0.00	0.00
7,320.0	89.97	51.40	6,132.0	797.3	1,117.5	1,371.5	0.00	0.00	0.00
7,360.0	89.97	51.40	6,132.1	822.2	1,148.8	1,411.5	0.00	0.00	0.00
7,400.0	89.97	51.40	6,132.1	847.2	1,180.0	1,451.5	0.00	0.00	0.00
7,440.0	89.97	51.40	6,132.1	872.1	1,211.3	1,491.5	0.00	0.00	0.00
7,480.0	89.97	51.40	6,132.1	897.1	1,242.6	1,531.5	0.00	0.00	0.00
7,520.0	89.97	51.40	6,132.2	922.0	1,273.8	1,571.5	0.00	0.00	0.00
7,545.1	89.97	51.40	6,132.2	937.7	1,293.4	1,596.6	0.00	0.00	0.00
WP2									
7,552.4	90.11	51.40	6,132.2	942.3	1,299.2	1,603.9	2.00	2.00	0.00
7,560.0	90.11	51.40	6,132.1	947.0	1,305.1	1,611.5	0.00	0.00	0.00
7,600.0	90.11	51.40	6,132.1	972.0	1,336.3	1,651.5	0.00	0.00	0.00
7,640.0	90.11	51.40	6,132.0	996.9	1,367.6	1,691.5	0.00	0.00	0.00
7,680.0	90.11	51.40	6,131.9	1,021.9	1,398.9	1,731.5	0.00	0.00	0.00
7,720.0	90.11	51.40	6,131.8	1,046.8	1,430.1	1,771.5	0.00	0.00	0.00
7,760.0	90.11	51.40	6,131.8	1,071.8	1,461.4	1,811.5	0.00	0.00	0.00
7,800.0	90.11	51.40	6,131.7	1,096.7	1,492.6	1,851.4	0.00	0.00	0.00
7,840.0	90.11	51.40	6,131.6	1,121.7	1,523.9	1,891.4	0.00	0.00	0.00
7,880.0	90.11	51.40	6,131.5	1,146.6	1,555.2	1,931.4	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)
7,920.0	90.11	51.40	6,131.4	1,171.6	1,586.4	1,971.4	0.00	0.00	0.00
7,960.0	90.11	51.40	6,131.4	1,196.5	1,617.7	2,011.4	0.00	0.00	0.00
8,000.0	90.11	51.40	6,131.3	1,221.5	1,649.0	2,051.4	0.00	0.00	0.00
8,040.0	90.11	51.40	6,131.2	1,246.5	1,680.2	2,091.4	0.00	0.00	0.00
8,045.4	90.11	51.40	6,131.2	1,249.8	1,684.4	2,096.8	0.00	0.00	0.00
WP3									
8,046.8	90.08	51.40	6,131.2	1,250.7	1,685.5	2,098.2	2.00	-2.00	0.00
8,080.0	90.08	51.40	6,131.1	1,271.4	1,711.5	2,131.4	0.00	0.00	0.00
8,120.0	90.08	51.40	6,131.1	1,296.4	1,742.7	2,171.4	0.00	0.00	0.00
8,160.0	90.08	51.40	6,131.0	1,321.3	1,774.0	2,211.4	0.00	0.00	0.00
8,200.0	90.08	51.40	6,131.0	1,346.3	1,805.3	2,251.4	0.00	0.00	0.00
8,240.0	90.08	51.40	6,130.9	1,371.2	1,836.5	2,291.4	0.00	0.00	0.00
8,280.0	90.08	51.40	6,130.8	1,396.2	1,867.8	2,331.4	0.00	0.00	0.00
8,320.0	90.08	51.40	6,130.8	1,421.1	1,899.0	2,371.4	0.00	0.00	0.00
8,360.0	90.08	51.40	6,130.7	1,446.1	1,930.3	2,411.4	0.00	0.00	0.00
8,400.0	90.08	51.40	6,130.7	1,471.1	1,961.6	2,451.4	0.00	0.00	0.00
8,440.0	90.08	51.40	6,130.6	1,496.0	1,992.8	2,491.4	0.00	0.00	0.00
8,480.0	90.08	51.40	6,130.5	1,521.0	2,024.1	2,531.4	0.00	0.00	0.00
8,520.0	90.08	51.40	6,130.5	1,545.9	2,055.3	2,571.4	0.00	0.00	0.00
8,545.6	90.08	51.40	6,130.4	1,561.9	2,075.4	2,597.0	0.00	0.00	0.00
WP4									
8,560.0	90.37	51.40	6,130.4	1,570.9	2,086.6	2,611.4	2.00	2.00	0.00
8,575.8	90.69	51.40	6,130.2	1,580.7	2,098.9	2,627.2	2.00	2.00	0.00
8,600.0	90.69	51.40	6,130.0	1,595.8	2,117.9	2,651.4	0.00	0.00	0.00
8,640.0	90.69	51.40	6,129.5	1,620.8	2,149.1	2,691.4	0.00	0.00	0.00
8,680.0	90.69	51.40	6,129.0	1,645.7	2,180.4	2,731.4	0.00	0.00	0.00
8,720.0	90.69	51.40	6,128.5	1,670.7	2,211.6	2,771.4	0.00	0.00	0.00
8,760.0	90.69	51.40	6,128.0	1,695.6	2,242.9	2,811.4	0.00	0.00	0.00
8,800.0	90.69	51.40	6,127.6	1,720.6	2,274.2	2,851.4	0.00	0.00	0.00
8,840.0	90.69	51.40	6,127.1	1,745.5	2,305.4	2,891.4	0.00	0.00	0.00
8,880.0	90.69	51.40	6,126.6	1,770.5	2,336.7	2,931.4	0.00	0.00	0.00
8,920.0	90.69	51.40	6,126.1	1,795.5	2,367.9	2,971.4	0.00	0.00	0.00
8,960.0	90.69	51.40	6,125.6	1,820.4	2,399.2	3,011.4	0.00	0.00	0.00
9,000.0	90.69	51.40	6,125.2	1,845.4	2,430.4	3,051.3	0.00	0.00	0.00
9,040.0	90.69	51.40	6,124.7	1,870.3	2,461.7	3,091.3	0.00	0.00	0.00
9,045.9	90.69	51.40	6,124.6	1,874.0	2,466.3	3,097.2	0.00	0.00	0.00
WP5									
9,077.3	90.06	51.40	6,124.4	1,893.6	2,490.8	3,128.6	2.00	-2.00	0.00
9,080.0	90.06	51.40	6,124.4	1,895.3	2,493.0	3,131.3	0.00	0.00	0.00
9,120.0	90.06	51.40	6,124.3	1,920.2	2,524.2	3,171.3	0.00	0.00	0.00
9,160.0	90.06	51.40	6,124.3	1,945.2	2,555.5	3,211.3	0.00	0.00	0.00
9,200.0	90.06	51.40	6,124.3	1,970.1	2,586.7	3,251.3	0.00	0.00	0.00
9,240.0	90.06	51.40	6,124.2	1,995.1	2,618.0	3,291.3	0.00	0.00	0.00
9,280.0	90.06	51.40	6,124.2	2,020.0	2,649.3	3,331.3	0.00	0.00	0.00
9,320.0	90.06	51.40	6,124.1	2,045.0	2,680.5	3,371.3	0.00	0.00	0.00
9,360.0	90.06	51.40	6,124.1	2,070.0	2,711.8	3,411.3	0.00	0.00	0.00
9,400.0	90.06	51.40	6,124.1	2,094.9	2,743.1	3,451.3	0.00	0.00	0.00
9,440.0	90.06	51.40	6,124.0	2,119.9	2,774.3	3,491.3	0.00	0.00	0.00
9,480.0	90.06	51.40	6,124.0	2,144.8	2,805.6	3,531.3	0.00	0.00	0.00
9,520.0	90.06	51.40	6,123.9	2,169.8	2,836.8	3,571.3	0.00	0.00	0.00
9,546.2	90.06	51.40	6,123.9	2,186.1	2,857.3	3,597.5	0.00	0.00	0.00
WP6									
9,560.0	89.78	51.40	6,123.9	2,194.7	2,868.1	3,611.3	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)	
9,562.5	89.73	51.40	6,123.9	2,196.3	2,870.0	3,613.8	2.00	-2.00	0.00	
9,600.0	89.73	51.40	6,124.1	2,219.7	2,899.4	3,651.3	0.00	0.00	0.00	
9,640.0	89.73	51.40	6,124.3	2,244.6	2,930.6	3,691.3	0.00	0.00	0.00	
9,680.0	89.73	51.40	6,124.5	2,269.6	2,961.9	3,731.3	0.00	0.00	0.00	
9,720.0	89.73	51.40	6,124.7	2,294.6	2,993.1	3,771.3	0.00	0.00	0.00	
9,760.0	89.73	51.40	6,124.8	2,319.5	3,024.4	3,811.3	0.00	0.00	0.00	
9,800.0	89.73	51.40	6,125.0	2,344.5	3,055.7	3,851.3	0.00	0.00	0.00	
9,840.0	89.73	51.40	6,125.2	2,369.4	3,086.9	3,891.3	0.00	0.00	0.00	
9,880.0	89.73	51.40	6,125.4	2,394.4	3,118.2	3,931.3	0.00	0.00	0.00	
9,920.0	89.73	51.40	6,125.6	2,419.3	3,149.4	3,971.3	0.00	0.00	0.00	
9,960.0	89.73	51.40	6,125.8	2,444.3	3,180.7	4,011.3	0.00	0.00	0.00	
10,000.0	89.73	51.40	6,126.0	2,469.2	3,212.0	4,051.3	0.00	0.00	0.00	
10,040.0	89.73	51.40	6,126.1	2,494.2	3,243.2	4,091.3	0.00	0.00	0.00	
10,046.4	89.73	51.40	6,126.2	2,498.2	3,248.2	4,097.7	0.00	0.00	0.00	
WP7										
10,080.0	89.06	51.40	6,126.5	2,519.1	3,274.5	4,131.3	2.00	-2.00	0.00	
10,120.0	88.26	51.40	6,127.5	2,544.1	3,305.7	4,171.3	2.00	-2.00	0.00	
10,133.1	88.00	51.40	6,127.9	2,552.3	3,316.0	4,184.4	2.00	-2.00	0.00	
10,160.0	88.00	51.40	6,128.8	2,569.0	3,337.0	4,211.2	0.00	0.00	0.00	
10,200.0	88.00	51.40	6,130.2	2,594.0	3,368.2	4,251.2	0.00	0.00	0.00	
10,240.0	88.00	51.40	6,131.6	2,618.9	3,399.5	4,291.2	0.00	0.00	0.00	
10,280.0	88.00	51.40	6,133.0	2,643.9	3,430.7	4,331.2	0.00	0.00	0.00	
10,320.0	88.00	51.40	6,134.4	2,668.8	3,461.9	4,371.1	0.00	0.00	0.00	
10,360.0	88.00	51.40	6,135.8	2,693.7	3,493.2	4,411.1	0.00	0.00	0.00	
10,400.0	88.00	51.40	6,137.2	2,718.7	3,524.4	4,451.1	0.00	0.00	0.00	
10,440.0	88.00	51.40	6,138.6	2,743.6	3,555.7	4,491.0	0.00	0.00	0.00	
10,480.0	88.00	51.40	6,140.0	2,768.6	3,586.9	4,531.0	0.00	0.00	0.00	
10,520.0	88.00	51.40	6,141.4	2,793.5	3,618.1	4,571.0	0.00	0.00	0.00	
10,547.0	88.00	51.40	6,142.3	2,810.3	3,639.2	4,597.9	0.00	0.00	0.00	
WP8										
10,560.0	88.26	51.40	6,142.7	2,818.4	3,649.4	4,611.0	2.00	2.00	0.00	
10,600.0	89.06	51.40	6,143.7	2,843.4	3,680.6	4,651.0	2.00	2.00	0.00	
10,617.2	89.41	51.40	6,143.9	2,854.1	3,694.1	4,668.2	2.00	2.00	0.00	
10,640.0	89.41	51.40	6,144.1	2,868.3	3,711.9	4,691.0	0.00	0.00	0.00	
10,680.0	89.41	51.40	6,144.6	2,893.3	3,743.2	4,730.9	0.00	0.00	0.00	
10,720.0	89.41	51.40	6,145.0	2,918.2	3,774.4	4,770.9	0.00	0.00	0.00	
10,760.0	89.41	51.40	6,145.4	2,943.2	3,805.7	4,810.9	0.00	0.00	0.00	
10,800.0	89.41	51.40	6,145.8	2,968.2	3,836.9	4,850.9	0.00	0.00	0.00	
10,840.0	89.41	51.40	6,146.2	2,993.1	3,868.2	4,890.9	0.00	0.00	0.00	
10,880.0	89.41	51.40	6,146.6	3,018.1	3,899.5	4,930.9	0.00	0.00	0.00	
10,920.0	89.41	51.40	6,147.1	3,043.0	3,930.7	4,970.9	0.00	0.00	0.00	
10,960.0	89.41	51.40	6,147.5	3,068.0	3,962.0	5,010.9	0.00	0.00	0.00	
11,000.0	89.41	51.40	6,147.9	3,092.9	3,993.2	5,050.9	0.00	0.00	0.00	
11,040.0	89.41	51.40	6,148.3	3,117.9	4,024.5	5,090.9	0.00	0.00	0.00	
11,047.3	89.41	51.40	6,148.4	3,122.4	4,030.2	5,098.2	0.00	0.00	0.00	
WP9										
11,080.0	90.39	51.40	6,148.4	3,142.8	4,055.8	5,130.9	3.00	3.00	0.00	
11,120.0	91.59	51.40	6,147.7	3,167.8	4,087.0	5,170.9	3.00	3.00	0.00	
11,136.2	92.07	51.40	6,147.2	3,177.9	4,099.6	5,187.1	3.00	3.00	0.00	
11,160.0	92.07	51.40	6,146.4	3,192.7	4,118.3	5,210.9	0.00	0.00	0.00	
11,200.0	92.07	51.40	6,144.9	3,217.7	4,149.5	5,250.8	0.00	0.00	0.00	
11,240.0	92.07	51.40	6,143.5	3,242.6	4,180.7	5,290.8	0.00	0.00	0.00	
11,280.0	92.07	51.40	6,142.0	3,267.5	4,212.0	5,330.8	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

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)
11,320.0	92.07	51.40	6,140.6	3,292.5	4,243.2	5,370.8	0.00	0.00	0.00
11,360.0	92.07	51.40	6,139.1	3,317.4	4,274.5	5,410.7	0.00	0.00	0.00
11,400.0	92.07	51.40	6,137.7	3,342.4	4,305.7	5,450.7	0.00	0.00	0.00
11,440.0	92.07	51.40	6,136.2	3,367.3	4,336.9	5,490.7	0.00	0.00	0.00
11,480.0	92.07	51.40	6,134.8	3,392.2	4,368.2	5,530.6	0.00	0.00	0.00
11,520.0	92.07	51.40	6,133.3	3,417.2	4,399.4	5,570.6	0.00	0.00	0.00
11,547.8	92.07	51.40	6,132.3	3,434.5	4,421.1	5,598.4	0.00	0.00	0.00
WP10									
11,560.0	91.83	51.40	6,131.9	3,442.1	4,430.7	5,610.6	2.00	-2.00	0.00
11,600.0	91.03	51.40	6,130.9	3,467.1	4,461.9	5,650.6	2.00	-2.00	0.00
11,622.1	90.59	51.40	6,130.6	3,480.9	4,479.2	5,672.7	2.00	-2.00	0.00
11,640.0	90.59	51.40	6,130.4	3,492.0	4,493.2	5,690.6	0.00	0.00	0.00
11,680.0	90.59	51.40	6,130.0	3,517.0	4,524.4	5,730.6	0.00	0.00	0.00
11,720.0	90.59	51.40	6,129.6	3,541.9	4,555.7	5,770.6	0.00	0.00	0.00
11,760.0	90.59	51.40	6,129.2	3,566.9	4,586.9	5,810.6	0.00	0.00	0.00
11,800.0	90.59	51.40	6,128.8	3,591.8	4,618.2	5,850.5	0.00	0.00	0.00
11,840.0	90.59	51.40	6,128.4	3,616.8	4,649.5	5,890.5	0.00	0.00	0.00
11,880.0	90.59	51.40	6,128.0	3,641.7	4,680.7	5,930.5	0.00	0.00	0.00
11,920.0	90.59	51.40	6,127.6	3,666.7	4,712.0	5,970.5	0.00	0.00	0.00
11,960.0	90.59	51.40	6,127.1	3,691.6	4,743.2	6,010.5	0.00	0.00	0.00
12,000.0	90.59	51.40	6,126.7	3,716.6	4,774.5	6,050.5	0.00	0.00	0.00
12,040.0	90.59	51.40	6,126.3	3,741.6	4,805.8	6,090.5	0.00	0.00	0.00
12,048.1	90.59	51.40	6,126.2	3,746.6	4,812.1	6,098.6	0.00	0.00	0.00
WP11									
12,062.2	90.31	51.40	6,126.1	3,755.4	4,823.1	6,112.7	2.00	-2.00	0.00
12,080.0	90.31	51.40	6,126.0	3,766.5	4,837.0	6,130.5	0.00	0.00	0.00
12,120.0	90.31	51.40	6,125.8	3,791.5	4,868.3	6,170.5	0.00	0.00	0.00
12,160.0	90.31	51.40	6,125.6	3,816.4	4,899.5	6,210.5	0.00	0.00	0.00
12,200.0	90.31	51.40	6,125.4	3,841.4	4,930.8	6,250.5	0.00	0.00	0.00
12,240.0	90.31	51.40	6,125.2	3,866.3	4,962.1	6,290.5	0.00	0.00	0.00
12,280.0	90.31	51.40	6,125.0	3,891.3	4,993.3	6,330.5	0.00	0.00	0.00
12,320.0	90.31	51.40	6,124.8	3,916.2	5,024.6	6,370.5	0.00	0.00	0.00
12,360.0	90.31	51.40	6,124.5	3,941.2	5,055.8	6,410.5	0.00	0.00	0.00
12,400.0	90.31	51.40	6,124.3	3,966.1	5,087.1	6,450.5	0.00	0.00	0.00
12,440.0	90.31	51.40	6,124.1	3,991.1	5,118.4	6,490.5	0.00	0.00	0.00
12,480.0	90.31	51.40	6,123.9	4,016.1	5,149.6	6,530.5	0.00	0.00	0.00
12,520.0	90.31	51.40	6,123.7	4,041.0	5,180.9	6,570.5	0.00	0.00	0.00
12,548.4	90.31	51.40	6,123.5	4,058.7	5,203.0	6,598.8	0.00	0.00	0.00
WP12									
12,560.0	90.54	51.43	6,123.5	4,066.0	5,212.1	6,610.5	2.00	1.98	0.27
12,568.6	90.71	51.45	6,123.4	4,071.3	5,218.9	6,619.1	2.00	1.98	0.27
12,600.0	90.71	51.45	6,123.0	4,090.9	5,243.4	6,650.5	0.00	0.00	0.00
12,640.0	90.71	51.45	6,122.5	4,115.8	5,274.7	6,690.5	0.00	0.00	0.00
12,680.0	90.71	51.45	6,122.0	4,140.7	5,306.0	6,730.5	0.00	0.00	0.00
12,720.0	90.71	51.45	6,121.5	4,165.7	5,337.3	6,770.5	0.00	0.00	0.00
12,760.0	90.71	51.45	6,121.0	4,190.6	5,368.6	6,810.5	0.00	0.00	0.00
12,800.0	90.71	51.45	6,120.5	4,215.5	5,399.8	6,850.5	0.00	0.00	0.00
12,840.0	90.71	51.45	6,120.0	4,240.4	5,431.1	6,890.4	0.00	0.00	0.00
12,880.0	90.71	51.45	6,119.5	4,265.4	5,462.4	6,930.4	0.00	0.00	0.00
12,894.1	90.71	51.45	6,119.4	4,274.1	5,473.4	6,944.5	0.00	0.00	0.00
BHL 640'FNL & 1660'FEL									

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Landing Point 645'FSI - plan hits target center - Point	0.00	0.00	6,126.1	313.3	511.3	1,448,531.69	3,412,077.43	40.555160	-104.016960
WP7 - plan hits target center - Point	0.00	0.00	6,126.2	2,498.2	3,248.2	1,450,761.91	3,414,777.41	40.561157	-104.007110
WP3 - plan hits target center - Point	0.00	0.00	6,131.2	1,249.8	1,684.4	1,449,487.61	3,413,234.69	40.557730	-104.012738
WP11 - plan hits target center - Point	0.00	0.00	6,126.2	3,746.6	4,812.1	1,452,036.22	3,416,320.13	40.564582	-104.001481
WP2 - plan hits target center - Point	0.00	0.00	6,132.2	937.7	1,293.4	1,449,169.03	3,412,849.01	40.556874	-104.014145
BHL 640'FNL & 1660' - plan hits target center - Point	0.00	0.00	6,119.4	4,274.1	5,473.4	1,452,574.69	3,416,972.51	40.566030	-103.999100
WP6 - plan hits target center - Point	0.00	0.00	6,123.9	2,186.1	2,857.3	1,450,443.34	3,414,391.73	40.560300	-104.008517
WP10 - plan hits target center - Point	0.00	0.00	6,132.3	3,434.5	4,421.1	1,451,717.64	3,415,934.45	40.563726	-104.002888
WP9 - plan hits target center - Point	0.00	0.00	6,148.4	3,122.4	4,030.2	1,451,399.07	3,415,548.77	40.562870	-104.004295
WP5 - plan hits target center - Point	0.00	0.00	6,124.6	1,874.0	2,466.3	1,450,124.76	3,414,006.05	40.559443	-104.009924
WP12 - plan hits target center - Point	0.00	0.00	6,123.5	4,058.7	5,203.0	1,452,354.80	3,416,705.81	40.565439	-104.000073
WP8 - plan hits target center - Point	0.00	0.00	6,142.3	2,810.3	3,639.2	1,451,080.49	3,415,163.09	40.562013	-104.005702
WP4 - plan hits target center - Point	0.00	0.00	6,130.4	1,561.9	2,075.4	1,449,806.18	3,413,620.37	40.558587	-104.011331
WP1 - plan hits target center - Point	0.00	0.00	6,131.7	625.6	902.5	1,448,850.45	3,412,463.33	40.556017	-104.015552

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
6,544.3	6,126.1	7"	7	7-1/2

Database:	Landmark	Local Co-ordinate Reference:	Well Logan 2H
Company:	Condor Energy, Weld County, CO	TVD Reference:	WELL @ 4952.0ft (RKB - 13')
Project:	SEC.19-T7N-R59W	MD Reference:	WELL @ 4952.0ft (RKB - 13')
Site:	Logan 2H Pad Sec.19-T7N-R59W	North Reference:	True
Well:	Logan 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-25-12)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,200.0	3,200.0	0.0	0.0	KOP #1
5,416.8	5,410.0	-135.0	-50.4	KOP #2