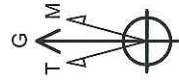


# Continental Resources

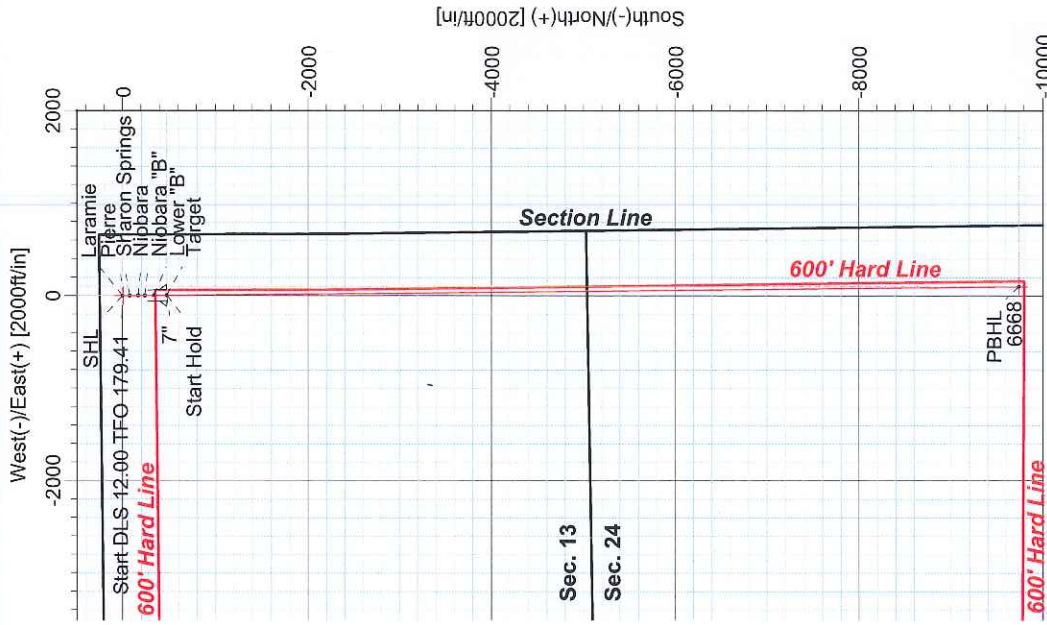
Field: Weld County, Co.  
 Site: Dunn  
 Well: 1-13H  
 Wellpath: OH  
 Plan: Plan #1



Azimuths to Grid North  
 True North: -0.80°  
 Magnetic North: 7.85°  
 Magnetic Field  
 Strength: 53389nT  
 Dip Angle: 67.36°  
 Date: 3/22/2011  
 Model: IGRF2010

## SITE DETAILS

Dunn  
 Sec. 13-T8N-R62W  
 250' FNL & 660' FEL  
 Latitude: 40°40'05.275N  
 Longitude: 104°15'38.444W  
 Ground Level: 4995.00  
 KB: 16.00



## SECTION DETAILS

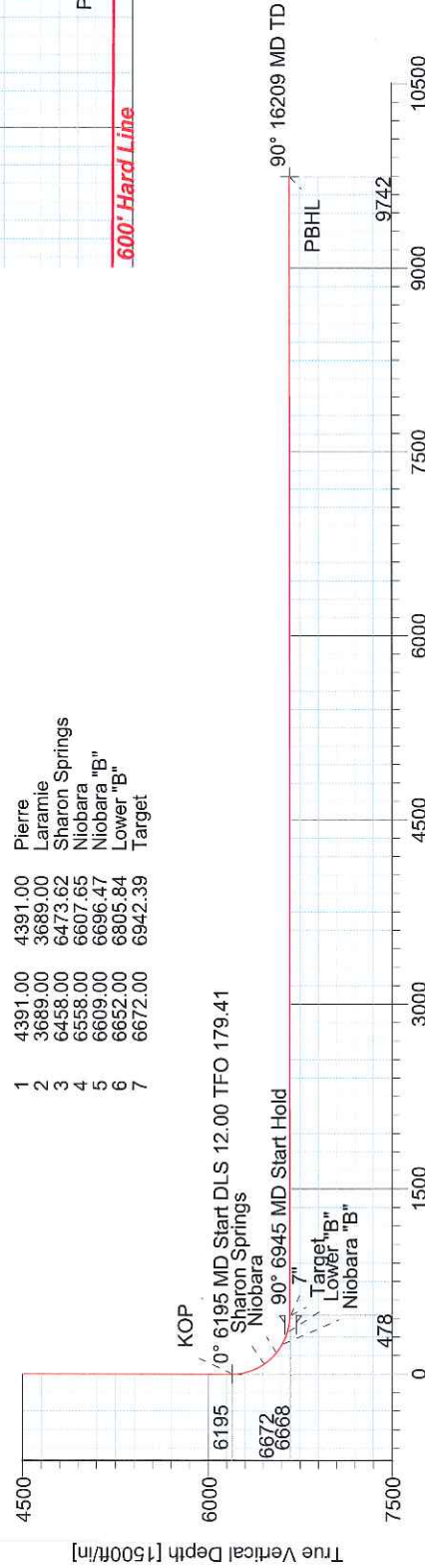
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6194.54	0.00	0.00	6194.54	0.00	0.00	0.00	0.00	0.00	
3	6944.75	90.02	179.41	6672.00	-477.65	4.95	12.00	179.41	477.67	
4	16209.46	90.02	179.41	6668.00	-9741.86	100.91	0.00	0.00	9742.38	PBHL

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL	0.00	0.00	0.00	1488648.67	3343794.01	40°40'05.275N	104°15'38.444W	Point
KOP	6194.54	0.00	0.00	1488648.67	3343794.01	40°40'05.275N	104°15'38.444W	Point
PBHL	6668.00	-9741.86	100.91	1478906.81	3343894.92	40°38'29.008N	104°15'38.902W	Point

## FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	4391.00	4391.00	Pierre
2	3689.00	3689.00	Laramie
3	6458.00	6473.62	Sharon Springs
4	6558.00	6607.65	Niobara
5	6609.00	6696.47	Niobara "B"
6	6852.00	6805.84	Lower "B"
7	6672.00	6942.39	Target



Vertical Section at 179.41° [1500ft/in]

Plan: Plan #1 (1-13H/0H)  
 Created By: Justin Adcox  
 Date: 3/22/2011  
 Checked: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Reviewed: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Approved: \_\_\_\_\_  
 Date: \_\_\_\_\_

LEAM DRILLING SYSTEMS, INC.  
 2010 East Davis, Conroe, Texas 77301  
 Phone: 936-756-7577 Fax: 936-756-7595



# LEAM Drilling Systems, Inc.

## Planning Report

<b>Company:</b> Continental Resources <b>Field:</b> Weld County, Co. <b>Site:</b> Dunn <b>Well:</b> 1-13H <b>Wellpath:</b> OH		<b>Date:</b> 3/22/2011 <b>Co-ordinate(NE) Reference:</b> Well: 1-13H, Grid North <b>Vertical (TVD) Reference:</b> GL 4995'+KB 16' 5011.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,179.41Azi) <b>Survey Calculation Method:</b> Minimum Curvature		<b>Time:</b> 12:34:20 <b>Page:</b> 1
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<b>Field:</b> Weld County, Co.  <b>Map System:</b> US State Plane Coordinate System 1983 <b>Geo Datum:</b> GRS 1980 <b>Sys Datum:</b> Mean Sea Level		<b>Map Zone:</b> Colorado, Northern Zone <b>Coordinate System:</b> Well Centre <b>Geomagnetic Model:</b> IGRF2010
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<b>Site:</b> Dunn Sec. 13-T8N-R62W 250' FNL & 660' FEL		<b>Site Position:</b> <b>From:</b> Geographic <b>Position Uncertainty:</b> 0.00 ft <b>Ground Level:</b> 4995.00 ft	<b>Northing:</b> 1488648.67 ft <b>Easting:</b> 3343794.01 ft	<b>Latitude:</b> 40 40 5.275 N <b>Longitude:</b> 104 15 38.444 W <b>North Reference:</b> Grid <b>Grid Convergence:</b> 0.80 deg
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<b>Well:</b> 1-13H  <b>Well Position:</b> +N/-S 0.00 ft +E/-W 0.00 ft <b>Position Uncertainty:</b> 0.00 ft	<b>Slot Name:</b>  <b>Northing:</b> 1488648.67 ft <b>Easting:</b> 3343794.01 ft	<b>Latitude:</b> 40 40 5.275 N <b>Longitude:</b> 104 15 38.444 W
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<b>Wellpath:</b> OH  <b>Current Datum:</b> GL 4995'+KB 16' <b>Magnetic Data:</b> 3/22/2011 <b>Field Strength:</b> 53389 nT <b>Vertical Section:</b> Depth From (TVD) ft	<b>Height</b> 5011.00 ft +N/-S ft 0.00	<b>Drilled From:</b> Surface <b>Tie-on Depth:</b> 0.00 ft <b>Above System Datum:</b> Mean Sea Level <b>Declination:</b> 8.65 deg <b>Mag Dip Angle:</b> 67.36 deg +E/-W ft 0.00	<b>Direction</b> deg 179.41
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<b>Plan:</b> Plan #1  <b>Principal:</b> No	<b>Date Composed:</b> 3/22/2011 <b>Version:</b> 1 <b>Tied-to:</b> User Defined
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Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6194.54	0.00	0.00	6194.54	0.00	0.00	0.00	0.00	0.00	0.00	
6944.75	90.02	179.41	6672.00	-477.65	4.95	12.00	12.00	23.91	179.41	
16209.46	90.02	179.41	6668.00	-9741.86	100.91	0.00	0.00	0.00	0.00	PBHL

Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6194.54	0.00	0.00	6194.54	0.00	0.00	0.00	0.00	0.00	0.00	KOP
6200.00	0.66	179.41	6200.00	-0.03	0.00	0.03	12.00	12.00	0.00	
6225.00	3.66	179.41	6224.98	-0.97	0.01	0.97	12.00	12.00	0.00	
6250.00	6.66	179.41	6249.88	-3.22	0.03	3.22	12.00	12.00	0.00	
6275.00	9.66	179.41	6274.62	-6.76	0.07	6.76	12.00	12.00	0.00	
6300.00	12.66	179.41	6299.14	-11.60	0.12	11.60	12.00	12.00	0.00	Sharon Springs
6325.00	15.66	179.41	6323.38	-17.71	0.18	17.71	12.00	12.00	0.00	
6350.00	18.66	179.41	6347.27	-25.08	0.26	25.09	12.00	12.00	0.00	
6375.00	21.66	179.41	6370.73	-33.70	0.35	33.70	12.00	12.00	0.00	
6400.00	24.66	179.41	6393.72	-43.53	0.45	43.53	12.00	12.00	0.00	
6425.00	27.66	179.41	6416.16	-54.54	0.57	54.55	12.00	12.00	0.00	
6450.00	30.66	179.41	6437.99	-66.72	0.69	66.73	12.00	12.00	0.00	
6473.62	33.49	179.41	6458.00	-79.26	0.82	79.27	12.00	12.00	0.00	
6475.00	33.66	179.41	6459.15	-80.02	0.83	80.03	12.00	12.00	0.00	
6500.00	36.66	179.41	6479.59	-94.42	0.98	94.42	12.00	12.00	0.00	
6525.00	39.66	179.41	6499.24	-109.86	1.14	109.87	12.00	12.00	0.00	
6550.00	42.66	179.41	6518.06	-126.31	1.31	126.32	12.00	12.00	0.00	

# LEAM Drilling Systems, Inc.

## Planning Report

<b>Company:</b> Continental Resources	<b>Date:</b> 3/22/2011	<b>Time:</b> 12:34:20	<b>Page:</b> 2
<b>Field:</b> Weld County, Co.	<b>Co-ordinate(NE) Reference:</b> Well: 1-13H, Grid North		
<b>Site:</b> Dunn	<b>Vertical (TVD) Reference:</b> GL 4995'+KB 16' 5011.0		
<b>Well:</b> 1-13H	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,179.41Azi)		
<b>Wellpath:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature	<b>Db:</b> Adapti	

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6575.00	45.66	179.41	6536.00	-143.72	1.49	143.73	12.00	12.00	0.00	
6600.00	48.66	179.41	6553.00	-162.05	1.68	162.06	12.00	12.00	0.00	
6607.65	49.57	179.41	6558.00	-167.83	1.74	167.84	12.00	12.00	0.00	Niobara
6625.00	51.66	179.41	6569.01	-181.24	1.88	181.25	12.00	12.00	0.00	
6650.00	54.66	179.41	6584.00	-201.24	2.08	201.25	12.00	12.00	0.00	
6675.00	57.66	179.41	6597.92	-222.00	2.30	222.01	12.00	12.00	0.00	
6696.47	60.23	179.41	6609.00	-240.40	2.49	240.41	12.00	12.00	0.00	Niobara "B"
6700.00	60.66	179.41	6610.74	-243.46	2.52	243.48	12.00	12.00	0.00	
6725.00	63.66	179.41	6622.42	-265.57	2.75	265.58	12.00	12.00	0.00	
6750.00	66.66	179.41	6632.92	-288.25	2.99	288.26	12.00	12.00	0.00	
6775.00	69.66	179.41	6642.22	-311.45	3.23	311.47	12.00	12.00	0.00	
6800.00	72.66	179.41	6650.29	-335.10	3.47	335.12	12.00	12.00	0.00	
6805.84	73.36	179.41	6652.00	-340.69	3.53	340.71	12.00	12.00	0.00	Lower "B"
6825.00	75.66	179.41	6657.12	-359.15	3.72	359.17	12.00	12.00	0.00	
6850.00	78.66	179.41	6662.68	-383.52	3.97	383.54	12.00	12.00	0.00	
6875.00	81.66	179.41	6666.95	-408.15	4.23	408.17	12.00	12.00	0.00	
6900.00	84.66	179.41	6669.93	-432.97	4.48	432.99	12.00	12.00	0.00	
6925.00	87.66	179.41	6671.61	-457.91	4.74	457.93	12.00	12.00	0.00	
6942.39	89.74	179.41	6672.00	-475.29	4.92	475.32	12.00	12.00	0.00	7"
6944.75	90.02	179.41	6672.00	-477.65	4.95	477.67	12.00	12.00	0.00	
7000.00	90.02	179.41	6671.98	-532.90	5.52	532.92	0.00	0.00	0.00	
7100.00	90.02	179.41	6671.94	-632.89	6.56	632.92	0.00	0.00	0.00	
7200.00	90.02	179.41	6671.89	-732.89	7.59	732.92	0.00	0.00	0.00	
7300.00	90.02	179.41	6671.85	-832.88	8.63	832.92	0.00	0.00	0.00	
7400.00	90.02	179.41	6671.81	-932.87	9.66	932.92	0.00	0.00	0.00	
7500.00	90.02	179.41	6671.76	-1032.87	10.70	1032.92	0.00	0.00	0.00	
7600.00	90.02	179.41	6671.72	-1132.86	11.73	1132.92	0.00	0.00	0.00	
7700.00	90.02	179.41	6671.68	-1232.86	12.77	1232.92	0.00	0.00	0.00	
7800.00	90.02	179.41	6671.64	-1332.85	13.81	1332.92	0.00	0.00	0.00	
7900.00	90.02	179.41	6671.59	-1432.85	14.84	1432.92	0.00	0.00	0.00	
8000.00	90.02	179.41	6671.55	-1532.84	15.88	1532.92	0.00	0.00	0.00	
8100.00	90.02	179.41	6671.51	-1632.84	16.91	1632.92	0.00	0.00	0.00	
8200.00	90.02	179.41	6671.46	-1732.83	17.95	1732.92	0.00	0.00	0.00	
8300.00	90.02	179.41	6671.42	-1832.83	18.99	1832.92	0.00	0.00	0.00	
8400.00	90.02	179.41	6671.38	-1932.82	20.02	1932.92	0.00	0.00	0.00	
8500.00	90.02	179.41	6671.33	-2032.82	21.06	2032.92	0.00	0.00	0.00	
8600.00	90.02	179.41	6671.29	-2132.81	22.09	2132.92	0.00	0.00	0.00	
8700.00	90.02	179.41	6671.25	-2232.80	23.13	2232.92	0.00	0.00	0.00	
8800.00	90.02	179.41	6671.20	-2332.80	24.16	2332.92	0.00	0.00	0.00	
8900.00	90.02	179.41	6671.16	-2432.79	25.20	2432.92	0.00	0.00	0.00	
9000.00	90.02	179.41	6671.12	-2532.79	26.24	2532.92	0.00	0.00	0.00	
9100.00	90.02	179.41	6671.07	-2632.78	27.27	2632.92	0.00	0.00	0.00	
9200.00	90.02	179.41	6671.03	-2732.78	28.31	2732.92	0.00	0.00	0.00	
9300.00	90.02	179.41	6670.99	-2832.77	29.34	2832.92	0.00	0.00	0.00	
9400.00	90.02	179.41	6670.94	-2932.77	30.38	2932.92	0.00	0.00	0.00	
9500.00	90.02	179.41	6670.90	-3032.76	31.42	3032.92	0.00	0.00	0.00	
9600.00	90.02	179.41	6670.86	-3132.76	32.45	3132.92	0.00	0.00	0.00	
9700.00	90.02	179.41	6670.81	-3232.75	33.49	3232.92	0.00	0.00	0.00	
9800.00	90.02	179.41	6670.77	-3332.75	34.52	3332.92	0.00	0.00	0.00	
9900.00	90.02	179.41	6670.73	-3432.74	35.56	3432.92	0.00	0.00	0.00	
10000.00	90.02	179.41	6670.68	-3532.74	36.59	3532.92	0.00	0.00	0.00	
10100.00	90.02	179.41	6670.64	-3632.73	37.63	3632.92	0.00	0.00	0.00	
10200.00	90.02	179.41	6670.60	-3732.72	38.67	3732.92	0.00	0.00	0.00	

# LEAM Drilling Systems, Inc.

## Planning Report

**Company:** Continental Resources  
**Field:** Weld County, Co.  
**Site:** Dunn  
**Well:** 1-13H  
**Wellpath:** OH

**Date:** 3/22/2011 **Time:** 12:34:20 **Page:** 3  
**Co-ordinate(NE) Reference:** Well: 1-13H, Grid North  
**Vertical (TVD) Reference:** GL 4995'+KB 16' 5011.0  
**Section (VS) Reference:** Well (0.00N,0.00E,179.41Azi)  
**Survey Calculation Method:** Minimum Curvature **Db:** Adapti

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10300.00	90.02	179.41	6670.55	-3832.72	39.70	3832.92	0.00	0.00	0.00	
10400.00	90.02	179.41	6670.51	-3932.71	40.74	3932.92	0.00	0.00	0.00	
10500.00	90.02	179.41	6670.47	-4032.71	41.77	4032.92	0.00	0.00	0.00	
10600.00	90.02	179.41	6670.42	-4132.70	42.81	4132.92	0.00	0.00	0.00	
10700.00	90.02	179.41	6670.38	-4232.70	43.85	4232.92	0.00	0.00	0.00	
10800.00	90.02	179.41	6670.34	-4332.69	44.88	4332.92	0.00	0.00	0.00	
10900.00	90.02	179.41	6670.30	-4432.69	45.92	4432.92	0.00	0.00	0.00	
11000.00	90.02	179.41	6670.25	-4532.68	46.95	4532.92	0.00	0.00	0.00	
11100.00	90.02	179.41	6670.21	-4632.68	47.99	4632.92	0.00	0.00	0.00	
11200.00	90.02	179.41	6670.17	-4732.67	49.02	4732.92	0.00	0.00	0.00	
11300.00	90.02	179.41	6670.12	-4832.67	50.06	4832.92	0.00	0.00	0.00	
11400.00	90.02	179.41	6670.08	-4932.66	51.10	4932.92	0.00	0.00	0.00	
11500.00	90.02	179.41	6670.04	-5032.65	52.13	5032.92	0.00	0.00	0.00	
11600.00	90.02	179.41	6669.99	-5132.65	53.17	5132.92	0.00	0.00	0.00	
11700.00	90.02	179.41	6669.95	-5232.64	54.20	5232.92	0.00	0.00	0.00	
11800.00	90.02	179.41	6669.91	-5332.64	55.24	5332.92	0.00	0.00	0.00	
11900.00	90.02	179.41	6669.86	-5432.63	56.27	5432.92	0.00	0.00	0.00	
12000.00	90.02	179.41	6669.82	-5532.63	57.31	5532.92	0.00	0.00	0.00	
12100.00	90.02	179.41	6669.78	-5632.62	58.35	5632.92	0.00	0.00	0.00	
12200.00	90.02	179.41	6669.73	-5732.62	59.38	5732.92	0.00	0.00	0.00	
12300.00	90.02	179.41	6669.69	-5832.61	60.42	5832.92	0.00	0.00	0.00	
12400.00	90.02	179.41	6669.65	-5932.61	61.45	5932.92	0.00	0.00	0.00	
12500.00	90.02	179.41	6669.60	-6032.60	62.49	6032.92	0.00	0.00	0.00	
12600.00	90.02	179.41	6669.56	-6132.60	63.53	6132.92	0.00	0.00	0.00	
12700.00	90.02	179.41	6669.52	-6232.59	64.56	6232.92	0.00	0.00	0.00	
12800.00	90.02	179.41	6669.47	-6332.58	65.60	6332.92	0.00	0.00	0.00	
12900.00	90.02	179.41	6669.43	-6432.58	66.63	6432.92	0.00	0.00	0.00	
13000.00	90.02	179.41	6669.39	-6532.57	67.67	6532.92	0.00	0.00	0.00	
13100.00	90.02	179.41	6669.34	-6632.57	68.70	6632.92	0.00	0.00	0.00	
13200.00	90.02	179.41	6669.30	-6732.56	69.74	6732.92	0.00	0.00	0.00	
13300.00	90.02	179.41	6669.26	-6832.56	70.78	6832.92	0.00	0.00	0.00	
13400.00	90.02	179.41	6669.21	-6932.55	71.81	6932.92	0.00	0.00	0.00	
13500.00	90.02	179.41	6669.17	-7032.55	72.85	7032.92	0.00	0.00	0.00	
13600.00	90.02	179.41	6669.13	-7132.54	73.88	7132.92	0.00	0.00	0.00	
13700.00	90.02	179.41	6669.08	-7232.54	74.92	7232.92	0.00	0.00	0.00	
13800.00	90.02	179.41	6669.04	-7332.53	75.96	7332.92	0.00	0.00	0.00	
13900.00	90.02	179.41	6669.00	-7432.53	76.99	7432.92	0.00	0.00	0.00	
14000.00	90.02	179.41	6668.96	-7532.52	78.03	7532.92	0.00	0.00	0.00	
14100.00	90.02	179.41	6668.91	-7632.51	79.06	7632.92	0.00	0.00	0.00	
14200.00	90.02	179.41	6668.87	-7732.51	80.10	7732.92	0.00	0.00	0.00	
14300.00	90.02	179.41	6668.83	-7832.50	81.13	7832.92	0.00	0.00	0.00	
14400.00	90.02	179.41	6668.78	-7932.50	82.17	7932.92	0.00	0.00	0.00	
14500.00	90.02	179.41	6668.74	-8032.49	83.21	8032.92	0.00	0.00	0.00	
14600.00	90.02	179.41	6668.70	-8132.49	84.24	8132.92	0.00	0.00	0.00	
14700.00	90.02	179.41	6668.65	-8232.48	85.28	8232.92	0.00	0.00	0.00	
14800.00	90.02	179.41	6668.61	-8332.48	86.31	8332.92	0.00	0.00	0.00	
14900.00	90.02	179.41	6668.57	-8432.47	87.35	8432.92	0.00	0.00	0.00	
15000.00	90.02	179.41	6668.52	-8532.47	88.39	8532.92	0.00	0.00	0.00	
15100.00	90.02	179.41	6668.48	-8632.46	89.42	8632.92	0.00	0.00	0.00	
15200.00	90.02	179.41	6668.44	-8732.46	90.46	8732.92	0.00	0.00	0.00	
15300.00	90.02	179.41	6668.39	-8832.45	91.49	8832.92	0.00	0.00	0.00	
15400.00	90.02	179.41	6668.35	-8932.44	92.53	8932.92	0.00	0.00	0.00	

# LEAM Drilling Systems, Inc.

## Planning Report

<b>Company:</b> Continental Resources <b>Field:</b> Weld County, Co. <b>Site:</b> Dunn <b>Well:</b> 1-13H <b>Wellpath:</b> OH	<b>Date:</b> 3/22/2011 <b>Time:</b> 12:34:20 <b>Page:</b> 4 <b>Co-ordinate(NE) Reference:</b> Well: 1-13H, Grid North <b>Vertical (TVD) Reference:</b> GL 4995'+KB 16' 5011.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,179.41Azi) <b>Survey Calculation Method:</b> Minimum Curvature <b>Db:</b> Adapti
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### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
15500.00	90.02	179.41	6668.31	-9032.44	93.56	9032.92	0.00	0.00	0.00	
15600.00	90.02	179.41	6668.26	-9132.43	94.60	9132.92	0.00	0.00	0.00	
15700.00	90.02	179.41	6668.22	-9232.43	95.64	9232.92	0.00	0.00	0.00	
15800.00	90.02	179.41	6668.18	-9332.42	96.67	9332.92	0.00	0.00	0.00	
15900.00	90.02	179.41	6668.13	-9432.42	97.71	9432.92	0.00	0.00	0.00	
16000.00	90.02	179.41	6668.09	-9532.41	98.74	9532.92	0.00	0.00	0.00	
16100.00	90.02	179.41	6668.05	-9632.41	99.78	9632.92	0.00	0.00	0.00	
16209.46	90.02	179.41	6668.00	-9741.86	100.91	9742.38	0.00	0.00	0.00	PBHL

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
SHL			0.00	0.00	0.00	1488648.67	3343794.01	40	40	5.275 N	104	15	38.444 W
KOP			6194.54	0.00	0.00	1488648.67	3343794.01	40	40	5.275 N	104	15	38.444 W
PBHL			6668.00	-9741.86	100.91	1478906.81	3343894.92	40	38	29.008 N	104	15	38.902 W

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6942.39	6672.00	7.000	8.750	7"

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4391.00	4391.00	Pierre		0.00	0.00
3689.00	3689.00	Laramie		0.00	0.00
6473.62	6458.00	Sharon Springs		0.00	0.00
6607.65	6558.00	Niobara		0.00	0.00
6696.47	6609.00	Niobara "B"		0.00	0.00
6805.84	6652.00	Lower "B"		0.00	0.00
6942.39	6672.00	Target		0.00	0.00