



Scientific Drilling

Legend Natural Gas

Eddy County, New Mexico

Colt State Com

Colt State Com 2H

Original Wellpath

Plan: Plan #1

Standard Planning Report

19 June, 2013

30-015-40862



Scientific Drilling

www.scientificdrilling.com



Gr. @ 3037.0usft (Ground)



To convert a Magnetic Direction to a Grid Direction, Add 7.47°
To convert a True Direction to a Grid Direction, Subtract 0.12°

Azimuths to Grid North
True North: -0.12°
Magnetic North: 7.47°
Magnetic Field
Strength: 48323.4snT
Dip Angle: 59.99°
Date: 6/19/2013
Model: IGRF2010

Colt State Com 2H
Eddy County, New Mexico
Northing: 424181.70
Easting: 608898.70
Plan #1

WELL DETAILS

Colt State Com 2H
Ground Level: 3037.0
Easting: 608898.70
Latitude: 32° 9' 57.475 N
Longitude: 104° 6' 53.970 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
7265.7	0.00	0.00	7265.7	0.0	0.0	0.00	0.00	0.0	
7865.7	60.00	241.00	7761.9	-138.9	-250.6	10.00	241.00	171.6	
8503.0	90.00	181.74	7940.0	-644.4	-531.1	10.00	-73.44	710.4	
12664.6	90.00	181.74	7940.0	-4804.1	-657.2	0.00	0.00	4848.8	BHL

DESIGN TARGET DETAILS

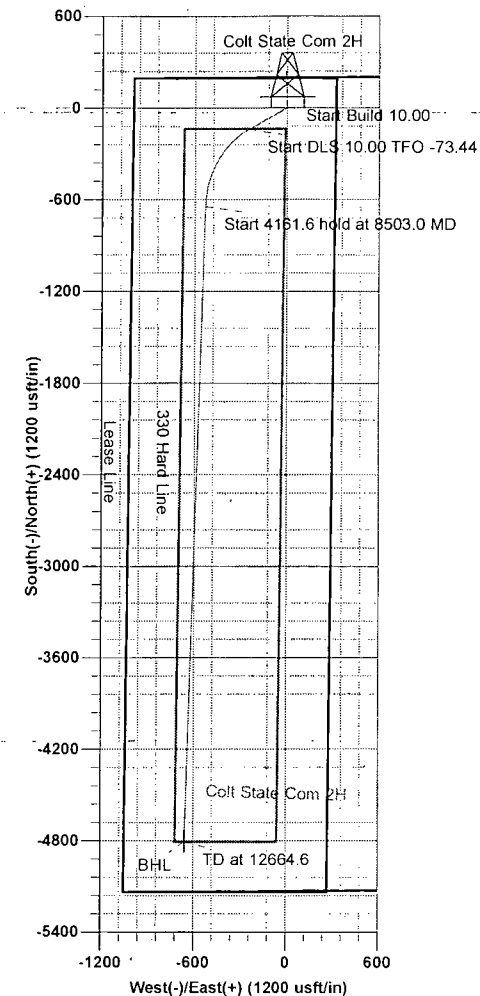
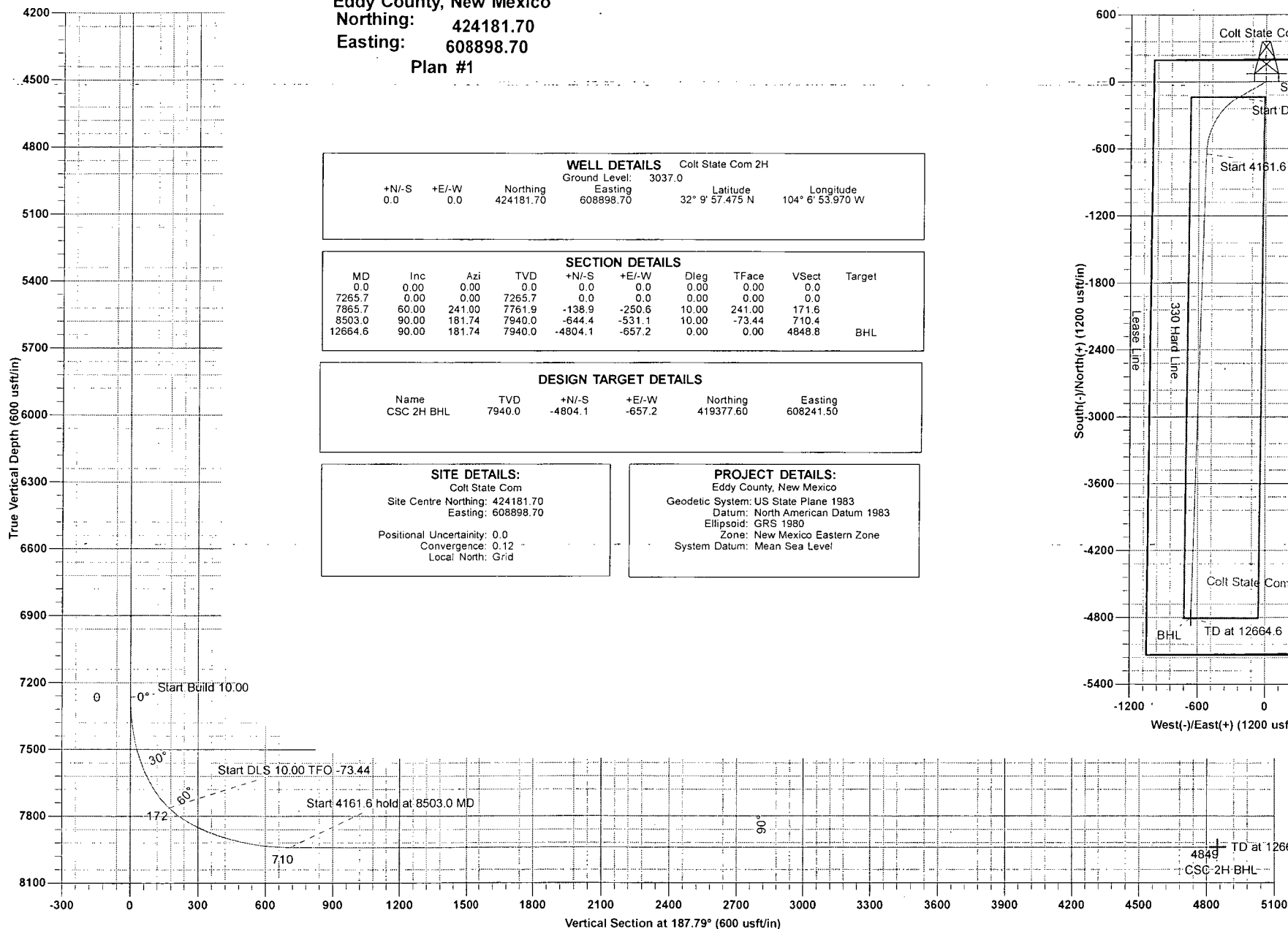
Name	TVD	+N/-S	+E/-W	Northing	Easting
CSC 2H BHL	7940.0	-4804.1	-657.2	419377.60	608241.50

SITE DETAILS:

Colt State Com
Site Centre Northing: 424181.70
Easting: 608898.70
Positional Uncertainty: 0.0
Convergence: 0.12
Local North: Grid

PROJECT DETAILS:

Eddy County, New Mexico
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



Jody Barclay
16:26, June 19 2013

Scientific Drilling
2740 N. Highway 287
Decatur, TX 76234

Database: CompassC
Company: Legend Natural Gas
Project: Eddy County, New Mexico
Site: Colt State Com
Well: Colt State Com 2H
Wellbore: Original Wellpath
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Colt State Com 2H
 Gr. @ 3037.0usft (Ground)
 Gr. @ 3037.0usft (Ground)
 Grid
 Minimum Curvature

Project Eddy County, New Mexico

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site Colt State Com

Site Position: Northing: 424,181.70 usft Latitude: 32° 9' 57.475 N
From: Map Easting: 608,898.70 usft Longitude: 104° 6' 53.970 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.12 °

Well Colt State Com 2H

Well Position +N/-S 0.0 usft Northing: 424,181.70 usft Latitude: 32° 9' 57.475 N
 +E/-W 0.0 usft Easting: 608,898.70 usft Longitude: 104° 6' 53.970 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** **Ground Level:** 3,037.0 usft

Wellbore Original Wellpath

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/19/2013	7.58	59.99	48,323

Design Plan #1

Audit Notes:

Version: **Phase:** PROTOTYPE **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	187.79

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,265.7	0.00	0.00	7,265.7	0.0	0.0	0.00	0.00	0.00	0.00	
7,865.7	60.00	241.00	7,761.9	-138.9	-250.6	10.00	10.00	0.00	241.00	
8,503.0	90.00	181.74	7,940.0	-644.4	-531.1	10.00	4.71	-9.30	-73.44	
12,664.6	90.00	181.74	7,940.0	-4,804.1	-657.2	0.00	0.00	0.00	0.00	CSC 2H BHL

Database:	CompassC	Local Co-ordinate Reference:	Well Colt State Com 2H
Company:	Legend Natural Gas	TVD Reference:	Gr. @ 3037.0usft (Ground)
Project:	Eddy County, New Mexico	MD Reference:	Gr. @ 3037.0usft (Ground)
Site:	Colt State Com	North Reference:	Grid
Well:	Colt State Com 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellpath		
Design:	Plan #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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
1,500.0	0.00	0.00	1,500.0	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
1,700.0	0.00	0.00	1,700.0	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
1,900.0	0.00	0.00	1,900.0	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
2,100.0	0.00	0.00	2,100.0	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
2,300.0	0.00	0.00	2,300.0	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
2,500.0	0.00	0.00	2,500.0	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
2,700.0	0.00	0.00	2,700.0	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
2,900.0	0.00	0.00	2,900.0	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
3,100.0	0.00	0.00	3,100.0	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
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database: CompassC
Company: Legend Natural Gas
Project: Eddy County, New Mexico
Site: Colt State Com
Well: Colt State Com 2H
Wellbore: Original Wellpath
Design: Plan #1

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TVD Reference: Gr: @ 3037.0usft (Ground)
MD Reference: Gr: @ 3037.0usft (Ground)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,265.7	0.00	0.00	7,265.7	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	3.43	241.00	7,300.0	-0.5	-0.9	0.6	10.00	10.00	0.00
7,350.0	8.43	241.00	7,349.7	-3.0	-5.4	3.7	10.00	10.00	0.00
7,400.0	13.43	241.00	7,398.8	-7.6	-13.7	9.4	10.00	10.00	0.00
7,450.0	18.43	241.00	7,446.8	-14.2	-25.7	17.6	10.00	10.00	0.00
7,500.0	23.43	241.00	7,493.5	-22.9	-41.3	28.3	10.00	10.00	0.00
7,550.0	28.43	241.00	7,538.5	-33.5	-60.4	41.4	10.00	10.00	0.00
7,600.0	33.43	241.00	7,581.4	-46.0	-82.9	56.8	10.00	10.00	0.00
7,650.0	38.43	241.00	7,621.8	-60.2	-108.6	74.3	10.00	10.00	0.00
7,700.0	43.43	241.00	7,659.6	-76.1	-137.2	93.9	10.00	10.00	0.00
7,750.0	48.43	241.00	7,694.4	-93.5	-168.6	115.5	10.00	10.00	0.00
7,800.0	53.43	241.00	7,725.9	-112.3	-202.6	138.7	10.00	10.00	0.00
7,850.0	58.43	241.00	7,753.9	-132.3	-238.8	163.5	10.00	10.00	0.00
7,865.7	60.00	241.00	7,761.9	-138.9	-250.6	171.6	10.00	10.00	0.00
7,900.0	61.03	237.24	7,778.8	-154.2	-276.2	190.2	10.00	3.01	-10.96
7,950.0	62.71	231.90	7,802.4	-179.8	-312.1	220.4	10.00	3.37	-10.68
8,000.0	64.60	226.73	7,824.6	-209.0	-346.0	253.9	10.00	3.76	-10.34
8,050.0	66.65	221.73	7,845.2	-241.6	-377.8	290.6	10.00	4.11	-10.01
8,100.0	68.86	216.88	7,864.1	-277.4	-407.1	330.0	10.00	4.42	-9.69
8,150.0	71.20	212.18	7,881.2	-316.1	-433.7	372.0	10.00	4.69	-9.40
8,200.0	73.66	207.61	7,896.3	-357.4	-457.4	416.1	10.00	4.92	-9.14
8,250.0	76.21	203.16	7,909.3	-401.0	-478.1	462.1	10.00	5.11	-8.90
8,300.0	78.85	198.81	7,920.1	-446.6	-495.6	509.7	10.00	5.26	-8.71
8,350.0	81.54	194.53	7,928.6	-493.8	-509.7	558.3	10.00	5.39	-8.55
8,400.0	84.28	190.31	7,934.8	-542.2	-520.3	607.8	10.00	5.48	-8.43
8,450.0	87.05	186.14	7,938.6	-591.6	-527.5	657.6	10.00	5.54	-8.35
8,503.0	90.00	181.74	7,940.0	-644.4	-531.1	710.4	10.00	5.57	-8.31
8,600.0	90.00	181.74	7,940.0	-741.4	-534.0	806.9	0.00	0.00	0.00
8,700.0	90.00	181.74	7,940.0	-841.3	-537.1	906.3	0.00	0.00	0.00
8,800.0	90.00	181.74	7,940.0	-941.3	-540.1	1,005.8	0.00	0.00	0.00
8,900.0	90.00	181.74	7,940.0	-1,041.2	-543.1	1,105.2	0.00	0.00	0.00
9,000.0	90.00	181.74	7,940.0	-1,141.2	-546.2	1,204.7	0.00	0.00	0.00
9,100.0	90.00	181.74	7,940.0	-1,241.1	-549.2	1,304.1	0.00	0.00	0.00
9,200.0	90.00	181.74	7,940.0	-1,341.1	-552.2	1,403.6	0.00	0.00	0.00
9,300.0	90.00	181.74	7,940.0	-1,441.0	-555.3	1,503.0	0.00	0.00	0.00

Database: CompassC
 Company: Legend Natural Gas
 Project: Eddy County, New Mexico
 Site: Colt State Com
 Well: Colt State Com 2H
 Wellbore: Original Wellpath
 Design: Plan #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well Colt State Com 2H
 Gr: @ 3037.0usft (Ground)
 Gr: @ 3037.0usft (Ground)
 Grid
 Minimum Curvature

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)
9,400.0	90.00	181.74	7,940.0	-1,541.0	-558.3	1,602.4	0.00	0.00	0.00
9,500.0	90.00	181.74	7,940.0	-1,640.9	-561.3	1,701.9	0.00	0.00	0.00
9,600.0	90.00	181.74	7,940.0	-1,740.9	-564.3	1,801.3	0.00	0.00	0.00
9,700.0	90.00	181.74	7,940.0	-1,840.9	-567.4	1,900.8	0.00	0.00	0.00
9,800.0	90.00	181.74	7,940.0	-1,940.8	-570.4	2,000.2	0.00	0.00	0.00
9,900.0	90.00	181.74	7,940.0	-2,040.8	-573.4	2,099.7	0.00	0.00	0.00
10,000.0	90.00	181.74	7,940.0	-2,140.7	-576.5	2,199.1	0.00	0.00	0.00
10,100.0	90.00	181.74	7,940.0	-2,240.7	-579.5	2,298.5	0.00	0.00	0.00
10,200.0	90.00	181.74	7,940.0	-2,340.6	-582.5	2,398.0	0.00	0.00	0.00
10,300.0	90.00	181.74	7,940.0	-2,440.6	-585.6	2,497.4	0.00	0.00	0.00
10,400.0	90.00	181.74	7,940.0	-2,540.5	-588.6	2,596.9	0.00	0.00	0.00
10,500.0	90.00	181.74	7,940.0	-2,640.5	-591.6	2,696.3	0.00	0.00	0.00
10,600.0	90.00	181.74	7,940.0	-2,740.4	-594.6	2,795.8	0.00	0.00	0.00
10,700.0	90.00	181.74	7,940.0	-2,840.4	-597.7	2,895.2	0.00	0.00	0.00
10,800.0	90.00	181.74	7,940.0	-2,940.4	-600.7	2,994.6	0.00	0.00	0.00
10,900.0	90.00	181.74	7,940.0	-3,040.3	-603.7	3,094.1	0.00	0.00	0.00
11,000.0	90.00	181.74	7,940.0	-3,140.3	-606.8	3,193.5	0.00	0.00	0.00
11,100.0	90.00	181.74	7,940.0	-3,240.2	-609.8	3,293.0	0.00	0.00	0.00
11,200.0	90.00	181.74	7,940.0	-3,340.2	-612.8	3,392.4	0.00	0.00	0.00
11,300.0	90.00	181.74	7,940.0	-3,440.1	-615.9	3,491.8	0.00	0.00	0.00
11,400.0	90.00	181.74	7,940.0	-3,540.1	-618.9	3,591.3	0.00	0.00	0.00
11,500.0	90.00	181.74	7,940.0	-3,640.0	-621.9	3,690.7	0.00	0.00	0.00
11,600.0	90.00	181.74	7,940.0	-3,740.0	-624.9	3,790.2	0.00	0.00	0.00
11,700.0	90.00	181.74	7,940.0	-3,839.9	-628.0	3,889.6	0.00	0.00	0.00
11,800.0	90.00	181.74	7,940.0	-3,939.9	-631.0	3,989.1	0.00	0.00	0.00
11,900.0	90.00	181.74	7,940.0	-4,039.8	-634.0	4,088.5	0.00	0.00	0.00
12,000.0	90.00	181.74	7,940.0	-4,139.8	-637.1	4,187.9	0.00	0.00	0.00
12,100.0	90.00	181.74	7,940.0	-4,239.8	-640.1	4,287.4	0.00	0.00	0.00
12,200.0	90.00	181.74	7,940.0	-4,339.7	-643.1	4,386.8	0.00	0.00	0.00
12,300.0	90.00	181.74	7,940.0	-4,439.7	-646.2	4,486.3	0.00	0.00	0.00
12,400.0	90.00	181.74	7,940.0	-4,539.6	-649.2	4,585.7	0.00	0.00	0.00
12,500.0	90.00	181.74	7,940.0	-4,639.6	-652.2	4,685.2	0.00	0.00	0.00
12,600.0	90.00	181.74	7,940.0	-4,739.5	-655.2	4,784.6	0.00	0.00	0.00
12,664.6	90.00	181.74	7,940.0	-4,804.1	-657.2	4,848.8	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
CSC 2H BHL	0.00	0.00	7,940.0	-4,804.1	-657.2	419,377.60	608,241.50	32° 9' 9.946 N	104° 7' 1.728 W
- plan hits target center									
- Point									

Legend Colt State Com 2H Plan #1.txt

Legend Natural Gas
Colt State Com 2H - Plan #1

Eddy County, New Mexico
Colt State Com
Your Ref:

Measured Dogleg Depth (ft)	Incl.	Azim.	Depth (ft)	Vertical Northings (ft)	Eastings (ft)	Vertical Section Rate (°/100ft)
0.00		0.000	0.000	0.00		0.00
0.00	0.00					
7265.70		0.000	0.000	7265.70	0.00	0.00
0.00	0.00					
7300.00		3.430	241.000	7299.98	-0.50	-0.90
0.61	10.00					
7350.00		8.430	241.000	7349.70	-3.00	-5.41
3.71	10.00					
7400.00		13.430	241.000	7398.77	-7.60	-13.70
9.38	10.00					
7450.00		18.430	241.000	7446.84	+14.25	-25.70
17.60	10.00					
7500.00		23.430	241.000	7493.52	-22.90	-41.32
28.29	10.00					
7550.00		28.430	241.000	7538.48	-33.50	-60.44
41.38	10.00					
7600.00		33.430	241.000	7581.35	-45.96	-82.91
56.77	10.00					
7650.00		38.430	241.000	7621.83	-60.18	-108.56
74.33	10.00					
7700.00		43.430	241.000	7659.59	-76.05	-137.20
93.94	10.00					
7750.00		48.430	241.000	7694.36	-93.46	-168.61
115.45	10.00					
7800.00		53.430	241.000	7725.86	-112.28	-202.55
138.69	10.00					
7850.00		58.430	241.000	7753.86	-132.35	-238.76
163.49	10.00					
7865.70		60.000	241.000	7761.90	-138.89	-250.56
171.56	10.00					
7900.00		61.031	237.242	7778.78	-154.21	-276.18
190.22	10.00					
7950.00		62.715	231.903	7802.37	-179.77	-312.08
220.41	10.00					
8000.00		64.595	226.732	7824.57	-208.98	-346.03
253.95	10.00					
8050.00		66.651	221.727	7845.21	-241.61	-377.77
290.58	10.00					
8100.00		68.860	216.881	7864.15	-277.41	-407.06
330.02	10.00					
8150.00		71.204	212.180	7881.23	-316.12	-433.67
371.98	10.00					
8200.00		73.661	207.613	7896.33	-357.43	-457.41
416.13	10.00					
8250.00		76.214	203.160	7909.33	-401.04	-478.09
462.14	10.00					
8300.00		78.846	198.806	7920.13	-446.61	-495.56

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509.66	10.00	81.539	194.530	7928.65	-493.80	-509.68
8350.00						
558.32	10.00	84.278	190.314	7934.82	-542.24	-520.34
8400.00						
607.76	10.00	87.048	186.139	7938.60	-591.57	-527.47
8450.00						
657.60	10.00	90.000	181.736	7939.97	-644.40	-531.11
8502.99						
710.43	10.00	90.000	181.736	7939.97	-741.36	-534.05
8600.00						
806.90	0.00	90.000	181.736	7939.97	-841.32	-537.08
8700.00						
906.34	0.00	90.000	181.736	7939.97	-941.27	-540.11
8800.00						
1005.79	0.00	90.000	181.736	7939.97	-1041.22	-543.14
8900.00						
1105.23	0.00	90.000	181.736	7939.97	-1141.18	-546.17
9000.00						
1204.67	0.00	90.000	181.736	7939.97	-1241.13	-549.20
9100.00						
1304.11	0.00	90.000	181.736	7939.97	-1341.09	-552.23
9200.00						
1403.56	0.00	90.000	181.736	7939.98	-1441.04	-555.26
9300.00						
1503.00	0.00	90.000	181.736	7939.98	-1540.99	-558.29
9400.00						
1602.44	0.00	90.000	181.736	7939.98	-1640.95	-561.32
9500.00						
1701.88	0.00	90.000	181.736	7939.98	-1740.90	-564.35
9600.00						
1801.33	0.00	90.000	181.736	7939.98	-1840.86	-567.38
9700.00						
1900.77	0.00	90.000	181.736	7939.98	-1940.81	-570.41
9800.00						
2000.21	0.00	90.000	181.736	7939.98	-2040.76	-573.44
9900.00						
2099.65	0.00	90.000	181.736	7939.98	-2140.72	-576.47
10000.00						
2199.10	0.00	90.000	181.736	7939.98	-2240.67	-579.50
10100.00						
2298.54	0.00	90.000	181.736	7939.98	-2340.63	-582.53
10200.00						
2397.98	0.00	90.000	181.736	7939.98	-2440.58	-585.56
10300.00						
2497.42	0.00	90.000	181.736	7939.98	-2540.53	-588.59
10400.00						
2596.87	0.00	90.000	181.736	7939.98	-2640.49	-591.62
10500.00						
2696.31	0.00	90.000	181.736	7939.98	-2740.44	-594.65
10600.00						
2795.75	0.00	90.000	181.736	7939.99	-2840.40	-597.67
10700.00						
2895.19	0.00	90.000	181.736	7939.99	-2940.35	-600.70
10800.00						
2994.63	0.00	90.000	181.736	7939.99	-3040.31	-603.73
10900.00						
3094.08	0.00	90.000	181.736	7939.99	-3140.26	-606.76
11000.00						
3193.52	0.00	90.000	181.736	7939.99	-3240.21	-609.79
11100.00						
3292.96	0.00	90.000	181.736	7939.99	-3340.17	-612.82
11200.00						
3392.40	0.00					

		Legend Colt State Com 2H Plan #1.txt				
11300.00		90.000	181.736	7939.99	-3440.12	-615.85
3491.85	0.00					
11400.00		90.000	181.736	7939.99	-3540.08	-618.88
3591.29	0.00					
11500.00		90.000	181.736	7939.99	-3640.03	-621.91
3690.73	0.00					
11600.00		90.000	181.736	7939.99	-3739.98	-624.94
3790.17	0.00					
11700.00		90.000	181.736	7939.99	-3839.94	-627.97
3889.62	0.00					
11800.00		90.000	181.736	7939.99	-3939.89	-631.00
3989.06	0.00					
11900.00		90.000	181.736	7939.99	-4039.85	-634.03
4088.50	0.00					
12000.00		90.000	181.736	7940.00	-4139.80	-637.06
4187.94	0.00					
12100.00		90.000	181.736	7940.00	-4239.75	-640.09
4287.39	0.00					
12200.00		90.000	181.736	7940.00	-4339.71	-643.12
4386.83	0.00					
12300.00		90.000	181.736	7940.00	-4439.66	-646.15
4486.27	0.00					
12400.00		90.000	181.736	7940.00	-4539.62	-649.18
4585.71	0.00					
12500.00		90.000	181.736	7940.00	-4639.57	-652.21
4685.16	0.00					
12600.00		90.000	181.736	7940.00	-4739.52	-655.24
4784.60	0.00					
12664.60		90.000	181.736	7940.00	-4804.10	-657.20
4848.84	0.00					

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
vertical depths are relative to Gr:. Northings and Eastings are relative to well.

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from slot and calculated along an Azimuth of 187.789° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.116°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 12664.60ft., the Bottom Hole Displacement is 4848.84ft., in the Direction of 187.789° (Grid).

Legend Natural Gas
Colt State Com 2H - Plan #1

6/19/2013

Eddy County, New Mexico
Colt State Com

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (-/100ft)
0	0	0	0	0	0	0	0
7265.7	0	0	7265.7	0	0	0	0
7300	3.43	241	7299.98	-0.5	-0.9	0.61	10
7350	8.43	241	7349.7	-3	-5.41	3.71	10
7400	13.43	241	7398.77	-7.6	-13.7	9.38	10
7450	18.43	241	7446.84	-14.25	-25.7	17.6	10
7500	23.43	241	7493.52	-22.9	-41.32	28.29	10
7550	28.43	241	7538.48	-33.5	-60.44	41.38	10
7600	33.43	241	7581.35	-45.96	-82.91	56.77	10
7650	38.43	241	7621.83	-60.18	-108.56	74.33	10
7700	43.43	241	7659.59	-76.05	-137.2	93.94	10
7750	48.43	241	7694.36	-93.46	-168.61	115.45	10
7800	53.43	241	7725.86	-112.28	-202.55	138.69	10
7850	58.43	241	7753.86	-132.35	-238.76	163.49	10
7865.7	60	241	7761.9	-138.89	-250.56	171.56	10
7900	61.031	237.242	7778.78	-154.21	-276.18	190.22	10
7950	62.715	231.903	7802.37	-179.77	-312.08	220.41	10
8000	64.595	226.732	7824.57	-208.98	-346.03	253.95	10
8050	66.651	221.727	7845.21	-241.61	-377.77	290.58	10
8100	68.86	216.881	7864.15	-277.41	-407.06	330.02	10
8150	71.204	212.18	7881.23	-316.12	-433.67	371.98	10
8200	73.661	207.613	7896.33	-357.43	-457.41	416.13	10
8250	76.214	203.16	7909.33	-401.04	-478.09	462.14	10
8300	78.846	198.806	7920.13	-446.61	-495.56	509.66	10
8350	81.539	194.53	7928.65	-493.8	-509.68	558.32	10
8400	84.278	190.314	7934.82	-542.24	-520.34	607.76	10
8450	87.048	186.139	7938.6	-591.57	-527.47	657.6	10
8502.99	90	181.736	7939.97	-644.4	-531.11	710.43	10
8600	90	181.736	7939.97	-741.36	-534.05	806.9	0
8700	90	181.736	7939.97	-841.32	-537.08	906.34	0
8800	90	181.736	7939.97	-941.27	-540.11	1005.79	0
8900	90	181.736	7939.97	-1041.22	-543.14	1105.23	0
9000	90	181.736	7939.97	-1141.18	-546.17	1204.67	0
9100	90	181.736	7939.97	-1241.13	-549.2	1304.11	0
9200	90	181.736	7939.97	-1341.09	-552.23	1403.56	0

9300	90	181.736	7939.98	-1441.04	-555.26	1503	0
9400	90	181.736	7939.98	-1540.99	-558.29	1602.44	0
9500	90	181.736	7939.98	-1640.95	-561.32	1701.88	0
9600	90	181.736	7939.98	-1740.9	-564.35	1801.33	0
9700	90	181.736	7939.98	-1840.86	-567.38	1900.77	0
9800	90	181.736	7939.98	-1940.81	-570.41	2000.21	0
9900	90	181.736	7939.98	-2040.76	-573.44	2099.65	0
10000	90	181.736	7939.98	-2140.72	-576.47	2199.1	0
10100	90	181.736	7939.98	-2240.67	-579.5	2298.54	0
10200	90	181.736	7939.98	-2340.63	-582.53	2397.98	0
10300	90	181.736	7939.98	-2440.58	-585.56	2497.42	0
10400	90	181.736	7939.98	-2540.53	-588.59	2596.87	0
10500	90	181.736	7939.98	-2640.49	-591.62	2696.31	0
10600	90	181.736	7939.98	-2740.44	-594.65	2795.75	0
10700	90	181.736	7939.99	-2840.4	-597.67	2895.19	0
10800	90	181.736	7939.99	-2940.35	-600.7	2994.63	0
10900	90	181.736	7939.99	-3040.31	-603.73	3094.08	0
11000	90	181.736	7939.99	-3140.26	-606.76	3193.52	0
11100	90	181.736	7939.99	-3240.21	-609.79	3292.96	0
11200	90	181.736	7939.99	-3340.17	-612.82	3392.4	0
11300	90	181.736	7939.99	-3440.12	-615.85	3491.85	0
11400	90	181.736	7939.99	-3540.08	-618.88	3591.29	0
11500	90	181.736	7939.99	-3640.03	-621.91	3690.73	0
11600	90	181.736	7939.99	-3739.98	-624.94	3790.17	0
11700	90	181.736	7939.99	-3839.94	-627.97	3889.62	0
11800	90	181.736	7939.99	-3939.89	-631	3989.06	0
11900	90	181.736	7939.99	-4039.85	-634.03	4088.5	0
12000	90	181.736	7940	-4139.8	-637.06	4187.94	0
12100	90	181.736	7940	-4239.75	-640.09	4287.39	0
12200	90	181.736	7940	-4339.71	-643.12	4386.83	0
12300	90	181.736	7940	-4439.66	-646.15	4486.27	0
12400	90	181.736	7940	-4539.62	-649.18	4585.71	0
12500	90	181.736	7940	-4639.57	-652.21	4685.16	0
12600	90	181.736	7940	-4739.52	-655.24	4784.6	0
12664.6	90	181.736	7940	-4804.1	-657.2	4848.84	0

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Vertical depths are relative to Gr.: Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 187.789° (Grid).

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