

30-025-41029

HOBBS OCD

FEB 28 2013

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Huntington Energy

Lea County (NM27E)

Sec 26-T14S-R38E

Hubbard #1

Wellbore #1

Plan: 02-19-13

Standard Planning Report

20 February, 2013

Wolverine Directional, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Hubbard #1
Company:	Huntington Energy	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Lea County (NM27E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 26-T14S-R38E	North Reference:	True
Well:	Hubbard #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	02-19-13		

Project	Lea County (NM27E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 26-T14S-R38E		
Site Position:		Northing:	759,583.20ft
From:	Map	Easting:	927,083.70ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	33° 4' 54.197 N
		Longitude:	103° 4' 26.308 W
		Grid Convergence:	0.69 °

Well	Hubbard #1		
Well Position	+N/-S	0.0 ft	Northing: 759,583.20 ft
	+E/-W	0.0 ft	Easting: 927,083.70 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	33° 4' 54.197 N
		Longitude:	103° 4' 26.308 W
		Ground Level:	0.0ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	02/19/13	7.20
			Dip Angle (°) 61.02
			Field Strength (nT) 49,042

Design	02-19-13		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction (°) 158.23

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	
7,453.5	0.00	0.00	7,453.5	0.0	0.0	0.00	0.00	0.00	0.00	
8,053.6	12.00	158.23	8,049.2	-58.1	23.2	2.00	2.00	0.00	158.23	
8,927.6	12.00	158.23	8,904.2	-226.9	90.6	0.00	0.00	0.00	0.00	
9,327.7	4.00	158.22	9,300.0	-278.6	111.3	2.00	-2.00	0.00	-180.00	Hubbard #1 TGT
10,029.4	4.00	158.22	10,000.0	-324.1	129.4	0.00	0.00	0.00	0.00	Hubbard #1 PBHL

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Project:	Lea County (NM27E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 26-T14S-R38E	North Reference:	True
Well:	Hubbard #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	02-19-13		

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
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

Wolverine Directional, LLC

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Wellbore: Wellbore #1
Design: 02-19-13

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TVD Reference: WELL @ 0.0ft (Original Well Elev)
MD Reference: WELL @ 0.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
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
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,453.5	0.00	0.00	7,453.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 2/100									
7,500.0	0.93	158.23	7,500.0	-0.4	0.1	0.4	2.00	2.00	0.00
7,600.0	2.93	158.23	7,599.9	-3.5	1.4	3.7	2.00	2.00	0.00
7,700.0	4.93	158.23	7,699.7	-9.8	3.9	10.6	2.00	2.00	0.00
7,800.0	6.93	158.23	7,799.2	-19.4	7.8	20.9	2.00	2.00	0.00
7,900.0	8.93	158.23	7,898.2	-32.2	12.9	34.7	2.00	2.00	0.00
8,000.0	10.93	158.23	7,996.7	-48.3	19.3	52.0	2.00	2.00	0.00
8,053.6	12.00	158.23	8,049.2	-58.2	23.2	62.6	2.00	2.00	0.00
Begin Hold									
8,100.0	12.00	158.23	8,094.6	-67.1	26.8	72.3	0.00	0.00	0.00
8,200.0	12.00	158.23	8,192.4	-86.4	34.5	93.1	0.00	0.00	0.00
8,300.0	12.00	158.23	8,290.2	-105.7	42.2	113.9	0.00	0.00	0.00
8,400.0	12.00	158.23	8,388.0	-125.0	49.9	134.7	0.00	0.00	0.00
8,500.0	12.00	158.23	8,485.9	-144.4	57.7	155.4	0.00	0.00	0.00
8,600.0	12.00	158.23	8,583.7	-163.7	65.4	176.2	0.00	0.00	0.00
8,700.0	12.00	158.23	8,681.5	-183.0	73.1	197.0	0.00	0.00	0.00
8,800.0	12.00	158.23	8,779.3	-202.3	80.8	217.8	0.00	0.00	0.00
8,900.0	12.00	158.23	8,877.1	-221.6	88.5	238.6	0.00	0.00	0.00
8,927.6	12.00	158.23	8,904.1	-226.9	90.6	244.4	0.00	0.00	0.00
Drop 2/100									
9,000.0	10.55	158.23	8,975.1	-240.1	95.9	258.5	2.00	-2.00	0.00
9,100.0	8.55	158.23	9,073.7	-255.5	102.0	275.1	2.00	-2.00	0.00
9,200.0	6.55	158.23	9,172.9	-267.7	106.9	288.3	2.00	-2.00	0.00
9,300.0	4.55	158.22	9,272.4	-276.7	110.5	297.9	2.00	-2.00	0.00
9,327.7	4.00	158.22	9,300.0	-278.6	111.3	300.0	2.00	-2.00	0.00
Hold to TD - Hubbard #1 TGT									
9,400.0	4.00	158.22	9,372.1	-283.3	113.1	305.0	0.00	0.00	0.00
9,500.0	4.00	158.22	9,471.9	-289.8	115.7	312.0	0.00	0.00	0.00
9,600.0	4.00	158.22	9,571.6	-296.2	118.3	319.0	0.00	0.00	0.00
9,700.0	4.00	158.22	9,671.4	-302.7	120.9	326.0	0.00	0.00	0.00
9,800.0	4.00	158.22	9,771.2	-309.2	123.5	332.9	0.00	0.00	0.00

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Planning Report

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Company:	Huntington Energy	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Project:	Lea County (NM27E)	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 26-T14S-R38E	North Reference:	True
Well:	Hubbard #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	02-19-13		

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)
9,900.0	4.00	158.22	9,870.9	-315.7	126.1	339.9	0.00	0.00	0.00
10,000.0	4.00	158.22	9,970.7	-322.2	128.7	346.9	0.00	0.00	0.00
10,027.7	4.00	158.22	9,998.3	-323.9	129.4	348.8	0.00	0.00	0.00
Hubbard #1 PBHL									
10,029.4	4.00	158.22	10,000.0	-324.1	129.4	348.9	0.00	0.00	0.00
TD at 10029.4									

Targets

Target Name

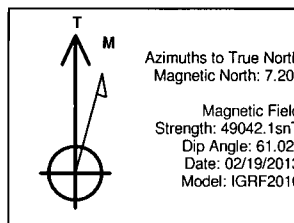
- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Hubbard #1 TGT - plan hits target - Point	0.00	0.00	9,300.0	-278.6	111.3	759,305.95	927,198.30	33° 4' 51.440 N	103° 4' 25.001 W
Hubbard #1 PBHL - plan misses by 24.8ft at 10027.7ft MD (9998.3 TVD, -323.9 N, 129.4 E) - Circle (radius 25.0)	0.00	0.00	10,000.0	-301.0	120.2	759,283.70	927,207.50	33° 4' 51.219 N	103° 4' 24.896 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,453.5	7,453.5	0.0	0.0	KOP - 2/100
8,053.6	8,049.2	-58.2	23.2	Begin Hold
8,927.6	8,904.1	-226.9	90.6	Drop 2/100
9,327.7	9,300.0	-278.6	111.3	Hold to TD
10,029.4	10,000.0	-324.1	129.4	TD at 10029.4

Huntington Energy

Project: Lea County (NM27E)
Site: Sec 26-T14S-R38E
Well: Hubbard #1
Wellbore: Wellbore #1
Design: 02-19-13



Wolverine Directional

WELL DETAILS: Hubbard #1

+N/-S +E/-W Northing Easting Latitude Longitude
0.0 759583.20 927083.70 33° 4' 54.197 N 103° 4' 26.308 W

SHL: 330' FNL / 660' FWL
BHL 630' FNL / 780' FWL

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	7453.5	0.00	0.00	7453.5	0.0	0.0	0.00	0.00	0.0	
3	8053.6	12.00	158.23	8049.2	-58.1	23.2	2.00	158.23	62.6	
4	8927.6	12.00	158.23	8904.2	-226.9	90.6	0.00	0.00	244.4	
5	9327.7	4.00	158.22	9300.0	-278.6	111.3	2.00	180.00	300.0	Hubbard #1 TGT
6	10029.4	4.00	158.22	10000.0	-324.1	129.4	0.00	0.00	348.9	Hubbard #1 PBHL

Wellbore Targets

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Hubbard #1 TGT	9300.0	-278.6	111.3	759305.95	927198.30	Point
Hubbard #1 PBHL	10000.0	-301.0	120.2	759283.70	927207.50	Circle (Radius: 25.0)

ANNOTATIONS

TVD	MD	Annotation
7453.5	7453.5	KOP - 2/100
8049.2	8053.6	Begin Hold
8904.1	8927.6	Drop 2/100
9300.0	9327.7	Hold to TD
10000.0	10029.4	TD at 10029.4

