

Regeneration Energy Corporation

Lea County NM
Madera 17 Federal
#1H

OH

Plan: Plan #1_11780 TVD

Standard Planning Report

17 October, 2013

Oil Conservation Division
Case No. 15043
Exhibit No. 13

Wellplanning Planning Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Well #1H
Company: Regeneration Energy Corporation	TVD Reference: WELL @ 3578.0usft (Original Well Elev)
Project: Lea County NM	MD Reference: WELL @ 3578.0usft (Original Well Elev)
Site: Madera 17 Federal	North Reference: Grid
Well: #1H	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: Plan #1_11780 TVD	

Project Lea County NM		
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level	
Geo Datum: NAD 1927 (NADCON CONUS)		
Map Zone: New Mexico East 3001		

Site Madera 17 Federal		
Site Position:	Northing: 446,173.20 usft	Latitude: 32° 13' 25.662 N
From: Map	Easting: 762,588.30 usft	Longitude: 103° 29' 3.136 W
Position Uncertainty: 3.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: -0.45 °

Well #1H		
Well Position +N/-S 0.0 usft	Northing: 446,173.20 usft	Latitude: 32° 13' 25.662 N
+E/-W 0.0 usft	Easting: 762,588.30 usft	Longitude: 103° 29' 3.136 W
Position Uncertainty 0.0 usft	Wellhead Elevation:	Ground Level: 3,561.0 usft

Wellbore OH		
Magnetics	Model Name	Sample Date
	Declination (°)	Dip Angle (°)
	Field Strength (nT)	
	IGRF2010	10/15/2013
	7.26	60.14
		48,391

Design Plan #1_11780 TVD		
Audit Notes:		
Version:	Phase: PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	Direction (°)
	0.0	179.51

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	
11,302.5	0.00	0.00	11,302.5	0.0	0.0	0.00	0.00	0.00	0.00	
12,052.6	90.00	179.51	11,780.0	-477.5	4.1	12.00	12.00	0.00	179.51	
16,193.6	90.00	179.51	11,780.0	-4,618.4	39.5	0.00	0.00	0.00	0.00	PBHL2(Madera#1H)

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Wellbore:	OH		
Design:	Plan #1_11780 TVD		

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

Wellplanning

Planning Report

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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
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,500.0	0.0	0.0	0.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,600.0	0.0	0.0	0.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,700.0	0.0	0.0	0.0	0.00	0.00	0.00

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10,800.0	0.00	0.00	10,800.0	0.0	0.0	0.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,900.0	0.0	0.0	0.0	0.00	0.00	0.00
11,000.0	0.00	0.00	11,000.0	0.0	0.0	0.0	0.00	0.00	0.00
11,100.0	0.00	0.00	11,100.0	0.0	0.0	0.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,200.0	0.0	0.0	0.0	0.00	0.00	0.00
11,302.5	0.00	0.00	11,302.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 11302.5 'MD, 0.00° INC, 0.00° AZI									
11,325.0	2.70	179.51	11,325.0	-0.5	0.0	0.5	12.00	12.00	0.00
11,350.0	5.70	179.51	11,349.9	-2.4	0.0	2.4	12.00	12.00	0.00
11,375.0	8.70	179.51	11,374.7	-5.5	0.0	5.5	12.00	12.00	0.00
11,400.0	11.70	179.51	11,399.3	-9.9	0.1	9.9	12.00	12.00	0.00
11,425.0	14.70	179.51	11,423.7	-15.6	0.1	15.6	12.00	12.00	0.00
11,450.0	17.70	179.51	11,447.7	-22.6	0.2	22.6	12.00	12.00	0.00
11,475.0	20.70	179.51	11,471.3	-30.8	0.3	30.8	12.00	12.00	0.00
11,500.0	23.70	179.51	11,494.4	-40.3	0.3	40.3	12.00	12.00	0.00
11,525.0	26.70	179.51	11,517.0	-50.9	0.4	50.9	12.00	12.00	0.00
11,550.0	29.70	179.51	11,539.1	-62.7	0.5	62.7	12.00	12.00	0.00
11,575.0	32.70	179.51	11,560.4	-75.7	0.6	75.7	12.00	12.00	0.00
11,600.0	35.70	179.51	11,581.1	-89.7	0.8	89.7	12.00	12.00	0.00
11,625.0	38.70	179.51	11,601.0	-104.8	0.9	104.8	12.00	12.00	0.00
11,650.0	41.70	179.51	11,620.1	-121.0	1.0	121.0	12.00	12.00	0.00
11,675.0	44.70	179.51	11,638.4	-138.1	1.2	138.1	12.00	12.00	0.00
11,700.0	47.70	179.51	11,655.7	-156.1	1.3	156.1	12.00	12.00	0.00
11,725.0	50.70	179.51	11,672.0	-175.0	1.5	175.0	12.00	12.00	0.00
11,750.0	53.70	179.51	11,687.3	-194.8	1.7	194.8	12.00	12.00	0.00
11,775.0	56.70	179.51	11,701.6	-215.3	1.8	215.3	12.00	12.00	0.00
11,800.0	59.70	179.51	11,714.8	-236.5	2.0	236.6	12.00	12.00	0.00
11,825.0	62.70	179.51	11,726.8	-258.5	2.2	258.5	12.00	12.00	0.00
11,850.0	65.70	179.51	11,737.7	-281.0	2.4	281.0	12.00	12.00	0.00
11,875.0	68.69	179.51	11,747.4	-304.0	2.6	304.0	12.00	12.00	0.00
11,900.0	71.69	179.51	11,755.8	-327.5	2.8	327.5	12.00	12.00	0.00
11,925.0	74.69	179.51	11,763.1	-351.4	3.0	351.5	12.00	12.00	0.00
11,950.0	77.69	179.51	11,769.0	-375.7	3.2	375.7	12.00	12.00	0.00
11,975.0	80.69	179.51	11,773.7	-400.3	3.4	400.3	12.00	12.00	0.00
12,000.0	83.69	179.51	11,777.1	-425.0	3.6	425.1	12.00	12.00	0.00
12,025.0	86.69	179.51	11,779.2	-449.9	3.8	450.0	12.00	12.00	0.00
12,050.0	89.69	179.51	11,780.0	-474.9	4.1	474.9	12.00	12.00	0.00
12,052.6	90.00	179.51	11,780.0	-477.5	4.1	477.5	12.00	12.00	0.00
12,100.0	90.00	179.51	11,780.0	-524.9	4.5	524.9	0.00	0.00	0.00
12,200.0	90.00	179.51	11,780.0	-624.9	5.3	624.9	0.00	0.00	0.00
12,300.0	90.00	179.51	11,780.0	-724.9	6.2	724.9	0.00	0.00	0.00
12,400.0	90.00	179.51	11,780.0	-824.9	7.1	824.9	0.00	0.00	0.00
12,500.0	90.00	179.51	11,780.0	-924.9	7.9	924.9	0.00	0.00	0.00
12,520.6	90.00	179.51	11,780.0	-945.5	8.1	945.6	0.00	0.00	0.00
EOC - 12520.6 'MD, 90.00° INC, 179.51° AZI									
12,600.0	90.00	179.51	11,780.0	-1,024.9	8.8	1,024.9	0.00	0.00	0.00
12,700.0	90.00	179.51	11,780.0	-1,124.9	9.6	1,124.9	0.00	0.00	0.00
12,800.0	90.00	179.51	11,780.0	-1,224.9	10.5	1,224.9	0.00	0.00	0.00
12,900.0	90.00	179.51	11,780.0	-1,324.9	11.3	1,324.9	0.00	0.00	0.00
13,000.0	90.00	179.51	11,780.0	-1,424.9	12.2	1,424.9	0.00	0.00	0.00
13,100.0	90.00	179.51	11,780.0	-1,524.9	13.0	1,524.9	0.00	0.00	0.00
13,200.0	90.00	179.51	11,780.0	-1,624.9	13.9	1,624.9	0.00	0.00	0.00
13,300.0	90.00	179.51	11,780.0	-1,724.9	14.8	1,724.9	0.00	0.00	0.00
13,400.0	90.00	179.51	11,780.0	-1,824.9	15.6	1,824.9	0.00	0.00	0.00

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Regeneration Energy Corporation	TVD Reference:	WELL @ 3578.0usft (Original Well Elev)
Project:	Lea County NM	MD Reference:	WELL @ 3578.0usft (Original Well Elev)
Site:	Madera 17 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1_11780 TVD		

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)	
13,500.0	90.00	179.51	11,780.0	-1,924.9	16.5	1,924.9	0.00	0.00	0.00	
13,600.0	90.00	179.51	11,780.0	-2,024.9	17.3	2,024.9	0.00	0.00	0.00	
13,700.0	90.00	179.51	11,780.0	-2,124.9	18.2	2,124.9	0.00	0.00	0.00	
13,800.0	90.00	179.51	11,780.0	-2,224.9	19.0	2,224.9	0.00	0.00	0.00	
13,900.0	90.00	179.51	11,780.0	-2,324.9	19.9	2,324.9	0.00	0.00	0.00	
14,000.0	90.00	179.51	11,780.0	-2,424.9	20.7	2,424.9	0.00	0.00	0.00	
14,100.0	90.00	179.51	11,780.0	-2,524.9	21.6	2,524.9	0.00	0.00	0.00	
14,200.0	90.00	179.51	11,780.0	-2,624.8	22.4	2,624.9	0.00	0.00	0.00	
14,300.0	90.00	179.51	11,780.0	-2,724.8	23.3	2,724.9	0.00	0.00	0.00	
14,400.0	90.00	179.51	11,780.0	-2,824.8	24.2	2,824.9	0.00	0.00	0.00	
14,500.0	90.00	179.51	11,780.0	-2,924.8	25.0	2,924.9	0.00	0.00	0.00	
14,600.0	90.00	179.51	11,780.0	-3,024.8	25.9	3,024.9	0.00	0.00	0.00	
14,700.0	90.00	179.51	11,780.0	-3,124.8	26.7	3,124.9	0.00	0.00	0.00	
14,800.0	90.00	179.51	11,780.0	-3,224.8	27.6	3,224.9	0.00	0.00	0.00	
14,900.0	90.00	179.51	11,780.0	-3,324.8	28.4	3,324.9	0.00	0.00	0.00	
15,000.0	90.00	179.51	11,780.0	-3,424.8	29.3	3,424.9	0.00	0.00	0.00	
15,100.0	90.00	179.51	11,780.0	-3,524.8	30.1	3,524.9	0.00	0.00	0.00	
15,200.0	90.00	179.51	11,780.0	-3,624.8	31.0	3,624.9	0.00	0.00	0.00	
15,300.0	90.00	179.51	11,780.0	-3,724.8	31.9	3,724.9	0.00	0.00	0.00	
15,400.0	90.00	179.51	11,780.0	-3,824.8	32.7	3,824.9	0.00	0.00	0.00	
15,500.0	90.00	179.51	11,780.0	-3,924.8	33.6	3,924.9	0.00	0.00	0.00	
15,600.0	90.00	179.51	11,780.0	-4,024.8	34.4	4,024.9	0.00	0.00	0.00	
15,700.0	90.00	179.51	11,780.0	-4,124.8	35.3	4,124.9	0.00	0.00	0.00	
15,800.0	90.00	179.51	11,780.0	-4,224.8	36.1	4,224.9	0.00	0.00	0.00	
15,900.0	90.00	179.51	11,780.0	-4,324.8	37.0	4,324.9	0.00	0.00	0.00	
16,000.0	90.00	179.51	11,780.0	-4,424.8	37.8	4,424.9	0.00	0.00	0.00	
16,100.0	90.00	179.51	11,780.0	-4,524.8	38.7	4,524.9	0.00	0.00	0.00	
16,193.6	90.00	179.51	11,780.0	-4,618.4	39.5	4,618.5	0.00	0.00	0.00	
TD at 16193.6 - PBHL(Madera#1H) - PBHL2(Madera#1H)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL(Madera#1H)	0.00	0.00	10,960.0	-4,618.4	39.3	441,554.80	762,627.60	32° 12' 39.958 N	103° 29' 3.103 W	
- plan misses target center by 820.0usft at 16193.6usft MD (11780.0 TVD, -4618.4 N, 39.5 E)										
- Point										
PBHL2(Madera#1H)	0.00	0.00	11,780.0	-4,618.4	39.3	441,554.80	762,627.60	32° 12' 39.958 N	103° 29' 3.103 W	
- plan misses target center by 0.2usft at 16193.6usft MD (11780.0 TVD, -4618.4 N, 39.5 E)										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
11,302.5	11,302.5	0.0	0.0	KOP - 11302.5 'MD, 0.00° INC, 0.00° AZI	
12,520.6	11,780.0	-945.5	8.1	EOC- 12520.6 'MD, 90.00° INC, 179.51° AZI	
16,193.6	11,780.0	-4,618.4	39.5	TD at 16193.6	

Regeneration Energy Corporation

Project: Lea County NM

Site: Madera 17 Federal

Well: #1H

Wellbore: OH

Plan: Plan #1_11780 TVD (#1H/OH)

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	11302.5	0.00	0.00	11302.5	0.0	0.0	0.00	0.00	0.0
3	12052.6	90.00	179.51	11780.0	-477.5	4.1	12.00	179.51	477.5
4	16193.6	90.00	179.51	11780.0	-4618.4	39.5	0.00	0.00	4618.6

PBHL2(Madera#1H)

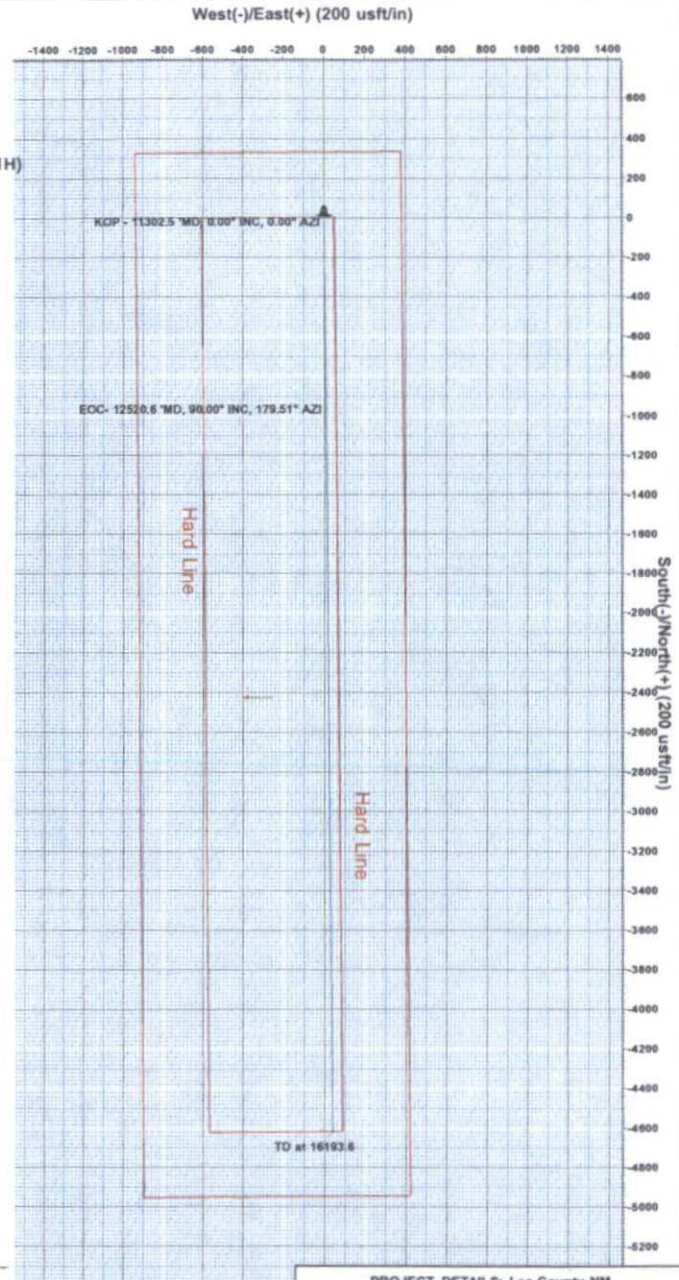
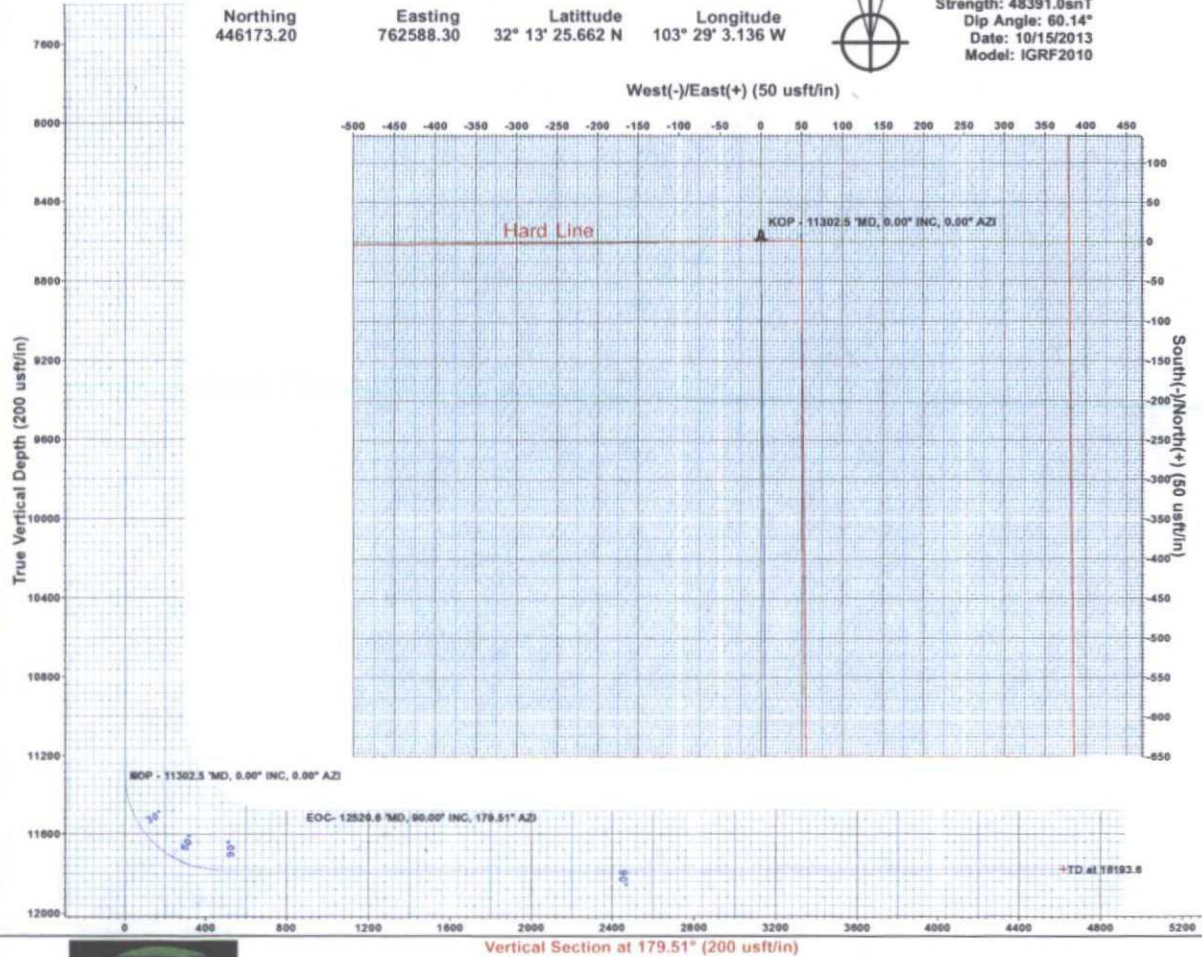
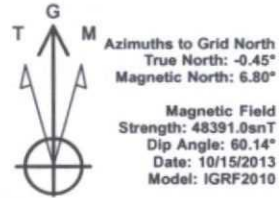
WELL DETAILS: #1H

Ground Elevation: 3561.0

RKB Elevation: WELL @ 3578.0usft (Original Well Elev)

Rig Name: Original Well Elev

Northing 446173.20 Easting 762588.30 Latitude 32° 13' 25.662 N Longitude 103° 29' 3.136 W



Plan: Plan #1_11780 TVD (#1H/OH)
reated By: Well Planner Date: 9:36, October 17 2013

Terra Directional Services
322 Spring Hill Drive, Suite A100, Spring, Texas 77386
432.425.7532

PROJECT DETAILS: Lea County NM
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

Regeneration Energy Corporation

Lea County NM
Madera 17 Federal
#1H

OH

Plan: Design #1

Standard Planning Report

15 October, 2013

Wellplanning Planning Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Well #1H
Company: Regeneration Energy Corporation	TVD Reference: WELL @ 3578.0usft (Original Well Elev)
Project: Lea County NM	MD Reference: WELL @ 3578.0usft (Original Well Elev)
Site: Madera 17 Federal	North Reference: Grid
Well: #1H	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: Design #1	

Project: Lea County NM		
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level	
Geo Datum: NAD 1927 (NADCON CONUS)		
Map Zone: New Mexico East 3001		

Site: Madera 17 Federal					
Site Position:	Map	Northing:	446,173.20 usft	Latitude:	32° 13' 25.662 N
From:		Easting:	762,588.30 usft	Longitude:	103° 29' 3.136 W
Position Uncertainty:	3.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well: #1H						
Well Position	+N/-S	0.0 usft	Northing:	446,173.20 usft	Latitude:	32° 13' 25.662 N
	+E/-W	0.0 usft	Easting:	762,588.30 usft	Longitude:	103° 29' 3.136 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,561.0 usft

Wellbore: OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/15/2013	7.26	60.14	48,391

Design: Design #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.51

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	
10,482.5	0.00	0.00	10,482.5	0.0	0.0	0.00	0.00	0.00	0.00	
11,232.6	90.00	179.51	10,960.0	-477.5	4.1	12.00	12.00	0.00	179.51	
15,373.6	90.00	179.51	10,960.0	-4,618.4	39.5	0.00	0.00	0.00	0.00	0.00 PBHL(Madera#1H)

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Regeneration Energy Corporation	TVD Reference:	WELL @ 3578.0usft (Original Well Elev)
Project:	Lea County NM	MD Reference:	WELL @ 3578.0usft (Original Well Elev)
Site:	Madera 17 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #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

Wellplanning Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Regeneration Energy Corporation	TVD Reference:	WELL @ 3578.0usft (Original Well Elev)
Project:	Lea County NM	MD Reference:	WELL @ 3578.0usft (Original Well Elev)
Site:	Madera 17 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #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)
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
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,800.0	0.0	0.0	0.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,900.0	0.0	0.0	0.0	0.00	0.00	0.00
10,000.0	0.00	0.00	10,000.0	0.0	0.0	0.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,100.0	0.0	0.0	0.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,200.0	0.0	0.0	0.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,300.0	0.0	0.0	0.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,400.0	0.0	0.0	0.0	0.00	0.00	0.00
10,482.5	0.00	0.00	10,482.5	0.0	0.0	0.0	0.00	0.00	0.00

KOP - 10482.5 *MD, 0.00° INC, 0.00° AZI

Wellplanning Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Regeneration Energy Corporation	TVD Reference:	WELL @ 3578.0usft (Original Well Elev)
Project:	Lea County NM	MD Reference:	WELL @ 3578.0usft (Original Well Elev)
Site:	Madera 17 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #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)
10,500.0	2.10	179.51	10,500.0	-0.3	0.0	0.3	12.00	12.00	0.00
10,525.0	5.10	179.51	10,524.9	-1.9	0.0	1.9	12.00	12.00	0.00
10,550.0	8.10	179.51	10,549.8	-4.8	0.0	4.8	12.00	12.00	0.00
10,575.0	11.10	179.51	10,574.4	-8.9	0.1	8.9	12.00	12.00	0.00
10,600.0	14.10	179.51	10,598.8	-14.4	0.1	14.4	12.00	12.00	0.00
10,625.0	17.10	179.51	10,622.9	-21.1	0.2	21.1	12.00	12.00	0.00
10,650.0	20.10	179.51	10,646.6	-29.1	0.2	29.1	12.00	12.00	0.00
10,675.0	23.10	179.51	10,669.8	-38.3	0.3	38.3	12.00	12.00	0.00
10,700.0	26.10	179.51	10,692.6	-48.7	0.4	48.7	12.00	12.00	0.00
10,725.0	29.10	179.51	10,714.7	-60.3	0.5	60.3	12.00	12.00	0.00
10,750.0	32.10	179.51	10,736.2	-73.0	0.6	73.0	12.00	12.00	0.00
10,775.0	35.10	179.51	10,757.0	-86.8	0.7	86.8	12.00	12.00	0.00
10,800.0	38.10	179.51	10,777.1	-101.7	0.9	101.7	12.00	12.00	0.00
10,825.0	41.10	179.51	10,796.4	-117.7	1.0	117.7	12.00	12.00	0.00
10,850.0	44.10	179.51	10,814.8	-134.6	1.2	134.6	12.00	12.00	0.00
10,875.0	47.10	179.51	10,832.3	-152.4	1.3	152.4	12.00	12.00	0.00
10,900.0	50.10	179.51	10,848.8	-171.2	1.5	171.2	12.00	12.00	0.00
10,925.0	53.10	179.51	10,864.3	-190.8	1.6	190.8	12.00	12.00	0.00
10,950.0	56.10	179.51	10,878.8	-211.1	1.8	211.1	12.00	12.00	0.00
10,975.0	59.10	179.51	10,892.2	-232.2	2.0	232.3	12.00	12.00	0.00
11,000.0	62.10	179.51	10,904.5	-254.0	2.2	254.0	12.00	12.00	0.00
11,025.0	65.10	179.51	10,915.6	-276.4	2.4	276.4	12.00	12.00	0.00
11,050.0	68.09	179.51	10,925.5	-299.3	2.6	299.4	12.00	12.00	0.00
11,075.0	71.09	179.51	10,934.2	-322.8	2.8	322.8	12.00	12.00	0.00
11,100.0	74.09	179.51	10,941.7	-346.6	3.0	346.6	12.00	12.00	0.00
11,125.0	77.09	179.51	10,947.9	-370.8	3.2	370.9	12.00	12.00	0.00
11,150.0	80.09	179.51	10,952.9	-395.3	3.4	395.4	12.00	12.00	0.00
11,175.0	83.09	179.51	10,956.5	-420.1	3.6	420.1	12.00	12.00	0.00
11,200.0	86.09	179.51	10,958.9	-445.0	3.8	445.0	12.00	12.00	0.00
11,225.0	89.09	179.51	10,959.9	-469.9	4.0	469.9	12.00	12.00	0.00
11,232.6	90.00	179.51	10,960.0	-477.5	4.1	477.5	12.00	12.00	0.00
EOC- 11232.6 MD, 90.00° INC, 179.51° AZI									
11,300.0	90.00	179.51	10,960.0	-544.9	4.7	544.9	0.00	0.00	0.00
11,400.0	90.00	179.51	10,960.0	-644.9	5.5	644.9	0.00	0.00	0.00
11,500.0	90.00	179.51	10,960.0	-744.9	6.4	744.9	0.00	0.00	0.00
11,600.0	90.00	179.51	10,960.0	-844.9	7.2	844.9	0.00	0.00	0.00
11,700.0	90.00	179.51	10,960.0	-944.9	8.1	944.9	0.00	0.00	0.00
11,800.0	90.00	179.51	10,960.0	-1,044.9	8.9	1,044.9	0.00	0.00	0.00
11,900.0	90.00	179.51	10,960.0	-1,144.9	9.8	1,144.9	0.00	0.00	0.00
12,000.0	90.00	179.51	10,960.0	-1,244.9	10.6	1,244.9	0.00	0.00	0.00
12,100.0	90.00	179.51	10,960.0	-1,344.9	11.5	1,344.9	0.00	0.00	0.00
12,200.0	90.00	179.51	10,960.0	-1,444.9	12.4	1,444.9	0.00	0.00	0.00
12,300.0	90.00	179.51	10,960.0	-1,544.9	13.2	1,544.9	0.00	0.00	0.00
12,400.0	90.00	179.51	10,960.0	-1,644.9	14.1	1,644.9	0.00	0.00	0.00
12,500.0	90.00	179.51	10,960.0	-1,744.9	14.9	1,744.9	0.00	0.00	0.00
12,600.0	90.00	179.51	10,960.0	-1,844.9	15.8	1,844.9	0.00	0.00	0.00
12,700.0	90.00	179.51	10,960.0	-1,944.9	16.6	1,944.9	0.00	0.00	0.00
12,800.0	90.00	179.51	10,960.0	-2,044.9	17.5	2,044.9	0.00	0.00	0.00
12,900.0	90.00	179.51	10,960.0	-2,144.9	18.3	2,144.9	0.00	0.00	0.00
13,000.0	90.00	179.51	10,960.0	-2,244.9	19.2	2,244.9	0.00	0.00	0.00
13,100.0	90.00	179.51	10,960.0	-2,344.9	20.1	2,344.9	0.00	0.00	0.00
13,200.0	90.00	179.51	10,960.0	-2,444.9	20.9	2,444.9	0.00	0.00	0.00
13,300.0	90.00	179.51	10,960.0	-2,544.9	21.8	2,544.9	0.00	0.00	0.00
13,400.0	90.00	179.51	10,960.0	-2,644.8	22.6	2,644.9	0.00	0.00	0.00

Wellplanning Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Regeneration Energy Corporation	TVD Reference:	WELL @ 3578.0usft (Original Well Elev)
Project:	Lea County NM	MD Reference:	WELL @ 3578.0usft (Original Well Elev)
Site:	Madera 17 Federal	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #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)
13,500.0	90.00	179.51	10,960.0	-2,744.8	23.5	2,744.9	0.00	0.00	0.00
13,600.0	90.00	179.51	10,960.0	-2,844.8	24.3	2,844.9	0.00	0.00	0.00
13,700.0	90.00	179.51	10,960.0	-2,944.8	25.2	2,944.9	0.00	0.00	0.00
13,800.0	90.00	179.51	10,960.0	-3,044.8	26.0	3,044.9	0.00	0.00	0.00
13,900.0	90.00	179.51	10,960.0	-3,144.8	26.9	3,144.9	0.00	0.00	0.00
14,000.0	90.00	179.51	10,960.0	-3,244.8	27.8	3,244.9	0.00	0.00	0.00
14,100.0	90.00	179.51	10,960.0	-3,344.8	28.6	3,344.9	0.00	0.00	0.00
14,200.0	90.00	179.51	10,960.0	-3,444.8	29.5	3,444.9	0.00	0.00	0.00
14,300.0	90.00	179.51	10,960.0	-3,544.8	30.3	3,544.9	0.00	0.00	0.00
14,400.0	90.00	179.51	10,960.0	-3,644.8	31.2	3,644.9	0.00	0.00	0.00
14,500.0	90.00	179.51	10,960.0	-3,744.8	32.0	3,744.9	0.00	0.00	0.00
14,600.0	90.00	179.51	10,960.0	-3,844.8	32.9	3,844.9	0.00	0.00	0.00
14,700.0	90.00	179.51	10,960.0	-3,944.8	33.7	3,944.9	0.00	0.00	0.00
14,800.0	90.00	179.51	10,960.0	-4,044.8	34.6	4,044.9	0.00	0.00	0.00
14,900.0	90.00	179.51	10,960.0	-4,144.8	35.4	4,144.9	0.00	0.00	0.00
15,000.0	90.00	179.51	10,960.0	-4,244.8	36.3	4,244.9	0.00	0.00	0.00
15,100.0	90.00	179.51	10,960.0	-4,344.8	37.2	4,344.9	0.00	0.00	0.00
15,200.0	90.00	179.51	10,960.0	-4,444.8	38.0	4,444.9	0.00	0.00	0.00
15,300.0	90.00	179.51	10,960.0	-4,544.8	38.9	4,544.9	0.00	0.00	0.00
15,373.6	90.00	179.51	10,960.0	-4,618.4	39.5	4,618.6	0.00	0.00	0.00

TD at 15373.6 - PBHL(Madera#1H) - PBHL2(Madera#1H)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(Madera#1H)	0.00	0.00	10,960.0	-4,618.4	39.3	441,554.80	762,627.60	32° 12' 39.958 N	103° 29' 3.103 W
- hit/miss target									
- plan misses target center by 0.2usft at 15373.6usft MD (10960.0 TVD, -4618.4 N, 39.5 E)									
- Point									
PBHL2(Madera#1H)	0.00	0.00	11,780.0	-4,618.4	39.3	441,554.80	762,627.60	32° 12' 39.958 N	103° 29' 3.103 W
- plan misses target center by 820.0usft at 15373.6usft MD (10960.0 TVD, -4618.4 N, 39.5 E)									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,482.5	10,482.5	0.0	0.0	KOP - 10482.5 'MD, 0.00° INC, 0.00° AZI
11,232.6	10,960.0	-477.5	4.1	EOC- 11232.6 'MD, 90.00° INC, 179.51° AZI
15,373.6	10,960.0	-4,618.4	39.5	TD at 15373.6

Regeneration Energy Corporation

Project: Lea County NM
 Site: Madera 17 Federal
 Well: #1H
 Wellbore: OH
 Plan: Design #1 (#1H/OH)

		Section Details									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect		
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	10482.5	0.00	0.00	10482.5	0.0	0.0	0.00	0.00	0.0		
3	11232.6	90.00	179.51	10960.0	-477.5	4.1	12.00	179.51	477.5		
4	15373.6	90.00	179.51	10960.0	-4618.4	39.5	0.00	0.00	4618.6	PBHL(Madera#1H)	

WELL DETAILS: #1H

Ground Elevation:: 3561.0
 RKB Elevation: WELL @ 3578.0usft (Original Well Elev)
 Rig Name: Original Well Elev

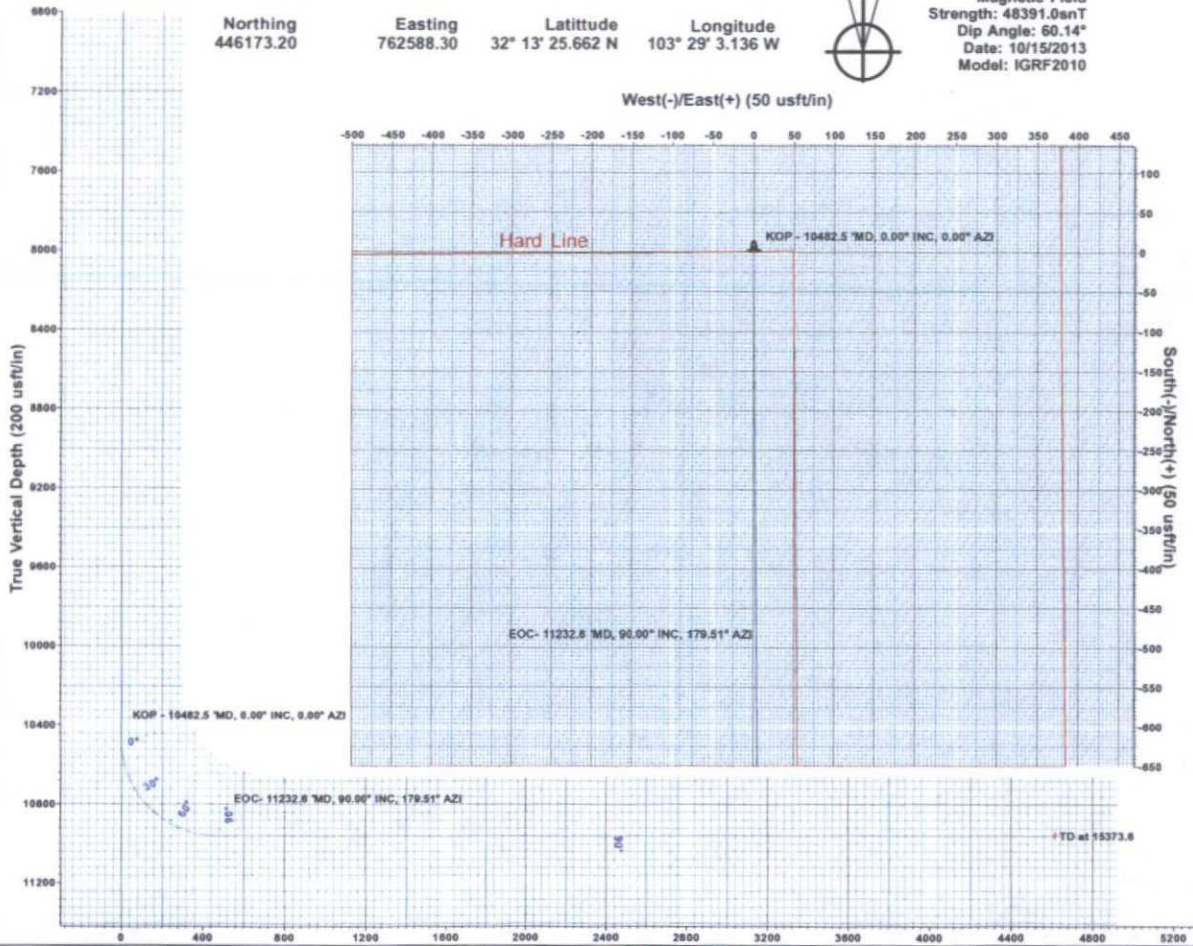
Northing 446173.20 Easting 762588.30 Latitude 32° 13' 25.662 N Longitude 103° 29' 3.136 W



Azimuths to Grid North
 True North: -0.45°
 Magnetic North: 6.80°

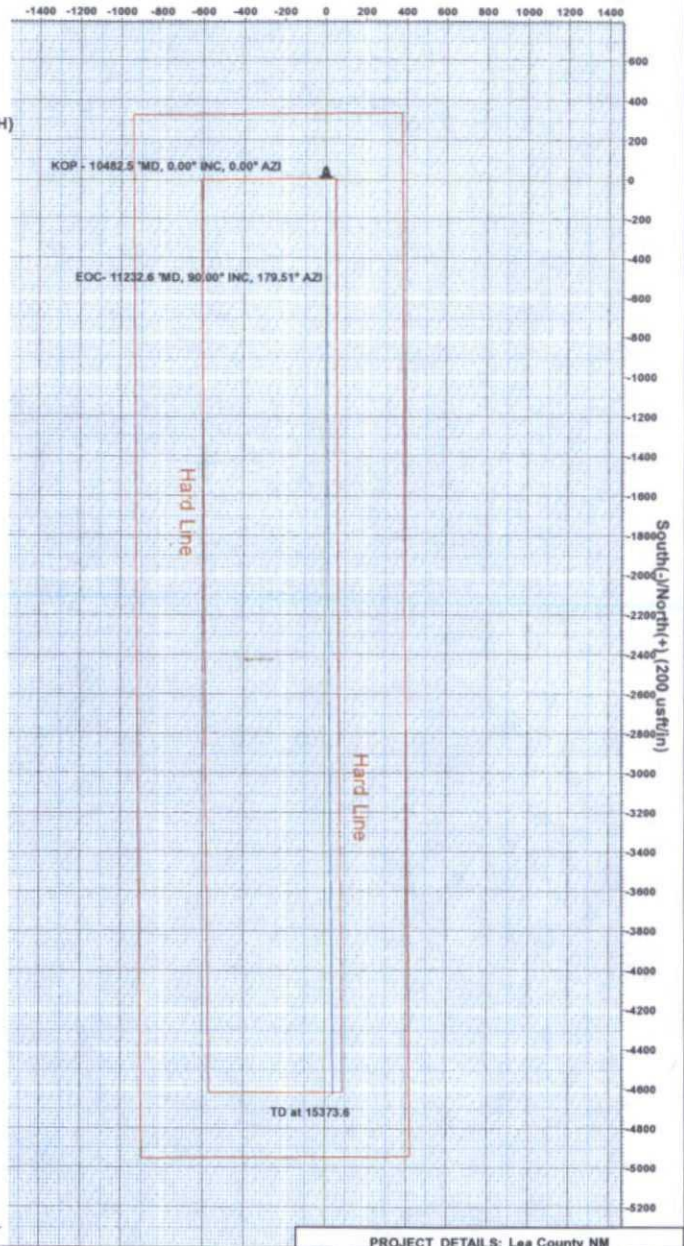
Magnetic Field
 Strength: 48391.0nT
 Dip Angle: 60.14°
 Date: 10/15/2013
 Model: IGRF2010

West(-)/East(+) (50 usft/in)



Vertical Section at 179.51° (200 usft/in)

West(-)/East(+) (200 usft/in)



PROJECT DETAILS: Lea County NM

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level
 Local North: Grid



Plan: Design #1 (#1H/OH)
 created By: Well Planner Date: 9:22, October 15 2013

Terra Directional Services
 322 Spring Hill Drive, Suite A100, Spring, Texas 77386
 432.425.7532