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# ReGeneration Energy Group LLC

Lea County, New Mexico

Sec 32 T23-S R35-E

Shearn State Com #1H

Wellbore #1

Plan: Design #1

## DDC Well Planning Report

19 June, 2012



**DDC**  
Well Planning Report



|                                               |                                                               |  |
|-----------------------------------------------|---------------------------------------------------------------|--|
| <b>Database:</b> EDM 5000.1 Single User Db    | <b>Local Co-ordinate Reference:</b> Well Shearn State Com #1H |  |
| <b>Company:</b> ReGeneration Energy Group LLC | <b>TVD Reference:</b> WELL @ 3463.0usft (Original Well Elev)  |  |
| <b>Project:</b> Lea County, New Mexico        | <b>MD Reference:</b> WELL @ 3463.0usft (Original Well Elev)   |  |
| <b>Site:</b> Sec 32 T23-S R35-E               | <b>North Reference:</b> Grid                                  |  |
| <b>Well:</b> Shearn State Com #1H             | <b>Survey Calculation Method:</b> Minimum Curvature           |  |
| <b>Wellbore:</b> Wellbore #1                  |                                                               |  |
| <b>Design:</b> Design #1                      |                                                               |  |

|                                                         |                                     |
|---------------------------------------------------------|-------------------------------------|
| <b>Project:</b> Lea County, New Mexico                  |                                     |
| <b>Map System:</b> US State Plane 1927 (Exact solution) | <b>System Datum:</b> Mean Sea Level |
| <b>Geo Datum:</b> NAD 1927 (NADCON CONUS)               |                                     |
| <b>Map Zone:</b> New Mexico East 3001                   |                                     |

|                                       |                                  |                                     |  |
|---------------------------------------|----------------------------------|-------------------------------------|--|
| <b>Site:</b> Sec 32 T23-S R35-E       |                                  |                                     |  |
| <b>Site Position:</b>                 | <b>Northing:</b> 457,606.40 usft | <b>Latitude:</b> 32° 15' 16.570 N   |  |
| <b>From:</b> Map                      | <b>Easting:</b> 789,630.30 usft  | <b>Longitude:</b> 103° 23' 47.206 W |  |
| <b>Position Uncertainty:</b> 0.0 usft | <b>Slot Radius:</b> 13-3/16 "    | <b>Grid Convergence:</b> 0.50 "     |  |

|                                      |                       |                                  |                                     |
|--------------------------------------|-----------------------|----------------------------------|-------------------------------------|
| <b>Well:</b> Shearn State Com #1H    |                       |                                  |                                     |
| <b>Well Position</b>                 | <b>+N/-S</b> 0.0 usft | <b>Northing:</b> 457,606.40 usft | <b>Latitude:</b> 32° 15' 16.570 N   |
|                                      | <b>+E/-W</b> 0.0 usft | <b>Easting:</b> 789,630.30 usft  | <b>Longitude:</b> 103° 23' 47.206 W |
| <b>Position Uncertainty</b> 0.0 usft |                       | <b>Wellhead Elevation:</b>       | <b>Ground Level:</b> 3,445.0 usft   |

|                              |                   |                    |                    |
|------------------------------|-------------------|--------------------|--------------------|
| <b>Wellbore:</b> Wellbore #1 |                   |                    |                    |
| <b>Magnetics</b>             | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b> |
|                              | IGRF2010          | 6/19/2012          | 7.38               |
|                              |                   |                    | 60.22              |
|                              |                   |                    | 48,553             |

|                          |                         |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
| <b>Design:</b> Design #1 |                         |                          |                         |
| <b>Audit Notes:</b>      |                         |                          |                         |
| <b>Version:</b>          | <b>Phase:</b> PLAN      | <b>Tie On Depth:</b> 0.0 |                         |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>             | <b>+E/-W</b>            |
|                          | (usft)                  | (usft)                   | (usft)                  |
|                          | 0.0                     | 0.0                      | 0.0                     |
|                          |                         |                          | <b>Direction</b> 358.83 |
|                          |                         |                          | (°)                     |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                   |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Bulld 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    |                   |
| 8,152.6               | 0.00            | 0.00        | 8,152.6               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                   |
| 8,894.6               | 89.03           | 358.83      | 8,630.0               | 469.3        | -9.6         | 12.00                   | 12.00                  | -0.16                 | 358.83  |                   |
| 13,047.1              | 89.03           | 358.83      | 8,700.0               | 4,620.4      | -94.7        | 0.00                    | 0.00                   | 0.00                  | 0.00    | PBHL Shearn State |

# DDC Well Planning Report



|                  |                               |                                     |                                        |
|------------------|-------------------------------|-------------------------------------|----------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db     | <b>Local Co-ordinate Reference:</b> | Well Shearn State Com #1H              |
| <b>Company:</b>  | ReGeneration Energy Group LLC | <b>TVD Reference:</b>               | WELL @ 3463.0usft (Original Well Elev) |
| <b>Project:</b>  | Lea County, New Mexico        | <b>MD Reference:</b>                | WELL @ 3463.0usft (Original Well Elev) |
| <b>Site:</b>     | Sec 32 T23-S R35-E            | <b>North Reference:</b>             | Grid                                   |
| <b>Well:</b>     | Shearn State Com #1H          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                        |
| <b>Design:</b>   | Design #1                     |                                     |                                        |

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/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                        |

**DDC**  
Well Planning Report



**Database:** EDM 5000.1 Single User Db  
**Company:** ReGeneration Energy Group LLC  
**Project:** Lea County, New Mexico  
**Site:** Sec 32 T23-S R35-E  
**Well:** Shearn State Com #1H  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:** Well Shearn State Com #1H  
**TVD Reference:** WELL @ 3463.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3463.0usft (Original Well Elev)  
**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                  |
| 7,300.0                                                      | 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                  |
| <b>Build 12°/100' @ 8153' MD</b>                             |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,152.6                                                      | 0.00            | 0.00        | 8,152.6               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0                                                      | 5.69            | 358.83      | 8,199.9               | 2.4          | 0.0          | 2.4                     | 12.00                   | 12.00                  | 0.00                  |
| 8,300.0                                                      | 17.69           | 358.83      | 8,297.7               | 22.6         | -0.5         | 22.6                    | 12.00                   | 12.00                  | 0.00                  |
| 8,400.0                                                      | 29.69           | 358.83      | 8,389.1               | 62.7         | -1.3         | 62.7                    | 12.00                   | 12.00                  | 0.00                  |
| 8,500.0                                                      | 41.69           | 358.83      | 8,470.1               | 120.9        | -2.5         | 120.9                   | 12.00                   | 12.00                  | 0.00                  |
| 8,600.0                                                      | 53.69           | 358.83      | 8,537.3               | 194.7        | -4.0         | 194.7                   | 12.00                   | 12.00                  | 0.00                  |
| 8,700.0                                                      | 65.69           | 358.83      | 8,587.7               | 280.8        | -5.8         | 280.9                   | 12.00                   | 12.00                  | 0.00                  |
| 8,800.0                                                      | 77.69           | 358.83      | 8,619.1               | 375.6        | -7.7         | 375.7                   | 12.00                   | 12.00                  | 0.00                  |
| <b>EOB @ 8895' MD / 89.03° Inc / 358.83° Azm / 8630' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,894.6                                                      | 89.03           | 358.83      | 8,630.0               | 469.3        | -9.6         | 469.4                   | 12.00                   | 12.00                  | 0.00                  |
| 8,900.0                                                      | 89.03           | 358.83      | 8,630.1               | 474.8        | -9.7         | 474.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,000.0                                                      | 89.03           | 358.83      | 8,631.8               | 574.7        | -11.8        | 574.9                   | 0.00                    | 0.00                   | 0.00                  |
| 9,100.0                                                      | 89.03           | 358.83      | 8,633.5               | 674.7        | -13.8        | 674.8                   | 0.00                    | 0.00                   | 0.00                  |
| 9,200.0                                                      | 89.03           | 358.83      | 8,635.1               | 774.7        | -15.9        | 774.8                   | 0.00                    | 0.00                   | 0.00                  |
| 9,300.0                                                      | 89.03           | 358.83      | 8,636.8               | 874.6        | -17.9        | 874.8                   | 0.00                    | 0.00                   | 0.00                  |
| 9,400.0                                                      | 89.03           | 358.83      | 8,638.5               | 974.6        | -20.0        | 974.8                   | 0.00                    | 0.00                   | 0.00                  |
| 9,500.0                                                      | 89.03           | 358.83      | 8,640.2               | 1,074.6      | -22.0        | 1,074.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,600.0                                                      | 89.03           | 358.83      | 8,641.9               | 1,174.5      | -24.1        | 1,174.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,700.0                                                      | 89.03           | 358.83      | 8,643.6               | 1,274.5      | -26.1        | 1,274.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,800.0                                                      | 89.03           | 358.83      | 8,645.3               | 1,374.4      | -28.2        | 1,374.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,900.0                                                      | 89.03           | 358.83      | 8,646.9               | 1,474.4      | -30.2        | 1,474.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,000.0                                                     | 89.03           | 358.83      | 8,648.6               | 1,574.4      | -32.3        | 1,574.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,100.0                                                     | 89.03           | 358.83      | 8,650.3               | 1,674.3      | -34.3        | 1,674.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,200.0                                                     | 89.03           | 358.83      | 8,652.0               | 1,774.3      | -36.4        | 1,774.7                 | 0.00                    | 0.00                   | 0.00                  |

# DDC Well Planning Report



|                  |                               |                                     |                                        |
|------------------|-------------------------------|-------------------------------------|----------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db     | <b>Local Co-ordinate Reference:</b> | Well Shearn State Com #1H              |
| <b>Company:</b>  | ReGeneration Energy Group LLC | <b>TVD Reference:</b>               | WELL @ 3463.0usft (Original Well Elev) |
| <b>Project:</b>  | Lea County, New Mexico        | <b>MD Reference:</b>                | WELL @ 3463.0usft (Original Well Elev) |
| <b>Site:</b>     | Sec 32 T23-S R35-E            | <b>North Reference:</b>             | Grid                                   |
| <b>Well:</b>     | Shearn State Com #1H          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                        |
| <b>Design:</b>   | 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) |
|-----------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 10,300.0                          | 89.03           | 358.83      | 8,653.7               | 1,874.3      | -38.4        | 1,874.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,400.0                          | 89.03           | 358.83      | 8,655.4               | 1,974.2      | -40.5        | 1,974.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,500.0                          | 89.03           | 358.83      | 8,657.1               | 2,074.2      | -42.5        | 2,074.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,600.0                          | 89.03           | 358.83      | 8,658.7               | 2,174.2      | -44.6        | 2,174.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,700.0                          | 89.03           | 358.83      | 8,660.4               | 2,274.1      | -46.6        | 2,274.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,800.0                          | 89.03           | 358.83      | 8,662.1               | 2,374.1      | -48.7        | 2,374.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,900.0                          | 89.03           | 358.83      | 8,663.8               | 2,474.1      | -50.7        | 2,474.6                 | 0.00                    | 0.00                   | 0.00                  |
| 11,000.0                          | 89.03           | 358.83      | 8,665.5               | 2,574.0      | -52.8        | 2,574.6                 | 0.00                    | 0.00                   | 0.00                  |
| 11,100.0                          | 89.03           | 358.83      | 8,667.2               | 2,674.0      | -54.8        | 2,674.6                 | 0.00                    | 0.00                   | 0.00                  |
| 11,200.0                          | 89.03           | 358.83      | 8,668.9               | 2,774.0      | -56.9        | 2,774.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,300.0                          | 89.03           | 358.83      | 8,670.5               | 2,873.9      | -58.9        | 2,874.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,400.0                          | 89.03           | 358.83      | 8,672.2               | 2,973.9      | -61.0        | 2,974.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,500.0                          | 89.03           | 358.83      | 8,673.9               | 3,073.8      | -63.0        | 3,074.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,600.0                          | 89.03           | 358.83      | 8,675.6               | 3,173.8      | -65.1        | 3,174.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,700.0                          | 89.03           | 358.83      | 8,677.3               | 3,273.8      | -67.1        | 3,274.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,800.0                          | 89.03           | 358.83      | 8,679.0               | 3,373.7      | -69.1        | 3,374.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,900.0                          | 89.03           | 358.83      | 8,680.7               | 3,473.7      | -71.2        | 3,474.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,000.0                          | 89.03           | 358.83      | 8,682.3               | 3,573.7      | -73.2        | 3,574.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,100.0                          | 89.03           | 358.83      | 8,684.0               | 3,673.6      | -75.3        | 3,674.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,200.0                          | 89.03           | 358.83      | 8,685.7               | 3,773.6      | -77.3        | 3,774.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,300.0                          | 89.03           | 358.83      | 8,687.4               | 3,873.6      | -79.4        | 3,874.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,400.0                          | 89.03           | 358.83      | 8,689.1               | 3,973.5      | -81.4        | 3,974.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,500.0                          | 89.03           | 358.83      | 8,690.8               | 4,073.5      | -83.5        | 4,074.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,600.0                          | 89.03           | 358.83      | 8,692.5               | 4,173.5      | -85.5        | 4,174.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,700.0                          | 89.03           | 358.83      | 8,694.1               | 4,273.4      | -87.6        | 4,274.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,800.0                          | 89.03           | 358.83      | 8,695.8               | 4,373.4      | -89.6        | 4,374.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,900.0                          | 89.03           | 358.83      | 8,697.5               | 4,473.4      | -91.7        | 4,474.3                 | 0.00                    | 0.00                   | 0.00                  |
| 13,000.0                          | 89.03           | 358.83      | 8,699.2               | 4,573.3      | -93.7        | 4,574.3                 | 0.00                    | 0.00                   | 0.00                  |
| <b>TD @ 13047' MD / 8700' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 13,047.1                          | 89.03           | 358.83      | 8,700.0               | 4,620.4      | -94.7        | 4,621.4                 | 0.00                    | 0.00                   | 0.00                  |

## Design Targets

### Target Name

| - hit/miss target         | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northring (usft) | Easting (usft) | Latitude        | Longitude         |
|---------------------------|---------------|--------------|------------|--------------|--------------|------------------|----------------|-----------------|-------------------|
| - Shape                   |               |              |            |              |              |                  |                |                 |                   |
| PBHL Shearn State C       | 0.00          | 0.00         | 8,700.0    | 4,620.4      | -94.7        | 462,226.80       | 789,535.60     | 32° 16' 2 297 N | 103° 23' 47.839 W |
| - plan hits target center |               |              |            |              |              |                  |                |                 |                   |
| - Point                   |               |              |            |              |              |                  |                |                 |                   |

## Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                                               |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                                       |
| 8,152.6               | 8,152.6               | 0.0               | 0.0          | Build 12°/100' @ 8153' MD                             |
| 8,894.6               | 8,630.0               | 469.3             | -9.6         | EOB @ 8895' MD / 89.03° Inc / 358.83° Azm / 8630' TVD |
| 13,047.1              | 8,700.0               | 4,620.4           | -94.7        | TD @ 13047' MD / 8700' TVD                            |