



Project: Lea County, NM (Nad 83)  
Site: Sec16,T24S,R36E  
Well: Angus State 24-35 16 #454H  
Wellbore: Wellbore #1  
Design: Plan #1  
Latitude: 32° 13' 26.660 N  
Longitude: 103° 22' 16.404 W  
Ground Level: 3387.0  
OKB @ 3387.0usft (OKB)



PROJECT DETAILS: Lea County, NM (Nad 83)

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

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Angus State 24-35 16 #454H, Grid North  
Vertical (TVD) Reference: OKB @ 3387.0usft (OKB)  
Section (VS) Reference: Slot - (0.0N, 0.0E)  
Measured Depth Reference: OKB @ 3387.0usft (OKB)  
Calculation Method: Minimum Curvature

WELL DETAILS: Angus State 24-35 16 #454H

Ground Level: 3387.0

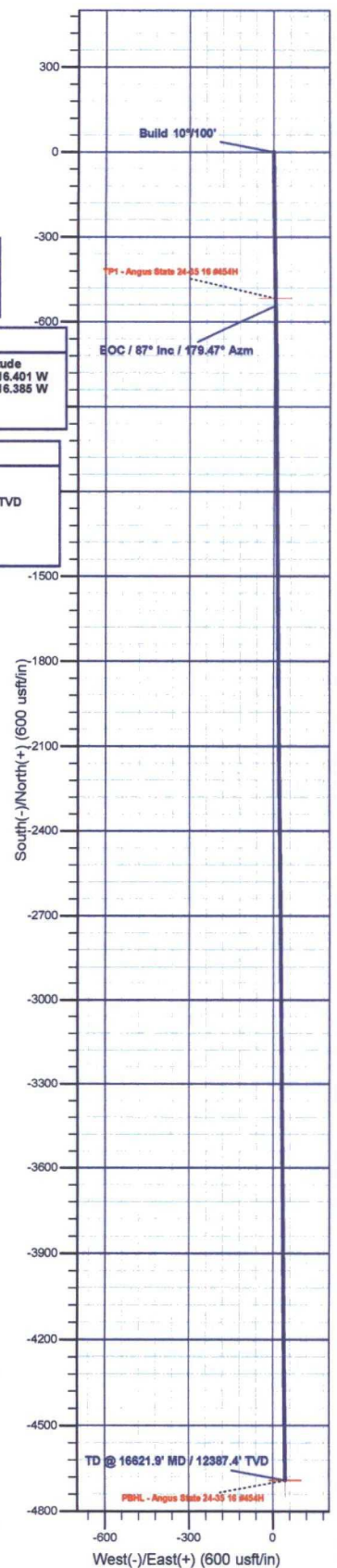
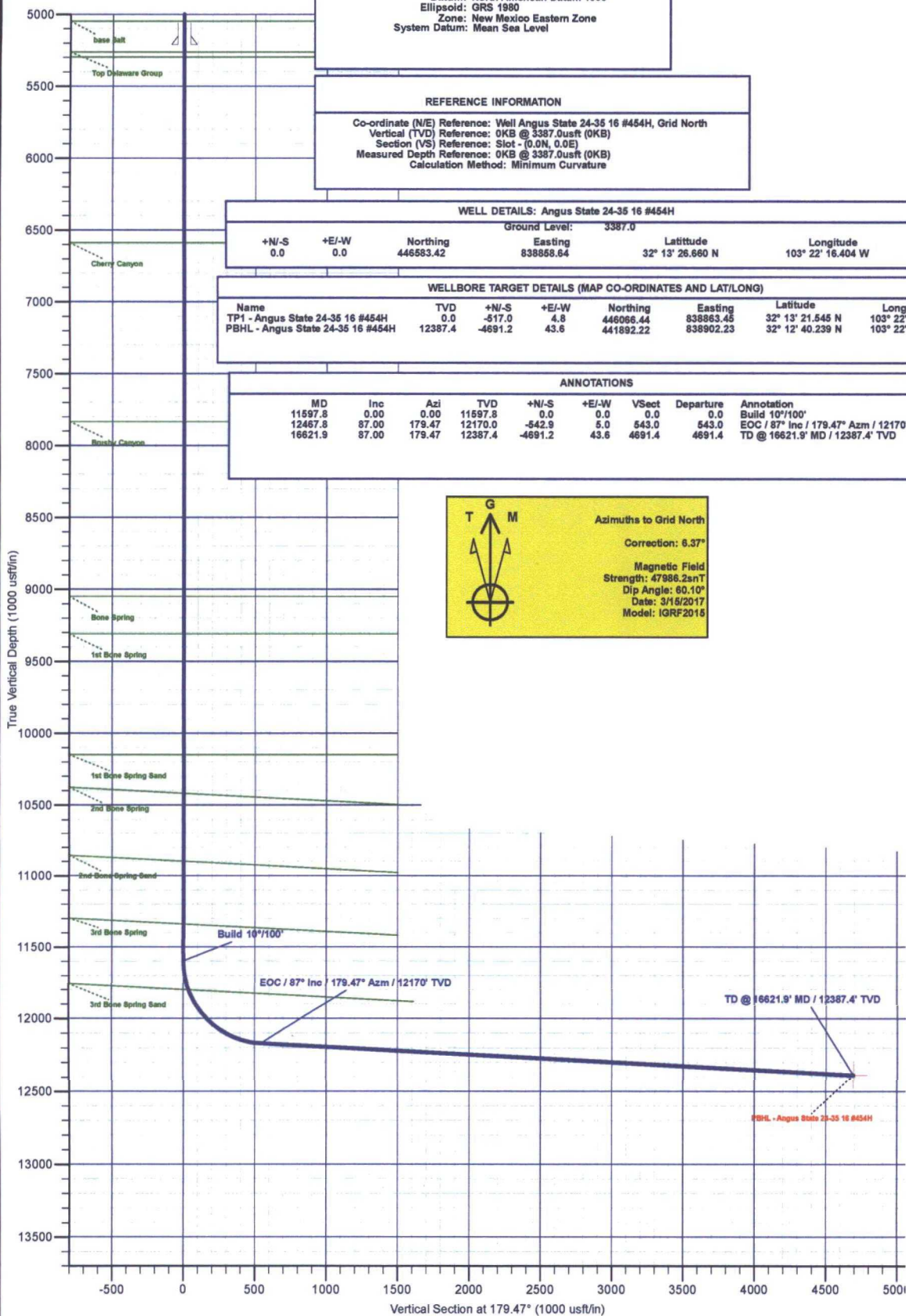
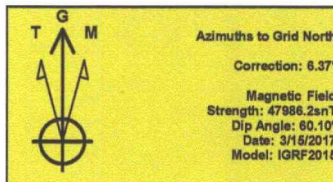
|       |       |           |           |                  |                   |
|-------|-------|-----------|-----------|------------------|-------------------|
| +N/-S | +E/-W | Northing  | Easting   | Latitude         | Longitude         |
| 0.0   | 0.0   | 446583.42 | 838868.64 | 32° 13' 26.660 N | 103° 22' 16.404 W |

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

| Name                              | TVD     | +N/-S   | +E/-W | Northing  | Easting   | Latitude         | Longitude         |
|-----------------------------------|---------|---------|-------|-----------|-----------|------------------|-------------------|
| TP1 - Angus State 24-35 16 #454H  | 0.0     | -517.0  | 4.8   | 446066.44 | 838863.45 | 32° 13' 21.545 N | 103° 22' 16.401 W |
| PBHL - Angus State 24-35 16 #454H | 12387.4 | -4691.2 | 43.6  | 441892.22 | 838902.23 | 32° 12' 40.239 N | 103° 22' 16.385 W |

ANNOTATIONS

| MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W | Vsect  | Departure | Annotation                               |
|---------|-------|--------|---------|---------|-------|--------|-----------|------------------------------------------|
| 11597.8 | 0.00  | 0.00   | 11597.8 | 0.0     | 0.0   | 0.0    | 0.0       | Build 10°/100'                           |
| 12467.8 | 87.00 | 179.47 | 12170.0 | -542.9  | 6.0   | 543.0  | 543.0     | EOC / 87° Inc / 179.47° Azm / 12170' TVD |
| 16621.9 | 87.00 | 179.47 | 12387.4 | -4691.2 | 43.6  | 4691.4 | 4691.4    | TD @ 16621.9' MD / 12387.4' TVD          |



43722



## **Energen Resources Corporation**

**Lea County, NM (Nad 83)**

**Sec16,T24S,R35E**

**Angus State 24-35 16 #454H**

**Wellbore #1**

**Plan: Plan #1**

## **QES Well Planning Report**

**01 March, 2017**



|                  |                               |                                     |                                 |
|------------------|-------------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM5002                       | <b>Local Co-ordinate Reference:</b> | Well Angus State 24-35 16 #454H |
| <b>Company:</b>  | Energen Resources Corporation | <b>TVD Reference:</b>               | OKB @ 3387.0usft (OKB)          |
| <b>Project:</b>  | Lea County, NM (Nad 83)       | <b>MD Reference:</b>                | OKB @ 3387.0usft (OKB)          |
| <b>Site:</b>     | Sec16,T24S,R35E               | <b>North Reference:</b>             | Grid                            |
| <b>Well:</b>     | Angus State 24-35 16 #454H    | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                 |
| <b>Design:</b>   | Plan #1                       |                                     |                                 |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County, NM (Nad 83)   |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone   |                      |                |

|                       |          |                 |                 |                   |                   |
|-----------------------|----------|-----------------|-----------------|-------------------|-------------------|
| Site                  |          | Sec16,T24S,R35E |                 |                   |                   |
| Site Position:        |          | Northing:       | 446,583.42 usft | Latitude:         | 32° 13' 26.660 N  |
| From:                 | Map      | Easting:        | 838,858.64 usft | Longitude:        | 103° 22' 16.404 W |
| Position Uncertainty: | 0.0 usft | Slot Radius:    | 13-3/16 "       | Grid Convergence: | 0.51 °            |

|                      |                            |          |                     |                 |               |                   |
|----------------------|----------------------------|----------|---------------------|-----------------|---------------|-------------------|
| Well                 | Angus State 24-35 16 #454H |          |                     |                 |               |                   |
| Well Position        | +N/-S                      | 0.0 usft | Northing:           | 446,583.42 usft | Latitude:     | 32° 13' 26.660 N  |
|                      | +E/-W                      | 0.0 usft | Easting:            | 838,858.64 usft | Longitude:    | 103° 22' 16.404 W |
| Position Uncertainty |                            | 0.0 usft | Wellhead Elevation: | 0.0 usft        | Ground Level: | 3,387.0 usft      |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2015          | 3/15/2017          | 6.89                   | 60.10                | 47,986                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #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) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.0                            | 0.0                 | 0.0                  | 179.47               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |        |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------|
| 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    |        |
| 11,597.8              | 0.00            | 0.00        | 11,597.8              | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |        |
| 12,467.8              | 87.00           | 179.47      | 12,170.0              | -542.9       | 5.0          | 10.00                   | 10.00                  | 0.00                  | 179.47  |        |
| 16,621.9              | 87.00           | 179.47      | 12,387.4              | -4,691.2     | 43.6         | 0.00                    | 0.00                   | 0.00                  | 0.00    |        |

|                  |                                |                                     |                                 |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM5002                        | <b>Local Co-ordinate Reference:</b> | Well Angus State 24-35 16 #454H |
| <b>Company:</b>  | Energien Resources Corporation | <b>TVD Reference:</b>               | OKB @ 3387.0usft (OKB)          |
| <b>Project:</b>  | Lea County, NM (Nad 83)        | <b>MD Reference:</b>                | OKB @ 3387.0usft (OKB)          |
| <b>Site:</b>     | Sec16,T24S,R35E                | <b>North Reference:</b>             | Grid                            |
| <b>Well:</b>     | Angus State 24-35 16 #454H     | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                                 |
| <b>Design:</b>   | Plan #1                        |                                     |                                 |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 100.0                 | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 200.0                 | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 300.0                 | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 400.0                 | 0.00            | 0.00        | 400.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 500.0                 | 0.00            | 0.00        | 500.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 600.0                 | 0.00            | 0.00        | 600.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 700.0                 | 0.00            | 0.00        | 700.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| Rustler               |                 |             |                       |              |              |                         |                         |                        |                       |
| 775.0                 | 0.00            | 0.00        | 775.0                 | 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                  |
| base Salt             |                 |             |                       |              |              |                         |                         |                        |                       |

Database: EDM5002  
 Company: Energen Resources Corporation  
 Project: Lea County, NM (Nad 83)  
 Site: Sec16,T24S,R35E  
 Well: Angus State 24-35 16 #454H  
 Wellbore: Wellbore #1  
 Design: Plan #1

Local Co-ordinate Reference: Well Angus State 24-35 16 #454H  
 TVD Reference: OKB @ 3387.0usft (OKB)  
 MD Reference: OKB @ 3387.0usft (OKB)  
 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) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,050.0               | 0.00            | 0.00        | 5,050.0               | 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                  |
| 4 1/2"                |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,210.0               | 0.00            | 0.00        | 5,210.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| Top Delaware Group    |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,265.0               | 0.00            | 0.00        | 5,265.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| Bell Canyon           |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,300.0               | 0.00            | 0.00        | 5,300.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 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                  |
| Cherry Canyon         |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,590.0               | 0.00            | 0.00        | 6,590.0               | 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                  |
| Brushy Canyon         |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,835.0               | 0.00            | 0.00        | 7,835.0               | 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                  |
| Bone Spring           |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,050.0               | 0.00            | 0.00        | 9,050.0               | 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                  |

**Database:** EDM5002  
**Company:** Energen Resources Corporation  
**Project:** Lea County, NM (Nad 83)  
**Site:** Sec16,T24S,R35E  
**Well:** Angus State 24-35 16 #454H  
**Wellbore:** Wellbore #1  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Angus State 24-35 16 #454H  
**TVD Reference:** OKB @ 3387.0usft (OKB)  
**MD Reference:** OKB @ 3387.0usft (OKB)  
**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) |
|-------------------------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 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                  |
| <b>1st Bone Spring</b>                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 9,310.0                                         | 0.00            | 0.00        | 9,310.0               | 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                  |
| <b>1st Bone Spring Sand</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,150.0                                        | 0.00            | 0.00        | 10,150.0              | 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                  |
| <b>2nd Bone Spring</b>                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 10,420.0                                        | 0.00            | 0.00        | 10,420.0              | 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                  |
| 10,800.0                                        | 0.00            | 0.00        | 10,800.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>2nd Bone Spring Sand</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 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                  |
| 11,300.0                                        | 0.00            | 0.00        | 11,300.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>3rd Bone Spring</b>                          |                 |             |                       |              |              |                         |                         |                        |                       |
| 11,340.0                                        | 0.00            | 0.00        | 11,340.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 11,400.0                                        | 0.00            | 0.00        | 11,400.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 11,500.0                                        | 0.00            | 0.00        | 11,500.0              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>Build 10°/100'</b>                           |                 |             |                       |              |              |                         |                         |                        |                       |
| 11,597.8                                        | 0.00            | 0.00        | 11,597.8              | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 11,600.0                                        | 0.22            | 179.47      | 11,600.0              | 0.0          | 0.0          | 0.0                     | 10.00                   | 10.00                  | 0.00                  |
| 11,700.0                                        | 10.22           | 179.47      | 11,699.5              | -9.1         | 0.1          | 9.1                     | 10.00                   | 10.00                  | 0.00                  |
| 11,800.0                                        | 20.22           | 179.47      | 11,795.8              | -35.3        | 0.3          | 35.3                    | 10.00                   | 10.00                  | 0.00                  |
| <b>3rd Bone Spring Sand</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 11,804.4                                        | 20.66           | 179.47      | 11,800.0              | -36.9        | 0.3          | 36.9                    | 10.00                   | 10.00                  | 0.00                  |
| 11,900.0                                        | 30.22           | 179.47      | 11,886.2              | -77.9        | 0.7          | 77.9                    | 10.00                   | 10.00                  | 0.00                  |
| 12,000.0                                        | 40.22           | 179.47      | 11,967.8              | -135.4       | 1.3          | 135.5                   | 10.00                   | 10.00                  | 0.00                  |
| 12,100.0                                        | 50.22           | 179.47      | 12,038.1              | -206.3       | 1.9          | 206.3                   | 10.00                   | 10.00                  | 0.00                  |
| 12,200.0                                        | 60.22           | 179.47      | 12,095.1              | -288.4       | 2.7          | 288.4                   | 10.00                   | 10.00                  | 0.00                  |
| 12,300.0                                        | 70.22           | 179.47      | 12,137.0              | -379.0       | 3.5          | 379.0                   | 10.00                   | 10.00                  | 0.00                  |
| 12,400.0                                        | 80.22           | 179.47      | 12,162.4              | -475.6       | 4.4          | 475.6                   | 10.00                   | 10.00                  | 0.00                  |
| <b>EOC / 87° Inc / 179.47° Azm / 12170' TVD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,467.8                                        | 87.00           | 179.47      | 12,170.0              | -542.9       | 5.0          | 543.0                   | 10.00                   | 10.00                  | 0.00                  |
| 12,500.0                                        | 87.00           | 179.47      | 12,171.7              | -575.1       | 5.3          | 575.1                   | 0.00                    | 0.00                   | 0.00                  |
| 12,600.0                                        | 87.00           | 179.47      | 12,176.9              | -674.9       | 6.3          | 675.0                   | 0.00                    | 0.00                   | 0.00                  |
| 12,700.0                                        | 87.00           | 179.47      | 12,182.1              | -774.8       | 7.2          | 774.8                   | 0.00                    | 0.00                   | 0.00                  |
| 12,800.0                                        | 87.00           | 179.47      | 12,187.4              | -874.7       | 8.1          | 874.7                   | 0.00                    | 0.00                   | 0.00                  |
| 12,900.0                                        | 87.00           | 179.47      | 12,192.6              | -974.5       | 9.1          | 974.6                   | 0.00                    | 0.00                   | 0.00                  |

|                  |                                |                                     |                                 |
|------------------|--------------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM5002                        | <b>Local Co-ordinate Reference:</b> | Well Angus State 24-35 16 #454H |
| <b>Company:</b>  | Energien Resources Corporation | <b>TVD Reference:</b>               | OKB @ 3387.0usft (OKB)          |
| <b>Project:</b>  | Lea County, NM (Nad 83)        | <b>MD Reference:</b>                | OKB @ 3387.0usft (OKB)          |
| <b>Site:</b>     | Sec16,T24S,R35E                | <b>North Reference:</b>             | Grid                            |
| <b>Well:</b>     | Angus State 24-35 16 #454H     | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | Wellbore #1                    |                                     |                                 |
| <b>Design:</b>   | Plan #1                        |                                     |                                 |

| Planned Survey                  |                 |             |                       |              |              |                         |                         |                        |                       |
|---------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)           | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 13,000.0                        | 87.00           | 179.47      | 12,197.8              | -1,074.4     | 10.0         | 1,074.4                 | 0.00                    | 0.00                   | 0.00                  |
| 13,100.0                        | 87.00           | 179.47      | 12,203.1              | -1,174.2     | 10.9         | 1,174.3                 | 0.00                    | 0.00                   | 0.00                  |
| 13,200.0                        | 87.00           | 179.47      | 12,208.3              | -1,274.1     | 11.8         | 1,274.2                 | 0.00                    | 0.00                   | 0.00                  |
| 13,300.0                        | 87.00           | 179.47      | 12,213.5              | -1,374.0     | 12.8         | 1,374.0                 | 0.00                    | 0.00                   | 0.00                  |
| 13,400.0                        | 87.00           | 179.47      | 12,218.8              | -1,473.8     | 13.7         | 1,473.9                 | 0.00                    | 0.00                   | 0.00                  |
| 13,500.0                        | 87.00           | 179.47      | 12,224.0              | -1,573.7     | 14.6         | 1,573.7                 | 0.00                    | 0.00                   | 0.00                  |
| 13,600.0                        | 87.00           | 179.47      | 12,229.2              | -1,673.5     | 15.6         | 1,673.6                 | 0.00                    | 0.00                   | 0.00                  |
| 13,700.0                        | 87.00           | 179.47      | 12,234.5              | -1,773.4     | 16.5         | 1,773.5                 | 0.00                    | 0.00                   | 0.00                  |
| 13,800.0                        | 87.00           | 179.47      | 12,239.7              | -1,873.2     | 17.4         | 1,873.3                 | 0.00                    | 0.00                   | 0.00                  |
| 13,900.0                        | 87.00           | 179.47      | 12,244.9              | -1,973.1     | 18.3         | 1,973.2                 | 0.00                    | 0.00                   | 0.00                  |
| 14,000.0                        | 87.00           | 179.47      | 12,250.2              | -2,073.0     | 19.3         | 2,073.1                 | 0.00                    | 0.00                   | 0.00                  |
| 14,100.0                        | 87.00           | 179.47      | 12,255.4              | -2,172.8     | 20.2         | 2,172.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,200.0                        | 87.00           | 179.47      | 12,260.6              | -2,272.7     | 21.1         | 2,272.8                 | 0.00                    | 0.00                   | 0.00                  |
| 14,300.0                        | 87.00           | 179.47      | 12,265.9              | -2,372.5     | 22.0         | 2,372.6                 | 0.00                    | 0.00                   | 0.00                  |
| 14,400.0                        | 87.00           | 179.47      | 12,271.1              | -2,472.4     | 23.0         | 2,472.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,500.0                        | 87.00           | 179.47      | 12,276.3              | -2,572.3     | 23.9         | 2,572.4                 | 0.00                    | 0.00                   | 0.00                  |
| 14,600.0                        | 87.00           | 179.47      | 12,281.6              | -2,672.1     | 24.8         | 2,672.2                 | 0.00                    | 0.00                   | 0.00                  |
| 14,700.0                        | 87.00           | 179.47      | 12,286.8              | -2,772.0     | 25.8         | 2,772.1                 | 0.00                    | 0.00                   | 0.00                  |
| 14,800.0                        | 87.00           | 179.47      | 12,292.0              | -2,871.8     | 26.7         | 2,872.0                 | 0.00                    | 0.00                   | 0.00                  |
| 14,900.0                        | 87.00           | 179.47      | 12,297.3              | -2,971.7     | 27.6         | 2,971.8                 | 0.00                    | 0.00                   | 0.00                  |
| 15,000.0                        | 87.00           | 179.47      | 12,302.5              | -3,071.6     | 28.5         | 3,071.7                 | 0.00                    | 0.00                   | 0.00                  |
| 15,100.0                        | 87.00           | 179.47      | 12,307.7              | -3,171.4     | 29.5         | 3,171.5                 | 0.00                    | 0.00                   | 0.00                  |
| 15,200.0                        | 87.00           | 179.47      | 12,313.0              | -3,271.3     | 30.4         | 3,271.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,300.0                        | 87.00           | 179.47      | 12,318.2              | -3,371.1     | 31.3         | 3,371.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,400.0                        | 87.00           | 179.47      | 12,323.4              | -3,471.0     | 32.3         | 3,471.1                 | 0.00                    | 0.00                   | 0.00                  |
| 15,500.0                        | 87.00           | 179.47      | 12,328.7              | -3,570.8     | 33.2         | 3,571.0                 | 0.00                    | 0.00                   | 0.00                  |
| 15,600.0                        | 87.00           | 179.47      | 12,333.9              | -3,670.7     | 34.1         | 3,670.9                 | 0.00                    | 0.00                   | 0.00                  |
| 15,700.0                        | 87.00           | 179.47      | 12,339.1              | -3,770.6     | 35.0         | 3,770.7                 | 0.00                    | 0.00                   | 0.00                  |
| 15,800.0                        | 87.00           | 179.47      | 12,344.4              | -3,870.4     | 36.0         | 3,870.6                 | 0.00                    | 0.00                   | 0.00                  |
| 15,900.0                        | 87.00           | 179.47      | 12,349.6              | -3,970.3     | 36.9         | 3,970.5                 | 0.00                    | 0.00                   | 0.00                  |
| 16,000.0                        | 87.00           | 179.47      | 12,354.8              | -4,070.1     | 37.8         | 4,070.3                 | 0.00                    | 0.00                   | 0.00                  |
| 16,100.0                        | 87.00           | 179.47      | 12,360.1              | -4,170.0     | 38.7         | 4,170.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,200.0                        | 87.00           | 179.47      | 12,365.3              | -4,269.9     | 39.7         | 4,270.0                 | 0.00                    | 0.00                   | 0.00                  |
| 16,300.0                        | 87.00           | 179.47      | 12,370.6              | -4,369.7     | 40.6         | 4,369.9                 | 0.00                    | 0.00                   | 0.00                  |
| 16,400.0                        | 87.00           | 179.47      | 12,375.8              | -4,469.6     | 41.5         | 4,469.8                 | 0.00                    | 0.00                   | 0.00                  |
| 16,500.0                        | 87.00           | 179.47      | 12,381.0              | -4,569.4     | 42.5         | 4,569.6                 | 0.00                    | 0.00                   | 0.00                  |
| 16,600.0                        | 87.00           | 179.47      | 12,386.3              | -4,669.3     | 43.4         | 4,669.5                 | 0.00                    | 0.00                   | 0.00                  |
| TD @ 16621.9' MD / 12387.4' TVD |                 |             |                       |              |              |                         |                         |                        |                       |
| 16,621.9                        | 87.00           | 179.47      | 12,387.4              | -4,691.2     | 43.6         | 4,691.4                 | 0.00                    | 0.00                   | 0.00                  |

| Design Targets                                                                 |               |              |            |              |              |                 |                |                  |                   |
|--------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name                                                                    | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude         | Longitude         |
| TP1 - Angus State 24-35 16 #454H<br>- hit/miss target<br>- Shape<br>- Point    | 0.00          | 0.00         | 0.0        | -517.0       | 4.8          | 446,066.44      | 838,863.45     | 32° 13' 21.545 N | 103° 22' 16.401 W |
| - plan misses target center by 517.0usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) |               |              |            |              |              |                 |                |                  |                   |
| PBHL - Angus State 24-35 16 #454H<br>- plan hits target center<br>- Point      | 0.00          | 0.00         | 12,387.4   | -4,691.2     | 43.6         | 441,892.22      | 838,902.23     | 32° 12' 40.239 N | 103° 22' 16.385 W |

|                  |                               |                                     |                                 |
|------------------|-------------------------------|-------------------------------------|---------------------------------|
| <b>Database:</b> | EDM5002                       | <b>Local Co-ordinate Reference:</b> | Well Angus State 24-35 16 #454H |
| <b>Company:</b>  | Energen Resources Corporation | <b>TVD Reference:</b>               | OKB @ 3387.0usft (OKB)          |
| <b>Project:</b>  | Lea County, NM (Nad 83)       | <b>MD Reference:</b>                | OKB @ 3387.0usft (OKB)          |
| <b>Site:</b>     | Sec16,T24S,R35E               | <b>North Reference:</b>             | Grid                            |
| <b>Well:</b>     | Angus State 24-35 16 #454H    | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Wellbore:</b> | Wellbore #1                   |                                     |                                 |
| <b>Design:</b>   | Plan #1                       |                                     |                                 |

| Casing Points         |                       |        |                     |                   |
|-----------------------|-----------------------|--------|---------------------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name   | Casing Diameter (") | Hole Diameter (") |
| 5,210.0               | 5,210.0               | 4 1/2" | 4-1/2               | 7-7/8             |

| Formations            |                       |                      |           |         |                   |
|-----------------------|-----------------------|----------------------|-----------|---------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name                 | Lithology | Dip (°) | Dip Direction (°) |
| 775.0                 | 775.0                 | Rustler              |           |         |                   |
| 5,050.0               | 5,050.0               | base Salt            |           |         |                   |
| 5,265.0               | 5,265.0               | Top Delaware Group   |           |         |                   |
| 5,300.0               | 5,300.0               | Bell Canyon          |           |         |                   |
| 6,590.0               | 6,590.0               | Cherry Canyon        |           |         |                   |
| 7,835.0               | 7,835.0               | Brushy Canyon        |           |         |                   |
| 9,050.0               | 9,050.0               | Bone Spring          |           |         |                   |
| 9,310.0               | 9,310.0               | 1st Bone Spring      |           |         |                   |
| 10,150.0              | 10,150.0              | 1st Bone Spring Sand |           |         |                   |
| 10,420.0              | 10,420.0              | 2nd Bone Spring      |           | 0.00    | 0.00              |
| 10,900.0              | 10,900.0              | 2nd Bone Spring Sand |           | 0.00    | 0.00              |
| 11,340.0              | 11,340.0              | 3rd Bone Spring      |           | 0.00    | 0.00              |
| 11,804.4              | 11,800.0              | 3rd Bone Spring Sand |           | 0.00    | 0.00              |

| Plan Annotations      |                       |                   |              |                                          |
|-----------------------|-----------------------|-------------------|--------------|------------------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                                  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                          |
| 11,597.8              | 11,597.8              | 0.0               | 0.0          | Build 10°/100'                           |
| 12,467.8              | 12,170.0              | -542.9            | 5.0          | EOC / 87° Inc / 179.47° Azm / 12170' TVD |
| 16,621.9              | 12,387.4              | -4,691.2          | 43.6         | TD @ 16621.9' MD / 12387.4' TVD          |