

# Halliburton Drilling Systems

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## Proposal Report

Date: 12/12/97  
Time: 2:12 pm  
Wellpath ID: PROPOSAL  
Last Revision: 12/12/97

*Calculated using the Minimum Curvature Method  
Computed using WIN-CADDS REV2.2.2  
Vertical Section Plane: S 18.57 E*

Survey Reference: WELLHEAD  
Vertical Section Reference: WELLHEAD  
Closure Reference: WELLHEAD  
TVD Reference: WELLHEAD

CHESAPEAKE ENERGY  
RUNNELS #1-8  
LEA COUNTY, NEW MEXICO  
SEC. 8-T16S-R36E  
PROPOSAL

| Measured<br>Depth<br>(ft)                       | Incl<br>(deg.) | Drift<br>Dir.<br>(deg.) | Course<br>Length<br>(ft) | TVD<br>(ft) | Vertical<br>Section<br>(ft) | T O T A L<br>Rectangular Offsets<br>(ft) |          | DLS<br>(dg/100ft) |
|-------------------------------------------------|----------------|-------------------------|--------------------------|-------------|-----------------------------|------------------------------------------|----------|-------------------|
| KOP / TIE IN / START OF BUILD @ 2.00 deg/100 ft |                |                         |                          |             |                             |                                          |          |                   |
| 6000.00                                         | 0.00           | N 0.00 E                | 0.00                     | 6000.00     | 0.00                        | 0.00 N                                   | 0.00 E   | 0.00              |
| 6100.00                                         | 2.00           | S 18.57 E               | 100.00                   | 6099.98     | 1.75                        | 1.65 S                                   | 0.56 E   | 2.00              |
| 6200.00                                         | 4.00           | S 18.57 E               | 100.00                   | 6199.84     | 6.98                        | 6.61 S                                   | 2.22 E   | 2.00              |
| END OF BUILD                                    |                |                         |                          |             |                             |                                          |          |                   |
| 6216.64                                         | 4.33           | S 18.57 E               | 16.64                    | 6216.43     | 8.19                        | 7.76 S                                   | 2.61 E   | 2.00              |
| START OF CURVE @ 1.00 deg/100 ft                |                |                         |                          |             |                             |                                          |          |                   |
| 11044.14                                        | 4.33           | S 18.57 E               | 4827.50                  | 11030.13    | 372.90                      | 353.48 S                                 | 118.78 E | 0.00              |
| 11144.14                                        | 3.33           | S 18.57 E               | 100.00                   | 11129.91    | 379.59                      | 359.81 S                                 | 120.91 E | 1.00              |
| 11244.14                                        | 2.33           | S 18.57 E               | 100.00                   | 11229.79    | 384.53                      | 364.50 S                                 | 122.49 E | 1.00              |
| 11344.14                                        | 1.33           | S 18.57 E               | 100.00                   | 11329.73    | 387.73                      | 367.53 S                                 | 123.51 E | 1.00              |
| 11444.14                                        | 0.33           | S 18.57 E               | 100.00                   | 11429.72    | 389.18                      | 368.91 S                                 | 123.97 E | 1.00              |
| STRAWN TARGET TOP @ 11463' TVD                  |                |                         |                          |             |                             |                                          |          |                   |
| 11477.42                                        | 0.00           | N 0.00 E                | 33.28                    | 11463.00    | 389.28                      | 369.00 S                                 | 124.00 E | 1.00              |
| STRAWN TARGET BOTTOM @ 11685' TVD               |                |                         |                          |             |                             |                                          |          |                   |
| 11699.42                                        | 0.00           | N 0.00 E                | 222.00                   | 11685.00    | 389.28                      | 369.00 S                                 | 124.00 E | 0.00              |
| 12025.42                                        | 0.00           | N 0.00 E                | 326.00                   | 12011.00    | 389.28                      | 369.00 S                                 | 124.00 E | 0.00              |