



**Cimarex**

Rev11

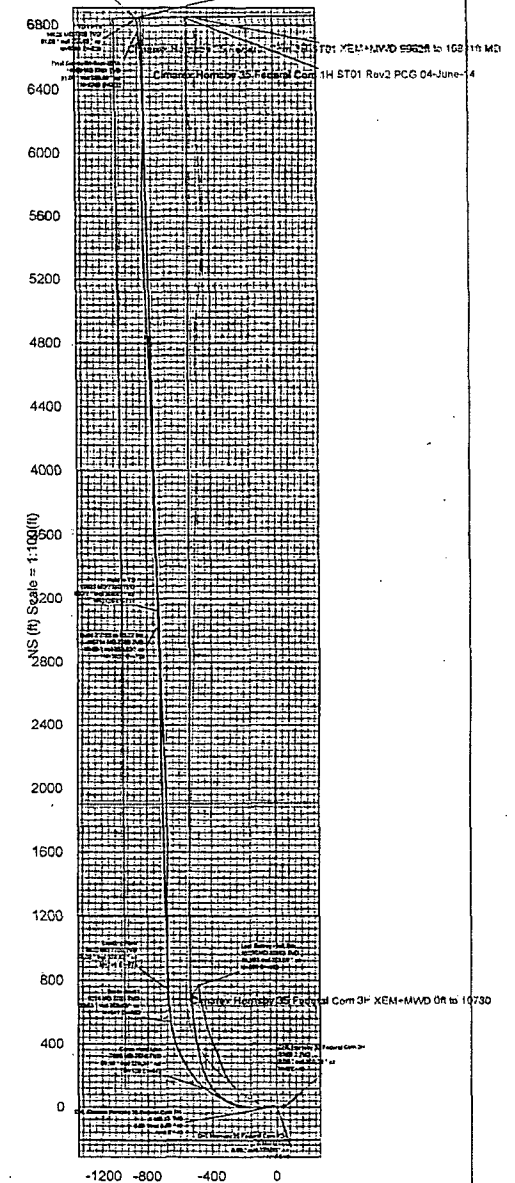
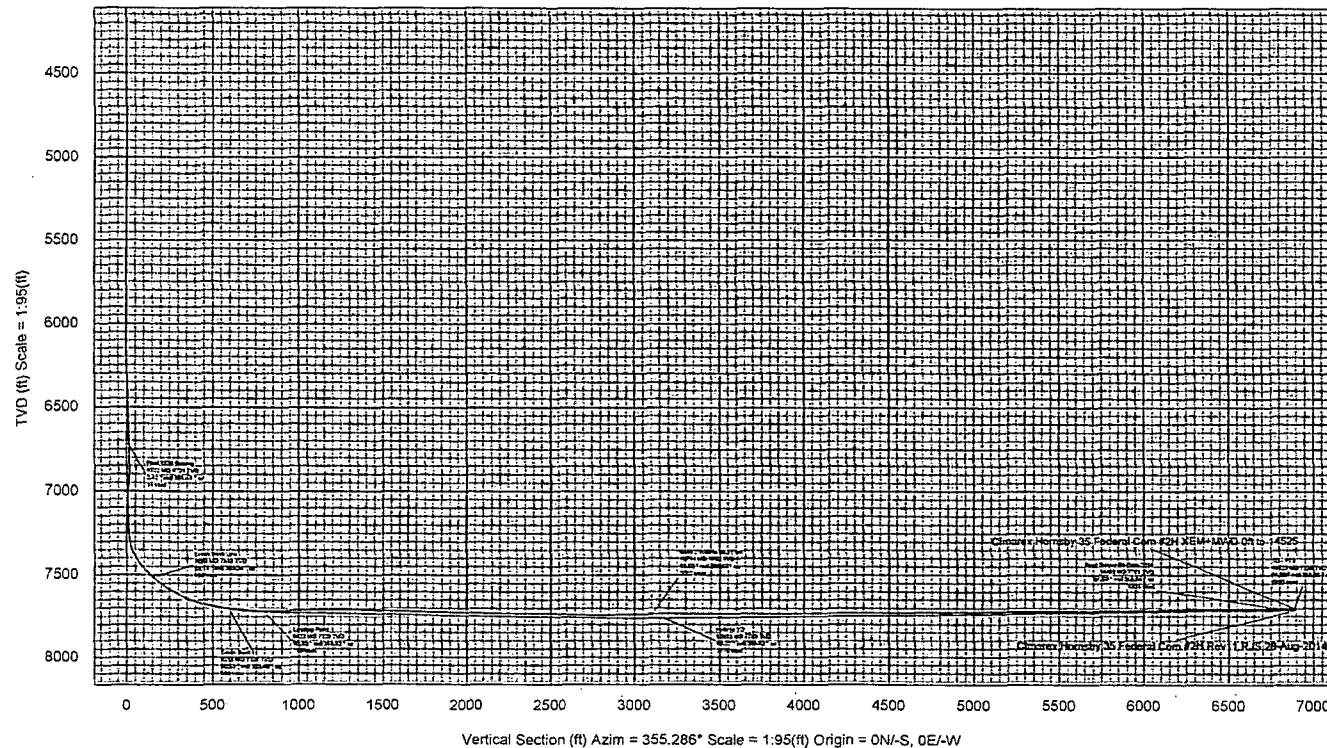
**PATHFINDER**  
A Schlumberger Company

Cimarex Hornsby 35 Federal Com #2H XEM+MWD 0ft to 14525  
Cimarex Hornsby 35 Federal Com #2H Rev11 RJS 28-Aug-2014

|                   |                           |                |            |
|-------------------|---------------------------|----------------|------------|
| Borehole:         | Well:                     | Field:         | Structure: |
| Original Borehole | Hornsby 35 Federal Com 2H | NM Eddy County | Cactus 112 |

|                               |          |     |              |             |                                                     |      |               |           |                |               |           |        |                     |          |                |
|-------------------------------|----------|-----|--------------|-------------|-----------------------------------------------------|------|---------------|-----------|----------------|---------------|-----------|--------|---------------------|----------|----------------|
| Gravity & Magnetic Parameters |          |     |              |             | GEMMA Location                                      |      |               |           |                | MincoComments |           |        |                     |          |                |
|                               |          |     |              |             | NAOBS New Nevada State Plane, Elmer's Zone, US Feet |      |               |           |                |               |           |        |                     |          |                |
| Model:                        | GGM02P14 | Dp: | 68.706"      | Date:       | 16-Aug-2014                                         | Lat: | N 32 0 32.0   | Northing: | 363991.5428105 | Grid Conv:    | 0.0891"   | Sheet: | Revised By          | TVD Ref: | RKM00001 above |
| MagDec:                       | 7.615°   | Pz: | 460574.9202T | Gravity PS: | 988.424mgal (9.80565 Based)                         | Lon: | W 104 8 54.85 | Easting:  | 324997.5428105 | Scale Factor: | 0.9999122 | Plot:  | Rev11 RJL 23-Aug-14 |          |                |

| Comments                      | Critical Points |                  |              |         |              |         |         |         |               |                |               |                |               |                |
|-------------------------------|-----------------|------------------|--------------|---------|--------------|---------|---------|---------|---------------|----------------|---------------|----------------|---------------|----------------|
|                               | Survey MD(ft)   | Inclination(deg) | Azimuth(deg) | TVD(ft) | Shore to TVD | VS(ft)  | US(ft)  | EV(ft)  | Latitude(deg) | Longitude(deg) | Easting(ftUS) | Northing(ftUS) | DLS(ft/100ft) | Tool Face(deg) |
| SHL Homsby 35 Federal Com #2H | 0.00            | 0.00             | 270.00       | -0.00   | -3300.00     | 0.00    | 0.00    | 0.00    | N 32 0 2.050  | W 104 9 54.453 | 593479.55     | 363991.25      |               | 347.57         |
| Tie-In Rev11                  | 8216.00         | 80.53            | 363.40       | 7701.18 | 4401.18      | 587.18  | 534.50  | -662.97 | N 32 0 7.389  | W 104 10 2.142 | 592816.63     | -364525.70     | 10.89         | 31.79          |
| Landing Point                 | 8422.36         | 89.00            | 358.61       | 7720.00 | 4420.00      | -792.40 | 739.25  | -677.20 | N 32 0 9.415  | W 104 10 2.303 | 592802.41     | -364730.43     | 4.81          | 0.00           |
| Build 21/100 to 90.77 Inc     | 10714.31        | 89.00            | -358.61      | 7760.00 | 4460.00      | 3080.13 | 3030.18 | -732.59 | N 32 0 32.066 | W 104 10 2.906 | 592747.02     | -367021.15     | 0.00          | 0.00           |
| Hold to TD                    | 10802.81        | 90.77            | 358.61       | 7760.18 | 4460.18      | 3168.48 | 3118.65 | -734.73 | N 32 0 32.961 | W 104 10 2.929 | 592744.88     | -367109.61     | 2.00          | 89.50          |
| PBHLHomsby 35 Fed Com #2H     | 14533.48        | 90.77            | 358.77       | 7710.00 | 4410.00      | 6892.23 | 6848.00 | -820.00 | N 32 1 9.866  | W 104 10 3.863 | 592659.62     | -370838.63     | 0.00          |                |



Grid  
True Mag  
Grid North  
ot Corr (M→G 7.527°)  
Mag Dec (7.616°)  
Grid Conv (0.089°)

| CONTROLLED          |                   |
|---------------------|-------------------|
| Pass valid          | 08/01/01 14:00:00 |
| Issuing authority   |                   |
| Copy number         | 1 of 1            |
| Date                | 08/01/01          |
| Operator            | J. Chen           |
| OE Don DE Authority |                   |
| SACM Line Manager   |                   |
| J. Chen             |                   |