Form 3160-5 (November 1994)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

MAR 0 9 2009....

MAR

FORM APPROVED

| 9 | 1 | | OMB No. 1004- |
|---|---|------|------------------|
| ŧ | • | 2009 | Expires July 31, |
| ` | | 5 | Lease Serial No. |

| THE PERIOR | IVIVI-144098 | | | | | |
|---|-----------------------------------|------------------------------|--------------------------|---|--------------------------------------|--|
| HOBBS | | dian, Allottee or Tribe Name | | | | |
| SUBMIT IN TRI | PLICATE - Other instructi | ons on reverse side | | 7. If Un | nit or CA/Agreement, Name and/or No. | |
| | | | | | | |
| . Type of Well Oil Well Gas Well | Other | | | 8. Well | Name and No. | |
| . Name of Operator | | | | Superior | r Federal No. 4 | |
| Cimarex Energy Co. of Colorado |) | | | | Well No. | |
| a. Address | | 3b Phone No. (inclu | de area code) | 30-015-2 | 22395 | |
| 5215 N. O'Connor Blvd., Ste 150 | 00; Irving, TX 75039 | 972-401-3111 | | 10. Field and Pool, or Exploratory Area | | |
| Location of Well (Footage, Sec., T., R., M., | or Survey Description) | | | Winches | ster; Bone Spring | |
| 1980 FSL & 660 FEL | | | | 11. Cou | nty or Parish, State | |
| 5-20S-29E | | | | Eddy Co | unty, NM | |
| 12. CHECK APP | ROPRIATE BOX(ES) T | O INDICATE NA | TURE OF NOTIC | E, REPO | RT, OR OTHER DATA | |
| TYPE OF SUBMISSION | | 7 | YPE OF ACTION | | | |
| Notice of Intent | Acidize | Deepen | Production (Start/l | Resume) | Water Shut-Off | |
| | Alter Casing | Fracture Treat | Reclamation | | Well Integrity | |
| Subsequent Report | Casing Repair | New Construction | Recomplete | | Other Plug back and | |
| | Change Plans | Plug and Abandon | Temporarily Aban | don | recomplete horizontally in | |
| Final Abandonment Notice | Convert to Injection | Nlug Back | Water Disposal | | Bone Spring | |
| 3. Describe Proposed or Completed Operation | | | | | | |
| If the proposal is to deepen directionally or | | | | - | | |
| Attach the bond under which the work will t | be performed or provide the Bond! | No. on file with BLM/BIA F | ≺equired subsequent repo | orts shall be file | ed within 30 days | |

Cimarex proposes to perform the following operations in order to plug back and recomplete this well horizontally in the Bone Spring:

following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has

Kill well. ND WH & NU 5K BOP. POOH w/tbg. Set CICR @ 7769.' Perf squeeze holes in 5½" csg @ 7759' (at proposed KOP). Squeeze w/ 50 sx Class C. Squeeze Bone Spring 5730-50' w/?? sx cmt.

determined that the site is ready for final inspection.)

Well shut in since 09-03. Open Bone Spring perfs at 5730-50.' Casing leak @ 5780-5814' squeezed w/275x cmt. CIBP @ 9500' w/ 35' cmt. CIBP @ 10254' w/ 35' cmt over Strawn perfs @ 10304-08' and 10314-18'. CIBP @ 11200' w/ 35' cmt over Morrow perfs @ 11340-50' and 11407-17.'

- Squeeze Bone Spring perfs @ 5730-50.' Set CICR @ 5760.' Squeeze perfs w/ 50 sx Class C. Drill out CICRs and cement. Set CIBP @ 7771' w/ 2 sx sand.
- Set CIBP @ 7771' w/ 2 sx sand.
- Mill window from 7749' to 7764.' Kick off 6%" hole at 7759.' Land curve at 8059' MD and 7950' TVD and drill to TD of 10845' MD and 7950' TVD.
- Run 3½" 9.3# P-110 EUE 8rd liner from RSB packer at 7659' to TD at 10845' MD. Liner will be PEAK completion assembly which will require no cement.
- Fracture treat in several stages as needed through iso-ports separated by iso-packers. Please see attached C-102 and preliminary directional survey.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

| Title | | |
|---|--|---|
| Regulat | ory Analyst | |
| Date | | APPROVED |
| January | 28, 2009 | 7,111,000 |
| HIS SPACE FOR FEDERAL OR | STATE OFFICE USE | AMARI 2 2002 |
|) | Title | Pate 5 |
| this notice does not warrant or ose rights in the subject lease | Office | WESLEY W. INGRAM PETROLEUM ENGINEER |
| | Regulate Date January HIS SPACE FOR FEDERAL OR this notice does not warrant or | Regulatory Analyst Date January 28, 2009 HIS SPACE FOR FEDERAL OR STATE OFFICE USE Title this notice does not warrant or ose rights in the subject lease |

fraudulent statements or representations as to any matter within its jurisdiction

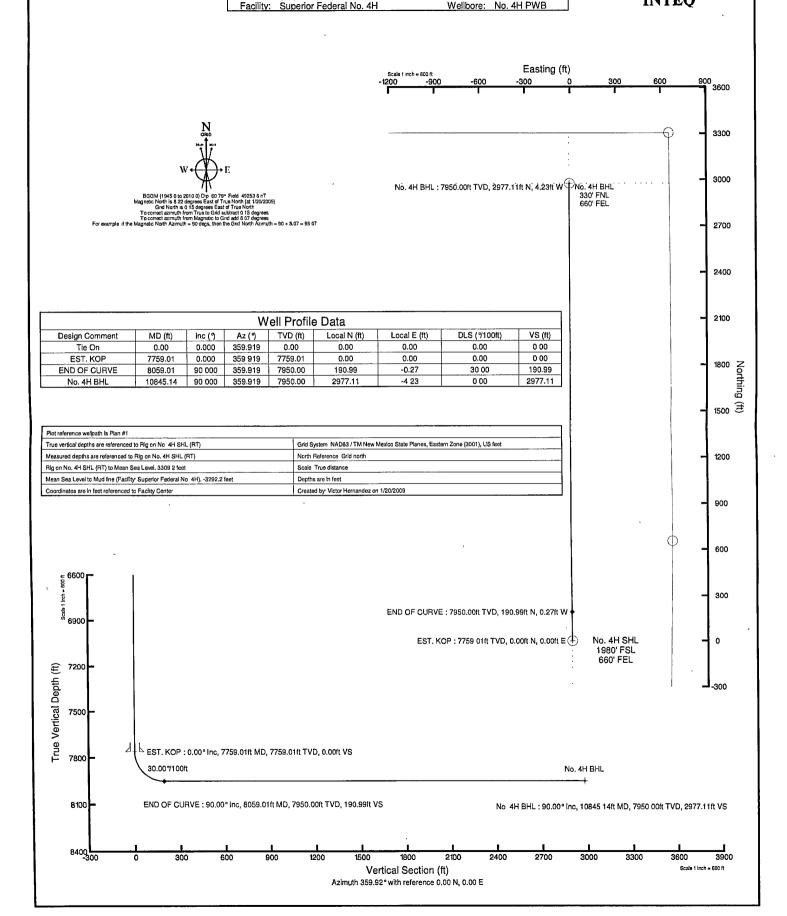


Cimarex Energy Co. of Colorado

Location: Eddy County, NM
Field: (Superior) Sec 5, T20S, R29E
Facility: Superior Federal No. 4H

Slot: No. 4H SHL Well: No. 4H Wellbore: No. 4H PWB







Planned Wellpath Report Plan #1 Page 1 of 3

BAKER HUGHES **INTEQ**

| REFERENCE WELLPATH IDENTIFICATION | | | | | | | | | |
|-----------------------------------|--------------------------------|----------|------------|--|--|--|--|--|--|
| Operator | Cimarex Energy Co. of Colorado | Slot | No. 4H SHL | | | | | | |
| Area | Eddy County, NM | Well | No. 4H | | | | | | |
| Field | (Superior) Sec 5, T20S, R29E | Wellbore | No. 4H PWB | | | | | | |
| Facility | Superior Federal No. 4H | | | | | | | | |

| REPORT SETUP | INFORMATION | | |
|---------------------|---|----------------------|-------------------------|
| 11 | NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet | Software System | WellArchitect® 2.0 |
| North Reference | Grid | User | Victor Hernandez |
| Scale . | 0.999917 | Report Generated | 1/20/2009 at 2:59:52 PM |
| Convergence at slot | 0.15° East | Database/Source file | WA_Midland/No4H_PWB.xml |

| WELLPATH LOCATION | | | | | | | | | | |
|-----------------------|-----------|----------|---------------|----------------|------------------------|-----------------|--|--|--|--|
| | Local coo | rdinates | Grid co | ordinates | Geographic coordinates | | | | | |
| | North[ft] | East[ft] | Easting[USft] | Northing[USft] | Latitude | Longitude | | | | |
| Slot Location | 0.00 | 0.00 | 626437.21 | 687928.78 | 32°53'26.979"N | 104°03'21.939"W | | | | |
| Facility Reference Pt | | | 626437.21 | 687928.78 | 32°53'26.979"N | 104°03'21.939"W | | | | |
| Field Reference Pt | | | 626437.21 | 687928.78 | 32°53'26.978"N | 104°03'21.939"W | | | | |

| WELLPATH DATUM | | | | | | | | | |
|--------------------------|------------------------|--|-------------------|--|--|--|--|--|--|
| Calculation method | Minimum curvature | Rig on No. 4H SHL (RT) to Facility Vertical Datum | 17.00ft | | | | | | |
| Horizontal Reference Pt | Facility Center | Rig on No. 4H SHL (RT) to Mean Sea Level | 3309.20ft | | | | | | |
| Vertical Reference Pt | Rig on No. 4H SHL (RT) | Facility Vertical Datum to Mud Line (Facility) | 0.00ft | | | | | | |
| MD Reference Pt | Rig on No. 4H SHL (RT) | Section Origin | N 0.00, E 0.00 ft | | | | | | |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 359.92° | | | | | | |



Planned Wellpath Report Plan #1 Page 2 of 3



| RDDDR | ENCE WELLPATH IDENTIFICATION | | |
|----------|--------------------------------|----------|------------|
| Operator | Cimarex Energy Co. of Colorado | Slot | No. 4H SHL |
| Area | Eddy County, NM | Well | No. 4H |
| Field | (Superior) Sec 5, T20S, R29E | Wellbore | No. 4H PWB |
| Facility | Superior Federal No. 4H | | |

| WELLPATH DATA (35 stations) ↑ ≒ interpolated/extrapolated station | | | | | | | | | | |
|---|-----------------|----------------|-------------|-------------------|---------------|--------------|------------------|--------------|--|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | DLS [°/100ft] | Comments | | |
| 0.00 | 0.000 | 359.919 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Tie On | | |
| 7759.00† | 0.000 | 359.919 | 7759.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | |
| 7759.01 | 0.000 | 359.919 | 7759.01 | 0.00 | 0.00 | 0.00 | 0.00 | EST. KOP | | |
| 7859.00† | 29.996 | 359.919 | 7854.49 | 25.58 | 25.58 | -0.04 | 30.00 | | | |
| 7959.00† | 59.996 | 359.919 | \$7924.41 | 95.48 | 95.48 | ÷0.14 | 30.00 | | | |
| 8059.00† | 89.996 | 359.919 | 7950.00 | 190.97 | 190.97 | -0.27 | 30.00 | | | |
| 8059.01 | 90.000 | 359.919 | 7950.00 | 190.99 | 190.99 | -0.27 | 30.00 | END OF CURVE | | |
| 8159.00† | 90.000 | 359.919 | 7950.00 | 290.97 | 290.97 | -0.41 | 0.00 | | | |
| 8259.00† | 90.000 | 359.919 | 7950.00 | 390.97 | 390.97 | -0.56 | 0.00 | | | |
| 8359.00† | 90.000 | 359.919 | 7950.00 | 490.97 | 490.97 | -0.70 | 0.00 | | | |
| 8459.00† | 90.000 | 359.919 | 7950.00 | 590.97 | 590.97 | -0.84 | 0.00 | | | |
| 8559.00† | 90.000 | 359.919 | 7950.00 | 690.97 | 690.97 | -0.98 | 0.00 | | | |
| 8659.00† | 90.000 | 359.919 | 7950.00 | 790.97 | 790.97 | -1.12 | 0.00 | | | |
| 8759.00† | 90.000 | 359.919 | 7950.00 | 890.97 | 890.97 | -1.27 | 0.00 | | | |
| 8859.00† | 90.000 | 359.919 | 7950.00 | 990.97 | 990.97 | £1:41 | 0.00 | | | |
| 8959.00† | 90.000 | 359.919 | 7950.00 | 1090.97 | 1090.97 | -1.55 | 0.00 | | | |
| 9059.00† | 90.000 | 359.919 | 7950.00 | 1190.97 | 1190.97 | -1.69 | 0.00 | | | |
| 9159.00† | 90.000 | 359.919 | 7950.00 | 1290.97 | 1290.97 | -1.83 | 0.00 | | | |
| 9259.00† | 90.000 | 359.919 | 7950.00 | 1390.97 | 1390.97 | -1.98 | 0.00 | | | |
| 9359.00† | 90.000 | 359.919 | 7950.00 | 1490.97 | 1490.97 | ≥2:12 | 0.00 | | | |
| 9459.00† | 90.000 | 359.919 | 7950.00 | 1590.97 | 1590.97 | -2.26 | 0.00 | | | |
| 9559.00† | 90.000 | 359.919 | 7950.00 | 1690.97 | 1690.97 | -2.40 | 0.00 | | | |
| 9659.00† | 90.000 | 359.919 | 7950.00 | 1790.97 | 1790.97 | -2.54 | 0.00 | | | |
| 9759.00† | 90.000 | 359.919 | 7950.00 | 1890.97 | 1890.97 | -2.69 | 0.00 | | | |
| 9859.00† | 90.000 | 359.919 | 7950.00 | 1990.97 | 1990.97 | 7: -2:83 | 0.00 | | | |
| 9959.00† | 90.000 | 359.919 | 7950.00 | 2090.97 | 2090.97 | -2.97 | 0.00 | | | |
| 10059.00† | 90.000 | 359.919 | 7950.00 | 2190.97 | 2190.97 | -3.11 | 0.00 | | | |
| 10159.00† | 90.000 | 359.919 | 7950.00 | . 2290.97 | 2290.97 | -3.25 | 0.00 | | | |
| 10259.00† | 90.000 | 359.919 | 7950.00 | 2390.97 | 2390.97 | -3.40 | 0.00 | | | |
| 10359.00† | 90.000 | 359.919 | 7950.00 | 2490.97. | 2490.97 | : 3:54 | 0.00 | | | |



Planned Wellpath Report Plan #1 Page 3 of 3



| REFER | ENCE WELLPATH IDENTIFICATION | | |
|----------|--------------------------------|----------|------------|
| Operator | Cimarex Energy Co. of Colorado | Slot | No. 4H SHL |
| Area | Eddy County, NM | Well | No. 4H |
| Field | (Superior) Sec 5, T20S, R29E | Wellbore | No. 4H PWB |
| Facility | Superior Federal No. 4H | | |

| WELLPATH DA | WELLPATH DATA (35 stations) | | | | | | | | | | |
|-------------|-----------------------------|----------------|----------------------|-------------------|---------------|--------------|------------------|------------|--|--|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | DLS [°/100ft] | Comments | | | |
| 10459.00† | 90.000 | 359.919 | 7950.00 | 2590.97 | 2590.97 | -3.68 | 0.00 | | | | |
| 10559.00† | 90.000 | 359.919 | 7950.00 | 2690.97 | 2690.97 | -3.82 | 0.00 | | | | |
| 10659.00† | 90.000 | 359.919 | 7950.00 | 2790.97 | 2790.97 | -3.97 | 0.00 | | | | |
| 10759.00† | 90.000 | 359.919 | 7950.00 | 2890.97 | 2890.97 | -4.11 | 0.00 | | | | |
| 10845:14) | 90,000 | 359.919 | 7950.00 ¹ | 297741 | 2977.11 | -4.23 | 0.00 | No. 4H BHL | | | |

| HOLE & CASING SECTIONS Ref Wellbore: No. 4H PWB Ref Wellpath: Plan #1 | | | | | | | | | | |
|---|------------------|----------------|------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-----------------|--|
| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] | |
| 5.5in Casing | 0.00 | 7759.00 | 7759.00 | 0.00 | 7759.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4.75in Open Hole | 7759.00 | 10845.14 | 3086.14 | 7759.00 | 7950.00 | 0.00 | 0.00 | 2977.11 | -4.23 | |

| TARGETS | | odenie in der der Geboorte | | | old to the sec | | | | |
|---------------|------------|-------------------------------|---------------|--------------|-----------------------|------------------------|----------------|-----------------|-------|
| Name | MD [ft] | TVD [ft] | North [ft] | East [ft] | Grid East [srv ft] | Grid North [srv ft] | Latitude | Longitude | Shape |
| 1) No. 4H BHL | 10845.14 | 7950.00 | 2977.11 | -4.23 | 626432.98 | 690905.64 | 32°53'56.434"N | 104°03'21,897"W | point |

| SURVEY PRO | GRAM Ref W | vellbore: No. 4H PWB Ref Wellpath: Pla | nj#1`;``````\';``;``\\\\\\\\\\\\\\\\\\\\\\\ | |
|------------------|----------------|--|---|------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
| 17.00 | 10845.14 | NaviTrak (Standard) | , | No. 4H PWB |

Superior Federal No. 4 30-015-22395 Cimarex Energy Co. of Colorado March 3, 2009 Conditions of Approval

- 1. Test BOP/BOPE equipment.
- 2. Per the approved sundry for recompletion to the Bone Spring formation in 2004 for Tom Brown, Inc., the third CIBP was to be set at 9000'. The work completed in January 2004 shows 9500'. This needs to be tagged for confirmation of setting depth. If it is set at 9500', an additional plug will be required for the top of the Wolfcamp when the well is abandoned. Top of Wolfcamp is 9157' per completion report. Verification of top of cement will be required to insure that cement exists behind pipe at this depth.
- 3. Prior to milling window, pressure test squeezed perforations.
- 4. Submit subsequent sundry detailing work performed and current well test data.

WWI 030309

District I

1625 N. French Dr., Hobbs, NM 8870 CEIVENORY, Minerals & Natural Resources Department

State of New Mexico

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Form C-102

1301 W. Grand Avenue, Artesia, NM 88240 NM O S 2009 OIL CONSERVATION DIVISION Division III 1220 South St. Francis Dr.

Fee Lease - 3 Copies

1000 Rio Brazos Rd., Aztec, NM 8740BBSOCD District IV

Santa Fe, NM 87505 1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

| 'API Number 30-015-22395 | | ¹ Pool Code / 65010 | `Pool Name `Winchester; Bone Spring | | | |
|----------------------------------|--|--------------------------------|-------------------------------------|--|--|--|
| Property Code | | ' _{Pro} Superi | *Well Number 004 | | | |
| ⁷ OGRID No. 162683 | | ՝ օր CIMAREX ENERG | 'Elevation 3292.2' GR | | | |
| | | ¹⁰ Surf | ace Location | | | |

| UL or lot no. | Section 5 | Township 20S | Range 29E | Lot Idn | Feet from the 1980 | North/South line South | Feet from the 660 | East/West line East | County Eddy | |
|-------------------------------|---|-----------------|-----------------|----------------------|-----------------------|---------------------------|-------------------|------------------------|----------------|--|
| | 11 Bottom Hole Location If Different From Surface | | | | | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |
| A | 5 | 20\$ | 29E | | 330 | North | 660 | East | Eddy | |
| ¹¹ Dedicated Acres | D Joint or | Infill "C | onsolidation Co | ode ^B Ord | ler No. | | | | | |
| 120 | | | | | | • | | | | |

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

