Form 3160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR

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| | | i. | |
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FORM APPROVED Budget Bureau No. 1004-0135

| RURFAU OF | LAND MANAGEMENT | 5. Lease Designation and Serial No. | | |
|---|--|---|--|--|
| DONE NO OF | SF-078863 | | | |
| Do not use this form for proposals to dr | AND REPORTS ON WELLS ill or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals | 6. If Indian, Allottee or Tribe Name | | |
| SUBMIT | 7. If Unit or CA, Agreement Designation | | | |
| 1. Type of Well Gas Gas | | 9 W-ll Normand No | | |
| Well Well Other | | 8. Well Name and No. | | |
| 2. Name of Operator | | Krause #11 9. API Well No. | | |
| R & G Drilling Company C/O KM Pro 3. Address and Telephone No. | duction Company | 30-045-07153 | | |
| · | (FOE) 70E (000 | 10. Field and Pool, or Exploratory Area | | |
| P O Box 2406 Farmington NM 87499 4. Location of Well (Footage, Sec., T., R., M., or Survey D | (505) 325-6900 escription) | Kutz Farmington | | |
| | • | 11. County or Parish, State | | |
| 1745' FSL & 1580' FWL Sec. 28 | 3, T28N, R11W | | | |
| | | San Juan County, NM | | |
| 12. CHECK APPROPRIATE BOX(| s) TO INDICATE NATURE OF NOTICE, REPOR | RT, OR OTHER DATA | | |
| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
| Notice of Intent | Abandonment | Change of Plans | | |
| | Recompletion | New Construction | | |
| Subsequent Report | Plugging Back | Non-Routine Fracturing | | |
| | Casing Repair | Water Shut-Off | | |
| Final Abandonment Notice | Altering Casing | Conversion to Injection | | |
| | X Other Recomplete in Fruitland Co | OB 1 Dispose Water (Note: Report results of multiple completion on Well | | |
| | Il pertinent details, and give pertinent dates, including estimated date of starting | Completion or Recompletion Report and Log form.) | | |
| Resubmit Fruitland Coal Recomp the response to the April 6, 1 abandoned (for Fruitland Coal Fruitland Coal recompletion in tax incentives for workovers). | pletion as per attached procedures. This sundry 995 letter from the BLM requesting this well be recompletion) or permanently plugged and abandothis well will be performed after July 1, 1995. Request postponement of mechanical integrity are will be squeeze cemented as part of the Frui | notice is temporarily oned. The (date of testing tland Coal. | | |
| | | GEIVED NAY - 1 1995 | | |
| | | CON. DIV. Dist. 3 | | |
| 14. I hereby certify that the foregoing is true that correct Signed | Title Petroleum Engineer | Date 4/18/95 | | |
| (This space for Federal or State office use) | | | | |
| Approved by | Title | Date | | |
| Conditions of approval, if any: | APF | PROVED | | |

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States by false factitious or fraudulent statements or representations as to any matter within its jurisdiction. *See Instruction on Reverse Side

District I PO Box 1988, Hobbs, NM 88241-1980 District [[

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-10 Revised February 10, 199

PO Drawer DD, Artesia, NM 88211-0719 District III

Instructions on bac

| District III 1000 Rio Braza District IV | ∞ Rd., A21 | NM 88211-071 ccc, NM 87410 NM 87504-2088 | | S | PO anta Fe, | Bo NN | | | [| Approp Sta Fo | Instructions on bal riate District Offic ite Lease - 4 Copi- ee Lease - 3 Copi- IENDED REPOR | |
|---|------------|--|--------------|----------------------|-------------------|------------|-------------------------|--|--|---|--|--|
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| | API Nu | mber | | ² Pool Co | de | Γ. | | Pool ! | | | | |
| | 5-07153 | | | | | | | Basin Fruit] | land Coal | | | |
| ' Propert | y Code | | | | ¹ Pr | opert) | y Name | | | Γ | Well Number | |
| OGRU | 2 %0 | | | | Krau | | | | | | 11 | |
| | | | | R & (| | | ompany, Inc. | _ | | | ' Devation | |
| L | | | | | | | | | | | 8091 | |
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| UL or lot so. | Section | Township | Ringe | Lot Ida | Feet from t | | f Different Fro | | | | | |
| | | | | J 1.4.1 | Lear Hotel | .a e | North/South line | Foot from the | East/West | line | County | |
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| NO A LO | WABLE | WILL BE | SSIGNE | D TO THI | S COMPLI | ETIC | ON UNTIL ALL I | NTERECTO U | AVE DEE | | | |
| | | OR A | NON-STA | ANDARD | UNIT HAS | BE | EN APPROVED | BY THE DIVI | AVE BEE | N CON | SOLIDATED | |
| | | <i>⊙</i> | | (D) | EGE MAY DIS | - 1 - 1 | 1995 <u>U</u> . DUV. | Printed Name Kevin H. M Title Petroleum Bat24/94 | McCord, A Engineer YOR CE has the well to fleld notes of supervision, a e best of my b | gent ERTII coation s armal s armal s reduct. | the same is true | |
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R&G DRILLING COMPANY KRAUSE #11



1745 FSL & 1580 FWL OTO FARMINGTON, KILL NESW, SECTION 28, T28N R11W SAN JUAN COUNTY, NEW MEXICO

FRUITLAND COAL RECOMPLETION PROCEDURE

CURRENT STATUS:

. 1

CASING:

Surface - 8 5/8" 28.0 #/ft @ 97 ft

Longstring - 5 1/2" 14.0 #/ft @ 1697 ft (CIBP above Pictured Cliffs formation at 1693 ft)

TUBING:

Production - 2 3/8" 4.7 #/ft J55 8RD EUE @ 1115 ft (approx)

EXISTING PERFORATIONS:

Farmington 1105 - 1118 13 ft

- 1. Move in and rig up service unit. Nipple down wellhead. Nipple up BOP. Trip 2 3/8" tubing out of hole.
- 2. Pick up 5 1/2" fullbore packer. Trip packer and tubing in hole and set at $+\- 700$ ft.
- 3. Rig up pump truck. Pressure test annulus (casing) to 1000 psi.
- 4. Squeeze cement existing Farmington perforations (1105-1118) with 50 sx (59 ft3) of Class B cement with 2% CaCl. Squeeze perforations to 2000 psi. Allow cement to set overnight.
- 5. Trip out of hole with tubing and packer. Trip in hole with bit on tubing. Drill out squeezed area cement. Rig up pump truck and pressure test squeeze to 1000 psi. Re-squeeze if necessary.
- 6. Move tubing to 1692 ft (bottom Fruitland Coal perforation). Circulate hole clean with fresh water. Spot 250 gallons of 7 1/2% DI HCl acid across the Fruitland Coal perforation interval. Trip tubing and bit out of hole.
- 7. Rig up wireline. Run GR-CLL-CNL logs from PBTD to 1500 ft RKB. Perforate the Fruitland Coal interval with .50" holes at 4 JSPF using 4" casing guns as follows:

| 1643 - 1646 | 3 ft | 12 holes |
|---------------------|-------------|----------|
| 1660 - 1668 | 8 ft | 32 holes |
| <u> 1684 - 1692</u> | <u>8 ft</u> | 32 holes |
| Total | 19 ft | 76 holes |

NOTE: Perforations may change after cased hole log analysis.

8. Pick up a fullbore packer and 2 7/8" 4.7 #/ft N80 EUE tubing work string. Set packer at +/- 1570 ft RKB. Break down the Fruitland Coal perfs down the tubing. Record all rates and pressures.

9. Fracture stimulate the entire Fruitland Coal interval down the 2 7/8" tubing with 64,000 gallons of 70 quality nitrogen foam (fluid is 20# linear guar gel) containing 10,000 lbs of 40/70 mesh sand fluid loss additive and 80,000 lbs 20/40 mesh sand proppant as follows:

10,000 gals of 70 quality foam pad 5,000 gals of 1 ppg 40/70 sand

5,000 gals of 70 quality foam spacer

5,000 gals of 1 ppg 40/70 sand

5,000 gals of 70 quality foam spacer

10,000 gals of 1 ppg 20/40 sand

10,000 gals of 2 ppg 20/40 sand

8,000 gals of 3 ppg 20/40 sand 4,000 gals of 4 ppg 20/40 sand

2,000 gals of 5 ppg 20/40 sand 400 gals of nitrogen flush

Desired rate: 20 BPM

Expected treating pressure: 2600 psi

NOTE: All water to contain 1% KCL, bacteriacide, PH buffer, and enzyme breaker.

- 10. Shut well in long enough to observe fracture closure.
- 11. Flow back well to the atmosphere through a 1/2" tapped bullplug until the well cleans up or dies.
- Release packer and trip the 2 7/8" workstring and packer out 12. of the hole, laying down the 2 7/8" tubing.
- 13. Trip in hole with a notched collar on the 2 3/8" tubing and a seating nipple 1 joint up. Circulate sand fill from the well as necessary.
- Move tubing uphole and land with the end of the tubing at +/-14. 1685 ft RKB. Nipple down BOP and nipple up wellhead.
- 15. Swab well as necessary. Flow well to cleanup for AOF.