

November 1983)  
formerly 9-331)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE\*  
(Other instructions on re-  
verse side)

Expires August 31, 1985  
5. LEASE DESIGNATION AND SERIAL NO  
SF 079001  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

RECEIVED  
MAIL ROOM

OIL WELL  GAS WELL  OTHER Wildcat  
NAME OF OPERATOR

88 OCT -3 PM 1:30

7. UNIT AGREEMENT NAME NEBU  
Agreement No. 1, Sec. 929  
8. FARM OR LEASE NAME

Blackwood & Nichols Co., Ltd.  
ADDRESS OF OPERATOR

FARMINGTON RESOURCE AREA  
FARMINGTON, NEW MEXICO

Northeast Blanco Unit  
9. WELL NO.

P. O. Box 1237, Durango, CO 81302-1237

501

LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

10. FIELD AND POOL, OR WILDCAT  
Wildcat Disposal Well

1450' F/NL, 790' F/WL

11. SEC., T., R. M., OR BLK. AND SURVEY OR AREA  
E-10-30-7

PERMIT NO. 15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6313'

12. COUNTY OR PARISH Rio Arriba  
13. STATE New Mexico

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)   
PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANE

SUBSEQUENT REPORT OF:

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other) Completion   
REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

- 7-23-88 Move on and rig up Drake Rig #21 (7-22-88). NU 10" 1500 series BOP. Will run a 3 1/2 x 2 7/8" tapered tubing string to clean out with, 4 3/4" paddle mill and 60 joints 2 7/8" (1884'), change over, then 29 joints 3 1/2" tubing.
- 7-26-88 Tag top of cement in 5 1/2" liner at 8836'. Clean out 16' of cement to 8852'. Float collar at 8911'.
- 7-27-88 Pressure test casing to 990 psi for 10 minutes with no leak off. Run GR, CBL and CCL from 8840' to 7464' (5 1/2" liner top); from 7464' to 7264' (Production packer setting); from 6966' to 6566' (Gallup interval); from 5638' to 4978' (200' below Point Lookout to 100' above Cliff House) from 4000' to 3373' (7 5/8" liner top). Perforate Entrada formation 8702' - 8709' (7', 1 SPF), 8732' to 8739' (7' - 1 SPF), 8710' to 8728' (18' - 1 SPF), 8740' to 8758' (18' - 1 SPF), 8758' to 8770' (2 SPF). Perforated a total of 62 feet and 124 holes. Ran in hole with 46 jts. of 2 7/8" N-80 and 218 jts. of 3 1/2" N-80. Set packer at 8649'. Monitor annulus with 750 PSI while swabbing tubing.
- 7-29-88 Swabbed total cumulative volume of 54 bbls.

(continued)

RECEIVED

OCT 07 1988

OIL CON. DIV.

DIST. 3

I hereby certify that the foregoing is true and correct

SIGNED William F. Clark TITLE Operations Manager

DATE September 30, 1988

(This space for Federal or State office use)

ACCEPTED FOR RECORD

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

DATE OCT 04 1988

NMOCC

\*See Instructions on Reverse Side

FARMINGTON RESOURCE AREA  
BY \_\_\_\_\_

Form 3160-5 for Well No. 501 (continued)  
September 30, 1988

- 7-30-88 Swabbed a total of 62 bbls. Acidize Entrada perfs from 8702' - 8770' with 500 gals. 7 1/2 HCl. Bullhead acid to bottom perf @8770'. Flow back to rig pit. Swabbed 56 bbls.
- 7-31-88 Swabbed 33 bbls.
- 8-1-88 Swabbed 23 bbls. Water sample analyzed after 26 bbls. of water recovered over and above load volume appears to be Entrada formation water: Specific Gravity: 1.012, pH: 7.5, Total Dissolved Solids: 15,657 mg/L. Rig up to acidize and frac the Entrada formation from 8702' - 8770'. Acidize with 1,500 gals. of 7 1/2% HCl and 120 1.3 sp. gr. ball sealers. Run in hole and knock balls off perfs with packer. Set packer @7965' for frac. All water contains 1% KCl. Frac Entrada as follows:  
Treatment Summary: Pumped a total of 44,000 gals. of 40# gell and 18,500 gals. of slickwater and 60,000# of 20/40 mesh sand. Average treatment - 34 BPM at 4,200 psi. ISIP = 1200 PSIG, 5 minutes S/I - 700 psig
- 8-03-88 Ran in hole with 5 1/2" Howco speedy line top drillable bridge plug. Set BP @8570'. Pressure test to 900 PSI with no leak off. Perforate the Bluff Formation 1 SPF from 8526' to 8546'; 8506' to 8526'; 8481' to 8501'; 8460' to 8480'; 8440' to 8460'; total 100' of zone and 100 holes. Set 5 1/2" RTTS packer at 8319'.
- 8-04-88 Rig up to acidize and frac down tubing the Bluff Formation from 8440' to 8546'. Establish injection rate of 12 BPM at 4150 PSI. Acidize with 1,500 gals. of 7 1/2% HCl and a 146 1.3 sp. gr. ball sealers. Unseat packer (8319'). Knock balls off perforations. Set packer. Pressure up backside to 750 PSI. All water contains 1% KCl. Frac the Bluff as follows:  
  
Treatment Summary: Pumped a total of 44,000 gals. of 40# gell, 18,200 gals. of slickwater and 60,000# of 20/40 mesh sand. Average treatment 29 BPM at 4700 PSI. ISIP = 1900 PSIG, 15 min. @1400 PSIG.
- 8-05-88 Unseat 5 1/2" packer. Ran in hole with 5 1/2" Howco speed-e-line drillable bridge plug and set at 8380'. Pressure test B.P. to 950 PSI with no leak off. Perforate the Lower Morrison Formation with 1 SPF from 8332' to 8350'; 8302' to 8316'; 8284' to 8293', 8296' to 8300'; 8255' to 8272'; 8180' to 8190'; 8228' to 8239'; and 8196' to 8213', for a total of 100' and 100 holes. Ran in hole with 2 7/8" & 3 1/2" tubing and 5 1/2" RTTS packer.
- 8-06-88 Set 5 1/2" Howco RTTS packer at 8150'. Flow well through tubing to rig pit. Bucket gauge ranges between 14 to 20 bbls. of water per hour for Morrison perforations. One hour SITP of 135 PSI. Ran in hole with pressure bombs. Set bombs at 8140'. Top perforation at 8180'. Shut well in.

September 30, 1988

8-07-88 Pressure build-up survey.

8-08-88 Pressure build-up survey.

8-09-88 SITP = 125 PSIG. Pull out of hole with pressure bombs. Field reading showed bottom hole flowing pressure @3517 PSI, BHSIP @3688 PSIG. Rig up to acidize and frac the Lower Morrison Formation from 8180' to 8350'. Acidize with 1,500 gals. of 7 1/2% HCl and 140 ball sealers. Unseat 5 1/2 RTTS packer. Knock balls off perfs. Reset packer @7955' for frac. All water contains 1% KCl. Frac the Lower Morrison as follows:

Treatment Summary: Pumped a total of 44,500 gals. of 40# gelled fluid, 56,500# of 20/40 mesh sand and 15,000 gals. of slickwater. Average treatment - 24 BPM @4,800 PSIG. ISIP - 15 min, 1,550 PSIG.

8-10-88 Unseat 5 1/2" RTTS Howco packer. Pull out of hole with 1 jt. of 3 1/2" tubing. Set 5 1/2" packer. Pressure up annulus to 860 PSIG. Shut in for 15 minutes. Held ok. Unseat packer. Pull out of hole with 5 1/2" RTTS packer. Ran in hole with 4 5/8" OD, mill shoe.

8-11-88 Tag sand at 8344' . Drill out B.P. at 8380'. Tag sand fill on top of next plug at 8482'.

8-12-88 Pick up new mill shoe. Tag fill 8482'. Clean out sand and ball sealers to 8570'.

8-13-88 Tag top of plug at 8569'. Drill on bridge plug with no progress. Pull out of hole with mill shoe. Ran in hole with 4 3/4" mill.

8-14-88 Tag plugs at 8569'. Mill up junk from first plug and mill second plug with 4 3/4" mill. Tag Entrada sand fill at 8744'.

8-16-88 Mill up parts of bridge plug, ball sealers and clean out sand fill to 8854'.

8-17-88 Tag fill at 8842'. Clean out to 8882'.

8-18-88 Tag fill @8852'. Rig up Howco pump and N<sub>2</sub> unit. Clean up sand fill to 8877' by circulating down tubing 210 bbls. of 50 quality foam @2 BPM at 2400 PSIG. Displace foam with 80 bbls. of fresh water at 1.5 BPM, 2500 PSIG.

8-19-88 Ran in hole with 3 1/2" tubing. Tag bottom @8881'. Lay down 3 1/2" tubing.

September 30, 1988

- 8-20-88 Pull out of hole with 2 7/8" tubing. Ran in hole with Baker 7 5/8" Model AL-2 plastic lined packer 3 1/2" F nipple, and 5 1/2" x 3 1/2" Model FR on - off tool and 142 jts. of 3 1/2", 9.3#/ft., N-80, plastic lined (spin coat) tubing.
- 8-21-88 Ran in hole with 116 jts. of 3 1/2" plastic lined tubing. Set packer at 7375'. Ran in hole with blanking plug. Set plug in Baker F nipple. Pressure up 3 1/2" tubing to 950 PSIG, held ok.
- 8-23-88 Baker 7 5/8" packer set at 7375'. Pressure up annulus to 880 PSIG. After 30 minutes pressure decreased to 500 PSI. Pressure up tubing to 1500 PSIG, held ok. Bleed off tubing and casing pressure, land tubing donut in tubing spool, pressure up to 1500 PSI between BOP pipe rams above tubing donut; pressure up annulus to 500 PSIG, held ok for 15 minutes. This final pressure test confirmed casing-annulus integrity. Jay-off top of lock set packer, circulate 411 bbls. of water and 40 gals. of Chaco Chemical's WT-682 packer fluid. Jay-back into packer and landed tubing donut in casing head. Pressure up annulus to 800 PSIG. Held ok for 10 minutes. Nipple down BOP. Nipple up wellhead. Tubing summary: 153 jts. of 3 1/2" 9.3#/Ft., N-80 EUE, ID plastic coated tubing with a Baker A-L2 (I.D. 3.00") lockset Baker plastic lined (PA-400) packer (47D) and a 5 1/2" x 3 1/2" x 2.75 FR on-off tool with a 3 1/2" Type F stainless steel seating nipple (2.75" I.D.) holding a FWE Blanking plug. Packer set at 7375' with 32,000# compression. Rig released on 8-23-88.
- 8-26-88 Pull Blanking plug out of "F" nipple, 3 1/2" tubing clear.