

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well: oil well _____ gas well ☒ other _____
2. Name of Operator: Blackwood & Nichols Co., A Limited Partnership
3. Address of Operator: P.O. Box 1237, Durango, CO 81302-1237
4. Location of Well: (Footage, Sec., T., R., M., or Survey Description)
K
840' FSL, 1725' FWL - Section 29, T31N, R7W

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: September 30, 1990
5. Lease Designation & Serial #: SF-079045
6. If Indian, Allottee/Tribe Name
7. If Unit or CA, Agmt. Design.: Northeast Blanco Unit
8. Well Name and No.: N.E.B.U.# 412
9. API Well No.: 30-045-27354
10. Field & Pool/Expltry Area: Basin Fruitland Coal
11. County or Parish, State: San Juan, New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

___ Notice of Intent

☒ Subsequent Report

___ Final Abandonment

___ Abandonment

___ Recompletion

___ Plugging Back

___ Casing Repair

___ Altering Casing

☒ Other: FINISH COMPLETION STARTED IN JANUARY, 1990

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

___ Change of Plans

___ New Construction

___ Non-Routine Fracturing

___ Water Shut-Off

___ Conversion to Injection

13. 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.)*

1-17-90 Move on and rig up.

1-18-90 Pickup 6-1/4" Smith FDT bit, bit sub, one drill collar, N nipple, 9 4-3/4" drill collars then 3-1/2" drill pipe and TTH.

Found cement at 2843'. Pressure test 7" casing and BOP pipe rams to 2000 psig for 30 minutes - held OK.

1-19-90 Drilled cement and shoe at 2892' then drilled Fruitland formation from 2892' to 3189'. Fruitland coal intervals: 2913-2916; 3023-3033, 3035-3058, 3060-3062, 3077-3082, 3091-3093, 3108-3109, 3114-3115, 3164-3171, and 3173-3186 for a total of 62'.

Circulated well with 8.0 BPM of water decreasing to 4.4 BPM; added 1.0 MM air. Returns moderate to very heavy coal. Very strong water production, estimated at 200 BWH.

1-20-90 Work pipe and circulate open hole with 1.0 MM air and 3.5 BPM water. Returns moderate to very heavy coal. Work pipe and blow open hole with 1.0 MM air and 4.4 decreasing to 2.6 BPM water Returns light coal.

14. I hereby certify that the foregoing is true and correct.

Signed: ROY W. WILLIAMS Title: ADMINISTRATIVE MANAGER Date: 1/21/91

(This space for Federal or State office use)

Approved By _____ Title _____ Date _____
Conditions of approval, if any: _____

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency or the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

- 1-21-90 Work pipe and blow open hole with air and water. Returns light coal.

Work pipe 3057' to 3089' and blow open hole with air and water. Hole very sticky. Pipe got stuck at 3054'.

Work stuck pipe, hole flowing gas and heavy water with minor amounts of coal. Very strong water production, 250 BWH, or 6000 BWD.
- 1-22-90 Working pipe and cleaning out from 3050' to 3089' with air and water; strong gas and very strong water production.

Circulate hole with air and water. Moderate to heavy coal returns. No gas gauge; estimated 3 to 4 MMCFD. Water production very strong.
- 1-23-90 Work pipe and blow open hole with air and water. Returns moderate to light coal. Hole getting increasingly free.

Clean out to TD with air and water. Returns moderate to light with periods of extremely heavy coal. Work pipe and blow open hole with air and water. Returns light coal.
- 1-24-90 Worked pipe and circulated hole at TD with air and water. Returns light coal. Pulled into 7" casing and gauged well, 2" bitot: 1 hour - 30 psig, 3,758 MCFD (very wet).
TIH and found a bridge at 3094'. Washed down to 3120' with air and water; hole very sticky. Pipe stuck at 3091'.
Worked pipe, able to rotate but cannot move up. Shut in well, pipe free.

POOH to 2994'. Unable to circulate down drill pipe, plugged. Called for Cudd Pressure Control. Rigging up BOP stack to snub out of hole.
- 1-25-90 Strip 3-1/2" drill pipe and snub drill collars out of hole, bottom two drill collars plugged with coal. Left 6-1/4" Smith FDT bit and 3-1/2" regular box x 3-1/2" IF box double bored for floats, and bit sub in hole. Bit sub 2.57' x 4-11/16" OD and bit (.75' long). Total length of fish 3.32'. Bottom drill collar pin not broken off.
- 1-26-90 Pick up 6-1/4" bit rerun, one 4-3/4" drill collar with bit sub double bored for float. Snub N nipple and nine 4-3/4" drill collars. Rig down snubbing equipment and rig up to strip 3-1/2" drill pipe. Strip 3-1/2" drill pipe in hole to 2842'. Circulate well with air at 2842'. Returns moderate to light coal.

Clean out 3019-3050' with air and water. Returns heavy coal.
- 1-27-90 Work pipe 3050-3092' and blow open hole with air and water. Returns heavy coal fines and black water.
Circulate and work 1 jt of pipe out, pipe sticky. Close well in, pressure built to 320 psi, rotate and work 2 more jts pipe out, try to work jt, pipe became very sticky.
- 1-28-90 Work pipe at 2960'. Surge well, no pipe movement. Well unloaded, pipe started rotating, able to move pipe up and down. Lay down 5 jts 3-1/2" drill pipe to be inside 7" casing, lost 8000# weight.

Mix mud, wait on chemical to mix calcium carbonate.
- 1-29-90 Mixing mud, building volume. Pick up 5-3/4" overshot with drill collars. RIH to top of fish. Circulate 1 hour. Returns small coal over shaker, tag top of fish at 2032'.

Try to get over fish, could not. TOOH. Overshot lip bent in, overshot skirt egg-shaped. TIH with mill, ten drill collars to top of fish at 2032'. Mill off top of fish from 2032-2035'. Returns fine coal and metal.
- 1-30-90 Mix mud, build volume. POOH with 6-1/8" mill. TIH with overshot. Unable to catch fish at 2035'. POOH with fishing tools. TIH with 6-1/8" mill. Mill 3' to 2038'. POOH with mill. TIH with overshot. Tag fish at 2038'.
Work 1 hour trying to latch on to fish. Jar one hour, fish came loose. Lay down 6 jts drill pipe. Circulate and mix mud.
- 1-31-90 Mix mud, build volume. POOH to top of fish at 510', bit at 1480'. Well kicked. Pick up power swivel and circulate out gas.

POOH to fish and release overshot. Pull fish out of hole, recover entire fish. Break and lay down fishing tools and lay down drill collars.
- 2-01-90 TIH to 2736'. Circulate 30 minutes. TIH to 2934', tag bridge at 2934'. Wash and ream 2934-3058'; well kicking, mud weight and viscosity dropping.

Pull into 7" casing, shut well in. SI. Circulate pit and condition mud. Kill well with 11.2 ppg mud weight and 56 sec. viscosity.
- 2-02-90 Pull into 7" casing; shut well in. Circulate pit and build mud weight and volume. Kill well with bit @ 2902', 11.3 ppg weight. POOH, lay down bit and bit sub. Pick up impression block. TIH to 2030', set 4000# on obstruction.

POOH, block shows 1-1/2" wide by 1/2" long impression on side of block.
- 2-03-90 Pick up 7" casing roller and TIH to ²3029'. Roll and work on damaged casing ²3029-²3033'. TIH with 6-1/4" tapered cutrite mill. Mill on tight spot ²3029-²3033'. Work casing until mill passed freely. TIH to 2844' and circulate 42 vis and 10.5-10.8 ppg mud. POOH to 1350'± and well started flowing back.

2-04-90 Kill well and check well for flow 45 minutes.

POOH and lay down 6-1/4" tapered cutrite mill. Pick up and make up 7" RTTS packer and TIH to 2083'. Test casing; set packer at 2085'. Test to 800 psi for 10 minutes - OK. Reset packer at 2020' and test backside to 950 psi for 10 minutes - OK. Reset packer at 2052' and test backside to 900 psi for 10 minutes - OK.

2-04-90 POOH and lay down 7" RTTS. TIH with bit, ten 4-3/4" drill collars, and 3-1/2" drill pipe to 2812'.

2-05-90 Circulate and build mud volume. TOH and lay down drill pipe and drill collars. Picked up one joint 2-7/8" tubing, open ended then 2.25" F nipple with a pump-out plug then 2-7/8" tubing.

2-06-90 Nipple down BOP and blooie lines and nipple up upper tree. Flow well up tubing through 3/4" fixed choke. Flowing pressure: 1/2 hr - 35 psi; 3/4 hr - 40 psi; 1 hr - 30 psi. Well making heavy stream of water and some gas. Unable to obtain a meaningful final gauge.

Completion gauge from 1-24-90: 2" pitot, after 1 hr - 30 psig, 3758 MCFD (very wet). Then flowed well through 3/4" fixed choke, after 1 hour FCP - 185 psig, 2436 MCFD (wet), calculated by $((FCP+12) * 12.365)$. Water production - 4500 BWD.

Shut well in and rig down. Released rig.

BLACKWOOD & NICHOLS CO., LTD.

P.O. BOX 1237

DURANGO, COLORADO 81302-1237

(303) 247-0728

Completion Report

Northeast Blanco Unit No. 412 - Basin Fruitland Coal

LOCATION: 840' FSL, 1725' FWL
Section 29, T31N, R7W
San Juan County, New Mexico

01-12-91 Wait on daylight to move.

01-13-90 Moving.

01-14-91 Move in and rig up.

01-15-91 Attempting to pull donut.

Finish nipling up BOPs.

Circulate well, set plug in F nipple at 2834'.

Nipple down tree, nipple BOPs. Rig up Cudd Pressure Control. Rig up blooie lies, screw into donut. Now trying to pull donut.

01-16-91 Stripping in hole with drill pipe.

Apply heat to tubing head to thaw donut, pull same.

Strip out of hole with 2-7/8" tubing.

Change rams, tally drill collars and drill pipe and rig up second blooie line.

Snub in 6-1/4" Smith Tool Co. FDT SN# KR2608 (jets: 24-24-24), bit sub, one drill collar, string float, N nipple, 10 drill collars, 1 jt drill pipe, and F nipple (OAL = 340.83'). Pick up drill pipe.

01-17-91 Circulating at TD with 5 BPM water.

Hang off drill pipe, bit at 2875'. Rig down Cudd, rig up floor. Change rams, nipple up stripper head. Pick up swivel.

Circulate and wash to TD with 7 BPM water. Circulate each jt until returns clear up.

(Cont'd)

01-17-91 Circulate and work pipe at TD with 7 BPM water, reducing pump rate 1/2 BPM every 2 hours down to 5 BPM. Returns heavy 1/4" and less coal (98%) in muddy water with floating coal fines. Return decreasing to 1/8" coal and fines in clear water.

Have 30' gas flare.

01-18-91 Circulating and working pipe at TD with 1.4 MM air and 3 BPM water.

Circulate and work pipe at TD with 5 BPM water, reducing pump 1/2 BPM every 2 hours down to 3 BPM. Returns moderate 1/8" and less coal (95%) decreasing to light coal fines in clear water.

Circulate and work pipe at TD with .7 MM air and 3 BPM water. Returns moderate coal fines in black water turning to brown muddy water.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water. Returns moderate coal fines in black water with brown foamy water at times, then turning to light coal fines in clear water. No hole problems.

Estimated water at 1536 BPD.

01-19-91 Pipe stuck at 3070' - well shut in.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water. Returns light coal fines, then well started making muddy water. Heavy coal 1/4" and less with heavy water production. Pits filled up, water trucks blocked by pipe liners between location and disposal well.

Pull into 7" casing (bit at 2369'), close well in. Pipe liners started moving out at 3:00 p.m. Start hauling water to disposal again. Haul 3600 Bbls. Pull reserve pit low.

600 psi on well. Bleed down slowly through choke manifold. TIH to 3115', hit bridge. Try to circulate and work through. Good circulation, but pipe very tight. Work 1 jt out and lay down. Work 1/2 jt out, lost circulation, pipe stuck. Pressure up back side to 600 psi and pressure bled off. Pressure up drill pipe to 600 psi and pressure bled off. Well shut in to stabilize.

01-20-91 Stuck at 2932'.

Work stuck pipe. Pressure up drill pipe to 1500 psi with air. Pressure up annulus to 1500 psi with air. Surge well to 1200 psi. Work and rotate up. Lay down 1 jt drill pipe. Work and rotate up.

Pipe came free at 3040'. Circulate with 1500 psi air. Lay down 1 jt drill pipe and rotate up. Stuck again at 2932'.

01-21-91 Running free point.

Wait on liquid mud and mud material. Mix mud.

Rig up Wireline Specialists. Run free point.

01-22-91 Waiting on liquid mud to build volume.

Wait on replacement wireline truck.

Rig up wireline truck, run freepoint - pipe free to float 1 drill collar above bit. Back off pipe at top of drill collar string, rig down wireline truck.

Circulate and load hole with calcium carbonate mud, 10.8 ppg, 76 sec viscosity.

POOH, lay down bottom jt drill pipe, pick up 3-1/2" IF fishing pin, jars, and eight 4-3/4" drill collars. RIH, tag fish at 2606'. Screw into fish, jar 5 hours, fish came free.

Lay down 3 jts drill pipe, pull 9 stands drill pipe, well started kicking, bit at 2285'.

Pump 10.8 ppg mud trying to kill well through choke manifold. Mud returns 9.6 ppg, 40 vis; lost 200 Bbls to formation.

Wait on liquid mud to build volume.

01-23-91 Changing rams, preparing to hang drill string off and rig down Cudd Pressure Control.

Mix mud, build volume, wait on Cudd Pressure Control.

Land drill pipe with donut, rig up Cudd and pressure test all snubbing equipment.

(Cont'd)

01-23-91 Strip out of hole, lay down fishing tools and fish (19 drill collars and 6 subs). Inspect drill collars and subs.

Pick up 6-1/4" Smith FDT RR bit, bit sub with float, 1 drill collar, string float, N nipple, 7 drill collars, drilling jars, 3 drill collars, 1 jt drill pipe, and F nipple. Change pipe rams.

Lost a cumulative of 300 Bbls mud to formation.

01-24-91 Circulating and working pipe at 2910' with 1.4 MM air and 7 BPM water.

Hang off drill pipe, rig down Cudd. Rig up stripping head. TIH, hit fill at 1773'. Pick up swivel. Circulate with 7 BPM water and clean out to bottom of 7" casing.

Circulate and work pipe from bottom of 7" casing to 2910' with 1.4 MM air and 7 BPM water. Returns heavy coal and water.

30' flare from one blooie line.

01-25-91 Circulating and working pipe at TD with 1.4 MM air and 3 BPM water.

Circulate and wash to TD with 1.4 MM air and 7 BPM water. returns heavy 1" and less coal (50-90%) with large 1" shale and siltstone in black water. Returns would go to light coal fines in clear water after each jt washed down.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water. Returns moderate to light coal fines in clear water. Pipe was sticky at 8:00 p.m., 11:00 p.m., 3:00 a.m., and 5:00 a.m. Returns light coal fines, shale and siltstone in murky water each time pipe became sticky.

01-26-91 Circulating and rotating liner at 3153'.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water.

Kill well on bottom through choke manifold.

Lay down 12 jts drill pipe and land drill pipe in donut. Rig up Cudd Pressure Control, pressure test to 2000 psi - held OK.

(Cont'd)

01-26-91 Strip drill pipe and drill collars out of hole.

Rig up and snub 10 jts 5-1/2" liner in hole.

Rig down snubbing equipment, strip drill pipe in hole. Rig up Howco, load drill pipe and liner with water and circulate. Strip in hole to 3100'. Rig up swivel, circulate and rotate 3113' to 3153' (took 3 hours). Annulus bridged off, still had rotation, had 1' free travel.

01-27-91 Bit at bottom of 7" casing, well shut in, waiting on water trucks.

Circulate and rotate at 3153', cannot get deeper. Had 1' free travel, work liner loose, pull up to 3145'. Could not go back down.

Displace drill pipe with air, lay down 11 jts, strip out of hole with drill pipe.

Rig up and snub out liner, lay down same.

Change rams and slips and snub in bit no. 2, 6-1/4" Smith Tool Co., FDT, SN# KR0236, bit sub, 1 drill collar, string float, N nipple, 7 drill collars, jars, 3 drill collars, 1 jt drill pipe, and F nipple - hang off in BOP.

Rig down Cudd Pressure Control.

RIH to bottom of 7" casing, circulate with 1.4 MM air and 3 BPM water. Well unloading, heavy water production. Reserve pit filled, shut well in.

01-28-91 Circulating and working pipe at TD.

Wait on water trucks, pull down reserve pit.

Circulate and wash to TD with 1.4 MM air and 3 BPM water. Returns moderate coal fines in black water.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water. Returns light coal fines in clear water.

Water production \approx 1500 BPD.

01-29-91 Changing rams, rigging up to snub 5-1/2" liner in hole.

Circulate and work pipe at TD with 1.4 MM air and 3 BPM water. Returns light coal fines in clear water.

Load hole with water through choke manifold, displace drill pipe with air. Lay down 10 jts drill pipe, hang off in BOP. Nipple down stripper head.

Rig up Cudd and test to 2000 psi - held OK.

Strip out of hole with drill pipe and drill collars, change rams, rig up to snub liner.

01-30-91 TIH with expendable mill/check on 2-7/8" tubing.

Snub in 11 jts 5-1/2" liner with Baker hydraulic-set hanger. Run 6-1/4" bit on bottom of liner.

Change rams, rig down snubbing equipment, strip in 3-1/2" drill pipe to bottom of 7" casing. Load drill pipe and liner with water. TIH, pick up swivel, circulate and rotate from 3100' to 3189' (TD). Set hydraulic liner hanger with Howco, pack hanger off, release from hanger at 3200 psi. Lay down 2 jts drill pipe, hang string in BOP.

Rig down Cudd Pressure Control.

Rig up and lay down drill pipe, drill collars, and setting tool.

Rig up to pick up tubing. Pick up 4-3/4" expendable mill/check, 1 jt tubing, F nipple, and 2-7/8" tubing.

Ran 11 jts (384.90') 5-1/2" 23# L-80 LT&C USS casing

- 3 - full perf'd jts (8 HPF)
- 3 - 1/2 perf'd jts
- 1 - 1/2 blank
- 4 - full blank

Ran 6-1/4" FDT bit, SN# KR0236 on bottom of liner with crossover with float. Ran Baker hydraulic-set liner hanger.

Bit at 3188', top of hanger at 2796.29'; 95.71' overlap.

Perfs: 2890.84-2907.60'; 2995.56-3119.25'; and 3143.79-3185.23' (8 HPF).

1-31-91 Pickup swivel drill plugs 2890' to 3185'. Lay down 2 jts and hang off donut in tubing head.

Nipple down BOP and nipple up tree. Pump off expendable mill. Flow back OK.

Ran 101 jts 2-7/8" (3101.00') EUE, 8rd, FBNAU, SIDERCA/USS. Tubing landed @ 3115' with F nipple (2.25" ID) @ 3082'.

Released rig @ 4:00 p.m. 1-30-91.

Gauges 2/6/90: 2.436 MMCFPD Gas
4500 BPD Water
3/4" Choke, Wet