

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: September 30, 1990

**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)

2380' FSL - 1790' FEL (Surface)  
1400' FNL - 1750' FEL (Bottom Hole)  
Section 8, T30N, R7W

5. Lease Designation & Serial #:

SF-079042

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.# 423R

9. API Well No.:

30-039-70390

10. Field & Pool/Expltry Area:

Basin Fruitland Coal

11. County or Parish, State:

Rio Arriba, New Mexico

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other: COMPLETION
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> 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.)\*

See Addendum for a full description of the open hole "stress relieve" type coal completion.

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

Signed: ROY W. WILLIAMS Title: ADMINISTRATIVE MANAGER Date: 1/31/91

(This space for Federal or State office use)

ACCEPTED FOR RECORD

Approved By \_\_\_\_\_ Title \_\_\_\_\_ FEB 01 1991  
Conditions of approval, if any:

NMOOD

FARMINGTON RESOURCE AREA

BY 2/1

BLACKWOOD & NICHOLS CO., LTD.

P.O. BOX 1237

DURANGO, COLORADO 81302-1237

(303) 247-0728

Completion Report

Northeast Blanco Unit No. 423R - Basin Fruitland Coal

LOCATION: Surface: 2380' FSL, 1790' FEL  
Bottom hole: 1400' FNL, 1750' FEL  
Section 8, T30N, R7W  
Rio Arriba County, New Mexico

12-13-90 Picking up drill collars.

Rig up. Pick up drill pipe and drill collars from pipe basket and strap same.

12-14-90 7-5/8" casing at 3473' MD.

Circulating on top of fish (slip die) on top of cement plug.

RIH with BHA and 83 jts 3-1/2" drill pipe. Lay blooie lines, cut and reweld blooie lines to direct blow to corner of blow pit per Bureau of Reclamation. Finish nippling up. POOH, drop die segment from drill collar clamp in hole.

Test blind rams, manifold, and 7-5/8" casing to 2000 psi - held OK.

Pick up 6" magnet with saw-tooth skirt and RIH. Tag cement plug and fish at 3429'. Pick up and rig up swivel and circulate on top of fish.

12-15-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Circulating on top of fish and TOOH with same.

TIH with bit no. 2, 6-3/4" Smith Tool Co., FDT, SN# KR2192, ten 4-3/4" drill collars and 3-1/2" drill pipe. Tag cement plug, test manifold, pipe rams, and HCR valves to 2000 psi - held OK. Drill cement plug, insert float and shoe at 3473'.

Drill Fruitland coal to 3480', shut down for water.

Wait on water trucks.

(Cont'd)

12-15-90 Drill Fruitland coal to 3705' MD, 3187' TVD, with 8000# WOB, 100 RPM, and 7 BPM water at 1400 psi.

Coal Intervals:	2984-2986'	2'
	2999-3001'	2'
	3003-3006'	3'
	3008-3009'	1'
	3010-3017'	7'
	3018-3035'	17'
	3036-3038'	2'
	3070-3072'	2'
	3083-3090'	7'
	3091-3093'	2'
	3118-3124'	6'
	3136-3139'	3'
	3172-3182'	<u>10'</u>
	Total	64'

Top Main P.C.	-	3185'
Total Depth	-	3187'

Circulate and work pipe at TD with 7 BPM water through 2 blooie lines; have 50-60' flare. 8

12-16-90 Circulating and working pipe at TD with 1-1/2 BPM water.

Circulate and work pipe at TD with 7 BPM water. Had to shut well in to adjust blooie line tie-downs. Had 1000 psi build up on well in 20 minutes. Blow well down through manifold, open blooie lines.

Circulate and work pipe at TD with 7 BPM water reducing pump rate 1/2 BPM water every 2 hours; work pipe every 30 minutes or when hole dictates. Returns light coal fines. Well appears to make very little water, if any. Estimate 10 MMCFD gas.

12-17-90 Circulating and working pipe at TD with 1 BPM water with 5 Bbl water sweeps hourly.

Circulate and work pipe at TD with 1 BPM water. Returns light coal fines.

Circulate and work pipe at TD with 1 BPM water with 5 Bbl water sweeps hourly. Returns light coal fines.

Estimate 12 MMCFD gas; very little water.

12-18-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Surging well with 1000 psi.

Circulate and work pipe at TD with 1 BPM water with 5 Bbl water sweeps hourly. Returns light coal fines.

Pull into 7-5/8" casing (3463') for one hour pitot test #1: 1/4, 1/2, 3/4, and 1 hr - 100 psi, 10022 MCFD (all gauges mist). One hour shut in test: 1/4 hr - 1050 psi; 1/2 hr - 1150; 3/4 hr - 1225; 1 hr - 1250 psi. Bleed well down to 800 psi, surge well. RIH, had 3' fill.

Blow well from TD with 5 Bbl water sweeps hourly. Returns light coal fines.

Pull into 7-5/8" casing (3463') for 1 hour pitot test #2: 1/4, 1/2, 3/4, and 1 hr - 100 psi, 10022 MCFD (all gauges mist). 1/4 hour shut in test: 1080 psi. Bleed well down to 1000 psi, surge well.

12-19-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Running shut in test #3.

RIH to TD, no fill.

Circulate and work pipe with 1 BPM water, alternating 5 and 10 Bbl water sweeps hourly. Returns light coal fines.

Pull into 7-5/8" casing (3463') for pitot test #3 and shut in test #3. Pitot test: 1/4 hr - 100 psi, 10022 MCFD; 1/2 hr - 105 psi, 10469; 3/4 and 1 hr - 110 psi, 10916 MCFD (all gauges misty).

12-20-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Running pitot test #6.

Surge well with 1200 psi, flow 1 hour. Run pitot test #4: 1/4 hr - 120 psi, 11811 MCFD; 1/2, 3/4, and 1 hr - 122 psi, 11990 MCFD (all gauges misty). RIH, no fill.

Circulate and work pipe at TD with 1 BPM water with 5-20 Bbl water sweeps hourly. Returns light coal fines.

(Cont'd)

12-20-90 Pull into 7-5/8" casing (3463') for pitot test #5 and shut in test #4. Pitot test: 1/4 hr - 100 psi, 10022 MCFD; 1/2 hr - 105 psi, 10469; 3/4 and 1 hr - 110 psi, 10916 MCFD (all gauges misty). Shut in test: 1/4 hr - 950 psi; 1/2 hr - 1100 psi, 3/4 hr - 1200; 1 hr - 1225 psi. Surge well with 1200 psi, flow well 1 hour.

Run pitot test #6: 1/4 hr - 105 psi, 10469 MCFD; 1/2 hr - 110 psi, 10916; 3/4 hr - 11811; 1 hr - 12259 MCFD (all gauges misty).

12-21-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Circulating and working pipe at TD with 1 BPM water.

Bleed well down. RIH, had 4' fill.

Circulate and work pipe at TD with 1 BPM water, alternating 5 and 20 Bbl water sweeps hourly. Returns moderate to light coal fines.

Pull into 7-5/8" casing (3463') for pitot test #7: 1/4 hr - 110 psi, 10916 MCFD; 1/2 and 3/4 hr - 120 psi, 11811; 1 hr - 125 psi, 12259 MCFD (all gauges misty). Bleed well down. TIH, had 6' fill.

Circulate and work pipe at TD with 1 BPM water, alternating 5 and 20 Bbl water sweeps hourly. Returns moderate to light coal fines.

12-22-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Change runners to snub out drill collars.

Circulate and work pipe at TD with 1 BPM water, alternating 5 and 20 Bbl water sweeps hourly. Returns light coal fines.

Kill well with water at TD. 400 psi at surface pumping across stack. Lay down 10 jts drill pipe. Hung drill pipe off in well head.

Nipple down top BOP. Nipple up Aztec Specialty snubbing stack. Rig up Cudd pressure control for pressure test. Snubbing stack. Unthaw lines. Strip drill pipe out of hole.

12-23-90 Pick up and snub 7 jts of 5-1/2" 23# L-80 liner in hole with Baker Hydraulic. Set liner hanger. Strip drill pipe in hole.

Wash 15 feet to TD. Hang liner and pack off. Setting would not hydraulically release from liner hanger.

Packed off at safety release. Press started leaking by pack off. Float not holding in drill pipe.

Set plug in F nipple on slick line. Plug not holding and pulled same drill pipe. Flow pipe raises concern as to weather setting tool released.

Due to extreme cold temperatures causing unsafe working conditions, decision was made to suspend operations until the morning of December 28th.

12-24-90 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Trying to thaw out rig.

Could not release from hanger hydraulically; had to back off 4 turns to left.

Lay down 1 jt drill pipe, thaw out rig. Well started kicking through drill pipe. Set plug in F nipple.

Thaw rig, plug in drill pipe started leaking. Call Tefteller back to pull plug.

Thaw rig.

12-25-90 Rig on standby.

Try to thaw out rig - 90% frozen; cannot move blocks.

Shut well in and put rig on standby.

12-26-90 Rig on standby; well shut in.

12-27-90 Rig on standby; well shut in.

12-28-90 Rig on standby; well shut in.

Thaw out pumps and wait on Halliburton to pressure up ball in hanger.

12-29-90 Waiting on water.

Circulate with Halliburton. Screw into liner (25' high) at MD top 3388'. Could not circulate down. Release pressure and well flowed back through drill pipe. Rig down Halliburton.

Wait on water to mix mud.

12-30-90 Thawing standpipe, rotary hose, and swivel.

Wait on water and mix  $\text{CaCO}_3$  to 10.5 ppg and 50 sec. viscosity.

Rig up swivel to circulate and kill well. Stand pipe, rotary hose, and swivel frozen.

Close TIW valve. Rig down swivel. Rig down rotary hose. Thaw same and standpipe.

12-31-90 Thaw out swivel, standpipe, and rotary hose. Tried to pump mud down drill pipe @ 1800 psi through 2" rubber hoses. Wait in slick line unit.

Rig up Jay Wireline to run hydrostatic bailer to retrieve hanger setting ball. Each time opened TIW valve, lubricator would freeze. Rig down and thaw out. Rig up 4 times. Wait on daylight.

01-01-91 Waiting on methanol to put in lubricator.

Run wireline hydrostatic basket and bailer. 13' fill on top of ball. Clean out to 6' above ball. Shut down. Rig freezing up.

Wait on daylight.

01-02-91 Waiting on daylight.

Wait on daylight. Fish for liner hanger ball - could not retrieve. Set plug in F nipple at 3376'.

Lay down 11 jts 3-1/2" drill pipe. 5-1/2" liner inside 7-5/8" casing.

Condition mud to 10.6 ppg and 50 sec. viscosity and wait on daylight to kill well down annulus with Halliburton.

01-03-91 Rig up swivel.

Wait on daylight to kill well and wait on Halliburton.

Pump 130 Bbls 10.7 ppg, 50 sec. viscosity calcium carbonate mud down annulus - maximum pressure 1250 psi @ 3.7 BPM. Rig down Howco.

Bleed gas off annulus and pump mud until well dead. Strip out of hole with drill pipe and liner hanger and lay down liner.

Change rams, pick up 6-3/4" Smith Tool Co. FDTL rerun bit, float sub, 4-3/4" drill collar, string float, N nipple, seven 4-3/4" drill collars, jars, three 4-3/4" drill collars, 1 jt 3-1/2" drill pipe, F nipple, and 2 jts 3-1/2" drill pipe; hang BHA in BOP.

Rig down Cudd Pressure Control.

TIH to bottom of 7-5/8" casing. Rig up swivel, wait on daylight to rig up stand pipe and kelly hose.

01-04-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Circulating and working pipe at TD with 7 BPM water.

Rig up and displace mud with water. Wash from 3585' MD (3067' TVD) to TD. Returns heavy coal and fines with 1" and less shale.

Circulate and work pipe at TD with 7 BPM water. Returns heavy coal and fines (50-60%) with 1" and less shale.

Have 50-60' flare.

01-05-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Circulating and working pipe at TD with 1 BPM water.

Circulate and work pipe at TD with 7 BPM water. Returns moderate to light coal fines (60-70%) with 3/4" and less shale.

Circulate and work pipe at TD with 7 BPM water reducing pump rate 1/2 BPM every 2 hours. Returns light coal fines (80-90%) with occasional 1/4" and less shale.



01-06-91 Circulating and working pipe at TD with .7 MM air.

Circulate and work pipe at TD with 1 BPM water. Shut pump off, let well flow naturally 1/2 hour. Returns light coal fines, clear water, and gas.

Pull into 7-5/8" casing (bit at 3463') for 1 hour pitot test #8: 1/4 hr - 60 psi, 6442 MCFD; 1/2 hr - 65 psi, 6532 MCFD; 3/4 hr - 70 psi, 7337 MCFD; 1 hr - 75 psi, 7785 MCFD (all gauges wet).

Shut well in for 15 minutes - had 1025 psi build up. Surge well. RIH, had .5' fill.

Circulate and work pipe at TD with .7 MM air and 1 BPM water. Returns light coal fines. No hole problems. Water production decreasing.

01-07-91 Circulating and working pipe at TD with 1.4 MM air and 3 BPM water.

Circulate and work pipe at TD with .7 MM air and 1 BPM water. Pull into 7-5/8" casing for pitot test #9: 1/4, 1/2, 3/4, and 1 hr - 75 psi, 7785 MCFD (all gauges wet).

Shut in for 15 minutes - well pressured up to 1025 psi. Surge well. RIH, had 5' fill.

Circulate and work pipe at TD with .7 MM air and 1 BPM water. Returns light coal fines.

Hole sloughed, stuck pipe. Increased pump rate, pump went down. Put #2 pump on hole with .7 MM air and 3 BPM water @ 600 psi. Returns heavy 1/4" and less coal (90%) in black water. Work pipe free after 12 hours. Had circulation throughout. Hole unloaded very heavy 1/4" and less coal (90%) in black water. Now circulating with 1.4 MM air and 3 BPM water.

01-08-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Finish RIH, 5' fill.

Circulate and work pipe at TD with 3 BPM water and 1.4 MM air. Returns heavy to moderate 1/4" and less coal (90%) with shale and siltstone in gray water.

Circulate and work pipe at TD with 3 BPM water with .7 MM air. Returns moderate to light 1/8" and less coal (90%) with shale and siltstone in gray water.

(Cont'd)

01-08-90 Circulate and work pipe at TD with .7 MM air and 5 Bbl water sweeps every 15 minutes. Returns light coal fines.

Circulate with 5 Bbl water sweeps and work pipe every 1/2 hour with .7 MM air. Returns light coal fines.

Pull into 7-5/8" casing (bit at 3463') for pitot test #10: 1/4 hr - 96 psi, 9664 MCFD; 1/2 hr - 98 psi, 9843 MCFD; 3/4 and 1 hr - 100 psi, 10022 MCFD (all gauges misty). RIH, 5' fill.

01-09-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Rigging up to run 5-1/2" liner.

Circulate and work pipe at TD with 3 BPM water and .7 MM air. Returns light coal fines.

Kill well with water.

Lay down 11 jts 3-1/2" drill pipe and hang off in tubing head. Pump across stack @ 400 psi. Rig up Cudd Pressure Control. Test upper rams to 2000 psig for 30 minutes - OK.

TOH with 3-1/2" drill pipe and 4-3/4" drill collars.

Change rams and slip. Rig up to run 5-1/2" liner.

01-10-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Laying down drill pipe and drill collars using Cudd Pressure Control.

Rig up and snub in 7 jts 5-1/2" 23# L-80 liner and strip in 111 jts 3-1/2" drill pipe. Rig up Halliburton and circulate at bottom of 7-5/8" casing. Tag bridge at 3550'; wash to bottom. Drop ball, set hanger using Halliburton. Observe well: liner hung, but not packed off. Release from liner. Pick up 20' and circulate 1 hour. Strap drill pipe back into liner - still in the same place.

Wait on water. Kill well. Circulate across stack with 200 psig. Strip out of hole and lay down 20 jts 3-1/2" drill pipe.

Change rams. RIH with drill collars and lay down same.

(Cont'd)

01-10-91 Liner detail: 5 jts full perf'd (8 HPF)  
2 jts full plain  
7 jts (291.07') 5-1/2" 23# L-80 LT&C (Kawasaki and USS)

Brown V-set shoe 3705.00' MD  
Brown hanger packer top 3408.22' MD  
Overlap 64.78'

Perfs: 3502.67-3702.00' MD  
2984.67-3184.00' TVD

01-11-91 7-5/8" casing at 3473' MD, 2955' TVD; open hole 3473-3705' MD, 2955-3187' TVD.

Landing donut in tubing head.

Change rams to 3-1/2", displace drill pipe with air. POOH, lay down drill pipe.

Change rams to 2-7/8". Rig up to snub tubing in hole. Pick up and run tubing.

Rig down Cudd. Pick up swivel. Lay down donut. Tag top of liner at 3408'. Mill perf plugs 3503-3700'. Lay down 2 jts tubing. Land donut with 116 jts.

Ran 116 jts (3648.90') 2-7/8" 6.5# J-55 FBNAU USS tubing, landed at 3667.26'. Top of F nipple (2.25" ID) at 3633.48' MD.

01-12-91 7-5/8" casing at 3473' MD, 2955' TVD; 5-1/2" liner 3408.22-3705' MD, 2890.22-3187' TVD. 2-7/8" tubing at 3667.26' MD, 3149.26' TVD. F nipple (2.25" ID) at 3633.48' MD, 3115.48' TVD.

Rig released.

Nipple down BOP and nipple up tree. Pump mill off with 2000 psig air. Flow well back.

Final gauge: 10022 MCFD, water TSTM.

Rig released at 4:00 p.m., 1-11-91.