Form 3160-5 \*(December 1989)

1. Type of Well: 2. Name of Opera 3. Address of Op

## UNITED STATES

DEPARTMENT	OF	THE	INT	TERIOR	
BUREA	U 0	F LA	ND I	MANAGEMENT	j

		: September			
<i>5</i> .	Lease	Designation	& Se	rial	#

FORM APPROVED

Budget Bureau No. 1004-0135

DUMUKI	MUTICES A	WIN KEL	JKTS UM	METT9	1
form for pro	oposals to dril	deepen or	reentry to a	different r	ecervair

Do not use this form Use "APPLICATION FOR PERMIT-" for such proposate -

		2:-0/9	OU			
6.	If	Indian,	ALL	ottee/1	ribe	Name

		J7.	If Unit or CA, Agmt. Design.:
	SUBMIT IN TRIPLICATED FAST METON, N.M.		
	il well gas well X other	1_	Northeast Blanco Unit
	Tt wett gas wett A other	8.	Well Name and No.:
tor:	Blackwood & Michols Co., A Limited Partnership	1	N.E.B.U.# 413R
erator:	P.O. Box 1237, Durango, CO 81302-1237	9.	API Well No.:
		4	

4. Location of Well: (Footage, Sec., T., R., M., or Survey Description) 30-039-24946 10. Field & Pool/Expltry Area:

350' FNL, 460' FEL - Section 20, T30N, R7W Basin Fruitland Coal 11. County or Parish, State:

		Rio Arriba, New Mexico
12. CHECK APPROPRI	ATE BOX(s) TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION	ТҮРЕ	OF ACTION
Notice of Intent	Abandonment Recompletion	Change of Plans New Construction
_XSubsequent Report	Plugging Back Casing Repair	Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	Altering Casing  X Other: COMPLETION	Conversion to Injection
	(Note: Report results or Recompletion Repor	of multiple completion on Well Completion t and Log form.)

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.



OIL CON. DIV

DIST.			3		
14. I hereby certify that the foregoing is true and of Signed: ROY U.	. WILLIAMS	Title:ADMINISTRATIVE MANAGER	Date: 1/3:///		
(This space for Federal or State office	use)	ACCEPTED	FOR RECORD		
Approved By	Title _	FPB**	<del>) 1 1991 -</del>		
		FARMINGTON BY 211-	RESOURCE AREA		

Completion Report

Northeast Blanco Unit No. 413R - Basin Fruitland Coal

LOCATION: 350' FNL, 460' FEL Section 20, T30N, R7W

Rio Arriba County, New Mexico

12-06-90 Nippling up BOPs.

Rig up.

12-07-90 7" casing at 2920'.

Drilling cement.

Rig up. Nipple up BOP and blooie lines. Pressure test 7" casing and blind rams to 2000 psi for 30 minutes - held OK.

Lay drill collars on catwalk, strap and caliper. Put drill pipe on rack and strap.

Pick up drill collars and drill pipe. Tag cement at 2868'.

Pressure test 3-1/2" pipe rams, HCR, and manifold to 2000 psi for 30 minutes - held OK.

Drill cement at 2905' with 14,000# WOB and 60 RPM @ 600 psi.

12-08-90 7" casing at 2920'; open hole 2920-3213'.

Circulating hole with 3 BPM water. Returns light 1/4" and less coal (95%) in clear water.

Drill cement and shoe at 2921' with 10,000# WOB and 60 RPM @ 800 psi. BHA = 6-1/4" Smith Tool Co. FDTL SN# KT9774 (jets: 20-20-20); bit sub; one 4-3/4" drill collar; F nipple (1.875" ID); ten 4-3/4" drill collars; 1 jt 3-1/2" drill pipe; and N nipple (2.25" ID).

(Cont'd)
12-08-90 Drill Fruitland formation 2921-3213'.

Coal Intervals: 2939-2940' 1' 2950-2951' 1' 1' 2952-2953' 2996-2997**'** 1' 2 ' 2998-3000' 3007-3008' 1' 3019-3021' 2 1 11' 1' 3076-3081' 3084-30951 3096-3097 3099-3104 5' 3123-3125' 2 1 3126-3131' 5 **'** 3133-3134' 1' 2 ' 3137-3139' 3154-3156' 2 ' 3157-3163' 6' 4 1 3165-3169' 3180-3186' 6 ' 59 **'** Total

Top Main P.C. - 3211'
Total Depth - 3213'

Circulate hole with 5 BPM water. Returns light 1/8" coal (95%) in clear water. Have 25' flare.

Circulate well with 3 BPM water. Returns light 1/8" coal (95%) in clear water.

12-09-90 7" casing at 2921'; open hole 2921-3213'.

Circulating and working pipe at TD with 1 MM air and 10 Bbl water sweeps hourly.

Circulate and work pipe at TD with 3 BPM water. Returns light 1/4" and less coal (95%) in clear water.

Pull to 7" and run pitot test #1: 1/4, 1/2, 3/4, and 1 hr - 50 psi, 5548 MCFD (mist). Shut in test: 1/4 hr - 200 psi; 1/2 hr - 940; 3/4 hr - 1150; 1 hr - 1200 psi. Surge well. TIH, no fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns on sweeps moderate then light 1/4" coal (95%) in black to clear water.

12-10-90 7" casing at 2921'; open hole 2921-3213'.

Circulating and working pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 25 Bbl water sweeps hourly.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Lay down 10 jts drill pipe, surge well with 1200 psi. TIH, had 1' fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns on sweeps light 1/16" and less coal (95%) in clear water. Lay down 10 jts drill pipe. Surge well twice with 1200 psi. TIH, had 4' fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water alternating 15 and 25 Bbl water sweeps hourly. Returns on sweeps moderate then light 1/4" and less coal (98%) in clear water.

12-11-90 7" casing at 2920'; open hole 2920-3213'.

Circulating and working pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly.

Lay down 10 jts drill pipe, run pitot test #2: 1/4 hr - 70 psi, 7337 MCFD; 1/2 hr - 80 psi, 8232; 3/4 and 1 hr - 85 psi, 8680 MCFD (all gauges heavy mist). Surge well twice with 1200 psi air. TIH, had 1' fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 25 Bbl water sweeps hourly. Returns on sweeps moderate to light 1/16" and less coal (95%) in clear water; no coal between sweeps.

Lay down 10 jts drill pipe, surge well twice with 1200 psi air. TIH, had 1' fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water alternating 15 and 25 Bbl water sweeps hourly. Returns on sweeps 1/16" and less coal (85%) in clear water.

Estimated 400 BPD water.

12-12-90 7" casing at 2920'; open hole 2920-3213'.

Circulate and work pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 25 Bbl sweeps hourly.

(Cont'd) 12-12-90

Lay down 10 jts drill pipe. Run pitot test #3 through 2" line: 1/4 hr - 90 psi, 9127 MCFD; 1/2, 3/4, and 1 hr - 95 psi, 9575 MCFD (all gauges wet). Surge well with 1200 psi air twice. TIH, had 30' fill.

Circulate to bottom and work pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly. Returns on sweeps heavy to moderate 1/4" and less coal (98%), shale and siltstone in gray water.

Returns on sweeps light 1/16" and less coal (98%) in clear water. Lay down 10 jts. Surge well with 1200 psi air twice. TIH, had 1' fill.

Circulate and work pipe at TD with 1 MM air and 1 BPM water, alternating 15 and 25 Bbl water sweeps hourly. Returns on sweeps moderate to light 1/16" and less coal (98%), shale and siltstone in clear water.

12-13-90 7" casing at 2920'; open hole 2920-3213'.

Circulating and blowing well with 1 MM air and 1 BPM water, with 10-20 Bbl water sweeps hourly. Returns light 1/8" coal (98%), shale and siltstone in clear water.

Lay down 10 jts drill pipe for pitot test #4: 1/4, 1/2, 3/4, and 1 hr - 80 psi, 8232 MCFD (all gauges light mist). Pressure up to 1200 psi and surge well twice. TIH, no fill.

Circulate and work pipe with 1 MM air and 1 BPM water with 15-25 Bbl water sweeps hourly. Returns on sweeps, moderate to light 1/4" and smaller coal (98%), shale and siltstone in black to gray water.

Lay down 10 jts. Surge well with 1200 psi twice. TIH, had 3' fill.

Circulate and blow well with 1 MM air an 1 BPM water with 10 Bbl water sweeps. Returns light 1/8" coal (98%), shale and siltstone in clear water; otherwise light to moderate 1/4" and less coal.

12-14-90 7" casing at 2920'; open hole 2920-3213'.

Circulating and working pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns light 1/8" coal (98%) in gray water.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns light 1/8" coal (98%) in clear water.

(Cont'd)

12-14-90 Lay down 10 jts drill pipe. Pressure up wellbore to 1600 psi with water and air. Surge well. TIH, had 6' fill.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns light 1/8" and less coal (98%) in clear water.

Lay down 10 jts drill pipe, shut well in. Pressure up on well to 1500 psi with air and water. Surge well, repeat twice more. TIH, had 15' fill. Hole fell in making heavy 1/2" and less coal; hole was tight and sticky.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns heavy to moderate 1/8" and less coal (98%) in black to gray water.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns moderate 1/8" and less coal (98%) in gray water. Moderate to heavy coal on sweeps; hole is tight and sticky on sweeps.

12-15-90 7" casing at 2920'; open hole 2920-3213'.

Circulating and working pipe at TD with 3 MM air and 1 BPM water.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns moderate 1/8" and less coal (98%) in gray water.

Lay down 10 jts drill pipe for pitot test #5: 1/4, 1/2, 3/4, and 1 hr - 105 psi, 10469 MCFD (all gauges light mist). One hour shut in was 1200 psi. Surge well. TIH.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns light 1/16" to powder coal (98%) in gray water.

Lay down 10 jts drill pipe, shut well in. Build pressure to 1500 psi with air and water. Surge well and repeat twice. TIH, had 15' fill. Returns heavy 1/4" and less coal (98%) in black water.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns moderate 1/4" and less coal (98%) in black water with heavy coal on sweeps.

Making up liner hanger on 1 jt drill pipe. 12-16-90

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 15-20 Bbl water sweeps hourly. Returns light 1/16" coal (99%) in clear water. Load hole with water holding 250 psi at surface.

Pull 25 stands, nipple down stripper head.

Rig up Cudd Pressure Control. Strip out of hole with drill pipe and drill collars. change rams, rig up to run 5-1/2" liner.

Picking up 2-7/8" tubing. 12-17-90

Pick up 5-1/2" casing, make up guide shoe.

Pick up and run 10 jts 23# L-80 5-1/2" liner.

Pick up swivel, load pipe with water and circulate to TD (3213'). Pick up 1', hang liner at 3212'. Had 27' fill on bottom. Top of liner at 2837.1'; perfs (8 HPF) 2927-2967', 2986-3045', and 3084-3202'.

Lay down 2 jts drill pipe, nipple down Cudd Pressure Control. Rig up to lay down drill pipe.

Lay down drill pipe, run drill collars in hole and lay

Rig up to run 2-7/8" tubing. Change rams, run 2-7/8" down same.

7" casing at 2920'; 5-1/2" liner 2837-3212'. 12-18-90

Waiting on trucks and/or weather.

Pick up tubing, tag liner at 2837'. Pick up swivel and rotate through liner top.

Mill perfs and flow well through manifold. Mill perfs to 3210'. Blow well and Tag perf plugs at 2927'. let clean up. Pitot test: 108 psi, 10813 MCFD.

Lay down 2 jts. Land tubing at 3159.87' with F nipple at 3128.37'. Nipple down stack and nipple up wellhead.

Drop ball. Blow expendable check with mill. Use 700 psi to blow check. Blow well to clean up tubing. Shut well in.

(Cont'd)
12-18-90 Rig down and break down stack and related Blackwood & Nichols equipment. Release rig at 6:00 a.m., 12-18-90.