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State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL COMPLETION OR RECOMPLETION AND LOG *

1a. Type of Well: oil well ☐ gas well ☐ dry ☐ other: SUD
b. Type of Completion: new well ☒ work over ☐ deepen ☐
plug back ☐ diff. resvr. ☐ other ☐

2. Name of Operator: **Blackwood & Nichols Co., Ltd.**

3. Address of Operator: **P.O. Box 1237, Durango, CO 81302**

4. Well Location: Unit Letter: **G** : **1650** Feet From The **North** Line and **1480** Feet From The **East** Line
Section: **32** Township: **31N** Range: **7W** NMPM **San Juan** County

10. Date Spudded: **11-12-89** 11. Date TD Reached: **12-22-89** 12. Date Compl. (ready to produce): **01-23-90** 13. Elev. (DF, RKB, RT, GR, Etc)* **6370' GL** 14. Elev. Csgd. **0000'**

15. Total Depth: **9050'** 16. Plug Back TD: **8990'** 17. If Mult. Comp.: How Many Zones? **3** 18. Intervals Drilled By: **Rotary Tools TD** Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name: **No producing zones; Salt water disposal well.** 20. Was Directional Survey Made? **YES**

21. Type Electric and Other Logs Run: **GR, CCL, CBL, Induction, Neutron Density, SP, Gamma Ray** 22. Was Well Cored? **NO**

23. CASING RECORD (Report all strings set in well)

Casing Size	Weight, LB/FT	Depth Set	Hole Size	Cementing Record	Amount Pulled
20.00"	94# H-40	308'	17.50"	See Attached 663 yd	8 Bbls Circ. Cement
13.375"	68#/61# K-55	3622'		317 yd	
9.625"					37 Bbls Circ. Cement
7.000"	26# S-95	9644'		1625 yd	

24. LINER RECORD

Size	Top	Bottom	Sacks Cement	Screen	Size	Depth Set	Packer Set
9.625"	3590'	5783'	326 None	N/A	3.50"	7982'	7982'

26. Perforation Record (Interval, size and number):

See Attached

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DIST. 3

27. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

Depth Interval Amount and Kind of Material Used
See Attached See Attached

28. PRODUCTION

Date First Production: **Never** Production Method (Flowing, gas lift, pumping-size and type of pump): **Injection Well.** Well Status (shut-in): **Injection**

Date of Test: N/A	Hours Tested: N/A	Choke Size: N/A	Prod'n For Test Period: N/A	Oil-Bbl N/A	Gas-MCF N/A	Water-Bbl N/A	Gas-Oil Ratio N/A
Flow. Tubing Press: N/A	Casing Pressure: N/A	Calculated 24 HR Rate: N/A	Oil-Bbl N/A	Gas-MCF N/A	Water-Bbl N/A	Oil Gravity-API N/A	

29. Disposition of Gas (Sold, used for fuel, vented, etc): Test Witnessed By:

30. List of Attachments: **Perforation Records, Stimulation, Cementing Records**

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

Signed:

William F. Clark

WILLIAM F. CLARK

Title: **OPERATIONS MANAGER**

Date:

11 April 90

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southwestern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canton . . .	T. Ojo Alamo	T. Penn B
T. Salt	T. Strawn . . .	T. Kirtland-Fruitland	T. Penn C
B. Salt	T. Atoka . . .	T. Pictured Cliffs	T. Penn D
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian . .	T. Menefee	T. Madison
T. Queen	T. Silurian . .	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya . .	T. Mancos	T. McCracken
T. San Andres	T. Simpson . .	T. Gallup	T. Ignacio Otzte . .
T. Glorieta	T. McKee . . .	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash . .	T. Morrison	T.
T. Tubb	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo	T.	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C) .	T.	T. Penn A	T.

OIL OR GAS SANDS OR ZONES

No. 1, fromto..... No. 3, fromto.....
 No. 2, fromto..... No. 4, fromto.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, fromto..... feet
 No. 2, fromto..... feet
 No. 3, fromto..... feet

LITHOLOGY RECORD(Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness in Feet	Lithology
2215'	2320'	Ojo Alamo	Sand stone, Siltstone, Shale			300'	San Jose
						1232'	Animas
						2215'	Ojo Alamo
						2320'	Kirtland
						2980'	Fruitland
2980'	3270'	Fruitland	Coal, Shale, Sand stone, Siltstone			3270'	Pictured Cliffs
						3405'	Lewis
						4880'	Cliff House
						5270'	Menefee
						5520'	Point Lookout
3270'	3405'	Pictured Cliffs	Sanstone			5940'	Mancos
						7438'	Dakota
						7860'	Burro Canyon
4880'	5940'	Mesa Verde	Sandstone, Shale, Coal			7962'	Morrison
						8505'	Bluff
						8735'	Todilto
						8777'	Entrada
7438'	7860'	Dakota	Sand stone, Siltstone			NO DRILL STEM TEST.	
7962'	8505'	Morrison	Sandstone				
8505'	8735'	Bluff	Sandstone				
8777'		Entrada	Sandstone				

Well Completion Log Detail

Cementing Record

20.0"	663 cf of Class B
13.375"	2943 cf of Class B POX MIX
9.625"	326 cf of Class B Neat
7.0"	None

Perforation Record:

Entrada: 0.38" holes at: 8786', 8790', 9794', 8806', 8810', 8814',
1-07-90 8818', 8822', 8826', 8830', 8846', 8859', 8870', 8879',
8887', 8899'.

Bluff: 0.42" hole at: 8514', 8518', 8522', 8526', 8530', 8534',
1-12-90 8538', 8545', 8550', 8554', 8558', 8562', 8568', 8572',
8576', 8580', 8592', 8596', 8600', 8604', 8608', 8612',
8616', 8620', 8627', 8634'.

Lower Morrison: 0.42" holes at: 8300', 8304', 8307', 8344', 8348', 8352',
1-16-90 8356', 8360', 8410', 8413', 8417', 8421', 8437', 8440',
8444', 8452', 8456', 8460'.

Upper Morrison: 0.42" holes at: 8064', 8068', 8072', 8076', 8080', 8084',
8099', 8103', 8107', 8111', 8211', 8215', 8223', 8235',
8256', 8260'.

Stimulation:

Entrada: Acid break down of Entrada perforations from 8786' to
1-08-90 8899'. Pump 2 Bbls water the 500 gal. (12 Bbls) 7-1/2%
HCl at 3 BPM at 0 psig. The pumped 86 Bbls of water as
flush. Break down formation with 3450 psig at 1 BPM,
before acid on perfs - 2000 psig at 2.5 BPM, after acid on
perf -1000 psig at 3 BPM.

Entrada: Treatment summary: pumped a total of 85,848 gal. 40# gel
1-10-90 and 29,106 gal. of slickwater and 100,500# of 20/40 mesh
sand. Average treatment: 33.3 Bbls @ 2900 psi. ISIP =
1000 psi. 15 minute shut in - 800 psig. Job complete at
1:30 a.m., 1-10-90. Shut in 6 hours for gel to break.

Bluff: Acidize Bluff formation perfs from 8514' to 8634'. Break
1-13-90 down formation with 2200 psi; establish rate of 20 BPM at
5000 psig, pump 1500 gal. 7-1/2% HCl and 45 1.3 s.g. RCN
ball sealers. Acid on formation at 7 BPM @ 2200 psig;
good ball action. Pressure up quickly to 6400psig.
Pressure climbed up to 5970 psi. Surge pressure again,
pressure stabilized at 5600 psi. Surge balls off, pump
acid away @ 1400 psi. and 5 BPM. ISIP = 1400, bled down
to 0 in 15 minutes. Rig down Smith Energy.

Bluff-1: Treatment summary: pumped a total of 113,00 gal. of 40#
1-13-90 gel, 157,000# 20/40 Brady sand; 35,000 gal. 40# linear gel
pad, 13,692 gal. slickwater, 1%. Average treatment psi
2600, rate 58 BPM; ISIP - 1790. 5 minutes - 1750; 10
minutes - 1610. Shut in 4 hours for gel to break. The
hydraulics on the blender went out, had to cut job short by
100,000# sand. Job complete at 6:00 a.m., 1-13-90.

Bluff-2: Treatment summary: 63,589 gals of 40# linear gel,
1-14-90 140,000# 20/40 Brady sand, 20,000 gals 1% KCl water.
Average treatment - 59 BPM at 2850 psig. ISIP - 2200
psig, 15 minute shut in - 2000. Job completed 12:00 noon
1-14-90. Shut well in form 6 hrs for gel to break; 1100
psig.

Lower Morrison: Acidize and frac the Lower Morrison perforations fro 8300'
1-17-90 to 8460'. Establish injection rate of 36 Bbls at 4600
psi. Break down pressure at 3200 psi. Acidize with 1500
gal. of 7-1/2% HCl and 30 1.3 s.g. 7/8" RCN ball sealers.
Pump acid at 9 BPM. Increase to 19 BPM at end of
flush. Fair ball action. Pressure up to 5000 psi. Bleed
off slowly. Surge ball sealers off perforations. Bleed
off pressure.

Lower Morrison Treatment summary: pumped a total of 88,000 gal. of 40#
1-16-90 gel and 3100 gal. 1% KCl water as flush. Did not complete
flush. 100,000# 20/40 sand. Calculated sand in formation
76,000#. Average treatment: 3300 psi @ 38 BPM. ISIP +
N/A. Screened out, 15 minutes @ 2000 psi. Screen off at
5400 psi. Unable to pump schedule, short 13,310 ga. gel
and 79,000# 20/40 sand. Job complete at 11:55 a.m. on 1-
16-90.

Upper Morrison: Acidize the Upper Morrison with 1500 ga. of 7-1/2% HCl NS
1-18-90 32 RCN 1.3 S.G. Ball Sealers. No break-down pressure,
establish rate of 20 BPM @ 5400 psig then pump acid and
balls at 8 BPM @ 3000 psig. Flush at 10 BPM @ 3600 psig;
good ball action. Ball off at 5400 psig.

Upper Morrison Job summary: All water is from Navajo Lake, 1% KCl added.
1-18-90 Pumped a total of 17,100 gal. of slickwater, 15,000 gal.
40# linear gel pad, 68,000 gal. 40# linear gel frac fluid,
and 6,972 gal. slickwater flush. 135,300 # 20/40 mesh
sand. Average treating pressure 3500 psi @ 38 BPM.
Screened formation off leaving 21,000# 20/40 sand in pipe
and 5,988 gal. flush. No ISIP. 15 minutes - 3800 psig.
Shut in well for 4 hours for gel to break. Job complete
1:42 p.m., 1-18-90.