In Lieu of
Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
8920009460 / NM-03189

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
COX CANYON #5

2. Name of Operator
NORTHWEST PIPELINE CORP.

9. API Well No.
30-045-11326

3. Address and Telephone No.
P. O. BOX 58900 MS 10317 SALT LAKE CITY, UTAH 84158-0900 (801)584-6981

10. Field and Pool, or Exploratory Area
BLANCO MESAVERDE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1800 FSL & 1720' FWL SEC. 21, T-32N, R11W

11. County or Parish, State
SAN JUAN COUNTY, NM.

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
	☒ Recompletion	☐ New Construction
☐ Subsequent Report	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
☐ Final Abandonment	☐ Altering Casing	☐ Conversion to Injection
	☐ Other _____	☐ Dispose Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report 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.)*

Proposed start date: July 1, 1994.

It is proposed to recomplete this in the Cliff House and Menefee members of the Mesaverde formation.

See attached procedure for details.

RECEIVED
JUN 13 1994
OIL CON. DIV.
DIST. 3

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

Signed KATHY BARNEY Title SR. OFFICE ASSISTANT Date 06/02/94

(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 of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side.

APPROVED
JUN 08 1994
AREA MANAGER

NMOCD

5-31-94

WILLIAMS PRODUCTION COMPANY
RECOMPLETION PROGNOSIS
COX CANYON UNIT #5

1. Spot and fill 9 - 400 bbl tanks with 1% KCl water. Filter water to 25 microns.

2. MIRUSU. Nipple up BOP, stripping head, blooie line, working valves and 2" relief line. Test BOP.

3. TIH w/ 4-1/4" bit on 2-3/8" tubing and clean out to PBTD @ 6021'. TOH.

4. Set drillable BP at 5840'. Load hole with 1% KCl water.

5. Pressure test BP and casing seperately to 1500 psi. Then slowly increase to 2000 psi and hold for 15 minutes.Then slowly increase to 2500 psi and hold for 15 minutes.

6. On wireline run CBL and GR/CCL in 5" casing from 5840'-5000' and cased hole neutron or Blue Jet PND-S log from 5840'-4800'.

* **The following perf depths, number of perfs and frac sizes are estimates. Actual numbers will be based on cased hole logs and engineering review.**

7. TIH w/ 2-3/8" tubing and spot 500 gals 7-1/2% HCl acid across Menefee. Estimated depth of perforations from 5822'-5530'. Acid to contain 1 gal/1000 gals surfactant, iron control and corrosion inhibitor (24 hr inhibition at 150°F). TOH.

8. Using Lane Wells log of 1-12-56 and above cased hole neutron log to correlate perforate the Menefee formation in 5" casing w/ 25 - 0.32" holes using a 3-1/8" select fire casing gun from top down at the following depths; 5528, 5529, 5556, 5560, 5564. 5568, 5572, 5600, 5604, 5616, 5649, 5680, 5714, 5718, 5722, 5726, 5730, 5734, 5764, 5768, 5772, 5776, 5814, 5818, 5822.

9. Breakdown and attempt to balloff the Point Lookout down casing w/ 1300 gals 15% HCl acid and 50 - 7/8" 1.3 specific gravity RCN perf balls. Maximum pressure = 2500 psi.
Acid to contain 1 gal/1000 gals surfactant, iron control and inhibitor (24 hour inhibition at 150°F).

10. RIH w/ wireline junk basket and recover frac balls.

11. Rig up pump trucks and fracture stimulate the Menefee formation with 100,000# 20/40 Brady sand in 106,666 gals water at 50 BPM injection rate down casing as follows. DO NOT OVER FLUSH.

STAGE	FLUID (gals)	SAND (lbs)
Pad	25,000 gals	-
0.5 ppg	20,000 gals	10,000# sand
1.0 ppg	20,000 gals	20,000# sand
1.5 ppg	26,666 gals	40,000# sand
2.0 ppg	15,000 gals	30,000# sand
Flush	(4,666 gals)	-
	106,666 gals	100,000 # 20/40 Brady sd
	(111,332 gals total)	

Required amount of usable water = 2,651 bbls (111,332 gals), 8-400 bbl tanks. Maximum injection rate = 50 BPM. Maximum STP =2500 psi.

Anticipated max STP = 2,500 psi. Anticipated injection rate = 50 BPM. Estimated ISIP = 400 psi.

All frac fluid to contain 0.5 gal/1000 gals FR-30 friction reducer and 1 gal/1000 gals surfactant (Aquaflow).

12. On wireline set retrievable bridge plug at ±5505'. Drop sand on top of RBP. Pessure test BP and casing to 2000 psi then to 2500 psi.

13. TIH w/ 2-3/8" tubing to 5476' and spot 500 gals 7-1/2% HCl acid across Cliff House perforations estimated at 5218'-5476'). Acid to contain 1 gal/1000 gals surfactant, iron control, and corrosion inhibitor (24 hr inhibition at 150°F). TOH.

14. Using Lane Wells logs of 1-12-56 and cased hole neutron logs to correlate perforate the Cliff House formation in 5" casing w/ 27 - 0.32" holes using a 3-1/8" select fire casing gun from top down at the following depths; 5218, 5240, 5243, 5246, 5262, 5311, 5321, 5338, 5340, 5371, 5384, 5393, 5406, 5411, 5416, 5421, 5426, 5431, 5436, 5441, 5446, 5451, 5456, 5461, 5466, 5471, 5476,

15. Breakdown and attempt to balloff the Cliff House down casing w/ 1300 gals 15% HCl acid and 54 - 7/8" 1.3 specific gravity RCN perf balls.
Maximum pressure = 2500 psi.
Acid to contain 1 gal/1000 gals surfactant, iron control and inhibitor (24 hour inhibition at 150°F).

16. RIH w/ wireline junk basket and recover frac balls.

17. Rig up pump trucks and fracture stimulate the Cliff House formation with 100,000# 20/40 Brady sand in 106,666 gals water at 54 BPM injection rate down casing as follows. DO NOT OVERFLUSH.

STAGE	FLUID (gals)	SAND (lbs)
Pad	25,000 gals	-
0.5 ppg	20,000 gals	10,000# sand
1.0 ppg	20,000 gals	20,000# sand
1.5 ppg	26,666 gals	40,000# sand
2.0 ppg	15,000 gals	30,000# sand
Flush	(4,666 gals)	-
	106,666 gals	100,000 # 20/40 Brady sd
	(111,332 gals total)	

Required amount of usable water = 2,651 bbls (111,332 gals), 8-400 bbl tanks. Maximum injection rate = 54 BPM. Maximum STP =2500 psi.
Anticipated max STP = 2,000 psi. Anticipated injection rate = 54 BPM.

Estimated ISIP = 0

All frac fluid to contain 0.5 gal/1000 gals FR-30 friction reducer and 1 gal/1000 gals surfactant (Aquaflow).

18. Shut well in for 1 hour. TIH w/ tubing, and notched collar and cleanout sand and frac balls to RBP w/ gas. Obtain pitot tube gauge when possible. TOH. TIH with 2-3/8" tubing and retrieving head and retrieve RBP. TIH w/ tubing and mill. Clean out sand to lower BP. Obtain pitot tube gauge when possible. Drill out BP and push to PBTD. Obtain pitot tube gauge when possible.

19. TIH w/ 2-3/8", J-55, 4.7#, 8rd, EUE tubing w/ notched collar on bottom and SN 1 joint up. Clean out to PBTD. Land tubing at ±5989'. Pump out plug if used and reverse circulate clean. Obtain pitot tube gauge.

20. ND BOP and NU wellhead. Shut well in for buildup.

21. Cleanup location and release rig.

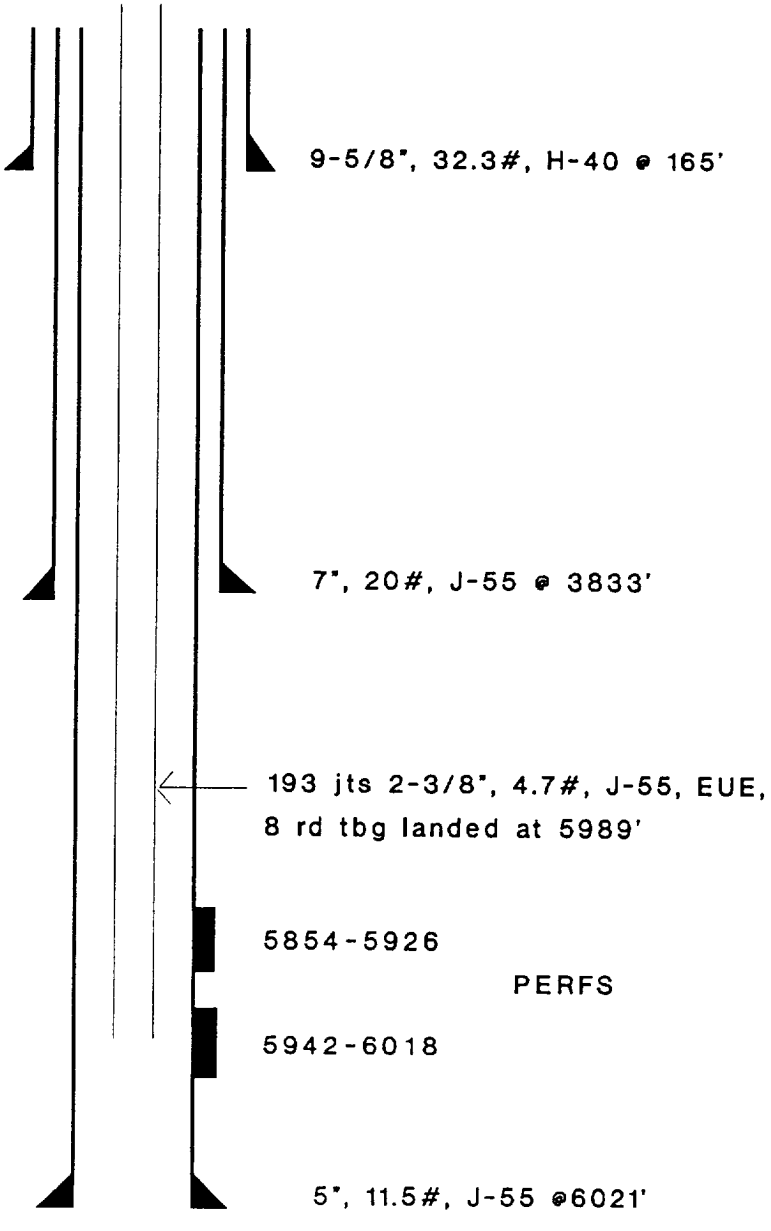
Stergie Katirgis

Stergie Katirgis
Sr. Engineer

WELLBORE DIAGRAM

COX CANYON UNIT #5

1800'FSL & 1720'FWL
21 31N 11W
LaPlata County, CO
Elevation: 6872' GR



Ojo Alamo	2357
Kirtland	2552
Fruitland	3153
Pictured Cliffs	3570
Lewis	3767
Cliff House	5400
Menefee	5481
Point Lookout	5852

PBTD=6021'

PERTINENT DATA SHEET

WELLNAME: Cox Canyon Unit #5 FIELD: Blanco Mesaverde

LOCATION: 1800'FSL,1720'FWL,Section 21,T32N,R11W ELEVATION:6872' GR TD: 6030'
13' KB PBTD: 6021'

COUNTY: San Juan STATE: New Mexico

DATE COMPLETED: 1-24-56 ID DATE:

CASING TYPE	CASING SIZE	HOLE SIZE	WEIGHT & GRADE	DEPTH	CEMENT	TOP
Surface	9-5/8"		32.3#, H-40	165'	125 sx	surface (calc)
Intermediate	7"	8-4/4"	20#,J-55	3833'	100 sx	3200' (TS)
Production	5"	6-1/4"	11.5#,J-55	6021'	150 sx	5108 (calc)

TUBING EQUIPMENT
193 jts., 2-3/8#, 4.7#, J-55, EUE, 8RD tubing landed @ 5989' KB.

WELLHEAD: Casing Head - 10" 600 OCT C-20 Spool - 10" 600 x 10" 600 OCT
Tubing Head - 10" 600 x 6" 600 OCT T-16 Bonnet - 6" 900 OCT

FORMATION TOPS:

Ojo Alamo	2357'	Cliff House	5400'
Kirtland	2552	Menefee	5481'
Fruitland	3153'	Point Lookout	5852'
Pictured Cliffs	3570'		
Lewis	3767'		
Cliff House Transition	5100'		

LOGGING RECORD: Electric, Radioactivity

PERFORATIONS: & STIMULATION: 6018-14, 6010-04, 6000-5992, 5964-58, 5956-52, 5948-42. Frac w/ 105,000 gals water; no sd
5926-5900, 5896-86, 5882-68, 5864-54. Frac w/ 50,400 gals water. No sd.

PRODUCTION HISTORY: IP Test = 12,381 MCFD. Cumulative = 3257 MMCF.
Current production = 227 MCFD (1993 average).