

In Ltr of
Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

(See other
instructions on
reverse side)

Side TK w/o

5. LEASE DESIGNATION AND
LEASE NO. **NM-010909**

6. IF INDIAN, ALLOTTEE OR

7. UNIT AGREEMENT NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER
b. TYPE OF COMPLETION:
NEW WELL WORKOVER DEEPEN PLUG BACK DIFF. RESVR. OTHER RECOMPLETION

2. NAME OF OPERATOR
NORTHWEST PIPELINE CORPORATION

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 58900 MS 2M3 SALT LAKE CITY, UTAH 84158-0900 (801) 584-6981

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
950' FSL & 1600' FEL
At Surface
At top production interval reported below
At total depth

RECEIVED
NOV 4 1994
OIL CON. DIV.
DIST. 3

8. FARM OR LEASE NAME, WELL NO.
NM 32-11 COM #1

9. API WELL NO.
30-045-11309

10. FIELD AND POOL, OR WILDCAT
BLANCO MESAVERDE 72319

11. SEC., T., R., M., OR BLOCK AND
SURVEY OR AREA
SW/4 SE/4 SEC. 20, T32N R11W

12. COUNTY OR PARISH
SAN JUAN 13. STATE
NEW MEXICO

15. DATE SPUDDED
01/26/53 16. DATE T.D. REACHED
09/13/94 17. DATE COMPLETED
(READY TO PRODUCE)
10/05/94

14. PERMIT NO. DATE ISSUED
18. ELEVATIONS (DK, RKB, RT, GR, ETC.)*
6694' GR

19. ELEVATION CASINGHEAD
6694'

20. TOTAL DEPTH, MD & TVD
6008'

21. PLUG, BACK T.D., MD & TVD

22. IF MULTICOMP., HOW MANY

23. INTERVALS DRILLED BY
----->>>>>>>

ROTARY TOOLS
X

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
BLANCO MESAVERDE TO

25. WAS DIRECTIONAL SURVEY MADE
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN
CASED HOLE: GR/CCL/CBL OPEN HOLE: GR/IES/CDL/SNL

27. WAS WELL CORED
NO

28. CASING REPORT (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD			AMOUNT PULLED
10-3/4" H-40	32.75#	527'	13-3/4"	175 SX	207 cu.ft.	315' (CALC)	
7" J-55	23#	5006'	8-3/4"	300 SX	447 cu.ft.	3306' (CALC)	
4-1/2"	10.5#	6008'	6-1/4"	435 SX	801 cu.ft.	432 (CBL)	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8" 4.7#	5932'	

31. PERFORMANCE RECORD (Interval, size, and number)

STAGE 1:
5608', 40', 44', 51', 57', 63', 77', 81', 85', 89', 93', 97', 5701', 05', 09', 13', 17', 45', 47', 71', 73', 89', 5805',
08', 53', 70', 90', 5925', 5930', 5950'. TOTAL OF 30 .32" DIA HOLES.
STAGE 2: 5314', 64', 82', 85', 5423', 27', 73', 77', 94', 99', 5504', 09', 16', 21', 31', 45', 49', 54', 58', 65'.
TOTAL OF 20 .32" DIA HOLES.
STAGE 3:
4890', 95', 4937', 85', 88', 5011', 25', 33', 77', 5124', 28', 32', 36', 40', 61', 84', 95', 5202',
09', 13', 18', 23', 28', 32', 38', 43', 52', 55', 66', 70'.
TOTAL OF 31 .32" HOLES

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

DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
5608'	5950'	131,000# 20/40 BRADY SAND	131,628 GALS SLICK WATER W/ 1% KCL
5314'	5565'	95,000# 20/40 BRADY SAND	107,058 GALS SLICK WATER W/ 1% KCL
4890'	5270'	134,000# 20/40 BRADY SAND	132,090 GALS SLICK WATER W/ 1% KCL

33. PRODUCTION

DATE OF FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump) FLOWING				WELL STATUS (PRODUCING OR SHUT IN) SHUT IN	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N FOR TEST PERIOD----->>>>>>	OIL - BBL.	GAS - MCF	WATER - BBL.	GAS-OIL RATIO
10/3/94	1 HR PITOT	2"		0	142	0	N/A
FLOW TUBING PRESS	CASING PRESSURE	CALCULATED 24-HOUR RATE----->>>>		OIL - BBL.	GAS - MCF	WATER - BBL.	OIL GRAVITY-API
N/A	N/A			0	3400		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
TO BE SOLD

TEST WITNESSED BY
CHARLIE BOYLES

35. LIST OF ATTACHMENTS: **LOGS, SUMMARY OF POROUS ZONES & WELLBORE DIAGRAM.**

36. I hereby certify that the foregoing and attached information is complete and correct as determined from
SIGNED **STERG KATIRGIS** *SKK* TITLE **SR. ENGINEER** DATE **NOV 20 1994**

*(See Instructions and Spaces for Additional Data on Reverse Side)
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.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP		
					NAME	MEASURED DEPTH	TRUE VERTICAL DEPTH
<u>NACIMIENTO</u>	<u>SURFACE</u>						
0 JO ALAMO	2000'	2660'					
KIRTLAND	2660'	2950'					
FRUITLAND	2950'	3334'					
PICTURED CLIFFS	3334'	3460'					
LEWIS	3460'	4974'					
CLIFF HOUSE	4974'	5274'					
MENEFEE	5274'	5670'					
POINT LOOKOUT	5670'	5950'					
MANCOS	5950'	N/A					
TD	6008'						

WELLBORE DIAGRAM NEW MEXICO 32-11 COM #1

SIDETRACK

LOCATION: 990'FSL, 1650'FEL
SW/4 SE/4 SEC. 20, T32N, R11W
SAN JUAN Co., NM

TOPS:

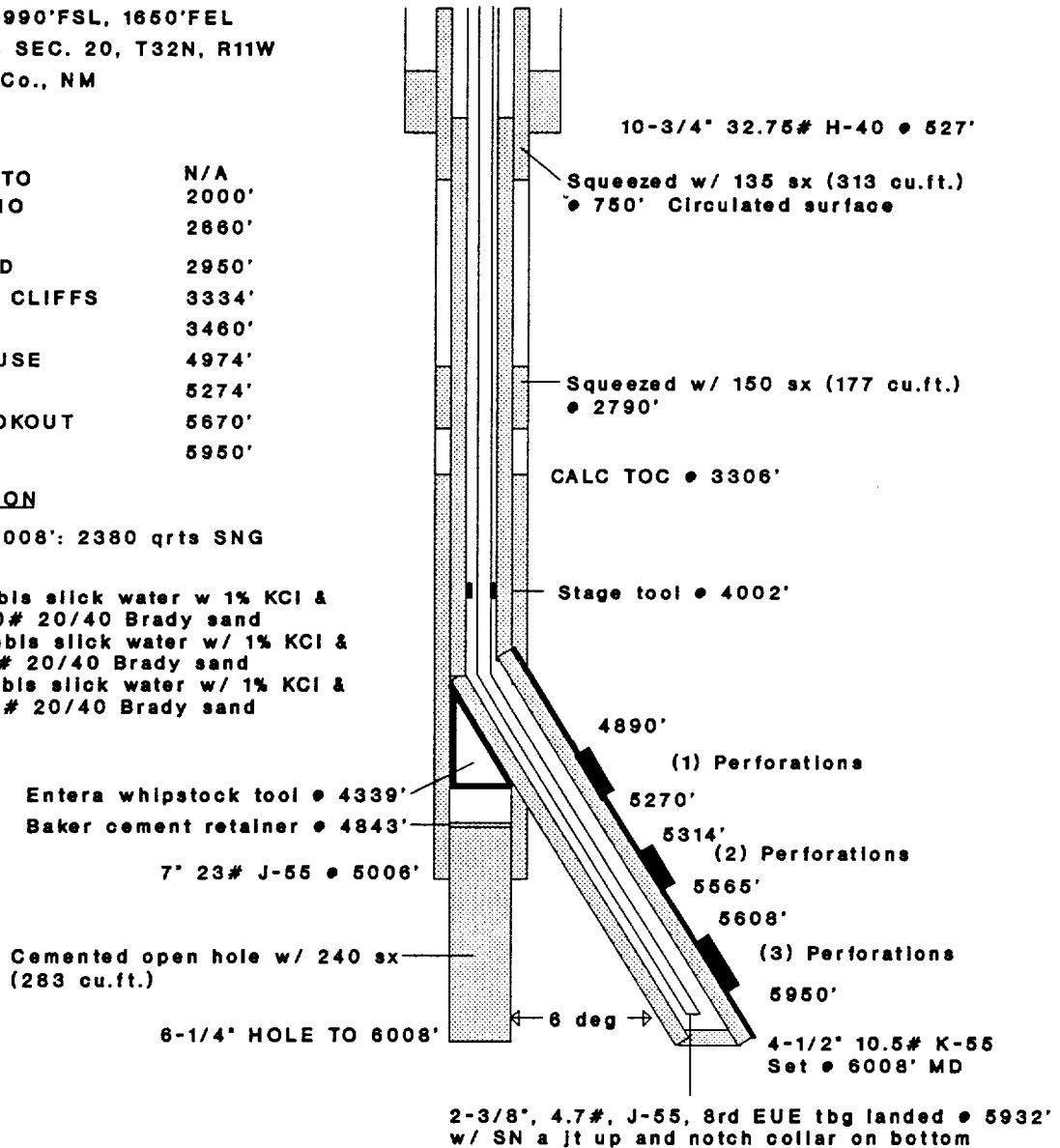
NACIMIENTO	N/A
OJO ALAMO	2000'
KIRTLAND	2660'
FRUITLAND	2950'
PICTURED CLIFFS	3334'
LEWIS	3460'
CLIFF HOUSE	4974'
MENEFEE	5274'
POINT LOOKOUT	5670'
MANCOS	5950'

STIMULATION

5060' to 6008': 2380 qrts SNG

FRAC DATA

- (1) 3145 bbbls slick water w/ 1% KCl & 134,000# 20/40 Brady sand
- (2) 2549 bbbls slick water w/ 1% KCl & 95,000# 20/40 Brady sand
- (3) 3134 bbbls slick water w/ 1% KCl & 131,000# 20/40 Brady sand



HOLE SIZE	CASING	CEMENT	VOLUME	TOP OF CMT
13-3/4"	10-3/4" 32.75#	175 SX	207 CU.FT.	315' (calc)
8-3/4"	7" 23#	300 SX	447 CU.FT.	3306' (calc)
6-1/4"	OPEN HOLE	240 SX	283 CU.FT	4843'(RET)
6-1/4"	10.5# K-55	435 SX	801 CU.FT	432' (calc)

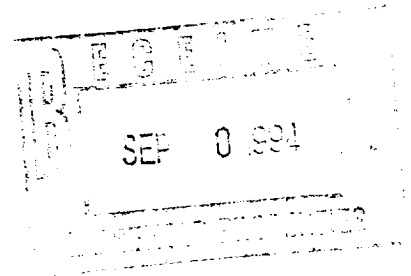
FOUR CORNERS DRILLING CO.

P. O. BOX 1067
5651 U.S. HWY. 64
FARMINGTON, NEW MEXICO 87499

TELEPHONE: (505) 326-3371
FAX: (505) 326-3370

WMAK

September 26, 1994



Williams Production
Mr. Mark McAllister
295 Chipeta Way
Salt Lake City, Utah 84108

**RE: Deviation report on the New Mexico 32-11 Com #1,
Section 20, Township 32 N, Range 11 W
San Juan County, New Mexico**

Gentlemen:

Below is the deviation report for your New Mexico 32-11 Com #1 Well.

4458'	4½°
4521'	5½°
4588'	5¼°
4627'	5°
4730'	5°
4792'	5°
4887'	5°
4981'	5°
5105'	5°
5230'	5°
5388'	4½°
5451'	5°
5608'	5°
5764'	5°
5984'	5°

Sincerely,

FOUR CORNERS DRILLING COMPANY

Gary Miller
Drilling Superintendent

GM/tdd

Acknowledgement

State of New Mexico)
) s.s.
County of San Juan)

The foregoing instrument was acknowledged before me this 26th day of September, 1994, by Gary Miller.

 Notary Public

My Commission Expires : 8-27-98
(seal)

NEW MEXICO 32-11 COM #1
SE/4 SEC 20 T32N R11W
COMPLETION RECAP

- 9-24-94 Recap: MOL. Spot all equipment. Fill rig pits. Wait on tbg, unload, remove protectors. Fill tanks and filter water. SDON.
- 9-25-94 Recap: Shut down for weekend.
- 9-26-94 Recap: Shut down for weekend.
- 9-27-94 Recap: Pick up and RIH with 2-3/8" tbg, 3-7/8" bit and csg scraper. Tagged cmt on stage tool at 3912'. Picked up swivel and broke circulation. Drilled cmt and stage tool. RIH with tbg @ 5931'. CO to float collar. Rig up Western and PT csg to 3200#, held 15 mins. Circulated hole with 1% KCL and spot 300 gal 7-1/2% HCL across interval to be perforated. TOH with tbg. Rig up Basin Perforators. RIH with GR/CCL/CBL logs from 5990' to 4000', had good bond. RIH with select fire gun and perf at the following depths: 5608', 5640', 5644', 5651', 5657', 5663', 5677', 5681', 5685', 5689', 5693', 5697', 5701', 5705', 5709', 5713', 5717', 5745', 5747', 5771', 5773', 5789', 5805', 5808', 5853', 5870', 5890', 5925', 5930', 5950'. Total of 30 .32 holes. Well on vacuum. Rig down Basin and SDON.
- 9-28-94 Recap: Rig up Western. Held safety meeting. PT lines. Load hole (75 BBLs), acidize and ball off with 1500 gal 15% HCL and 45 (1.3 SG) ball sealers. Ball action good. Ball off completely @ 3200'. RIH with junk basket and recovered all ball with 30 hits. Frac well with 3134 BBLs of slick water with 1% KCL and 131000# 20/40 Brady sand. AIR = 58.5 BPM, ATP = 2050#, MIR = 62.2 BPM, MTP = 2400#. ISDP = vacuum. Rig down Western. Rig up Basin. RIH with 4-1/2" RBP. Set plug @ 5590'. Dumped sand on RBP with dump bailer. PT csg and BP to 3500#, held OK. RIH with tbg to 5565'. Spot 250 gal 7-1/2" HCL @ 5565'. TOH. Rig up Basin Perforators. RIH with 3-1/8" select fire gun and perf 20 .32 holes as follows: 5314', 5364', 5382', 5385', 5423', 5427', 5473', 5477', 5494', 5499', 5504', 5509', 5516', 5521', 5531', 5545', 5549', 5554', 5558', 5565'. SDON.
- 9-29-94 Recap: Dropped 30 (1.3 SG) balls in 1300 gals of 15% HCL. Good ball action and balled off @ 3500#. Ran junk basket and recovered 30 balls with 20 hits. Rig up Western and stimulated Menefee with 2540 BBLs of slick water with, 1% KCL and 95,000# 20/40 Brady sand. AIR = 33 BPM, ATP = 3130#, MIR = 42.5, MTP = 3500#. ISIP = 170#, 5 mins = 0. Rig up Basin Perforators and RIH with 4-1/2" RBP and set @ 5295'. RIH with dump bailer. Dumped 7' sand on RBP. Loaded hole and PT to 3500#, held 15 mins. TIH with 2-3/8" tbg to 5270' and spot 250 gals 7-1/2% HCL. TOH with tbg. Rig up Basin Perforators and perforated Cliff House @ 4890', 95', 4937', 85', 88', 5011', 25', 33', 77', 5124', 28', 32', 36', 40', 44', 61', 84', 95', 5202', 09', 13', 18', 23', 28', 32', 38', 43', 52', 55', 66', 70'. Perforated a total of 31 .32" holes. Dropped 46 (1.3 SG) balls in 1500 gals of 15% HCL. Good ball action and balled off @ 3500#. Ran junk basket and recovered 46 balls with 31 hits. SDFN.
- 9-30-94 Recap: Rig up Western and PT lines to 3500#. Stimulated Cliff House with 134000# of 20/40 Brady sand @ 1/2 to 2 ppg and 3145 BBLs of slick water with 1% KCL. AIR = 55 BPM, ATP = 2850#, MIR = 62.5, MTP = 3200#. ISDP = 0. TIH with 2-3/8" tbg to 4810. Blew around with compressor. Well making water and no sand. Turned over to night watch.
- 10-01-94 Recap: TIH with tbg to 5292'. Cleaned out sand to RBP. TOH. Take pitot reading 15# on 2" line = 2416 MCF/D. TIH with tbg and retrieving head to 4810'. Shut rig down. Flowed well overnight with night watch.
- 10-02-94 Recap: TIH with tbg to RBP @ 5295'. Cleaned out 20' of sand. Tagged RBP and released same and TOH. TIH with tbg. Tagged sand @ 5510'. Clean out to 5590'. Flowed from 5590' for 3.25 hours. Pulled up to 4800'. Turned over to night watch flowed overnight.
- 10-03-94 Recap: Shut down for Sunday.

- 10-04-94 Recap: TIH and tagged sand @ 5370'. Cleaned out to RBP @ 5590'. Flow from 2' off RBP for 3 hours. TOH with tbg. Took pitot reading after compressor shut down 26# on 2" opening = 3400 MCF/D. RIH with tbg to 4800' kicked around with compressor. Turned over to night watch.
- 10-05-94 Recap: TIH with tbg and tagged 37' of sand. Cleaned out to RBP @ 5590'. Latched on to RBP, released and TOH. TIH with notched collar and tagged sand @ 5700'. CO to 5930'. Blew well with compressor @ 5930' for 1.5 hours, well making a large amount of water and sand. Pulled up to 5600' and left well blowing with compressor and night watch.
- 10-06-94 Recap: RIH and tagged sand (30'). CO fill down to PBTD @ 5990'. Let well blew to clean up with compressor. Pull up 2 jts to 5930' and landed in well head. ND BOP. NUWH. Left well flowing with nightwatch. Rig down and moved. 2-3/8" , 4.7#, J-55, 8rd, EUE tbg landed @ 5932' with SN 1 jt up and notched collar on bottom.

Total Completion Cost: \$152,159

Total Well Cost: \$318,538