

Initial Deliverability

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL DELIVERABILITY TEST REPORT FOR 19 71

Form C122-A  
Revised 1-1-68

POOL NAME Basin	POOL SLOPE n = .75	FORMATION Dakota	COUNTY Rio Arriba
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87-298

COMPANY El Paso Natural Gas Company			WELL NAME AND NUMBER San Juan 28-6 Unit No. 155		
UNIT LETTER J	SECTION 28	TOWNSHIP 28	RANGE 6	PURCHASING PIPELINE El Paso Natural Gas Co.	
CASING O.D. - INCHES 4.500	CASING I.D. - INCHES 4.052	SET AT DEPTH - FEET 7911	FLOWING O.D. - INCHES 1.900	TUBING I.D. - INCHES 1.610	TOP TUBING PERM. - FEET 7823
GAS PAY ZONE FROM 7622 TO 7825		WELL PRODUCING THRU CASING TUBING XX		GAS GRAVITY .643	GRAVITY X LENGTH 5030
DATE OF FLOW TEST FROM 10-28-71 TO 11-5-71			DATE SHUT-IN PRESSURE MEASURED 8-2-71		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) -	(b) Flowing Tubing Pressure (DWt) -	(c) Flowing Meter Pressure (DWt) -	(d) Flow Chart Static Reading -	(e) Meter Error (Item c - Item d) 0	(f) Friction Loss (a-c) or (b-c) 0	(g) Average Meter Pressure (integr.) 406
(h) Corrected Meter Pressure (g+e) 406	(i) Avg. Wellhead Press. P <sub>i</sub> = (h+f) 406	(j) Shut-in Casing Pressure (DWt) 2567	(k) Shut-in Tubing Pressure (DWt) 2502	(l) P <sub>c</sub> = higher value of (j) or (k) 2567	(m) Del. Pressure P <sub>d</sub> = 50 SP 1284	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 974	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume Q = 974 MCF/D
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WORKING PRESSURE CALCULATION

$(1-e^{-s})$ 0.306	$(F_c Q_m)^2 (1000)$ 257026	$R^2 = (1-e^{-s}) (F_c Q_m)^2 (1000)$ 78650	$P_c^2$ 161836	$P_w^2 = P_c^2 + R^2$ 243486	$P_w = \sqrt{P_w^2}$ 493
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DELIVERABILITY CALCULATION

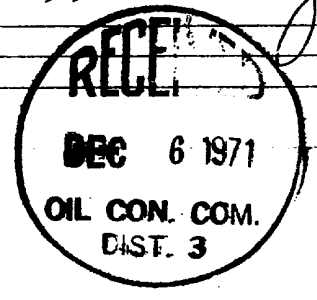
$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$	974	$\left[ \frac{4940333}{6346003} \right]^n =$	$(0.7786)^n =$	0.8289	= 807 MCF/D
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REMARKS: New Well - First Delivered 10-1-71

SUMMARY

Item h	406	Psia
P <sub>c</sub>	2567	Psia
Q	974	MCF/D
P <sub>w</sub>	493	Psia
P <sub>d</sub>	1284	Psia
D	807	MCF/D

Company: EL PASO NATURAL GAS COMPANY  
By: *H. E. McQually*  
Title: \_\_\_\_\_  
Witnessed By: \_\_\_\_\_  
Company: \_\_\_\_\_



**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

**SF 079050-C**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

**San Juan 28-6 Unit**

8. FARM OR LEASE NAME

**San Juan 28-6 Unit**

9. WELL NO.

**K 155**

10. FIELD AND POOL, OR WILDCAT

**Basin Dakota**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

**Sec. 28, T-28-N, R-6-W  
N.M.P.M.**

12. COUNTY OR PARISH

**Rio Arriba**

13. STATE

**New Mexico**

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR

**El Paso Natural Gas Company**

3. ADDRESS OF OPERATOR

**Box 990, Farmington, New Mexico 87401**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\* See also space 17 below.)

At surface

**1550'S, 1190'W**

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

**6605' GL**

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. 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.)\*

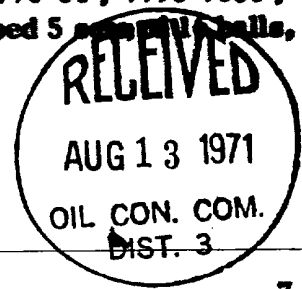
**7-13-71 Spudded well, drilled surface hole.**

**7-14-71 Ran 7  $\frac{1}{2}$  joints 9 5/8", 32.3#, HS, surface casing (223') set at 236' w/190 sacks of cement. W.O.C. 12 hours, held 600#/30 Min.**

**7-18-71 Ran 115 joints 7", 20#, K, intermediate casing (3648') set at 3659' w/150 sacks of cement, W.O.C. 14 hours, held 800#/30 Min.**

**7-22-71 T.D. 7911'. Ran 255 joints 4 1/2", 11.6 & 10.5#, K, production casing (7900') set at 7911' w/330 sacks of cement. W.O.C. 18 hours.**

**7-23-71 P.B.T.D. 7895'. Perf. 7622-30', 7640-56', 7734-50', 7776-84', 7796-7804', 7818-26' w/16 SPZ. Frac w/70,000# 40/60 sand, 71,022 gal. water, dropped 5 sand balls, flushed w/5334 gallons of water.**



Original Signed **F. H. WOOD**

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

SIGNED ~~Original Signed by:~~  
**F. H. Wood**

TITLE **Petroleum Engineer**

DATE **7-30-71**

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

\*See Instructions on Reverse Side

U. S. GEOLOGICAL SURVEY  
WASHINGTON, D. C.

## Instructions

**General:** This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 17:** Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.