(Form C-110)
(Revised 7/1/52)

# NEW MEXICO OIL CONSERVATION COMMISSION

**Santa Fe, New Mexico**

It is necessary that Form C-104 be approved before this form can be approved an an *initial* allowable be assigned to any completed Oil or Gas well. Submit this form in QUADRUPLICATE.

## CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL AND NATURAL GAS

Company or Operator El Paso Natural Gas Company Lease San Juan 28-6 Unit

Address Box 997, Farmington, New Mexico (Local or Field Office) El Paso, Texas (Principal Place of Business)

Unit M, Well(s) No. 15, Sec. 10, T. 28N, R. 6W, Pool Blanco

County Rio Arriba Kind of Lease: Federal

If Oil well Location of Tanks None

Authorized Transporter El Paso Natural Gas Company Address of Transporter

Farmington, New Mexico (Local or Field Office), El Paso, Texas (Principal Place of Business)

Per cent of Oil or Natural Gas to be Transported 100 Other Transporters authorized to transport Oil or Natural Gas

from this unit are Malco Products Inc.

%

REASON FOR FILING: (Please check proper box)

NEW WELL ☒ CHANGE IN OWNERSHIP ☐

CHANGE IN TRANSPORTER ☐ OTHER (Explain under Remarks) ☐

REMARKS:

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 26 day of October 19 55

El Paso Natural Gas Company

Approved NOV 7 1955, 19

OIL CONSERVATION COMMISSION

By Ernest C. Arnold

Title Petroleum and Gas Inspector, Dist. #3

By W. F. Court

Title Petroleum Engineer

NOV 1 1955
OIL CON. COM.
DIST. 3

*(See Instructions on Reverse Side)*

# INSTRUCTIONS

This form shall be executed and filed in QUADRUPLICATE with the District Office of the Oil Conservation Commission, covering each unit from which oil or gas is produced. A separate certificate shall be filed for each transporter authorized to transport oil or gas from a unit. After said certificate has been approved by the Oil Conservation Commission, one copy shall be forwarded to the transporter, one copy returned to the producer, and two copies retained by the Oil Conservation Commission.

A new certificate shall be filed to cover each change in operating ownership and each change in the transporter, except that in the case of a temporary change in the transporter involving less than the allowable production for one proration period, the operator shall in lieu of filing a new certificate notify the Oil Conservation Commission District Office, and the transporter authorized by certificate on file with the Commission, by letter of the estimated amount of oil or gas to be moved by the transporter temporarily moving oil or gas from the unit and the name of such temporary transporter and a copy of such notice shall also be furnished such temporary transporter. Such temporary transporter shall not move any more oil or gas than the estimated amount shown in said notice.

This certicate when properly executed and approved by the Oil Conservation Commission shall constitute a permit for pipe line connection and authorization to transport oil and gas from the property named therein and shall remain in full force and effect until

(a) Operating ownership changes
(a) The transporter is changed or
(c) The permit is cancelled by the Commission.

If any of the rules and regulations of the Oil Conservation Commission have not been complied with at the same time this report is filed, explain fully under the heading "REMARKS."

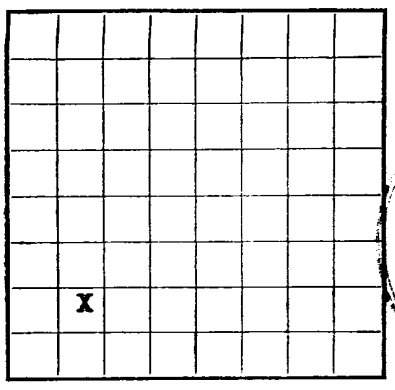
In all cases where this certificate is filed to cover a change in operating ownership or a change in the transporter designated to move oil or gas, show under "REMARKS" the previous owner or operator and the transporter previously authorized to transport oil or gas.

A separate report shall be filed to cover each producing unit as designated by the Oil Conservation Commission.

Form 9-330

Budget Bureau No. 42-R-355.3.
Approval expires 12-31-55.

U. S. Land Office New Mexico
Serial Number 05493
Lease or Permit to Prospect
14-08-001-1051




LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

# LOG OF OIL OR GAS WELL

Company El Paso Natural Gas Company Address Box 997, Farmington, New Mexico
Lessor or Tract San Juan 28-6 Unit Field Blanco State New Mexico
Well No. 15 Sec. 10 T. 28N R. 6W Meridian NMPM County Rio Arriba
Location 990 ft. [N.] of S Line and 990 ft. [E.] of W Line of Section 10 Elevation 6712'
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed W. F. Quast

Date October 27, 1955 Title Petroleum Engineer

The summary on this page is for the condition of the well at above date.

Commenced drilling August 27, 19 55 Finished drilling September 14 19 55

## OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 3585 to 3655 (G) No. 4, from 5730 to 5806 (G)
No. 2, from 5240 to 5410 (G) No. 5, from to
No. 3, from 5410 to 5730 (G) No. 6, from to

## IMPORTANT WATER SANDS

No. 1, from to No. 3, from to
No. 2, from to No. 4, from to

## CASING RECORD

| Size casing | Weight per foot | Threads per inch | Make | Amount | Kind of shoe | Cut and pulled from | Perforated From— | Perforated To— | Purpose |
|---|---|---|---|---|---|---|---|---|---|
| 9 5/8" | 25.4# | P.E. | S.W. | 160' | Howco | | | | Surface |
| 7" | 20 | 8 RD | J-55 | 3665' | Baker | | | | Prod.Csg. |
| 5 1/2" | 15.5# | 8 RD | J-55 | 2209' | | | | | Liner |
| 2" | 4.7# | 8 RD | J-55 | 5761' | | | | | Prod.Tbg. |

## MUDDING AND CEMENTING RECORD

| Size casing | Where set | Number sacks of cement | Method used | Mud gravity | Amount of mud used |
|---|---|---|---|---|---|
| 9 5/8" | 170' | 125 | Circulated | | |
| 7" | 3675' | 250 | Single Stage | | |
| 5 1/2" | 3447-5740' | 175 | Single Stage | | |

## PLUGS AND ADAPTERS

Heaving plug—Material Length Depth set
Adapters—Material Size

## SHOOTING RECORD

| Size | Shell used | Explosive used | Quantity | Date | Depth shot | Depth cleaned out |
|---|---|---|---|---|---|---|
| | | Completed Natural. | | | | |

## TOOLS USED

Gas Drilled

Rotary tools were used from 0 feet to 3675 feet, and from 3675 feet to 5806 feet
Cable tools were used from feet to feet, and from feet to feet

## DATES

9-19-55, 19 Put to producing , 19

The production for the first 24 hours was barrels of fluid of which % was oil; %
emulsion; % water; and % sediment. Gravity, °Bé.

If gas well, cu. ft. per 24 hours 9,584,000 Gallons gasoline per 1,000 cu. ft. of gas
Rock pressure, lbs. per sq. in. 1037

## EMPLOYEES

, Driller , Driller
, Driller , Driller

## FORMATION RECORD

| FROM— | TO— | TOTAL FEET | FORMATION |
|---|---|---|---|
| 0 | 568 | 568 | Tan cr-grn ss w/thin sh breaks. |
| 568 | 972 | 404 | Variegated sh w/thin ss breaks. |
| 972 | 2685 | 1713 | Tan to gry cr-grn ss interbedded w/gry sh. |
| 2685 | 2925 | 240 | Ojo Alamo ss. White cr-grn s. |
| 2925 | 3280 | 355 | Kirtland form. Gry sh interbedded w/tight gry fine-grn ss. |
| 3280 | 3585 | 305 | Fruitland form. Gry carb sh, scattered coals coals and gry, tight, fine-grn ss. |
| 3585 | 3655 | 70 | Pictured Cliffs form. Gry, fine-grn, tight, varicolored soft ss. |
| 3655 | 5240 | 1585 | Lewis formation. Gry to white dense sh w/silty to shaly ss breaks. |
| 5240 | 5410 | 170 | Cliff House ss. Gry, fine-grn, dense sil ss. |
| 5410 | 5730 | 320 | Menefee form. Gry, fine-grn s, carb sh & coal. |
| 5730 | 5806 T.D. | 76 | Point Lookout form. Gry, very fine sil ss w/frequent sh breaks. |
| 5806 T.D. | | | Mancos formation. Gry carb sh. |

[OVER]

16—43094-3

FOLD MARK

## FORMATION RECORD—Continued

| TO— | TOTAL FEET | FORMATION |
|---|---|---|

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

## HISTORY OF OIL OR GAS WELL

**It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.**

Form C-122-A
Revised April 20, 1955

NEW MEXICO OIL CONSERVATION COMMISSION

# GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool Blanco Formation Mesa Verde County Rio Arriba

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed

Operator El Paso Natural Gas Co. Lease San Juan 28-6 Unit Well No. 15

Unit M Sec. 10 Twp. 28 Rge. 6 Pay Zone: From 5240 To 5806

Casing: OD 5½ WT. 15.5 Set At 5740 Tubing: OD 2 WT. 4.7 T. Perf. 5701

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .715 Estimated ____

Date of Flow Test: From 11/30 To 12/8 * Date S.I.P. Measured 10/4/55

Meter Run Size 4 Orifice Size ____ Type Chart Sq. Rt. Type Taps Flange

## OBSERVED DATA

| | | | |
|---|---|---|---|
| Flowing casing pressure (Dwt) ____ psig + 12 = ____ psia | | | (a) |
| Flowing tubing pressure (Dwt) ____ psig + 12 = ____ psia | | | (b) |
| Flowing meter pressure (Dwt) ____ psig + 12 = ____ psia | | | (c) |
| Flowing meter pressure (meter reading when Dwt. measurement taken: | | | |
| Normal chart reading ____ psig + 12 = ____ psia | | | (d) |
| Square root chart reading (____)² x spring constant ____ = ____ psia | | | (d) |
| Meter error (c) - (d) or (d) - (c) | ± | = ____ psi | (e) |
| Friction loss, Flowing column to meter: | | | |
| (b) - (c) Flow through tubing: (a) - (c) Flow through casing | | = ____ psi | (f) |
| Seven day average static meter pressure (from meter chart): | | | |
| Normal chart average reading ____ psig + 12 = ____ psia | | | (g) |
| Square root chart average reading (7.35)² x sp. const. 10 | | = 540 psia | (g) |
| Corrected seven day avge. meter press. ($p_f$) (g) + (e) | | = 540 psia | (h) |
| $P_t$ = (h) + (f) | | = 540 psia | (i) |
| Wellhead casing shut-in pressure (Dwt) 1037 psig + 12 = 1049 psia | | | (j) |
| Wellhead tubing shut-in pressure (Dwt) 1037 psig + 12 = 1049 psia | | | (k) |
| $P_c$ = (j) or (k) whichever well flowed through | | = 1049 psia | (l) |
| Flowing Temp. (Meter Run) 57 °F + 460 | | = 517 °Abs | (m) |
| $P_d$ = ½ $P_c$ = ½ (l) | | = 525 psia | (n) |

## FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{\_\_\_\_} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \_\_\_\_ = \_\_\_\_ \right)^{*} = 674 \text{ MCF/da}$$

## DELIVERABILITY CALCULATION

$$D = Q \left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 674 \left[ \frac{824,776}{798,480} \right]^{\frac{1.0329}{1.0246}} = 691 \text{ MCF/da.}$$

SUMMARY

| | | |
|---|---|---|
| $P_c$ = | 1049 | psia |
| Q = | 674 | Mcf/day |
| $P_w$ = | 549 | psia |
| $P_d$ = | 525 | psia |
| D = | 691 | Mcf/day |

Company El Paso Natural Gas Company
By Original Signed
Title Lewis D. Galloway
Witnessed by ____
Company ____

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

| GL | $(1-e^{-S})$ | $(F_cQ)^2$ | $\frac{(FcQ)^2}{R^2}$ $(1-e^{-S})$ | $Pt^2$ (Column i) | $P_t^2 + R^2$ | $P_w$ |
|---|---|---|---|---|---|---|
| 4076 | .257 | 40.158 | 10,321 | 291,600 | 301,921 | 549 |

D @ 500 = 692