

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Form C-110  
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Pan American Petroleum Corporation Lease Houck Gas Unit

Well No. 1 Unit Letter S 6 T 29N R 9W Pool Blanco Pictured Cliffs

County San Juan Kind of Lease (State, Fed. or Patented) Federal

If well produces oil or condensate, give location of tanks: Unit S T R

Authorized Transporter of Oil or Condensate \_\_\_\_\_

Address \_\_\_\_\_

(Give address to which approved copy of this form is to be sent)

Authorized Transporter of Gas El Paso Natural Gas Company

Address Box 997, Farmington, New Mexico Date Connected \_\_\_\_\_

(Give address to which approved copy of this form is to be sent)

If Gas is not being sold, give reasons and also explain its present disposition:

Reasons for Filing: (Please check proper box) New Well (X)

Change in Transporter of (Check One): Oil ( ) Dry Gas ( ) C'head ( ) Condensate ( )

Change in Ownership ( ) Other \_\_\_\_\_

Remarks: \_\_\_\_\_ (Give explanation of change)

Well dually completed in Blanco Pictured Cliffs and Blanco Mesaverde fields.



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

Executed this the 11th day of November 19 59

Original Signed By  
G. E. HAMILTON

Approved JAN 4 1960 19 \_\_\_\_\_

Title Area Clerk

OIL CONSERVATION COMMISSION

Company Pan American Petroleum Corporation

By Original Signed Emery C. Arnold

Address Box 487

Title Supervisor Dist. # 3

Farmington, New Mexico

**OIL CONSERVATION COMMISSION**

**AZTEC DISTRICT OFFICE**

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## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco-Pictured Cliffs Formation Pictured Cliffs County San Juan  
(Dual with Blanco-Mesa Verde)  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 11-19-59

Company Pan American Petroleum Corporation Lease Houck Gas Unit Well No. 1

Unit 0 Sec. 6 Twp. 29N Rge. 9W Purchaser El Paso Natural Gas Company

\*Casing 7 Wt. 20 I.D. 6.456 Set at 3706 Perf. 2212 To 2250

Tubing 1-1/2 Wt. 2.4 I.D. 1.380 Set at 2230 Perf. open ended; no perforations To \_\_\_\_\_

Gas Pay: From 2212 To 2250 L 2220 xG 0.65 (est.) GL 1443 Bar.Press. 12

Producing Thru: Casing \_\_\_\_\_ Tubing I Type Well Gas-Gas Dual

Date of Completion: 11-8-59 Packer 3592 Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. 95° F

\*15# liner set 3652-4691

## OBSERVED DATA

Tested Through (Junction) (Choke) (Junction) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	3" in 11 days	3/4"	184		69° (est.)	185		181		3 hours
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.385		176	1.000	0.9608	1.016	2124
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 879 P<sub>c</sub> 772.641

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.						187,489	385,152		
2.									
3.									
4.									
5.									

Absolute Potential: 2490 MCFPD; n 0.85

COMPANY Pan American Petroleum Corp.

ADDRESS Box 487, Farmington, New Mexico

AGENT and TITLE A. H. Bauer, Jr., Area Engineer RMBauer Jr.

WITNESSED \_\_\_\_\_

COMPANY \_\_\_\_\_

REMARKS



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

- $Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.
- $P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia
- $P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- $P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if  
flowing through casing.) psia
- $P_f$  = Meter pressure, psia.
- $h_w$  = Differential meter pressure, inches water.
- $F_g$  = Gravity correction factor.
- $F_t$  = Flowing temperature correction factor.
- $F_{pv}$  = Supercompressibility factor.
- $n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

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