Initial Deliverability Test

NEW MEXICO OIL CONSERVATION COMMISSION

WELL DELIVERABILITY TEST REPORT FOR 19 69

Form C122-A
Revised 1-1-68

POOL NAME	POOL SLOPE	FORMATION	COUNTY
BASIN	n = .75	DAKOTA	SJ

-066

COMPANY			WELL NAME AND NUMBER		
EL PASO NATURAL GAS CO			HUERFANO UNIT #186		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
F	31	27		EL PASO NATURAL GAS CO.	
CASING O.D. – INCHES	CASING I.D. – INCHES	SET AT DEPTH – FEET	TUBING O.D. – INCHES	TUBING I.D. – INCHES	TOP – TUBING PERF. – FEET
4.500	4.052	6965	2.375	1.995	67[illegible]
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 6606 TO 6794		CASING	TUBING A	.678	46[illegible]
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 10/02/69 TO 10/10/69			08/14/69		

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)	(f) Friction Loss (a–c) or (b–c)	(g) Average Meter Pressure (Integr.)
0	0	0	0	0	0	411
(h) Corrected Meter Pressure (g+e)	**(i) Avg. Wellhead Press. P_t= (h+f)**	**(j) Shut-in Casing Pressure (DWt)**	**(k) Shut-in Tubing Pressure (DWt)**	**(l) P_c= higher value of (j) or (k)**	**(m) Del. Pressure P_d= ____ %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
411	411	1994	1844	1994	997	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume – MCF/D	Quotient of $\frac{\text{Item c}}{\text{Item d}}$	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$	Corrected Volume
622	1.0000	1.0000	Q = 622 MCF/D

WORKING PRESSURE CALCULATION

$(1-e^{-s})$	$(F_c Q_m)^2$ (1000)	$R^2 = (1-e^{-s})(F_c Q_m)^2(1000)$	P_t^2	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.285	34,199	9747	168921	178668	423

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 622\left[\left(\frac{2962427}{3797568}\right)^n = (0.7352)^n = 0.8341\right] = 519 \text{ MCF/D}$$

REMARKS:

New Well 1st Delivery Sept. 11, 1969.

SUMMARY

Item h	411	Psia
P_c	1994	Psia
Q	622	MCF/D
P_w	423	Psia
P_d	997	Psia
D	519	MCF/D

Company EL PASO NATURAL GAS CO
By R. E. Hamilton
Title
Witnessed By
Company

RECEIVED
NOV 10 1969
OIL CON. COM.
DIST. 3

69/10/30

21-4 87-066

New York 1st Delivery Sept. 12, 1866.