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	NA

75-905

COMPANY			WELL NAME AND NUMBER		
EL PASO NATURAL GAS CO			S J 27-4 UNIT #42		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
K	7	27	4	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	8204	2.375	1.995	7993
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 7916 TO 8175		CASING	TUBING X	0.624	4984
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 04/04/69 TO 04/12/69			03/13/68		

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	470
(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= 50 %P_c**	**(n) Separator or Dehydrator Pr. (DWt) for critical flow only**
470	470	2552	2580	2580	1290	

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D	Quotient of Item c / Item d	$\sqrt{\text{Item c / Item d}}$	Corrected Volume
1827	1.0000	1.0000	Q = 1827 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	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.305	295,049	89900	220900	310800	557

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 1827 \left[\left(\frac{4992300}{6346100}\right)^n = (.7866)^n = .9352\right] = 1529 \text{ MCF/D}$$

REMARKS:

New well first delivered 3-8-69

SUMMARY

Item h	470	Psia
P_c	2580	Psia
Q	1827	MCF/D
P_w	557	Psia
P_d	1290	Psia
D	1529	MCF/D

Company EL PASO NATURAL GAS CO
By J. E. McAnally
Title
Witnessed By
Company

RECEIVED
MAY 6 1969
OIL CON. COM.
DIST. 3

03/05/02

317 75-905