Initial Deliverability

NEW MEXICO OIL CONSERVATION COMMISSION

WELL DELIVERABILITY TEST REPORT FOR 19 68

Form C122-A
Revised 1-1-68

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

75-847

COMPANY			WELL NAME AND NUMBER		
EL PASO NATURAL GAS CO			SJ 27-5 UNIT #109		
UNIT LETTER	SECTION	TOWNSHIP	RANGE	PURCHASING PIPELINE	
B	3	27	5	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	7890	2.375	1.995	7649
GAS PAY ZONE		WELL PRODUCING THRU		GAS GRAVITY	GRAVITY X LENGTH
FROM 7660 TO 7860		CASING	TUBING X	0.631	4827
DATE OF FLOW TEST			DATE SHUT-IN PRESSURE MEASURED		
FROM 10/02/68 TO 10/10/68			07/03/68		

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	463
(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**
463	463	2691	2731	2731	1366	

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
544	1.0000	1.0000	Q = 544 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	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$
.296	26.163	7744	214369	222113	471

DELIVERABILITY CALCULATION

$$D = Q\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}\right]^n = 544 \left[\left(\frac{5592405}{7236248}\right)^n = (0.7728)^n = 0.8242\right] = 448 \text{ MCF/D}$$

REMARKS: New Well - First Delivered 9-6-68 OK

SUMMARY

Item h	463	Psia
P_c	2731	Psia
Q	544	MCF/D
P_w	471	Psia
P_d	1366	Psia
D	448	MCF/D

Company EL PASO NATURAL GAS CO
By J B Grant
Title
Witnessed By
Company

RECEIVED
NOV 8 1968
OIL CON. COM.
DIST. 3

68/10/30

3441 75-847