

NEW MEXICO OIL CONSERVATION COMMISSION
INITIAL WELL DELIVERABILITY TEST REPORT FOR 19 69

Form C122-A
 Revised 1-1-66

POOL NAME BASIN DAKOTA	POOL SLOPE n = .75	FORMATION DAKOTA	COUNTY SAN JUAN
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COMPANY BETA DEVELOPMENT CO.			WELL NAME AND NUMBER MUDGE FEDERAL #3		
UNIT LETTER K	SECTION 29	TOWNSHIP 27 North	RANGE 11 West	PURCHASING PIPELINE EPNG Co.	
CASING O.D. - INCHES 4.500	CASING I.D. - INCHES 4.052	SET AT DEPTH - FEET 6440	TUBING O.D. - INCHES 1.900	TUBING I.D. - INCHES 1.610	TOP - TUBING PERF. - FEET 6370
GAS PAY ZONE FROM 6355 TO 6377		WELL PRODUCING THRU CASING TUBING X		GAS GRAVITY .705	GRAVITY X LENGTH 4491
DATE OF FLOW TEST FROM 3-12-69 TO 3-20-69			DATE SHUT-IN PRESSURE MEASURED 1968 Annual S.I. Used - Tbg. only		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) -0-	(b) Flowing Tubing Pressure (DWt) 425	(c) Flowing Meter Pressure (DWt) 423	(d) Flow Chart Static Reading 423	(e) Meter Error (Item c - Item d) -0-	(f) Friction Loss (a - c) or (b - c) 2	(g) Average Meter Pressure (Integr.) 404
(h) Corrected Meter Pressure (g + e) 404	(i) Avg. Wellhead Press. $P_t = (h + f)$ 406	(j) Shut-in Casing Pressure (DWt) -0-	(k) Shut-in Tubing Pressure (DWt) 698	(l) P_c = higher value of (j) or (k) 698	(m) Del. Pressure $P_d = \frac{50}{349} \% P_c$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 55	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0000	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0000	Corrected Volume Q = 55 MCF/D
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WORKING PRESSURE CALCULATION

$(1 - e^{-s})$.279	$(F_c Q_m)^2 (1000)$ 820	$R^2 = (1 - e^{-s}) (F_c Q_m)^2 (1000)$ 229	P_t^2 164,836	$P_w^2 = P_t^2 + R^2$ 165,065	$P_w = \sqrt{P_w^2}$ 406
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DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{55}{1.0992} \left[\frac{365,403}{322,139} \right]^n \left(\frac{1.1343}{1.0992} \right)^n = 60 \text{ MCF/D}$$

REMARKS:

SUMMARY

Item h **404** Psia
 P_c **698** Psia
 Q **55** MCF/D
 P_w **406** Psia
 P_d **349** Psia
 D **60** MCF/D

Company **Beta Development Co.**
 By **J.C. Dean**
 Title _____
 Witnessed By _____
 Company _____



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