

NEW MEXICO OIL CONSERVATION COMMISSION
WELL DELIVERABILITY TEST REPORT FOR 19 76

Form C122-A
 Revised 1-1-66

POOL NAME Gavalin	POOL SLOPE n = .85	FORMATION Pictured Cliffs	COUNTY Rio Arriba
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86866

COMPANY Northwest Pipeline Corporation			WELL NAME AND NUMBER Jicarilla 93 #4		
UNIT LETTER P	SECTION 34	TOWNSHIP 27	RANGE 3	PURCHASING PIPELINE Northwest Pipeline Corporation	
CASING O.D. - INCHES 2.875	CASING I.D. - INCHES 2.441	SET AT DEPTH - FEET 3944	TUBING O.D. - INCHES None	TUBING I.D. - INCHES	TOP - TUBING PERF. - FEET
GAS PAY ZONE FROM 3776 TO 3844		WELL PRODUCING THRU CASING XX TUBING		GAS GRAVITY .693	GRAVITY X LENGTH 2617
DATE OF FLOW TEST FROM March 4 TO March 12, 1976			DATE SHUT-IN PRESSURE MEASURED March 19, 1976		

PRESSURE DATA - ALL PRESSURES IN PSIA

(a) Flowing Casing Pressure (DWt) 347	(b) Flowing Tubing Pressure (DWt)	(c) Flowing Meter Pressure (DWt) 181	(d) Flow Chart Static Reading 176	(e) Meter Error (Item c - Item d) 5	(f) Friction Loss (a - c) or (b - c) 166	(g) Average Meter Pressure (Integr.) 178
(h) Corrected Meter Pressure (g + e) 183	(i) Avg. Wellhead Press. $P_t = (h + f)$ *347	(j) Shut-in Casing Pressure (DWt) 887	(k) Shut-in Tubing Pressure (DWt)	(l) P_c = higher value of (j) or (k) 887	(m) Del. Pressure $P_d = \frac{80}{710} \% P_c$	(n) Separator or Dehydrator Pr. (DWt) for critical flow only 346

FLOW RATE CORRECTION (METER ERROR)

Integrated Volume - MCF/D 65	Quotient of $\frac{\text{Item c}}{\text{Item d}}$ 1.0284	$\sqrt{\frac{\text{Item c}}{\text{Item d}}}$ 1.0141	Corrected Volume Q = 66 MCF/D
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WORKING PRESSURE CALCULATION

$(1 - e^{-s})$.173	$(F_c Q_m)^2 (1000)$ Friction	$R^2 = (1 - e^{-s}) (F_c Q_m)^2 (1000)$ Negligible -	P_t^2 Use P_t	$P_w^2 = P_t^2 + R^2$	$P_w = \sqrt{P_w^2}$ 347
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DELIVERABILITY CALCULATION

$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n =$	66	$\left[\frac{282669}{666360} \right]^n =$	$.4242^n =$	$.4824$	$=$	32 MCF/D
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REMARKS: Initial and Annual
 First delivered 1-20-76

*Critical flow - - use flowing casing pressure for P_t

SUMMARY

Item h 183 Psia
 P_c 887 Psia
 Q 66 MCF/D
 P_w 347 Psia
 P_d 710 Psia
 D 32 MCF/D

Company Northwest Pipeline Corporation
 By Bobby J. Broughton *BJB*
 Title Well Test Foreman
 Witnessed By _____
 Company _____