Gas Production

B.T. Gauge Numbers			7303	7302	Ticket Number		956649	
			PRESSURE	PRESSURE				
Initial Hydrostatic			8025.3	8070.0	Elevation		3220	ft.
Final Hydrostatic			8009.4	8035.0	Production Rate	1st Flow	-	MCF
1st Flow	Initial	Time	1691.8	1644.4		2nd Flow	4175	MCF
	Final	30	1930.8	1949.2		3rd Flow	-	MCF
	Closed In Pressure	59	7418.5	7434.0	Hole Size		6.5	in.
2nd Flow	Initial	Time	1006.2	1098.4	Footage Tested		5	ft.
	Final	90	1827.0	1844.4	Mud Weight		13.4	lbs./gal.
	Closed In Pressure	177	7335.4	7344.0	Gas Viscosity		.031	cp
3rd Flow	Initial	Time			Gas Gravity		Est. .65	—
	Final				Gas Compressibility		1.20	—
	Closed In Pressure				Temperature		182	°F
Extrapolated Static Pressure		1st						
		2nd	7447	7460				
		3rd	-					
Slope P/10		1st	-					
		2nd	6928	6941				
		3rd	-					

Remarks:

SUMMARY

		B.T. Gauge No. 7303 Depth 11162'			B.T. Gauge No. 7302 Depth 11230'			
PRODUCT	EQUATION	FIRST	SECOND	THIRD	FIRST	SECOND	THIRD	UNITS
Transmissibility	$\frac{Kh}{\mu} = \frac{1637\ Q_g\ ZT}{m}$		705.742			704.468		$\frac{md.\ ft.}{cp}$
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		21.878			21.839		md. ft.
Average Effective	$K = \frac{Kh}{h}$		-			-		md.
Permeability	$K_1 = \frac{Kh}{h_1}$		4.376			4.368		md.
Indicated Flow Capacity	$(Kh)_g = \frac{3200\ Q_g\ \mu\ ZT\ \mathrm{Log}(0.472\ b/r_w)}{P_s^2 - P_f^2}$		10.040			10.012		md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}}\ \frac{Kh}{(Kh)_g}$		2.179			2.181		—
Indicated	$OF_1 = \frac{Q_g\ P_s^2}{P_s^2 - P_f^2}$ Max.		4442			4447		MCFD
Flow Rate	$OF_2 = \frac{Q_g\ P_s}{\sqrt{P_s^2 - P_f^2}}$ Min.		4307			4309		MCFD
Theoretical	$OF_3 = OF_1\ DR$ Max.		9681			9699		MCFD
Potential Rate	$OF_4 = OF_2\ DR$ Min.		9385			9398		MCFD
Approx. Radius of Investigation	$b \backsimeq \sqrt{Kt}$ or $\sqrt{Kt_0}$		-			-		ft.
	$b_1 \backsimeq \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		23			23		ft.
Potentiometric Surface *	$Pot. = (EI - GD) + (2.319\ Ps)$		9328			9290		ft.