

# Mesa Petroleum Corp. OPEN FLOW TEST DATA

DATE April 3, 1978

Operator <u>Mesa Petroleum Corp.</u>		Lease <u>State #45</u>	
Location <u>SW 32-30-14</u>		County <u>San Juan</u>	State <u>New Mexico</u>
Formation <u>Pictured Cliffs</u>		Pool <u>Blanco <i>Irwin Mounds</i></u>	
Casing: Diameter <u>3.5"</u>	Set At: Feet <u>1134'</u>	Tubing: Diameter <u>1 1/4</u>	Set At: Feet <u>895'</u>
Pay Zone: From <u>911</u>	To <u>919</u>	Total Depth: <u>1134</u>	Shut In <u>3-27-78</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing	Flow Through Tubing <u>XXX</u>

Choke Size, Inches <u>.750</u>	Choke Constant: C <u>12.365</u>			
Shut-In Pressure, Casing, PSIG <u>160</u>	+ 12 = PSIA <u>172</u>	Days Shut-In	Shut-In Pressure, Tubing PSIG <u>160</u>	+ 12 = PSIA <u>172</u>
Flowing Pressure: P PSIG <u>2" blow nipple=2.8" water</u>	+ 12 = PSIA		Working Pressure: P <sub>w</sub> PSIG <u>59</u>	+ 12 = PSIA <u>71</u>
Temperature: T = <u>67</u> °F	F <sub>t</sub> = <u>.9933</u>	n = <u>.85</u>	F <sub>pv</sub> (From Tables) <u>1.004</u>	Gravity <u>.670</u> F <sub>g</sub> = <u>.9849</u>

CHOKE VOLUME = Q = C x P<sub>i</sub> x F<sub>t</sub> x F<sub>g</sub> x F<sub>pv</sub>

Q = Calculated from pitot tables = 197 MCF/D

OPEN FLOW = Aof = Q  $\left( \frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

Aof = Q  $\left( \frac{29584}{24543} \right)^n = (1.2054)(197) = .85 = (1.1721)(197)$

Aof = 231 MCF/D

Note: Well unloaded slug of water & then blew heavy fog of water rest of test.  
"Installed 2" blow nipple downstream of the 3/4" choke, because flowing pressure was less than 13 psig, causing non-critical flow conditions. Used the NMOCC manual for pitot tube testing procedures to calculate the test.

TESTED BY G. Rhodes-Mesa Pet. Co.

WITNESSED BY C. R. Wagner-EPNG

*C. R. Wagner*