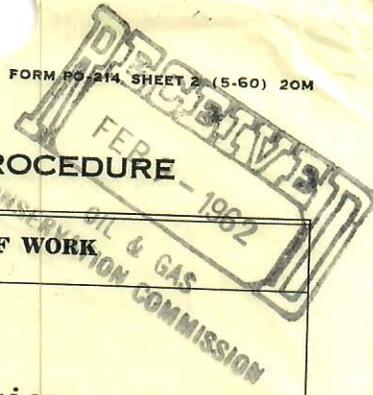


## GEOLOGICAL DATA AND DRILLING AND COMPLETION PROCEDURE

FORMATION OR DATE	TOP-DEPTH INTERVAL	REMARKS OR DESCRIPTION AND RESULTS OF WORK
		<p style="text-align: center;"><u>COMPLETION DATA</u></p> <p>After production casing was run, the drilling rig was released, the Xmas tree installed, and a completion rig moved on the well.</p> <p>Ran 2-3/8" tubing with bit and displaced hole with diesel. Drilled and circulated to 2098'. Pulled tubing.</p> <p>Ran gamma ray correlation and collar log. Reran tubing with Baker Model "A" packer and set at 1995' KB. Pressure tested casing.</p> <p>Perforated 2091.5 - 2097.5 ft., gamma ray log depths, with 2 McCullough Mac Jets per foot. Swabbed dry. Acidized with 500 gal. MCA. Formation broke down from 5000 to 3000 psi. Took acid at 3-1/2 BPM and 2000 psi. Shut down at 2000 psi, bled to 1100 psi in 1 min and 1000 psi in 3 min. Swabbed 10 bbls. load oil and 47 bbls water. Pulled tubing and packer.</p> <p>Ran tubing with Baker wireline bridge plug and Halliburton "R-3" packer. Set BP at 2080 and packer at 1932' KB. Perforated 2035-50' KB with two Mac Jets per foot. Swabbed dry. Acidized zone 2035-50' with 500 gals. MCA acid. Broke down at 3200 psi, formation took acid at 3-1/4 BPM and 1900 psi in 1 min and to 400 psi in 2 min. Swabbed load oil and acid water. Ran McCullough cement bond log. Cement top at 1458' KB. No pressure buildup after 17 hrs. shut in. Well then swabbed dry in 4 runs.</p> <p>Ran Baker cast iron BP and set at 2016' KB. Ran tubing with Howco "R-3" packer, and set packer at 1919' KB. Perforated with two Mac Jets per foot at 1939-47' KB. Flowed at rate of 349 MCFD with 10 psi on tubing.</p> <p>Stage squeezed 500 gals. 15% HCl acid to zone 1939-47' KB. Broke down from 2000 psi to 1200 psi. Took acid at average rate of 4 BPM. Swabbed well. Well began flowing 1,259 MCFD with heavy mist of water. Shut well in and pressure built up to 500 psi in 5 min. Flowed well for 12 hours following day at 709 MCFD with 35 psi on tubing. Shut well in.</p>

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GEOLOGICAL DATA AND DRILLING AND COMPLETION PROCEDURE



FORMATION OR DATE	TOP-DEPTH INTERVAL	REMARKS OR DESCRIPTION AND RESULTS OF WORK
<u>DRILL STEM TEST RECORD</u>		
	DST # 1 Interval 1280 - 1482' KB	Frontier
	IHMP	751 psig
	ICIP	260 - 30 Min.
	IFP	5 - 5
	FFP	3 - 8
	FCIP	50 - 31 Min.
	FHMP	743
	Tool opened with very weak blow for a 6 min. first flow. Closed tool for ICIP. Tool reopened with very weak blow, dead in 12 min. Took FCIP. No recovery of oil, gas, or water.	
	DST # 2 Interval 1927 - 1983' KB	Dakota
	IHMP	1122 psig
	ICIP	770 - 30 Min.
	IFP	285
	FFP	183
	FCIP	661 - 32 Min.
	FHMP	1112
	Opened tool for 2 min. first flow. Closed tool for ICIP. Reopened tool for 120 min. second flow with very strong blow; gas to surface in 1/2 min. Gas measured 1.540 MMCFD. Had a spray of mud for last 1-1/2 hour of flow test. No oil or water was recovered. Closed tool for FCIP.	
<u>CASING RECORD</u>		
<u>Surface</u>		
	1'	Howco Type M Casing Shoe
	322'	8-5/8", 24#, 8Rt, J-55, R-2, ST&C Casing, 11 jts.
	323'	Total
	15'	KB Elevation, above ground
	1'	Below ground level
	339'	Setting Depth
	Cemented with 268 sacks bulk type cement with 2% CaCl <sub>2</sub> . Cement circulated to surface. Cement set 12 hours, tested with 1250# for 30 min., bled down to 1170#. Cement top at 317' KB.	
<u>Production</u>		
	1'	Howco Type M Casing Shoe
	28'	4-1/2", 9.5#, 8Rt, J-55, R-2, ST&C Casing, 1 jt. with Howco Insert Float Valve
	2083'	4-1/2", 9.5#, 8Rt, J-55, R-2, ST&C Casing, 65 jts.
	2,112'	Total
	15'	KB to ground level
	2,127'	KB Setting Depth
	Cemented with 180 sacks bulk Monolith regular cement. Plug down 1:45 AM, November 5, 1961. Cement set 12 hours. Tested with 900 psi for 30 min. Held O.K. Cement top at 2098' KB.	

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