

SOUTH BLANCO TOCITO POOL
RIO ARRIBA COUNTY, NEW MEXICO

Date of First Production: July, 1951
Date Water Injection Commenced: October 7, 1953

TOTAL POOL PERFORMANCE

Cumulative Oil Production at Commencement of Water Injection:

Caulkins Oil Company	712,315 bbls.
Texas National	<u>2,901 bbls.</u>
Total	715,216 bbls.

Cumulative Oil Production April 1, 1958:

Caulkins Oil Company	2,217,883* bbls.
Texas National	<u>136,000* bbls.</u>
Total	2,353,883 bbls.

* March 1958 Production Estimated.

	<u>Date</u>	<u>Bottomhole Pressure</u>		<u>Incr. Oil</u>	<u>Bbls. Oil</u>
		<u>Avg. PSI</u>	<u>Change-PSI</u>	<u>Prod. -Bbls.</u>	<u>Produced</u>
					<u>Per PSI Chg.</u>
Initial Condition	7/51	2197	-	-	-
At Commencement of Water Injection	10/53	1971	226	715,216	3165
Current Condition	4/58	1789	182	1,638,667	9004

CAULKINS OIL COMPANY OPERATIONS

	<u>PRODUCTION</u>			
	<u>Oil - Bbls.</u>	<u>Gas - MCF</u>	<u>Water - Bbls.</u>	<u>GOR</u>
Before Water Injection	712,315	1,188,825	0	1669:1
After Water Injection	<u>1,505,568</u>	<u>2,671,226</u>	<u>531,252</u>	1774:1
Cumulative 4/1/58	2,217,883	3,860,051	531,252	1740:1

From commencement of water injection to present date, one (1) barrel of water injected in reservoir occupies equivalent space of approximately 680 cubic feet of gas.

Cumulative Water Injected to 4/1/58 3,500,650 bbls.
 Cumulative Water Produced to 4/1/58 531,252 bbls.

Net Water Injected to 4/1/58 2,969,398 bbls.

Equivalent amount of gas necessary to occupy same reservoir space as net water injected:

$$2,969,398 \text{ bbls.} \times .680 \text{ MCF} = 2,019,190 \text{ MCF}$$

	Gas Production MCF	Gas Equivalent Injected MCF	Net Gas Produced MCF	Oil Produced Bbls.	Net GOR
Before Water Injection	1,188,825	—	1,188,825	712,315	1669:1
After Water Injection	2,671,226	2,019,190	652,036	1,505,568	433:1
	3,860,051			2,217,883	

Since Inception

Cumulative Gross Reservoir Voidage 3/1/58 6,613,913 bbls.
 Cumulative Water Injected 3/1/58 3,438,513 bbls.

Cumulative Net Reservoir Voidage 3,175,400 bbls.

Percent Voidage Replacement:

$$\frac{3,438,513 \text{ bbls.}}{6,613,913 \text{ bbls.}} = 51.99\%$$

Since Commencement of Water Injection

Cumulative Gross Voidage 3/1/58 6,613,913 bbls.
 Cumulative Gross Voidage 10/7/53 1,839,904 bbls.

Difference 4,774,009 bbls.

Less Water Injected 3,438,513 bbls

Percent Voidage Replacement

$$\frac{3,438,513 \text{ bbls.}}{4,774,009 \text{ bbls.}} = 72.03\%$$

1,335,496 bbls.