

~~EXHIBIT 9~~

ROSWELL GEOLOGICAL SOCIETY SYMPOSIUM

Author: George L. Scott, Jr. Field Name: Chaveroo
Affiliation: Consulting Geologist Location: T-7,8-S, R-33, 34-E
Date: November 1966 County & State: Chaves & Roosevelt Counties,
New Mexico

Discovery Well: Champlin Pet. Co. & Warren American Oil Co. #1 Hondo State, SE/4 NE/4
Section 32, T-7-S, R-33-E. Completed 3/20/65
IPP 148 BOPD + 2 BWP, GOR 810.

Exploration Method Leading to Discovery: 80% subsurface 20% seismic

Pay Zone: Top of field pay is at 4184 (+255)
Formation Name: San Andres Depth & Datum Discovery Well: Top perf in disc. well 4299.
Lithology Description: Tan to brown, fine to medium crystalline dolomite with scattered anhydrite
inclusions, and vugular, inter-crystalline and fracture porosity. Most wells complete
from 1st to 2nd porosities; scattered wells also perf 3rd porosity. The net porosity
is based on a cut-off of 4% and covers only 1st and 2nd porosities. (Cont. under Type Trap)
Approximate average pay: 210 gross 40 net Productive Area 11,000 acres (on Nov. 1, 1966)

Type Trap: Stratigraphic. Porosity and permeability fails up dip along the north
and west margin of the field to provide the trap.

Pay Zone (cont. from above). Net porosity map is not a strict net pay map as there are wells
where extensive fracturing has lowered the porosity cut-off to 2 1/2%. It also includes
porosity in the 2nd porosity interval at the south and southeast field margin that is

Reservoir Data: below the irregular oil-water contact.

6% Porosity, 7 Md Permeability, 25% Sw, 16% So

Oil: 26° API, black, sour

Gas: GOR 400 to 1000

Water: 66,600 Na+K, 27,680 Ca, 4860 Mg, 165,600 Cl, 200 SO₄, 240 HCO₃, Fe

Specific Gravity 1.174 Resistivity .035 ohms @ 110°F

Initial Field Pressure: 1340 psi @ +140 datum Reservoir Temp. 110°F

Type of Drive: Solution gas

Normal Completion Practices: Set casing through pay and selectively perforate with one shot per
interval. Acidize with 2000 gallons of acid, and sand fracture with 30,000 gallons
of oil and 30,000 pounds of sand.

Type completion: Both flowing and pumping Normal Well Spacing 40 Acres

Deepest Horizon Penetrated & Depth: Bough "C" at 9100' in the discovery well. At the south end
of the field several abandoned Bough "C" wells have been plugged back to the San Andres

Other Producing Formations in Field: None within the area of San Andres production, however, Bough
"C" production in the Tobac field adjoins the Chaveroo San Andres field on the south.

Production Data:

YEAR	TYPE	No. of wells @ yr. end		PRODUCTION OIL IN BARRELS GAS IN MMCF		YEAR	TYPE	No. of wells @ yr. end		PRODUCTION OIL IN BARRELS GAS IN MMCF	
		Prod.	S.I. or Abd.	ANNUAL	CUMULATIVE			Prod.	S.I. or Abd.	ANNUAL	CUMULATIVE
1965	OIL	45		166,896	166,896		OIL				
	GAS			179,400	179,400		GAS				
1966*	OIL	24		1,474,705	1,641,601		OIL				
	GAS			1,084,527	1,263,927		GAS				
	OIL						OIL				
	GAS						GAS				
	OIL						OIL				
	GAS						GAS				

* 1966 production to September 30, 1966.

Larry McGa

22

9682 + 9683