

DRILLING PROGNOSIS

I. Well Identification:

Lease Name: Langlie-Jal Federal
Well No.: 1
Location: 330 FNL & 330 FEL Section 8
T-25-S, R-37-E
County: Lea
State: New Mexico
Elevations: 3199 GL

II. Drilling Objective:

Zone: Yates-Seven Rivers
Total Depth: 3300
Pool Name: Jalmat
Productive Interval: 2860-3175

III. Formation Tops:

Zone	Tops		Gross Interval Drilled	Probable Fluid Production
	Drilling Depth	Subsea Depth		
<u>Ogallala (Surface)</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>	<u>-----</u>
<u>Santa Rosa</u>	<u>493</u>	<u>+2720</u>	<u>250</u>	<u>-----</u>
<u>Dewey Red Beds</u>	<u>743</u>	<u>+2470</u>	<u>375</u>	<u>-----</u>
<u>Rustler Anhydrite</u>	<u>1118</u>	<u>+2095</u>	<u>230</u>	<u>-----</u>
<u>Salado Salt</u>	<u>1348</u>	<u>+1865</u>	<u>1355</u>	<u>-----</u>
<u>Tansil</u>	<u>2703</u>	<u>+ 510</u>	<u>160</u>	<u>-----</u>
<u>Yates</u>	<u>2863</u>	<u>+ 350</u>	<u>275</u>	<u>Hydro-carbons</u>
<u>Seven Rivers</u>	<u>3138</u>	<u>+ 75</u>	<u>162</u>	<u>Hydro-carbons</u>
<u>TOTAL DEPTH</u>	<u>3300</u>	<u>- 87</u>	<u>-----</u>	<u>-----</u>

IV. Hole Size:

<u>Hole</u>	<u>Bit Size</u>	<u>T.D.</u>	<u>Gross Interval</u>
Conductor	15	40	40
Surface	11	400	360
Production	7 7/8	3300	2900

V. Casing Program:

A. Casing Design

<u>String</u>	<u>Casing Size</u>				<u>Amount</u>	<u>Cond.</u>
	<u>O.D.</u>	<u>Wt.</u>	<u>Grade</u>	<u>Threads</u>		
Conductor	12 3/4	33	B	8 Rd	30	New
Surface	8 5/8	28	B	8 Rd	400	Used
Production	4 1/2	10.5	J-55	8 Rd	3300	New

B. Float Equipment:

Surface Casing: 8 5/8-inch guide-shoe and 8 5/8-inch insert float.

Production Casing: 4 1/2-inch guide-shoe and 4 1/2-inch float collar with automatic fill.

C. Centralizers:

Surface Casing: One centralizer at the float collar and one centralizer two joints above float collar.

Production Casing: Run a total of 8 centralizers. Place one centralizer
at the guide shoe and one centralizer at the float collar with the
remaining being placed 80 to 90 feet apart.

D. Wellhead Equipment:

Larkin 8 5/8 x 4 1/2 Fig 92 Casinghead. Larkin 4 1/2 x 2 3/8

Type TH tubinghead complete with slips and bell nipple.

VI. Mud Program

A. Surface Hole:

Drill surface hole with a fresh-water gel (Approx 8.5 lb/gal)

while maintaining a high enough viscosity to adequately clean

hole. Add paper as needed to control excess seepage.

Before drilling below surface pipe, jet cuttings out of working pit

into reserve pit and then switch from circulating through working

pit to circulating through reserve pit.

B. Production Hole:

Upon entering salt section, allow mud to become a saturated salt

system (10.1 lb/gal). At 2750, switch back out of reserve pit and

back into working pit. Also at this point, start adding starch and

brine gel to lower water loss and raise viscosity. The mud shall

have a water loss of 15 cc/30 min and a viscosity of 34 to 36 sec.

before reaching 2863 (top of Yates).

In order to protect the drill string, sufficient lime shall be added to the mud to maintain a safe PH level.

VII. Cementing Program

A. Surface Pipe:

Cement surface pipe with approximately 180 sacks (125% excess) of API Class-C cement containing 2% Calcium Chloride. Before resuming drilling operations, allow cement to set for a sufficient time to gain a 500-psi compressive strength (10 hrs). Also before drilling plug, the pipe shall be tested to 800 psi for 30 minutes.

B. Production String:

Cement long string with 1100 sacks API Class-C cement containing 3% Halliburton Econolite mixed to a slurry weight of 11.3 lb/gal followed by 250 sacks of a 50-50 blend of Pozmix "A" and API Class-C containing 18% salt and 2% gel and having a slurry weight of 14.1 lb/gal. Pump 30 barrels of water ahead of the cement to help remove the mud filter cake.

Once top plug is bumped, pressure test casing to 1500 psi.

The total specified cement volume of 1350 sacks provides for a 350%

excess and should be sufficient cement to bring the cement top
back to the surface.

VIII. Formation Evaluation:

A. Drilling Rate:

1. The drilling rate shall be monitored with a geograph from the
surface to total depth.

2. As part of their farmout agreement, El Paso Natural Gas Co.
requires that the penetration rate be tabulated in 10-foot
increments over the entire hole.

B. Well Cutting Samples:

One set of well cutting samples shall be gathered every 10 feet
from the surface to total depth. Each sample is to be cleaned,
bagged, and tagged and then grouped into bundles of ten samples
per bundle with one bundle representing each 100-feet drilled.

After the drill cuttings have been reviewed by the wellsite
geologist, they shall be delivered weekly to Midland Sample Cut,
704 S. Pecos Street, Midland, Texas.

If requested by the wellsite geologist, a second set of samples
shall be gathered over the Yates and Seven Rivers interval.

10-10-66
OIL CONSERVATION COMM.
HOBBS, N. M.

C. Mud Logging: _____ None _____

D. Drill-Stem Testing: _____ None _____

E. Coring: _____ None _____

F. Well Logging: _____

Open-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
CDL-Neutron-GR	T.D. - Surface	T.D. - 2300
Guard-Forxo	T.D. - 2300	T.D. - 2300

Cased-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
GRN-CCL	T.D. - 2300	T.D. - 2300

Log Distribution

Company	No. of Copies	
	Field Prints	Final Prints
Doyle Hartman 312 C & K Petroleum Bldg. Midland, Texas 79701	15	15
United States Geological Survey Box 1157 Hobbs, New Mexico	0	6

Company	No. of Copies	
	Field Prints	Final Prints
Mr. Tom Hollenstead, Geological Manager El Paso Natural Gas Co. 600 Building of the Southwest Midland, Texas 79701	2	4

IX. Blowout Preventer System:

A 10 3/4 2000 psi rotating head will be used while drilling the surface
hole. Before drilling out from under the surface pipe, the well will be
equipped with a 3000-psi 10-inch series 900 double-ram hydraulic
preventer. The blowout preventer shall be used through the running of
the production string.

Attached is a diagram of the required BOP system.

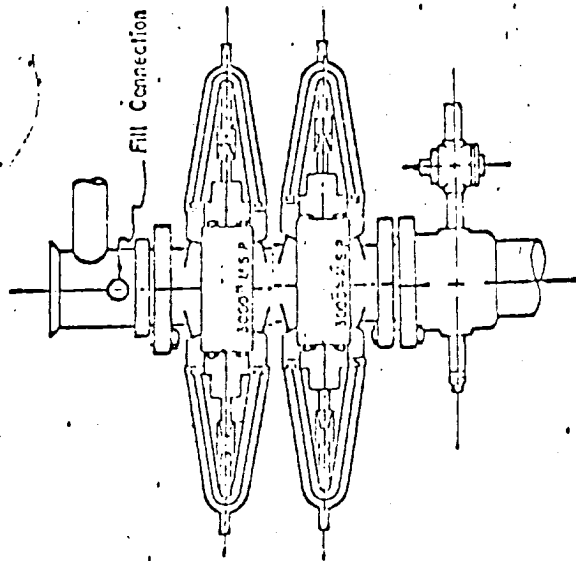
X. Hazardous Zones:

None anticipated.

XI. Duration of Operations:

The total elapsed time required for drilling and completing the
subject well is expected to be 30 days.

Shaffer Type E Series 900
Hydraulic B.O.P.



3,000 PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

Series 900 Flanges, or Better