PHILLIPS PETROLEUM COMPANY

Preliminary 03/18/96

Well Name: San Juan 32-7 #13A

DRILLING PROGNOSIS

1. Location of Proposed Well: 1546' FNL & 826' FWL, Sec. 16, T-32-N,R-7-W, San Juan County, New Mexico
2. Unprepared Ground Elevation: 6652'.
3. The geologic name of the surface formation is San Jose .
4. Type of drilling tools will be rotary .
5. Proposed drilling depth is 6400'.
6. The estimated tops of important geologic markers are as follows:

Ojo Alamo	2430'	Lewis	3765'
Kirtland	2385'	Cliff House	5585'
Fruitland	3180'	Menefee	5630'
Pictured Cliffs	3525'	Pt Lookout	5850'

7. The estimated depths at which anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follow:

Water: Ojo Alamo - 2430'
Gas & Water: Fruitland - 3180'
Gas: Mesaverde - 5585' - 6400'

8. The proposed casing program is as follows:

Surface String 9-5/8", 36#, J-55 @ 250'
Intermediate String 7", 20#, K-5 5 @ 4000'
Production String 4-1/2", 10.5# Liner 3900-6400'
Production Tubing 2-3/8" 4.7# J-55 @ 5600'

9. **Cement Program:**

Surface String 130 sx Cl B + 2% $CaCl_2$ + .25 lb/sx celloflake

Intermediate String Flush: 10 bbls mud flush, then 10 bbls fresh water.
Lead cmt: 325 sx 35/65 POZ + 2% $CaCl_2$ + .25 lb/sx celloflake
Tail cmt: 100 sx Class B + 2% $CaCl_2$ +.25 lb/sx Celloflake

Production String: Flush: 20 bbls mud flush, then 10 bbls fresh water.

Lead = 275 sx Cl B + Fluid Loss

Centralizer Program:

Surface: Centralizer at 10' above shoe. Top of 2nd and 6th joints.

Intermediate: Centralizer at 10' above shoe 2nd Jt.
Top of every other joint until a total of 8 centralizers have been used.

Production: Centralizer at 10' above shoe. Top of 2nd Jt.

10. Production Control Equipment: Schematic diagrams thereof showing sizes, pressure ratings (or) API series are enclosed within the APD packet.

11. Drilling Mud Prognosis: Surface to Bottom of 8-3/4" Hole:
Low solids, non-dispersed, 9.0 ppg+, fresh water base mud.
6-1/4" Hole Section:
Air or Gas Drilled

12. The testing, logging, and coring programs are as follows:
D.S.T.'s or cores: None
Logs: Temperature Survey and GR
Special Tests: None

13. Anticipate no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H_2S equipment will be used.

14. The anticipated starting date will be in the 2nd quarter of 1996 with duration of operations for approximately 30 days thereafter.