

## PLAN FOR EQUIPMENT

### Laguna Grande Unit (Federal) Well No. 1

1. Surface casing: 700' of new 13 3/8" 54.5 ppf J-55 STC
2. Casinghead: 13 3/8" STC X 12" 3000 psi flange
3. Intermediate casing:
  - a. 3100' of new 10 3/4" 40.5, 45.5 and 51.0 ppf J-55 STC
  - b. 10,900' of new 7 5/8" 29.7 and 33.7 ppf S-95 and RS-95 LTC
4. Blowout Preventers:
  - a. On surface casing: 2000 psi bag type or 2 ram type (one set each of pipe and blind rams). 20 00 psi fill and kill connections and choke manifold.
  - b. On first intermediate casing: 2-10" 3000 psi: ram type, (one set each of pipe and blind rams). 10" 3000 psi bag type and a rotating head. 3000 psi fill and kill connections and choke manifold.
  - c. On second intermediate: 3-10" 5000 psi ram type, (2 sets of pipe rams, 1 set of blind rams). 10" 5000 psi bag type and a rotating head. 5000 psi fill and kill connections and choke manifold.
5. Auxiliary Equipment
  - a. Upper and lower kelly cocks
  - b. Profile in drill string just above drill collars to accept back pressure valve if valve is needed.
  - c. Safety valve on floor ready to use if needed.
  - d. Pit volume totalizer with alarm system.
  - e. Flow rate indicator in flowline with alarm system
  - f. Trip tank
6. Approximate Bottomhole pressure at 14000': 8300 psi (11.5 ppg)
7. Drilling Fluid:

0-700'	Spud Mud
700-3300'	Brine Water
3300-10900'	Brine Water
10900-TD	Fresh Water Mud