

DEVELOPMENT PLANT

Mesa Petroleum Co.
Nash Unit #5
2310' FSL & 330' FEL
Sec 13, T23S, R29E
Eddy County, New Mexico

1. Attached plat depicts existing road network. Access road between existing road and location will be approximately 100 yards.
2. There are no producing Cherry Canyon wells within one mile of the proposed location. An application has been submitted to drill Cherry Canyon well at 990' FNL and 330' FEL on the same section.
3. Battery facilities will be located at the well site or on the 990' FNL & 330' FEL wellsite location.
4. Both brine and fresh water for drilling well will be obtained from nearest commercial source.
5. Earthen pits will be provided for containing drill cuttings and waste drilling fluid. These pits will be plastic lined. Pits will be backfilled and leveled after sufficient drying. Trash and garbage will be contained in a separate earthen pit and burned as practical, then later backfilled.
6. Approximately 1-3/4 acres will be required for the rig and pit locations. The terrain at the well location is rolling with sparse native grass and scrub greasewood. Any top soil removed will be stockpiled for future use in restoring the disturbed area to original grade and contour. The disturbed area will be reseeded with appropriate grasses after completion.
7. Surface casing program: 13-3/8" OD 48# H-40 new casing will be set on bottom at approximately 300'. Cement will be circulated to the surface. A 12" - API 3000 psi WP bradenhead will be welded to the surface casing and 12" API 3000 psi WP BOP's will be employed while drilling to approximately 3300'. BOP's will consist of 1 set of pipe rams, 1 set of blind rams, and Hydril.
8. Intermediate casing program: 8-5/8" OD 24# K-55 new casing will be set at approximately 3300'. Cement will be circulated to the surface. A 12" API 3000 psi WP BOP stack will again be used to drill to total depth. BOP's and choke and kill lines will be tested to working pressure prior to drilling out 8-5/8" casing shoe.
9. Production casing: 5-1/2" OD 14# K-55 casing will be set at 5100'.
10. The drilling rig will be equipped with safety devices such as kelly cock, drill pipe float, full opening stabbing valve, inside drill pipe BOP, etc. Operational tests will be run weekly and results noted on tour sheets.
11. Maximum anticipated bottom hole pressure is 2400 psi in the Cherry Canyon at approximately 4800' based on the offset wells. Drilling fluid of 9.8 PPG will be required to hydrostatically balance this formation pressure.
12. Brine and brine gel mud will be used to drill to 5100'. Mud weight will probably not exceed 9.8 PPG.