

DEVELOPMENT PLAN

Mesa Petroleum Co.
Nash Unit #2
1350' FNL & 1980' FWL
Sec. 18, T23S, R30E
Eddy County, New Mexico

1. Attached plat depicts existing road network. Access road between existing road and location will be approximately 650 yards. Drilling contractor will be McVay Drilling Company - Hobbs.
2. There is one Morrow producing well within one mile of the proposed location, and it is the Mesa Petroleum Co. Nash Unit #1, located 1980' FNL & 660' FEL of Sec. 13, T23S, R29E.
3. Battery facilities will be located at the well site.
4. Water for drilling well will be obtained from nearest commercial source.
5. Earthen pits will be provided for containing drill cuttings and waste drilling fluids. Pits will be backfilled and levelled after sufficient drying. Trash and garbage will be contained in a separate earthen pit and burned as practical, then later backfilled.
6. No camp or airstrip is planned.
7. Approximately 1 3/4 acres will be required for the rig and pit location. The terrain at the well location is rolling with sparse native grass and 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.
8. Surface casing program: 13 3/8" OD 48# K-55 and new casing will be set on bottom at approximately 300'. Cement will be circulated to the surface. A 12" - API 300 psi WP bradenhead will be welded to the surface casing and 12" - API 3000 psi WP BOP's (hydraulic double - pipe ram and blind ram) and 12" - API 3000 psi WP bag type BOP. Choke and kill lines of 3000 psi WP will be employed.
9. Intermediate casing program: 9 5/8" OD 36# K-55 & new casing will be set at approximately 3400'. Cement will be circulated to the surface. A 12" - API 3000 X 10" - API 5000 psi WP casinghead spool will be installed. Afterwards, 10" - API 5000 psi WP BOP's (hydraulic double - pipe ram and blind ram) and 10" - API 5000 psi WB bag type BOP. Pit level indicators, flow sensors, rotating head, mud-gas separator, drilling choke, etc. will be in prime working order prior to reaching 7" casing seat and thereafter. BOP's and choke and kill lines will be tested to working pressure prior to drilling out 9 5/8" casing shoe.
10. Production casing: 7" OD 23-26# N-80 or S-95 casing will be set at 11,100'. BOP's used while drilling below the 9 5/8" shoe will again be used while drilling to total depth.
11. Production liner: 4 1/2" OD 13.5# S-95 casing will be set and cemented at total depth. The liner will be run with a PBR nipple at the top of the liner in lieu of a packer.
12. The 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.
13. Maximum anticipated bottom hole pressure is 7500 psi and the Strawn at approximately 12,000', based on the offset well. This pressure will be encountered after the 7" production string has been set. Mud of 12.0 PPG will be required to hydrostatically balance this formation pressure. Slightly underbalance drilling will be utilized to increase penetration rate and partially reduce the high pressured condition of the Wolfcamp zone.
14. Brine and polymer brine gel mud will be used to drill to 11,100'. A weighted brine polymer mud will be used to drill the hole for the 7" production liner.