

**PLUG AND ABANDON WELL PROCEDURE  
VACUUM ABO UNIT #13-08**

**NOTE:** Cement used is Class “C”, density of 14.8 ppg, yield of 1.32 cubic feet per sack.

1. Notify NMOCD at (505) 393-6161, 24 hours prior to initiating plugging operations.
2. MIRU Plug & Abandon Package.
3. ND wellhead. Freepoint both 5-1/2” & 8-5/8” casings. NU PPCo. Class 1 shop tested BOPE stack.
4. MIRU wireline. Make gauge run in 5-1/2” production casing to 8540’. If wellbore is clear, set CIBP @ 8550’. POOH w/wireline.
5. GIH w/ 2-3/8” WS open-ended and tag CIBP @ 8550’. Circulate 5-1/2” casing with 9.5 ppg mud-laden fluid.
6. Spot Plug No. 1, 40 sx., minimum 25 sx., calculated interval: 8550’-8145’. WOC and tag. The plug will cover the Abo Reef and Abo Shale.
7. POOH & LD to 6250’. Spot Plug No. 2, minimum 25 sx., calculated interval: 6250’-5997’. The plug will cover the Clearfork and Glorieta.
8. POOH & LD to 4500’. Spot Plug No. 3, 80 sx., min interval: 4500’-3798’, calculated interval: 4500’-3691’. The plug will cover the San Andres, Grayburg & Queen.
9. POOH w/ WS. MIRU wireline. GIH w/ wireline and string shot or cut 5-1/2” casing at freepoint (just above TOC @~3230’). POOH wireline. Pull 5-1/2” casing.
10. GIH w/wireline and stringshot 8-5/8” casing @ nearest collar above freepoint. RD wireline. Pull 8-5/8” casing.
11. GIH w/ WS to 3332’ or 50’ inside casing stub. Spot Plug No. 4, minimum 25 sx., minimum interval: 3307’ or 50’ inside casing stub – 50’ above shoe or stub (whichever is closer to surface), calculated interval: 3332’-3180’. WOC and tag. The plug covers the casing stub and intermediate casing shoe.
12. POOH & LD WS to 2950’. Spot Plug No.5, 30 sx., minimum interval: 2950’-2850’, calculated interval: 2950’-2839’. The plug covers the Yates.
13. POOH & LD to 2000’. Spot Plug No. 6, 30 sx., minimum interval: 2000’-1900’, calculated interval: 2000’-1889’. The plug will cover the Rustler.