

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161

1625 N. French Dr., Hobbs, NM 88240

District II - (575) 748-1283

811 S. First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S. St. Francis Dr., Santa Fe, NM

87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised July 18, 2013

**HOBBS OCD**

OIL CONSERVATION DIVISION

**MAY 18 2015**

1220 South St. Francis Dr.

Santa Fe, NM 87505

**RECEIVED**

WELL API NO.

30-025-39340

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Quail "16" State

8. Well Number 2

9. OGRID Number

151416

10. Pool name or Wildcat

Quail Ridge, Delaware

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other SWD Well ☒

2. Name of Operator

Fasken Oil and Ranch, Ltd.

3. Address of Operator

6101 Holiday Hill Rd. Midland, TX 79707

4. Well Location

Unit Letter N : 1230 feet from the S line and 1980 feet from the W line

Section 16

Township 20S

Range 34E

NMPM

County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

3636' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☒ MULTIPLE COMPL ☐

DOWNHOLE COMMINGLE ☐

CLOSED-LOOP SYSTEM ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ P AND A ☐

CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Fasken proposes to run a 4 1/2" flush joint liner from 5130' - 6890' and cement in place with 50sx Super C cement. Please see the attached procedure and pit permit.

**Condition of Approval: notify**

**OCD Hobbs office 24 hours**

**prior of running MIT Test & Chart**

OPERATOR WILL BE USING A CLOSED-LOOP SYSTEM

**OIL CONSERVATION DIVISION**

CONDITION OF APPROVAL - Approval for drilling / workover **ONLY - CANNOT INJECT OR DISPOSAL** until the injection/disposal order has been approved by the OCD Santa Fe office.

Spud Date:

Rig Release Date:

SIGNATURE

TITLE Regulatory Analyst

DATE 5-15-2015

Type or print name Addison Long

E-mail address: [addisonl@forl.com](mailto:addisonl@forl.com)

PHONE: 432-687-1777

For State Use Only

APPROVED BY:

TITLE

DATE

CONDITION OF APPROVAL: Notify OCD DISTRICT OFFICE 24 HOURS prior to STARTING THE WORKOVER.

CONDITION OF APPROVAL: Operator shall give the OCD District Office 24 hour notice before running the MIT test and chart.

**MAY 18 2015**

# PROPOSED

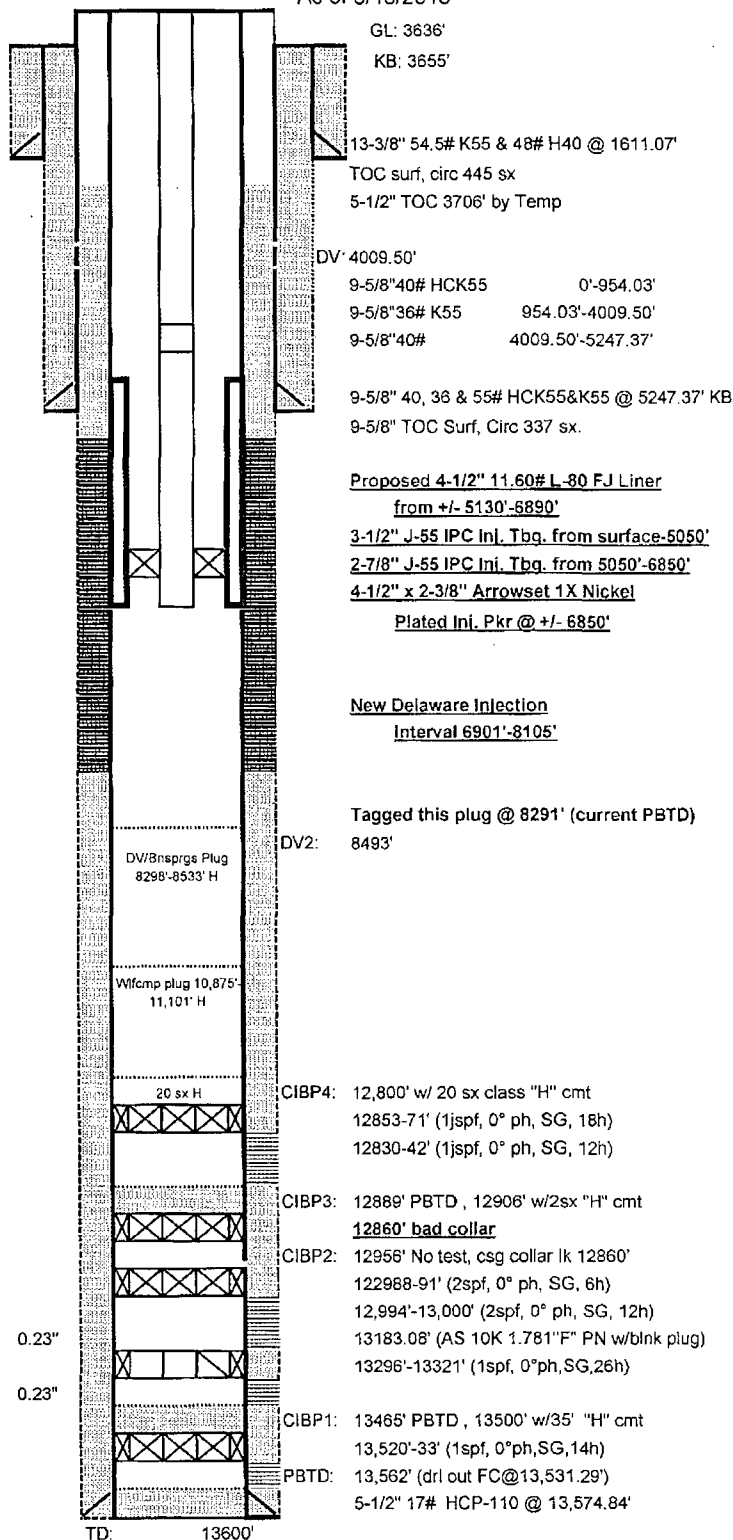
Well: **Quail State "16" No. 2**  
 Operator: **Fasken Oil and Ranch, Ltd.**  
 Location: **1230' FSL and 1980' FWL**  
**Sec 16, T20S, R34E**  
**Lea County, NM**  
 Compl.: **7/24/2010 released rig**  
 API #: **30-015-39340**  
 TD: **13600'**  
 PBTD: **13,562' (drl out FC@13,531.29')**  
 Csg1: **13-3/8" 54.5# K55 & 48# H40 @ 1611.07'**  
 w/900sx "C" w/4% gel & 2% CaCl2 (13.5 ppg, 1.74 cuft/sk)  
 +350sx "C" w/2% CaCl2 (14.8ppg, 1.32 Cuft/sk)  
 TOC surf, circ 445 sx  
 Csg2: **9-5/8" 40, 36 & 55# HCK55&K55 @ 5247.37' KB**  
 1st stg: 350sx HLC w/15# salt, 1/8# Poly-E-Flake(12.6ppg, 2.23ft3/sx)  
 +200sx "C"(14.8ppg, 1.32 cuft/sk). Circ 50 sx thru DV1.  
 DV1: **4009.50'**  
 2nd stg: 1500sxHLCw/15# salt, 1/8# Poly-E-Flake(12.6ppg, 2.23ft3/sx)  
 +200sx "C"(14.8ppg, 1.32 cuft/sk).  
 9-5/8" TOC Surf, Circ 337 sx.  
 Csg3: **5-1/2" 17# HCP-110 @ 13,574.84'**  
 1st stg: 1200sx Super "H" Modified(13.2ppg, 1.63cuft/sk),  
 Circ 138 sx thru DV2.  
 DV2: **8493' (ACP 10 element @ 8492.96')**  
 2nd stg: 700sx Light "H" w/1/8#Poly-E-Flake(12.4ppg, 2.0ft3/sx)  
 +200sx "H" neat(15.6ppg, 1.28 cuft/sk). Diff 1700 psi prior to BP.  
 TOC: **5-1/2" TOC 3706' by Temp**  
 Proposed **4-1/2" 11.60# L-80 FlushMax FJ Liner @ 5130'-6890'**  
 Liner: **Cemented w/ 50 sx Super "C" (s.w. 13.2 ppg, 1.57 cuft/sk)**

## Perfs and Plugs:

CIBP4: **12,800' w/ 20 sx class "H" cmt**  
 7/30/2013 **12853-71' (1jspf, 0° ph, SG, 18h)**  
 7/30/2013 **12830-42' (1jspf, 0° ph, SG, 12h)**  
**12853-71' ( 0° ph, SG, ?h)**  
 CIBP3: **12889' PBTD , 12906' w/2sx "H" cmt** 7/26/2013  
 CIBP2: **12956' No test, csg collar lk 12860'** 7/17/2013  
 5/16/2010 **122988-91' (2spf, 0° ph, SG, 6h)** U Morrow  
 5/16/2010 **12,994'-13,000' (2spf, 0° ph, SG, 12h)** U Morrow  
 Pkr1: **13183.08' (AS 10K 1.781"F" PN w/blnk plug)**  
 9/17/2010 **13296'-13321' (1spf, 0°ph,SG,26h)** M. Morrow  
 CIBP1: **13465' PBTD , 13500' w/35' "H" cmt** 9/13/2010  
**13,520'-33' (1spf, 0°ph,SG,14h)** L. Morrow

Hole Sizes: **17-1/2" Surf-1620; 12-1/4" 1620'-5248'; 8-3/4" 5248'-13600'**

As of 5/15/2015



**Run Liner and Return to Injection**  
**Quail State 16 No. 2**  
**1230' FSL & 1980' FWL**  
**Sec 16, T20S R34E**  
**Lea County, New Mexico**  
**AFE # 3261**

<b>OBJECTIVE:</b>	Run 4-1/2" liner and return to injection
<b>WELL DATA:</b>	
13-3/8" 54.5# K-55	Set @ 1611'. Cmt w/ 900 sx to surface
9-5/8" 40/36# HCK55/K55	Set @ 5247'. Cmt w/ 2450sx to surface DV @ 4009'
5-1/2" 17# HCP-110	Set @ 13,575'. Cmt w/ 2100 sx "H", TOC 3706' TS, DV @ 8483'
CIBPs:	13,465' w/35' cmt, 12,956' no test, 12,906' w/35' cmt.
PBTD:	8291' (cement plug)
TD:	13,600'
Perforations:	5332'-5664', 6236'-6590', 6641'-6812', 6923'-6999', 6901'-7670', 7900'-8105'

1. Make sure mast anchors have been tested and tagged within last two years. Be sure we have pit permit and Sundry notice on file with NMOCD.
2. Contact NMOCD with intent to run 4-1/2" liner.
3. Set rig mats, two sets of pipe racks, catwalk, and 250 bbl steel open top workover tank. Unhook injection equipment and plumb wellhead to tank.
4. RUPU and bleed well down to tank. NDWH and NU 3k manual BOP. Have both 2-3/8" and 2-7/8" sets of rams on location. Be sure to have a good stabbing guide for both the 2-7/8" and 3-1/2" IPC injection tubing.
5. Release 5-1/2" Arrowset 1X injection packer. POW with tubing while inspecting for damage coating and LD packer. Stand back 1800' of 2-7/8" IPC injection tubing in derrick and LD remainder of tubing while installing thread protectors. Backhaul the 2-7/8" tubing that was laid down.
6. RUWL and RIW and set 5-1/2" 10k CIBP @ +/- 6890'. Casing collars at 6878' and 6923'. Note SICP after setting CIBP, we will need this pressure prior to cementing liner in order to hold back pressure while and after liner is cemented to hold cement in place.
7. Receive and unload 6800' of 2-3/8" 4.7 #/ft N-80 EUE 8rd yellow band workstring, 1700' of 2-3/8" 5.95# CS Hydril yellow band workstring and +/-1800' of 4-1/2" 11.60 #/ft K-55 FlushMax FJ liner. Clean, drift, and inspect liner (Art's Inspection Service (432-556-3879). Remove thread protectors, clean threads and install clean pin end protectors on tubing. Need proper handling tools for FJ liner including slips, elevators, safety clamps, and lift nubbins.
8. RIW with 4-1/2" FJ duplex shoe, +/- 1760' of 4-1/2" 11.60 #/ft K-55 FlushMax FJ liner, and 4-1/2" FlushMax FJ casing beveled entry guide. Leave liner hanging in slips with 2 safety clamps on OD of liner above slips.
9. RU running table on top of liner and RIW with liner setting tool, 2-3/8" expansion tool, X-O sub, +/- 1800' of 2-3/8" tubing. Tag bottom of liner and sting in and rotate setting tool into liner. RD running table, PU off slips, remove safety clamps, and RIW with an additional 2 jts of 2-3/8" tubing.
10. RU pump truck on tubing and establish circulation through liner and pump 20 bfw through liner.

11. Run liner to within 30' of TD (CIBP @ 6890'). RU tubing swivel and pump truck and establish circulation while lowering liner slowly to TD. Reciprocate liner in order to establish true bottom. Wash last jt down to be sure liner does not plug.
12. Set liner on bottom and rotate setting tool out of liner. PU off bottom with tubing and setting tool to make sure liner is not still on setting tool. Circulate well with fresh water.
13. Sting back into liner with straight sit down on seals on setting tool. Stack out 3-5K compression on liner and RU pump truck and swivel.
14. NU tubing stripper above BOP before beginning cement job. Pump 50 bfw spacer. Mix and pump 50 sx Super C + 5/10% FI-17 (fluid loss) + 3/10% SMS + 0.05% CF-20 (retarder) + 0.004 gps CF-41L (anti-foam) (O-Tex nomenclature), (s.w. 13.2 ppg, yield 1.57 ft<sup>3</sup>/sx). Hold back pressure on casing while cementing as determined from SICP after setting CIBP. Shut down and wash up pumps and lines.
15. Displace cement with fresh water at +/- 1 bpm leaving 1 bbl of cement slurry in tubing. Displace while holding back pressure on casing. PU on tubing to leave liner setting on bottom and pull setting tool out of sleeve on bottom.
16. POW with +/- 1900' of tubing standing back tubing in derrick for drill out. Reverse tubing clean with 30 bfw. Keep 100 psi above SICP pressure held on the well and SWI for 24-48 hours.
17. Open well and bleed pressure to tank. POW standing back tubing in derrick and LD liner setting assembly.
18. RU reverse drilling equipment and fill pit with produced water and biocide.
19. RIW with 4-3/4" mill toothed bit, and 6 3-1/8" drill collars and drill out cement to liner top, be very gentle to not roll liner top over. Circulate well clean and pressure test liner top to 650 psi for 35 minutes on chart recorder and report results to Midland office. Continue to drill out liner only after successful pressure test.
20. POW and lay down 4-3/4" bit.
21. RIW with 3-7/8" mill toothed bit, bit sub, 6 3-1/8" drill collars, X-O, 1800' of 2-3/8" CS Hydril workstring and 2-3/8" tubing from derrick. Clean out liner to cement tag depth and displace well clean with produced water. RU power swivel and drill out shoe jt and circulate well clean before drilling out float shoe. Drill out float shoe and CIBP and continue RIW to PBTD of 8291'. Circulate well clean with produced water.
22. POW laying down 2-3/8" tubing and tools. Change BOP rams to accommodate 2-7/8" tubing and have 3-1/2" rams in BOP while running 3-1/2" tubing.
23. Receive and unload +/- 5200' of 3-1/2" EUE 8rd J-55 IPC injection tubing. Use only Oil Center Research 104G pipe dope on IPC tubing.
24. RIW with 4' x 2-3/8" mule shoed F/G sub, 4-1/2" x 2-3/8" Arrowset 1X nickel plated injection packer, 1.87" "F" profile and TOSSD, 2-3/8" x 2-7/8" X-O, 1800' of 2-7/8" EUE 8rd J-55 IPC tubing, and 5050' of 3-1/2" EUE 8rd J-55 IPC tubing with turned down collars. Carefully handle all IPC tubing and use stabbing guide on every joint. Space out tubing to set packer in 12k compression.
25. Set packer at +/- 6850'. Disengage TOSSD, PU and circulate well clean with 130 bbw containing 0.5% packer fluid.
26. Engage TOSSD, ND BOP, and NUWH. Install 3-1/2" 8rd x 2-7/8" 8rd 316 S.S. swage in top jt and install 2-7/8" A.B. gate valve.
27. RU pump truck and perform mock H-5 test.

28. Notify NMOC D 24 hrs prior to performing MIT pressure test of tubing/casing annulus to 510 psi for 35" on chart recorder and report results to Midland office. Send signed chart to Midland office.
29. RDPU, clean location and release all rental equipment.
30. Turn well over to operations and return well to injection. Report injection volumes and pressures on daily drilling report.

CLH

AFE3261\_Quail2SWD\_RunLinerProc