OCD Hobbs

Form 3160-5 (March 2012)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2014

5. Lease Serial No.

| | | BECEIVE RECEIVE | LC032100 | | |
|--|---|--|---|---|--|
| Do not use thi | | ORTS ON WELLS to drill or to re-enter an PD) for such proposals. | 6. If Indian, Allottee of | Tribe Name | |
| SUB | MIT IN TRIPLICATE – Other | 7. If Unit of CA/Agreement, Name and/or No. | | | |
| 1. Type of Well 🗸 | 1 | | 0.31/11/1 | | |
| ✓ Oil Well Gas Well Other | | | 8. Well Name and No. C.H. LOCKHART FEDERAL NCT-1 #11 | | |
| 2. Name of Operator CHEVRON U.S.A. INC. | | 9. API Well No. 30-025-30739 | | | |
| 3a. Address 15 SMITH ROAD MIDLAND, TEXAS 79705 | 1 | 3b. Phone No. (include area code) 432-687-7375 | 10. Field and Pool or Exploratory Area BRUNSON; DRINKARD-ABO, SOUTH | | |
| 4. Location of Well (Footage, Sec., 380 FNL, & 330 FWL, SECTION 18, UL: 0 | T.R.M., or Survey Description, T-22S, R-38E |) | 11. County or Parish, State LEA COUNTY, NEW MEXICO | | |
| 12. CF | HECK THE APPROPRIATE BO | OX(ES) TO INDICATE NATURE OF NO | OTICE, REPORT OR OTH | ER DATA | |
| TYPE OF SUBMISSION | | TYPE OF A | ACTION | | |
| ✓ Notice of Intent | Acidize Alter Casing | | Production (Start/Resume) Reclamation | Water Shut-Off Well Integrity | |
| Subsequent Report | Casing Repair | | Recomplete | Other | |
| Final Abandonment Notice | Change Plans Convert to Injection | | Temporarily Abandon Water Disposal | A-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 | |
| Attach the Bond under which the following completion of the intesting has been completed. Find determined that the site is read CHEVRON U.S.A. INC. INTENER PLEASE FIND ATTACHED, THE PLEASE FIND ATTACHED, THE PLEASE FIND ATTACHED ATTACHED. | he work will be performed or provolved operations. If the operational Abandonment Notices must by for final inspection.) OS TO ACIDIZE & SCALE SCE INTENDED PROCEDURE, | WELLBORE DIAGRAM, & C-144 INF | A. Required subsequent repompletion in a new interval ling reclamation, have been | orts must be filed within 30 days , a Form 3160-4 must be filed once completed and the operator has | |
| DENISE PINKERTON | | Title REGULATORY | SPECIALIST | | |
| Signature Augst | enterton) | Date 11/30/2012 | | APPROVED | |
| | THIS SPACE | FOR FEDERAL OR STATE (| OFFICE USE | TITOVED | |
| Approved by | | JAN] | 1,4 2013 h | JAN, 7 8913 | |
| Conditions of approval, if any, are atta that the applicant holds legal or equita entitle the applicant to conduct operat | ble title to those rights in the subj | es not warrant or certify | RYPE BYPE | MMUM / IOOON AU OF LAND MANAGEMENT | |
| Title 18 U.S.C. Section 1001 and Titl fictitious or fraudulent statements or | | a crime for any person knowingly and willfurthin its jurisdiction. | Illy to make to any departmen | nt or agency of the United States arry false | |

C.H. Lockhart NCT-1 #11

11.28.2012

Blinebry Oil and Gas, Drinkard, Abo and Granite Wash Reservoirs T22S, R38E, Sec. 18

N 32° 23' 52.62", W -103° 6' 23.58" (NAD27) Job: Sonic Hammer, Acidize & Scale Squeeze

PREWORK:

- 1. Utilize the rig move check list.
- 2. Check anchors and verify that pull test has been completed in the last 24 months.
- 3. Ensure location of & distance to power lines is in accordance with MCA SWP. Complete and electrical variance and electrical variance RUMS if necessary.
- 4. Ensure that location is of adequate build and construction.
- 5. Ensure that elevators and other lifting equipment are inspected. Caliper all lifting equipment at the beginning of each day or when sizes change.
- 6. When NU anything over and open wellhead (EPA, etc.) ensure the hole is covered to avoid dropping anything downhole.
- 7. For wells to be worked on or drilled in an H₂S field/area, include the anticipated maximum amount of H₂S that an individual could be exposed to along with the ROE calculations for 100 ppm and 500 ppm.
- 8. If the possibility of trapped pressure exists, check for possible obstructions by:
 - Pumping through the fish/tubular this is not guaranteed with an old fish as the possibility of a hole above the obstruction could yield inconclusive results
 - Dummy run make a dummy run through the fish/tubular with sandline, slickline, eline or rods to verify no obstruction. Prior to making any dummy run contact RE and discuss.

If unable to verify that there is no obstruction above the connection to be broken, or if there is an obstruction:

· Hot Tap at the connection to check for pressure and bleed off

Observe and watch for signs / indicators of pressure as connection is being broken. Use mud bucket (with seals removed) and clear all non-essential personnel from the floor.

Procedure:

This procedure is meant to be followed. It is up to the WSM, Remedial Engineer and Production Engineer to make the decisions necessary to do SAFELY what is best for the well. In the extent that this procedure does not reflect actual operations, please contact RE, PE and Superintendent for MOC

- 1. Verify that well does not have pressure or flow. If well has pressure, note tubing and casing pressures on Wellview report. Bleed down well; if necessary, kill with 2% KCL brine fluid (8.6 ppg).
- 2. MI & RU workover unit.
- 3. Unseat pump, POOH with rods and pump. Examine rods for wear/pitting/paraffin. Do not hot water unless necessary. ND wellhead, unset TAC, NU BOP. POOH and LD 1 jt, PU 5-1/2" packer and set ~ @ 25', test BOP pipe rams to 250 psi/1000 psi. Note testing pressures on Wellview report. Release and LD packer.
- 4. POOH while scanning 2-7/8" 6.5# J-55 prod tubing. LD all non-yellow band joints. (TAC 6,737', Top Perf 6,878', Bottom Perfs 7,582', EOT 7,546', PBTD 7,551').

Note: Strap pipe out of the hole to verify depths and note them on Wellview report. Send scan log report to LGBI@chevron.com.

- 5. PU and RIH with 4-3/4" MT bit, 6 (3-1/2") drill collars on 2-7/8" 6.5# L-80 WS. RU power swivel and clean out to original PBTD at 7,620' with foam/air unit (continue to supplemental procedure and in accordance with attached SOG). POOH with 2-7/8" WS and bit. LD bit & BHA. Stand back work string.
- 6. Contact sonic tool rep to be on site during job. Verify that work string is clean, inspect for excessive rust. PU and RIH with Sonic Hammer tool and work string to ~7,587' or enough to cover the bottom perforations with a whole stand. Hydrotest tubing to 6,000 psi. Stand back tubing to top perforations. Install stripper head and stand pipe with sufficient treating line to move tools vertically ~ 65'. Take returns out BOP to ½ free w/gas buster.
- 7. MI & RU Petroplex. Titrate acids and verify concentration (HCI ±1.5%) report results in daily work summary. Treat all intervals from 6,874' to 7,587' with 30 bbls of 2% KCL brine water per interval (refer to Table A). Pump down Sonic Hammer tool at 5 BPM while reciprocating tool across intervals. Do not exceed 5,000 psi tubing pressure. Leave annulus open in circulation mode while treating intervals with 2% KCL brine.
- 8. Follow the brine water wash with 5,000 gals 15% NEFE HCl of total acid for all intervals as in Table A. Spot 3 bbls of acid outside tubing, shut in casing, pump 1,500 gallons of acid @ 5 BPM over first treating interval from 6,874'-6,919', monitor casing pressure not exceeding 500 psi. Flush tubing with 2% KCL brine after every acidized interval, make a connection and continue with remaining interval. Refer to Table A.

Table A: Perforation Intervals for acid.

| Table A. I citoration intervals for usia. | | | | |
|---|---------------|-------------------|-------------------|--|
| Interval | Depth | Interval (Ft.) | Acid Volume (gal) | |
| 1 | 6874' - 6919' | 45 | 1,500 | |
| 2 | 6919' - 6967' | 48 | 1,500 | |
| 3 | 7452' - 7466' | 14 | 500 | |
| 4 | 7505' - 7564' | 59 | 1,000 | |
| 5 | 7564' - 7587' | 23 | 500 | |
| | | Total | 5,000 | |

- 9. Shut in well for 1 hr for the acid to spend. Monitor casing pressure to keep it below 500 psi. Bleed off excess pressure if necessary. Attempt to flow back. If acid does not flow back, do not swab.
- 10. Scale squeeze well with a total of 170 bbls 2% KCL brine water and 3 drums (165 gallons) Baker SCW-358 Scale Inhibitor Chemical. For 1st stage, pump chemical as a concentrated pill of 33 gals of SCW-358 with 8 bbl of 2% KCL then displaced with 20 bbls of 2% KCL per interval. Continue moving uphole with Sonic Hammer. Pump at max rate of 5 BPM per pump schedule. Ensure top of tubing is flushed with brine water before making a connection. After final stage, move sonic hammer above top perf and displace with 50 bbls 2% KCL. Refer to Table B.

| Stage | Interval | Interval | Vol Brine | Vol Chem |
|-------|---------------|----------|--------------|-------------|
| | | .(ft) - | (bbl) | (Gal) |
| 1 | 7587' - 7564' | 23 | 20 | 33 |
| 2 | 7564' - 7505' | 59 | 20 | 33 |
| 3 | 7466' - 7452' | 14 | 20 | 33 |
| 4 | 6967' - 6919' | 48 | 40 | 33 |
| 5 | 6919' - 6874' | 45 | 20 | 33 |

| Table B: Scale Sqz Pump Schedule | | | | | | |
|----------------------------------|---------------------------------------|-----------------|-------------|-----------------|--------------------|-----------------|
| Step | | Interval: | Max Rate | Volume Brine | Volume Scale Chem: | Cum Volume |
| | | (ft) | (BPM) | (bbl) | (Gal) | (bbl) |
| 1. | Pump Chemical/brine while moving from | 7587' - 7564 | 1.75 | 8 | 33 | 8.8 |
| 2 | Rump Brine while moving from | 7587' - 7564' | 5 | 12 | | 21 |
| : 3 | Pump Chemical/brine while moving from | 7587' - 7564' | 5 | 8 | 33 | 30 |
| 4 | Pump Brine while moving from | 7587' - 7564' | 5 | 12 | | 42 |
| 5 | Pump Chemical/brine while moving from | 7587' - 7564' | 5 | 8 | 33 | ₃ 50 |
| 6 | Pump Brine while moving from | 7587' - 7564' | 5 | 12 | | .62 |
| 7 | Pump Chemical/brine while moving from | 7587' - 7564' | . 5 | 2 | 9. | 65 |
| 8 | Move pipe to next interval of | 7564' - 7505' | | | | 65 |
| 9 | Pump Chemical/brine while moving from | 7564' - 7505 | 5. 5 | 6 | 24 | 71 |
| 10 | Pump Brine while moving from | 7564' - 7505' | 5 1 | 14 🐇 | | - 85 |
| 11 | Move pipe to next interval of | 7466' - 7452' | | | | 85 |
| 12 | Rump Brine while moving from | 7466 - 7452 | 5 | 18 | | 103 |
| 13 | Pump Chemical/brine while moving from | 7466' - 7452' | . 5 | 2 | 9 | 105 |
| 14 | Move pipe to next interval of | 6967; - 6919; | | | | 105 |
| 15 | Pump Chemical/brine while moving from | '6967' - 6919'- | 5 | 6 | 24 | 112 |
| 16 | Pump Brine while moving from | 6967' - 6919' | . 5 | 32 | | 143 |
| 17 | Move pipe to next interval of | 6919' - 6874' | | | | 143 |
| 18 | Pump Brine while moving from | 6919' - 6874 | 5 | 30 | | 174 |

- 11. Ensure Sonic Hammer is above all perforations. Do not exceed 500 psi casing pressure or 5 BPM while pumping scale squeeze or casing flush. RD and release pump truck.
- 12. Run back in the hole and tag for fill. If fill entry was indentified above 7,600', clean-out to PBTD following step 5.
- 13. POOH & LD 2-7/8" WS and Sonic Hammer tool.
- 14. RIH with 2-3/8" production tubing hydrotesting to 6,000 psi. Set TAC per ALCR recommendation. ND BOP. NU WH. RIH with rods and pump per ALCR. Hang well on. RD and release workover unit.
- 15. Turn well over to production.

FOAM / AIR CLEANOUT PROCEDURE

- This procedure is an addition to the original procedure.
 - 1. Install flowback manifold with two chokes. All components on flowback manifold must be rated to at least 5,000 psi. If possible, flowback manifold components should be hydrotested before delivery. Hardline pipes from 2" casing valve to manifold to half pit with gas buster.
 - 2. Install flowback tank downwind from rig.
 - 3. Position Air unit upwind from Rig next to water tanks. Have vacuum truck on standby to empty halfpit. (if needed)
 - 4. RIH with 4-3/4" MT bit, 4 (3-1/2") drill collars on 2-7/8" 6.5# L-80 WS.
 - 5. NU stripper head with <u>NO Outlets</u> (Check stripper cap for thread type course threads preferred). Stripper head to be stump tested to 1,000 psi before being delivered to rig. Check chart or test at rig.
 - 6. RU foam air unit. Make quality foam on surface before going down hole with foam/air. Install flapper float at surface before beginning to pump. Break circulation with foam/air. Evacuate fluid from well.

Pump high quality foam at all times. Do not pump dry air at any time. Fluid injection rates will generally be above 12 gallons per minute

Whenever there is pressure on the stripper head, have a dedicated person continuously monitor pressure at choke manifold and have a dedicated person at accumulator ready to close annular BOP in case stripper leaks. Do not allow pressure on stripper head to exceed 500 psi. If pressure cannot be controlled below 500 psi, stop pumping, close BOP and bleed off pressure.

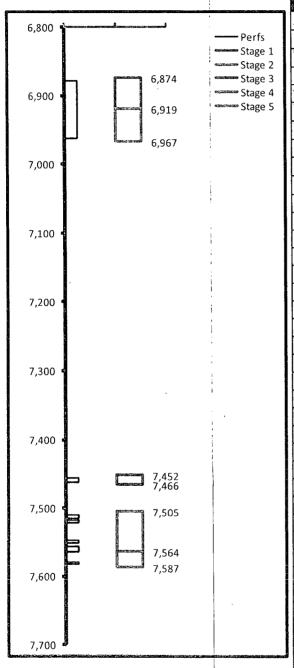
- 7. Clean out fill to 7,620' with low RPM's rotation and circulation, always keep pipe moving. Short trips can be beneficial to hole cleaning. Circulate well clean for at least 1 hour at the end of the day and pull up above the perforations before shut down for night. If the foam/air unit goes down, pull above the perforations.
- 8. When tripping out of hole, have special float bleed off tool available to relieve trapped pressure below float.

Ensure that high quality, stiff foam is pumped while circulating the fill. Stiff foam is required to prevent segregation while circulating. Monitor flow and pressures carefully when cleaning out.

Before rigging up power swivel to rotate, carefully inspect Kelly hose to ensure that it is in good condition. Ensure that swivel packing is in good condition.

Continue on with original procedure for completion.

C.H. Lockhart NCT-1 #11



| | | Perfs Detail | | |
|----------|--------|-----------------|--------------|--------------|
| Тор | Bottom | Interval Length | Status | Reservoir |
| ft | ft | + ft : | | |
| 6,878 | 6,962 | 84 | Opeñ | Drinkard Abo |
| 7,456 | 7,462 | 6 | Open | G. Wash |
| 7,510 | .7,515 | 5 | Open | G. Wash |
| 7,518 | 7,522 | 4 | Open | G. Wash |
| | 7,552 | 4 | Öpen | Ğ. Wash |
| 7,556 | 7,564 | 8 | Open | G. Wash |
| 7,580 | 7,582 | 2: ~ | Open | G. Wash |
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| | Total | | | |
| 6,878 | 7,582 | 113 | | |

Chevron U.S.A. Inc. Wellbore Diagram : LOCKHRTNCT111DHC

| Lease: OEU EUNICE | | IDOIE DIAGRAM : LC | | | |
|--|---|---|---|--|--|
| Location: 380FNL330FWL | Well No.: LOCKHRT NCT1 11 PARENT FOR DH | | Blk: | Survey: N/A | |
| County: Lea St.: New Mexico | Sec.: N/A | | API: 3002530739 | Cost Center: UCU4641 | |
| Section: 18 | Township: 022 | | | Range: 038 E | |
| Current Status: ACTIVE | | | Dead Man Ancho | rs Test Date: 01/04/2007 | |
| Directions: | | | Dead Hall Allene | 13 rest bute: 01,01,2007 | |
| 7620 7296 6973 6650 6327 5587 3403 1514 1009 504 0 | | duction Casing (Top-Bottom Deco-0) Producing Interval 99 PR 5878-6962) Perforations-Open E 7456-7582) Perforations-Open C 7586-7620) Unknown 5.500 OD/ 177586-7620) Wellbore Hole OD-0-7620) Cement 1 String Quantity (Top-Bottom E 14.40) 1.500 (1 1/2 in.) Spray (240-44) 1.000 (1 in.) D x 2 Roc (244-48) 1.000 (1 in.) D x 2 Roc (244-48) 1.000 (1 in.) D x 2 Roc (242-34798) 0.875 (7/8 in.) D (242-34798) 0.875 (7/8 in.) D (242-34798) 1.500 (1 1/2 in.) K (27398-7418) Rod Pump (Insert (27418-7430) Gas Anchor 1.250 (1350) Unknown 11.750 OD/ 4.0-1350) Unknown 11.750 OD/ 4.0-1350) Wellbore Hole OD-14.7 (256-6737) Tubing Anchor/Ca (26737-7477) J-55 2.875 OD/ (26735-6737) Tubing Anchor/Ca (26737-7477) J-55 2.875 OD/ (267509-7510) Seat Nipple - Star (27510-7514) Perforated Tubing (27514-7546) Bull Plug Mud And | Brunson Drinkard Ab Granite Wash 7.00# Round Long 7.8750 Depth) Desc Metal x 26 - Spray i Sub 5 Rod x 25 Rod 0 x 25 Rod 0 x 25 Sinker Bar) (NON-SERIALIZED) (NON-SERIALIZED 0 OD x 12' n) Desc 2.00# Round Short 500 m Depth) Desc 3.50# T&C External atcher 2.875" 6.50# T&C External andard (2.875") Cup g Sub 2.875" chor 2.875" h) Desc | 4.892 ID 4.767 Drift Metal D) - 25-125-RHBC-20 11.084 ID 10.928 Drift Upset 2.441 ID 2.347 I Upset 2.441 ID 2.347 Upset 2.441 ID 2.347 | |
| Well Depth Datum:: CSI000 | | | | actor: 14.00 | |
| Last Updated by: fttr | OIV | Elevation (MSL):: 0.00 | [[Correction i | -actor: 14,00 | |
| Last Opuated by: Ittl | | Date: 04/08/2007 | | | |