

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 OGD  
DEC 02 2013

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (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.)		WELL API NO. 30-025-39004
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
2. Name of Operator CHEVRON U.S.A. INC.		6. State Oil & Gas Lease No.
3. Address of Operator 15 SMITH ROAD, MIDLAND, TEXAS 79705		7. Lease Name or Unit Agreement Name EUNICE KING
4. Well Location Unit Letter: F 2160 feet from NORTH line and 2630 feet from the WEST line Section 28 Township 21S Range 37E NMPM County LEA		8. Well Number 34
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number 4323
		10. Pool name or Wildcat PENROSE; SKELLY GRAYBURG

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 SONIC HAMMER ACIDIZE, SCALE SQUEEZE, C/O

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.

CHEVRON U.S.A. INC. INTENDS TO SONIC HAMMER ACIDIZE, SCALE SQUEEZE, & CLEAN OUT THE SUBJECT WELL.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE.

DURING THIS PROCESS WE PLAN TO USE THE CLOSED LOOP SYSTEM WITH A STEEL TANK AND HAUL TO THE REQUIRED DISPOSAL, PER THE OCD RULE 19.15.17.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

*Denise Pinkerton*

TITLE REGULATORY SPECIALIST

DATE 11/27/2013

Type or print name DENISE PINKERTON

E-mail address: [leakejd@chevron.com](mailto:leakejd@chevron.com)

PHONE: 432-687-7375

For State Use Only

APPROVED BY:

*Mahe P. ...*

TITLE

*Compliance Officer*

DATE 12-3-2013

Conditions of Approval (if any):

DEC 03 2013

Eunice King #34G  
Penrose Skelly - Grayburg Reservoir  
T21S, R37E, Sec. 28  
N 32° 27' 3.78", W -103° 10' 3.504" (NAD27)  
Job: Sonic Hammer Acidize, Scale Squeeze, and CO

10.08.2013

**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 H<sub>2</sub>S field/area, include the anticipated maximum amount of H<sub>2</sub>S 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**

**Note: Ensure when setting up the Acid Job that all Acid Components listed in Table A are ordered.**

1. Verify that well does not have pressure or flow. If the well has pressure, note tubing and casing pressures on Wellview report. Bleed down well; if necessary, kill with cut 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.
4. ND wellhead, unset TAC, NU BOP dressed with 2-7/8" pipe rams on top and blind rams on BTM. NU EPA equipment and RU floor. POOH and LD 1 jt 2-7/8" tbg. PU 5-1/2" 15.5 rated packer along with a joint of 2-7/8" tubing and set below WH @~ 25', test BOP pipe rams to 250 psi/1000 psi. Note testing pressures on Wellview report(Time log and safety/inspections). Release and LD packer.

5. PU 2jt of 2 7/8" tubing and RIH to 3,979' to tag for fill (TAC 3,597', Perfs 3,658-3,902, EOT 5,380', PBTD 4,254). Last tag depth = Do not push TAC into perfs. POOH while scanning 2-7/8" prod tubing. LD all non-yellow band joints. If fill is tagged:
  - A. Above 3,902' contact remedial engineer and verify if the clean out is necessary. If so, continue with foam/air clean out per step 5.
  - B. Below 3,902' clean out not needed, skip step 5.

**Note: Strap pipe out of the hole to verify depths and note them on Wellview report.**

Send scan log report to [KXHO@chevron.com](mailto:KXHO@chevron.com). ←--Don't know who to send it to

6. PU and RIH with 4-3/4" MT bit on 2-7/8" (production tubing). RU power swivel and clean out to 3,979' 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.
7. Contact sonic tool rep to be on site during job. *Verify that tbg is clean, inspect for excessive rust.* PU and Hydrotest in Hole with Sonic Hammer tool, seat nipple, and tbg to 3,902' or enough to cover the bottom perforations with a whole stand. Hydrotest tubing to 5,000 psi. Stand back tubing to top perforations. Install stripper head and stand pipe with sufficient treating line to move tools vertically ~ 65'. Rig up pressure gauges to allow monitoring of tubing and casing pressures.
8. MI & RU Petroplex and pressure test surface lines. Titrate acids and verify concentration (HCl  $\pm 1.5\%$ ). Report results in daily work summary. **Acid Components are listed below in Table A. Ensure when setting up the Acid Job that all Acid Components listed below are ordered.** If well will circulate proceed to step 8)b).

Acid Components Table A	
2 gpt	EP-3 Non Emulsion
5 gpt	DX - Iron Control Additive
2 gpt	BX - Activator ICH
2 gpt	I8 - Inhibitor

- a) **Sonic Hammer for non circulating wells.** Treat all 4 intervals from 3,658' to 3,902' with the following procedure from the top interval to the bottom interval. Shut in the annulus. Do not exceed 5,000 psi tubing pressure.
  - i) While reciprocating over the perf interval, pump 30 bbls of cut brine, followed by 15% NEFE HCL and then flush tubing with cut brine pumping at 5 BPM. Repeat with all intervals listed in Table B using the acid volumes listed for each interval.

**Table B: Perforation Intervals for Acid**

Interval	Depth	Interval (Ft.)	Acid Volume (gal)
1	3658' - 3718'	60	900
2	3718' - 3780'	62	700
3	3790' - 3852'	62	1,050
4	3852' - 3902'	50	900
			3,550

- ii) R/D Petroplex Acidizing, drop Sonic Hammer circulating port opening ball, shut in well for 1 hr for the acid to spend.
  - ❖ If WSM believes that the formation may take longer to spend the acid, wait until appropriate to open circulating ports and attempt swabbing.

- iii) Pressure up the tubing to ~2000 psi to open the sonic hammer tool circulating port.
- iv) R/U swab equipment and swab well back to flowback tank until the load is recovered or returns are produced fluid and no longer spent acid.

**Before/During Swabbing:**

Inspect sandline to be sure it's free of excessive rust, bird's nests, frays, kinks, knots, etc.

- v) R/D swab equipment and pump 40 bbls cut brine mixed w/ 3 drums Baker SCW-358 scale inhibitor down the tubing through the circulating ports on the Sonic Hammer at a max rate of 5 bpm. Displace scale squeeze w/ 110 bbls of cut brine.
- vi) TOOH w/ sonic hammer. Proceed to step 8.

**b) Sonic Hammer treatment w/ a circulating well.**

- i) Treat interval #1 (referring to Table B) with 30 bbls of cut brine. 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.

Pick up enough pipe to reach the next interval and repeat step 8)b)i) until all intervals are washed.

**Table B: Perforation Intervals for Acid**

Interval	Depth	Interval (Ft.)	Acid Volume (gal)
1	3658' - 3718'	60	900
2	3718' - 3780'	62	700
3	3790' - 3852'	62	1,050
4	3852' - 3902'	50	900
			3,550

- ii) Starting at interval #3 fill tubing w/ acid and shut in backside. Pump the volume of acid specified in Table A at 5 BPM reciprocating over the perf interval. Flush tubing with cut brine. Casing pressure should not exceed 500 psi. If necessary, bleed off or slow pumping rate.
- iii) TOOH w/ tubing to the next interval and repeat step 8)b)ii) acidizing each interval according to Table B.
- iv) 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.
- v) Kill well and POOH Sonic Hammer Tool and WS. LD Sonic Hammer.
- vi) PU & RIH with 5 1/2" packer and WS. Set treating packer at 3,600', above the top perf.
- vii) RU swab equipment and flowback tank.

**Before/During Swabbing:**

Inspect sandline to be sure it's free of excessive rust, bird's nests, frays, kinks, knots, etc.

- viii) Swab well until returns indicate formation fluid and not spent acid, or fluid level drops enough to make swabbing non productive.
- ix) Pump 40 bbls cut brine mixed with 3 drums of scale inhibitor (165 gals) Baker SCW-358 Scale Inhibitor Chemical down the packer. Pump at a max rate of 5 BPM.
- x) Displace scale squeeze with 110 bbls of cut brine.
- xi) Do not exceed 500 psi casing pressure or 5 BPM while pumping scale squeeze or casing flush. Shut in well overnight.
- xii) Release packer. POOH packer and WS. LD 2 7/8" WS and packer.

9. RIH with 2-7/8" production tubing string hydrotesting to 5,000 psi. **Set TAC per ALCR/Planner recommendation and record it on WellView.**
10. ND BOP. NU WH. **RIH with rods and pump per ALCR/Planner and record how much the pump was spaced-out on WellView.** Hang well on.
11. RD and release workover unit. Turn well over to production (contacts on back). Clean location.

## 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 **NO Outlets** (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.**

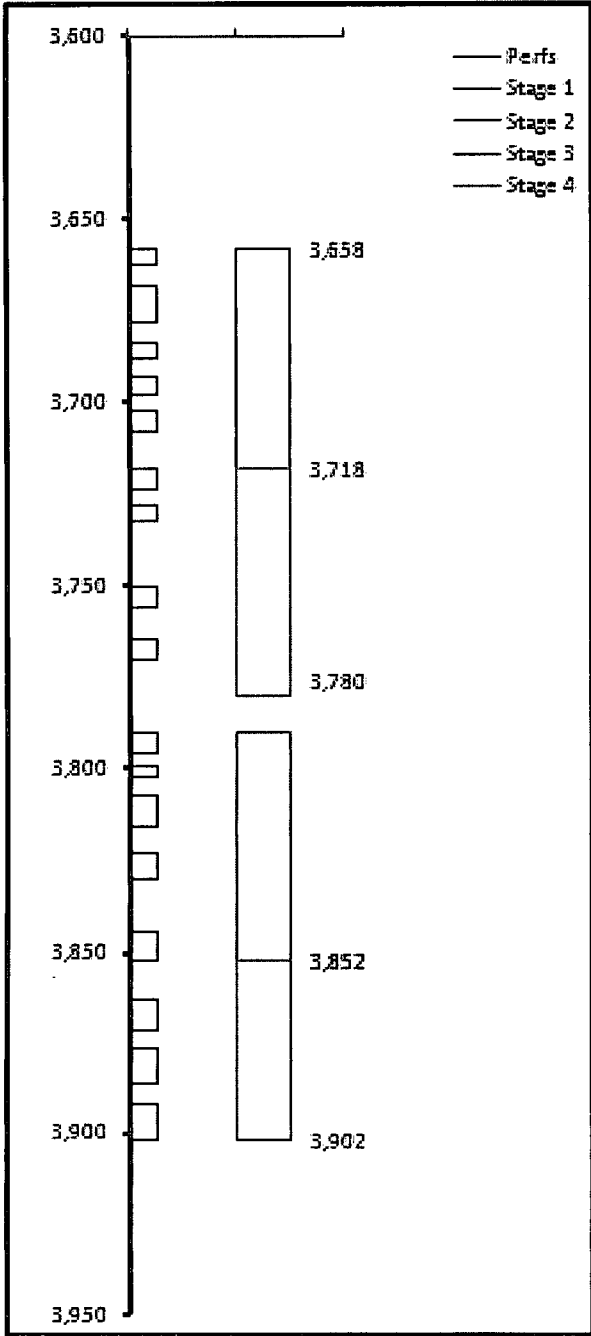
7. Clean out fill to 3,979' with low RPM's rotation and circulation, always keep pipe moving. Short trips can be beneficial to hole cleaning. Circulate well clean for at least 1 hour at the end of the day and pull up above the perforations before shut down for night. If the foam/air unit goes down, pull 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.**

# Eunice King #34G

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