

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

HOBBS OCD

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

APR 11 2012

RECEIVED

WELL API NO. 30-025-06901
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name H.T. MATTERN NC T-B
8. Well Number 4
9. OGRID 4323
10. Pool name or Wildcat PENROSE SKELLY GRAYBURG

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 ☐

2. Name of Operator  
CHEVRON U.S.A. INC.

3. Address of Operator  
15 SMITH ROAD, MIDLAND, TEXAS 79705

4. Well Location

Unit Letter P: 330 feet from the SOUTH line and 330 feet from the EAST line

Section 30 Township 21-S Range 37-E NMPM County LEA

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

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 ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: INTENT TO ACIDIZE, SCALE SQUEEZE

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 ACIDIZE, & SCALE SQUEEZE THE SUBJECT WELL..  
PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAMS, AND C-144 INFO.

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: 04-10-2012

Type or print name: DENISE PINKERTON

E-mail address: leakejd@cvhevron.com

PHONE: 432-687-7375

APPROVED BY:

*[Signature]*

TITLE

*State Manager*

DATE

*4-12-2012*

Conditions of Approval (if any):

APR 12 2012

H.T. Mattern B #4  
Penrose Skelly- Grayburg  
T21S, R37E, Section 30  
Job: Clean out, N<sub>2</sub> Acidize & Scale Squeeze

3.22.2012

**Procedure:**

1. Ensure location is in appropriate conditions, anchors have been tested within the last 24 months, power line distance has been verified to determine if variance is needed and the right tools are scheduled for the energized job.
2. 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 cut brine fluid (8.6 ppg).
  - **Caliper elevators and tubular EACH DAY prior to handling tubing/tools. Note in JSA when and what items are callipered within the task step that includes that work.**
3. MI & RU workover unit.
4. Unseat pump, POOH with rods and pump. Examine rods for wear/pitting/paraffin and capture any samples for analysis. Do not hot water unless necessary. ND wellhead, unset TAC, NU BOP. POOH and LD 1 jt, PU 4-1/2" packer and set ~ @ 25', test BOP pipe rams to 250 psi/1000 psi. Note testing pressures on wellview report. Release and LD packer.
5. POOH while scanning 2-3/8" prod tubing (TAC 3,550', Bottom Csg 3,635', EOT 3,805', OH TD 3,920'). LD TAC and 2-3/8" tbg, remove all non-yellow band tbg.

**Note: Strap pipe out of the hole to verify depths and note them on Wellview report.**  
Send scan log report to [hccf@chevron.com](mailto:hccf@chevron.com).

- **Caliper elevators and tubular EACH DAY prior to handling tubing/tools. Note in JSA when and what items are callipered within the task step that includes that work.**
6. PU and RIH 3-7/8" MT bit, 2-7/8" drill collars on 2-3/8" L-80 WS. Tag and record fill depth. RU power swivel and clean out to PBTD at 3,920'. POOH with 2-3/8" WS and bit. LD bit & BHA.

**Note: If circulation is not expected, notify Remedial Engineer to discuss CO with bailer (continue to step 7) or foam/air unit (continue to supplemental procedure on back).**
  7. PU and RIH with 3-7/8" MT and Bulldog bailer on 2-3/8" 4.7# L-80 WS. Tag and record fill depth. Clean out to 3,920'. POOH and LD bit & BHA.
    - **Expect trapped pressure inside tubing while breaking connections during bailing operations, discuss on JSA and mitigate hazard. Use mudbucket (remove bottom seals if applicable) while breaking connections.**
  8. POOH. LD bit & BHA.
  9. PU and RIH with 4-1/2" treating packer on 2-3/8" 4.7# L-80 WS testing to 8,000 psi. Set packer ~ 3,600'. Load and test backside to 500 psi.
  10. Prep location for N<sub>2</sub> Acid Treatment. RU 2 open tanks (equipped with gas buster) and set them on opposite sides of location if possible. This is to ensure the flow is directed downwind at all times. Steel lines are to be secured with safety restraints as shown on **Image A**. If Baker lacks safety restraints contact Guardian for rental. NU TIW valve rated for 10,000 psi (**newly-tested and functioned**). Have flowback crew and choke

manifold ready for flowback stage. Ensure all flowback equipment has current inspection and is properly secure.

11. Pressure up and maintain 300 psi on backside throughout acid job, monitor it and bleed down as necessary.
12. MI & RU Baker. **Test lines to 6,000 psi.** Treat OH from 3,635' to 3,920' per schedule on Table A.  
**Maximum treating pressure at surface is 5,000 psi. Set pop-off to less than 6,000 psi.**
13. Pump 3 bbls of Brine water ahead @ 2 BPM. **Set maximum rate @ 5 BPM.**

Acidize following Table A below for a total of 10 stages.

**Note: This is a simulated pumping schedule. Adjust rates as necessary.**

Stage	Wellhead Rates				Clean Volume Without N2		Stage Pump Time hh:mm:ss	Total Pump Time hh:mm:ss	F %
	Clean Fluid (bpm)	N2		Diverting Agent (unit/min)	N2				
		N2 (scfm)	Conc. (scf/bbl)		(bbls)	(cum)			
1	2.0	1714	857		21.4	21.4	00:10:42	00:10:42	50
2	0.2	3216	16080		3.0	24.4	00:14:52	00:25:35	95
3	2.0	1715	857		21.4	45.8	00:10:42	00:36:18	50
4	0.2	3216	16082		3.0	48.8	00:14:52	00:51:11	95
5	2.0	1715	857		21.4	70.2	00:10:42	01:01:54	50
6	0.2	3217	16083		3.0	73.2	00:14:52	01:16:47	95
7	2.0	1715	857		21.4	94.6	00:10:42	01:27:30	50
8	0.2	3217	16083		3.0	97.6	00:14:52	01:42:22	95
9	2.0	1715	857		21.4	119.0	00:10:42	01:53:05	50
10	0.0	3359	*****		0.0	119.1	00:10:25	02:03:30	100
Total Pump Time:								02:03:30	

**Table A. Treatment Schedule.**

**Clean Fluid (20% HCl Divert-S Acid)**  
**N2 (Nitrogen)**  
**F% (Foam Quality)**

Pump a total of 5,000 gals (119 barrels) of anti-sludge **20% HCl acid\*** foamed with Quality Nitrogen per Table A.

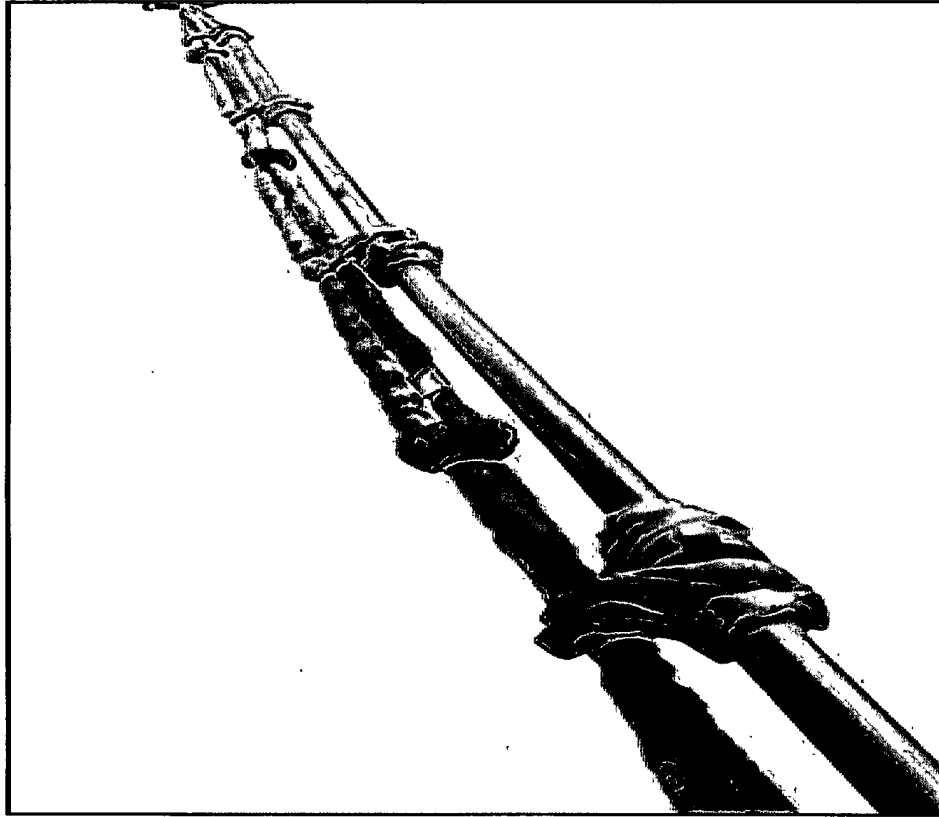
\* Acid system is to contain:

30 Gal	Ferrotrol 280L	Iron Control Agent
100 Gal	Divert S	Diversion Agent
10 Gal	CI-30	

14. Displace acid to bottom (3,920') with 100% Nitrogen as indicated on stage 10.
15. RDMO Baker. Shut in well for 4 hrs for the acid to spend. Monitor casing pressure to keep it below 300 psi. Bleed off excess pressure if necessary.

**Note: Acid job MUST start in the morning. If acid job is deferred, contact Remedial Engineering to discuss postponing job until the following day.**

16. Flow well back to open tank. **If necessary, discuss flowing the well 24 hours a day as long as all the safety precautions are in place. Ensure light towers are in place.**
17. Flowback well dead or kill with 10 ppg Brine if practical.
  - **Ensure all personnel on location are aware of N2/H2S release and proper hazard mitigation and discussion is in place. Gas is to be vented downwind to either open tank at all times during flowback.**
  - **Consider a safety trailer and 4-way monitor system to monitor well flowback.**
18. Perform a scale inhibitor squeeze with 60 bbls brine mixed with Baker 4 drums (220 gal) SCW-358 Scale Inhibitor. Flush to bottom perms with 200 bbls Brine.
19. Release packer, POOH and LD packer.
20. PU and RIH with 3-7/8" MT bit on 2-3/8" L-80 WS tag for fill. If fill entry was identified @ 3,900' or above, clean-out to PBTD (3,920').
21. POOH & LD 2-3/8" WS and BHA.
22. RIH with 2-3/8" production tubing hydrotesting to 6,000 psi. **Set TAC per ALCR recommendation and record it on wellview.**
23. ND BOP. NU WH. **RIH with rods and pump per ALCR and record how much the pump was spaced-out on wellview.** Hang well on.
24. RD and release workover unit. Turn well over to production (contacts on back).



**Image A: Safety Restraints**

## 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 w/ 3-7/8" MT bit, bit sub (with dart-type float), 4 (2-7/8") drill collars on 2-3/8" 4.7# 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 PBTD (3,920') 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 openhole before shut down for night. If the foam/air unit goes down, pull above the openhole.
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 to step 8.**

Well: **H. T. Mattern (NCT-B) # 4**Field: **Penrose Skelly**Reservoir: **Grayburg****Location:**

330' FSL & 330' FEL  
 Section 30  
 Township: 21S  
 Range: 37E  
 County: Lea State: NM

**Elevations:**

GL: 3468'  
 KB: 3479'  
 DF: 3478'

**Current**  
**Wellbore Diagram**

**Well ID Info:**

Refno FA7998  
 API No. 30-025-06901  
 L5/L6: U490300  
 Spud Date: 11/18/39  
 Compl. Date: 12/15/39  
 GPS (NAD27)  
 N 32 4434400, W -103 1942000

**Surf. Csg:** 9 5/8", 25 7#, Armco  
**Set:** @ 251' w/ 250 sks  
**Hole Size:** 13 3/4"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

**Tubing Detail:**

#Jts:	Size:	Footage
	KB Correction	10.00
114	Jts. 2 3/8" J-55 Tbg 4.7#	3537.35
1	Tbg Anchor	3.04
6	Jts. 2 3/8" J-55 Tbg	187.50
1	Jts. 2 3/8" J-55 IPC Tbg	30.65
1	SN	1.10
1	2 3/8" x 4' Perf Tbg Sub	4.00
1	Bull plug mud Anchor 2-3/8"	31.65
<b>125 Btm Of Tbg String &gt;&gt;</b>		<b>3805.29</b>

**Rod Detail:**

#Jts:	Size:	Footage
1	1.5" SM polished rod	26.00
1	7/8" N-78 Rod Sub	2.00
1	7/8" N-78 Rod Sub	6.00
141	7/8" N-78 Rod	3525.00
8	1.5" K Sinker Bar	200.00
1	Rod Pump 20-150-RHBC-20-4	20.00
1	1.25" Gas Anchor	12.00
<b>154 Length Of Tbg String &gt;&gt;</b>		<b>3791.00</b>

**COTD:** 3920'  
**PBTD:** 3920'  
**TD:** 3920'

Updated: 1 24.2012

By: DNCU

**Prod. Csg:** 5 1/2", 14#, H-40  
**Set:** @ 3519' w/ 350 sks  
**Hole Size:** 6 3/4"  
**Circ:** No **TOC:** 2375'  
**TOC By:** Temperature Survey

**Liner:** 4 1/2" OD 10 50# FL-4S  
**Set:** @ 3635' w/ top @ surface  
**Hole Size:** 4 3/4"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulation

**Open-Hole**  
**Production Interval**  
 3635-3920' (Grayburg)