

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 August 1, 2011

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

OBBS OCU  
FEB 06 2013  
RECEIVED

<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. 30-025-36744
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <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 W.T. MCCOMACK
4. Well Location Unit Letter G: 2260 feet from the NORTH line and 2260 feet from the EAST line Section 32 Township 21-S Range 37-E NMPM County LEA		8. Well Number 21
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 ☐

SUBSEQUENT REPORT OF:

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

OTHER: SONIC HAMMER, 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 SONIC HAMMER, ACIDIZE & SCALE SQUEEZE THE SUBJECT WELL

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAM, & C-144 INFORMATION.

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

TITLE: REGULATORY SPECIALIST

DATE: 02-04-2013

Type or print name: DENISE PINKERTON E-mail address: leakejd@cvhevron.com

PHONE: 432-687-7375

APPROVED BY:

TITLE

D. J. M. R.

DATE 2-7-2013

Conditions of Approval (if any):

**W.T. McComack #21**  
**Penrose Skelly- Grayburg Reservoir**  
**T21S, R37E, Sec. 32**  
**N 32° 25' 44.364", W -103° 11' 0.168" (NAD27)**  
**Job: Sonic Hammer, Acidize & Scale Squeeze**

**1.24.2013**

**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**

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. 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. PU 2-3 jts of tubing and RIH to 4,110' to tag for fill (TAC 3615', Perfs 3705-3944', EOT 4,051', PBTD 4,305'). 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 4,110' contact remedial engineer and verify if the clean out is necessary. If so, continue with foam/air clean out per step 5.
  - B. Below 4,110' 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 [LGBI@chevron.com](mailto:LGBI@chevron.com).

5. PU and RIH with 4-3/4" MT bit, 4 (3-1/2") drill collars on 2-7/8" 6.5# L-80 WS. RU power swivel and clean out to 4,200' 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.
6. Contact sonic tool rep to be on site during job. *Verify that WS is clean, inspect for excessive rust.* PU and RIH with Sonic Hammer tool and work string to 3,944' 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'. Rig up pressure gauges to allow monitoring of tubing and casing pressures.
7. MI & RU Petroplex. Titrate acids and verify concentration (HCl  $\pm 1.5\%$ ) report results in daily work summary. Treat all intervals from 3,700' to 3,944' 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 4,500 gals 15% NEFE HCl of total acid for all intervals. Spot 3 bbls of acid outside tubing, shut in casing, pump 1,125 gallons of acid @ 5 BPM over first treating interval from 3,700'-3,760', 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.**

Interval	Depth	Interval (Ft.)	Acid Volume (gal)
1	3700' - 3760'	23	1,125
2	3760' - 3822'	25	1,125
3	3822' - 3882'	19	1,125
4	3882' - 3944'	18	1,125
			4,500

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.
10. Scale squeeze well with a total of 200 bbls 2% KCL brine water and 3 drums (165 gallons) Baker SCW-358 Scale Inhibitor Chemical. For each stage, pump chemical as a concentrated pill of 41 gals of SCW-358 with 10 bbl of 2% KCL then displaced with 30 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 40 bbls 2% KCL. Refer to Table B.

Table B: Scale Sqz Pump Schedule						
Step		Interval (ft)	Max Rate (BPM)	Volume Brine (bbl)	Volume Scale Chem. (Gal)	Cum Volume (bbl)
1	Pump Chemical/brine while moving from	3944' - 3882'	5	10	41	11.0
2	Pump Brine while moving from	3944' - 3882'	5	30		41
3	Pump Chemical/brine while moving from	3944' - 3882'	5	10	41	52
4	Pump Brine while moving from	3944' - 3882'	5	12		64
5	Move pipe to next interval of	3882' - 3822'				64
6	Pump Brine while moving from	3882' - 3822'	5	18		82
7	Pump Chemical/brine while moving from	3882' - 3822'	5	10	41	93
8	Pump Brine while moving from	3882' - 3822'	5	11		104
9	Move pipe to next interval of	3822' - 3760'				104
10	Pump Brine while moving from	3822' - 3760'	5	19		123
11	Pump Chemical/brine while moving from	3822' - 3760'	5	10	42	134
12	Pump Brine while moving from	3822' - 3760'	5	11		145
13	Move pipe to next interval of	3760' - 3700'				145
14	Pump Brine while moving from	3760' - 3700'	5	59		204

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 identified above 4,110', clean-out to 4200' following step 5.
13. POOH & LD 2-7/8" WS and Sonic Hammer tool.
14. RIH with 2-7/8" 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 **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 4,200' 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.**

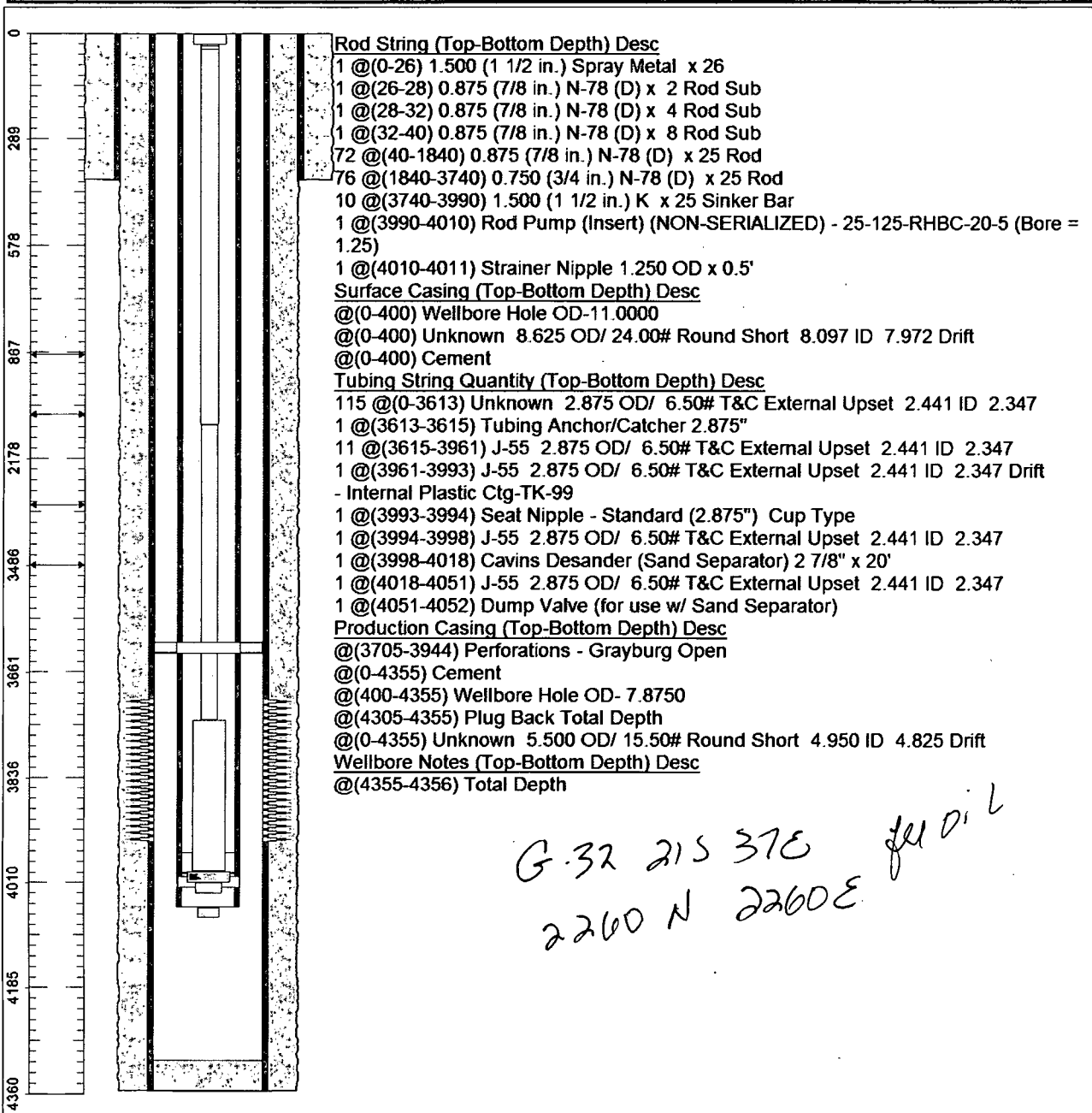
Figure 1 is a vertical bar chart showing the distribution of 1000 random numbers. The y-axis represents the value of the random numbers, ranging from 3,650 to 4,000. The chart displays the distribution of 1000 random numbers, categorized by 'Perfs' (Performance) and 'Stage' (Stage 1, Stage 2, Stage 3, Stage 4). The distribution is shown as a single bar with segments representing different stages. The segments are labeled with their respective values: 3,700, 3,760, 3,822, 3,882, and 3,944.

Stage	Value
Perfs	3,700
Stage 1	3,760
Stage 2	3,822
Stage 3	3,882
Stage 4	3,944

[illegible]

## Chevron U.S.A. Inc. Wellbore Diagram : WTMCCOMACK 21G

<b>Lease:</b> OEU EUNICE FMT		<b>Well No.:</b> MCCOMACK W T 21		<b>Field:</b> FLD-PENROSE SKELLY	
<b>Location:</b> 2260FNL2260FEL		<b>Sec.:</b> N/A		<b>Blk:</b>	<b>Survey:</b> N/A
<b>County:</b> Lea	<b>St.:</b> New Mexico	<b>Refno:</b> HP6004		<b>API:</b> 3002536744	<b>Cost Center:</b> UCU491900
<b>Section:</b> 32		<b>Township:</b> 021 S			<b>Range:</b> 037 E
<b>Current Status:</b> ACTIVE				<b>Dead Man Anchors Test Date:</b> 06/25/2008	
<b>Directions:</b>					



<b>Ground Elevation (MSL)::</b> 3463.00	<b>Spud Date:</b> 08/04/2004	<b>Compl. Date:</b> 09/01/2004
<b>Well Depth Datum::</b> CSI0000N	<b>Elevation (MSL)::</b> 0.00	<b>Correction Factor:</b> 0.00
<b>Last Updated by:</b> ftr	<b>Date:</b> 07/24/2008	