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 District I - (575) 393-6161  
 1625 N. French Dr., Hobbs, NM 88240  
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 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

JUL 02 2014

1220 South St. Francis Dr.  
 Santa Fe, NM 87505

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. 30-025-37181
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 V.M. HENDERSON
4. Well Location Unit Letter: C 1300 feet from NORTH line and 2280 feet from the WEST line Section 30 Township 21S Range 37E NMPM County LEA		8. Well Number 19
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: INTENT TO ACIDIZE & SCALE SQUEEZE

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 ACIDIZE & SCALE SQUEEZE THE SUBJECT WELL.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE AND WELLBORE DIAGRAM.

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 06/27/2014  
 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: Mary Brown TITLE Dist Supervisor DATE 7/2/2014  
 Conditions of Approval (if any)

JUL 02 2014



WELL NAME: HENDERSON, V. M. 19G

API #: 30-025-37181 CHEVNO: HS9878

OPERATOR: Chevron USA

LOCATION: 1300FNL & 2280FWL Sec.:30 Township: 21S Range: 37E

COMPLETION: 12/01/2005

The purpose of this project is to acidize and Scale Squeeze the Grayburg formation (3678'-3926') of the HENDERSON, V. M. 19G. This procedure is meant to be a guide only. It is up to the WSM, Workover Engineer and Production Engineer to make the decisions necessary to do safely what is best for the well. PLEASE REFER TO THE H2S SHEET AND TAKE ALL NECESSARY PRECAUTIONS TO MITIGATE THAT AND ANY OTHER RISKS.

**Contacts:**

Prasanna Chandran (PE) 432-687-7727, (432) 250-2400 (C)  
Danny Hunt (OS) 575-394-1242, 817-526-2322 (C)  
Bobby Hill (PTTL) 575-394-1245, 575-631-9108 (C)  
Clarence Fite (ALCR) 575-394-4001, 575-390-9084 (C)  
Kevin Jones(WE) 432-687-7388, 575-631-4407 (C)  
Victor Bajomo (DS) 432-687-7953, 432-202-3767 (C)  
Gabriel Garcia (LWSM) 575-390-7220 (C)  
Darryl Ruthardt (LWSM) 575-390-8418 (C)  
Dustin Anderson (Petroplex) 432-631-5183 (C)

**Wellbore Information:**

Surface Casing – 8 5/8" 24# J-55 set @ 445' w/ 475 sks (TOC Surf, Circ)  
Production Casing – 5 1/2", 15.50#, J-55 set @ 4294' w/ 1050 sks (TOC Surf, Circ).  
PBTD: 4203'

**Existing Perforations:**

3678-80', 3684-88', 3692-96', 3701-08', 3714-18', 3728-36', 3750-56', 3781-87', 3793-97', 3805-12', 3816-20', 3823-29', 3835-39', 3848-50', 3854-56', 3861-70', 3872-75', 3880-84', 3889-94', 3899-3901', 3904-07', 3910-14', 3921-26'

**Tubing String Quantity (Top-Bottom Depth) Desc**

104 @(0-3261) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
1 @(3261-3265) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
10 @(3265-3578) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
1 @(3578-3581) Tubing Anchor/Catcher 2.875-  
11 @(3581-3928) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
2 @(3928-3992) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347 Drift  
- Internal Plastic Ctg-TK-99-  
1 @(3992-3993) Seat Nipple - Heavy Duty (2.875) Cup Type-  
1 @(3993-3997) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
1 @(3997-4016) Cavins Desander 2 7/8 x 20 D-2705 G PC 125-250 Bbls/Day  
Frac Sand w/Gas-  
2 @(4016-4078) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347  
1 @(4078-4079) Dump Valve (for use w/ Sand Separator) - Bare-



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Rod String Quantity (Top-Bottom Depth) Desc

1 @(0-26) 1.500 (1 1/2 in.) Spray Metal x 26-

1 @(26-28) 0.875 (7/8 in.) N-78 (D) x 2 Rod Sub-

1 @(28-36) 0.875 (7/8 in.) N-78 (D) x 8 Rod Sub-

151 @(36-3811) 0.875 (7/8 in.) N-78 (D) x 25 Rod-

7 @(3811-3986) 1.500 (1 1/2 in.) K x 25 Sinker Bar-

1 @(3986-3990) 0.875 (7/8 in.) N-78 (D) x 4 Rod Sub - Rod Guides-Molded (3 rod)-

1 @(3990-4010) Rod Pump (Insert) (NON-SERIALIZED) - 25-200-R H BC -20 (Bore = 2.00)-

**PRE-WORK:**

1. Complete the rig move checklist.
2. Ensure location is in appropriate condition, anchors have been tested within the last 24 months, and power line distance has been verified to determine if a variance and RUMS are necessary.
3. When NU anything over and open wellhead (EPA, etc.) ensure the hole is covered to avoid dropping anything downhole.
4. Review H<sub>2</sub>S calculations in H<sub>2</sub>S tab included.
5. Any equipment installed at the wellbore, including wellhead (Inside Diameter), is to be visually inspected by the WSM to insure no foreign debris or other restrictions are present.
6. DO NOT! Flow back CO<sub>2</sub> to non CO<sub>2</sub> rated vessels.

**PROCEDURE:**

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 brine fluid (10ppg).
2. MIRU pulling unit and surface equipment.
3. Bleed off casing pressure to tank, if casing flowing fluid pump known weight fluid down casing, shut in for 30 mins, Calculate KWM and pump to kill well. If applicable.
4. Unseat pump, POOH laying down rods and pump. Examine rods for wear/pitting/paraffin. Do not hot water unless necessary.
5. **Caliper elevators and tubular EACH DAY prior to handling tubing/tools and anytime size changes (Use elevator change out log as well). Note in JSA when and what items are callipered within the task step that includes that work.**



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- 6. Monitor well for 30 minutes to ensure it is dead.
- 7. ND wellhead, unset TAC, NU **Chevron Class III configured 7-1/16" 5M** remotely-operated hydraulically-controlled BOP, **2-7/8"** pipe rams over blind rams. NU EPA pan.

- Keep the charted test of the BOP supplied by the vendor for the entire job.

- 8. RU Floor and POOH w/1 Jnt. 2 7/8" tubing, PU 7" PKR rated for 5 1/2" 15.5#, RIH w/ PKR +/- 25' and test BOPE to **250/1000** psi. Note testing pressures in Wellview. Release and LD packer.

**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.**

- 9. PU 2 Jnts.(55') 2 7/8" tubing and RIH to **4134'** to tag for fill (**TAC 3622', Grayburg Perfs 3678'- 3926', EOT 4079' PBTD 4203'**), DO NOT PUSH TAC INTO PERFS.

- If fill is tagged above **4134'** contact WOE and verify if the clean out is necessary.

- 10. POOH scanning 2 7/8" production tubing, Keep Yellow only (25% or less wall loss), LD all non-yellow band joints.

**Strap production pipe out of hole to verify depths and note them in Wellview. Send Tubing scan report to [KJCY@chevron.com](mailto:KJCY@chevron.com).**

- 11. MIRU Hydrotesters.

**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.**

- 12. PU RIH w/ 5 1/2" 15.5#, Arrow Set 10K pkr, ON-OFF tool w/2.25" frac hardened profile on 2 7/8" 6.5# production string. Hydrotest tubing in hole to **5000** psi. Set PKR @ **~3600'**.

- 13. Load backside and test 5 1/2" casing to **500** psi. Notify WOE is casing does not test.

- 14. MIRU Petroplex Acidizing. Pressure test surface lines and plug valve to **5000**psi and set mechanical pop offs to **5000** psi. **Titrate Acid on location to ensure correct concentrate (+/- 1.5% Acceptable)** Acidize **6-10BPM w/Max Surface Psi of 4500#** from 3678'-3926' with 9270 gals 15% HCl slurry and 3600# of rock salt as follows: **See Petroplex recommendation procedure.**

Additive	Amount
I-3, Acid Corrosion Inhibitor	1 GPT
Acetic - G, Glacial Acetic Acid	10 GPT
FENX, Iron Control	40 GPT
EP-3, Non Emulsion Agent (Nonionic)	1 GPT
P-3, Low Surface Tension / Wetting Agent	3 GPT
I-10H, H2S Embrittlement Inhibitor	1GPT

- 15. Keep 300# on backside thru out Acid job to monitor for communication. (See Petroplex Procedure)



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16. Flush with 100 bbls of fresh water!
17. Record ISIP, 5, 10, & 15 minute SIP's. Allow acid to spend 2 hours. Open well and flow back/swab back spent treatment fluids to open top tank. Test reactivity of recovered acid load of fluid, If acid is not spent shut well in 1 additional hour to allow acid to spend. Recover 100% of load if possible or swab until return indicate formation fluid and not spent acid. **Record oil cut recovered, fluid volumes, and swabbing depths in Wellview.**
18. Release PKR, POOH w/ 2 7/8" production string standing back, LD PKR.
19. Pick up Notch collar, RIH to PBTD @ **4203'** to ensure salt is gone, wash to bottom with fresh water.
20. POOH laying down WS.
21. PU Production BHA and RIH hydrotesting production tubing to 5,000 psi. **(Space out per ALCR Recommendations)**
22. NDBOPE, NUWH.
23. RIH w/Pump and Rods **(Per ALCR Rod design)**  
**Contact appropriate Field Specialist to remove locks.**
24. Check pump action with pumping unit.
25. Clean location, RDMO, Notify ALCR and production, Complete Workover Ownership Form, Turn well back to Production. (contacts on first page). **Make sure to send Complete Workover Ownership Form to KJCY@Chevron.com.**



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## STANDARD GUIDELINES

### **Maximum Anticipated H2S Exposures (RRC H9 / NM Rule 36 )**

All personnel on location must be made aware of each of the following values (values vary by field):

**Maximum anticipated amount of H2S that an individual could be exposed to is 2,400 ppm  
at the maximum anticipated escape volume (of wellbore gas) of 220 MCF/D  
100 ppm Radius of Exposure is 294 feet.  
500 ppm Radius of Exposure is 134 feet.**

### **Elevators**

At every tubing size change, the elevators must be calipered and all lifting equipment must be visually inspected for the correct sizing, and rechecked daily. The elevators must also be checked for proper sizing by placing a pony sub in the elevators. Prior to picking up power swivel, caliper and visually inspect elevators and bail on swivel. Checks are to be documented in the JSA and elevator log.

### **ND/NU**

Prior to N/D, N/U operations, if only one mechanical barrier to flow will be in place, visual monitoring of well condition by the WSM is necessary for 30 minutes or more to ensure that the well is static **before** removing or replacing well control equipment. For all deviations to 2B policy, check that MOC for exemption from 2B policy is in place and applicable. During ND/NU operations with only one barrier to flow in-place, constant visual monitoring of well condition **during ND/NU** by the WSM is necessary.

### **Installed Equipment**

Any and all equipment installed at the surface on the wellbore is to be visually inspected (internally) by the WSM prior to N/U to the wellhead by the service provider to ensure no debris or other potential restrictions are present. During any NU ops over an open wellhead (BOP, EPA, etc.), ensure the hole is covered to avoid dropping anything downhole.

### **Hazard ID**

Identify hazards with the crew as they come up during the job. Stop and review and discuss JSAs.

### **Scale and Paraffin Samples**

When removing rods and/or tubing from a well, collect samples of any paraffin and/or scale.

When drilling, note, report and sample significant returns of scale or paraffin, or anything other significant returns. Assume that samples that come from different areas/environments in the well are different and require a different sample; e.g. top/bottom of well, inside outside of tubing. Always collect enough sets of samples for both Production and D&C Chemical Reps. Send any samples to Chemical Reps., both for

- 1) Production (many times Baker), as well as for
- 2) D&C (many times PetroPlex).

Discuss D&C's Chemical Rep's recommendations with Engineering, or simply implement as practical.

### **Trapped Pressure**

Recognize whether 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, e-line or rods to verify no obstruction. 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.



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### **Wireline**

For all wireline and slickline jobs (except in new, cemented, tested and unperforated casing) install wireline packoff and lubricator. Follow Standard Guideline for installing equipment over wellhead. Test to 250 on the low end, and test on the high end based on SITP or max. anticipated pressure. Establish exclusion zone around wellhead area. Observe and enforce radio silence as needed for explosives. All wireline tools are to be calipered and documented on a diagram prior to PU and RIH. This is critical information in the event of fishing operations.

### **Foam clean out hazard mitigation**

- 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.
- 2 Run dart type float in bit sub bored for a float. Install open top flowback tank downwind from rig.
- 3 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 use for foam operations.
- 4 Clear floor of all personnel while breaking circulation and anytime they are not required.
- 5 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
- 6 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.
- 7 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.
- 8 Ensure that high quality, stiff foam is pumped while circulating in lateral. Stiff foam is required to prevent segregation while circulating along lateral. Monitor flow and pressures carefully when cleaning out the lateral as well will begin to unload very rapidly when foam "turns the corner".
- 9 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. Visually inspect and caliper elevators and bail on swivel.
- 10 POOH LD workstring & bit. Pump kill fluid down tubing to put tubing on vacuum to help eliminate trapped pressure before breaking out string floats. Have foam-air hand on location during this process. He should employ a special tool to check for pressure under floats.

Well: **V. M. Henderson # 19**

Field: **Penrose Skelly**

Reservoir: **Grayburg**

**Location:**  
 1300' FNL & 2280' FWL  
 Section: 30  
 Township: 21S  
 Range: 37E  
 County: Lea State: NM

**Elevations:**  
 GL: 3493'  
 KB: 3504'  
 DF: 3503'

**Current Wellbore Diagram**

**Well ID Info:**  
 Chevno: HS9878  
 API No: 30-025-37181  
 L5/L6: UCU493800  
 Spud Date: 11/13/2005  
 Compl. Date:

**Tubing String Quantity (Top-Bottom Depth) Desc**

- 104 @ (0-3261) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 1 @ (3261-3265) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 10 @ (3265-3578) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 1 @ (3578-3581) Tubing Anchor/Catcher 2.875-
- 11 @ (3581-3928) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 2 @ (3928-3992) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347 Drift - Internal Plastic Ctg-TK-99-
- 1 @ (3992-3993) Seal Nipple - Heavy Duty (2.875) Cup Type-
- 1 @ (3993-3997) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 1 @ (3997-4016) Cavins Desander 2 7/8 x 20 D-2705 G PC 125-250 Ebls/Day Frac Sand w/Gas-
- 2 @ (4016-4078) J-55 2.875 OD/ 6.50# T&C External Upset 2.441 ID 2.347
- 1 @ (4078-4079) Dump Valve (for use w/ Sand Separator) - Bare-

**Rod String Quantity (Top-Bottom Depth) Desc**

- 1 @ (0-26) 1.500 (1 1/2 in.) Spray Metal x 26-
- 1 @ (26-28) 0.875 (7/8 in.) N-78 (D) x 2 Rod Sub-
- 1 @ (28-36) 0.875 (7/8 in.) N-78 (D) x 8 Rod Sub-
- 151 @ (36-3811) 0.875 (7/8 in.) N-78 (D) x 25 Rod-
- 7 @ (3811-3986) 1.500 (1 1/2 in.) K x 25 Sinker Bar-
- 1 @ (3986-3990) 0.875 (7/8 in.) N-78 (D) x 4 Rod Sub - Rod Guides-Molded (3 per rod)-
- 1 @ (3990-4010) Rod Pump (Insert) (NON-SERIALIZED) - 25-200-R H BC -20-4 (Bore = 2.00)-

Drill and Complete, Frac 12.2005  
 Scale Sqz 11.2006  
 Change Pump Unit 2.2007  
 Pump Failure 3.2007  
 Pump Failure & Change Pump 3.2008

**Surf. Csg:** 8 5/8", 24#, J-55  
**Set:** @ 445' w/ 475 sks  
**Hole Size:** 12 1/4"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

**TAC @ 3622.5'**

Perfs:	Status:
3678-80'	Grayburg - Open
3684-88'	Grayburg - Open
3692-96'	Grayburg - Open
3701-08'	Grayburg - Open
3714-18'	Grayburg - Open
3728-36'	Grayburg - Open
3750-56'	Grayburg - Open
3781-87'	Grayburg - Open
3793-97'	Grayburg - Open
3805-12'	Grayburg - Open
3816-20'	Grayburg - Open
3823-29'	Grayburg - Open
3835-39'	Grayburg - Open
3848-50'	Grayburg - Open
3854-56'	Grayburg - Open
3861-70'	Grayburg - Open
3872-75'	Grayburg - Open
3880-84'	Grayburg - Open
3889-94'	Grayburg - Open
3899-3901'	Grayburg - Open
3904-07'	Grayburg - Open
3910-14'	Grayburg - Open
3921-26'	Grayburg - Open

**COTD:** 4203'  
**PBTD:** 4203' (float collar)  
**TD:** 4300'

**Updated:** 7.14.2011

**By:** Prasanna

**Prod. Csg:** 5 1/2", 15.50#, J-55  
**Set:** @ 4294' w/ 1050 sks  
**Hole Size:** 7 7/8"  
**Circ:** Yes **TOC:** Surface  
**TOC By:** Circulated

