Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM118722

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other: INJECTION

8. Well Name and No.
SALADO DRAW SWD 13 1

2. Name of Operator
CHEVRON USA INC
Contact: CINDY H MURILLO
E-Mail: CHERRERAMURILLO@CHEVRON.COM

9. API Well No.
30-025-42354

3a. Address
1616 W. BENDER BLVD
HOBBS, NM 88240

3b. Phone No. (include area code)
Ph: 575-263-0431
Fx: 575-263-0445

10. Field and Pool, or Exploratory
SWD;DEVONIAN SILURIAN

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 13 T26S R32E Mer NMP SWSW 290FSL 10FWL

11. County or Parish, and State
LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☒ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

CHEVRON USA INC IN REQUESTING TO RE-ENTER THE ABOVE SWD. CHEVRON HAS RECEIVED A VERBAL APPROVAL FROM NMOCD TO DEEPEN THE SWD WELL DOWN INTO THE FUSSELMAN FORMATION. PATRICK TAHA/GEOLOGIST HAS SPOKE TO CHRIS WALL REGARDING THE DEEPING OF THIS SWD. PLEASE FIND AN ATTACHED PROCEDURE. THE WELL WILL REMAIN IN THE SAME FORMATION. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT PATRICK TAHA AT 713-372-1543.
** PLEASE SUBMIT TO CHRIS WALLS ***

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #331703 verified by the BLM Well Information System
For CHEVRON USA INC, sent to the Hobbs

Name *(Printed/Typed)* CINDY H MURILLO — Title PERMITTING SPECIALIST

Signature (Electronic Submission) — Date 02/17/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office

APPROVED
JUN 8 2016
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

1-Salado Draw SWD 13
Section 23, T. 26 S. R. 32 E., NMPM
Lea County New Mexico

SWD Procedure

PULL TUBING AND PACKER

1. N/U and test 5k BOP 250 psi low/ 5000 psi high. Test annular to 250 psi low / 3500 psi high

2. Engage tubing hanger with landing joint. Pick up to neutral weight and rotate to the right to release the anchor latch.

3. Pull out of hole and lay down the tapered tubing string.

4. Pick up a 4-1/2" OD Packer milling shoe w/ ID 1/8" larger than packer mandrel, MJ milling tool with all extensions, stop sub, spear for 3" ID, boot baskets, jars and drill collars.

5. Trip in hole and latch spear into packer bore. Pick up and ensure spear is engaged. Un-Jay from MJ bushing and slack off to packer. Begin rotating shoe at 70-90 Rpm's.

6. Slack off 3-7K and begin milling on packer. Get measurement from top sub to bottom of packer element. Mill about 30" to cover the top sub, top slip and cone and packing element.

7. Pick up and re-engage jay in MJ bushing. Begin to work packer out of hole.

DRILLING 4-1/2" OPEN HOLE SECTION (4-1/2": 18,765' – ±19,300')

8. M/U 4-1/2" PDC Bit and P/U recommended BHA, rental 2-7/8"- 10.4# - HT26, 4" – 14# - XT39 and rig's 5" – 19.5# - S135 DP.

9. TIH to shoe at 17,580'. Displace well to 9.0ppg cut brine. Stage into OH in 430' intervals and circulate bottoms up to clear hole of any debris or sludge.

10. Drill 4-1/2" vertical hole from 18,765' to ±19,300'.

    - General drilling parameters:
        - WOB: 6-8K
        - RPM: 250 RPM (at bit)
        - GPM: 200

    - Potential for partial to complete losses is high in this hole section. To minimize potential for formation damage with a resulting loss of injection capability, use only acid soluble LCM products such as BARACARB 25-600 and BAROFIBRE.
    - Have a contingency plan ready to keep back side full at all times if complete losses are encountered.
    - Maintain MW as low as possible to prevent losses.
    - LCM concentrations are limited by jet size and mud motor/MWD restrictions. Verify all sweeps types and concentrations with MWD engineer prior to pumping.
    - Considering the strength of the formation this hole section is planned for 2 bit runs.

11. TOOH and L/D BHA, 4" and 2-7/8" DP.

Completion

12. Run in hole with 5-1/2" casing scraper. Make several passes through the 5-1/2" landing collar and 5-1/2" float collar. Position the end of the work string at +/- 17,770' about 50' above the 5-1/2' casing shoe.

13. Close Annular on the drill pipe. Line up returns through the choke manifold. The choke manifold will control casing pressure while performing an injection test and acid job. Injection pressure limit is set at 3,480 psi per administrative order SWD-1488.
    - Pump cut brine water at 2, 4, and 8 bpm establishing injection pressures. Maintain casing pressure below the 3,480 psi limit throughout the job with the choke manifold.
    - Pump approximately 15,000 gallons of 15%-20% hydrochloric acid. Start pumping at 2 bpm to establish injection pressure. Maintain injection pressure by increasing rate at ½ bpm increments while acid stimulates the reservoir. Maintain casing pressure below the 3,480 psi limit throughout the job with the choke manifold.
    - Pump cut brine water at 2, 4, and 8 bpm establishing injection pressures. Maintain casing pressure below the 3,480 psi limit throughout the job with the choke manifold.
    - Lay down work string and scraper.

14. Rig up wireline adapter. Wireline set injection packer and pump out plug within 100' of the permitted injection interval (17,720' to 17,820' packer setting depth range).

15. Rig up casing crew. Pick up and run anchor latch and seal assembly. Run in hole with 3-1/2" x 4-1/2" internally coated tapered tubing string.

16. Tag top of injection packer. Mark tubing string for spacing out. Circulate packer fluid in place. Make up space out pumps and tubing hanger. Engage anchor latch into packer. Land tubing hanger and set string in 10,000 to 60,000 pounds of compression.

17. Nipple down BOP and install and test injection tree.

18. Pressure up on tubing and to shear pump out plug below the packer.

19. Give OCD Hobbs and BLM 24 hr notice for MIT. Test tubing x casing annulus to 500 psi for 30 minutes. Record pressure test on chart for submittal to the OCD and BLM.

20. Clean Pits and RD/MO Rig.

Subsurface

The original approval for Authorization to Inject from the NMOCD allowed for drilling and injection into the entire Silurian aged interval, which includes that portion of the upper Silurian limestone drilled to date in the Salado Draw SWD 13-1 well (sometimes referred to as Devono-Silurian) plus the underlying

Fusselfman Fm. The NMOCD has provided verbal approval to deepen the SWD well down into the Fusselman Fm.

Swartz, Paul <pswartz@blm.gov>

FW: Question on deepening an existing Salado Draw SWD 13-1 well

1 message

Taha, Zaid Patrick <PatrickTaha@chevron.com> Wed, Jun 8, 2016 at 8:52 AM
To: "pswartz@blm.gov" <pswartz@blm.gov>
Cc: "Paez, Antonio J." <AntonioPaez@chevron.com>, "Brown, Paul T (PaulBrown)" <PaulBrown@chevron.com>, "Ward, James R(jwgb)" <JWGB@chevron.com>

Paul, this morning you asked if Chevron had received more than verbal approval from the NMOCD to inject at any depth into Silurian-aged rock in the Salado Draw area. You were requesting that the NMOCD's verbal approval be backed up in writing.

Below, please find written confirmation (dated Feb 1, 2016) from Phil Goetze at the NMOCD. In his e-mail, he states that the Silurian-aged rock, of which the Fusselman Fm is a part, is included in what the NMOCD considers a favorable saltwater injection interval. In our current re-entry request to deepen the Salado Draw SWD 13-1 well, we are requesting approval from the BLM to deepen to the base of the Silurian-aged Fusselman Fm, from our current depth just above the Fusselman Fm. This would keep our SWD still within the limits of Silurian-aged rock.

If you have any more questions or need additional clarification on this point, please feel free to call or e-mail.

Thanks,

Z. Patrick Taha, PhD

Geologist

Asset Development Permian Oil

Chevron North America Exploration and Production
Mid-Continent Business Unit
1400 Smith, 43046
Houston, TX 77002
Tel 713.372.1543

From: Goetze, Phillip, EMNRD [mailto:Phillip.Goetze@state.nm.us]
Sent: Monday, February 01, 2016 11:15 AM
To: Taha, Zaid Patrick
Cc: Jones, William V, EMNRD; McMillan, Michael, EMNRD; Lowe, Leonard, EMNRD; Kautz, Paul, EMNRD

Subject: [**EXTERNAL**] RE: Question on deepening an existing SWD well

Patrick:

Yes, the Fusselman and/or Silurian equivalent has been approved for disposal and is usually included in the approved interval with the Devonian section. At this time, OCD continues to look favorably on the Silurian as along as the Ordovician is not included in the proposed disposal interval. Your e-mail got lost the January rotation. Call/e-mail with any questions. PRG

Phillip R. Goetze, PG

Engineering and Geological Services Bureau

Oil Conservation Division

New Mexico Energy, Minerals and Natural Resources Department

1220 South St. Francis Drive

Santa Fe, NM 87505

Direct: 505.476.3466

e-mail: phillip.goetze@state.nm.us

From: Taha, Zaid Patrick [mailto:PatrickTaha@chevron.com]
Sent: Monday, January 04, 2016 5:19 PM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: RE: Question on deepening an existing SWD well

Thanks Phillip. A better way to put it is the Silurian can be divided into early and late stages. The early (deeper) stage is referred to as the Fusselman, typically a dolomite.

The late stage is a generic 'Silurian Limestone' which can trend from Fasken near shore, to Frame and Wink further offshore. Full discloser: this 'Silurian Limestone' can also be dolomitic in places around the basin.

Conditions of Approval

Chevron USA Inc
Salado Draw SWD - 01, API 3002542354
T26S-R32E, Sec 13, 290FSL & 10FWL
June 08, 2016

1. **Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. Surface disturbance beyond the existing pad must have prior approval.
4. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
5. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
6. Functional H_2S monitoring equipment shall be on location.
7. 5000 (5M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
8. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record of the 7" csg from 11600 (just above the 5 ½" liner top or below) to top of cement taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email.**
9. If hard band drill pipe is rotated inside casing, returns are to be monitored for metal. Install rubber protectors with a larger diameter than the tool joints of the drill pipe to minimize inside casing wear.
10. **Attach a mud log and resistivity log for the entire open hole (old and new drilled open hole) to a pswartz@blm.gov email.**
11. File intermediate **subsequent sundry** Form 3160-**5** within 30 days of any interrupted workover procedures and a complete (dated daily) workover subsequent sundry.
12. Submit the BLM Form 3160-**4 Recompletion Report** within 30 days of the date all BLM approved procedures are complete. **Include formation tops on the Recompletion Report.**

13. Approval is granted for disposal of water produced from the lease, commoditization, or unit agreement of this well only. Disposal fluid from another operator, lease, commoditization, or unit agreement require BLM surface right-of-way agreement **approvals** and if applicable, authorization from the surface owner.
14. Disposal of water from another operator requires that the well be designated as a commercial well and BLM surface right-of-way agreement **approvals.**
15. If the well is to receive off-lease water or commercial disposal, the operator shall provide proof of surface right-of-way approval prior to injection.
16. Submit the (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System.
17. Submit the BLM Form 3160-**4 Recompletion Report** within 30 days of the date all BLM approved procedures are complete. **Include formation tops on the Recompletion Report.**
18. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.

Well with a Packer - Operations

1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established. Repair that seal any time more than five barrels of packer fluid is replaced within 30 days.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). Verify all annular casing vent valves are open to the surface during this pressure test. An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
3) Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 35 to 75 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
4) Make arrangements 24 hours before the test for BLM to witness. In Eddy County 575-361-2822. In Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number. Note the contact, time, & date in your subsequent report.
5) Submit a subsequent Sundry Form 3160-5 relating the MIT activity. Include a copy of the recorded MIT pressure chart. List the name of the BLM witness, or the notified person and date of notification. The NMOCD witness is to retain the original recorded MIT chart. BLM will accept a legible copy or photograph.

6) The setting depth of the packer and related equipment are to be included in the subsequent sundry. List (by date) descriptions of daily activity of any previously unreported wellbore workover.
7) Compliance with a NMOCD Administrative Order is required.
   a) Approved injection pressure compliance is required.
   b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
   c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.
8) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
9) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
10) **Maintain the annulus full of packer fluid at atmospheric pressure. Installation of equipment that will display continuous open to the air packer fluid level above the casing vent is required for this disposal well.**
11) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
12) Gain of annular fluid requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0 psia.
13) Submit a (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP describing all wellbore activity and include the Mechanical Integrity Test chart document. File intermediate Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.