

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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APR 04 2011

HOBSUCD

FORM APPROVED  
OMB No. 1004-0137  
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 page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

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

3a. Address  
15 SMITH ROAD  
MIDLAND, TEXAS 79705

3b. Phone No. (include area code)  
432-687-7375

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
990' FSL, & 660' FEL, SECTION 30, T-24S, R-38E, UL: P ✓

5. Lease Serial No.  
NM-10185

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
WEST DOLLARHIDE DRINKARD UNIT #159 ✓

9. API Well No.  
30-025-33480 ✓

10. Field and Pool or Exploratory Area  
DOLLARHIDE TUBB DRINKARD ✓

11. Country or Parish, State  
LEA COUNTY, NEW MEXICO

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other RETURN TO PRODUCTION
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must 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 U.S.A. INC. PROPOSED THAT THE SUBJECT WELL BE REACTIVATED, SAND FRAC STIMULATED, AND RETURNED TO PRODUCTION.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, PROJECT JUSTIFICATION, AND WELLBORE DIAGRAM.

ALSO ATTACHED, IS THE C-144 INFO FOR THE NMOC.

After MAY 1 2011 the well must be online or plans to P & A must be submitted.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
DENISE PINKERTON

Title REGULATORY SPECIALIST

Signature

Date 03/08/2011

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

APR 04 2011

Office

KZ

APPROVED

MAR 30 2011  
/s/ Chris Walls

Date

BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

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.

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.

(Instructions on page 2)

**Completion Procedure**  
**West Dollarhide Drinkard Unit Well. No. 159**  
**Dollarhide Field**

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**HOBBSOCD**

**WBS No.**

API No: 30-025-33480  
CHEVNO: BL8626

T24S R38E Sec 30 UL M  
FEDERAL: YES

1/20/11

**Job: Sand Frac Stimulate, Reactivate TA'd Producer**

**Current Hole Condition:**

Total Depth: 7250'                      PBSD: 7091'                      GR: 3151'                      KB: 3174'

Casing Record:                      11-3/4" 42#/ft WC-40 @ 1170' w/ 700 sx, circ  
   5-1/2" 15.5&17#/ft WC-50, L-80 @ 7455' w/ 3735 sx, circ

Existing Perforations:    **TA'd w/ CIPB @ 6400' cap w/ 35' cmt (PBSD @ 6365') (3/00)**  
   **Drinkard: 6467 – 6582'; 2 JSPF-5" 82 hls (11/96)**  
   **CIBP @ 6675' (9/99)**  
   **Abo: 6693-7006'; 2 JSPF-5" 92 hls (11/96)**

Prepared by: Ivone Wardell (1/20/2010)

Reviewed by: Rob Tyre (1/20/2010)

**Procedure:**

1. MI & RU pulling unit and reverse unit. Bleed down pressure from the well, if any. Pump down csg with kill weight mud, if necessary to kill well.
2. NU BOPE and test as required.
3. PU 4-3/4" bit on 2-7/8" workstring. Cleanout well and drill out CIBP and cement @ 6365'. Cleanout to approx 7091' and circulate well clean. TOOH w/ 4-3/4" bit and workstring. LD bit.
4. PU and RIH with 5-1/2" CIBP. Set CIBP @ 6820' (leave only Upper Abo open) and spot 10' cement on CIBP. Note new PBSD on report.
5. PU and RIH with 5-1/2" PPI packer and SCV on 2-7/8" workstring. Establish circulation. RU Petroplex. Spot acid across Drinkard and Upper Abo perforations from 6467 – 6582'

and 6693 – 6806' w/ 8000 gal 15% NEFe HCl. Displace acid with brine water. Record ISIP, 5, 10 and 15 min SIPs.

6. Release and POOH with PPI packer. LD PPI packer. Prepare to sand frac.
7. PU and RIH w/ 5-1/2 treating packer complete w/ on-off tool, hardened profile nipple and blast joint on 3-1/2" 9.3# L-80 workstring. Pressure test tubing to 8500# while RIH. Set packer at 6347' (approx 120' above top perf). Pressure test annulus to 500# and monitor/maintain throughout the job. Nipple up remote hydraulically operated tubing saver frac valve.
8. MIRU Schlumberger. RU frac equipment

**Add scale inhibitor to frac (contact Baker chemical rep & production foreman for treatment recommendation)**

9. Install pop-off valves downstream of check valve w/ manually operated valve below pop-off. Test all service company pressure shutdowns on each pump truck and surface lines to maximum expected pumping pressure.

**In conjunction with Sierra, Schlumberger to perform all frac fluid quality control (including breaker tests) on-site w/ actual mixing water and all chemicals to be used on job. XL gelled fluid is to be delayed by pipe-pump time in order to reduce friction pressure.**

10. Prior to job, verify compatibility of all frac fluid and oil at reservoir temperature of 135° F and perform sand sieve analysis
11. Frac the Drinkard and Upper Abo zone as per Schlumberger recommendation. Max treating pressure is not to exceed 6192 psi (80% of the burst rating for 3-1/2" 9.3# L-80)

Pump enough linear gel fluid to only to slightly under displace sand slurry.

**DO NOT OVERDISPLACE (EVEN TO TOP PERF) UNDER ANY CIRCUMSTANCES**

12. RDMO Schlumberger. MIRU PU
13. Release packer. POOH and lay down 5-1/2" packer and 3-1/2" WS. RIH w/ 4-3/4" bit on 2-7/8" L-80 workstring. Drill out any sand that has set up in wellbore to PBTD. Circulate well clean.
14. Scale squeeze the Upper Abo and Drinkard with scale inhibitor mixed with fresh water (contact Baker chemical rep & production foreman for treatment recommendation)

15. POOH and lay down workstring.
16. PU and RIH w/ 2-7/8" J-55 production tubing and BHA. NDBOP and set TAC. NUWH.  
PU and RIH w/ rods and pump as per ALCR design. RWTP. RDMO.
17. ND BOPE and NU WH. RIH with rods and pump as per ALSR recommendation. RDMO  
pulling unit. TWOTP.

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**Project Justification:**

WDDU 159 has been TA'd since 2000 due to low production rates. The TA status for this well expires in April 2011. To comply with BLM/NMOCD regulations, the well will have to be reactivated or P&A'd (a TA extension will not be granted)

**It is recommended that this well be reactivated, sand frac stimulated and returned to production.**

WDDU 159 is a 10 acre spacing well. It was originally drilled in 1997 and completed in the Drinkard and Abo formations. The Abo zone was acidized and the Drinkard zone was acid frac but the well had a low initial IP of 22 BOPD 27 MCFD and 81 BWPD.

Based on analysis of 10-ac wells performance, all 10-ac wells require a sand frac to properly stimulate the reservoir and result in an economic well. Out of fourteen 10-ac wells at WDDU, four were only acidized at initial completion; the average initial production for these wells is 41 BOPD; seven were sand frac stimulated and the average initial production for these was 112 BOPD. WDDU 159 was the only 10-ac well that was acid frac'd at initial completion and its initial production was 22 BOPD. Based on these results, an acid frac may not be an aggressive enough treatment to properly stimulate 10-ac producers. In addition, the Abo was plugged back in 1999 resulting in a drop of 9 BOPD.

The economics for this workover are based on an EV gross IP of 18 BOPD. The EV case was calculated assuming the following:

- Low Case IP (25% POS) = 13 BOPD
- Base Case IP (50% POS) = 20 BOPD
- High Case IP (25% POS) = 25 BOPD

The post-frac performance for WDDU 159 is expected to be below average when compared to previously sand frac'd wells for the following reasons:

- WDDU 159 is located in the North of the field:
  - There is limited injection support in this part of the field
  - Relatively lower reservoir quality
  - Past performance of the well (even though it was acid frac'd, WDDU 159 still performed the poorest of all 10 ac wells)

WDDU 159 is located near WDDU 160 and 161 which were recently drilled.

Previous production tests: Previously TA'd.

**WDDU #159**  
**API No. 30-025-33480**

