

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

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

Form C-103  
Revised June 10, 2003

WELL API NO.  
30-025-30285

5. Indicate Type of Lease  
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name  
Lou Worthan

8. Well Number  
#20

9. OGRID Number

10. Pool name or Wildcat  
Wantz (Abo) & Wantz (Granite Wash)

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 ☒ Other

2. Name of Operator

Marathon Oil Company

3. Address of Operator

P.O. Box 552 Midland, TX 79702

4. Well Location

Unit Letter F : 2,310' feet from the North line and 2,000' feet from the West line

Section 11 Township 22s Range 37E NMPM Lea County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3,355' - GL

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 COMPLETION ☒

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

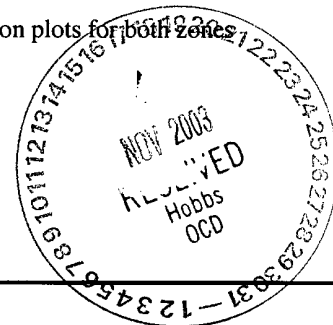
OTHER: ☐

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marathon Oil Company requests authorization to downhole commingle the Wantz (Abo) and Wantz (Granite Wash) pools. DHC 732 was granted on this well for the referenced zones in 1989. A recompletion to an upper Abo zone in 1998, temporarily abandoned a lower Abo zone and the Granite Wash. At this time, Marathon intends to remove a bridge plug so that all zones can be produced by rod pump

Please find attached a detailed procedure of the planned work, a wellbore diagram, and production plots for both zones

DHC Order No. HOB-0063



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

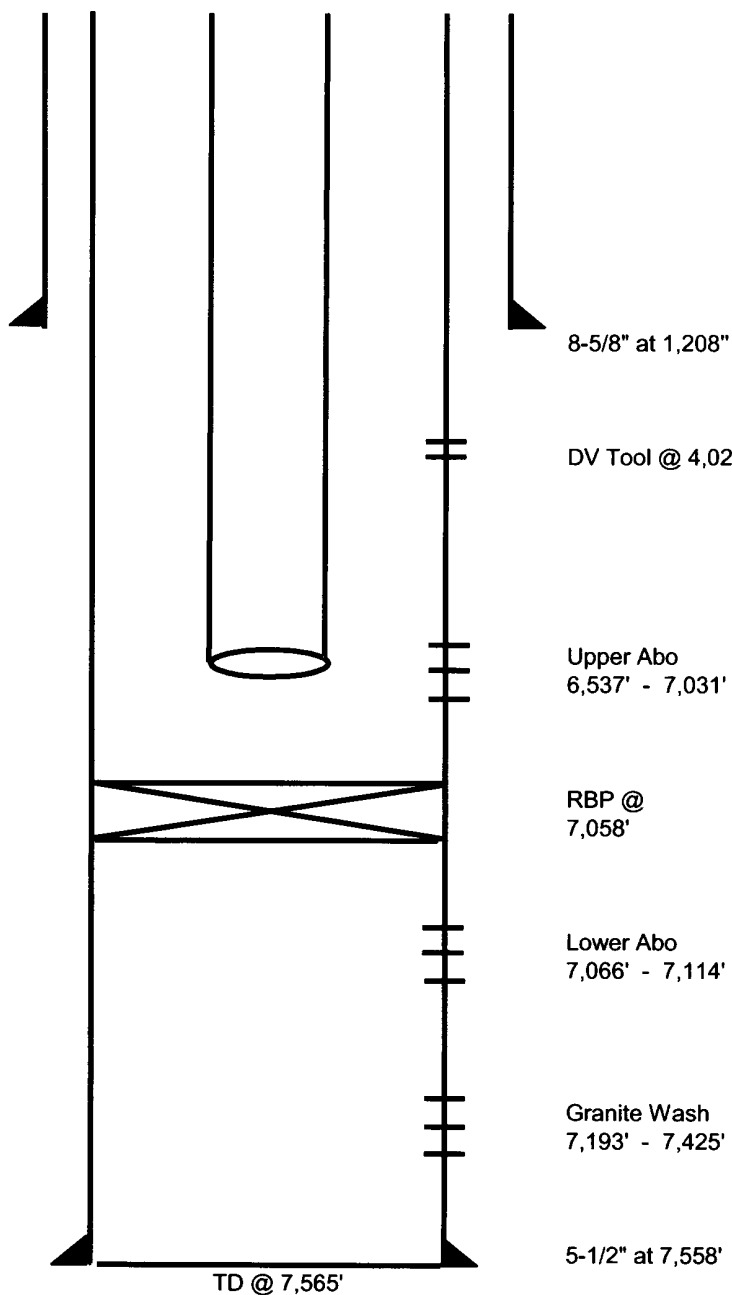
SIGNATURE Brent Lockhart TITLE Engineer DATE 11/12/03

Type or print name Brent Lockhart E-mail address: BDLockhart@MarathonOil.com Telephone No. 432-687-8284  
(This space for State use)

APPROVED BY [Signature] TITLE PETROLEUM ENGINEER DATE DEC 10 2003  
Conditions of approval, if any:

**Lou Worthan Well No. 20**  
**DHC Attachment**

- i) Pre-approved pool status was established by Division Order R-11363
- ii) Wantz-Abo (62700) & Wantz-Granite Wash (62730)
- iii) Wantz-Abo (6,537' – 7,114') & Wantz-Granite Wash (7,193' – 7,425')
- iv) Wantz-Abo (95% gas & 33% oil) & Wantz-Granite Wash (5% gas & 67% oil). Supported from tests prior to temporary abandonment.
- v) The proposed commingling will not reduce the value of the total remaining production
- vi) The ownership and percentages are identical for the zones



**Field:** Drinkard

**Lease & Well:** Lou Worthan Well No. 20

**Location:** Unit F, 2,310' FNL & 1,850' FWL  
Section 11, T-22-S, R-37-E

**County & State:** Lea County, New Mexico

**Status:** Active pumping well

**TD:** 7,565' **PBTD:** 7,058' **GL:** 3,354; **KB:** 3,369'

**Surface Casing:** 8-5/8", 24#, K-55 ST&C casing  
set @ 1,208'. Cmt'd w/325 sks. Circ'd to surface

**Production Casing:** 5-1/2", 15.5#, K-55 LT&C casing  
set @ 7,558' w/DV tool @ 4,024'

**Tubing:** 212 jts. 2-3/8" tbg, 5-1/2" TAC, 18 jts, SN  
mud anchor

**Rods:** 86 - 7/8" Norris 97  
192 - 3/4" Norris 97

**Pump:** 2" X 1-1/2" X 20' Insert pump w/6" gas anchor

**Present Completion:** Upper Abo 6,537' - 7,031'

#### History:

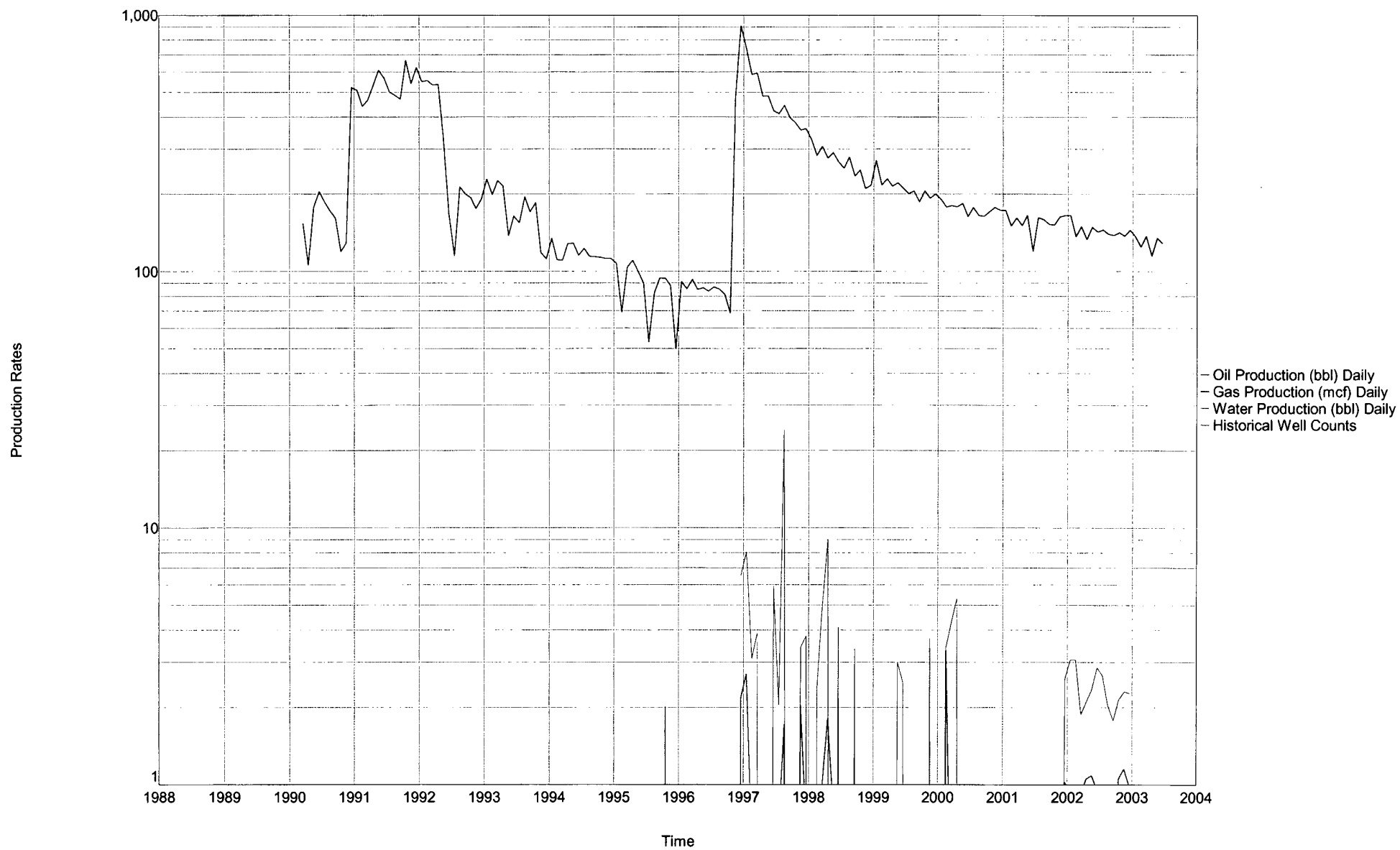
**March 1988** - Drilled & completed as dual Granite Wash & Lower Abo producer. Granite Wash - Acidized w/ 4,000 gals. 7-1/2%. Frac'd w/ 21,000# sd. IP'd pumping 17 BOPD. Lower Abo - Acidized 2,500 gals 7-1/2%. Frac'd w/42,000# sd IP'd flowing 552 MCFD

**March 1990** - Downhole commingled Granite Wash & Lower Abo

**November 1996** - Abandoned Granite Wash & Lower Abo By setting RBP @ 7,058'. Recompleted to Upper Abo Acidize w/23,200 gals 15%.

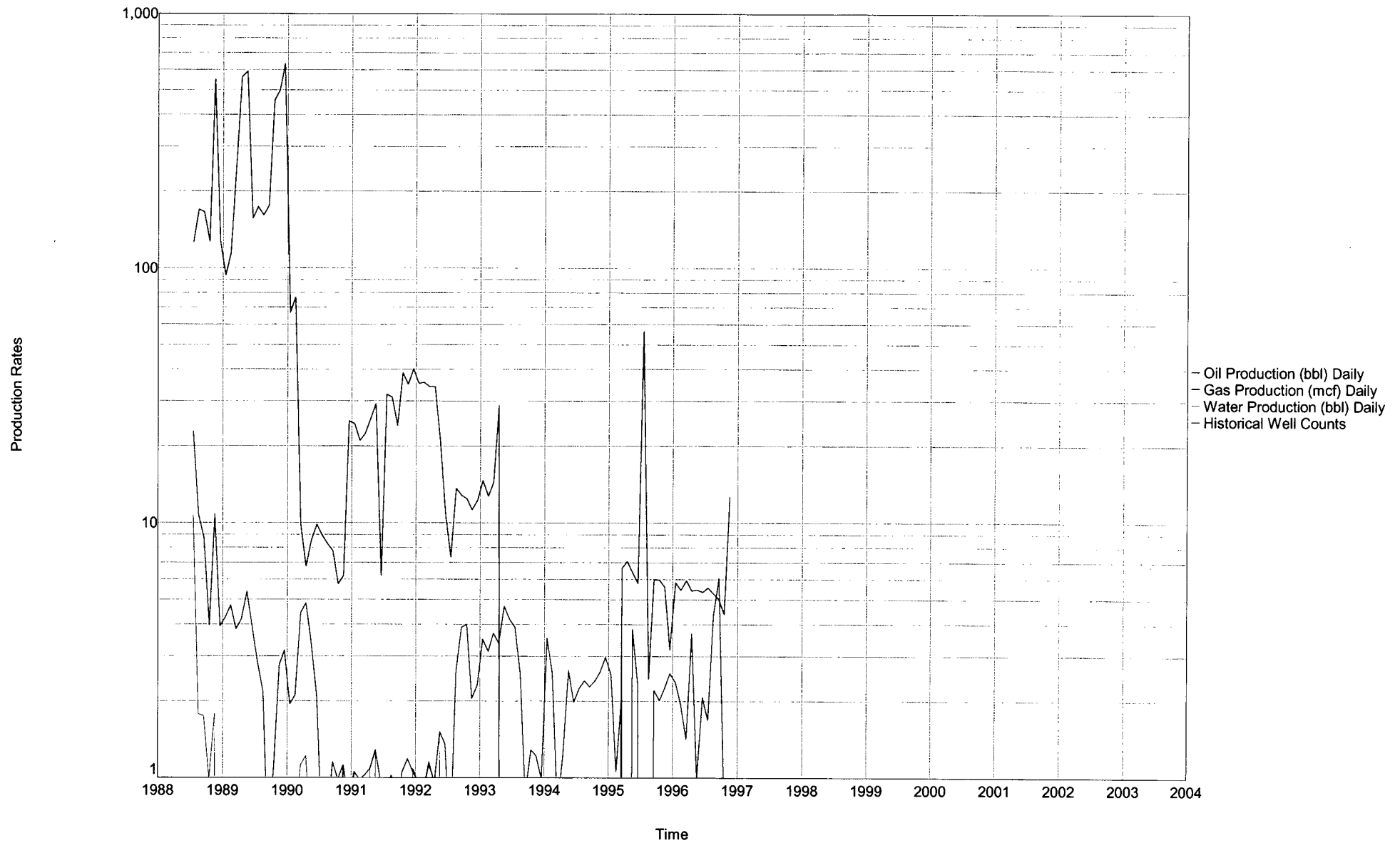
Lease Name: LOU WORTHAN 20  
County, State: LEA, NM  
Operator: MARATHON OIL COMPANY  
Field: WANTZ  
Reservoir: ABO  
Location: 11 22S 37E SE NW

LOU WORTHAN - WANTZ - ABO



Lease Name: LOU WORTHAN  
County, State: LEA, NM  
Operator: MARATHON OIL COMPANY  
Field: WANTZ  
Reservoir: GRANITE WASH  
Location: 11 22S 37E SE NW

LOU WORTHAN - WANTZ - GRANITE WASH



**DHC Procedure**  
**Lou Worthan Well No. 20**  
**2,310' FNL & 1,850' FWL, Unit F**  
**Section 11, T-22-S, R-37-E**  
**Lea County, New Mexico**

**Date:** 11/12/2003

**WBS #s:**

**AFE Cost:** \$15,000

**WI:** 100.0%    **NRI:** 87.5%

**Elevation:**    **GL:** 3,354'    **KB:** 3,369'    **PBTD:** 7,058'(RBP)    **TD:** 7,565'

**Purpose:** Downhole commingle Lower ABO and Granite Wash w/ Upper Abo

**Surface Casing:** 8-5/8", 24#, K-55, LTC casing set at 1,208'. Cemented with 325 sks. Circulated cement to surface.

**Production Casing:** 5-1/2", 15.5# casing set at 7,558'. DV tool at 4,024'

**Tubing:**    212 jts 2-3/8" J-55 tbg, 5-1/2" TAC, 17 jts 2-3/8" J-55 tbg, 1 jt ICC tbg, SN, 16' mud anchor.

**Rods & Pump:**    77 – 7/8" Norris 97, 192 – 3/4" Norris 97 w/2" X 1-1/2" X 20' pump w/ 6' gas anchor

**Current Perforations:**    **Upper Abo**    6,537-44, 49-54, 56-58,  
6,600-04, 14-22, 48-52, 66-71, 76-78, 88-96,  
6,700-03, 30-34, 38-44, 48-52, 54-56, 58-68, 72-76, 91-94, 96-00  
6,802-05, 24-32, 46-50, 56-64, 68-72, 80-84, 86-90  
6,944-46, 52-56, 64-71, 76-84, 90-92  
7,020-22, 28-31    (2 spf)

**TA Perforations (RBP):**    **Lower Abo**    7,066, 76, 81, 89, 95, 99, 7,104, 09, 14    (2 spf)

**Granite Wash** 7,193, 7,232, 43, 72, 79, 86, 93  
7,300, 10, 30, 34, 41 47, 56, 61, 65, 72, 78, 86  
7,400, 18, 25    (2 spf)

**Special Considerations:**    Use limited amounts of 2% KCL for kill fluid.  
Verify current tbg & rod tally w/Hobbs office prior to RU.  
Lowering tbg will require additional ~ 400' of tbg & rods

**Procedure:**

1. Inspect surface location and improve if necessary. Test safety anchors to 22,500#.
2. SD pumping unit the evening prior to RU. Flow well to production facilities overnight.
3. MIRU WOR. Kill well w/limited amounts of 2% KCl.
4. Disconnect surface equipment. Hang off pumping unit. LD polish rod. POOH w/rods & pump, hot water if necessary
5. ND wellhead. NU 3M BOPE. Release TAC and POOH w/2-3/8" tbg string. Visually inspect and replace as necessary.
6. TIH w/retrieving head for Watson TS RBP, bulldog bailer on 2-3/8" tbg. Work bailer to cleanout fill to RBP at 7,058'. Latch onto RBP and POOH. TIH w/ 2-3/8" tbg and tag PBTD (7,456'). POOHw/same.
7. TIH w/mud anchor, SN, 2-3/8" tbg, 5-1/2" TAC on 2-3/8" prodcuton tbg. Space out tubing w/SN ~7,400' and TAC at 6,450'.
8. ND BOPE and NU wellhead. TIH w/pump & rods. Space out pump. Hang well on. Connect surface equipment. RD WOR and MOL. Start pumping well to production facilities.

**XC:**    R. S. Bose  
         W. H. Arnett  
         B. D. Lockhart  
         Well File