OCD-Hobbs Artesia

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.
NMNM0540701A

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.
TOP GUN FEDERAL SWD 1

2. Name of Operator
MEWBOURNE OIL COMPANY
Contact: JACKIE LATHAN
E-Mail: jlathan@mewbourne.com

9. API Well No.
30-015-~~30175~~ 31075

3a. Address
PO BOX 5270
HOBBS, NM 88241

3b. Phone No. (include area code)
Ph: 575-393-5905

10. Field and Pool, or Exploratory
~~SALT WATER DISPOSAL~~
SWD; Devonian

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 18 T23S R27E Mer NMP NENE 660FNL 660FEL

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

SWD-1561

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.)

SICP 200#. MIRU acid pump. Opened csg & well began flowing @ 2 BPM. POOH to 12914'. Flowed well back & recovered 500 BW. Samples show no presence of hydrocarbons (approved by Paul Swartz w/BLM, no swab test needed). Pumped 17500 gals 15% HCl acid down csg, AIR 10 BPM @ 500#. Flushed w/340 BPW.

See attached Geological summary & Mud log.

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 10 2016

Accepted for record - NMOCD

Bond on file: NM1693 nationwide & NMB000919

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RECEIVED

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #341116 verified by the BLM Well Information System
For MEWBOURNE OIL COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by PAUL SWARTZ on 06/07/2016 ()

Name *(Printed/Typed)* ERIN MCMATH — Title ENGINEER

Signature (Electronic Submission) — Date 06/06/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Paul R Swartz — Title Eng Tech — Date 06/07/16

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 Carlsbad

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 ****

P
6/13/16

6/3/2016

Geological Summary: Top Gun SWD #1

The Devonian formation in the Top Gun Federal SWD #1 consists of mainly limestone, dolomite, and a trace of shale. While drilling the Top Gun SWD #1, we encountered no hydrocarbon shows of any kind throughout the entire Devonian formation.

The Devonian formation does not produce from any well in a fifteen mile radius around the Top Gun SWD #1. There are approximately sixteen wells that have penetrated the Devonian formation in this area, and fifteen of those wells ran a drill stem test in the Devonian. All of these DSTs recovered significant amounts of water with no shows of oil or gas. The Mobil-Fed 12 #1 (API 3001520151), which is located 1.6 miles to the northwest of the Top Gun SWD #1, recovered 3250' of Sulphur water from its Devonian DST. This well is structurally 270' updip from the Top Gun SWD #1. With the Top Gun SWD #1 being downdip from the Mobil-Fed 12 #1, we would expect any type of a test to be non-productive.

When the Devonian formation does produce, it tends to be productive because of a closed deep structural feature. By looking at a structure map on the top of the Devonian, you can see there is no such structural feature present around the Top Gun that would trap hydrocarbons in the Devonian.

In conclusion, the Devonian formation around the Top Gun SWD #1 is not productive. There have been numerous DSTs in this area that have all recovered significant Sulphur water and no hydrocarbons. These wet DSTs are due to the fact that there is no structural feature in the Devonian formation that would create a hydrocarbon trap.

Sincerely,

Nathan Cless

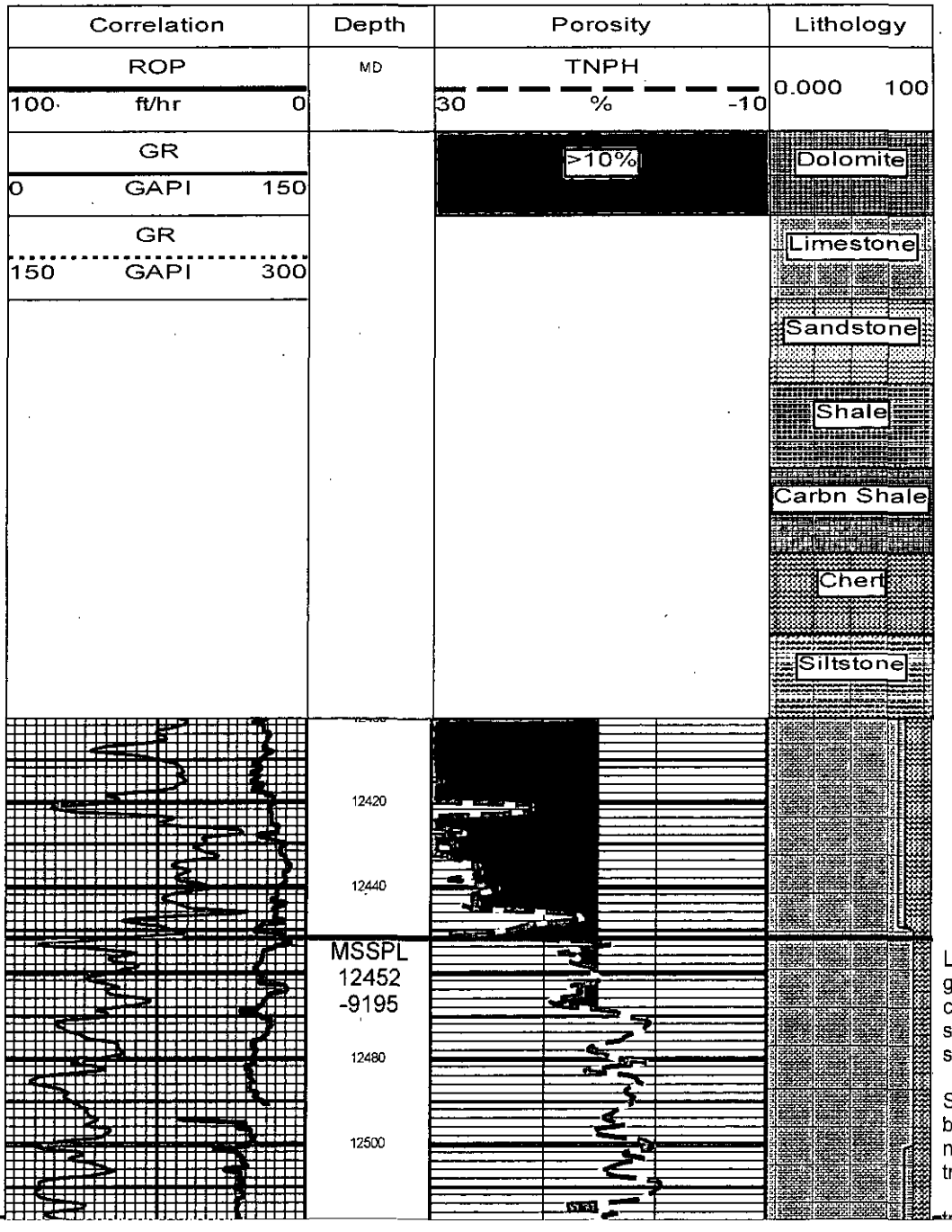
Geologist

Mewbourne Oil Company

Top Gun Federal SWD #1

300153107500

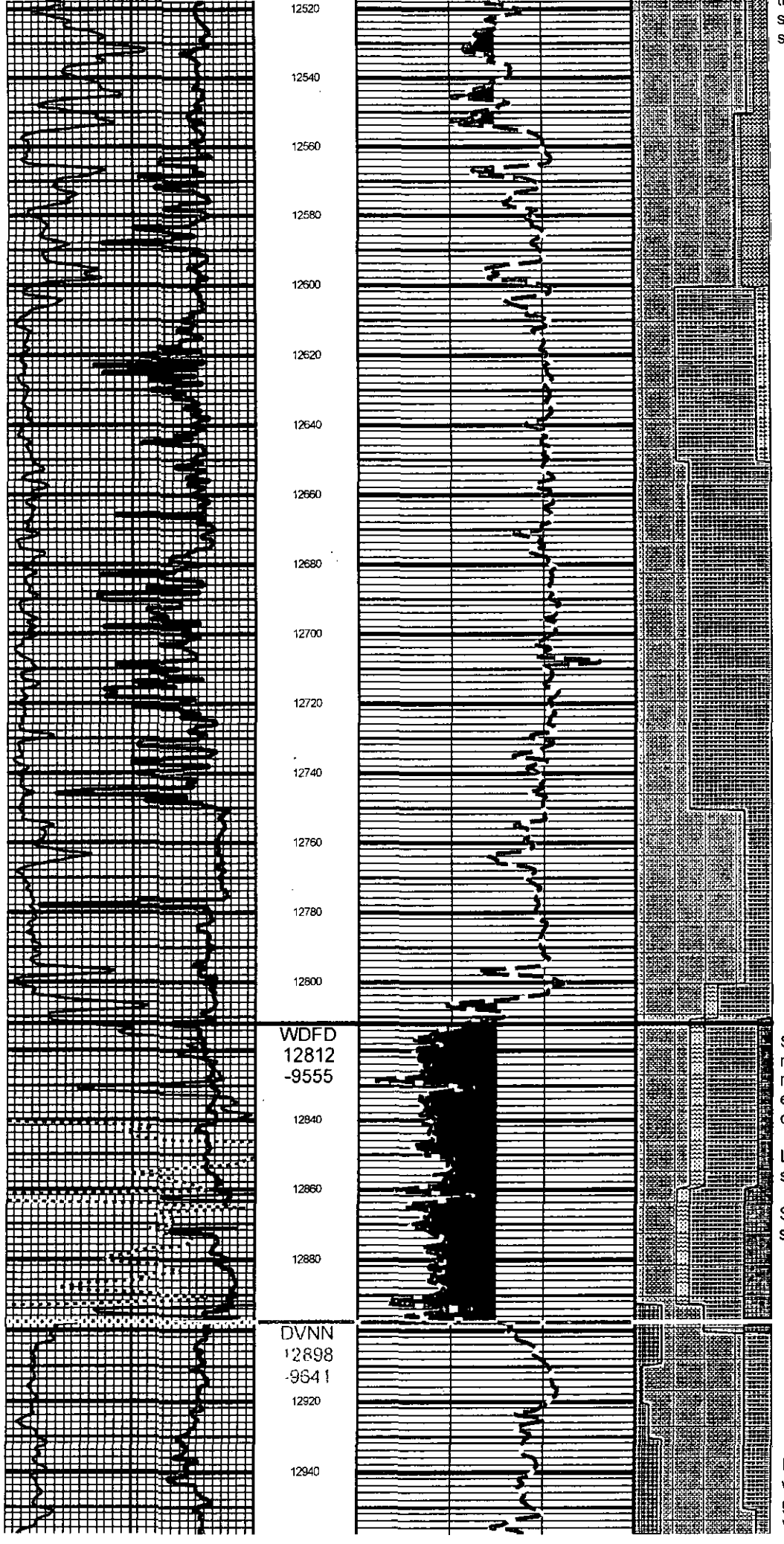
MEWBOURNE OIL CO
TOP GUN FEDERAL SWD 1
660 FNL 660 FEL
TWP: 23 S - Range: 27 E - Sec. 18
Ground=3230.00
Reference=KB
Datum=3257.00



Limestone – Off white, white, light gray, light brown, pinkish-white to cream, very fine to micro-crystallinity, some waxy to moderate chalky, some dark chert.

Shale – Medium gray, dark gray, black, slightly calcareous to non-calcareous, moderately silty, traces of carbonaceous shale.

trace 20% shale/carbonaceous



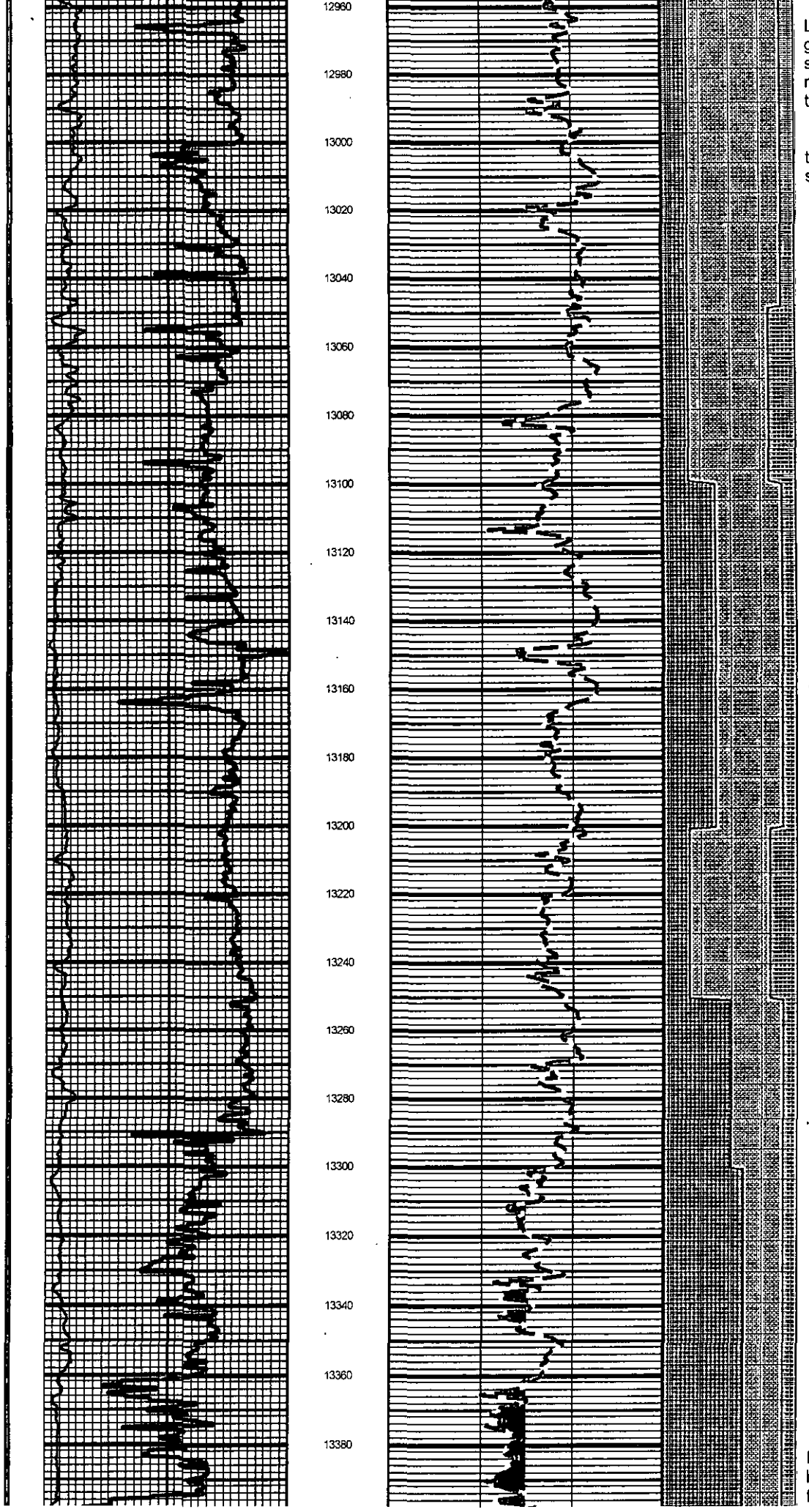
trace-20% shale/carbonaceous shale with few scattered traces of sandstone/limey-sand.

Shale – Dark brown to dark gray, medium gray, black, firm to moderately hard, some very hard, earthy to waxy, moderately to very carbonaceous. non-calcareous

Limestone, slight sandy, moderately silty

Sandstone/limey-sand with some scattered traces of silty-shale

Dolomite – Clear, off white to milky white, opaque to translucent, light gray to very soft browns, micro to very fine crystallinity, sucrosic.



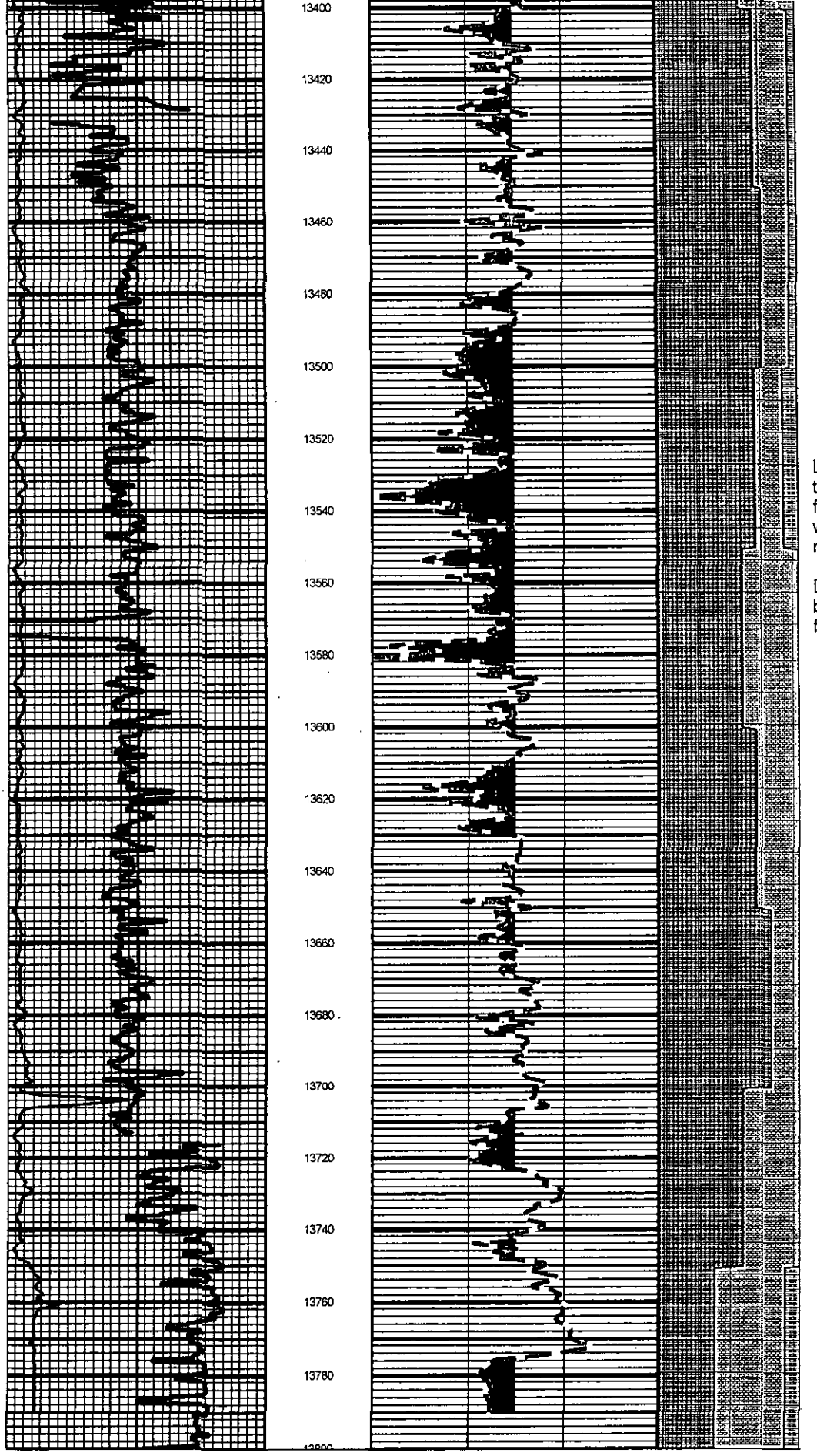
Limestone – White, off white, light gray to medium gray, cream to slightly brown-white, very fine to micro-crystallinity, moderately waxy to chalky, moderate to very dolomitic.

trace-10% shale/carbonaceous shale.

Limestone – Very light to light brown, tan, light to medium grey, very fine to *fine crystalline, some argillaceous*, with some shales, slight waxy to moderately chalky, very dolomitic

Dolomite – Off white, white, light/soft brown, moderately opaque, micro-fine crystallinity, sucrosic.

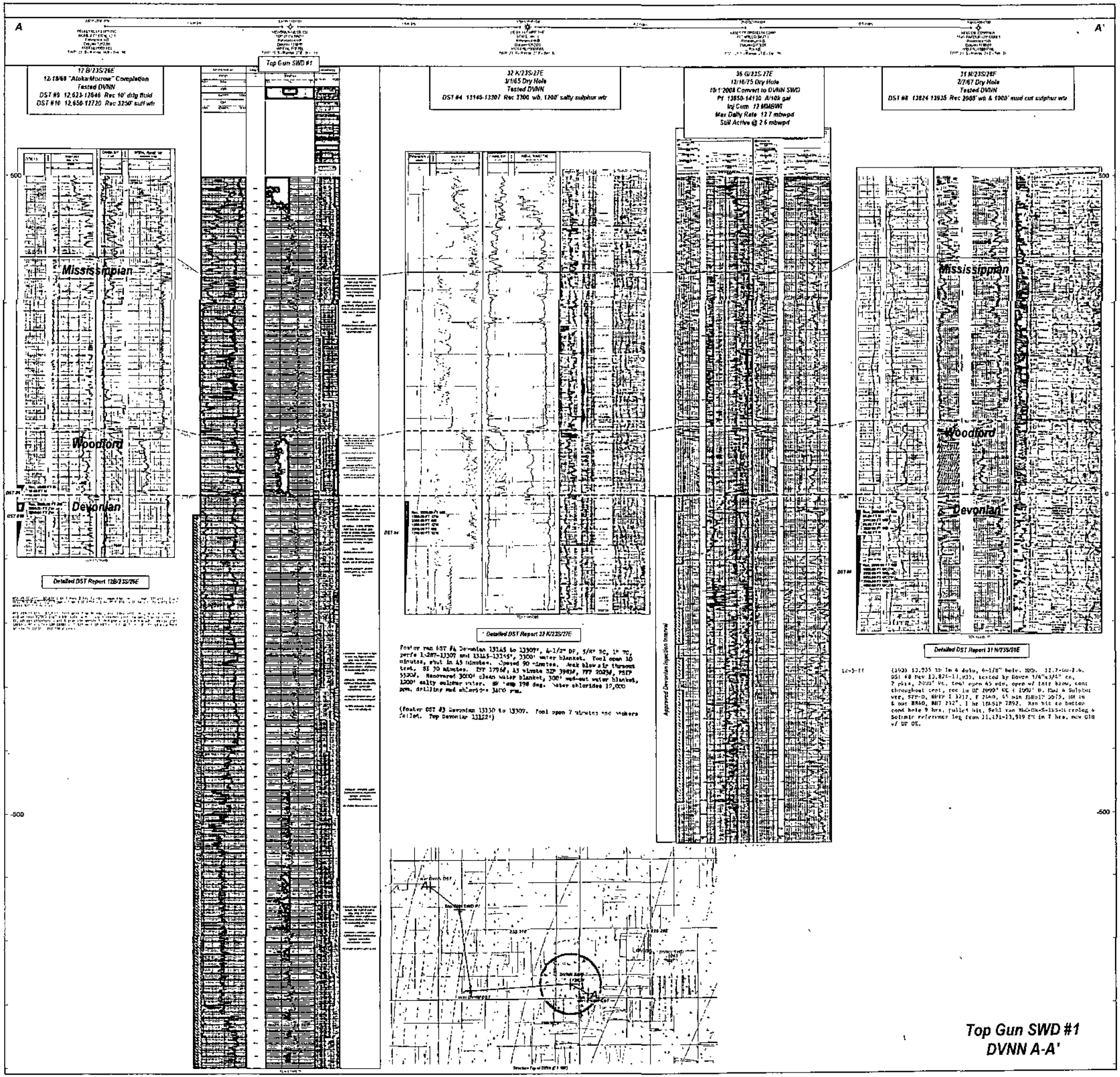
Dolomite – Off white, white, light/soft brown, moderately opaque, micro-fine crystallinity, sucrosic



TD=13800.00

Limestone – Very light to light brown, tan, light to medium grey, very fine to fine crystalline, some argillaceous, with some shales, slight waxy to moderately chalky, very dolomitic

Dolomite – Off white, white, light/soft brown, moderately opaque, micro-fine crystallinity, sucrosic.


A
A'
12 B/23S/26E
12/18/68 "Atoka/Morrow" Completion
Tested DVNN
DST #9 12,623-12646 Rec 10' drlg fluid
DST #10 12,650-12720 Rec 3250' sulf wtr
Top Gun SWD #1
32 K/23S/27E
3/1/65 Dry Hole
Tested DVNN
DST #4 13145-13307 Rec 3300 wb, 1200' salty sulphur wtr
36 G/23S/27E
12/16/75 Dry Hole
10/1/2008 Convert to DVNN SWD
Pf 13850-14130 A/10k gal
Inj Cum 12 MMBWI
Max Daily Rate 13 7 mbwpd
Still Active @ 2 6 mbwpd
31 N/23S/28E
2/7/67 Dry Hole
Tested DVNN
DST #8 13824 13935 Rec 2000' wb & 1000' mud cut sulphur wtr
500
0
-500
Mississippian
Woodford
Devonian
DST #4
DST #8
Detailed DST Report 12B/23S/26E
Detailed DST Report 32 K/23S/27E
Detailed DST Report 31 N/23S/28E
Approved Devonian Injection Interval
Loving
Top Gun SWD #1
DVNN A-A'

Order of Authorized Officer

Top Gun - 01, API 3001531075
T23S-R27E, Sec 18, 660FNL & 660FEL
June 07, 2016

1. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 12800 to top of cement taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email.**
2. Approval is granted for disposal of water produced from the lease, communitization, or unit agreement of this well only. Disposal fluid from another operator, lease, communitization, or unit agreement require BLM surface right-of-way agreement **approvals** and if applicable, authorization from the surface owner.
3. Disposal of water from another operator requires that the well be designated as a commercial well and BLM surface right-of-way agreement **approvals.**
4. 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.

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.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a 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 vents are plumbed to surface and those valves 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 25 to 85 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
5) The setting depths and descriptions of tubing internal protection, tubing on/off equipment just above the packer, and profile nipple are to be included in the subsequent sundry.
6) 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.

7) A request for increased wellhead pressures is to be accompanied by a step rate test. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
8) Stimulation injection pressures are not to exceed BLM's permitted wellhead pressure or the well's frac pressure established by a BLM approved step rate test for Class II water injection wells.
9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
10) 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.
11) 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.
12) Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902) to arrange for approval of the annular monitoring system.
13) Loss of packer fluid above five barrels per month indicates a developing problem. Notify BLM Carlsbad Field Office, Petroleum Engineering within 5 days.
14) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
15) Gain of annular fluid pressure requires notification within 24 hours. Cease injection and maintain a production casing pressure of 0psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
16) Class II (production water disposal) wells will not be permitted Stimulation Pressures or "Injectivity Tests" that exceed the NMOCD/BLM generic frac pressure which is: .2 x ft depth to the topmost injection or 50psig below the frac point as clearly indicated by a BLM accepted "Step Rate Test".
17) A request for increased wellhead pressures is to be accompanied by a "Step Rate Test:" that is to clearly indicate any requested wellhead pressure is +50psig below frac pressure for the wellbore's disposal formation. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
18) The subsequent report is to include all stimulation injection pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).

19) Submit a (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP describing (dated daily) all wellbore maintenance and workover activity including the Mechanical Integrity Test chart document.