

Form 3160-3  
(December 1990)

UNITED  
DEPARTMENT  
BUREAU OF LAND

APPLICATION FOR PERMIT

OPER. OGFID NO. 21602-  
PROPERTY NO. 18029  
POOL CODE 59110  
EFF. DATE 12/8/95  
API NO. 30-025-33217

LOCATE  
as on

Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Stevens & Tull, Inc.

3. ADDRESS AND TELEPHONE NO.

P. O. Box 11005, Midland, TX 79702 915/699-1410

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

575' 1700' FSL & 330' FWL  
At proposed prod. zone  
1700' FSL & 330' FWL

Unit L

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

25 miles west of Hobbs

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

330

16. NO. OF ACRES IN LEASE

160.00

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

None

19. PROPOSED DEPTH

3500'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3552 GR

22. APPROX. DATE WORK WILL START\*

12/1/95

23.

PROPOSED CASING AND CEMENTING PROGRAM

Potash

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8"-J55	24	1300	690 SX - <u>circulated</u>
7 7/8	5 1/2"-J55	17	3500	590 SX - <u>circulated</u>

- 1) Drill 12 1/4" hole to approximately 1300' or hard formation with fresh water.
- 2) Set 8 5/8" csg w/ 13 centralizers spaced every 100'. Cement csg w/ 540 SX Class "C" + 4% gel plus 150 SX "C" + 2% CaCl2 - Circulate cement.
- 3) WOC 12 hrs with pressure on csg - drill out after 24 hrs, Test BOP's to 1000 PSIG for 30 mins.
- 4) Drill 7 7/8" hole with Brine to +/- 3500'.
- 5) Set 5 1/2" csg w/ 15 centralizers. Cement w/ 300 SX pacesetter lite "C" + 5% Salt + 1/4# celloflake plus 290 SX 50/50 POZ "C" + 5% Salt + 5% CF-2 - Circulate cement.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

*Michael J. Moore*

TITLE Engineer

DATE 9/26/95

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval 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.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

APPROVED BY

*Gilbert J. Lucero*

TITLE

*Acting State Director*

DATE

Nov 1995

\*See Instructions On Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.  
NM-13280

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Federal 10-1

9. API Well No.

10. Field and Pool, or Exploratory Area  
West Teas Y-SR

11. County or Parish, State

Lea

**SUBMIT IN TRIPLICATE**

1. Type of Well \*

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Stevens & Tull, Inc.

3. Address and Telephone No.

P. O. Box 11005, Midland, Texas 79702 915/699-1410

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1700' FSL & 330' FWL  
Section 10, T-20-S, R-33-E

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

TYPE OF SUBMISSION

- ☒ Notice of Intent  
☐ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Amend Surface Location  
☒ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Old Location 1650' FSL & 330' FWL Section 10, T-20-S, R-33-E  
New Location 1700' FSL & 330' FWL Section 10, T-20-S, R-33-E  
Location was changed at the request of BLM, Carlsbad.

14. I hereby certify that the foregoing is true and correct

Signed

Title Engineer

Date 10/17/95

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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 statement or representations as to any matter within its jurisdiction.

\*See instruction on Reverse Side

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

## SPECIFIC INSTRUCTIONS

*Item 4*—If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

*Item 3*—Proposals to abandon a well and subsequent reports of abandonment should include special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

## NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et. seq., 351 et. seq., 25 U.S.C. et. seq.; 43 CFR 3160.

**PRINCIPAL PURPOSE** — The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operations, on a Federal or Indian lease.

**ROUTINE USES:**

(1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.

(2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2).

(3) Analyze future applications to drill or modify operations in light of data obtained and methods used.

(4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION** — Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that: This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized. Response to this request is mandatory for the specific types of activities specified in 43 CFR Part 3160.

## BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Aliterate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20503.

DISTRICT I  
P.O. Box 1690, Hobbs, NM 88241-1990

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-33217</b>	Pool Code <b>59110</b>	Pool Name <b>West Teas Y-SR</b>
Property Code <b>18029</b>	Property Name <b>10 FEDERAL 10</b>	Well Number <b>1</b>
OGRID No. <b>021602</b>	Operator Name <b>STEVENS &amp; TULL</b>	Elevation <b>3553</b>

#### Surface Location

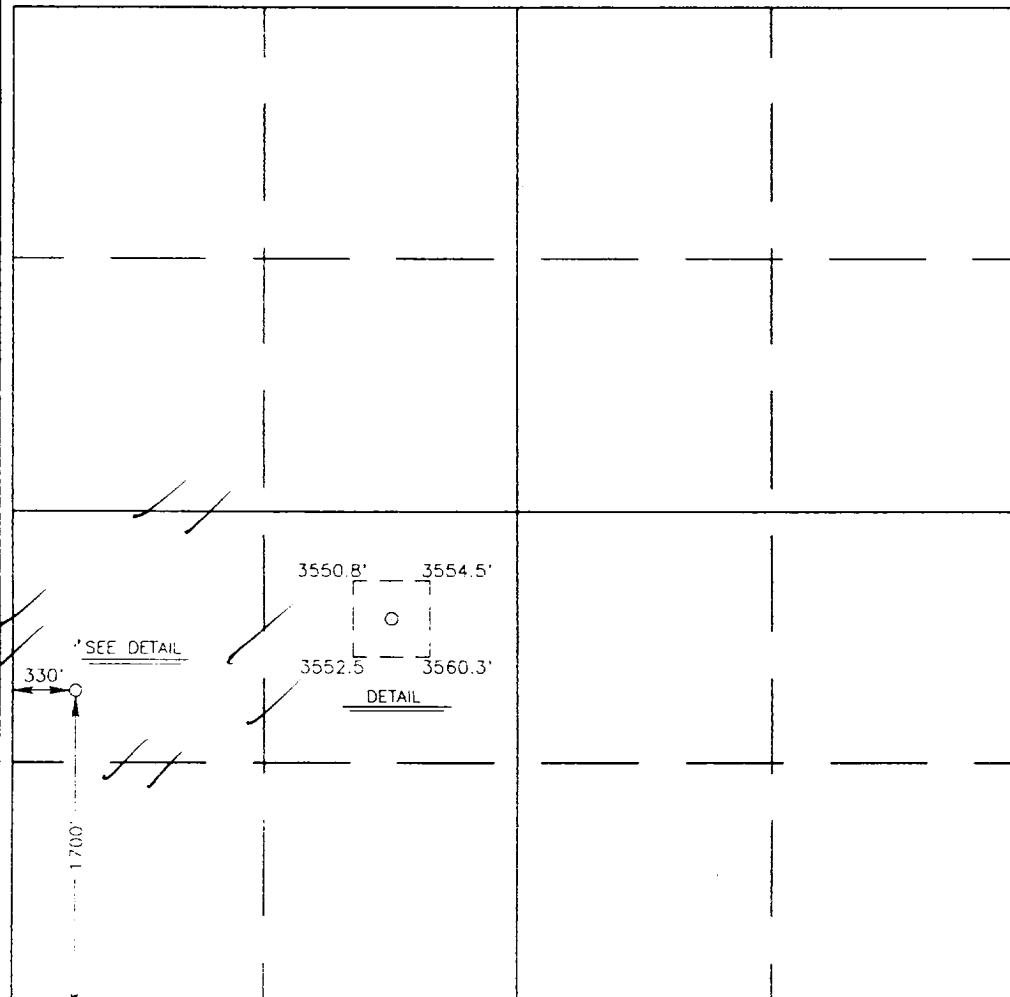
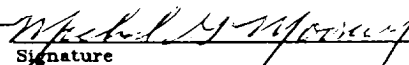
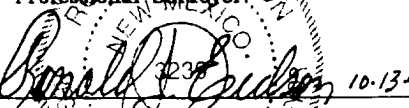
UL or lot No. <b>L</b>	Section <b>10</b>	Township <b>20 S</b>	Range <b>33 E</b>	Lot Idn	Feet from the <b>1700</b>	North/South line <b>SOUTH</b>	Feet from the <b>330</b>	East/West line <b>WEST</b>	County <b>LEA</b>
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#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres <b>40</b>	Joint or Infill <b>N</b>	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature <b>Michael G. Mooney</b> Printed Name <b>Engineer</b> Title <b>10/17/95</b> Date
	<b>SURVEYOR CERTIFICATION</b>  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  <b>OCTOBER 11, 1995</b> Date Surveyed  Signature & Seal of Professional Surveyor <b>Donald J. Eidson</b> Professional Surveyor <b>10-13-95</b> Date <b>WFO. Num. 95-1151565</b> Certificate No. <b>JOHN M. WEST 676</b> <b>RONALD J. EIDSON 3239</b> <b>BARBARA EIDSON 12641</b>

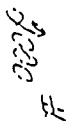
SEPTEMBER 26, 1995  
APPLICATION FOR PERMIT TO DRILL  
STEVENS & TULL, INC.  
FEDERAL "10" NO. 1

1650' from the south line. 330' from the west line. Section 10,  
T-20-S, R-33-E, Lea County, New Mexico.

The following items and attachments compliment Stevens & Tull, Inc.'s  
permit to drill the Federal "10" No. 1.

- 1) The geologic surface formation is of Quaternary Age.
- 2) Estimated tops of geologic markers are as follows: The  
anhydrite 1325', salt 3050', Yates 3250'.
- 3) The estimated depths at which water is expected are between  
150' and 350'. The estimated depths which oil or gas is  
expected is between 3200' and 3600' in the Yates Dolomite  
and sand formations. Fresh water zones will be protected  
with independent casing and cement.
- 4) Red beds and fresh water will be protected with 8 5/8" 24#  
and 32# J-55 ST&C casing run to a good shoe setting at  
approximately 1300' with 13 centralizers and cement to  
surface. Anhydrite, salt and oil sands will be protected  
with 5 1/2" 17# J-55 LT&C casing run to a total depth of the  
well and cemented back to surface.
- 5) Pressure control, see the attached sketch.
- 6) Mud program, see the Horizon Mud Company recommendation  
attached.
- 7) There is no planned auxiliary equipment.
- 8) Open hole logs will be run from total depth to surface.  
No cores or DTS's are planned.
- 9) No abnormal temperatures or pressures are expected. No lost  
circulation is expected.
- 10) The anticipated starting date is December 1, 1995.

BELL WIPPLE



KILL LIVE

2000

## CHOKE FLOW LINE

CASING

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1

1

42

2-2-78

The diagram illustrates a chemical process involving two vertical columns and a central mixing unit. The left column is labeled "L5 H2O" and the right column is labeled "L5 H2O". The central unit is labeled "L5 H2O" and "L5 H2O". The diagram shows the flow of material between these components, with various valves and pipes indicated. The text "L5 H2O" is repeated multiple times, suggesting a specific chemical or process parameter.

## DRILLING, CASING AND CEMENTING PROGRAM

- 1) Drill 12 1/4" hole to approximately 1300' or to firm formation with fresh mud, with a viscosity of 30 seconds per quart and a water loss less than 10 cc per 30 seconds. Maintain pump pressure less than 800 psi to prevent excessive hole enlargement.
- 2) Circulate hole clean with 2 hole volumes of mud.
- 3) Run 8 5/8" casing with a centralizer on the first collar and one on each third collar from the bottom. Use a Texas patterned guide shoe with an aluminum baffle float. Land the casing with the collar eighteen inches below the surface.
- 4) Cement the casing in place with 540 sacks Class "C" + 4% gel + 2% Calcium Chloride and 1/4# per sack cellophane, plus 150 sacks class "C" with 2% Calcium Chloride and 1/4# per sack cellophane. Displace the cement to the float. Shut in.
- 5) Wait on cement 24 hours before drilling out (12 hours with pressure on pipe). Test pressure control equipment to 1000 psi for 30 minutes before drilling through the casing shoe.
- 6) Drill 7 7/8" hole with brine at native conditions to a depth of 2700'.
- 7) At 2700' depth raise the mud viscosity to 37 seconds per quart and reduce water loss to less than 10 cc per 30 seconds.
- 8) Drill to TD of 3500'.
- 9) Circulate hole for 4 hours with mud at designed conditions.
- 10) Pull out of the hole, lay down drill string.
- 11) Run 5 1/2" casing with guide shoe, float collar, latchdown wiper plug baffle and 15 centralizers, one on each collar from the first collar up.
- 12) Cement with 300 sacks Pacesetter Lite "C" cement + 5 % salt, with 1/4# cellophane plus 290 sacks POZ 50/50 class "C" with 5/10% CF-2 and 5% salt plus 1/4# per sack cellophane. Displace plug with fresh water, release pressure and leave shut in.

NOTE: Rotate 5 1/2" casing during cementing.

## RECOMMENDED MUD PROGRAM BY CASING INTERVAL

### Surface Hole 0-1,300'

Spud with a Horizon Gel/Lime slurry, mixing one Lime per ten Gel for a 32-34 viscosity. After a depth of approximately 300', allow the native solids to maintain a viscosity of 32-34 sec./qt. While drilling the "red bed", it is important that a stable viscosity be maintained with additions of fresh water at the flowline. Lime will cause the red bed clays to thicken more rapidly, causing difficulty in maintaining a stable and consistent native mud. Therefore, we recommend that Lime not be used for PH control while drilling the surface hole.

This native mud should provide good conditions for running casing.

### Open Hole 1,300' - 3,500'

Drill out from under the surface casing with brine water and circulate through the reserve pit to minimize solids build-up. A flocculant (MF-55) can be used to aid in dropping solids, providing a clear fluid and maximum penetration rates.

We recommend maintaining an 8.5 - 9.0 PH with Lime.

It is always possible in this general area to encounter lost circulation in the San Andres and Glorieta Formations. Utilize Paper to control seepage loss. Should complete loss of returns occur while drilling, we recommend pulling a few stands off bottom and spotting a 100-200 barrel pill containing fibrous-type LCM. Spot the pill from above before returning to bottom to commence drilling.

We recommend running periodic sweeps (every 100-200') with Paper.

Clear water should be sufficient to drill to a depth of approximately 2700'. At this point, we recommend returning to the working pits and mudding up with a Starch system having the following properties:

Mud Weight	10.1 - 10.2
Viscosity	30 - 32
Water Loss	30 - 35

This should provide good samples for proper evaluation.

While using Starch for fluid loss control, it is important that the PH in the fluid remain below 10.0 to avoid burning the Starch.



PROPOSED MUD PROGRAM

CASING DESIGN

8 5/8" Surface Casing at 1,300'

7 7/8" Open Hole to 3,500'

RECOMMENDED MUD PROPERTIES

<u>DEPTH</u>	<u>MUD WEIGHT</u>	<u>VISCOSITY</u>	<u>FLUID LOSS</u>
Spud	8.4 - 8.6	32 - 34	No Control
500'	8.6 - 8.8	32 - 34	No Control
1,000'	8.8 - 9.2	32 - 34	No Control
1,300'	9.0 - 9.4	32 - 34	No Control

Net 8 5/8" Surface Casing at 1,300'. Drill out with Brine Water.

1,300'	9.6 - 10.0	28 - 29	No Control
2,000'	10.0 - 10.1	28 - 29	No Control
2,500'	10.0 - 10.1	28 - 29	No Control
2,700'	10.1 - 10.2	30 - 32	30 - 35
3,000'	10.1 - 10.3	30 - 32	30 - 35
3,500'	10.1 - 10.3	34 - 40	<30