

RE-SUBMITTAL

B-7

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

POTASH

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5. Lease Serial No. NMNM-17439
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Shackelford Oil Company			7. If Unit or CA Agreement, Name and No. N/A
3a. Address P.O. Box 10665 Midland, TX 79702		3b. Phone No. (include area code) (432) 682-9784	8. Lease Name and Well No. Tonto Federal #5
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1650' FNL & 1650' FEL At proposed prod. zone 1650' FNL & 1650' FEL			9. API Well No. 30-025-36518
14. Distance in miles and direction from nearest town or post office* 18.5 miles SE of Maljamar, NM			10. Field and Pool, or Exploratory Teas Delaware
15. Distance from proposed* location to nearest property or lease line, ft. 1650' (Also to nearest drig. unit line, if any) 330'			11. Sec., T., R., M., or Blk. and Survey or Area Sec. 10 T-20S, R-33E
16. No. of Acres in lease 160		17. Spacing Unit dedicated to this well 40 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 990'		19. Proposed Depth 8300'	
20. BLM/BIA Bond No. on file		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3571' GL	
22. Approximate date work will start* 12-25-2003		23. Estimated duration 25 days	
24. Attachments Captain Controlled Water Basin			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Don G. Shackelford</i>	Name (Printed/Typed) Don G. Shackelford	Date 10-31-2003
Title OWNER		
Approved by (Signature) <i>/s/ Carsten F. Goff</i>	Name (Printed/Typed) <i>/s/ Carsten F. Goff</i>	Date 1 8 DEC 2003
Title ACTING STATE DIRECTOR	Office NM STATE OFFICE	

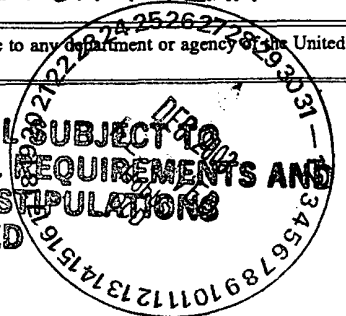
Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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.

OPER. OGRID NO. 20595
PROPERTY NO. 23087
POOL CODE 96797
EFF. DATE 12/30/03
API NO. 30-025-36518

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED



APPLICATION TO DRILL

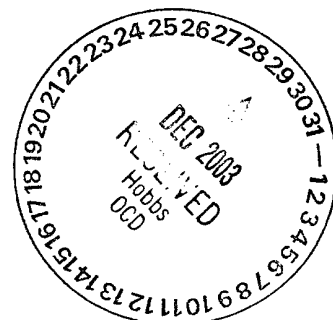
In conjunction with Form 3160-3, Application for Permit to Drill, Shackelford Oil Co. Submits the subject well in accordance with Bureau of Land Management requirements.

1. The geologic surface formation is Quaternary.
2. The estimated tops of geologic markers are;
 1. Anhydrite 1350'
 2. Tansill 3135'
 3. Yates 3350'
 4. Seven Rivers 3650'
 5. Delaware 5400'
3. The estimated depths at which water, oil, or gas-bearing formation are expected:

Water	350'
Oil and Gas	3350'-3700' Yates-Seven Rivers
	5400'-8300' Delaware
4. Casing

13 3/8"	48#	J-55	0-1350'
8 5/8"	32 and 36#	J-55	0-5000'
5 1/2"	17#	J-55	0-TD
5. Cement
 - A. Cement from 1350' to surface with 775 sx 35/65 POS C and 285 sx Class C.
 - B. Cement from 5000', 285 sx 35/65 POS C and 705 sx Class C. - *Annular*
 - C. Cement from 8300' with 630 sx Class H. - *See back*.
6. Pressure control equipment: Blowout preventer
7. Mud program: See Exhibit #7
8. No abnormal pressures are expected
9. Testing, Logging and Coring Programs

Wireline logging program:	See Exhibit #7
---------------------------	----------------
10. Anticipated starting date: December 2003.



MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Tonto Federal #5
1650' FNL and 1650' FEL
Sec. 10, T-20-S, R-33-E
Lea County, New Mexico

This plan is submitted with Form 3160-3, application for permit to drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of operations so that a complete appraisal can be made of the environmental effects associated with the operations.

1. EXISTING ROADS

- A. The wellsite and elevation plat for the proposed Tonto Federal #5 are reflected on Exhibit #2.
- B. All roads to the location are indicated on Exhibit #3.
- C. **DIRECTIONS:**
 - 1. Proceed west from Hobbs on US 62 - 180 for 32 miles.
 - 2. Turn right on Caliche Road and continue 1.2 miles to the location on the left.

2. PLANNED ACCESS ROAD

- A. See Item 1.

3. LOCATION OF EXISTING WELLS

- A. The locations of existing active wells located in and immediately adjacent to Section 10 are highlighted on Exhibit #4.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

- A. There are two producing wells on this lease. Located below:

SHACKELFORD OIL COMPANY

Section 10, T-20-S, R-33-E
Tonto Federal #1
1980' FNL and 660' FEL



SHACKELFORD OIL COMPANY

Section 10, T-20-S, R-33-E

Tonto Federal #2

330' FEL and 660' FNL

5. **LOCATION AND TYPE OF WATER SUPPLY**

- A. It is planned to drill the proposed well with a cut-brine water system or with produced water. The water will be obtained from commercial source and will be hauled to location by truck over existing and proposed lease roads marked on Exhibit #3.

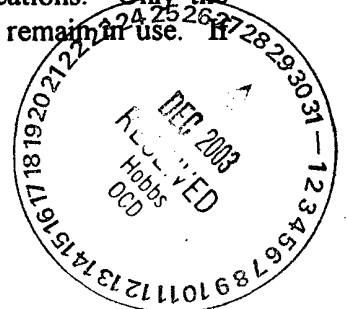
6. **SOURCES OF CONSTRUCTION MATERIALS**

- A. Caliche required for construction of the location pad and access road will be obtained from caliche on the location or from the nearest BLM approved pit.

7. **METHODS OF HANDLING WASTE DISPOSAL**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry. The reserve pit will be fenced on three sides and will be totally isolated upon removal of the rig.
- C. Water produced during operations will be collected in steel tanks or a reserve pit, if volumes prove excessive. After placing the well on production, all water will be collected in tanks.
- D. Oil produced during operations will be stored at the existing battery and sold through transport trucks.
- E. Current regulations pertaining to disposal of human waste will be complied with.
- F. Trash, waste paper, garbage and junk will be kept in a trailer and disposed of at an approved landfill. All waste material will be contained to prevent scattering by the wind.
- G. All trash and debris will be removed from the well site within 30 days after drilling and/or completion operations are terminated. At the point the reserve pit is dry it will be backfilled and reclaimed as outlined by BLM specifications. Only the portion of the drilling pad used by production equipment will remain in use. If deemed dry only a dry hole marker will remain.

8. **ANCILLARY FACILITIES**



- A. No ancillary facilities will be required for this well.

9. **WELLSITE LAYOUT**

- A. Exhibit #6 shows the dimensions of the well pad and reserve pits and the location of major rig components.
- B. The ground surface at the drilling location is essentially flat.
- C. The reserve pits will be plastic lined.
- D. The pad and pit area have been staked and flagged.

10. **PLANS FOR RESTORATION OF THE SURFACE**

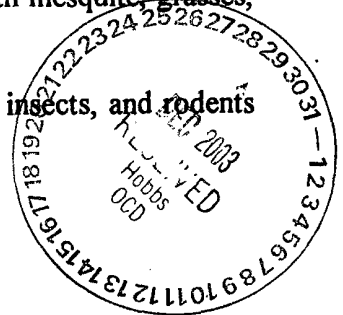
- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. **SURFACE OWNERSHIP**

- A. The wellsite is owned by the Bureau of Land Management.
- B. The surface location will be restored in compliance with BLM rules.

12. **TOPOGRAPHY**

- A. The wellsite and access route are located in a flat area with little relief.
- B. The top soil at the wellsite is caliche.
- C. The vegetation cover at the wellsite is moderately sparse, with mesquite, grasses, yucca, scrub oak, and weeds.
- D. No wildlife was observed but it is likely that rabbits, lizards, insects, and rodents traverse the area. The area is used for cattle grazing.



- E. There are no ponds, lakes, streams, or rivers within several miles of the wellsite.
- F. The wellsite is located on federal surface.
- G. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

13. **OPERATOR'S REPRESENTATIVES**

- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Don G. Shackelford
Shackelford Oil Company
203 W. Wall, Suite 401
Midland, Texas 79701
Phone (432) 682-9784 (office)
(432) 694-0262 (home)

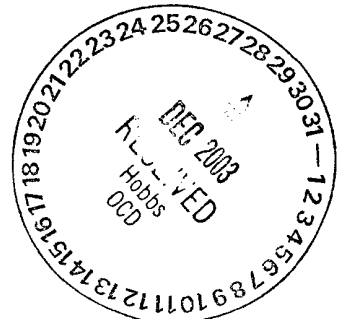
W. L. Shackelford
512 New Mexico Drive
Roswell, New Mexico 88201
Phone (505) 622-5902

14. **CERTIFICATION**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Shackelford Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10-31-2003
Date

Don G. Shackelford
Don G. Shackelford



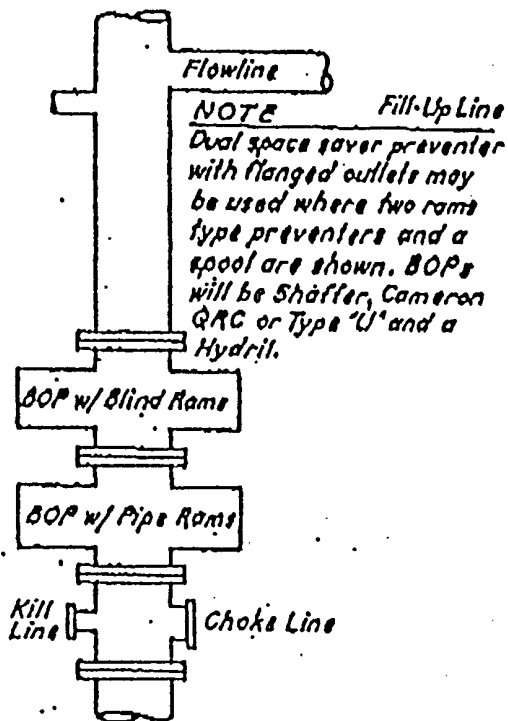


301 BOYD, E
ALLEN, TEXAS 75002

(214) 727-8367

P. O. BOX 589
ALLEN, TEXAS 75002

In Texas (800) 442-5224



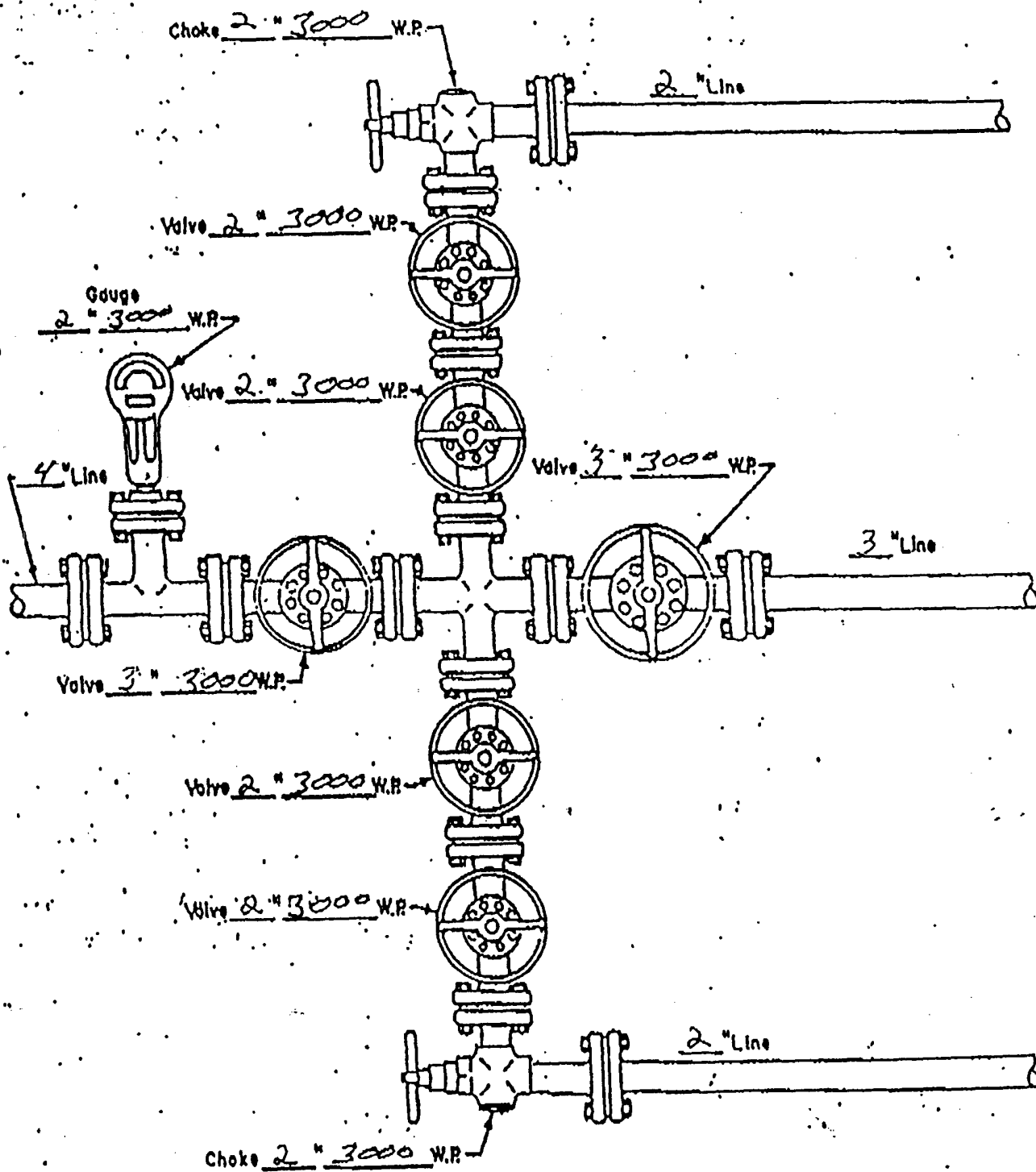
CASE I

BLOWOUT PREVENTER HOOKUP

3000⁺ Working Pressure

Choke Manifold

Exhibit 1-A



MANIFOLD
3000 #W.P.

- ☒ Manual
- ☐ Hydraulic

SHACKELFORD OIL COMPANY

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support system.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Well Control Equipment:
 - A. Flare line with electronic igniter or continuous pilot.
 - B. Choke manifold with a minimum of one remote choke.
 - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
2. Protective equipment for essential personnel:
 - A. Mark II Survivor 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.
3. H2S detection and monitoring equipment:
 - A. 2 - portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
 - B. 1 - portable SO2 monitor positioned near flare line.
4. Visual warning systems:
 - A. Wind direction indicators as shown on well site diagram.
 - B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
5. Mud program:
 - A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.
6. Metallurgy:
 - A. All drill strings, casing, tubing wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.**
- B. Land line (telephone) communications at field office.**

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.**

Exhibit #2

State of New Mexico

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

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

DISTRICT II

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

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-36518	Pool Code 96797	Pool Name Teas Delaware
Property Code 23087	Property Name TONTO FEDERAL	Well Number 5
OGRID No. 20595	Operator Name SHACKELFORD OIL COMPANY.	Elevation 3571'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	10	20-S	33-E		1650	NORTH	1650	EAST	LEA

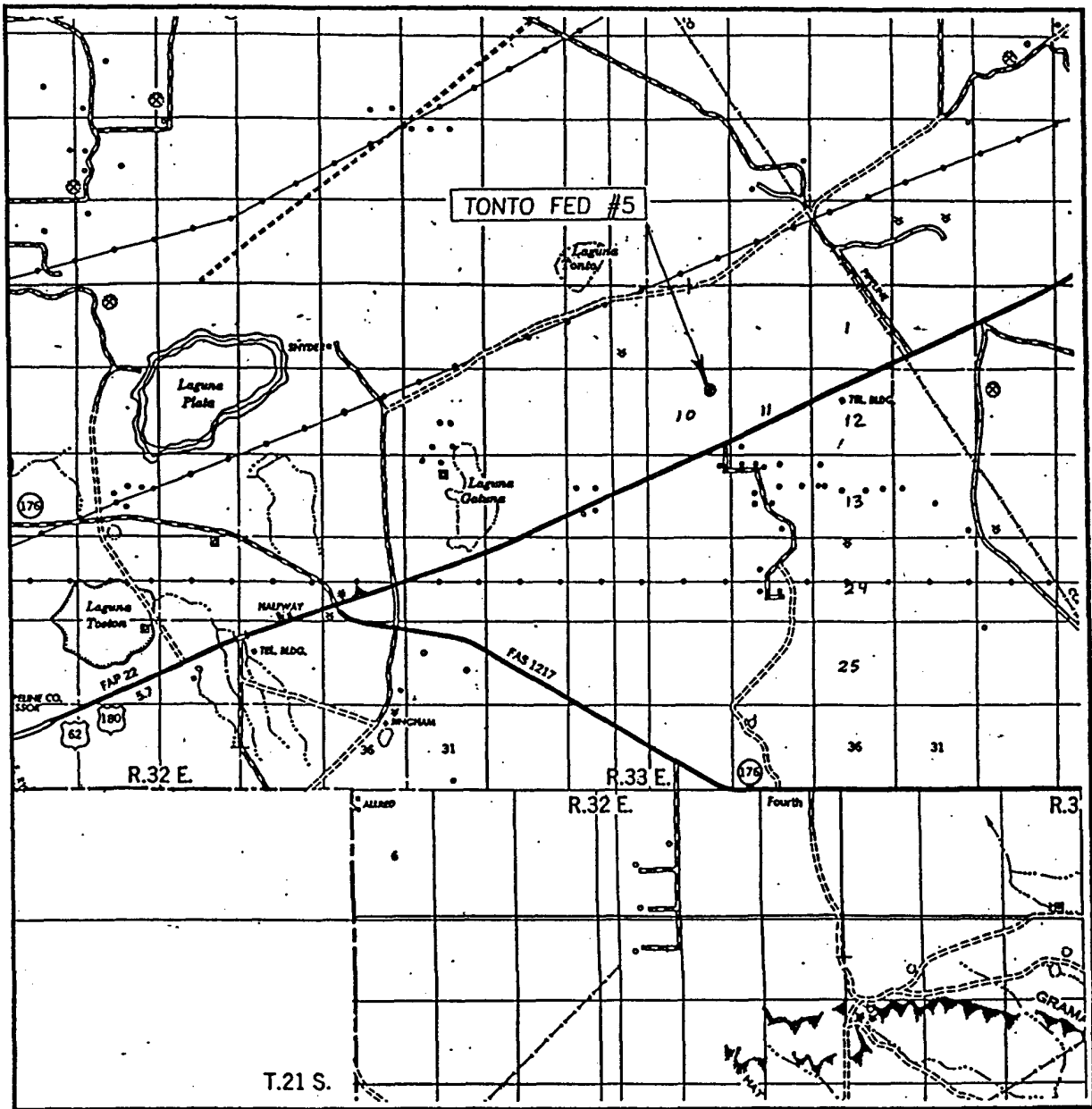
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <u>[Signature]</u> Printed Name <u>Don G. Shackelford</u> Title <u>Owner</u> Date <u>12/12/01</u>
	SURVEYOR CERTIFICATION 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. Date Surveyed <u>OCTOBER 30, 2000</u> AWW Signature <u>[Signature]</u> Professional Surveyor Seal: RONALD C. EDSON State of New Mexico License No. <u>11185</u> Certificate No. <u>3239</u> State of New Mexico License No. <u>12841</u>

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 10 TWP. 20-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1650' FNL & 1650' FEL

ELEVATION 3571'

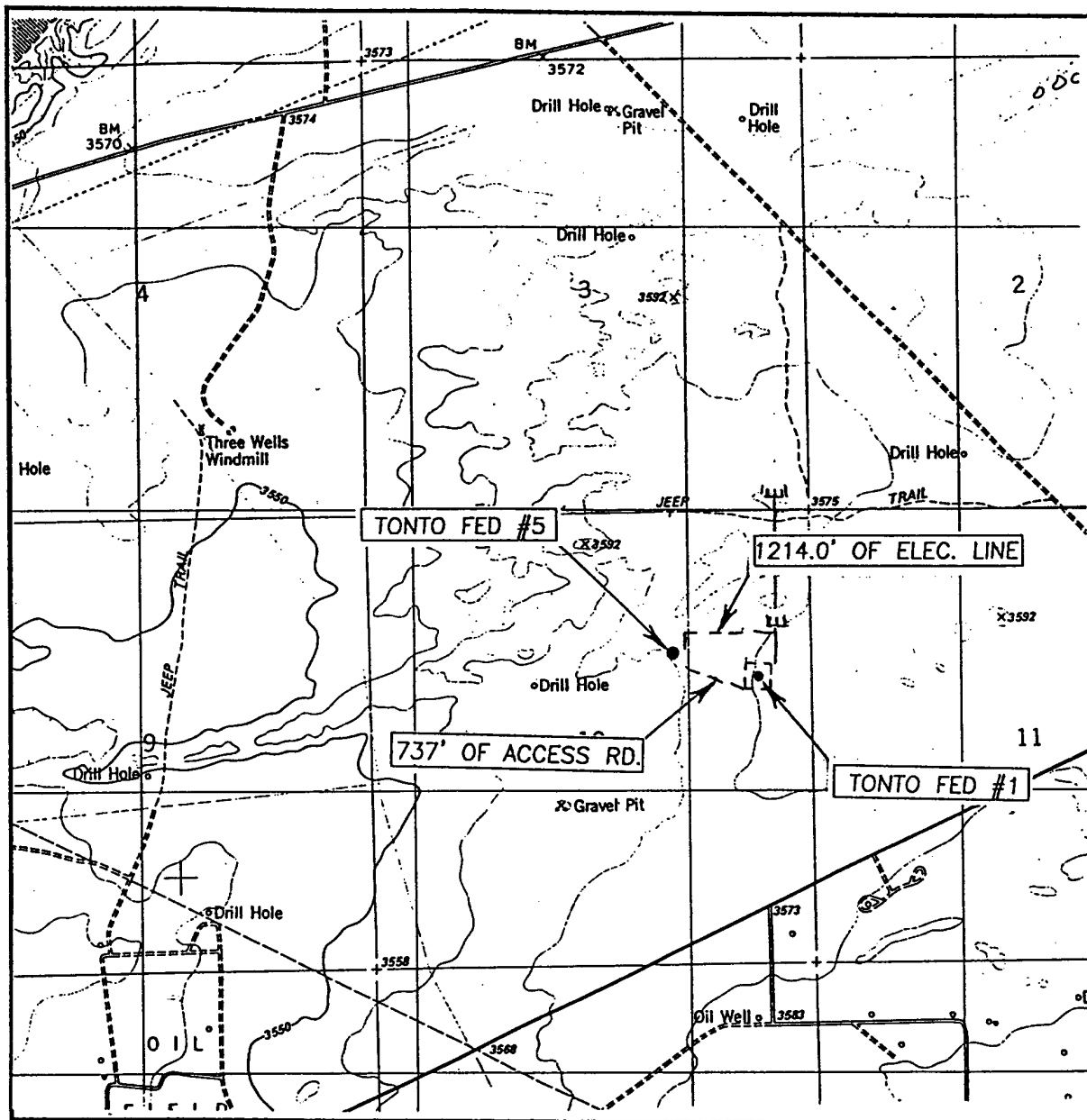
OPERATOR SHACKELFORD OIL COMPANY.

LEASE TONTO FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP

Exhibit #3



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
LAGUNA GATUNA, N.M.

SEC. 10 TWP. 20-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1650' FNL & 1650' FEL

ELEVATION 3571'

OPERATOR SHACKELFORD OIL COMPANY.

LEASE TONTO FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
LAGUNA GATUNA, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

Exhibit #4

T-20-S, R-33-E, Lea County

Section 2

Well Name

Location

#1 State "YS"	660' FSL and 1980' FWL
#4 GEM 8705 JV-P	510' FSL and 1980' FWL
#5 GEM 8705 JV-P	660' FSL and 810' FWL
#6 GEM 8705 JV-P	1980' FSL and 1980' FWL
#7 GEM 8705 JV-P	1650' FSL and 330' FWL
#8 GEM 8705 JV-P	2310' FNL and 330' FWL

Section 3

#1 US Government	1980' FNL and 1980' FEL
#1 Trigg Federal	660' FSL and 660' FWL
#2-3 Federal-Lea	657.73' FNL and 660' FEL
#1 Viper "3" Federal	2200' FSL and 1600' FEL
#1 Python "3" Federal	1900' FSL and 1650' FEL
#2 Python "3" Federal	855' FSL and 1650' FEL
#3 Tonto Federal	430' FSL and 330' FEL
#4 Tonto Federal	1650' FSL and 330' FEL
#7 Federal "9"	2310' FSL and 990' FEL
#5 Federal "9"	330' FNL and 990' FEL
#6 Federal "9"	1650' FNL and 990' FEL

Section 10

#1 Anderson - Prichard	330' FSL and 330' FEL
#1 Tonto Federal	1980' FNL and 660' FEL
#1 Union Texas	1980' FNL and 1980' FWL
#2 Tonto Federal	330' FEL and 660' FNL

Section 11

#1 Federal "11"	660' FSL and 660' FWL
#2 Smith Ranch "1" Federal	2250' FSL and 2014 FWL
#1 Smith Ranch Federal	1980' FNL and 660' FWL
#2 Smith Ranch Federal	660' FNL and 1980' FWL
#1 Smith Ranch "11" Federal	2310' FSL and 900' FWL
#1 Anaconda "11" Federal	660' FNL and 660' FWL
WI-2 Teas Yates Unit Tr. 13	10' FSL and 660' FWL

Section 11 (contd.)

Well Name

Location

@1 Anaconda "11" Federal

1650' FNL and 1650' FWL

Section 15

#1 Teas Yates Unit Tr. 12

660' FNL and 660' FEL

NOTE:

Proposed Well - Shackelford Oil Company , #5 Tonto Federal - 1650' FNL and 1650' FEL.

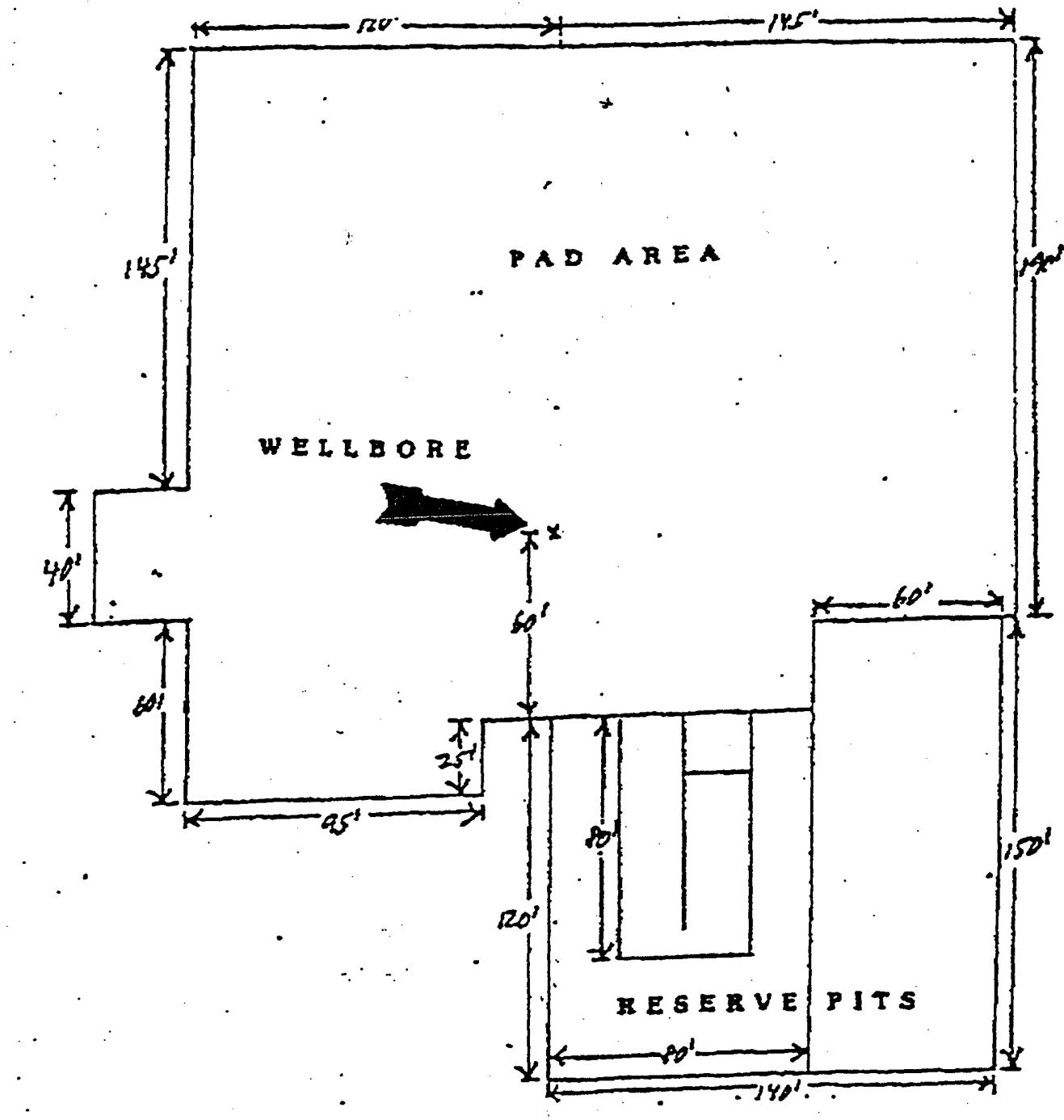


EXHIBIT #6

**EXHIBIT #7
DRILLING PROGNOSIS
TONTON FEDERAL #5**

Location Section 10, T-20-S, R-33-E

**Proposed Depth and
Objective:** Delaware - 8300'

Casing Program	13 3/8"	J-55	48#	1350
	8 5/8"	J-55	32# & 36#	1300'
	5 1/2"	J-55	17#	5000'
				TD

Logging Program: A compensated neutron/formation density with gamma ray, and caliper will be run for porosity and lithology. A dual induction will be run for water saturation analysis. The gamma ray will be run from TD to the surface. If shows are indicated in Yates or Seven Rivers, logs will be run over these prior to casing, otherwise, logs will be run from TD to intermediate casing.

Mud Logging: Samples will be caught every 10' from 3000' to TD.

Mud Program:

0-1300' Spud 17 1/2" hole with fresh water containing gel and lime, if necessary for hole cleaning. Mud weight should be 8.5 - 8.7 LB/GAL with a velocity of 33-35 sec/1000cc.

1300' - 5000' Drill out below surface pipe using 12 1/4" bit with 10 LB/GAL brine for drilling the native salt section. Lime will be added to maintain a ph of 9.5 - 10.00.

5000' - 8300' Drill out of intermediate casing with 7 7/8" bit with fresh water to TD.

STATEMENT ACCEPTING RESPONSIBILITY OF OPERATIONS

Shackelford Oil Company
203 W. Wall, Suite 401
Midland, Texas 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No. NMNM - 17439

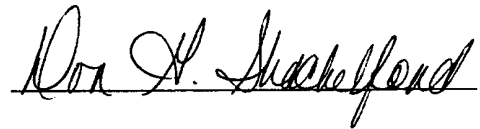
Legal Description of Land: SW/4 of NE/4, Sec. 10, T-20-S, R-33-E, Lea County, N.M.

Formations(s) (if applicable) 0'-8300'

Bond Coverage: (State if individual bonded or another's bond)
\$25,000 Statewide Bond

BLM Bond File No. Statewide Bond
3104 (943C-3TF)

Authorized Signature:



Title: Owner

Date:

10-31-2003