

N.M. Oil Cons. Div-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(August 1999)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER



1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-95662
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Threshold Development Company		7. If Unit or CA Agreement, Name and No.
3a. Address 777 Taylor St. - Penthouse II Fort Worth, TX 76102		8. Lease Name and Well No. Mescalero 28 Federal #1
3b. Phone No. (include area code) 817-870-1483		9. API Well No. 30-035-20033
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FNL & 1525' FWL (Unit C, NENW) At proposed prod. zone		10. Field and Pool, or Exploratory Exploratory
14. Distance in miles and direction from nearest town or post office* Approx. 36 miles northwest of Dell City, Texas		11. Sec., T., R., M., or Blk. and Survey or Area Section 28-T25S-R18E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 1327.76	12. County or Parish Otero
17. Spacing Unit dedicated to this well 160	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	13. State NM
19. Proposed Depth 7365'	20. BLM/BIA Bond No. on file 0679796	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3998' GR	22. Approximate date work will start* 6 weeks after approval	23. Estimated duration 3 weeks

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) Rusty Klein	Date Aug. 14, 2002
Title Agent for Threshold Development Company		
Approved by (Signature) 	Name (Printed/Typed) LEONARD T. BRUCKI	Date Nov 21, 2002
Title ASST FIELD MGR	Office ACFO	

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.

*(Instructions on reverse)

Cement to cover all oil, gas and
water bearing zones.

OCD

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87506

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
OGRID No.	Operator Name	Elevation
	MESCALERO 28 Federal	1
	THRESHOLD DEVELOPMENT COMPANY	3998

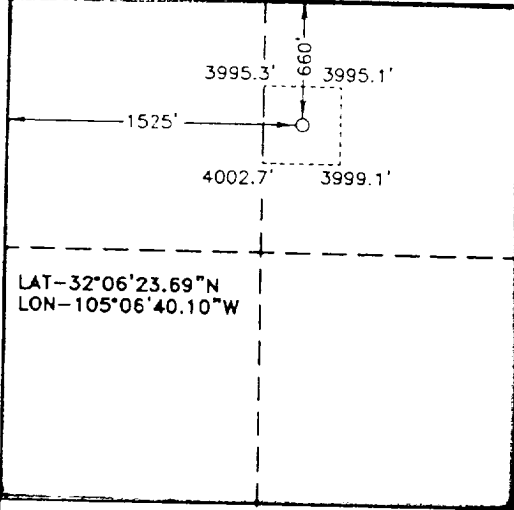
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	25 S	18 E		660	NORTH	1525	WEST	OTERO

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	Joint or Infill	Consolidation Code	Order No.						
160									

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 the the information contained herein is true and complete to the best of my knowledge and belief.


Signature

Rusty Klein
Printed Name

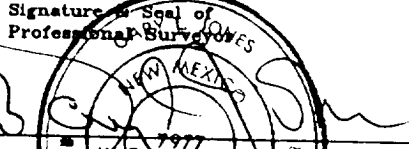
Agent for Threshold Dev.
Title

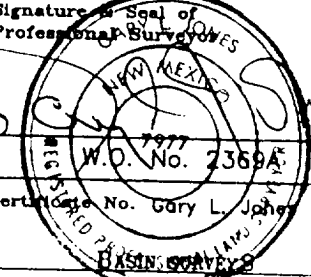
August 14, 2002
Date

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.

MARCH 8, 2002
Date Surveyed


Signature of Professional Surveyor



Certification No. Gary L. Jones 7977

THRESHOLD DEVELOPMENT COMPANY
Mescalero 28 Federal #1
Section 28-T25S-R18E
Otero County, New Mexico

1. The estimated tops of geological markers are as follows:

San Andres	Surface
Abo	3200'
Fusselman	4850'
Basement	5864'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered are:

Water: Possible fresh water from 250' to 350'
Oil or Gas: All potential zones - oil 3200' and gas below 3200'

3. Pressure Control Equipment:

Shaffer 11" 3000 psi Type B with 2 3" openings below the rams, pipe rams and blind rams. Choke manifold with 2 2" adjustable chokes plus 2" flow lines.

Shaffer 11" 3000 psi spherical annular preventor, float in drillpipe and TIW valve on floor

Auxiliary Equipment:

A. Auxiliary Equipment: kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to pit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. Proposed Casing and Cementing Program:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft.</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>
14-3/4"	11-3/4"	42#	H-40	ST&C	Surface - 600'
11"*	8-5/8"	32# & 24#	J-55	ST&C	Surface - 2000'
7-7/8"	5-1/2"	17# & 15.5#	J-55	LT&C	Surface - 7365'

*Contingency only - for loss circulation possibilities

B. Minimum Casing Design Factors: Collapse 4910 psi; Burst 5320 psi; Tensile Strength 55

Proposed Casing and Cement Program Continued:

C. Cementing Program:

Surface Casing: Lead - 65/35/6 Poz C, 1/4#/sack celloflake and 2% CaCl₂ (13.2#).
Tail - 250 sacks Class C, 1/4#/sack celloflake and 2% CaCl₂ (14.8#). 150%+
excess over hole volume. Circulate to surface

Intermediate Casing - Lead - 65/35/6 Poz H with additives based on hole conditions.
Tail - 250 sacks Class H with additives based on hole conditions. Fill to the
inside of the surface casing.

Production Casing: Class H, 10% salt and additives based on hole conditions.
Volume calculated on caliper volume + 25%. Cement top based on potential pay
zones.

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-600'	Water	8.4	Water	No control
600-2000'	Fresh	9.0	35 sec/qt	No control
2000-4000'	Cut Brine	9.5	45 sec/qt	Less than 14 ml
4000-7365'	Brine	9.9	55 sec/qt	less than 10 ml

Sufficient mud material(s) to maintain mud properties, control lost circulation
and contain a blow out will be available at the wellsite during drilling operations.
Mud will be checked hourly by rig personnel.

6. Evaluation Program:

Samples: 1 dry cut, 1 wet cut every 30' to geologist's request; then every 10'
to TD

Logging: FDC/CNL (Schlumberger platform express triple combo), Gamma Ray, Sonic
long space full wave form induction log, PE, Dual Laterolog, SP if
fresh mud

Coring: Side-wall core at direction of wellsite geologist

DST's: DST as needed to evaluate shows. RT after logging to evaluate
reservoir

7. Abnormal Conditions, Bottom Hole Pressure and Potential Hazards:

Anticipated BHP:

From 3250' to 5200', anticipated max BHP 1110 psi - 1750 psig
From 5200' to 7365', anticipated max BHP 2080 psig - 2890 psig

THRESHOLD DEVELOPMENT COMPANY

Mescalero 28 Federal #1

Page 3:

7. Abnormal Conditions, Bottom Hole Pressure and Potential Hazards continued:

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: Possibly at 1850'

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 175°F

8. Anticipated Starting Date:

Plans are to drill this well as soon as possible after receiving approval.
It should take approximately 20 days to drill the well with completion taking
another 30 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
THRESHOLD DEVELOPMENT COMPANY
660' FNL & 1525' FWL
Section 28-T25S-R18E
Otero 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 the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A1 is a portion of the BLM map showing the well and the roads in the vicinity of the proposed location. The proposed well site is located approximately 30 miles northwest of Dell City, Texas. The access route to the location is indicated in red and green on Exhibit A1.

DIRECTIONS:

From the junction of State Highway 506 and County Road G-4, go south on Highway 506 for approximately 6.5 miles and west approximately .5 of a mile. Continue west on bladed road as pavement turns south for approximately .5 of a mile to a two track west through a gate and bladed road turns north. Go west, south, northwest and southwest along two track to the top of a mesa and continued southwest .2 of a miles to the location.

PLEASE NOTE THAT THESE DIRECTIONS WILL CHANGE. A SUNDRY NOTICE TO AMEND WILL BE SENT.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 2-1/4 miles in length from the point of origin to the southwest corner of the drilling pad. The road will lie in a northwest direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

- A. There is no drilling activity within a one-mile radius of the wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are no production facilities on the wellsite at this time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A1.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate nearest pit and obtain any permits and materials needed for construction.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' X 400' area has been staked and flagged.

10. PLANS FOR RESTORATION:

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

11. SURFACE OWNERSHIP: Federal surface - administered by the Bureau of Land Management.

GRAZING LESSEE: Andy Lewis
 P. O. Box 237
 Dell City, TX 79837

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
B. The primary surface use is for grazing.

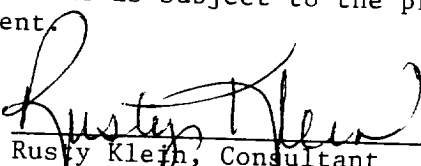
13. OPERATOR'S REPRESENTATIVE:

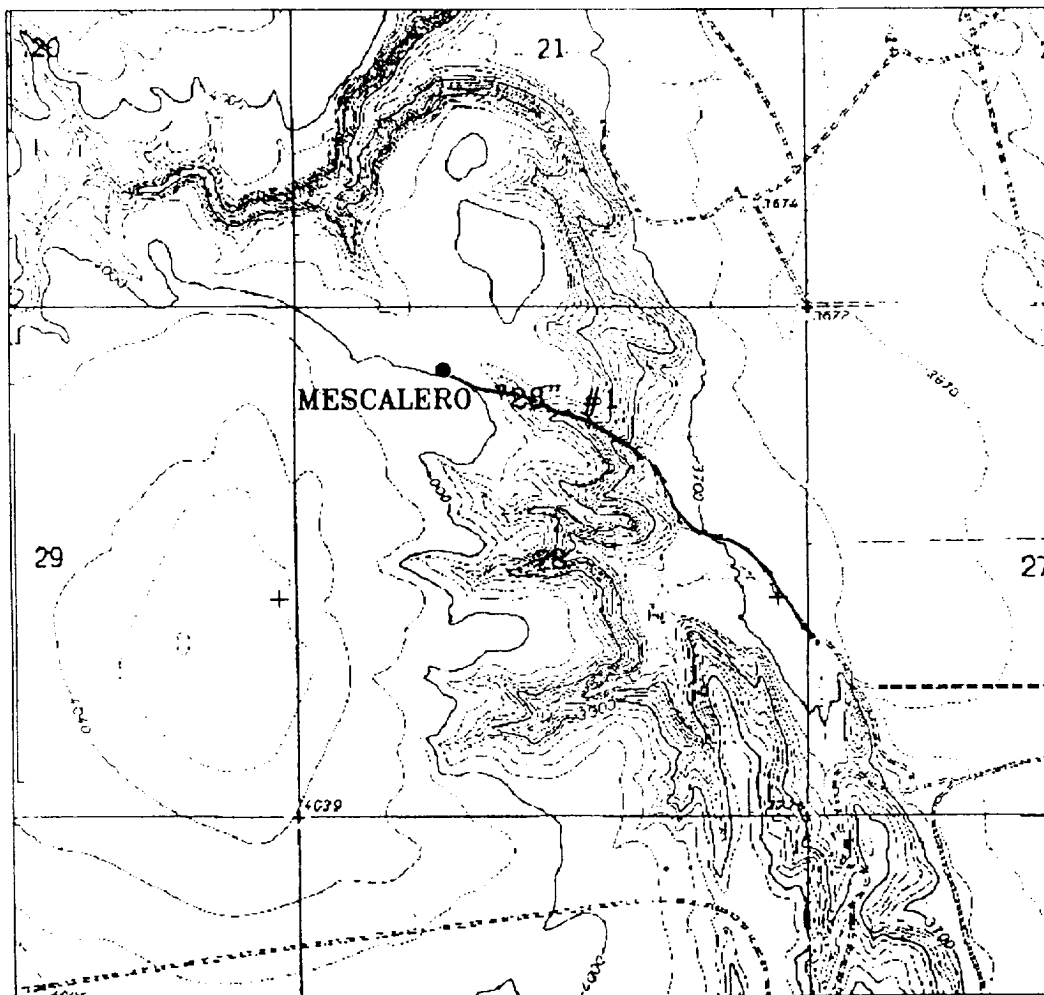
- A. Through APD Approval:
Rusty Klein, Consultant
Koyote Konsulting Services
Agent for Threshold Development Company
P. O. Box 1491
Artesia, NM 88211-1491
O: 505-746-6565
Cellular: 505-365-4245
- B. Through Drilling, Completions & Production:
Gary Tidmore, Land Manager
Threshold Development Company
777 Taylor Street - Penthouse II
Fort Worth, TX 76102
O: 817-870-1483

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 Threshold Development Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

August 14, 2002
Date


Rusty Klein, Consultant
Koyote Konsulting Services
Agent for Threshold Development Company



THRESHOLD DEVELOPMENT COMPANY
 Mescalero 28 Federal #1
 660' FNL & 1525' FWL of
 Section 28-T25S-R18E
 Otero County, New Mexico
 Exhibit A1

MESCALERO "28" #1
 Located at 660' FNL and 1525' FWL
 Section 28, Township 25 South, Range 18 East,
 N.M.P.M., Otero County, New Mexico.

basin
surveys

focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

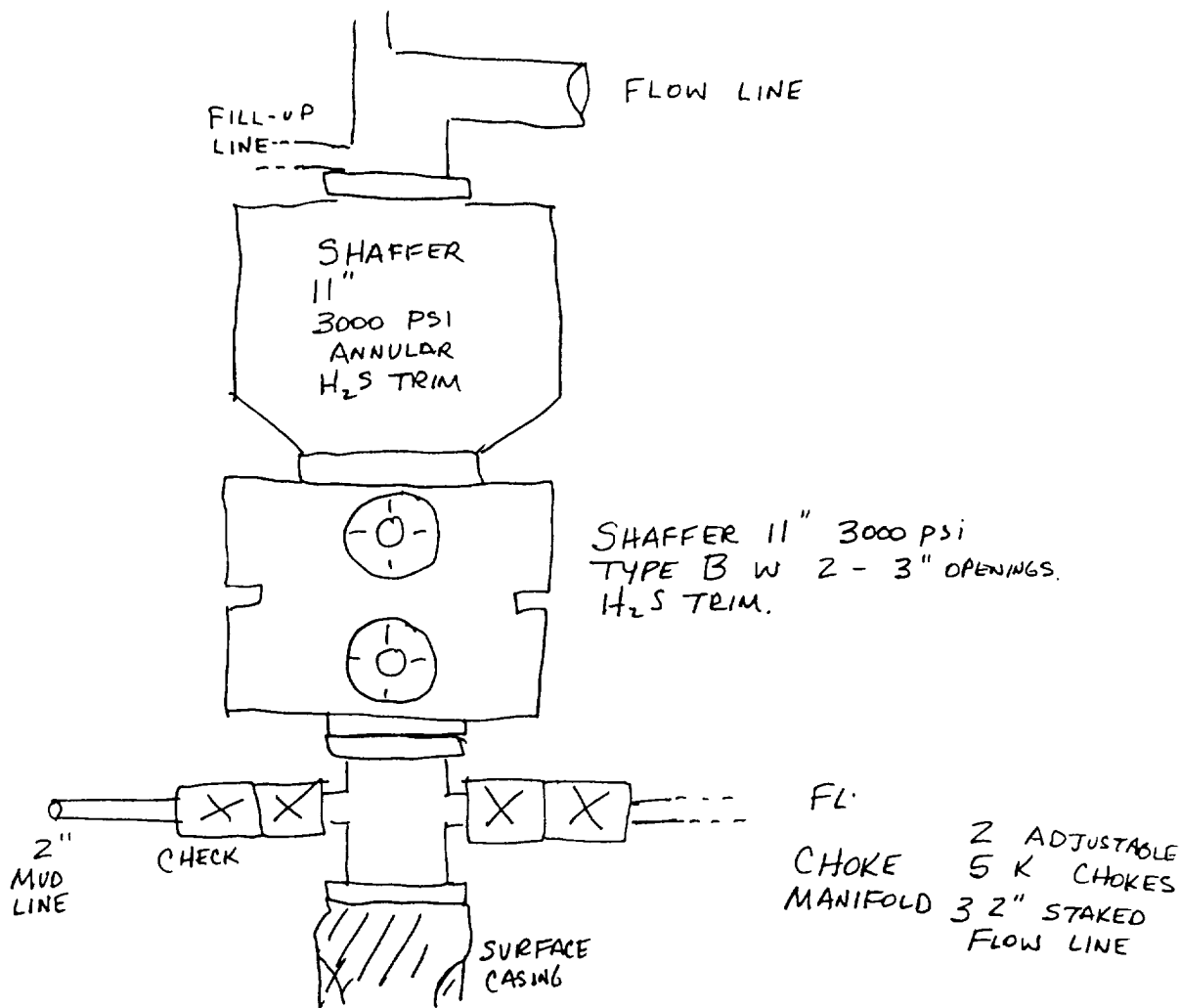
W.O. Number 2569AA - KJC CD#5

Survey Date 03-08-2002

Scale 1" = 1000'

Date 03-08-2002

THRESHOLD
DEVELOPEMENT
COMPANY

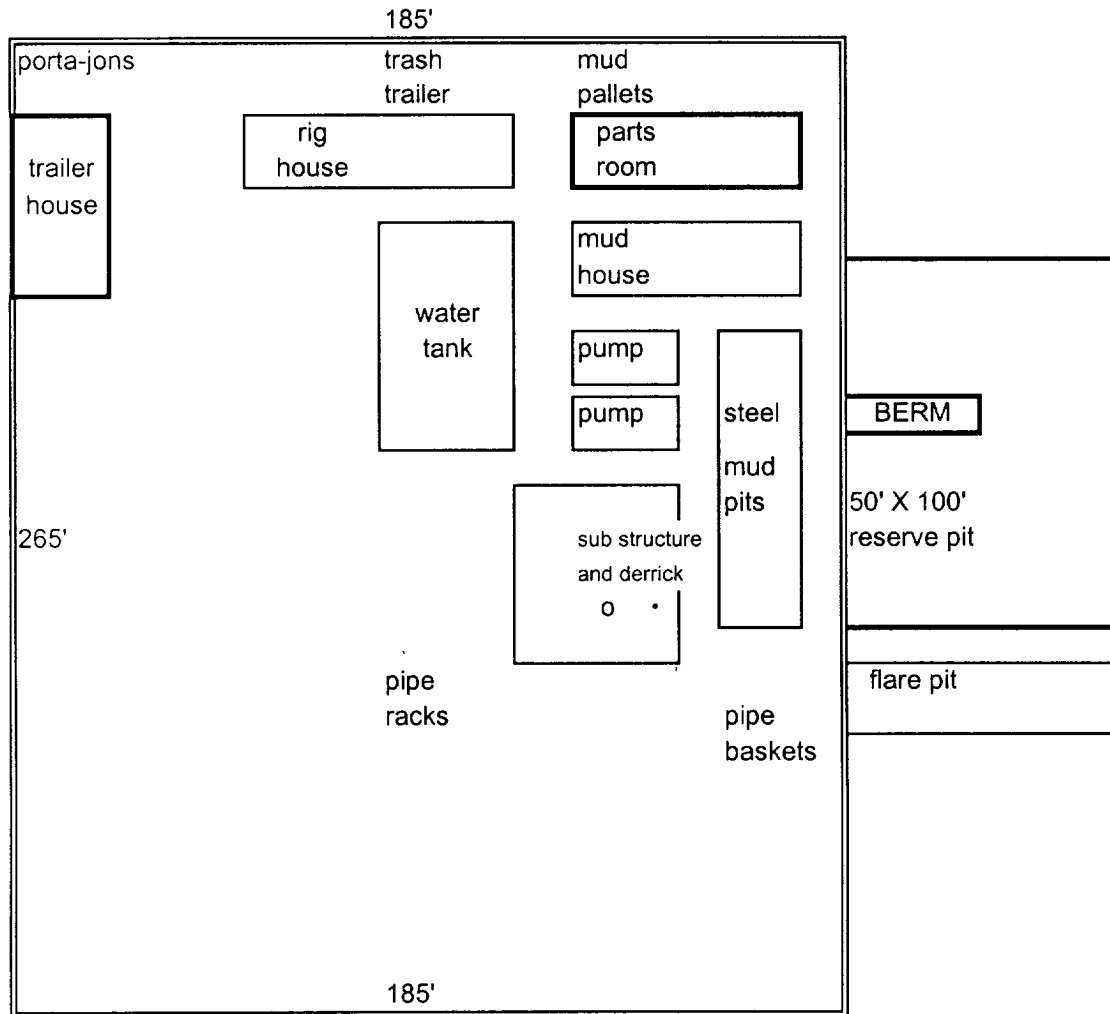


THRESHOLD DEVELOPMENT COMPANY
 Mescalero 28 Federal #1
 660' FNL & 1525' FWL of
 Section 28-T25S-R18E
 Otero County, New Mexico

Exhibit B

Mescalero 28 Federal #1
660' FNL & 1525' FWL
Sec 28 T25S R18E
Otero County, New Mexico

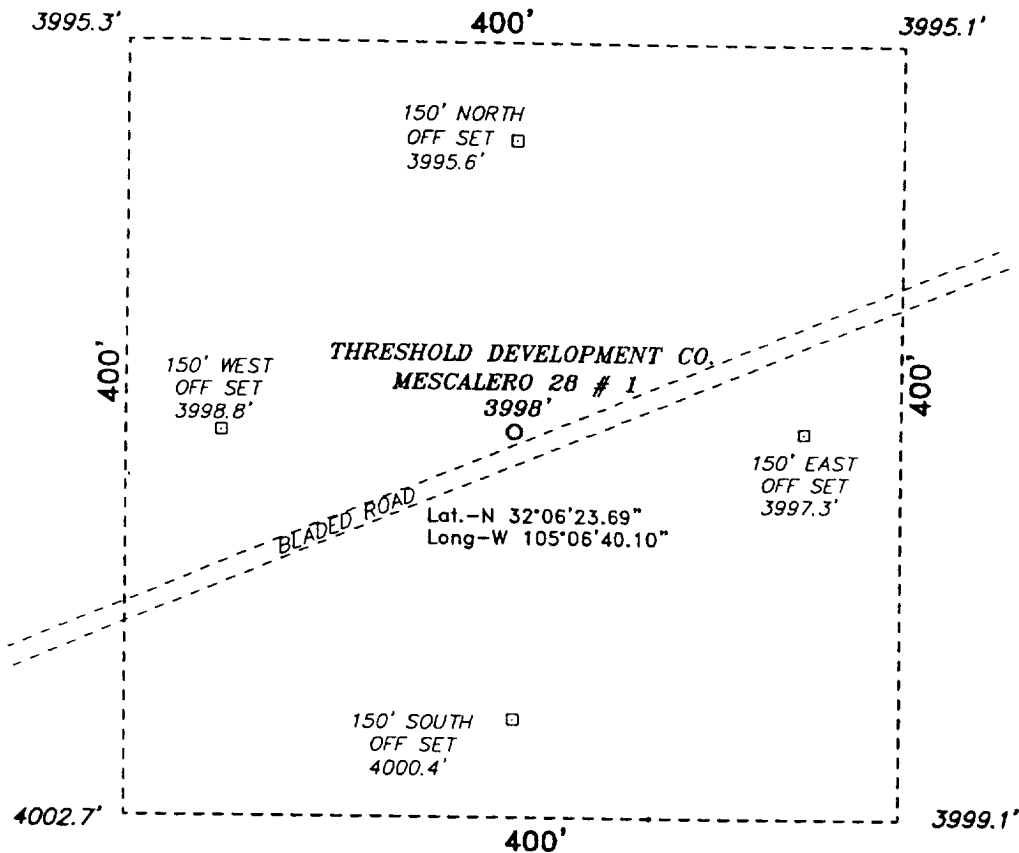
Drilling Rig Location Schematic



THRESHOLD DEVELOPMENT COMPANY
Mescalero 28 Federal #1
660' FNL & 1525' FWL of
Section 25-T28S-R18E
Otero County, New Mexico

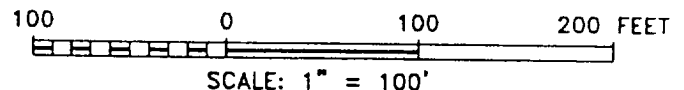
Exhibit C

SECTION 28, TOWNSHIP 25 SOUTH, RANGE 18 EAST, N.M.P.M.,
OTERO COUNTY, NEW MEXICO.



THRESHOLD DEVELOPMENT COMPANY
Mescalero 28 Federal #1
660' FNL & 1525' FWL of
Section 28-T25S-R18E
Otero County, New Mexico

Exhibit D



DIRECTIONS TO LOCATION:

FROM THE JUNCTION OF STATE HWY 506 AND CO. RD. G 4,
GO SOUTH ON 506 APPROX. 6.5 MILES AND WEST APPROX.
0.5 MILE, CONTINUE WEST ON BLADED ROAD AS PAVEMENT
TURNS SOUTH APPROX. 0.5 MILE TO A TWO TRACK WEST
THROUGH A GATE AND BLADED ROAD TURNS NORTH. GO
WEST, SOUTH, NORTHWEST AND SOUTHWEST ALONG TWO
TRACK TO THE TOP OF A MESA AND CONTINUE
SOUTHWEST 0.2 MILE TO THE LOCATION ON THE RIGHT.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 2369 Drawn By: G. SHOULTS

Date: 03-14-2002 Disk: GWS # 1 - MESCAL 28 1 B

THRESHOLD DEVELOPMENT COMPANY

REF: MESCALERO 28 No. 1 / Well Pad Topo

THE MESCALERO 28 No. 1 LOCATED 660' FROM THE NORTH
LINE AND 1525' FROM THE WEST LINE OF SECTION 28.

TOWNSHIP 25 SOUTH, RANGE 18 EAST, N.M.P.M.,
OTERO COUNTY, NEW MEXICO.

Survey Date: 03-08-2002 Sheet 1 of 1 Sheets

THRESHOLD DEVELOPMENT COMPANY

MESCALARO 28 FEDERAL #1

LEASE MAP

SECTIONS 28, 29 AND 33
TOWNSHIP 25 SOUTH - RANGE 18 EAST
OTERO COUNTY, NEW MEXICO

Exhibit E

BN 42

20

21

29

NM-95663

28

NM-95663

32

33

NM-95663

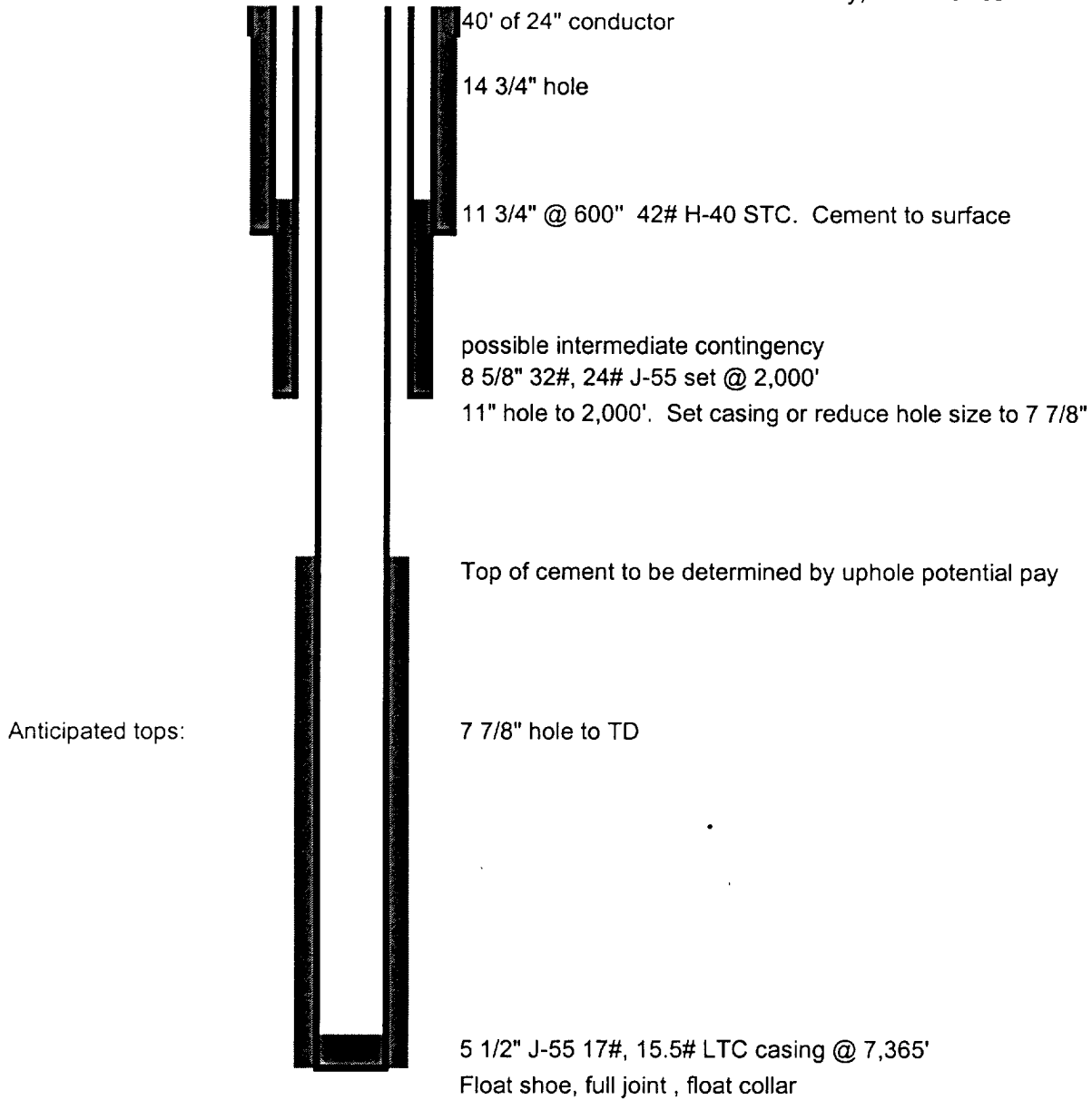
Threshold Development Company

Mescalero 28 Federal #1

660' FNL, 1,525' FWL

Section 28 T25S R18E

Ortero County, New Mexico



not to scale

THRESHOLD DEVELOPMENT COMPANY

Mescalero 28 Federal #1

660' FNL & 1525' FWL of

Section 28-T25S-R18E

Otero County, New Mexico

Exhibit F

LIST OF ATTACHMENTS

THRESHOLD DEVELOPMENT COMPANY

Mescalero 28 Federal #1

660' FNL & 1525' FWL

Section 28-T25S-R18E

Otero County, New Mexico

Exhibit A1	BLM map showing area of location and proposed access road
Exhibit B	BOP Diagram
Exhibit C	Location and Rig Layout
Exhibit D	Survey Diagram
Exhibit E	Lease Map
Exhibit F	Diagrammatic of casing strings