Form 9-331 C
(May 1963)

API # 30-001-20002

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

JUL 21 1978

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [ ] OTHER Wildcat SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: TransOcean Oil, Inc.

3. ADDRESS OF OPERATOR: 1700 First City East Bldg, 1111 Fannin, Houston, TX 77002

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FEL & 1650' FSL of Sec. 8, T8N-R3E
At proposed prod. zone: Bernalillo County, New Mexico

5. LEASE DESIGNATION AND SERIAL NO.: MOOC142001021

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Isleta Pueblo

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME: TRANS OCEAN OIL, INC. Isleta

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 8, T8N-R3E

12. COUNTY OR PARISH: Bernalillo

13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles South Albuquerque

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330' FEL & 1650' FSL SEC. 8 T8N-R3E

16. NO. OF ACRES IN LEASE:

17. NO. OF ACRES ASSIGNED TO THIS WELL:

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 14'N of Shells Isleta No. 1

19. PROPOSED DEPTH: 10,000

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5264 G.L.

22. APPROX. DATE WORK WILL START*: October 1, 1978

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½"	13 3/8"	54.5#	500'	400 sacks Class "C" and Additives
8 3/4"	5 ½"	15.5#	0-7000'	To be determined
8 3/4"	5½"	17.0#	7000-10,000'	After evaluating caliper logs

Please review operations plan for BOP equipment and circulating media.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 [signature] TITLE Drilling Engineer DATE July 13, 1978

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
JUL 19 1978
U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

*See Instructions On Reverse Side

TransOcean Oil, Inc.
1700 FIRST CITY EAST BUILDING
1111 FANNIN • HOUSTON, TEXAS 77002
713 - 654-2100

MULTI-POINT SURFACE USE PLAN
Federal Isleta No. 1

1. Existing Roads - Refer to Map No. 1 which shows existing roads. New roads which will be required have been appropriately labeled on this map. All existing and new roads will be properly maintained during the duration of this project.

2. Planned Access Roads - Refer to Map No. 1. The grade of the access road will be consistant with local terrain. Road surfaces will not exceed sixteen feet (16') in width. After completion of all work on the subject well, the access road will be adequately drained to control soil erosion. Drainage facilities may include ditches, water bars, culverts, or any other measure deemed necessary by trained company personnel to insure proper drainage. Gates and/or cattle guards will be installed if necessary.

3. Location of Existing Wells - None in three (3) mile radius.

4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - There are no existing facilities within a one (1) mile radius of the proposed location.

5. Location and Type of Water Supply - Water for proposed project will be obtained from Rio Grande River. Approximately (3) three miles Southwest of the location.

6. Source of Construction Material- No additional materials will be required to build either the access road or the proposed location.

7. Method of Handling Waste Materials- All garbage and trash material will be put into a burn pit shown on the attached Location Plat No. 2. When clean-up operations are begun on the proposed project, the burn pit and its refuse will be buried to a depth of at least three (3) feet. A latrine, the location of which is shown on Plat No. 1. will be provided for human waste. If large amounts of liquid are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occuring.

8. Ancillary Facilities - No camps or airstrips will be associated with this project.

9. Wellsite Layout - Please refer to the attached Plat No. 1.

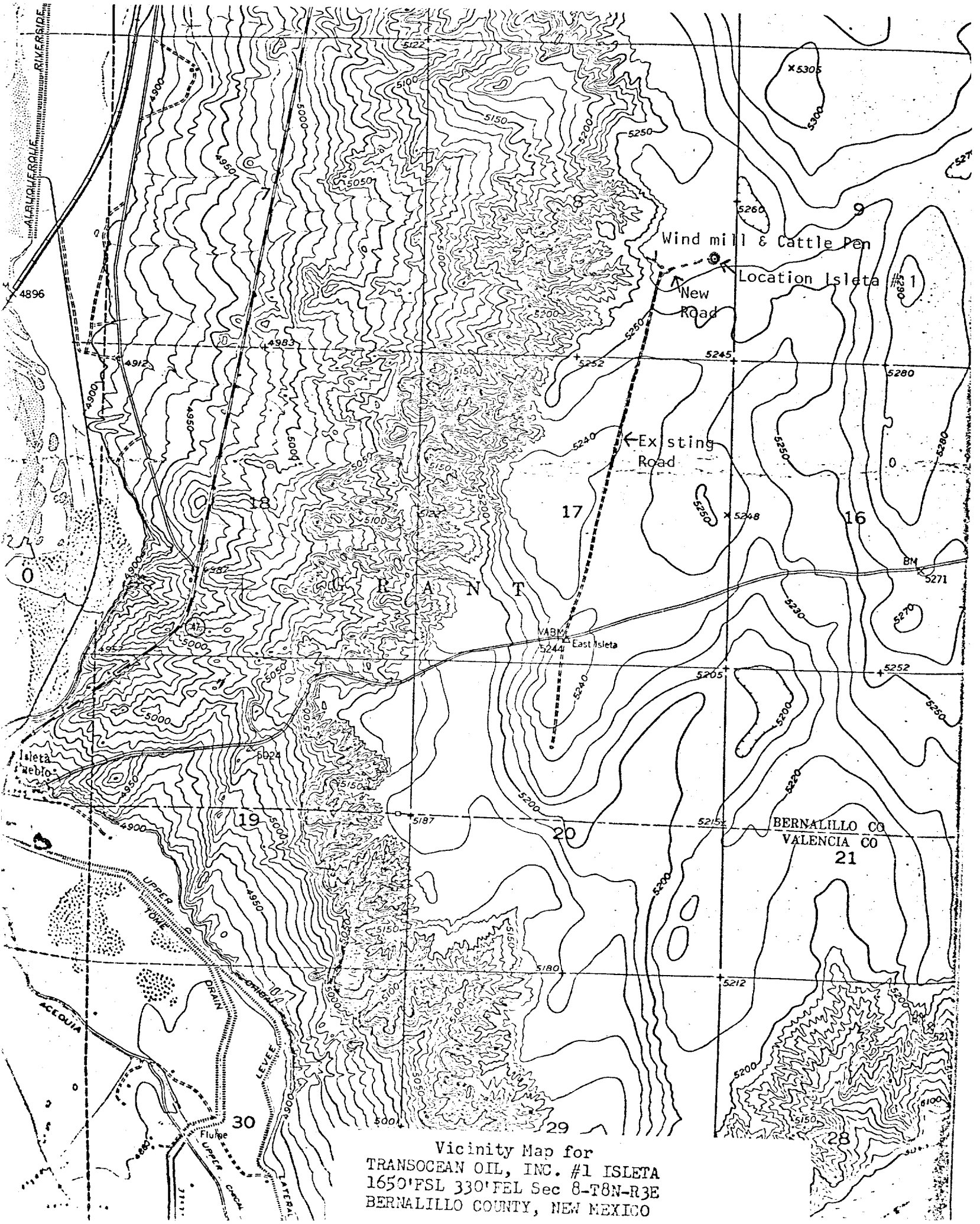
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations. Reseeding will be performed during the time period set forth by the regulatory body.

11. Other Information- This terrain is rolling plains with sparse grass coverage and some small Pinon trees.

12. Operations Representative - Jerry M. Crews
TransOcean Oil, Inc.
1700 First City East Building
1111 Fannin Street
Houston, Texas 77002
713/ 654-2100 (Office)
713/ 376-6339 (Home)

13. 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 TransOcean Oil, Inc., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Jerry M. Crews
Western Division Drilling Engineer



Vicinity Map for
TRANSOCEAN OIL, INC. #1 ISLETA
1650'FSL 330'FEL Sec 8-T8N-R3E
BERNALILLO COUNTY, NEW MEXICO

TRANSOCEAN OIL, INC.
OPERATIONS PLAN-
FEDERAL- ISLETA NO.1

1. Location: 330' FEL & 1650' FSL of Section 8, T8N-R3E, Bernalillo County, New Mexico

2. Elevation: 5300' I

3. Surface Formation: Tertiary

4. Drilling Tools & Equipment: Rotary Drilling Rig: Ard #6

5. Proposed Drilling Depth: 10,000'

6. Estimated Tops of Important Geological Markers:

Marker	Tops
Tertiary	Surface
Menafee	4,000'
Morrison	8,000'
Entrada	9,000'

7. Estimated Depths for anticipated Water, Oil, Gas, and Other Minerals:

Oil and /or Gas - Morrison - 4,000' Entrada- 9,000'

8. Proposed Casing Program:

Depth	Size	Grade	Wt.	Hole Size
500'	*13 3/8" (New)	K-55	54.5#	17½"
0-7000'	5½ (New)	K-55	15.5#	8 3/4"
7000-10,000;	**5½ (New)	K-55	17.0#	8 3/4"

* Float Equipment - Cement Guide Shoe
** Float Equipment - Cement Float Collar & Guide Shoe

9. Cement:

13 3/8" - Surface: 400 sxs Class "C" + 2% $CaCl_2$ = Flow Seal (540 cu.ft. of Slurry, 100% excess to circulate to surface) W.O.C. 12 hours. Test casing wellhead & BOP's to 500# 30 min. test.

5 1/2" - Production: To be determined from caliper logs & productive zones.

10. Pressure Control: (Refer to Attachment 1)

Size	Pressure	Type	Make	Number
12"	5000#	(1 blind - 1 Pipe)	Shaffer	2
12"	3000#	Bag	Hydril	1

11. Circulating Medium: Gelled water - 0-500'. Low Solids, Non-Dispersed, Benex Mud system 500'-10,000'

12. Testing, Logging, and Coring Programs :

Logs: Electric & Gamma Ray, Density (500'-TD)

13. Abnormal Pressures, Temperatures or other Hazardous Conditions: None

14. Anticipated Starting Date: September 1, 1978. Duration 45 days.

J. M. Crews

July 13, 1978

TRANSOCEAN OIL, INC.
Prognosis to Drill

Lease:	Isleta No. 1 - Federal
Field:	Wildcat
Location:	330' FEL and 1650' FSL of Section 8 T8N-R3E Bernalillo County, New Mexico
Proposed TD:	9000' (Probable continuation to 9000')
Objective:	Entrada
Elevation:	5,300' (Estimate - Actual RKB and GL elevations to be taken after rig is on location.)
Contractor:	Ard
Rig:	Rig #6
Type:	4-15
Security Status:	Tight hole

1. Drilling Prognosis

   1. Christian Rat Hole Service - Odessa, Texas, will drill rat hole and mouse hole and set 60' - 20" tin horn conductor prior to move-in.

   2. Move-in and Rig-up Ard Rig No. 6.

   3. Drill 17½" hole to 500'.
      Run and set 13 3/8" surface pipe.
      Have Mud Logger on at spud.
      Casing: 13 3/8" 54.5# K-55 ST&C. Use jet shoe and plug catcher.

   4. Cement 13 3/8" casing using Class "C" or equivalent with 2% CaCl plus flow seal. Use theoretical volume plus 100% excess. Cement is required to circulate to the surface. All cementing shall be by pump and plug method as required by New Mexico state law.

   5. Wait on cement at least 18 hours as required by New Mexico law before drilling out. Wait on cement 8 hours before cutting casing. Install OCT 13 3/8" weld on head with 10" 3M top flange and test. Rig up BOP's and kill lines. Test BOP's, choke and kill lines to 1500# for 30 minutes. Test as required by New Mexico state law.

6. Drill 8 3/4" hole to T.D. hole is to be stabilized with IB stabilizers.

7. Log as required, by geologist.

8. If well is made, 5½" production, casing will be run. If well is dry, plug and abandon as required by Oil and Gas Commission of New Mexico.

CASING PROGRAM

II. Surface Casing and Cementing:

Hole Size 17½"
Depth: 500'
Casing: 13 3/8" 54.5# K-55 ST&C
Cement: Circulate to surface using 100% excess as follows:

Slurry: 400 sacks Class "C" (or equivalent) + 2% $CaCl_2$
Water Ratio: 6.50 gallons H_2O/sx
Slurry Weight - 14.8 ppg.
Slurry Volume - 1.32 cu ft./sx

Float Equipment: 13 3/8" - down jet shoe
13 3/8" - plug catcher (Thread Lock & tack weld FS)

* Tack weld bottom (5)five joints.

Instructions:

a) Have circulating swedge on location.
b) Record amount of cement that returns to surface.
c) WOC 18 hours before drilling out as per state law.

Production Casing and Cement:

Hole Size : 8 3/4"
Depth: 9,000'
Casing: 5½"

Interval	Footage	Wt/Ft	Grade	THD	Interval Wt #	Cum. Wt.	Design Factors Ten	Col	Burst
0-7000'	7000'	15.5#	K-55	LT&C	100,750	100,750	1.83	1.16	1.26
7000-9000'	2000'	17 #	K-55	LT&C	34,000	134,750			

Design Data: Design based on 9.5 ppg mud.

Cement: Will be determined at time of setting.

Float Equipment: Float equipment and wellhead equipment will be provided as required.

ATTACHMENT II

Procedures to follow if loss of circulation occurs:

1. Pull out of hole a minimum of 5 stds or to free hole.

2. Mix 100 bbls LCM pill - 45-50% LCM. During mixing operations contact Houston office personnel.

3. Go in hole to bottom and spot LCM pill. Pull out of hole 5 stds. Wait 1 hour, attempt to break circulation up hole. If circulation is regained go back to bottom and resume drilling. If returns are not regained, mix 100 bbls LCM pill - 65-70% LCM and call Houston personnel.

4. Go to bottom and spot 2nd pill. Pull out of hole, contact cement company and locate pump truck and 200 sxs neat Class "C" - No $CaCl_2$ and 200 sxs loss circulation cement.

5. Rack back collars and pick up drill pipe to replace collars. (Note: Collars should be racked such that the Kelly can be picked up.) Go in hole to bottom of casing with open ended drill pipe.

6. Rig up cementers. Go in hole to bottom. Mix 200 sxs loss circulation cement and 100 sx neat cement spot on bottom. Pull out of hole.

7. Allow 12 hours waiting on cement. Pick up bit and drill collars. Be in hole and tag cement. Break circulation. Record cement tops and intervals. Mud loggers to catch samples and determine cement returns. Drilling out firm cement. If returns are lost after drilling out cement, attempt to dry drill as much hole as your pit volume will allow. Pull out of hole. Rack back collars. Go in hole to bottom - open ended. Spot remaining 100 sxs on bottom. Pull out of hole. Call Houston personnel.

8. Wait on orders.

III. Mud Program

Interval	Type Mud	Remarks
0-500'	Water	Add gel as required for viscosity.
500-1000'	Gelled water	Add caustic as required to keep pH at 9.0.
1000-2000'	Non-dispersed/ Low solids pH 9.0-10.5 Solids ≤ 7% API water loss ≤ 4-7	Treat gelled water with CMC to reduce water loss to acceptable range. Build volume.
2000-3000'	Non-dispersed/ Low solids pH 9.0◇11.0 Solids ≤ 7% API water loss ≤ 4-7	Loss circulation material will be on location. Sawdust should be added as precaution. Avoid pressure surges.
3000-7000'	Non-dispersed/ Low solids pH 9.0◇11 Solids ≤ 7% API water loss ≤ 4-7	Treat mud as required to maintain recommended properties.

Note:

1. Rig shaker monitored and kept operating during all drilling operations unless loss circulation is encountered.
2. Run Desilter during drilling operation.
3. Mud weight should be maintained as low as possible.
4. Refer to Attachment 1 for procedure to follow in the advent of loss of circulation.

IV. Formation Tops

Marker	Estimated Sub Sea Depth	Estimated In-Hole Depth
Tertiary		Surface
Menafee	-1300'	4000'
Morrison	-2700'	8000'
Entrada	-3600'	8900'

V. Coring: Coring to be done at discretion of wellsite geologist.

1) Christiensen is primary contractor.

VI. DST's as geologist requires:

(a) Under no circumstances will a drill stem test be pulled out of the hole during the dark hours.
(b) All drill stem tests will be reversed out; (1) immediately if fluid of gas* has reached the surface; (2) at the discretion of the well site supervisor, the string may be pulled to fluid before reversing out.
(c) Johnston MFE tool scheduled to be used for testing.

* If dry gas reaches the surface, bleed the gas off during the shut-in period and fill the drill pipe with water before releasing the packers.

VII. Logging:

Schlumberger will run the following logs at the discretion of the wellsite geologist:

Typelogs	Depth	Runs
Dual Induction Lat. Log	Surface Casing to T.D.	1
Formation Density-Composition	Surface Casing to T. D.	1
Neutron Log	Surface Casing to T. D.	
Gama Ray-Sonic Intergrated	Surface Casing to T. D.	1
Dipmeter	Surface Casing to T. D.	1
Velocity Survey	Surface Casing to T. D.	1

Mud Logs: Surface casing to T. D.

Type Unit: Hydrogen flame gas chromatograph

Seismic reference check shots: None

VIII. Mud Logger and Samples:

1. Mud logging unit to be rigged up when spudding in.

2. Samples (to be washed, dried, labeled, and placed in bundles of 10):

Frequency	Depth Interval	No. Sets
10'	Surface to T. D.	3

Disposition of Samples: 1 each to:

Shell Oil Company
P. O. Box 2463
One Shell Plaza
Houston, Texas 77001

TransOcean Oil, Inc.
1700 First City East Bldg.
1111 Fannin Street
Houston, Texas 77002

New Mexico Bureau of Mines
and Mineral Resources
Campus Station
Socorro, New Mexico 87801

IX. Hole Deviation:

1. Deviation surveys shall be taken every 500' or each trip, whichever occurs first, and at other times deemed necessary by wellsite supervisor.

2. Maximum deviation shall be allowed as follows:

   (a) A maximum of 1^{o} on surface hole.
   (b) Maximum rate of change in deviation below surface casing shall not exceed $1\frac{1}{2}$ per 100 ft.

3. Record each survey on the I.A.D.C. Drilling Report Sheet.

X. Drill Pipe Measurements:

Strap drill pipe on trip for new bit prior to coring, testing, logging or running casing, or at the discretion of the wellsite supervisor.

XI. Drilling Time:

A mechanical recorded with ROP and hook load will be used.

XII. Auxiliary Equipment Required:

Desilter

XIII. Reports:

1. A 6:00 AM Drilling Report will be called in each day. Use the TransOcean Daily Drilling Report Sheet and Daily Cost Sheet.

   Call (713) 654-2100 between 8:00 - 8:30 AM each morning.

   Address: TransOcean Oil, Inc.
   1700 First City East Building
   1100 Fannin
   Houston, Texas 77002

2. In case of emergency, call the following:

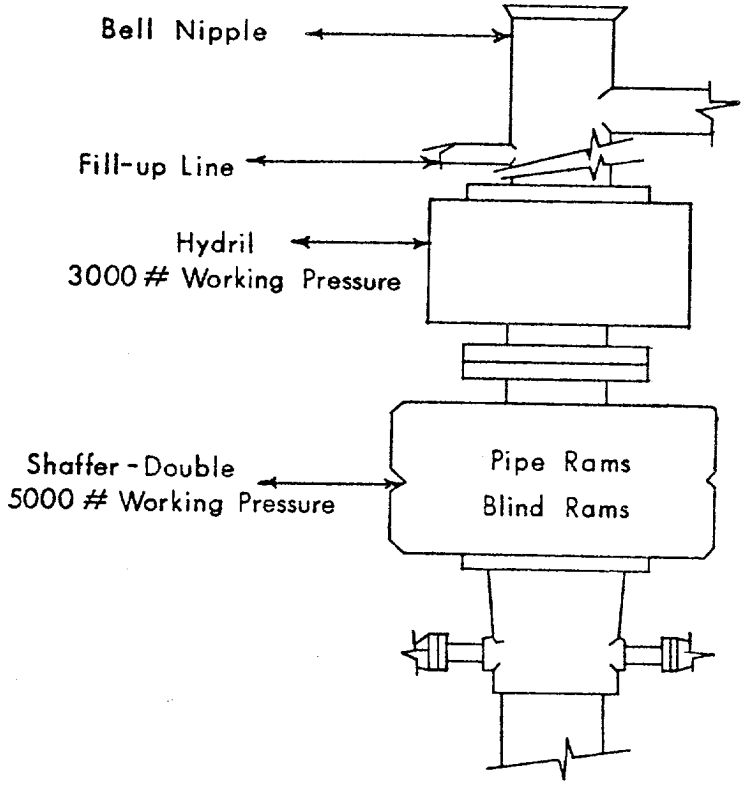
   Jerry Crews* (713) 376-6339
   Stan Jones (713) 440-4730

*Answering Service: 713/691-2164
Code #829

Isleta No. 1

BOP Equipment

Ard Rig No. 6

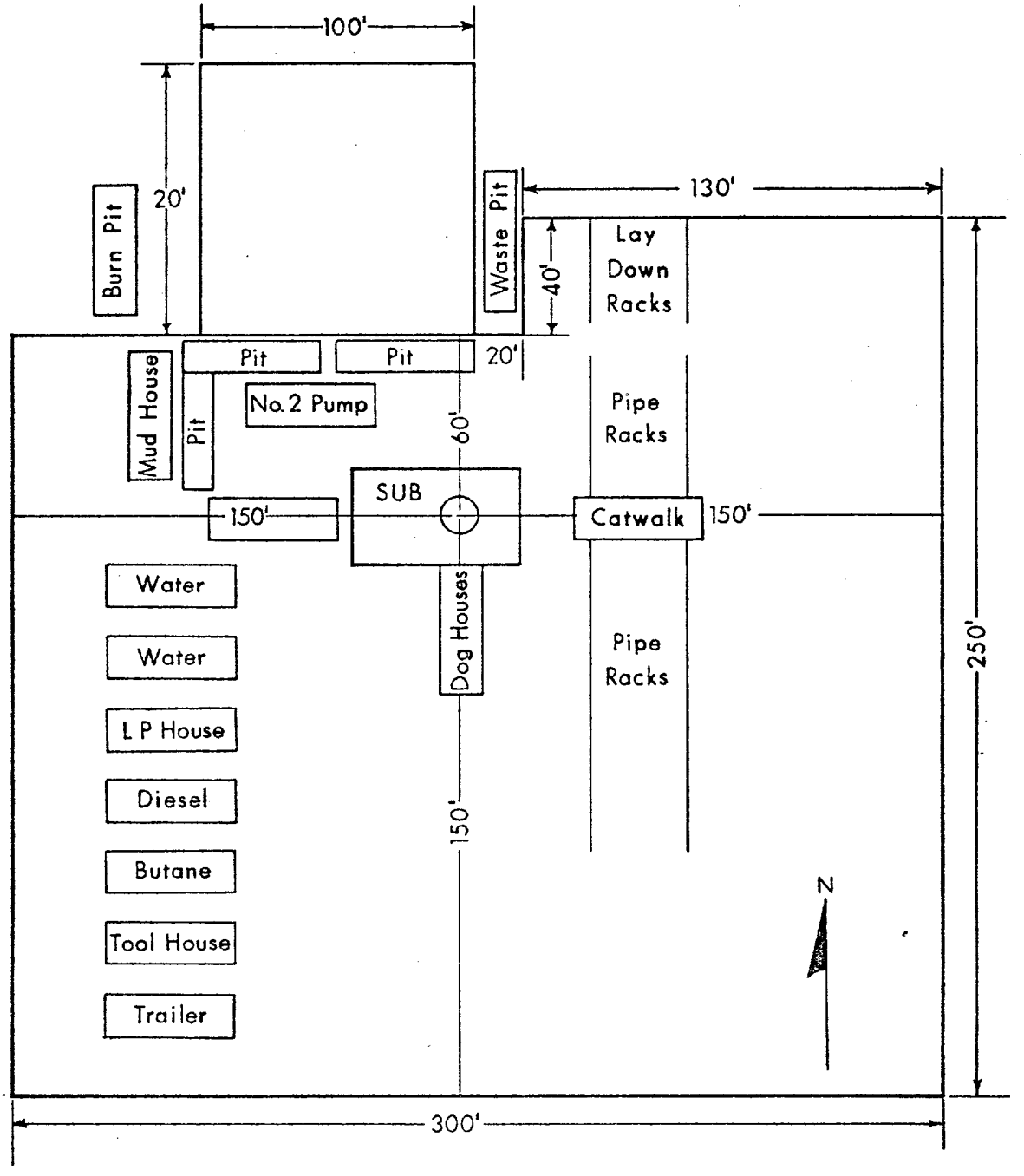


ATTACHMENT #1

Ard Drilling Co.

Rig No. 6

Pad Description



PLAT #1

NEW MEXICO OIL CONSERVATION COMMISSION

JUL 21 1978

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
TRANSOCEAN OIL, INC.	ISLETA	1

Unit Letter	Section	Township	Range	County
I	8	8N	3E	Bernalillo

Actual Footage Location of Well:
1650 feet from the South line and 330 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5264	Wildcat	Wildcat	Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

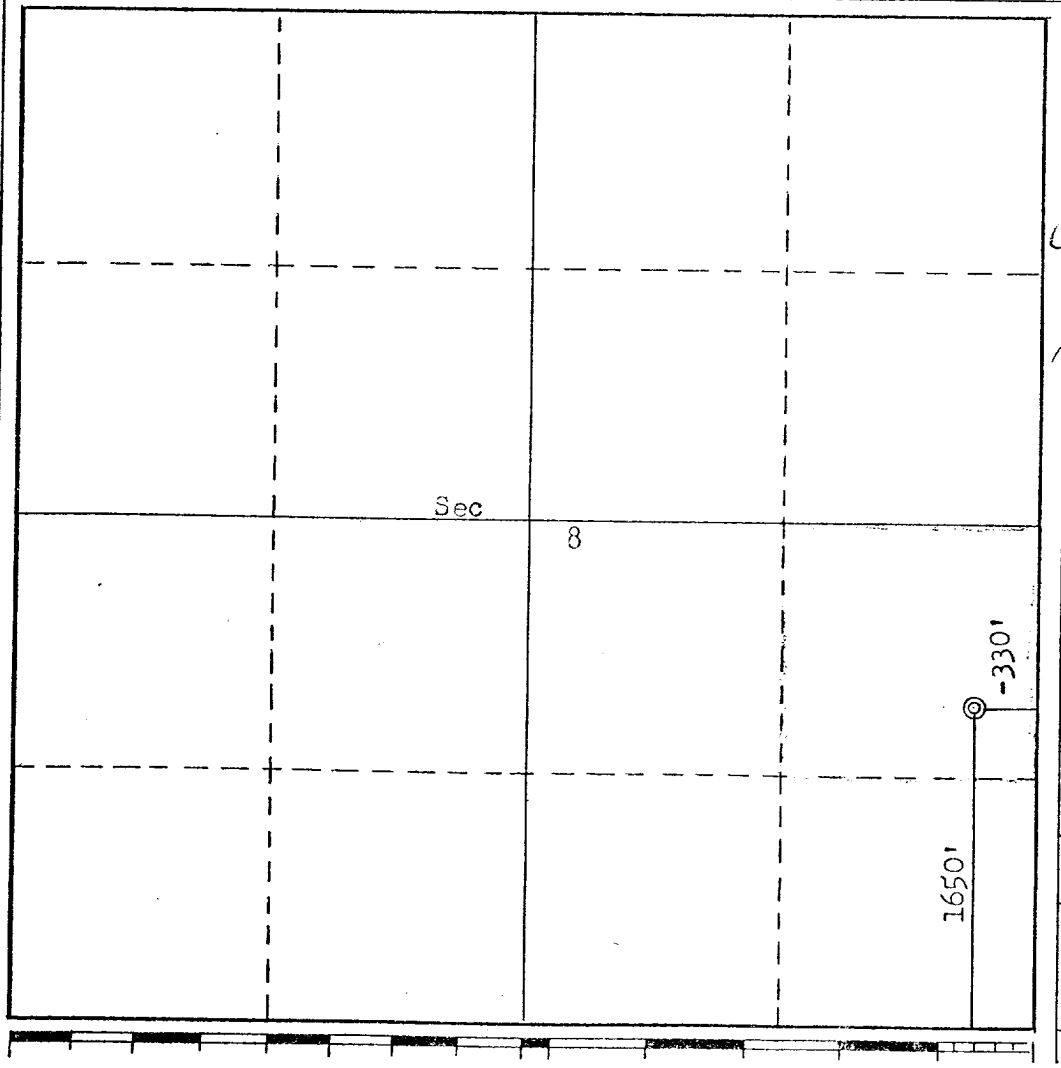
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Jerry Crews

Position: Senior Drilling Engineer

Company: TransOcean Oil, Inc.

Date: July 13, 1978

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 knowledge and belief.

Date Surveyed: June 27, 1978

Registered Professional Engineer and/or Land Surveyor: Fred B. Kerr Jr.

REGISTERED LAND SURVEYOR STATE OF NEW MEXICO No. 2760

Certificate No.