10-732

Form 3160-3
(April 2004)

**OCD-ARTESIA**

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No.
NM 02425

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. (38586)
CORTEZ '33' 1

2. Name of Operator
THOMPSON, J. CLEO (11181)

9. API Well No.
30- -015-38960

3a. Address P. O. BOX 12577
ODESSA, TX 79768

3b. Phone No(include area code)
(432)550-8887

10. Field and Pool, or Exploratory
WILDCAT; CISCO (97851)

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 450.3' FSL & 630' FWL (UL: M)
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area
SEC. 33, T-16-S, R-30-E

14. Distance in miles and direction from nearest town or post office*
3 MILES NORTH OF LOCO HILLS,NM

12. County or Parish
EDDY

13. State
NM

| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) | 16. No. of acres in lease | 17. Spacing Unit dedicated to this well |
|---|---|---|
| 450.3' | 80 | 40 |
| **18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.** | **19. Proposed Depth** | **20. BLM/BIA Bond No. on file** |
| 192' | 9,000' | NM0348 |
| **21. Elevations (Show whether DF, KDB, RT, GL, etc.)** | **22. Approximate date work will start*** | **23. Estimated duration** |
| 3637' GL | 10/01/2010 | 35 DAYS |

24. Attachments

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.
2. A Drilling Plan.
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).
4. Bondto cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

| 25. Signature | Name(Printed/Typed) | Date |
|---|---|---|
| | JIM STEVENS | 08/16/2010 |

Title
OPERATIONS MANAGER

| Approved by(Signature) | Name(Printed/Typed) | Date |
|---|---|---|
| /s/ Don Peterson | | DEC 21 2010 |
| **Title** FIELD MANAGER | **Office** CARLSBAD FIELD OFFICE | |

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, are attached.

APPROVAL FOR TWO YEARS

Title18U.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 Untied States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

Roswell Controlled Water Basin

RECEIVED
DEC 27 2010
NMOCD ARTESIA

Approval Subject to General Requirements & Special Stipulations Attached

KZ 4/18/11

SEE ATTACHED FOR CONDITIONS OF APPROVAL

**REVISED (8/26/2010)**
**DRILLING PROGRAM**
**J. Cleo Thompson & James Cleo Thompson, Jr. L. P.**
**Cortez '33', Well #1**
**350.3' FSL & 630' FWL, Section 33, T16S, R30E**
**Eddy County, New Mexico**

In accordance with Form 3160 and our application to drill, please find the following items as included in the proposed drilling program.

1. **Estimated tops of geological markers:**

| | |
|---|---|
| Rustler (Top of Salt) | 630' |
| Tansil (Base of Salt) | 1045' |
| Yates | 1600' |
| Queen | 2130' |
| San Andres | 2980' |
| Glorietta | 4450' |
| Abo | 6290' |
| Wolfcamp | 7600' |
| Cisco | 8670' |

2. **Possible mineral bearing formations:**

| | | |
|---|---|---|
| Water Sand | 150' | Fresh Water |
| San Andres | 2980' | Oil/Gas |
| Paddock | 4610' | Oil/Gas |
| Wolfcamp (Upper) | 7695' | Oil/Gas |
| Wolfcamp | 8710' | Oil/Gas |

All shows of fresh water and minerals will be reported and protected.

3. **Proposed Casing Program:**

| Hole Size | Setting Depth | Csg Size & Wgt | Class | Grade/Jt |
|---|---|---|---|---|
| 17-1/2" | 0' – 450' | 13-3/8", 48 #/ft | New | H-40/ST&C |
| 11" | 0' – 3300' | 8-5/8", 24 #/ft | New | J-55/ST&C |
| 7-7/8" | 0' – 9000' | 5-1/2", 17 #/ft | New | N-80/LTC |

Design Factors: Collapse: *1.2* Burst: *1.2* Tension: *1.8*

4. **Pressure Control Equipment:** —NO

Exhibit F – Intermediate and Production Casing – A minimum 11", 3000PSI working pressure BOP consisting of one set of blind rams and one set of pipe rams, a choke manifold and a 120 gallon accumulator with floor and remote operating stations as well as an auxiliary power system will be utilized. A kellycock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Ram-type BOP will be tested to 250 psi low and 3500 psi high by an independent service company.

The BOP unit will be hydraulically operated. Below intermediate casing shoe, BOP will be operated at least once a day while drilling and the blind rams will be operated

on out-of-hole trips. No abnormal pressures or temperatures are expected while drilling this well.

5. **Proposed Mud Program:**

| Mud Program | Type | Mud Weight | Viscosity | Fluid Loss |
|---|---|---|---|---|
| 0' – 450' | Fresh Water | 8.3 - 9.0 ppg | 34 - 38 | NC |
| 450' – 2000' | Brine | 10.0 - 10.2 ppg | 29 – 30 | NC |
| 2000' – 5950' | Cut Brine | 8.8 - 9.2 ppg | 28 - 29 | NC |
| 5950' – 6000' | Cut Brine | 9.0 - 9.2 ppg | 32 - 33 | 12 -15 |

6. **Proposed Cementing Program:**

13-3/8" Surface: 470 sacks Class C Cement + 0.25 lbs/sack Celloflake + 2% Calcium Chloride
**TOC**: Surface **Yield:** 1.34 cu.ft./sx **Wgt:** 14.8 ppg
**Excess**: 100%

8-5/8" Intermediate: *Lead Cement*: 305 sacks 50:50 Poz C + 10% gel + 5% salt + 0.25# Celloflake,
Yield: 2.45 cu.ft./sx Wgt: 11.8 ppg
*Tail Cement*: 200 sacks Class C Cement + 2% Calcium
**TOC:** Surface **Yield:** 1.34 cu.ft./sx **Wgt:** 14.8 ppg
**Excess:** 100%

5-1/2" Production: *Lead Cement*: 625 sxs 50/50 Poz C + 10% gel + 5% salt + 0.25 # Celloflake + 3# Kol-Seal
**Yield:** 2.45 cu.ft./sx **Wgt:** 11.8 ppg
*Tail Cement*: 200 sxs 50/50 Poz C + 2% gel + 5% salt + 8-10% C-16a
**TOC:** Surface **Yield:** 1.30 cu.ft./sx **Wgt:** 14.3 ppg
**Excess:** 50%

7. **Auxiliary Equipment:**

Blowout preventer, gas detector, kellycock and stabbing valve.

8. **Testing, Logging and Coring Program:**

| | |
|---|---|
| Drill Stem Tests: | None anticipated |
| Logging: | Platform Express TD to 3000'<br>GR-N to Surface |
| Coring: | None Anticipated |

**REVISED (8/26/2010)**
**DRILLING PROGRAM**
**J. Cleo Thompson & James Cleo Thompson, Jr. L. P.**
**Cortez '33', Well #1**
**350.3' FSL & 630' FWL, Section 33, T16S, R30E**
**Eddy County, New Mexico**

9. **Potential Hazards:**
No abnormal pressures or temperatures are expected. The area has a potential $H_2S$ hazard. An $H_2S$ drilling plan is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

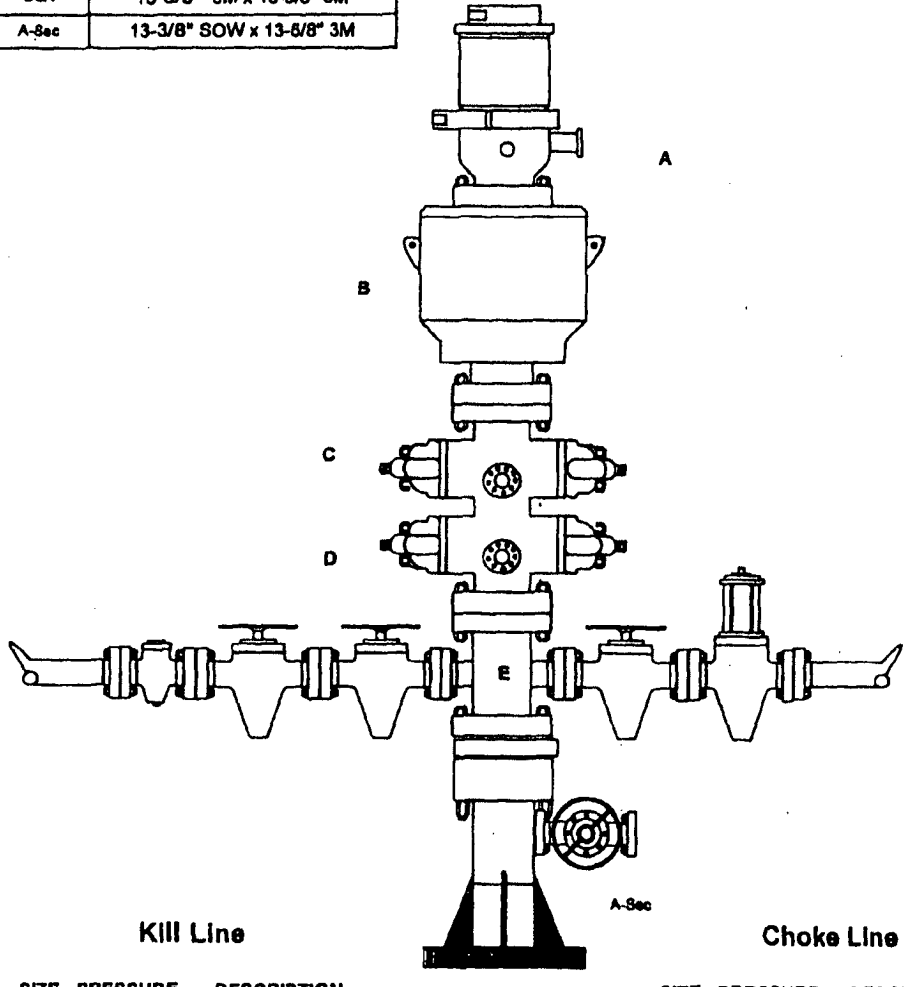
| | | | |
|---|---|---|---|
| Estimated BHP | 4200 psi | Estimated BHT | 110° |

10. $H_2S$: None Anticipated

11. Anticipated Start Date: 10/01/2010
Anticipated Drilling Time: 25 days

# ATTACHMENT 'F'
## J. CLEO THOMPSON & JAMES CLEO THOMPSON
## CORTEZ '33' WELL NUMBER 1
## 5-M WP BOP WITH 5-M WP ANNULAR
## AND CHOKE MANIFOLD SCHEMATIC

| | SIZE | PRESSURE | DESCRIPTION |
|---|---|---|---|
| A | 13-5/8" | 500# | Rot Head |
| B | 13-5/8" | 5,000# | Annular |
| C | 13-5/8" | 5,000# | Pipe Rams |
| D | 13-5/8" | 5,000# | Blind Rams |
| E | 13-5/8" | 5,000# | Mud Cross |
| | | | |
| | | | |
| | | | |
| DSA | | 13-5/8"" 5M x 13-5/8" 3M | |
| A-Sec | | 13-3/8" SOW x 13-5/8" 3M | |



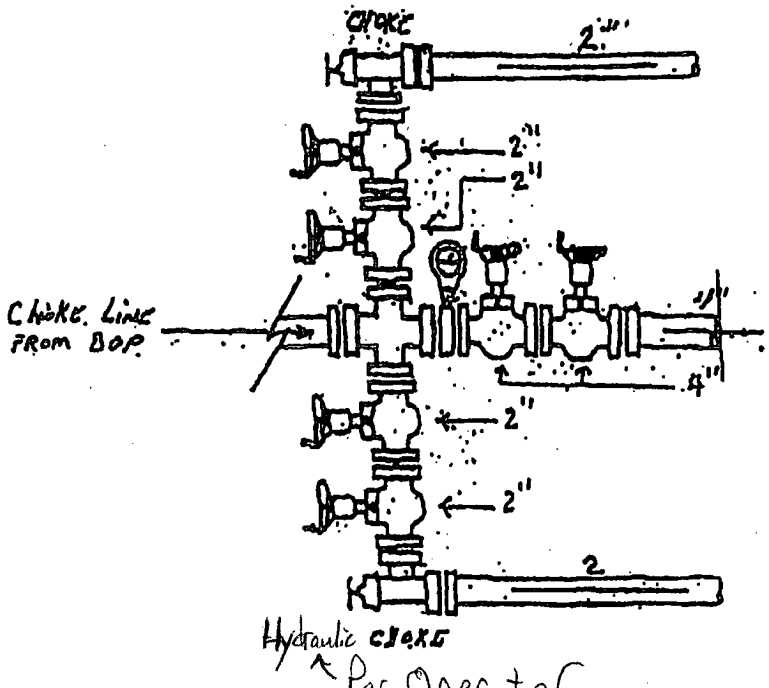

**Kill Line**

| SIZE | PRESSURE | DESCRIPTION |
|---|---|---|
| 2" | 5,000# | Check Valve |
| 2" | 5,000# | Gate Valve |
| 2" | 5,000# | Gate Valve |
| | | |
| | | |

**Choke Line**

| SIZE | PRESSURE | DESCRIPTION |
|---|---|---|
| 4" | 5,000# | Gate Valve |
| 4" | 5,000# | HCR Valve |

**ATTACHMENT 'F'**
J. CLEO THOMPSON & JAMES CLEO THOMPSON, JR., L.P.
CORTEZ '33' WELL NUMBER 1
BOP MANIFOLD SCHEMATIC




Per Operator
12-7-10 DW

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator J. CLEO THOMPSON OGRID # 11181
Well Name & # CORTEZ 33 #1 Surface Type (F) (S) (P)
Location: UL A, Sect 33, Twnship 16 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd ____/____/____ C101 reviewed ____/____/____
B. 1. Check mark, Information is OK on Forms:
OGRID X, BONDING FED PROP CODE X, WELL # X, SIGNATURE X
2. Inactive Well list as of : 4/18/11 # wells 57, # Inactive wells 0
a. District Grant APD but see number of inactive wells:
No letter required X; Sent Letter to Operator ____, to Santa Fe ____
3. Additional Bonding as of: ____/____/____
a. District Denial because operator needs addition bonding:
No Letter required ___; Sent Letter to Operator ____, To Santa Fe____
b. District Denial because of Inactive well list and Financial Assurance:
No Letter required ____; Sent Letter to Operator ____, To Santa Fe ___

C. C102 YES X, NO ___, Signature X
1. Pool WILDCAT; CISCO, Code 97851
a. Dedicated acreage 40, What Units M
b. SUR. Location Standard X; Non-Standard Location_____
c. Well shares acres: Yes ___, No X, # of wells ____ plus this well #____
2. 2nd. Operator in same acreage, Yes_____, No X
Agreement Letter _____, Disagreement letter_____
3. Intent to Directional Drill Yes ____, No X
a. Dedicated acreage _____, What Units _____
b. Bottomhole Location Standard _____, Non-Standard Bottomhole _____
4. Downhole Commingle: Yes_____, No X
a. Pool #2_____,Code_____, Acres_____
Pool #3_____, Code _____, Acres _____
Pool #4_____, Code_____, Acres_____
5. POTASH Area Yes _____, No X
D. Blowout Preventer Yes X No _____
E. H2S Yes _____, No _____, PART FEDAPD
F. C144 Pit Registration Yes _____, No X need
G. Does APD require Santa Fe Approval:
1. Non-Standard Location: Yes _____, No X, NSL #_____
2. Non-Standard Proration: Yes_____, No X, NSP # _____
3. Simultaneous Dedication: Yes _____, No X, SD # _____
Number of wells _____ Plus #_____
4. Injection order Yes _____, No X; PMX #_____ or WFX #_____
5. SWD order Yes _____, NO X; SWD # _____
6. DHC from SF_____; DHC-HOB_____; Holding_____

7. OCD Approval Date 4/18/11 API #30-015- 38960
8. Reviewers KG