

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|   |  |   |  |
|---|--|---|--|
| 1a. Type of Work<br><b>DRILL</b>  |  | 5. Lease Number<br><b>10 1 23</b><br><b>NM-03551</b>                    |  |
| 1b. Type of Well<br><b>GAS</b>  |  | 6. If Indian, Name of Allottee or Tribe                                 |  |
| 2. Operator<br><b>CAULKINS OIL COMPANY</b>  |  | 7. API Number<br><b>30-039-29419</b>                                    |  |
| 3. Address & Phone No. of Operator<br><b>c/o ROBERT VERQUER</b><br><b>1409 W. Aztec Blvd. # 7 Aztec, N. M. 87410</b><br><b>(505) 334-4323</b> |  | 8. Farm or Lease Name<br><b>BREECH "E"</b>                              |  |
| 4. Location of Well<br><b>2595 FNL &amp; 1975' FEL</b>  |  | 9. Well Number<br><b>79</b>   |  |
| 14. Distance in Miles from Nearest Town<br><b>36 miles southeast of Blanco, NM Post Office.</b>   |  | 10. Filed, Pool, or Wildcat<br><b>Basin Dakota</b>                      |  |
| 15. Distance from<br>Proposed Location<br>To Nearest Property<br>Line or Lease Line<br><b>1975'</b>   |  | 11. Section, Township, & Range, Meridian, or Block<br><b>6 1-26N-6W</b> |  |
| 16. Acres in Lease<br><b>2560 Acres</b>   |  | 12. County<br><b>Rio Arriba</b> ✓                                       |  |
| 17. Acres Assigned to Well<br><b>320.49</b><br><b>EAST-320 Acres</b>  |  | 13. State<br><b>New Mexico</b>  |  |
| 18. Distance From<br>Proposed Location<br>To Nearest Well Drill,<br>Compl., Or Applied<br>For on Lease<br><b>915'</b>                         |  | 19. Proposed Depth<br><b>8000'</b>                                      |  |
| 20. Rotary or Cable Tools<br><b>ROTARY</b>  |  | 21. Elevations (DR, RT, GR, Etc.)<br><b>6970 GR</b>                     |  |
| 22. Approximate Date Work Will Start<br><b>AUGUST 5, 2004</b>   |  | 23. Proposed Casing and Cementing Program                               |  |

EXHIBITS attached as follows

"A" C-103 & Location and Elevation Plat  
"B" Ten-Point Compliance Program  
"C" Blowout Preventer Schematic  
"D" Multi-Point Requirements for APD  
"E" Vicinity Map - Access Roads

"F" Drill Rig Layout  
"G" Production Facility Schematic  
"H" Acreage dedication plat  
"I" Archaeological Report

24. Signed Robert L. Verquer Title Superintendent Date 1-11-05  
Robert L. Verquer

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_  
Approved By [Signature] Title AFM Date 4-4-05

NOTE: THIS FORMAT IS ISSUED IN LIEU OF U.S. BLM FORM 3160-3

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

NMOC

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.4  
and appeal pursuant to 43 CFR 3165.4

ESTRICT I  
625 N. French Dr., Hobbs, N.M. 88240

ESTRICT II  
14 South First, Artesia, N.M. 88210

ESTRICT III  
000 Rio Brazos Rd., Aztec, N.M. 87410

ESTRICT IV  
040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

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

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                             |  |  |  |                            |  |
|-----------------------------|--|--|--|----------------------------|--|
| *API Number<br>30-039-29419 |  | *Pool Code<br>71899                    |  | *Pool Name<br>Basin Dakota |  |
| *Property Code<br>2469      |  | *Property Name<br>BREECH E             |  | *Well Number<br>79         |  |
| *OGRID No.<br>3824          |  | *Operator Name<br>CAULKINS OIL COMPANY |  | *Elevation<br>6970'        |  |

<sup>10</sup> 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             | 1       | 26-N     | 6-W   |         | 2595          | NORTH            | 1975          | EAST           | RIO ARRIBA |

<sup>11</sup> 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<br>320.49 E/2 |  | *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

|  |       |                              |       |   |  |
|--|-------|------------------------------|-------|---|--|
| QTR. CORNER<br>FD 3 1/4" B.C.<br>BLM 1955  |       | N 89-11-31 W<br>2640.65' (M) |       | SEC. CORNER<br>FD 3 1/4" B.C.<br>BLM 1955 |  |
| LOT 4  | LOT 3 | LOT 2                        | LOT 1 |   |  |
| LAT. 36°31'00"N (NAD 83)<br>LONG. 107°25'00" W (NAD 83)  |       | 2595'                        | 1975' | N 00-13-39 E<br>2668.63' (M)              |  |
| NOTE: Typographical Error on plat,<br>Section 1 NOT Section 24   |       |                              |       |   |  |
| QTR. CORNER<br>FD 3 1/4" B.C.<br>BLM 1957  |       |                              |       |   |  |
| 17 OPERATOR CERTIFICATION<br>I hereby certify that the information contained herein<br>is true and complete to the best of my knowledge and<br>belief.<br>Robert L Verguer<br>Signature<br>Robert L. Verguer<br>Printed Name<br>Superintendent<br>Title<br>1-11-05<br>Date   |       |                              |       |   |  |
| 18 SURVEYOR CERTIFICATION<br>I hereby certify that the well location shown on this plat<br>was plotted from field notes of actual surveys made by<br>me or under my supervision and that the same is true<br>and correct to the best of my knowledge and belief.<br>JUNE<br>Date of Survey<br>Signature and Seal of Professional Surveyor<br>14831<br>Certificate Number |       |                              |       |   |  |

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

EXHIBIT "A"

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|  |
|--|
| WELL API NO.   |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No.   |
| 7. Lease Name or Unit Agreement Name<br>Breech "E"                                       |
| 8. Well Number<br>79   |
| 9. OGRID Number<br>003824  |
| 10. Pool name or Wildcat<br>Basin Dakota   |

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
Caulkins Oil Company

3. Address of Operator  
1409 W. Aztec Blvd., Suite B7, Aztec New Mexico 87410

4. Well Location  
Unit Letter G : 2595' feet from the North line and 1975' feet from the East line  
Section 1 Township 26N Range 6W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6970 GR

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater 120' Distance from nearest fresh water well 2 1/2 mile Distance from nearest surface water 1/2 mile

Pit Liner Thickness: mil Below-Grade Tank: Volume: bbbs Construction Material:

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: Drilling Pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Construct new below grade drilling pit along with location.

Cut and fill diagram attached.

No liner will be required for this pit due to distance from water sources.

Construction is scheduled to begin, March 2005

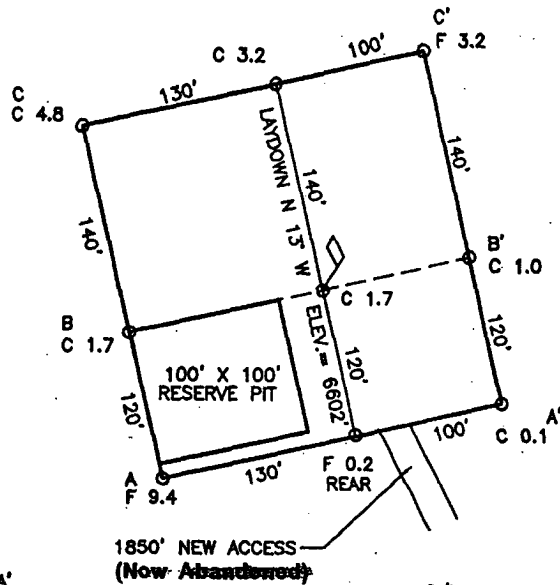
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed and closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Robert L. Verquer TITLE Superintendent DATE January 12, 2005  
Type or print name Robert L. Verquer E-mail address: Telephone No. 505-334-4323

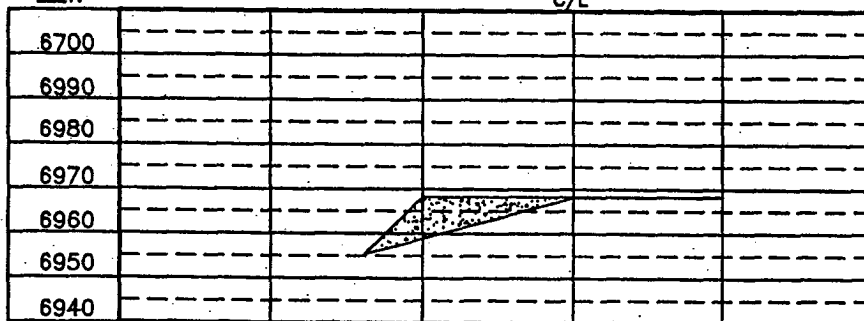
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 83 DATE APR - 8 2005  
Conditions of Approval (if any):

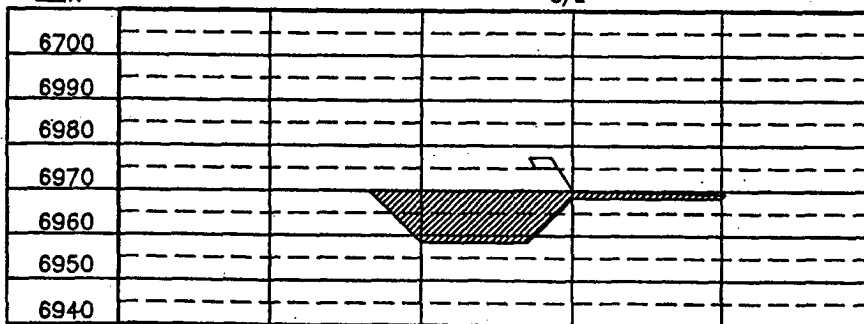
COMPANY: CAULKINS OIL COMPANY  
 E: BREECH E No. 79  
 FOOTAGE: 2595' FNL 1975' FEL  
 SEC.: 1 TWN: 26-N RNG: 6-W NMPM  
 ELEVATION: 6970'



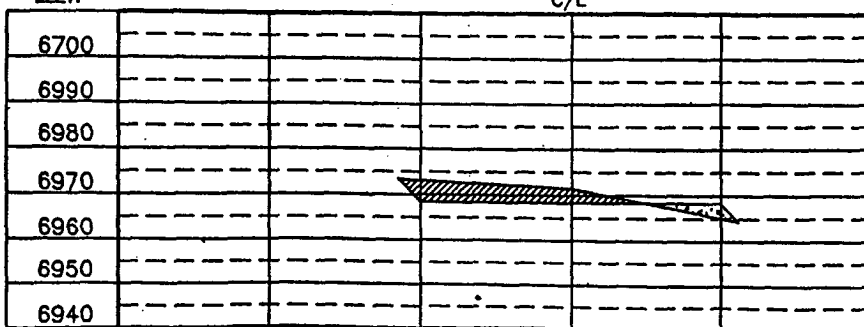
ELEV. A-A'



ELEV. B-B'



ELEV. C-C'



DRAWN BY: A.G. ROW#: CC032 CADFILE: CC032CFB DATE: 07/01/04

Daggett Enterprises, Inc.  
 Surveying and Oil Field Services  
 P. O. Box 15068 Farmington, NJ 07401  
 Phone (908) 328-1772 Fax (908) 328-8018



EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company  
Breach "E" 79  
2595' FNL & 1975' FEL, Sec. 1, 26N, 6W  
Rio Arriba County, New Mexico  
Lease No. NM - 03551

1. The Geological Surface Formation is : San Jose.
2. The Estimated Tops of Important Geological Markers:

|                |      |
|----------------|------|
| Ojo Alamo      | 2658 |
| Fruitland      | 3207 |
| Picture Cliffs | 3509 |
| Point Lookout  | 5710 |
| Greenhorn      | 7670 |
| Dakota         | 7843 |
| TD             | 8000 |

3. Estimated Depths and pressures of Anticipated Water, Oil, Gas or Minerals:

| Substance | Formation       | Depth | Pressure |
|-----------|-----------------|-------|----------|
| Water     | Alamo           | 2816  | 0        |
| Gas       | Fruitland       | 3458  | 200      |
| Gas       | Pictured Cliffs | 3532  | 450      |
| Gas       | Mesa Verde      | 6026  | 1200     |
| Gas       | Dakota          | 7981  | 1700     |

4. The proposed casing program will be as follows:

| Depth     | Hole Size | O.D.  | Weight | Grade | Type | New/Used |
|-----------|-----------|-------|--------|-------|------|----------|
| 0-350     | 12-1/4    | 9-5/8 | 36#    | J55   | LT&C | NEW      |
| 0-1000    | 7-7/8     | 5-1/2 | 17#    | K55   | LT&C | NEW      |
| 1000-7000 | 7-7/8     | 5-1/2 | 15.50# | K55   | LT&C | NEW      |
| 7000-8000 | 7-7/8     | 5-1/2 | 17#    | K55   | LT&C | NEW      |

The proposed cement program will be as follows:

**Surface:** 163 sacks class H with 1% CaCl  
and 1/4# per sack cellophane flake.

VOLUME CALCULATIONS

YIELD 1.14 350 ft x 0.3132 cu-ft/ft with 70% excess = 186 cu-ft

**PRODUCTION:** Cement will be run in three stages with  
stage tools set at approximately 4000' and 6000'.

**1st stage** Cement through shoe at approx. 8000' with 233 sacks  
class B 35/65 poz + 6% gel (bentonite) + 1/4# /sk  
cellophane flake followed by 100 sacks class H  
+ 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1732 cu-ft/ft with 80% excess = 418 cu-ft

YIELD 1.14 659 ft x 0.1732 cu-ft/ft with 0% excess = 114 cu-ft

**2nd stage** Cement through shoe at approx. 6000' with 233 sacks  
class B 35/65 poz + 6% gel (bentonite) + 1/4# /sk  
cellophane flake followed by 100 sacks class H  
+ 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1732 cu-ft/ft with 80% excess = 418 cu-ft

YIELD 1.14 659 ft x 0.1732 cu-ft/ft with 0% excess = 114 cu-ft

## EXHIBIT "B"

### TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company  
Breach "E" 79  
2595' FNL & 1975' FEL, Sec. 1, 26N, 6W  
Rio Arriba County, New Mexico  
Lease No. NM - 03551

**3rd stage** Cement through tool at approx. 4000' with 582 sacks class B 35/65 poz + 6% gel (bentonite) + 1/4# /sk cellophane flake followed by 100 sacks class H + 1% CaCl + 1/4# /sk cellophane flake.

#### VOLUME CALCULATIONS

YIELD 1.79 3341 ft x 0.1732 cu-ft/ft with 80% excess = 1042 cu-ft

YIELD 1.14 659 ft x 0.1732 cu-ft/ft with 0% excess = 114 cu-ft

#### 5. Operator's Minimum Specifications for Pressure Control:

EXHIBIT "C" is a schematic of a 2M blowout preventer system. The BOP's will be hydraulically tested prior to drilling out from under surface and operational checks will be made daily thereafter and recorded in the drilling tour report.

Accessories to BOP will include the following:

- A. 2" minimum kill line and valve.
- B. Choke line and valve
- C. 2 Chokes
- D. Upper kelly cock valve with handle.
- E. Safety valve and subs to fit all drill strings.
- F. Pressure gauge on choke manifold.
- G. 2" minimum choke line.
- H. Fill-up line above uppermost preventer.

#### 6. The type and Characteristics of the Proposed Circulating Mud's:

Mud system will be gel-chemical with adequate stocks of absorbent agents on location to handle possible spills of fuel and oil in the surface. Heavier mud's will be on location to be added if pressure requires.

| Interval | Mud Wt | Vis   | Fluid Loss | Ph | Additives |
|----------|--------|-------|------------|----|-----------|
| 0- 350   | 9.0    | 50    | ----       | 9  | Lime      |
| 350-TD   | 9.0    | 34-40 | 8cc        | 9  | Chemicals |

#### 7. Auxiliary equipment to be used is as follows:

- a. Float valve above bit.
- b. Monitoring of mud system will be visual.
- c. A sub with a full opening valve will be on the floor when the kelly is not in use.

#### 8. Testing, logging and coring will be as follows:

- a. Cores - none will be taken.
- b. Drill stem tests - none anticipated.
- c. Logging - Cased hole Gas Spectrum Log bottom of surface pipe to TD.

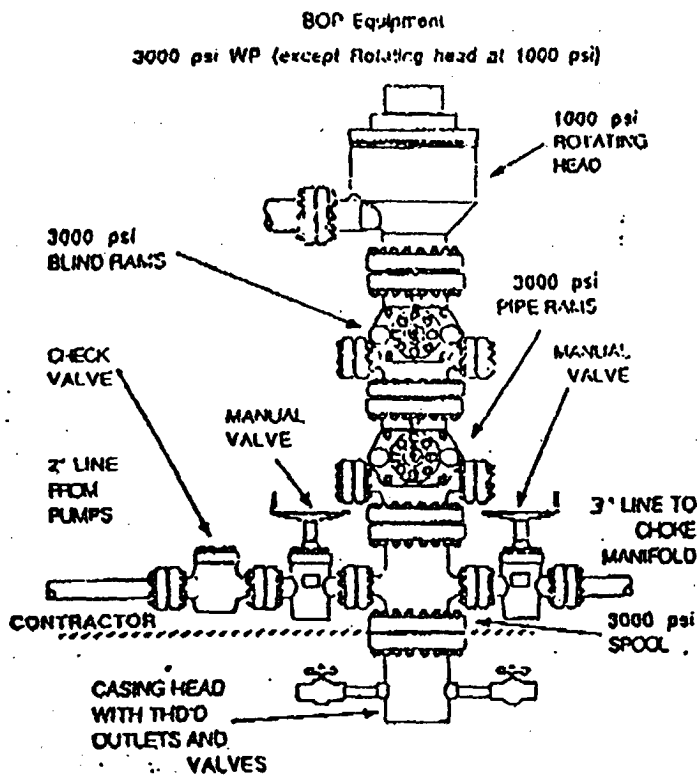
#### 9. Anticipated Abnormal Pressures and Temperatures:

No abnormal pressure, temperatures or hydrogen sulfide gases are anticipated during the course of drilling to TD. The maximum bottom hole pressure to be expected is 1700 psi.

#### 10. Anticipated Starting Date and Duration of the Operations:

The anticipated starting date is set for August 5, 2005, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 25 days.

# EXHIBIT "C"



# EXHIBIT "B" CHOKE MANIFOLD

