

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work <b>DRILL</b>		5. Lease Number <b>NM-03554</b>	
1b. Type of Well <b>GAS</b>		6. If Indian, Name of Allottee or Tribe	
2. Operator <b>CAULKINS OIL COMPANY</b>		7. API Number <b>30-039-29432</b>	
3. Address & Phone No. of Operator <b>c/o ROBERT VERQUER</b> <b>1409 W. Aztec Blvd. # 7 Aztec, N. M. 87410</b> <b>(505) 334-4323</b>		8. Farm or Lease Name <b>BREECH "C"</b>	
4. Location of Well <b>1320 FSL &amp; 660' FEL</b>		9. Well Number <b>828</b>	
14. Distance in Miles from Nearest Town <b>37 miles southeast of Blanco, NM Post Office.</b>		10. Filed, Pool, or Wildcat <b>Basin Dakota</b>	
15. Distance from Proposed Location To Nearest Property Line or Lease Line <b>660'</b>		11. Section, Township, & Range, Meridian, or Block <b>P 13-26N-6W</b>	
16. Acres in Lease <b>1920 Acres</b>		12. County <b>Rio Arriba</b> ✓	
17. Acres Assigned to Well <b>SOUTH - 320 Acres</b>		13. State <b>New Mexico</b>	
18. Distance From Proposed Location To Nearest Well Drill, Compl., Or Applied For on Lease <b>330</b>		19. Proposed Depth <b>7575</b>	
20. Rotary or Cable Tools <b>ROTARY</b>		21. Elevations (DR, RT, GR, Etc.) <b>6578 GR</b>	
22. Approximate Date Work Will Start <b>February 14, 2005</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  
"J" Land Owner Agreement

24. Signed Robert L. Verquer Title Superintendent Date 2-8-05  
Robert L. Verquer

Permit No.                      Approval Date                     

Approved By [Signature] Title AFM Date 4-4-05

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

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

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL INSTRUCTIONS"  
NWRCCD

DISTRICT I  
1626 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29432		*Pool Code 71544		*Pool Name Basin Dakota	
*Property Code 2457		*Property Name BREECH "C"			*Well Number 828
*OGRID No. 3824		*Operator Name CAULKINS OIL COMPANY			*Elevation 6578

<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
P	13	26-N	6-W		1320	SOUTH	660	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 320			*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

16		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Robert L. Verguer Signature Robert L. Verguer Printed Name Superintendent Title 2-8-05 Date

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

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

EXHIBIT "A"

Form C-103  
May 27, 2004

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (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.)		WELL API NO.
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Caulkins Oil Company		6. State Oil & Gas Lease No.
3. Address of Operator 1409 W. Aztec Blvd., Suite B7, Aztec New Mexico 87410		7. Lease Name or Unit Agreement Name Breech "C"
4. Well Location Unit Letter <u>I</u> : <u>1320'</u> feet from the <u>South</u> line and <u>660'</u> feet from the <u>East</u> line Section <u>13</u> Township <u>26N</u> Range <u>6W</u> NMPM County <u>Rio Arriba</u>		8. Well Number 828
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6578 GR		9. OGRID Number 003824
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>		
Pit type <u>Drilling</u> Depth to Groundwater <u>60</u> Distance from nearest fresh water well <u>1 1/4 mile</u> Distance from nearest surface water <u>3/4 mile</u>		
Pit Liner Thickness: <u>30</u> mil Below-Grade Tank: Volume: bbls; Construction Material:		

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

<b>NOTICE OF INTENTION TO:</b>		<b>SUBSEQUENT REPORT OF:</b>	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <u>Drilling Pit</u> <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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.

A liner will be installed in this pit to prevent ground water contamination.

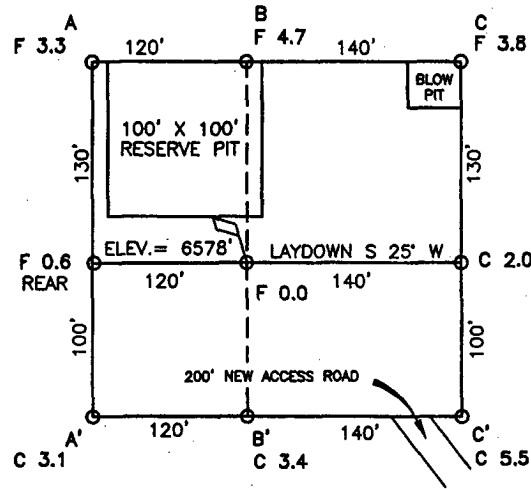
Construction is scheduled to begin: March 2005

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 2-8-05  
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. #8 DATE APR - 8 2005  
Conditions of Approval (if any):

COMPANY: CAULKINS OIL COMPANY  
 LEASE: BREECH "C" NO. 828  
 FOOTAGE: 1320' FSL 660' FEL  
 SEC.: 13 TWN: 26-N RNG: 6-W NMPM  
 ELEVATION: 6578'



230' x 260' (330' x 360') = 2.73 ACRES

ELEV. A-A'

C/L

6600				
6590				
6580				
6570				
6560				
6550				
6540				

ELEV. B-B'

C/L

6600				
6590				
6580				
6570				
6560				
6550				
6540				

ELEV. C-C'

C/L

6600				
6590				
6580				
6570				
6560				
6550				
6540				

NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

Doggett Enterprises, Inc.  
 Surveying and Oil Field Services  
 P. O. Box 15068 • Fortington, NJ 07401  
 Phone (908) 328-1772 • Fax (908) 328-6019  
 NEW MEXICO L.S. No. 14831  
 CORP. CC0335-CFB  
 DATE 11/29/04  
 DRAWN BY G.V.  
 REVISED BY  
 DATE  
 REVISION



# EXHIBIT "B"

## TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company  
Breech "C" 828  
1320' FSL & 660' FEL, Sec. 13, 26N, 6W  
Rio Arriba County, New Mexico  
Lease No. NM - 03554

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

Ojo Alamo	2454
Fruitland	2757
Picture Cliffs	3009
Chacra	3903
Point Lookout	5158
Greenhorn	7159
Dakota	7345
TD	7575

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

Substance	Formation	Depth	Pressure
Water	Alamo	2550	0
Gas	Fruitland	3005	200
Gas	Pictured Cliffs	3088	450
Gas	Chara	3954	500
Gas	Mesa Verde	5364	1000
Gas	Dakota	7499	1500

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
1000-5575	7-7/8	5-1/2	15.50#	K55	LT&C	NEW
6575-7575	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 3575' and 5575'.

**1st stage** Cement through shoe at approx. 7575' 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. 5575' 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  
Breech "C" 828  
1320' FSL & 660' FEL, Sec. 13, 26N, 6W  
Rio Arriba County, New Mexico  
Lease No. NM - 03554

**3rd stage** Cement through tool at approx. 3575' with 508 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 2916 ft x 0.1732 cu-ft/ft with 80% excess = 909 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.

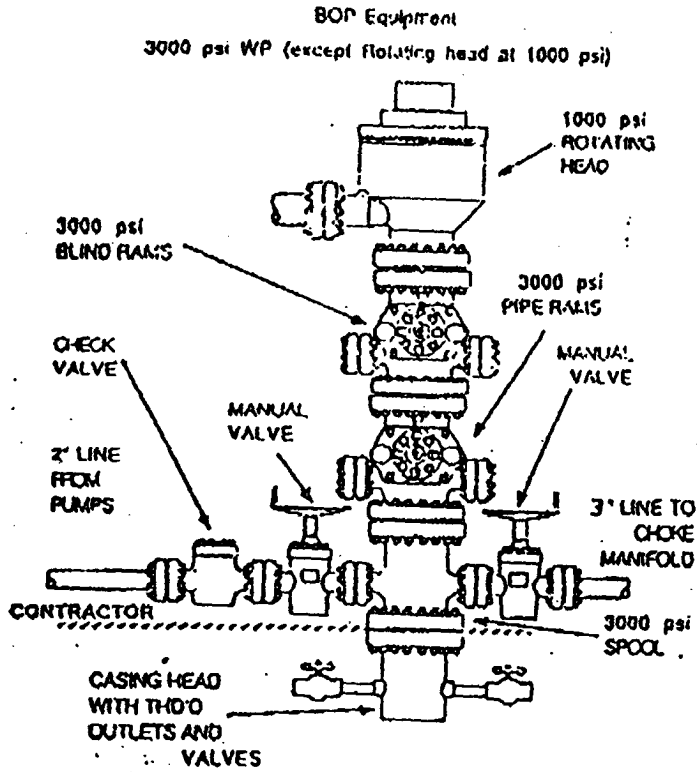
**9. Anticipated Abnormal Pressures and Temperatures:**

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 1500 psi.

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

The anticipated starting date is set for February 14, 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

