

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131

December 29, 1998

Caulkins Oil Company P.O. Box 340 Bloomfield, New Mexico 87143 Attention: Robert L. Verquer

Administrative Order NSL-4189

Dear Mr. Verquer:

Reference is made to your application dated December 4, 1998 for an exception to RULE 3 of the "Special Rules and Regulations for the South Blanco-Tocito Oil Pool", as promulgated by Division Order No. R-1191, as amended, for the existing Breech "F" Well No. 1-F (API No. 30-039-25876), located 1654 feet from the South line and 1526 feet from the West line (Unit K) of Section 33, Township 27 North, Range 6 West, NMPM, Rio Arriba County, New Mexico. The E/2 SW/4 of Section 33 is to be dedicated to the well in order to form a standard 80-acre oil spacing and proration unit for this pool.

The subject application has been duly filed under the provisions of Rule 104.F of the Rules and Regulations of the New Mexico Oil Conservation Division ("Division").

By the authority granted me under the provisions of the applicable special pool rules and Division Rule 104.F(2), the above-described unorthodox oil well location is hereby approved.

Sincerely,

Lori Wrotenbery

Director

cc:

LW/MES/kv

New Mexico Oil Conservation Division - Aztec

U. S. Bureau of Land Management - Farmington

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0][L CON. DIV. **DIST. 3**

CAULKINS OIL COMPANY

P. O. BOX 340 BLOOMFIELD, NEW MEXICO 87413 PHONE: 505-632-1544

FAX 505-632-1471

December 4, 1998

State of New Mexico Oil Conservation Division 2040 S. Pacheco Santa Fe, NM 87504

Re:

Breech "F" 1-F

1654' F/S 1526' F/W Sec. 33-T27N-R6W

Rio Arriba County, New Mexico



Gentlemen:

Caulkins Oil Company requests administrative approval for an unorthodox Tocito location.

This well was drilled to replace our Breech "F" 1-E well located in section 33, township 27N, range 6W which had to be plugged and abandoned due to an unrecoverable fish in hole.

Application for permit to drill approval was received on May 29, 1998.

Well was spudded on July 28, 1998.

TD reached on August 11, 1998.

After reviewing logs it was decided to dual complete well as a Tocito oil and Dakota gas well.

Standard location for a South Blanco Tocito well, Order R-326, requires Tocito well be drilled in center of northwest quarter of quarter section.

Tocito zone dedicated acreage 80 acres.

If you have any questions, please contact me at 505-632-1544. Thank you.

Sincerely.

Robert L. Verquer

Superintendent

enc.: Application for Permit to Drill

State form C-102

Location map showing off-set wells

List of Off-set Operators

| | | , 5 s | |
|--|--|--------------------------------------|---------------------------------------|
| UNITED ST | ATES | NMNM-03547 | |
| DEPARTMENT OF THE INTERIOR | | | HIVITUTE OSSAT |
| BUREAU OF LAND N | | | |
| BOILEAU OF BAIND IV | THE TOTAL STATE OF THE TAXABLE PARTY. | 6. If Indian, Allottce or Tribe Name | |
| SUNDRY NOTICES AND R | | 7. Unit Agreement Na | nmc |
| (Do not use this form for proposals to drill or to de | | | |
| Use "APPLICATION FOR PERM | 11 - Tor such proposals) | 8. Well Name and No |). |
| 1. Oil Well [] Gas Well [] Other [] GAS WELL | | | REECH "F" 1-F |
| 2. Name of Operator: | | 9. API Well No. | |
| Caulkins Oil Company | | 30-0 | 39 - 25 8 76 |
| 3. Address of Operator: (505) 632-1544 | | 10. Field and Pool, Exploratory Area | |
| P.O. Box 340, Bloomfield, NM 87413 | | BASIN | I DAKOTA, TOCITO |
| 4. Location of Well (Footage, Sec., Twp., Rge.) | | 11. Country or Parish, | |
| 1654' F/S 1526' F/W SEC. 33 | -27N-6W | Rio Arriba Co., | New Mexico |
| 12. CHECK APPROPRIATE BOX(s) | TO INDICATE NATURE OF NO | | |
| TYPE OF SUBMISSION | TYPE OF ACTION | | · · · · · · · · · · · · · · · · · · · |
| [X] Notice of Intent | [] Abandonment | | [] Change of Plans |
| | []Recompletion | | [] New Construction |
| [] Subsequent Report | [] Plugging Back | | [] Non-Routine Fracturing |
| | [] Casing Repair | | [] Water Shut-Off |
| [] Final Abandonment Notice | [X] Altering Casing | | [] Conversion to Injection |
| 17. Describe Proposed or Completed Operations: | [] Other | | [] Dispose Water |
| 17. Describe Proposed of Completed Operations. | | | |
| 4-24-98 Amend Application to Drill | l. | | |
| We now intend to drill 8 3/4 | 4" hole with 7" 23# and 26# K-55 casin | g run surface to TI | Э. |
| | | 6 | |
| Amended ten point complia | | | |
| This well is proposed to be dual completed as a Basin Dakota and South Blanco Tocito completion. Location is standard spacing for Dakota but is unorthodox for South Blanco Tocito. If well is completed in Tocito zone, unorthodox location will be applied for with NMOCD. | | | |
| Please approve APD as submitted. | | | 0 % |
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| | | UV, | |
| | | | |
| NOTE: The format is issued in licu of U.S. | 5. BLM Form 3160-5 | | |
| 18. I HEREBY CERTIFY THE FOREGOING | G IS TRUE AND CORRECT | | |
| Robert 7 ay | | | |
| SIGNED: Robert L Verquer TITLE: Superintendent DATE: April 27, 1998 | | | |
| | | | |
| APPROVED BY: Dhow in spe | TITLE: Transien | DATE: <u> </u> | 1/98 |
| CONDITIONS OF APPROVAL, IF ANY | | • | |
| · | | | |

UNITED STATES

DEPARTMENT OF THE INTERIOR



BUREAU OF LAND MANAGEMENT

| APPLICATION FOR PERMIT | | | 1: 25 |
|---|-------------------------|--------------------------------------|---------------------------------------|
| 1a. Type of V/ork | | 5. Lease Number | U/O FAMILIAGION, NIM |
| DRILL | | | NM-03547 |
| 1b. Type of V/ell | | 6. If Indian, Name of Allo | ottee or Tribe |
| GAS | | | |
| 2. Operator | | Unit Agreement Nam | ne |
| CAULKINS OIL COMPANY | | | · · · · · · · · · · · · · · · · · · · |
| 3. Address & Phone No. of Operator | **** | 8. Farm or Lease Name | |
| c/o ROBERT VERQUE | | BREECH "F | |
| P. O. Box 340, Bloomfield, NM 8744 | 13 | 9. Well Number | |
| (505) 63:2-1544 U) | CEDRO | 1-F | |
| 4. Location of Well | NEIVIEW | 10. Filed, Pool, or Wildo | at |
| | DEC G SO | Basin Dakol | ta - South Blanco Tocito |
| <u>~</u> | g 1998 L | 11. Section, Township, & | S. Range, Meridian, or Biock |
| 1654 FSL & 1526' FWL (0)[[[] | Can | 33-27N-6W | |
| 14. Distance in Miles from Nearest Town | DIGGE DITY | 12. County | 13. State |
| 30 miles southeast of Blanco, NM P | ost Office | Rio Arriba | New Mexico |
| 15. Distance from | 16. Acres in L | ease | 17. Acres Assigned to Well |
| Proposed Location | | | |
| To Nearest Property 1526' | 1600 Ac | res | W - 320 Acres |
| Line or Lease Line | İ | | |
| 18. Distance From | 19. Proposed | Depth | 20. Rotary or Cable Tools |
| Proposed Location | | · | - |
| To Nearest Well Orill 436' | 7620' | | ROTARY |
| This action is su | it out to technical and | 64 OR 0 | |
| Digestra revie | pursuant to 43 CFR | क्ष ्ठ. L. | |
| 21. Elevations (DR, RT, GR, Etc.) | | 22. Approximate Date | : Work Vvill Start |
| 6612 GR | | April 15, 19 | |
| 23. Proposed Casing and Cementing Program | | DRULING | OPERATIONS AUTHORIZED ARE |
| | | | TO COMPLIANCE WITH ATTACHED |
| EXHIBITS attached as follows | | | REQUIREMENTS" |
| "A" Location and Elevation Plat | | "F" Drill Rig Layout | • |
| "B" Ten-Point Compliance Program | | "G" Production Facility S | Schematic |
| "C" Blowout Preventer Schematic | | "H" Acerage dedication plat | |
| "D" Multi-Point Requirements for APD | | "I" Archaeolgical Report | |
| "E" Vicinity Map - Access Roads | | . Transagioa Nopa | • |
| L Vicinity Wap - Access Floads | | | |
| 24. Signed Robert L Verquer Robert L Verquer | Title | Superintendent | Date <u>02/20/98</u> |
| House C ver que | | | |
| Permit No. | | Approval Date | |
| Approved By Dlan & An | Title | Contral | Date 5/29/48 |
| | | | |

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

| COMPANY: |
|---|
| FOOTAGE: 1654 FSL, 1526 FWL SEC.: 33 TWN: 27-N RNG: 6-W NMPM ELEVATION: 6612' A 1.0 F 5.5 C 5.4 |
| SEC.: 33 TWN: 27-N RNG: 6-W NMPM ELEVATION: 6612' A 1.00 B 5.4 |
| ELEVATION: 6612' \$\frac{\hat{\lambda}}{\hat{\chi}} \frac{130}{\hat{\chi}} \frac{\hat{\chi}}{\hat{\chi}} \frac{\hat{\chi}}{\ha |
| Å 1.0 0 B 5.4 C 5.4 C 5.4 |
| A 1.0 c 1.30, F 5.5 c 1.00. A 11.5 c 5.4 |
| B 5.4 A' 11.5 |
| B 5.4 A' 11.5 |
| B 5.4 |
| C 5.4 |
| . \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
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| 2/ 4/2/201/215 |
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| WELL. PAD C 8.1 130' F 4.5 C 1 ACCESS RD. 10'- REAR C 5.5 100' |
| S PA 10'- REAR |
| |
| C' C' C 0.5 C/L |
| 6640 |
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| B-B' C/L |
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| C-C' C/_ |
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| 6610 |
| 6600 |
| 6590 |
| 6580 |

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company Breech "F" 1-F 1654' FSL & 1526' FWL, Sec. 33, 27N, 6'W Rio Arriba County, New Mexico Lease No. NM - 03547

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

| Ojo Alamo | 2443 |
|----------------|------|
| Fruitland | 2819 |
| Picture Cliffs | 3080 |
| Chacra | 4066 |
| Point Lookout | 5242 |
| Greenhorn | 7229 |
| Dakota | 7453 |
| TD | 7620 |

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

| Substance | Formation | Depth | Pressure |
|-----------|-----------------|-------|----------|
| Water | Alamo | 2567 | 0 |
| Gas | Fruitland | 3074 | 200 |
| Gas | Pictured Cliffs | 3135 | 450 |
| Gas | Chara | 4083 | 500 |
| Gas | Mesa Verde | 5465 | 1000 |
| Gas | Dakota | 7561 | 1500 |

The proposed casing program will be as follows:

| Depth | Hole Size | O.D. | Weight | Grade | Type | New/Used |
|---|-----------------------------------|----------------------|--------------------------|--------------------------|------------------------------|-------------------|
| 0-450 0-1000 1000-6620 6620-7620 | 12-1/4 8-3/4 8-3/4 8-3/4 | 9-5/8 7 7 7 | 36# 26# 23# 26# | J55 K55 K55 K55 | LT&C LT&C LT&C LT&C | NEW NEW NEW |

The proposed cement program will be as follows:

Surface:

197 sacks class H with 1% CaCl and 1/4# per sack cellophane flake.

VOLUME CALCULATIONS

450 ft x 0.3132 cu-ft/ft with 60% excess = 225 cu-ftYIELD 1.14

PRODUCTION:

Cement will be run in three stages with

stage tools set at approximately 3620' and 5620'.

1st stage

Cement through shoe at approx. 7620' with 180 sacks class B 35/65 poz + 6% gel (bentonite) + 1/4#/sk cellophane flake followed by 87 sacks class H

+ 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS YIELD 1.79 1341 ft x YIELD 1.14 659 ft x C 1341 ft x 0.1503 cu-ft/ft with 60% excess = 322 cu-ft 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

Cement through tool at approx. 5620' with 180 sacks class B 35/65 poz + 6% gel [bentonite] + 1/4#/sk cellophane flake followed by 87 sacks class H + 1% CaCl + 1/4#/sk cellophane flake. 2nd stage

VOLUME CALCULATIONS

1341 ft x 0.1503 cu-ft/ft with 60% excess = 322 cu-ft YELD 1.79 YELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company Breech "F" 1-F 1654' FSL & 1526' FWL, Sec. 33, 27N, 6\W Rio Arriba County, New Mexico Lease No. NM - 03547

3rd stage

Cement through tool at approx. 3620' with 397 sacks class B 35/65 poz + 6% gel [bentonite] + 1/4#/sk cellophane flake followed by B7 sacks class H + 1% CaCl + 1/4#/sk cellophane flake.

VOLUME CALCULATIONS

YELD 1.79 2961 ft x 0.1503 cu-ft/ft with 60% excess = 712 cu-ft YELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

NOTE: Cement volume will be based on information from open hole logs and will be calculated TD to surface plus 10%.

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 floor safety valve and choke manifold with pressure rating equivalent to the BOP stack.

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 |
|----------|--------|-------|---------------|----|-----------|
| 0-450 | 9.0 | 50 | | 9 | Lime |
| 450-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.
 - 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 IEG and FDC from surface pipe to TD.
- Anticipated Abnormal Pressures and Temperatures:

No abnormal pressure, temperatures or hydrogen sulfide gases are enticipated during the course of drilling to TD. The maximum bottom hole pressure to be expected is 1500 psi.

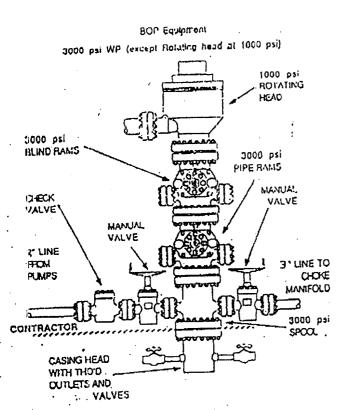
10. Anticipated Starting Date and Duration of the Operations:

The anticipated starting date is set for April 15, 1998, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 25 days.



JERRY WAYNE BANDEL PRESIDENT

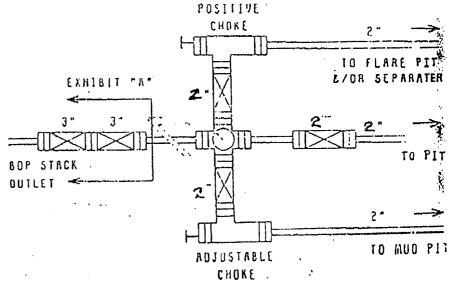
AZTEC, NEW MEXICO 97401



PHONE 334-6191

P. G. BOX "5"

EXHIBIT "B"



MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Caulkins Oil Company Breech "F" 1-F 1654' FSL & 1526' FWL, Sec. 33, 27N, EW Rio Arriba County, New Mexico Lease No. NM - 03547

1. Existing Roads:

- a. The proposed well site and elevation plat is shown as EXHIBIT "A"
- b. Directions: From Largo bridge proceed north on state road 403 and follow directions on EXHIBIT "E".
- c. For access road please see EXHIBIT "E"
- d. All existing roads within a one mile radius are shown on EXHIBIT "E".
- e. This is a replacement infill development well. All roads within one mile radius of the well are shown on EXHIBIT "E".
- All existing roads will be maintained in the same or better condition.
- 2. Planned Access Roads:
 - a. The new access road to the location is shown on EXHIEIT "A"
 - b. The grade will be 10% or less.
 - c. No turnouts are planned.
 - d. Any necessary water bars will be installed.
 - e. Culverts will be installed as directed by BLM. No major cuts and fills are planned.
 - f. Only native materials will be used.
 - g. Gates or cattleguards will be installed where BLM requires.
 - The new access road and all existing roads will be flat bladed and upgraded as deemed necessary by the dirt contractor.

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Caulkins Oil Company Breech "F" 1-F 16:54' FSL & 1526' FWL, Sec. 33, 27N, EW Rio Arriba County, New Mexico Lease No. NM - 03547

- 3. Location of Existing Wells within a one mile radius: EXHIBIT "E"
 - a. Water wells none.
 - b. Abandoned wells one.
 - c. Temporarily abandoned wells none
 - d. Disposal wells none.
 - e. Drilling wells none.
 - f. Producing wells 23
 - g. Injection wells none.
 - h. Monitoring observation wells none.
- Location of Existing and/or Proposed Facilities:
 - a. There are seventeen (13) set(s) of production facilities owned or controlled by Operator within a one mile radius of the proposed well.
 - New facilities contemplated in the event of production are shown approximately as EXHIBIT "G"
 - 1. Two production and two water tanks will be required.
 - 2. All flow lines on well site will be buried below frost line.
 - Dimensions of the facilities will be 130' by 240'.
 - Only native materials will be used except for gravel.
 - The reserve pit will be fenced and allowed to dry. Rehabilitation whether the well is productive or dry, will be made on all unused areas in accordance with BLM stipulations.

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Caulkins Oil Company Breech "F" 1-F 1654' FSL & 1526' FWL, Sec. 33, 27N, 6W Rio Arriba County, New Mexico Lease No. NM - 03547

- Location and Type of Water Supply:
 - a. Water will be hauled from local water wells.
 - b. Water will be hauled to the location from Caulkins water well #130, identified on EXHIBIT "E".
 - c. No water well will be drilled.
- 6. Source of Construction Materials:
 - a. Only native soils will be utilized.
 - No construction materials will be taken off Federal or Indian lands.
 - Surface and subsoil materials in the immediate area will be utilized.
 - d. All major access roads are shown on EXHIBIT "E"
- 7. Methods of Handling Waste Materials:
 - a. Drill cuttings are to be contained and buried in the reserve pit.
 - b. Drilling fluids are to be contained in the reserve pit.
 - c. The produced fluids will be stored in a production tank. Hammable waste is to be contained in the burn pit. Any spills of oil, gas or water or other production fluids will be cleaned up and removed.
 - d. Chemical facilities will be provided for human waste.
 - e. Garbage and non-flammable waste are to be contained in a trash bin and hauled to a landfill. The reserve pit will be fenced on three sides during drilling operations and the fourth side will be fenced when the drilling rig is moved off location.
 - f. All trash, garbage, etc. is to be contained and hauled away. Reserve and mud pits will be allowed to dry after drilling and completion operations are completed and then adequately filled and leveled.

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Caulkins Oil Company Breech "F" 1-F 16:54' FSL & 1526' FWL, Sec. 33, 27N, 6VV Rio Arriba County, New Mexico Lease No. NM - 03547

- 8. Ancillary Facilities: NONE REQUIRED:
- 9. Well Site Layout:
 - a. Drilling Rig layout shown as EXHIBIT "F".
- 10. Plans for Restoration of Surface:
 - a. Restoration of the well site and access road will begin as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
 - In either case, cleanup of the well site will include burning or removal of all waste, filling of the pits, fencing of pits until dry and cleaned up and all accumulated oil on pits will be removed.

11. Other Information:

- a. General Topography is shown on EXHIBIT "E"
- b. There are no known archaeological or cultural sites near the proposed roadway or location. Archaeological survey v/ill be furnished under separate cover.
- Animal life: Domestic livestock plus muledeer, antelope elk and native rodents and scavengers.
- d. Dwellings closest occupied dwelling 1 1/4 miles.
- e. Surface owner:Bureau of Land Management
- f. Restrictions: As specified by BLM.
- Drilling is planned for on or about April 15, 1998, operations should be completed within 25 days.

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Caulkins Oil Company Breech "F" 1-F 1654' FSL & 1526' FWL, Sec. 33, 27N, 6W Rio Arriba County, New Mexico Lease No. NM - 03547

12. Lessee's or Operator's Representative:

Office Robert L Verquer P. O. Box 340 Bloomfield, NM 87413 Phone 632-1544

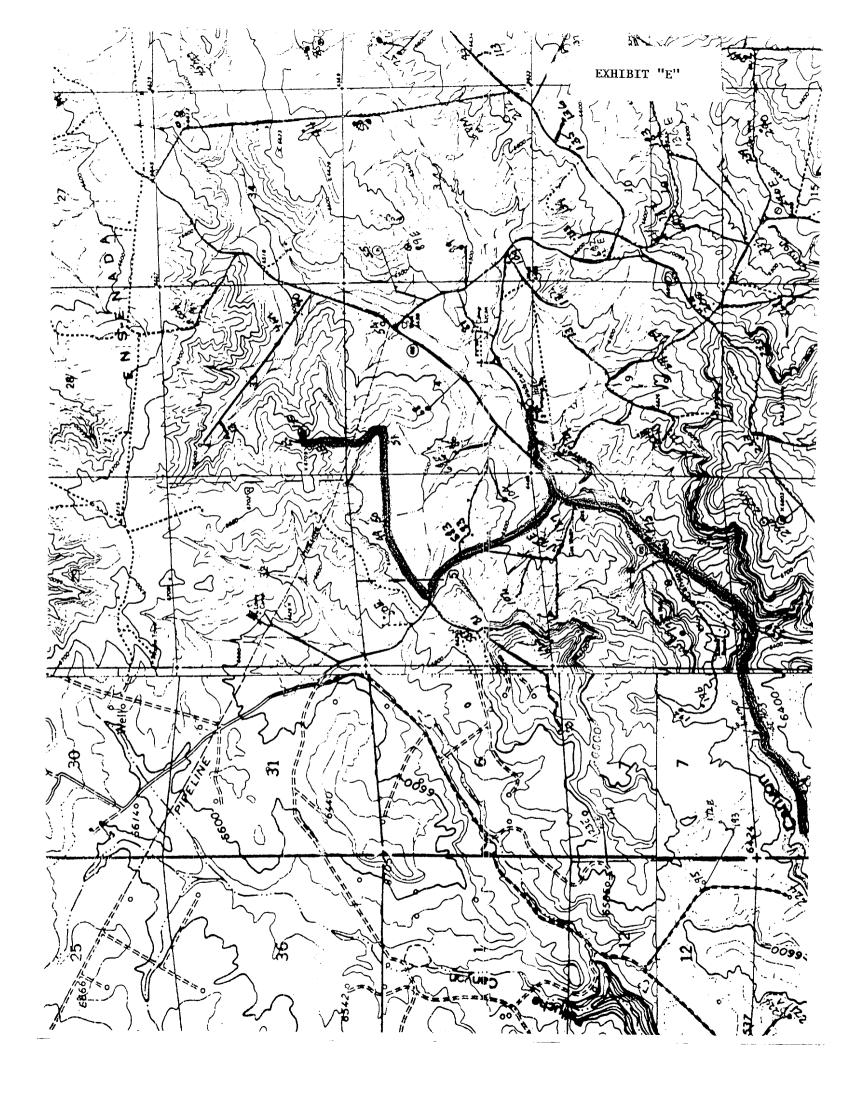
13. CERTIFICATION:

I hereby certify that I or someone under my direct supervision have inspected the proposed drill site and access road: that I am familiar with the conditions that presently exist: that the statement made in this plan are to the best of my knowledge, are true and correct; and that the work associated with the operations proposed herein will be performed by Operator, his contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 2-20-98

Robert L. Verquer Superintendent

Hobert I Verque



o, 1 Deadmen (4) o Toilet Pipe Racks <u> 8</u>8 Cat Walk DRILLING RIG LAYOUT Lay over location plat Well Head 240' Mud Pit (교) (관. Dog House Water Tank Reserve pit 1502 Pusher's Traller Plant Fiel Tank Light Plant Standbu Pump P Mud Pulling Butane O rash Bin Stge. Mud 38 138

Production Facility Schematic **EXHIBIT** G Dak Sales Line Dak Oil Dak Toc Storage Water Sales Tank Tank Line Dak Sep Dak Gas Inlet Well Head Toc Sep Toc Gas Inlet Toc Oil Тос Storage Water Tank Tank . Access Road

| 1. BLM Report No. | 2. (For BLM Use Only) | 3. Recipients Accession No. |
|--|--|--|
| 4. Title of Report: A Cultural Resources Inventory of the Proposed Breech "F" 1F Well Location and Access Road in Rio Arriba County, New Mexico. Author(s): Julie Blair | | 5. Fieldwork Dates: April 18, 1997 |
| | | 6. Report Date: April 24, 1997 |
| 7. Consultant Name and Address: Field Supervisor: Julie Blair General Charge: Roger A. Moore, Jr. Org. Name:Southwest Archaeological Services | | 8. Permit No.: 98-2920-97-Q |
| Org. Address: 102 N. Main Avenue Aztec, New Mexico 87410 | | 9. Consultant Report No.:97-SASI-016S(c) |
| Phone:(505) 334-1 | 678 | |
| 10. Sponsor Name and Address: Ind. Responsible: Robert L. Verquer Org. Name: Caulkins Oil Company Org. Address: P.O. Box 340, Bloomfield, New Mexico 87413 Phone: (505) 632-1544 | | 11. Sponsor Project No.: |
| | | 12. Area of Effect: 1.51 BLMOther Area Surveyed: 5.54 BLMother |
| 13. Location (Maps Attached): a. State: New Mexico b. County: Rio Arriba c. District: Farmington d. Land Status: Bureau of Land Management e. Area: T27N R 6W Sec 33 N 5 SW 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | |
| 14. a. Description of | Undertaking: The proposed a 25 feet wide w 417 | sed project consists of a 230 foot by 240 |

- 14. a. Description of Undertaking: The proposed project consists of a 230 foot by 240 foot well location and a 25 foot wide x 417.87 linear foot access road ROW located on a sagebrush covered slope south of Ensenada Mesa in Rio Arriba County, New Mexico (Figures 1 & 2). The proposed access road begins at the proposed well location and continues southwest to end at an existing bladed road. The construction plat is included as Figure 3.
- b. Existing Data Review: A records check at the BLM-FD was completed on April 14, 1997. An ARMS search was also conducted. There are no sites located within 500 feet of the proposed project. Site NM-01-32435 is located 1500 feet southwest of the proposed project area, but is not visible from the project area. A previously recorded site map is included as Figure 4.
- c. Area Environmental/Cultural Setting: The proposed project is located on a sage-brush covered slope near a small ridge approximately one mile south of Ensenada Mesa. Vegetation consists of a 20% to 40% cover of sagebrush, sparse cactus and grasses, and annuals. Piñon and juniper trees are located on the west edge of the location and into the buffer zone towards the edge of the ridge. Sandstone outcrops appear intermittently in this area as well. The proposed access road begins at the well location and continues southwest to end at an existing bladed road, which lies between the proposed project area and an existing well location.
- d. Field Methods: The well location was inventoried by walking parallel transects spaced 8-10 meters apart covering the project area, plus a 25 foot constuction zone, plus a 100 foot buffer zone. The access road was inventoried by walking parallel transects 8-10 meters apart along the 25 foot ROW and 50 foot buffer zone on each side. Sites and isolates are defined according to B.L.M. Manual Handbook H-8100- 1:1-14 and B.L.M. Special Conditions for Survey Permits (2920).
 - e. Artifacts Collected?: None

- 15. Cultural Resource Findings: No archaeological sites or isolales were found. a. Location/Identification of Each Resource: N/A
 - b. Evaluation of Significance of Each Resource (above): N/A
- 16. Management Summary (Recommendations): No eligible Historic Properties were discovered during the cultural resources survey. Cultural resource approval for this undertaking to proceed is recommended.

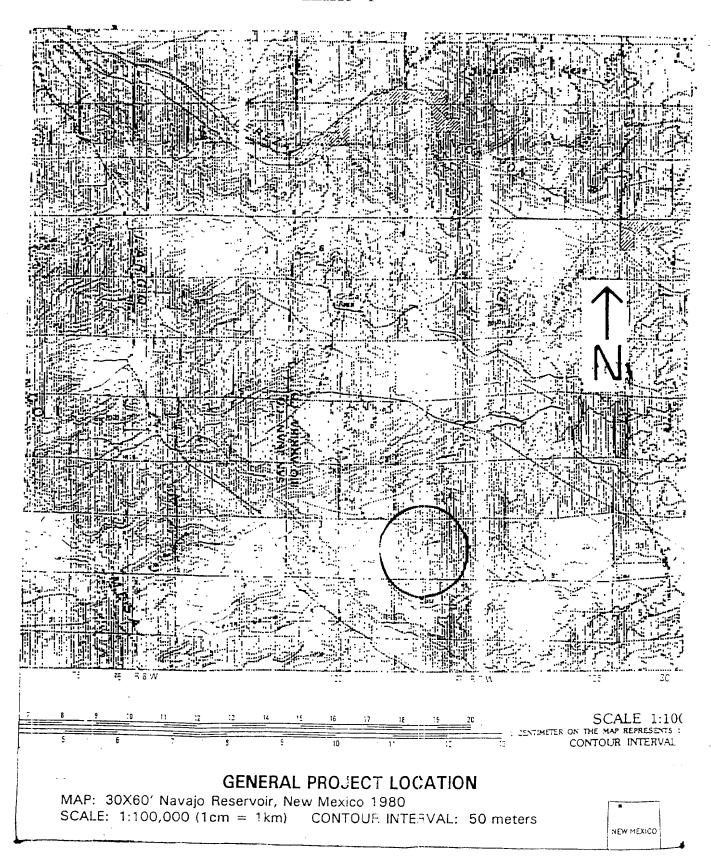


Figure 1

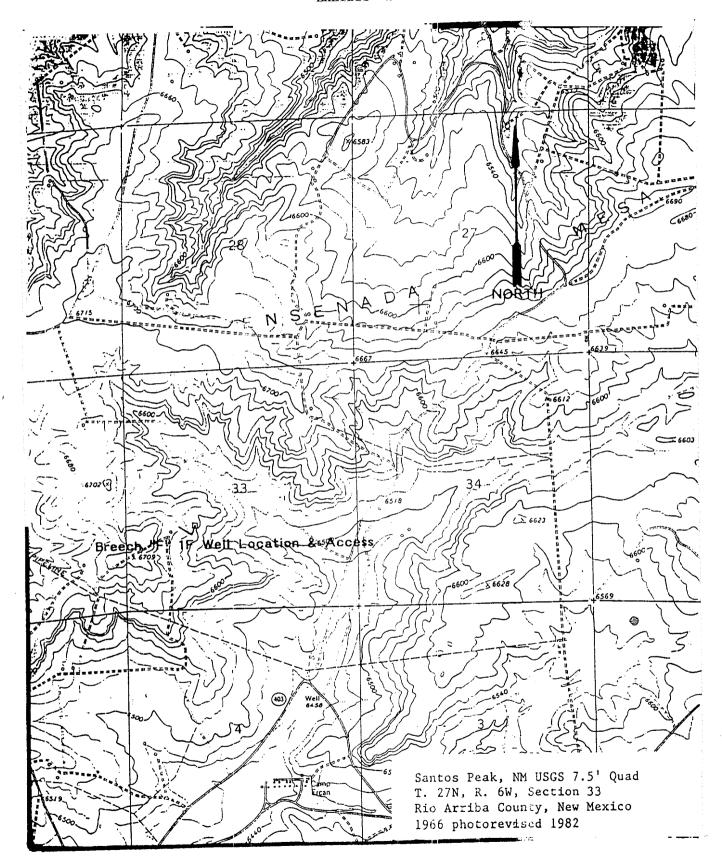
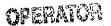


Figure 2



BLM CONDITIONS OF APPROVAL

| Operator Caulkins Oil Company | Well Name 1F Breech F |
|------------------------------------|-------------------------------|
| Legal Location 1654' FSL/1526' FWL | Sec. 33 T. 27 N. R. 6 W. |
| Lease Number NM-03547 | Field Inspection Date 4/21/98 |

The following conditions of approval will apply to this well unless a particular Surface Managing Agency or private surface owner has supplied to BLM and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity.

An agreement between operator and fee land owner will take precedence over BLM surface stipulations unless (In reference to 43 CFR Part 3160) 1) BLM determines that the operator's actions will affect adjacent Federal or Indian surface, or 2) the operator does not maintain well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance, or 3) no such agreement exists, or 4) in the event of well abandonment, minimal Federal restoration requirements will be required.

Special Stipulations:

- 1. No construction, drilling or completion activities shall be conducted between May 1 to July 15 because of antelope fawning.
- 2. The top 6 inches of soil material will be stripped and stockpiled along the side of pad in construction zones.
- 3. The northeast (fill 11.5') corner of the well pad will be rounded off to avoid the existing drainage.
- 4. Diversion ditch(es) will be constructed on the west and south sides of location above the cut slope, draining to the north and east.
- 5. The final cut slope shall not exceed a 3:1 ratio. The final fill slope shall not exceed a 3:1 ratio. To obtain this ratio, pits and slopes shall be backsloped into the pad upon completion of drilling and prior to setting production equipment. Construction slopes can be much steeper during drilling, but will be contoured to the above final slopes upon reclamation.
- 6. All above ground structures shall be painted to blend with the natural color of the landscape. The paint used shall be: Federal 595a-34127 (Juniper Green)

Road Stipulations:

7. The road shall have a driving surface of 14 feet, with an additional 5 feet on each side for bar ditches, for a maximum bladed width of 24 feet.

- 8. Crowning and ditching on both sides of the road is required. The road cross section will conform to the cross section diagrams available from BLM. The crown shall have a grade of approximately two percent (i.e., two inch crown on a 14 foot wide road).
- 9. Drainage control shall be ensured over the entire road through the use of borrow ditches, drainage dips, outsloping, insloping, natural rolling topography, and/or turnout (lead-off) ditches. Every drainage dip shall drain water into an adjacent turnout ditch. Culverts of sufficient size to handle the drainage (minimum 18 inches) shall be placed where needed in the access road.
 - 10. If needed, culverts of sufficient size (minimum 18") will be placed in the access road.
- 11. Surfacing may be applied at the Holder's discretion, but is not required at this time. However, if it becomes evident there is resource damage or it becomes evident the road is receiving excess damage, surfacing will be required.

I. LOCATION, ACCESS ROAD AND PIPELINE

- 1. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site.
- 2. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.
- 3. Mud pits and blow pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids. At least half of the capacity of the reserve pit must be in cut. The top of the outside wall of reserve pit should be smoothed-off with a minimum of one blade width. The pit should have adequate capacity to maintain 2 feet of free board. Pits are not to be located in natural drainages. Pit walls are to be "walked down" by a crawler type tractor following construction and prior to usage. Any plastic material used to line pits must be removed to below-ground level before pits are covered. The final grade of reserve pit (after reclamation) shall allow for drainage away from pit area.
- 4. All unguarded pits (reserve/production/blow pits) containing liquids will be fenced with woven wire. Drilling pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced. All fencing must be a legal fence in accordance with New Mexico State Law. Liquids in pits will be allowed to evaporate, or be properly disposed of, before pits are filled and recontoured. (This office will be notified 24 hours prior to fluid hauling). Under no circumstances will pits be cut and drained. Aeration of pit fluids must be confined within pit area. Upon completion of the well the reserve pit will be covered with screening or netting and remained covered until the pit is reclaimed. All production pits 16 feet in diameter or larger will be covered with screening or netting.
- 5. No gravel or other related minerals from new or existing pits on Federal land will be used in construction of roads, well sites, etc., without prior approval from the Surface Managing Agency.
- 6. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks, or the combined capacity of tanks if a rupture could drain more than one tank. Berm walls will be compacted with appropriate equipment to assure proper construction.

- 7. All roads on public land must be maintained in good passable condition.
- 8. The Holder shall conduct all activities associated with the construction, operation, and termination of the right-of-way within the authorized limits of the right-of-way.
- 9. A copy of these stipulations, including exhibits and the Plan(s) of Operation (if required), shall be at the project area and available to persons directing equipment operation.
- 10. Disposal of all liquid and solid waste produced during operation of this right-of-way shall be in an approved manner so it will not impact the air, soil, water, vegetation or animals.
- 11. Holder shall not violate applicable air and water quality standards or related facility siting standards established by or pursuant to applicable Federal and State law.
- 12. Use of pesticides and herbicides shall comply with the applicable Federal and State laws. Pesticides and herbicides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, Holder shall obtain from the Authorized Officer (AO) written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the AO. Emergency use of pesticides shall be approved in writing by the AO prior to use.
- 13. Holder shall be responsible for weed control on disturbed areas within the limits of the well pad, associated road and pipeline ROW. The Holder is responsible for consultation with the AO and/or local authorities for acceptable weed control methods within limits imposed in the conditions of approval.
- 14. Holder shall conduct all activities associated with construction, operation and termination of the right-of-way within the authorized limits of the right-of-way.
- 15. Disposal of all liquid and solid waste produced during operation of this right-of-way shall be in an approved manner so it will not impact the air, soil, water, vegetation or animals.
- 16. Holder shall not violate applicable air and water quality standards or related facility siting standards established by or pursuant to applicable Federal and State law.
- 17. Holder shall minimize disturbance to existing fences and other improvements on public land. Holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. Holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be H-braced on both sides of the passageway prior to cutting the fence.
- 18. Construction sites shall be maintained in a sanitary condition at all times; waste materials at those sites shall be disposed of promptly at an appropriate waste disposal site. 'Waste' means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment.
- 19. Holder shall maintain the ROW in a safe, useable condition, as directed by the Authorized Officer (AO). (A regular maintenance program shall include, but is not limited to, soil stabilization.)

II. CULTURAL RESOURCES (ARCHAEOLOGY)

- 1. Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, the operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to the BLM District Manager. The BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by the BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed. Failure to notify BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).
- 2. Discovery of Cultural Resources During Monitoring: If monitoring confirms the presence of previously unidentified cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM District Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery and consult with the State Historic Preservation Officer in accordance with 36 CFR Section 800.11. Minor recordation, stabilization, or data recovery may be performed by BLM or a permitted cultural resources consultant. If warranted, more extensive treatment by a permitted cultural resources consultant may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any required treatment is completed.
- 3. Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare and have executed a BLM approved data recovery plan. Damage to cultural resources may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act of 1979 (as amended).

III. RESEEDING AND ABANDONMENT

THIS IS A CUSTOM SEED MIXTURE:

| Western Wheatgrass (Agropyron smithii) | 3 lbs. |
|---|--------|
| Indian Ricegrass (Orysopsis hymenoides) | 3 lbs. |
| Galleta (Hilaria jamesii) | 2 lbs |
| Blue Grama (Bouteloua gracilis) | 2 lbs. |
| Alkali Sacaton (hand seed prior to drilling | 1 lb. |
| the rest of the mixture) | |

Species shall be planted in pounds of pure live seed per acre:

Present Pure Live Seed (PLS) = Purity X Germinatics/100

Two lots of seed can be compared on the basis of PLS as follows:

| Source No. One (poor quality) | | Source No. two (better quality) | | |
|-------------------------------|----------------|---------------------------------|----------------|--|
| Purity | 50 percent | Purity | 80 percent | |
| Germination | 40 percent | Germination | 63 percent | |
| Percent PLS | 20 percent | Percent PLS | 50 percent | |
| 5 lb. bulk se | ed required to | 2 lb. bulk se | ed required to | |
| make 1 lb. F | PLS. | make 1 lb. P | LS. | |

Seed mixture used must be *certified*. There shall be <u>no</u> primary or secondary noxious weeds in seed mix. Seed labels from each bag shall be available for inspection while seeding is being accomplished.

Seeding shall be accomplished between July 1 and September 15 (later date may be extended on a case-by-case basis with Authorized Officer approval). Seeding shall be repeated if a satisfactory stand is not obtained as determined by the Authorized Officer upon evaluation after the second growing season.

Compacted areas shall be ripped to a depth of 12" and disked to a depth of six inches before seeding. Seed with a disk-type drill with two boxes for various seed sizes. The drill rows shall be eight to ten inches apart. Seed shall be planted at not less than one-half inch deep or more than one inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed, and adequate compaction. Drilling shall be done on the contour where possible, not up and down the slope.

Where slopes are too steep for contour drilling a "cyclone" hand seeder or similar broadcast seeder shall be used. Seed shall then be covered to the depth described above by whatever means is practical, i.e. hand raked. If the seed is not covered, the prescribed seed mixture amount (pounds/acre/PLS) will be doubled.

If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of affected areas may be required.)

ABANDONMENT: Ninety days prior to termination of the ROW, Holder shall contact the AO to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination (and rehabilitation) plan. This plan shall include, but is not limited to, removal of facilities, drainage structures, or surfacing material, recontouring, topsoiling or seeding. The AO must approve the plan in writing prior to the Holder's commencement of any termination actions.

STANDARD ROAD (RIGHT-OF-WAY) STIPULATIONS

- 1. Unless otherwise approved in writing by the AO, this road will be designed and constructed to conform with the BLM, NM road construction/maintenance policy.
- 2. Public access along this road will not be restricted by the Holder without specific written approval being granted by the AO. Gates or cattleguards on the public land will not be locked or closed to public use unless specifically determined by the AO.
- 3. Unless otherwise approved in writing by the AO, drainage dip location for grades over two (2) percent shall be determined by the formula:

Spacing Interval =
$$\frac{400}{\text{road slope }\%}$$
 + 100'.

Example: For a road with a four (4) percent slope.

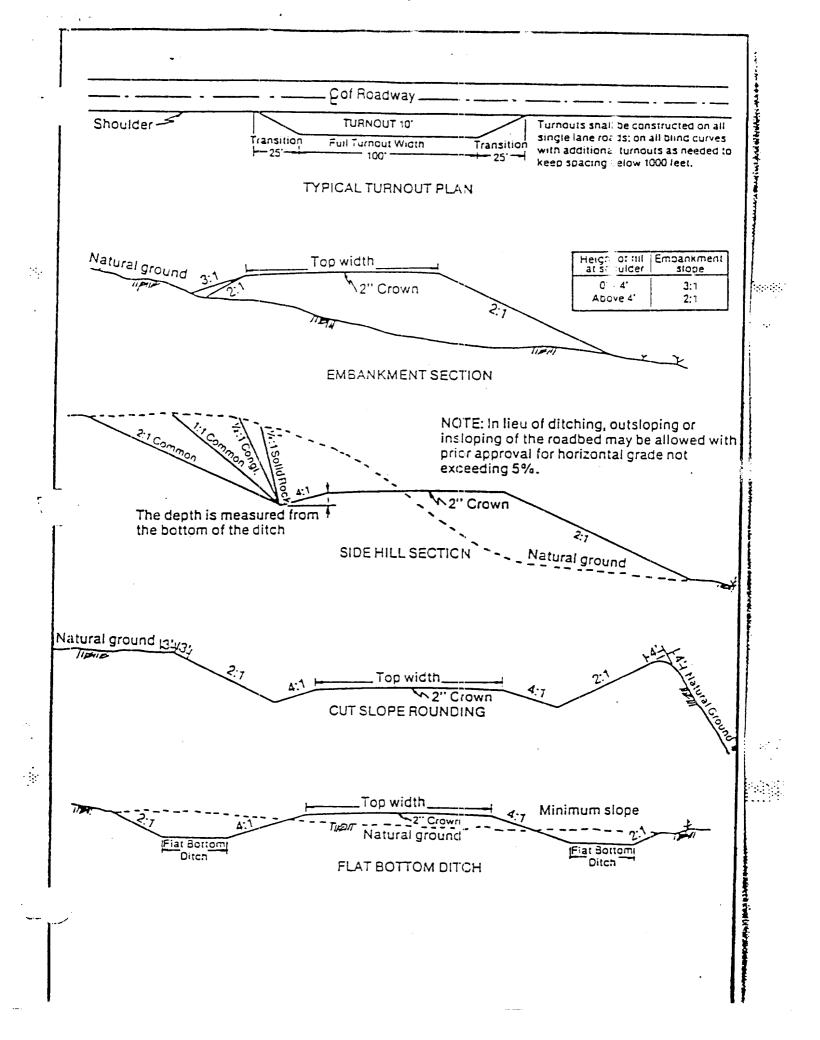
Spacing Interval =
$$\frac{400}{4\%}$$
 + 100' = 200 feet

4. Unless otherwise approved in writing by the AO, all turnout ditches shall be graded to drain water with a one (1) percent minimum to three (3) percent maximum ditch slope. The spacing interval for turnout ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road grade:

SPACING INTERVAL FOR TURNOUT DITCHES

| Percent Slope | Spacing Interval |
|---------------|------------------|
| 0 - 4% | 150 - 350 feet |
| 4 - 6% | 125 - 250 fest |
| 6 - 8% | 100 - 200 feet |
| 8 - 10% | 75 - 150 feet |

- 5. Maintain the road so that user traffic remains within right-of-way and erosion is mitigated. Roads and road segments where serious erosional damage is occurring will be handled on a case-by-case basis. "Flat blading" will be avoided where practical. A typical exemption would be where bedrock is exposed at the surface. Road(s) will be maintained so that over time a proper road prism and good drainage is achieved. Maintenance will include drainage dips, turnout ditches, crowning and/or out-sloping/in-sloping, low water crossings and vehicle turnouts. Cattleguards and culverts will be cleaned and repaired or replaced. Surfacing may be required.
- 6. Failure of Holder to share maintenance costs in dollars, equipment, materials or man-power proportionate to Holder's use with other authorized users may be adequate grounds to terminate ROW grant. The determination as to whether this has occurred and the decision to terminate shall rest with the AO. Upon request, the AO shall be provided with copies of any maintenance agreement entered into.



DISTR'CT I P.O. Hox 1980, Hobbs, N.M. 88241-1980

State of New Mexico

Form C-102
Revired Febuary 21, 1994
Instructions on back
Submit to Appropriate District Office
St te Lease - 4 Copies

DISTRICT II P.O. I'rawer DD, Artesia, N.M. 88211-0719

| P.O. Irrawer DD, A DISTRICT III 1000 Rio Brazos I | OIL CONSERVATION DIVISIONRECEIVED P.O. BOX 2088 | | | | | | | 'ee Lease - 3 Copie | | | |
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| 2460 | | BREECH "F" | | | | | | | 1F | | |
| OGRID No. | | *Operator Name CAULLINS OIL COMP/. NY | | | | | | | Elevation | | |
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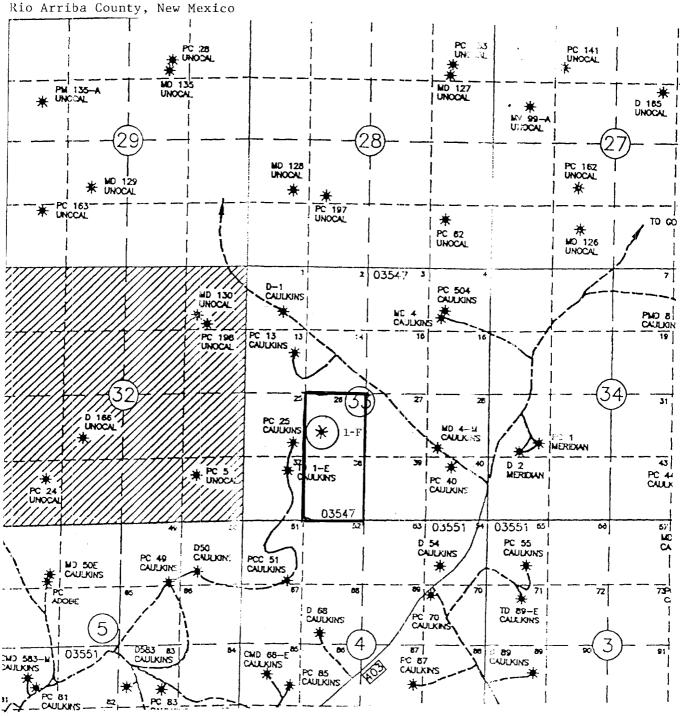
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CAULKINS OIL COMPANY

P.O. BOX 340 BLOOMFIELD, NEW MEXICO 87413

Breech "F" 1-F
NE 1/4 SW 1/4, Sec. 33-27N-6W
Rio Arriba County New Mexico



l-F Identified by circle
Dedicated acreage East half of Southwest Quarter

CAULKINS OIL COMPANY

P. O. BOX 340 BLOOMFIELD, NEW MEXICO 87413 PHONE: 505-632-1544 FAX 505-632-1471

November 24, 1998

The following list is all the offset operators from Caulkins Oil Company's Breech "F" 1-F, section 33, township 27N, range 6W.

Burlington Resources, Inc. P.O. Box 4289 Farmington, NM 87499

Little Oil & Gas, Inc. P.O. Box 1258 Farmington, NM 87499

Unocal 1004 Big Spring Midland, TX 79702