

NSL 12/29/98

CAULKINS OIL COMPANY

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

December 4, 1998

DEC - 9 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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5 NMNM-03547

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--" for such proposals)

6. If Indian, Allocated or Tribe Name

7. Unit Agreement Name

1. Oil Well Gas Well Other
GAS WELL

8. Well Name and No.

BREECH "F" 1-F

2. Name of Operator:

Caulkins Oil Company

9. API Well No.

30-039-25876
unassigned

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

10. Field and Pool, Exploratory Area

BASIN DAKOTA, TOCITO

4. Location of Well (Footage, Sec., Twp., Rge.)

1654' F/S 1526' F/W

SEC. 33-27N-6W

11. Country or Parish, State

Rio Arriba Co., New Mexico

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input checked="" type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other _____	<input type="checkbox"/> Dispose Water

17. Describe Proposed or Completed Operations:

4-24-98

Amend Application to Drill.

We now intend to drill 8 3/4" hole with 7" 23# and 26# K-55 casing run surface to TD.

Amended ten point compliance program attached.

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.

RECEIVED
BLM
50 APR 29 PM 1:18
070 FARMINGTON, NM

NOTE: The format is issued in lieu of U.S. BLM Form 3160-5

18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT

SIGNED: Robert L. Verquer TITLE: Superintendent DATE: April 27, 1998
ROBERT L. VERQUER

APPROVED BY: [Signature] TITLE: [Signature] DATE: 5/29/98
CONDITIONS OF APPROVAL, IF ANY

OPERATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM

50 FEB 23 PM 1:20

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL		5. Lease Number U70 FARMINGTON, NM NM-03547	
1b. Type of Well GAS		6. If Indian, Name of Allottee or Tribe	
2. Operator CAULKINS OIL COMPANY		7. Unit Agreement Name	
3. Address & Phone No. of Operator c/o ROBERT VERQUER P. O. Box 340, Bloomfield, NM 87413 (505) 632-1544		8. Farm or Lease Name BREECH "F"	
		9. Well Number 1-F	
4. Location of Well 1654 FSL & 1526' FWL		10. Filed, Pool, or Wildcat Basin Dakota - South Blanco Tocito	
		11. Section, Township, & Range, Meridian, or Block 33-27N-6W	
14. Distance in Miles from Nearest Town 30 miles southeast of Blanco, NM Post Office.		12. County Rio Arriba	13. State New Mexico
15. Distance from Proposed Location To Nearest Property Line or Lease Line. 1526'	16. Acres in Lease 1600 Acres	17. Acres Assigned to Well W - 320 Acres	
18. Distance From Proposed Location To Nearest Well Drill, Compl., Or Applied For on Lease 436' This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.	19. Proposed Depth 7620'	20. Rotary or Cable Tools ROTARY	
21. Elevations (DR, RT, GR, Etc.) 6612 GR		22. Approximate Date Work Will Start April 15, 1998	

23. Proposed Casing and Cementing Program

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

EXHIBITS attached as follows

- | | |
|--------------------------------------|-----------------------------------|
| "A" Location and Elevation Plat | "F" Drill Rig Layout |
| "B" Ten-Point Compliance Program | "G" Production Facility Schematic |
| "C" Blowout Preventer Schematic | "H" Acreage dedication plat |
| "D" Multi-Point Requirements for APD | "I" Archaeological Report |
| "E" Vicinity Map - Access Roads | |

24. Signed Robert L. Verquer Title Superintendent Date 02/20/98
Robert L. Verquer

Permit No. _____ Approval Date _____

Approved By Debra M. Spivey Title Team Lead Date 5/29/98

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

OPERATOR

EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

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

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

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

4. The proposed casing program will be as follows:

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

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

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 0.1503 cu-ft/ft with 60% excess = 322 cu-ft

YIELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

2nd stage

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.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1503 cu-ft/ft with 60% excess = 322 cu-ft

YIELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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 87 sacks class H + 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 2961 ft x 0.1503 cu-ft/ft with 60% excess = 712 cu-ft
YIELD 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.

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.

Table with 6 columns: Interval, Mud Wt, Vis, Fluid Loss, Ph, Additives. Rows include 0-450 and 450-TD intervals.

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 - IEG and FDC from 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 April 15, 1998, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 25 days.

EXHIBIT "C"



PHONE 33A-6191
P. O. BOX "B"

JERRY WAYNE BANDEL
PRESIDENT

AZTEC, NEW MEXICO 87401

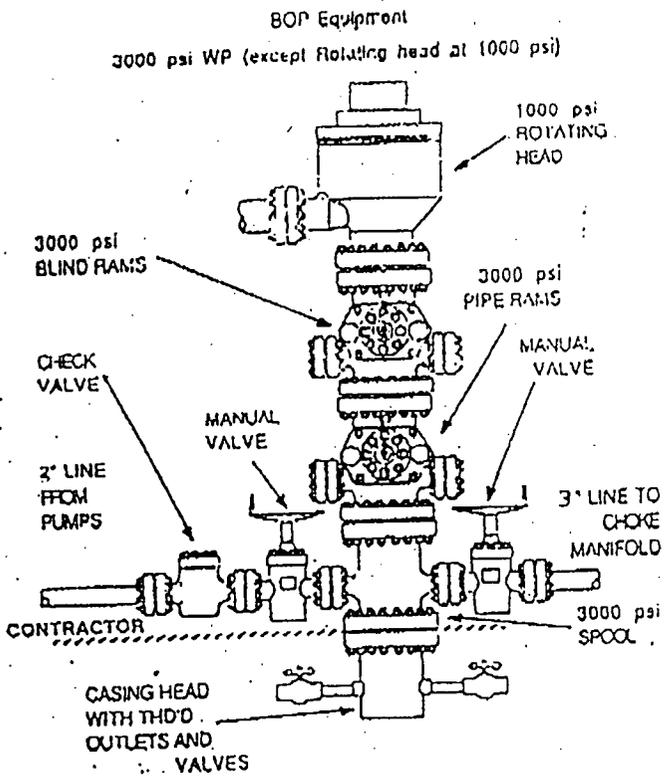


EXHIBIT "B"
CHOKE MANIFOLD

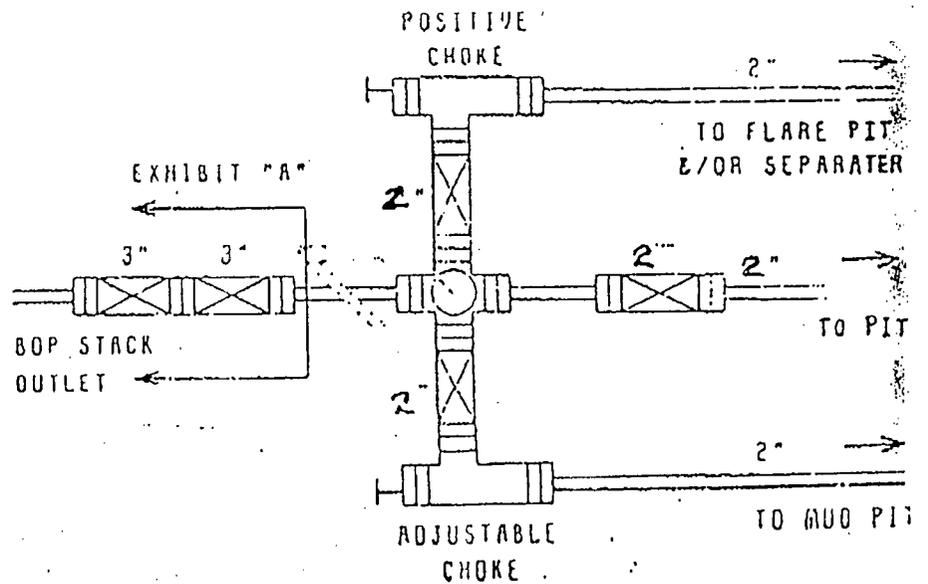


EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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".
 - f. 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 EXHIBIT "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.
 - h. The new access road and all existing roads will be flat bladed and upgraded as deemed necessary by the dirt contractor.

EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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.
4. 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.
 - b. 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.
 3. Dimensions of the facilities will be 130' by 240'.
 4. Only native materials will be used except for gravel.
 5. 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.

EXHIBIT "D"

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

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

5. 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.
 - b. No construction materials will be taken off Federal or Indian lands.
 - c. 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. Flammable 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.

EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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.
 - b. 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 will be furnished under separate cover.
 - c. 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.
 - g. Drilling is planned for on or about April 15, 1998, operations should be completed within 25 days.

EXHIBIT "D"

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

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

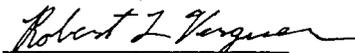
12. Lessee's or Operator's Representative:

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.

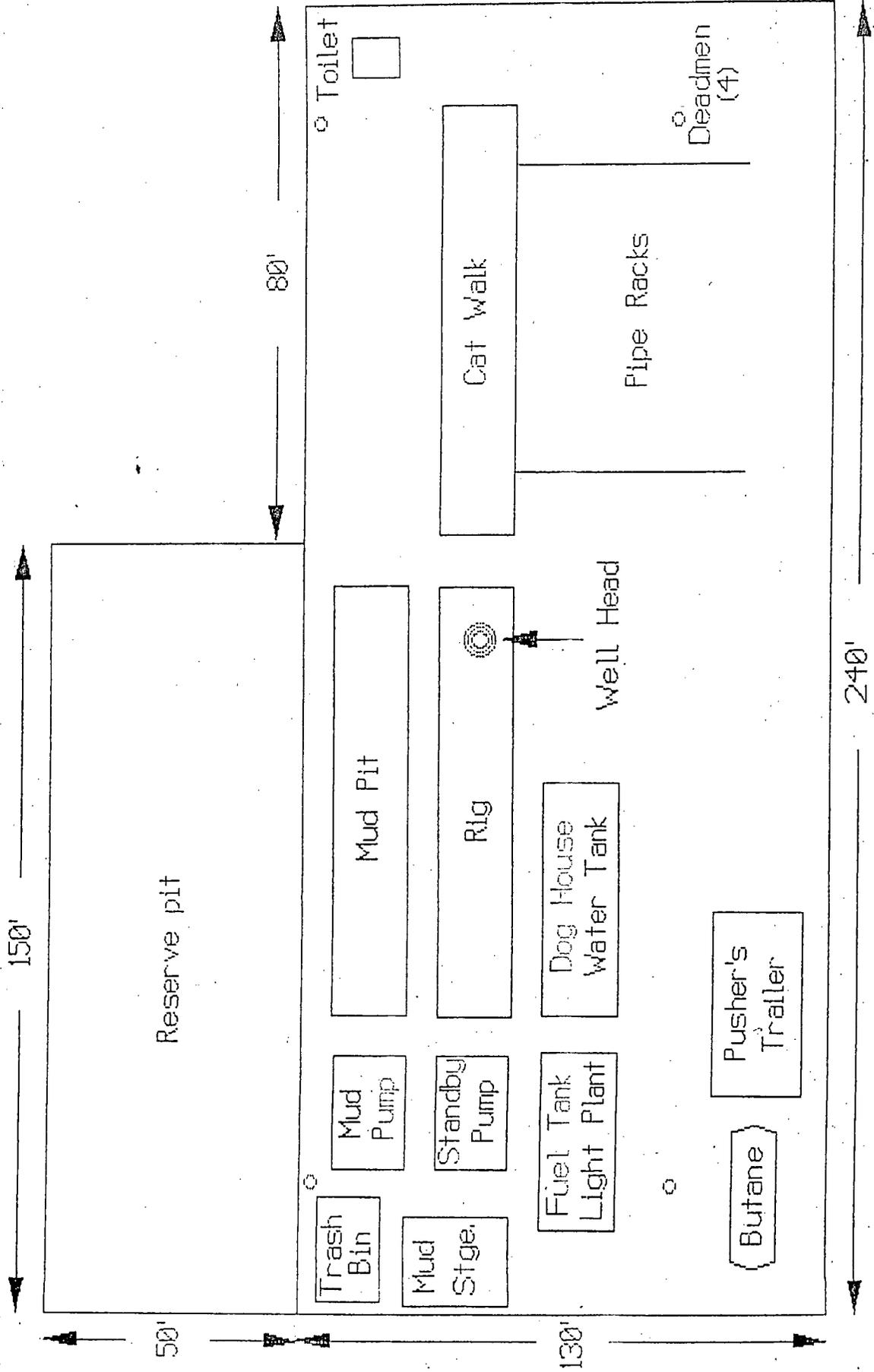
Date: 2-20-98


Robert L. Verquer
Superintendent

DRILLING RIG LAYOUT

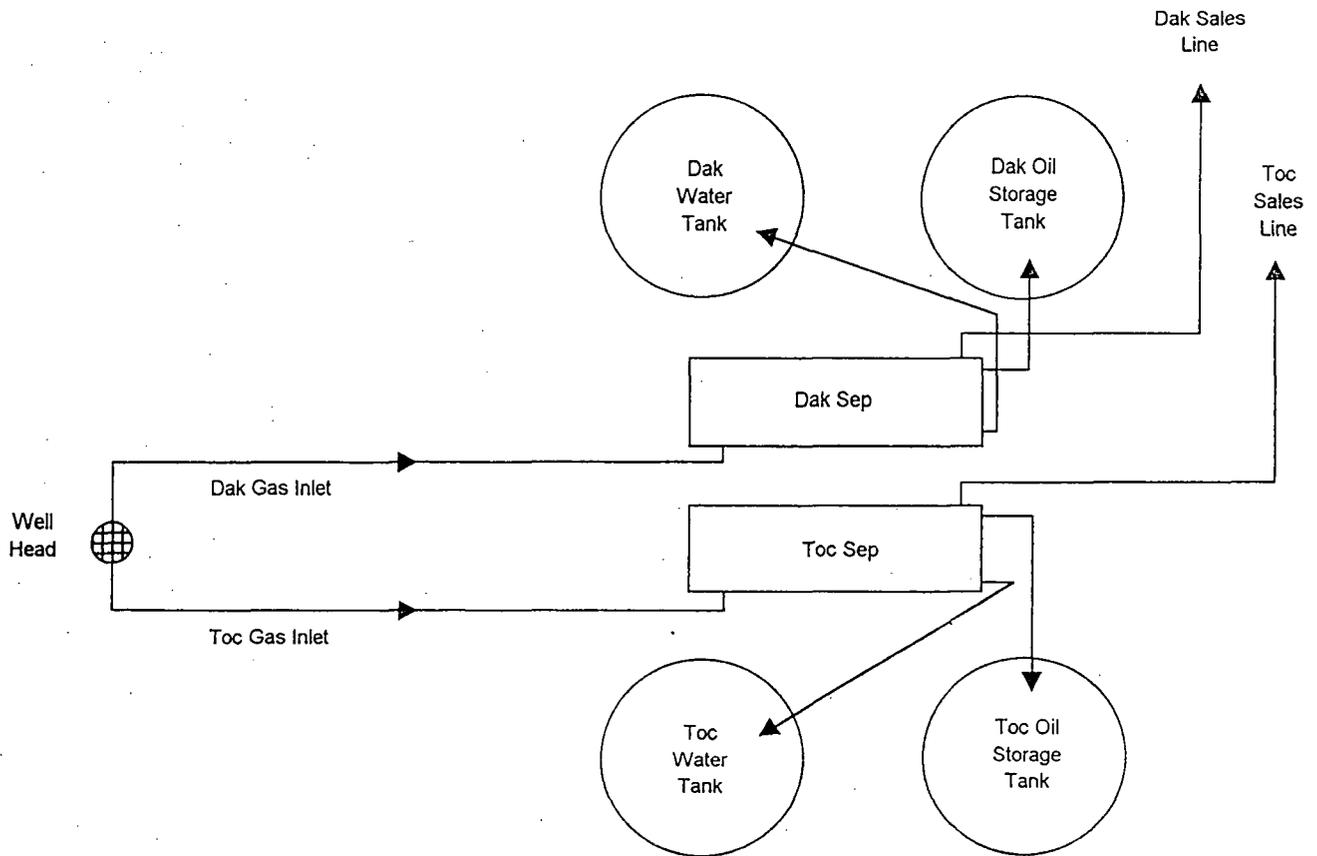
EXHIBIT F

Lay over location plat



Production Facility Schematic

EXHIBIT G



Access Road



EXHIBIT "I"

ARCHAEOLOGICAL INFORMATION REPORT FORM

BLM/FDO 1/94

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 Org. Address: 102 N. Main Avenue Aztec, New Mexico 87410 Phone: (505) 334-1678		8. Permit No.: 98-2920-97-Q 9. Consultant Report No.: 97-SASI-016S(c)
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: <u>1.51</u> BLM <u> </u> Other Area Surveyed: <u>5.54</u> BLM <u> </u> other
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 $\frac{1}{2}$ SW $\frac{1}{4}$ f. Footages: 1654' FSL, 1526' FWL (well location) g. 7.5' Map Name(s): Santos Peak 1966 p. rev. 1982		
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 sagebrush 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 construction 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		

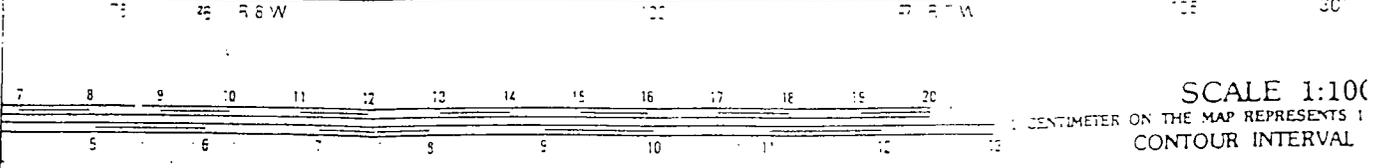
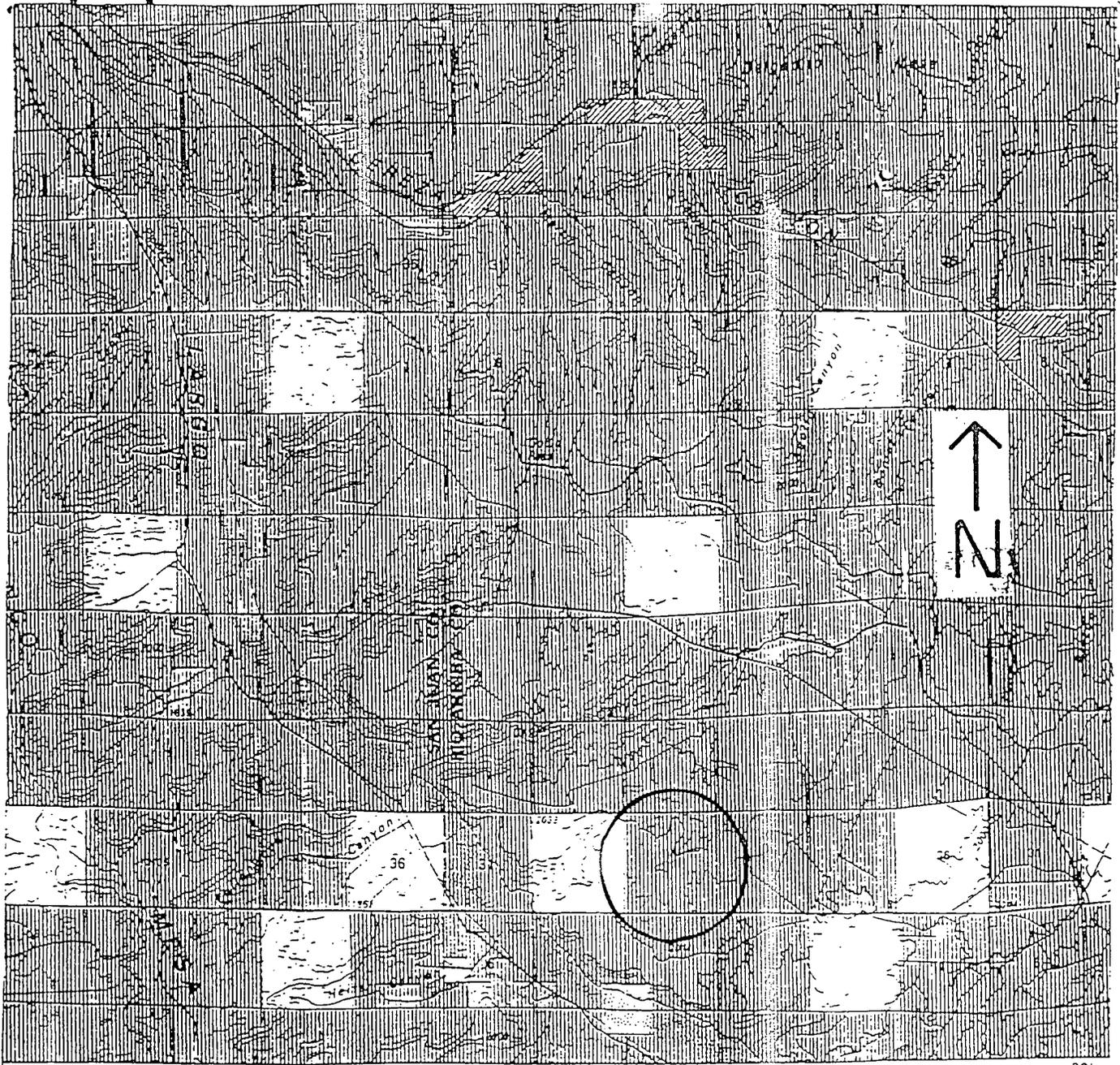
EXHIBIT "I"

15. Cultural Resource Findings: No archaeological sites or isolates 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.

EXHIBIT "I"



GENERAL PROJECT LOCATION

MAP: 30X60' Navajo Reservoir, New Mexico 1980

SCALE: 1:100,000 (1cm = 1km) CONTOUR INTERVAL: 50 meters



Figure 1

EXHIBIT "A"

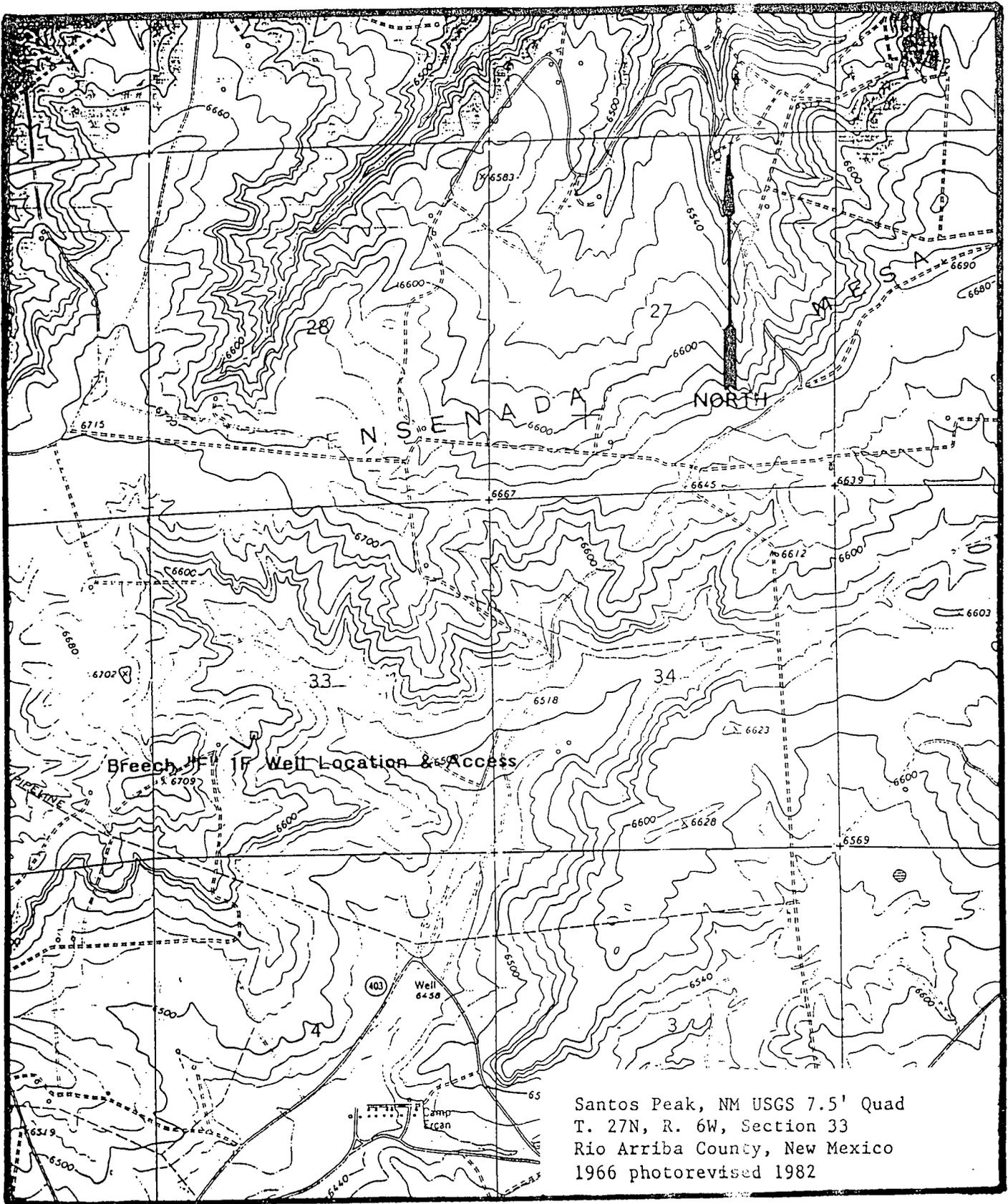


Figure 2

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 Projection Act of 1979 (as amended).

III. RESEEDING AND ABANDONMENT

THIS IS A CUSTOM SEED MIXTURE:

- Western Wheatgrass (*Agropyron smithii*).....3 lbs.
- Indian Ricegrass (*Oryopsis 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 Germination/100

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

<u>Source No. One (poor quality)</u>		<u>Source No. two (better quality)</u>	
Purity	50 percent	Purity	80 percent
Germination	40 percent	Germination	63 percent
Percent PLS	20 percent	Percent PLS	50 percent
<i>5 lb. bulk seed required to make 1 lb. PLS.</i>		<i>2 lb. bulk seed required to make 1 lb. PLS.</i>	

Seed mixture used must be *certified*. There shall be no 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:

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

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

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

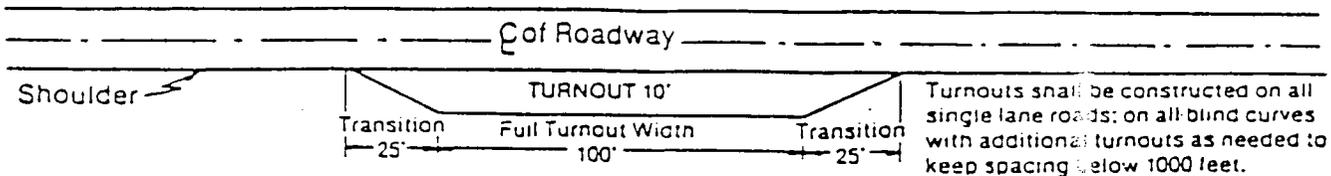
4. Unless otherwise approved in writing by the AO, all turnout ditches shall be graded to drain water with a one (1) percent minimum to three (3) percent maximum ditch slope. The spacing interval for turnout ditches shall be determined according to the following table, but may be amended depending upon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

SPACING INTERVAL FOR TURNOUT DITCHES

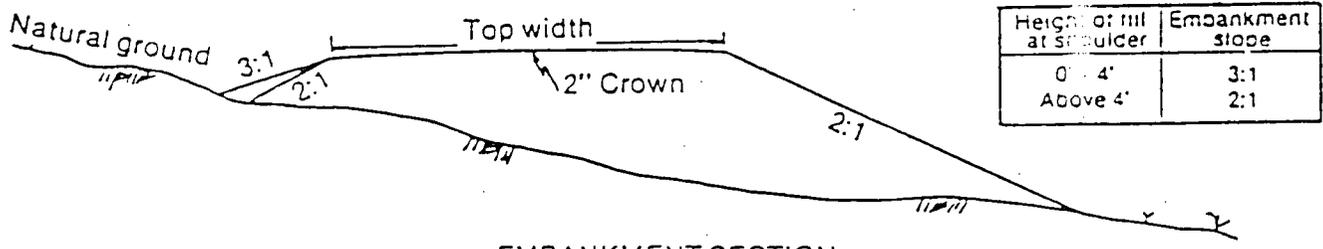
<u>Percent Slope</u>	<u>Spacing Interval</u>
0 - 4%	150 - 350 feet
4 - 6%	125 - 250 feet
6 - 8%	100 - 200 feet
8 - 10%	75 - 150 feet

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.

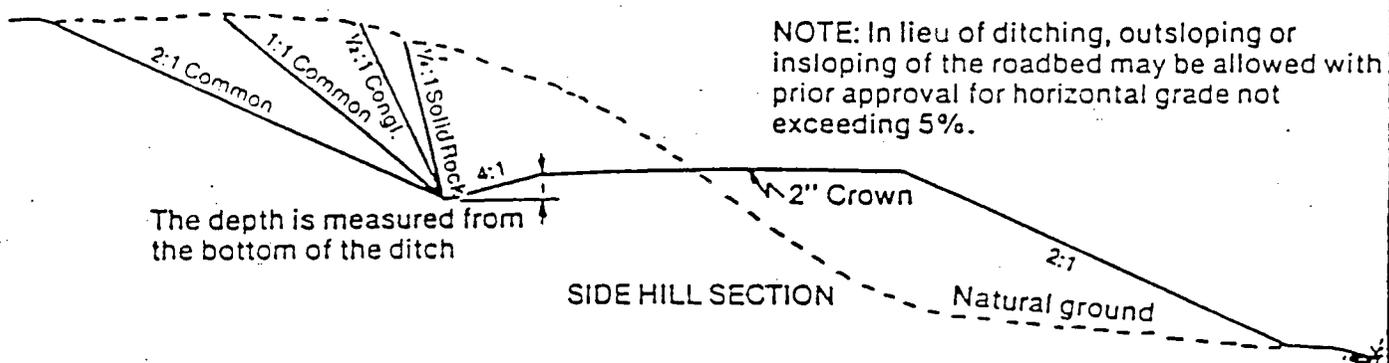
6. Failure of Holder to share maintenance costs in dollars, equipment, materials or man-power proportionate to Holder's use with other authorized users may be adequate grounds to terminate ROW grant. The determination as to whether this has occurred and the decision to terminate shall rest with the AO. Upon request, the AO shall be provided with copies of any maintenance agreement entered into.



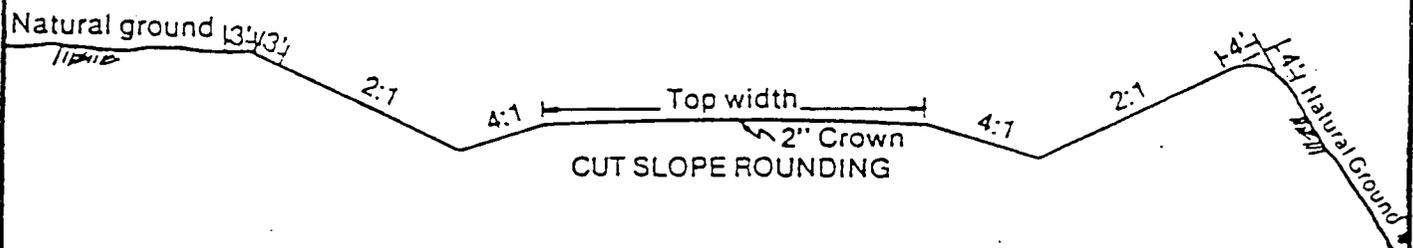
TYPICAL TURNOUT PLAN



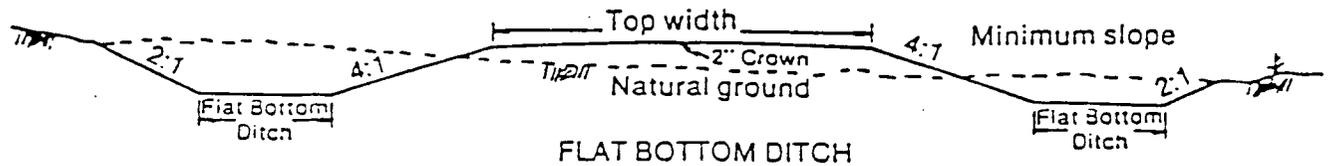
EMBANKMENT SECTION



SIDE HILL SECTION



CUT SLOPE ROUNDING



FLAT BOTTOM DITCH

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Geology, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

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

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

RECEIVED
BLM
98 MAR -3 PM 1:10

AMENDED REPORT

DISTRICT IV
PO Box 2088, Santa Fe, NM 87604-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code 06460		*Pool Name South Blanco Tocito	
*Property Code 2460		*Property Name BREECH "F"			*Well Number 1F
*OGRID No. 003824		*Operator Name CAULPINS OIL COMPANY			*Elevation 6612

¹⁰ Surface Location

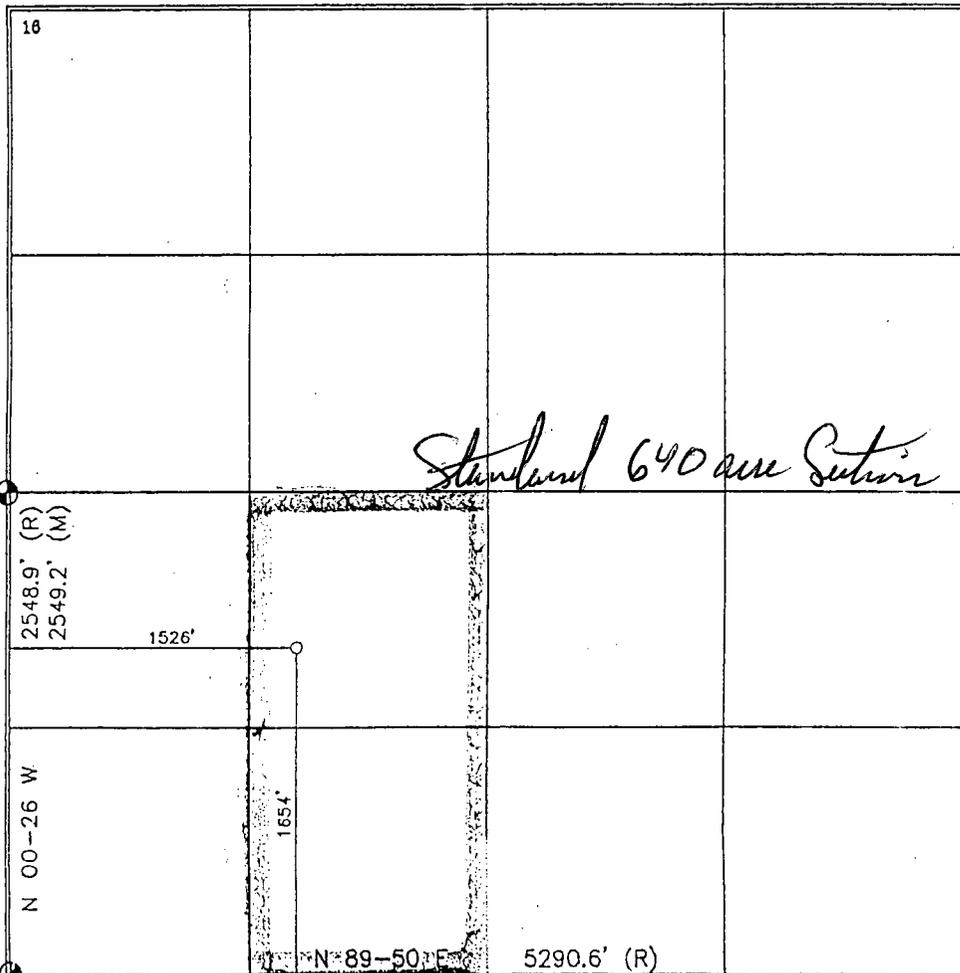
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	33	27N	6W		1654	SOUTH	1526	WEST	RIO ARRIBA

¹¹ 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

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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



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. Verquer
Signature

Robert L. Verquer
Printed Name

Superintendent
Title

February 27, 1998
Date

¹⁸ SURVEYOR CERTIFICATION

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 belief.

APR 10 1998
Date of Survey

[Signature]
Signature and Seal of Professional Land Surveyor.

REGISTERED PROFESSIONAL LAND SURVEYOR
NEW MEXICO
8894

Certificate Number

B.C.
M.

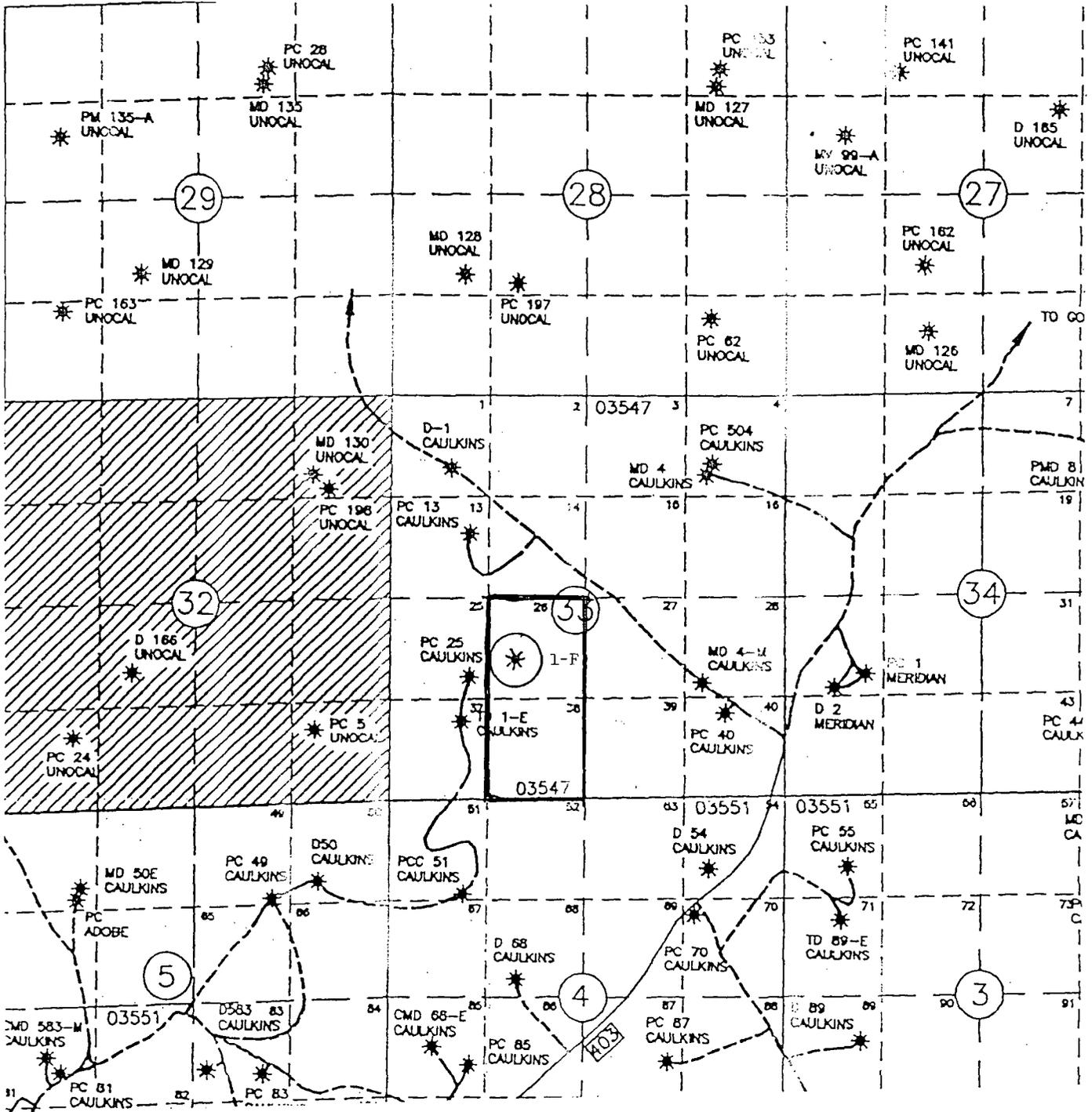
B.C.
M.

CAULKINS OIL COMPANY

P.O. BOX 340

BLOOMFIELD, NEW MEXICO 87413

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



1-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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5 NMNM-03547

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--" for such proposals)

6. If Indian, Allocated or Tribe Name

7. Unit Agreement Name

1. Oil Well Gas Well Other
GAS WELL

8. Well Name and No.

BREECH "F" 1-F

2. Name of Operator:

Caulkins Oil Company

9. API Well No.

30-039-25876
unassigned

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

10. Field and Pool, Exploratory Area

BASIN DAKOTA, TOCITO

4. Location of Well (Footage, Sec., Twp., Rge.)

1654' F/S 1526' F/W

SEC. 33-27N-6W

11. Country or Parish, State

Rio Arriba Co., New Mexico

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input checked="" type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other _____	<input type="checkbox"/> Dispose Water

17. Describe Proposed or Completed Operations:

4-24-98

Amend Application to Drill.

We now intend to drill 8 3/4" hole with 7" 23# and 26# K-55 casing run surface to TD.

Amended ten point compliance program attached.

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.

RECEIVED
BLM
53 APR 29 PM 1:18
070 FARMINGTON, NM

NOTE: The format is issued in lieu of U.S. BLM Form 3160-5

18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT

SIGNED: Robert L. Verquer TITLE: Superintendent DATE: April 27, 1998
ROBERT L. VERQUER

APPROVED BY: [Signature] TITLE: [Signature] DATE: 5/29/98
CONDITIONS OF APPROVAL, IF ANY

OPERATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM

SEP 23 PM 1:28

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL		5. Lease Number 070 FARMINGTON, NM NM-03547	
1b. Type of Well GAS		6. If Indian, Name of Allottee or Tribe	
2. Operator CAULKINS OIL COMPANY		7. Unit Agreement Name	
3. Address & Phone No. of Operator c/o ROBERT VERQUER P. O. Box 340, Bloomfield, NM 87413 (505) 632-1544		8. Farm or Lease Name BREECH "F"	
4. Location of Well 1654 FSL & 1526' FWL		9. Well Number 1-F	
		10. Filed, Pool, or Wildcat Basin Dakota - South Blanco Tocito	
14. Distance in Miles from Nearest Town 30 miles southeast of Blanco, NM Post Office.		12. County Rio Arriba	13. State New Mexico
15. Distance from Proposed Location To Nearest Property Line or Lease Line 1526'		16. Acres in Lease 1600 Acres	17. Acres Assigned to Well W - 320 Acres
18. Distance From Proposed Location To Nearest Well Drill, Compl., Or Applied For on Lease 436' This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.		19. Proposed Depth 7620'	20. Rotary or Cable Tools ROTARY
21. Elevations (DR, RT, GR, Etc.) 6612 GR		22. Approximate Date Work Will Start April 15, 1998	
23. Proposed Casing and Cementing Program		DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS";	
EXHIBITS attached as follows			
"A" Location and Elevation Plat		"F" Drill Rig Layout	
"B" Ten-Point Compliance Program		"G" Production Facility Schematic	
"C" Blowout Preventer Schematic		"H" Acreage dedication plat	
"D" Multi-Point Requirements for APD		"I" Archaeological Report	
"E" Vicinity Map - Access Roads			
24. Signed	<u>Robert L. Verquer</u> Robert L. Verquer	Title	<u>Superintendent</u> Date <u>02/20/98</u>

Permit No. _____ Approval Date _____

Approved By Deane M. Speer Title Team Lead Date 5/29/98

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

OPERATOR

EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

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

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

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

- 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	12-1/4	9-5/8	36#	J55	LT&C	NEW
0-1000	8-3/4	7	26#	K55	LT&C	NEW
1000-6620	8-3/4	7	23#	K55	LT&C	NEW
6620-7620	8-3/4	7	26#	K55	LT&C	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

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

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 0.1503 cu-ft/ft with 60% excess = 322 cu-ft

YIELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

2nd stage

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.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1503 cu-ft/ft with 60% excess = 322 cu-ft

YIELD 1.14 659 ft x 0.1503 cu-ft/ft with 0% excess = 99 cu-ft

EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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 87 sacks class H + 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 2961 ft x 0.1503 cu-ft/ft with 60% excess = 712 cu-ft
YIELD 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.

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
0-450	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.
- 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 - IEG and FDC from 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 April 15, 1998, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 25 days.

EXHIBIT "C"



PHONE 334-6191
P. O. BOX "B"

JERRY WAYNE BANDEL
PRESIDENT

AZTEC, NEW MEXICO 87401

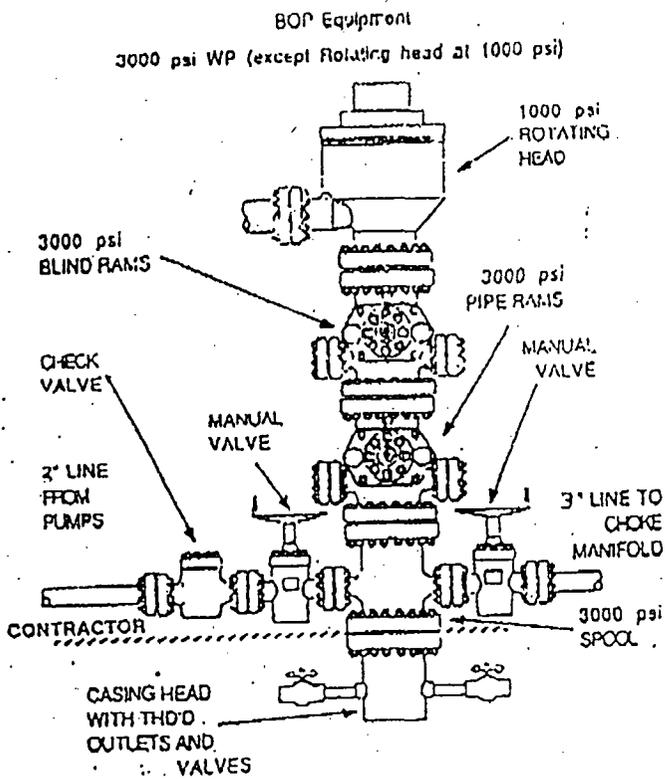


EXHIBIT "B"
CHOKE MANIFOLD

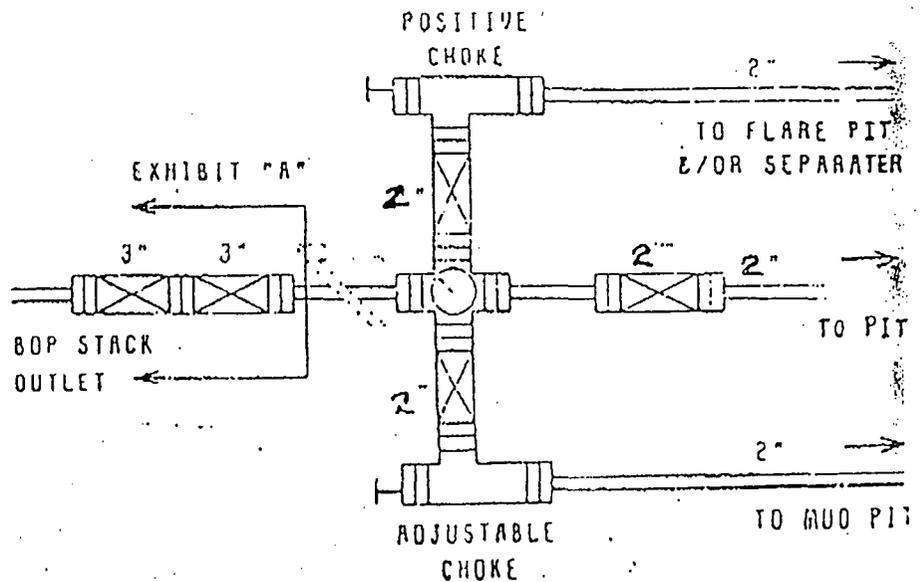


EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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".
 - f. 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 EXHIBIT "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.
 - h. The new access road and all existing roads will be flat bladed and upgraded as deemed necessary by the dirt contractor.

EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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.
4. 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.
 - b. 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.
 3. Dimensions of the facilities will be 130' by 240'.
 4. Only native materials will be used except for gravel.
 5. 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.

EXHIBIT "D"

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

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

5. 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.
 - b. No construction materials will be taken off Federal or Indian lands.
 - c. 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. Flammable 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.

EXHIBIT "D"

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

Caulkins Oil Company
Breach "F" 1-F
1654' FSL & 1526' FWL, Sec. 33, 27N, 6W
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.
 - b. 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 will be furnished under separate cover.
 - c. 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.
 - g. Drilling is planned for on or about April 15, 1998, operations should be completed within 25 days.

EXHIBIT "D"

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

Caulkins Oil Company
Breach "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

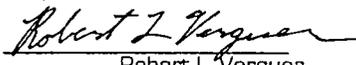
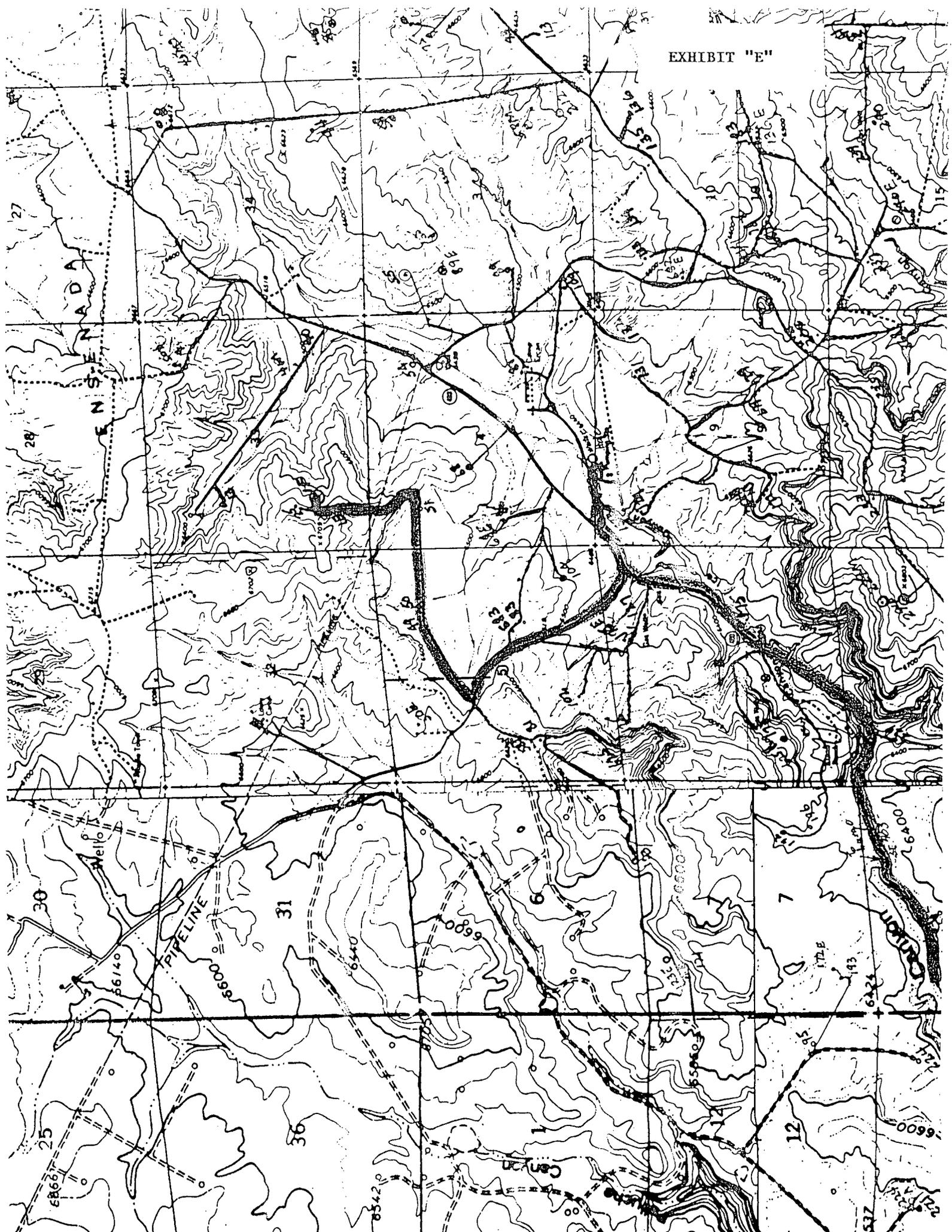

Robert L. Verquer
Superintendent

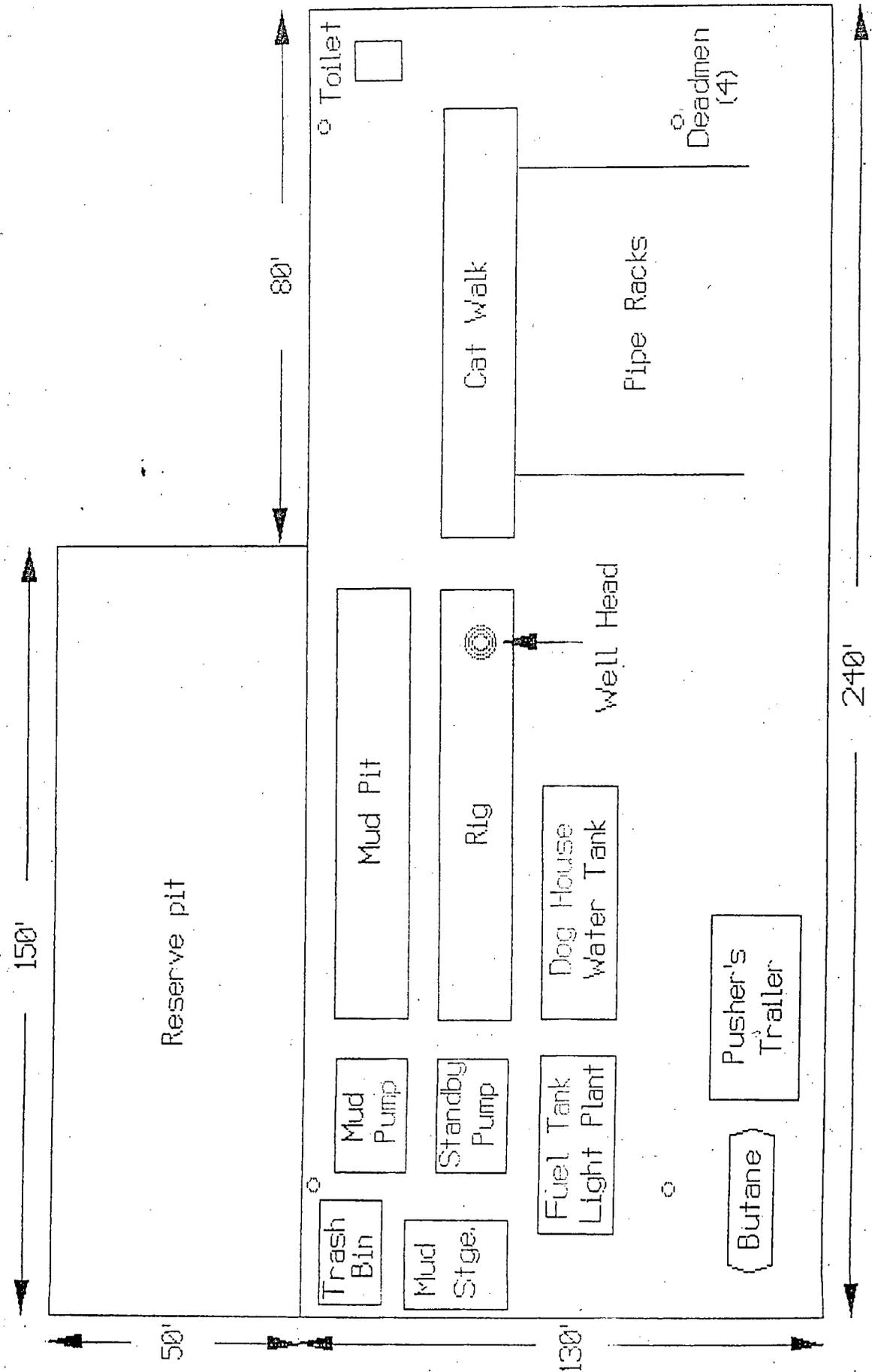
EXHIBIT "E"



DRILLING RIG LAYOUT

EXHIBIT F

Lay over location plat



Production Facility Schematic

EXHIBIT G

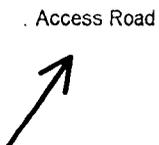
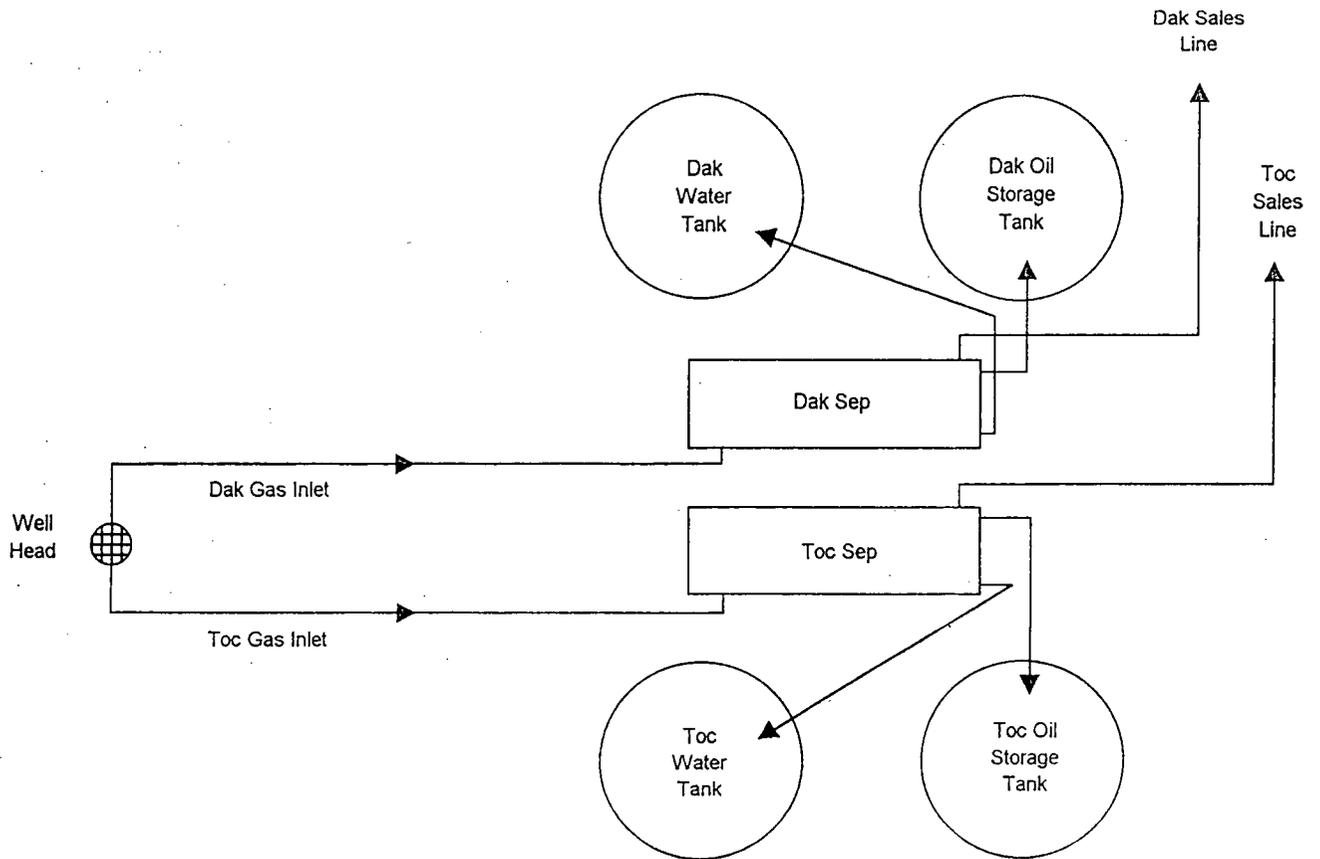


EXHIBIT "I"

ARCHAEOLOGICAL INFORMATION REPORT FORM

BLM/FDO 1/94

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
7. Consultant Name and Address: Field Supervisor: Julie Blair General Charge: Roger A. Moore, Jr. Org. Name: Southwest Archaeological Services Org. Address: 102 N. Main Avenue Aztec, New Mexico 87410 Phone: (505) 334-1678		6. Report Date: April 24, 1997
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		8. Permit No.: 98-2920-97-Q
13. Location (Maps Attached): a. State: New Mexico b. County: Rio Arriba c. District: Farmington d. Land Status: Bureau of Land Management		9. Consultant Report No.: 97-SASI-016S(c)
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 sagebrush 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 construction 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		11. Sponsor Project No.: 12. Area of Effect: <u>1.51</u> BLM <u> </u> Other Area Surveyed: <u>5.54</u> BLM <u> </u> other

EXHIBIT "I"

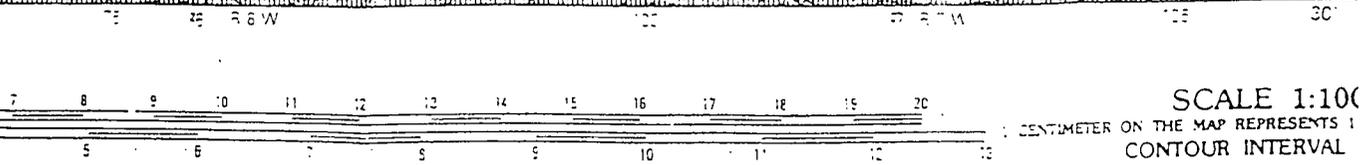
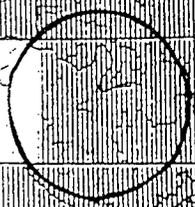
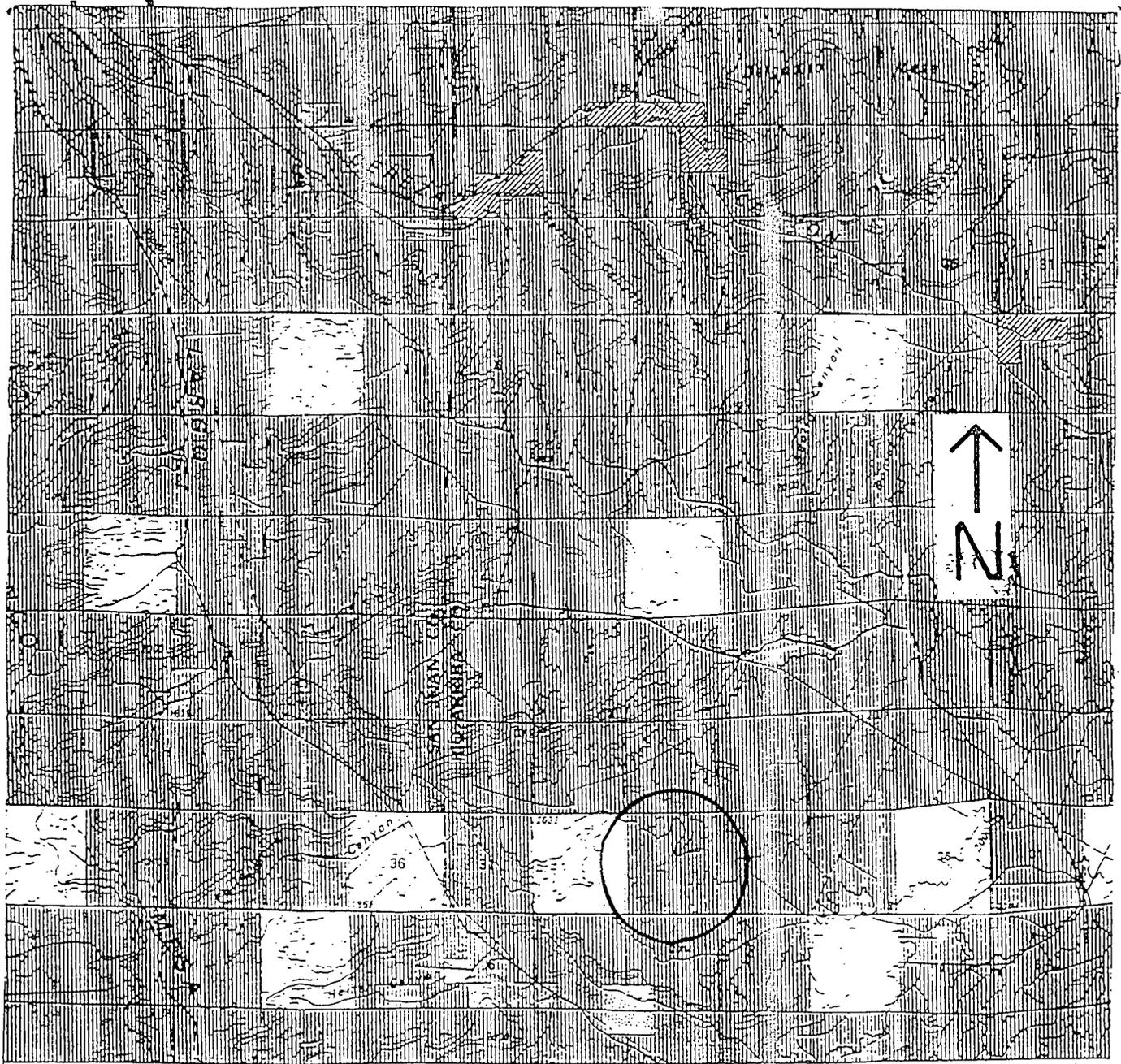
15. Cultural Resource Findings: No archaeological sites or isolates were found.

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.

EXHIBIT "I"



SCALE 1:100
CENTIMETER ON THE MAP REPRESENTS 1
KILOMETER
CONTOUR INTERVAL

GENERAL PROJECT LOCATION

MAP: 30X60' Navajo Reservoir, New Mexico 1980

SCALE: 1:100,000 (1cm = 1km) CONTOUR INTERVAL: 50 meters



Figure 1

EXHIBIT "I"

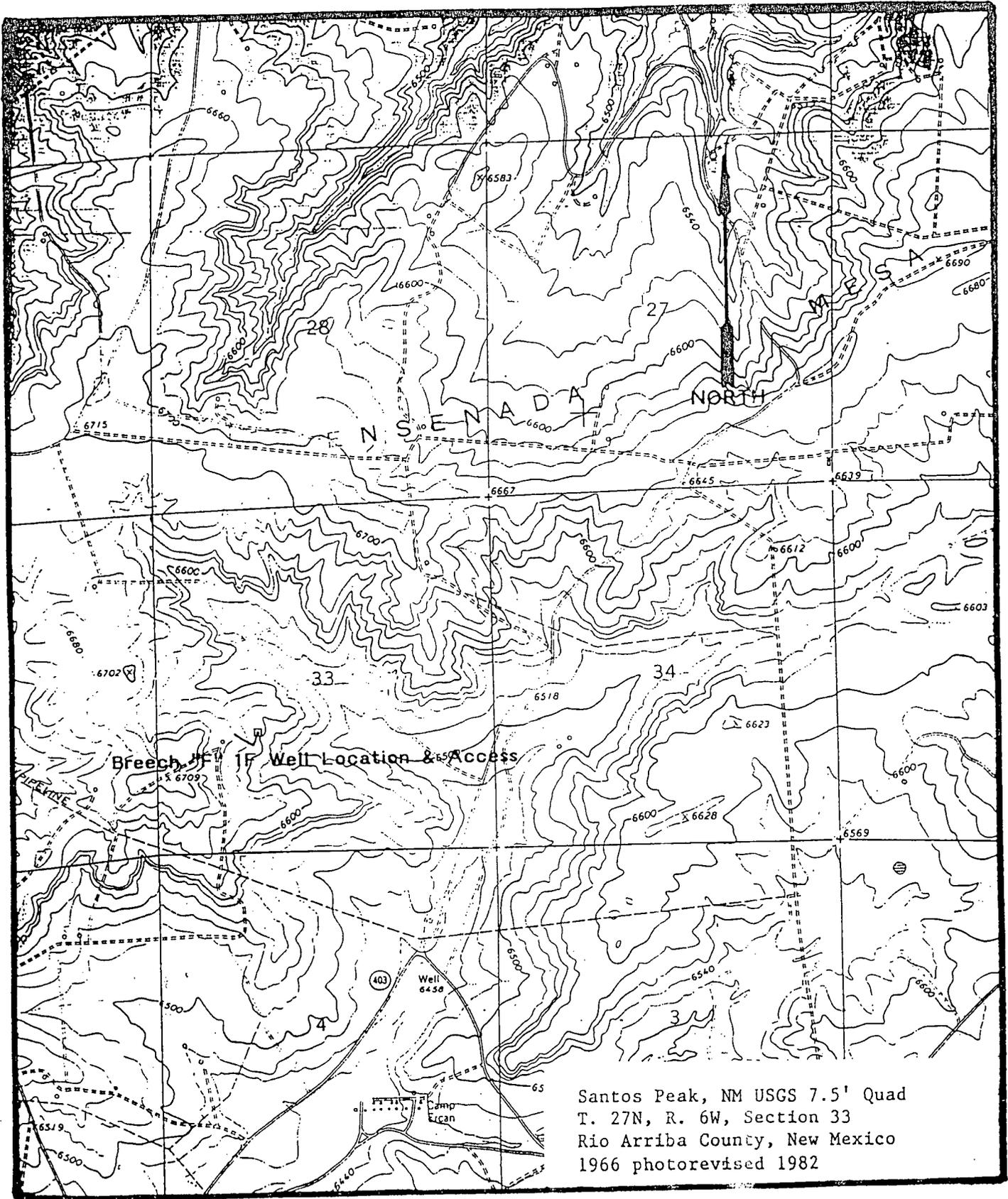


Figure 2

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 (*Oryopsis 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 Germination/100

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

<u>Source No. One (poor quality)</u>		<u>Source No. two (better quality)</u>	
Purity	50 percent	Purity	80 percent
Germination	40 percent	Germination	63 percent
Percent PLS	20 percent	Percent PLS	50 percent
<i>5 lb. bulk seed required to make 1 lb. PLS.</i>		<i>2 lb. bulk seed required to make 1 lb. PLS.</i>	

Seed mixture used must be *certified*. There shall be no 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:

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

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

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

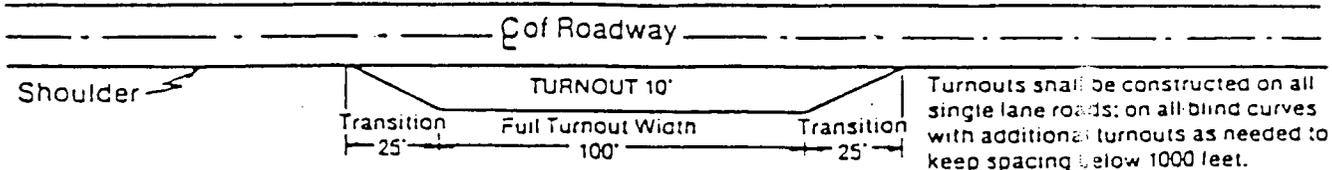
4. Unless otherwise approved in writing by the AO, all turnout ditches shall be graded to drain water with a one (1) percent minimum to three (3) percent maximum ditch slope. The spacing interval for turnout ditches shall be determined according to the following table, but may be amended depending upon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

SPACING INTERVAL FOR TURNOUT DITCHES

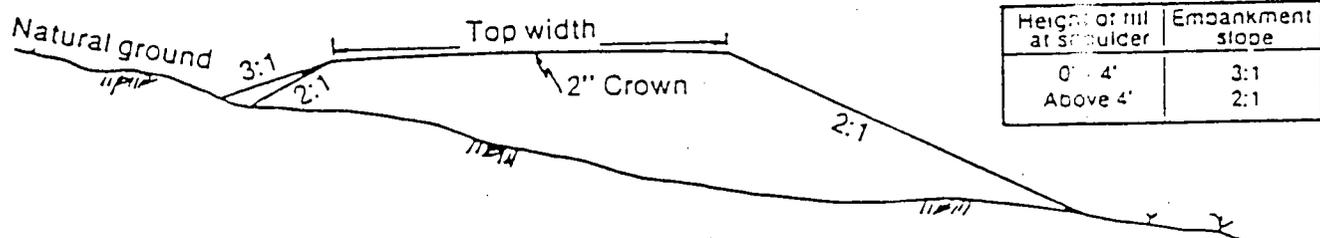
<u>Percent Slope</u>	<u>Spacing Interval</u>
0 - 4%	150 - 350 feet
4 - 6%	125 - 250 feet
6 - 8%	100 - 200 feet
8 - 10%	75 - 150 feet

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.

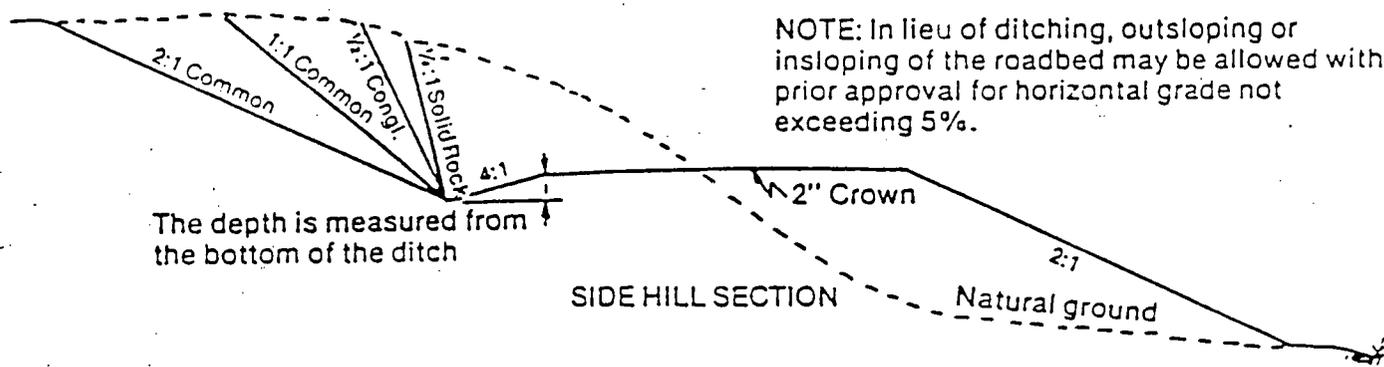
6. Failure of Holder to share maintenance costs in dollars, equipment, materials or man-power proportionate to Holder's use with other authorized users may be adequate grounds to terminate ROW grant. The determination as to whether this has occurred and the decision to terminate shall rest with the AO. Upon request, the AO shall be provided with copies of any maintenance agreement entered into.



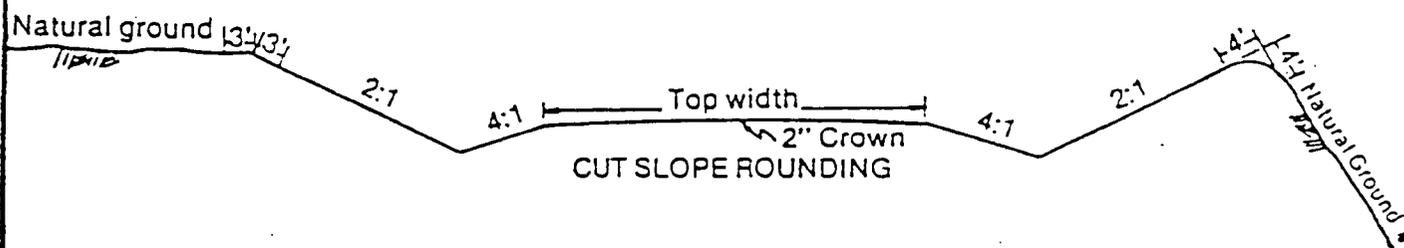
TYPICAL TURNOUT PLAN



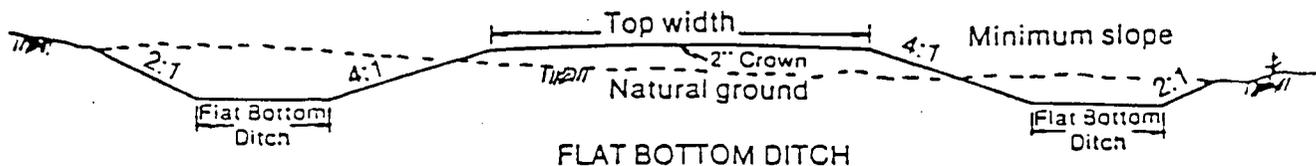
EMBANKMENT SECTION



SIDE HILL SECTION



CUT SLOPE ROUNDING



FLAT BOTTOM DITCH

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Geology, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

OIL CONSERVATION DIVISION

RECEIVED
BLM

P.O. Box 2088
Santa Fe, NM 87504-2088

98 MAR -3 PM 1:10

AMENDED REPORT

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code 06460	*Pool Name South Blanco Tocito
*Property Code 2460	*Property Name BREECH "F"		*Well Number 1F
*OGRID No. 003824	*Operator Name CAULPINS OIL COMPANY		*Elevation 6612

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	33	27N	6W		1654	SOUTH	1526	WEST	RIO ARRIBA

¹¹ 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

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

<p>18</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Robert L. Verquer</i> Signature</p> <p>Robert L. Verquer Printed Name</p> <p>Superintendent Title</p> <p>February 27, 1998 Date</p>
	<p>¹⁶ SURVEYOR CERTIFICATION</p> <p>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 belief.</p> <p>APR 18 1998 Date of Survey</p> <p>Signature and Seal of Professional Surveyor.</p> <p>Certificate Number</p>

B.C.
M.
55

B.C.
M.

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

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Geology, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

OIL CONSERVATION DIVISION RECEIVED
P.O. Box 2088
Santa Fe, NM 87504-2088
BLM

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

98 MAR -3 PM 1:10

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*APT Number		*Pool Code	*Pool Name
		06460	South Blanco Tocito
*Property Code	*Property Name		*Well Number
2460	BREECH "F"		1F
*GRID No.	*Operator Name		*Elevation
003824	CAULPINS OIL COMPANY		6612

¹⁰ Surface Location

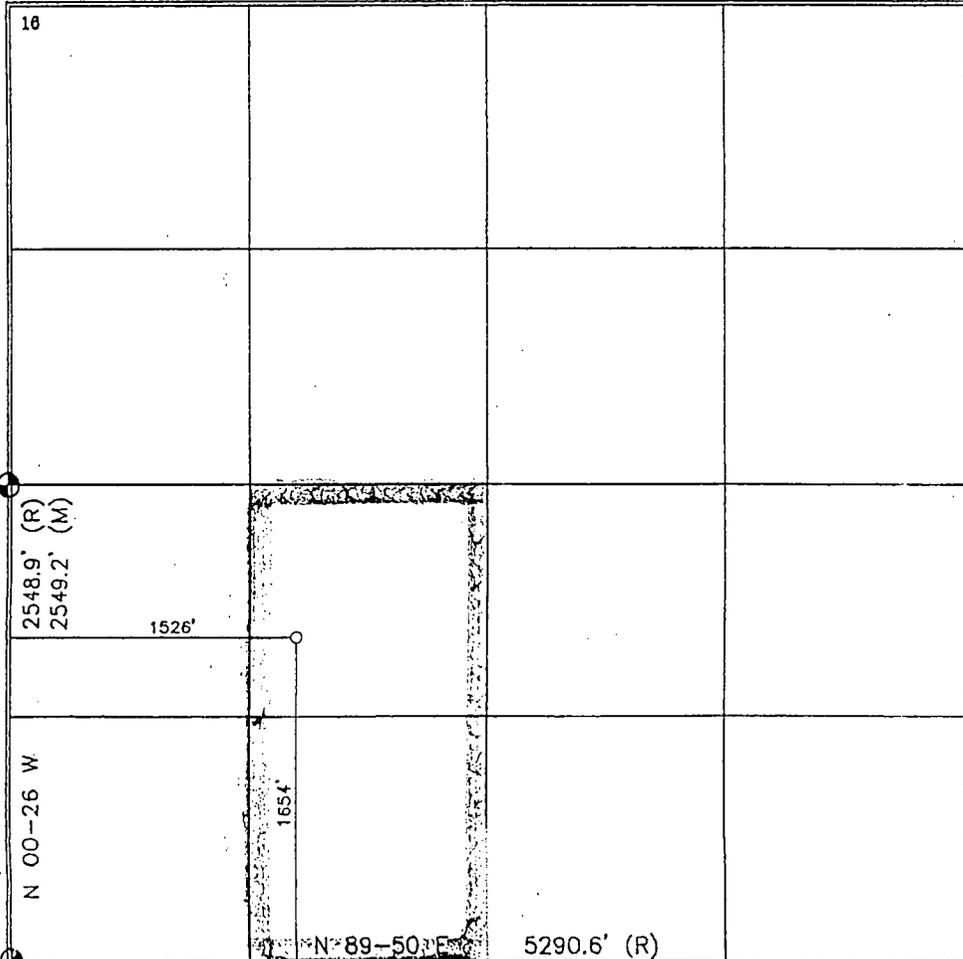
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	33	27N	6W		1654	SOUTH	1526	WEST	RIO ARRIBA

¹¹ 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

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
160			

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



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. Verquer
Signature
Robert L. Verquer
Printed Name
Superintendent
Title
February 27, 1998
Date

16 SURVEYOR CERTIFICATION
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 belief.

APR 1 1998
Date of Survey
Signature and Seal of Registered Professional Land Surveyor

Certificate Number

B.C.
M.
55

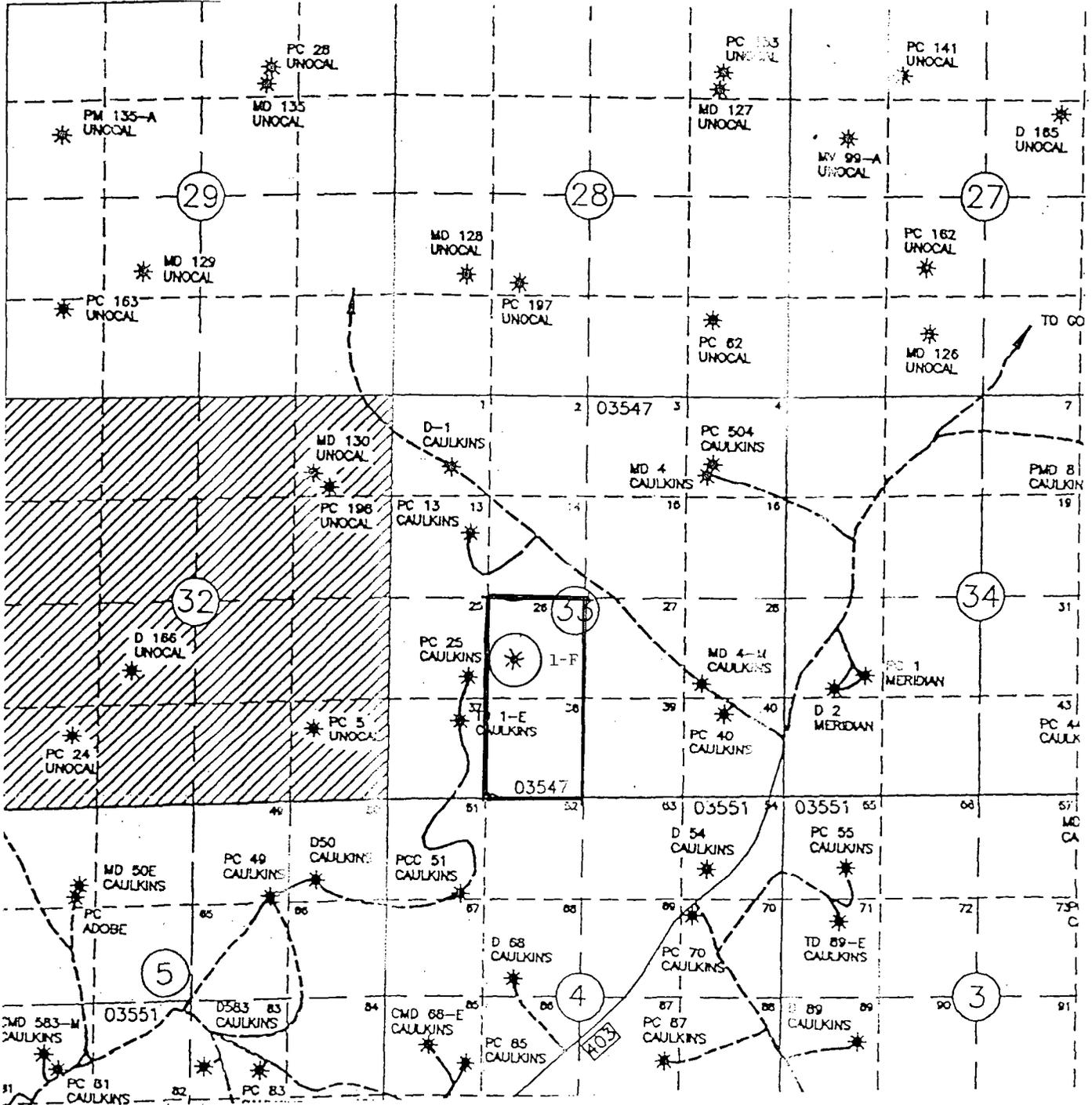
B.C.
M.

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



1-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

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Farmington, NM 87499

Unocal

1004 Big Spring

Midland, TX 79702

County Rio Arriba Pool South Blanco-Tocito O, 1

TOWNSHIP 27 North Range 6 West NMPM

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Ext: $\frac{1}{2}$ SW/4 Sec. 33 (R-7495, 4-5-84) Ext: SE/4 Sec. 32 (R-9982, 10-1-93)

Ext: $\frac{1}{2}$ SW/4 Sec. 32 (R-10178, 8-30-94)