

CONFIDENTIAL - 7 IT HOLE

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. UNIT AGREEMENT NAME Cuba Mesa Unit	
1b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Horizontal <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. FARM OR LEASE NAME Cuba Mesa 35	
2. NAME OF OPERATOR Bright & Company		9. WELL NO. #2	
3. ADDRESS OF OPERATOR PERMITCO INC. - Agent		10. FIELD AND POOL OR WILDCAT Rio Puerco	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At Surface 1010' FSL and 820' FWL (Surface Location) At proposed Prod. Zone 660' FNL and 660' FWL (Btm. Hole Location)		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA Sec. 35, T21N - R2W	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 6 miles west of Cuba, NM		12. COUNTY OR PARISH Sandoval	13. STATE NM
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drilg. unit line, if any) 660' (Btm. Hole Location)		16. NO. OF ACRES IN LEASE 640	17. NO. OF ACRES ASSIGNED TO THIS WELL 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT 333'		19. PROPOSED DEPTH 4466' (TVD), 7559' (MD)	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7016' GR		22. APPROX. DATE WORK WILL START* Immediately upon approval	
23. PROPOSED CASING AND CEMENTING PROGRAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH
17-1/2"	13-3/8"	48#	250'
12-1/4" & 9-7/8"	7-5/8" *	26.4#	4599'
6-1/2"	4-1/2"	11.6#	7559' (MD)
			QUANTITY OF CEMENT 320 sx (Circulated to surface) 1045 sx (See attached) Hung off, no cement (See attached)

* A parasite string of 1-1/2" tubing will be run with the 7-5/8" casing and attached at 2500'.

Bright & Company proposes to drill a well to 7559' (MD) and 4466' (TVD) to test the Gallup formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of New Mexico requirements.

See Onshore Order No. 1 attached.

Bright & Company has been authorized by proper lease interest owners to conduct operations on the above mentioned lease. Bonding is provided by Bright & Company under their letter of credit #1025. (See copies attached).

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] CONSULTANT FOR: Bright & Company DATE 07/28/93
(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

Acting AREA MANAGER

TITLE RIO PUERCO RESOURCE AREA

SEP 22 1993

CONDITIONS OF APPROVAL, IF ANY:

cc: New Mexico Oil Conservation Division

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

See Attached
Conditions of Approval

OPERATOR

CONFIDENTIAL

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1920, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Aramis, NM 88210

DISTRICT III

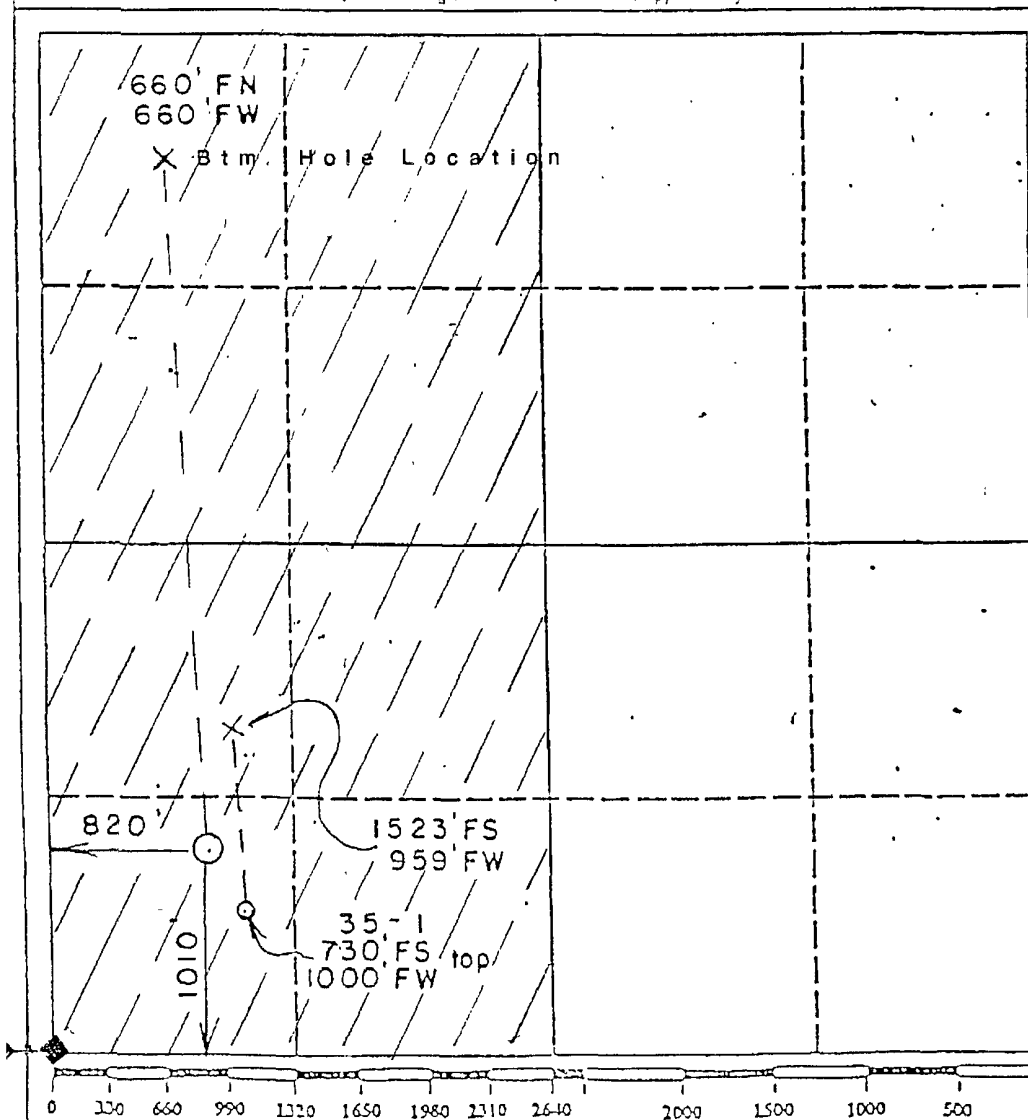
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BRIGHT & Co.			Lease CUBA MESA UNIT 35			Well 2		
Unit Letter M	Section 35	Township 21 N.	Range 2 W.	County SANDOVAL				
Actual Footage Location of Well: 1010 feet from the South line and 820 feet from the West								
Ground level Elev. 7016'		Producing Formation Gallup		Pool		Dedicated Acreage: 320 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 100% Federal
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc?
☐ Yes ☐ No If answer is "yes" type of consolidation N/A
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature Lisa L. Smith
Printed Name **LISA L. SMITH**
Position **AUTHORIZED AGENT FOR:**
Company **BRIGHT & COMPANY**
Date **July 28, 1993**

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 knowledge and belief.

Date Surveyed **10 July '93**
Signature of Surveyor [Signature]
Professional Seal **NEW MEXICO**
Registered Professional Surveyor
Certificate **6074**

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Permitco Incorporated
A Petroleum Permitting Company

Bright and Company

Cuba Mesa Unit No. 35-2

1010' FSL and 820' FWL (Surface Location)

660' FNL and 660' FWL (Bottom Hole Location)

Sec. 35, T21N - R2W

Sandoval Co., New Mexico

DRILLING PROGRAM

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ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

1. The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>True Vertical Depth</u> Surface	<u>Measured Depth</u>	<u>Subsea</u>
Ojo Alamo	574'		+ 6456'
Fruitland	690'		+ 6340'
Picture Cliffs	825'		+ 6205'
Lewis	915'		+ 6115'
Minefee	2411'		+ 4619'
Point Lookout	3033'		+ 3997'
Mancos	3377'		+ 3653'
Gallup A	4030'		+ 3000'
Gallup B-1	4203'		+ 2827'
Gallup B-2	4225'		+ 2805'
Gallup C	4374'		+ 4374'
T.D.	4466'	7559'	

2. The estimated depths at which water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Oil	Gallup B-1	4234' TVD, 4599' MD

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

3. Bright and Company's minimum specifications for pressure control equipment are as follows:



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Below 13-3/8" surface casing - 12", 3000 psi, double ram preventor and annular preventor.

Below 7-5/8" intermediate casing - 11", 3000 psi double ram preventor, annular preventor and rotating head.

Ram type preventers and associated equipment shall be tested to working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

Annular type preventers shall be tested to 50 percent of rated working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer.

As a minimum, the above test shall be performed:

- a. when initially installed;
- b. whenever any seal subject to test pressure is broken
- c. following related repairs; and
- d. at 30-day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) the check valve shall be held open or the ball removed.

The kill lines should be separate from the fill line. Kill lines should be installed a safe distance (usually not less than 75 feet) from the BOP assembly in a conspicuous place and not in areas of suspected H₂S concentration. Slow pump speeds for kill purposes must be posted.

Annular preventers shall be functionally operated at least weekly.

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Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

A BOPE pit level drill shall be conducted weekly for each drilling crew.

Pressure tests shall apply to all related well control equipment.

All of the above described tests and/or drills shall be recorded in the drilling log.

The choke manifold, BOP extension rods and handwheels will be located outside the substructure. The hydraulic BOP closing unit will be located at least 100 feet from the well head, with the remote control unit on the rig floor. Kill line will be 2" i.d. with burst pressure rating of at least 3000 psi. These items will be pressure tested concurrently with BOP's. The BOP will be tested when the stack is first installed on each casing string and then at 30 day intervals. BOP and choke manifold sizes will be in accordance with API-RP-53 as per the attached. See attached schematic of choke manifold.

- a. The size and rating of the BOP stack is shown on the attached diagram. The actual rig has not been chosen to drill this well.
 - b. A choke line and a kill line are to be properly installed. The kill line is not to be used as a fill-up line.
 - c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
 - d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.
4. a. The proposed casing and cementing program shall be conducted as approved to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to



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position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. Determination of casing setting depth shall be based on all relevant factors, including; presence/absence of hydrocarbons; fracture gradients; usable water zones; formation pressures; lost circulation zones; other minerals; or other unusual characteristics. All indications of usable water shall be reported.

- b. For the 7-5/8" intermediate casing design a formation pressure gradient of 0.34 psi per foot and a gas gradient in the casing was assumed to determine the safety factor in burst.
- c. For the 7-5/8" intermediate casing design a mud weight of 9.0 ppg was assumed to determine the safety factor in collapse.
- d. Casing collars shall have a minimum clearance of 0.687 inches on all sides in the hole/casing annulus, with recognition that variances can be granted for justified exceptions.
- e. All waiting on cement times shall be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.
- f. All casing except the conductor casing, shall be new or reconditioned and tested used casing that meets or exceeds API standards for new casing.
- g. The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing.
- h. All indications of usable water shall be reported to the authorized officer prior to running the next string of casing or before plugging orders are requested, whichever occurs first.
- i. Surface casing shall have centralizers on at least every fourth joint of casing starting with the shoe joint and up to the bottom of the cellar.



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- j. Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a suitable preflush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.
- k. All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.
- l. The proposed casing program will be as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>New or Used</u>
Surface	0-250'	17-1/2"	13-3/8	48#	H-40	ST&C	New
Intermed.	0-3500	12-1/4"	7-5/8"	26.4#	N-80	LT&C	Used
Intermed.	3500-4599'	9-7/8"	7-5/8"	26.4#	N-80	LT&C	Used
Parasite Tbg.	0-2500'*	12-1/4"	1-1/2"	2.76#	CW-55	IJ-10rd	New
Liner (Slotted)	4100-7559'	6-1/2"	4-1/2"	11.6#	K-55	LT&C	New

* Note: The parasite tubing will be run with the 7-5/8" casing and attached at 2500'.

- m. Casing design subject to revision based on geologic conditions encountered.
- n. The cement program will be as follows:

Surface
0-250'

Type and Amount

320 sx of Class B + 3% CaCl₂ plus .25 pps Cello-Seal mixed at 15.64 ppg, 1.20 yield, w/100% excess or sufficient to circulate to surface.

Intermediate
0-4599'

Type and Amount

Stage 1: 40 sx of 47 pps Class B + 18.5 pps pozmix A + 5% salt + 18.5 pps CSE + .25 pps Cello-Seal (300' of fill) mixed at 11.50 ppg, 2.23 yield w/25% excess



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followed by 240 sx Class B + .25 PPS Cello-Seal mixed at 15.63 ppg, 1.18 yield w/25% excess (1000' of fill)

Stage 2: (DV Tool at 2650'): 650 sx of 47 pps Class B + 18.5 pps Poz mix A + 5% Salt + 18.5 pps CSE + .25 pps Cello-Seal (2400' of fill) mixed at 11.50 ppg, 2.23 yield w/25% excess, followed by 115 sx Class B + 2% CaCl₂ + .25 PPS Cello-Seal mixed at 15.63 ppg, 1.18 yield, 25% excess (250' of fill)

Production

4100-7559'

Type and Amount

No cement. 4-1/2" slotted liner hung off at 4100' and not cemented.

- o. After cementing but before commencing any test, the casing string shall stand cemented until the cement has reached a compressive strength of at least 500 psi at the shoe, except that in no case shall test be initiated until the cement has been in place at least 12 hours. WOC time shall be recorded in the driller's log.
- p. The following reports shall be filed with the District Manager within 30 days after the work is completed.
 - 1. Progress reports, Form 3160-5 (formerly 9-331) "Sundry Notices and Reports on Wells", must include complete information concerning:
 - a. Setting of each string of casing, showing the size, grade, weight of casing set, hole size, setting depth, amounts and type of cement used, whether cement circulated or the top of the cement behind the casing, depth of cementing tools used, casing test method and results, and the date work was done. Show the spud date on the first reports submitted.
 - b. Temperature or bond logs must be submitted for each well where the casing cement was not circulated to the surface.
- q. Auxiliary equipment to be used is as follows:



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1. Kelly cock
 2. Drill pipe safety valve or an inside Blowout Preventer.
5. a. The proposed circulating mediums to be employed in drilling are as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>Fluid Loss</u>
0-250'	Gel/Lime	8.4-8.6	28-45	N/C
250-4599'MD	Gel/Polymer	8.6-8.8	38-46	10 - 8
4599' MD-7559'TVD*	KCL/Polymer	8.4-8.5	29-32	N/C

*Note: The KCL/Polymer mud will be aerated by pumping air down the 1-1/2" parasite tubing.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

- b. Mud monitoring equipment to be used is as follows:
1. Periodic checks will be made each tour of the mud system. The mud level will be checked visually.
6. The anticipated type and amount of testing, logging and coring are as follows:
- a. No drill stem tests are anticipated, however, if tests are run, the following guidelines should be adhered to:

Initial opening of drill stem test tools shall be restricted to daylight hours unless specific approval to start during other hours is obtained from the authorized officer. However, DST's may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e. lighting which is adequate for visibility and vapor-proof for safe operations). Packers can be released, but tripping shall not begin before daylight, unless prior approval is obtained from the authorized officer. Closed chamber DSTs may be accomplished day or night.

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A DST that flows to the surface with evidence of hydrocarbons shall be either reversed out of the testing string under controlled surface conditions, or displaced into the formation prior to pulling the test tool. This would involve providing some means for reverse circulation.

Separation equipment required for the anticipated recovery shall be properly installed before a test starts.

All engines within 100 feet of the wellbore that are required to "run" during the test shall have spark arresters or water cooled exhausts.

- b. The logging program at 3539' (KOP) will consist of a DIL/Caliper.
- c. No cores are anticipated.
- d. The completion program is as follows:

Set 4-1/2" slotted liner and go in hole w/2-7/8" tubing. Swab test well. Based on results of swab test, a pump will be sized and installed with a workover rig.

- 7.
 - a. For additional drilling/directional procedures, see drilling prognosis attached.
 - b. The expected bottom hole pressure is 1510 psig at TD.
 - c. No hydrogen sulfide gas or abnormal pressures are anticipated.
- 8.
 - a. Bright and Company agrees to be responsible under the terms and conditions of the lease for the operations on the lease.
 - b. Drilling will commence immediately upon approval of this application.
 - c. It is anticipated that the drilling of this well will take approximately 26 days.



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- d. The following shall be entered on the driller's log:
1. Blowout preventer pressure tests, including test pressures and results;
 2. Blowout preventer tests for proper functioning;
 3. Blowout prevention drills conducted;
 4. Casing run, including size, grade, weight, and depth set;
 5. How the pipe was cemented, including amount of cement, type, whether cement circulated, location of the cementing tools, etc.
 6. Waiting on cement time for each casing string.
 7. Casing pressure tests after cementing, including test pressures and results.
- e. Section 102 (b) (3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provision of the operating regulations at Title 43 CFR 3162.4-1 (c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on the lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Forms 3160-5 or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date

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on which gas is first measured through permanent metering facilities, whichever first occurs.

If the operator fails to comply with this requirements in the manner and time allowed, the operator shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109 (c) (3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3163.4-1 (b) (5) (ii).

f. Notifications Requirements:

1. The BLM in Albuquerque, New Mexico (505/761-8704) will be notified verbally not more than 48 hours after the well is spudded, or on the next regular work day.
2. The BLM will be notified verbally at least 48 hours prior to running/cementing surface casing.
3. For verbal plugging orders on drilling locations, the BLM will be notified 24 hours prior to plugging.

The following standards apply to the abandonment of newly drilled dry or nonproductive wells in accordance with 43 CFR 3162.3-4. Approval shall be obtained prior to the commencement of abandonment. All formations bearing usable quality water, oil, gas, or geothermal resources, and/or a prospectively valuable deposit of minerals shall be protected. Approval may be given orally by the authorized officer before abandonment operations are initiated. This oral request and approval shall be followed by a written notice of intent to abandon filed not later than the fifth business day following oral approval. Failure to obtain approval prior to commencement of abandonment operations shall result in immediate assessment under 43 CFR 3153.1(b)(3). The hole shall be in static condition at the time any plugs are placed (this does not pertain to plugging lost circulation zones). Within 30 days of completion of abandonment, a subsequent report of abandonment shall be filed.



Permitco Incorporated
A Petroleum Permitting Company

ON SITE TECHNOLOGIES LTD

BOP DIAGRAM FOR

CUBA MESA 35-2

BRIGHT AND COMPANY

R. Griffes

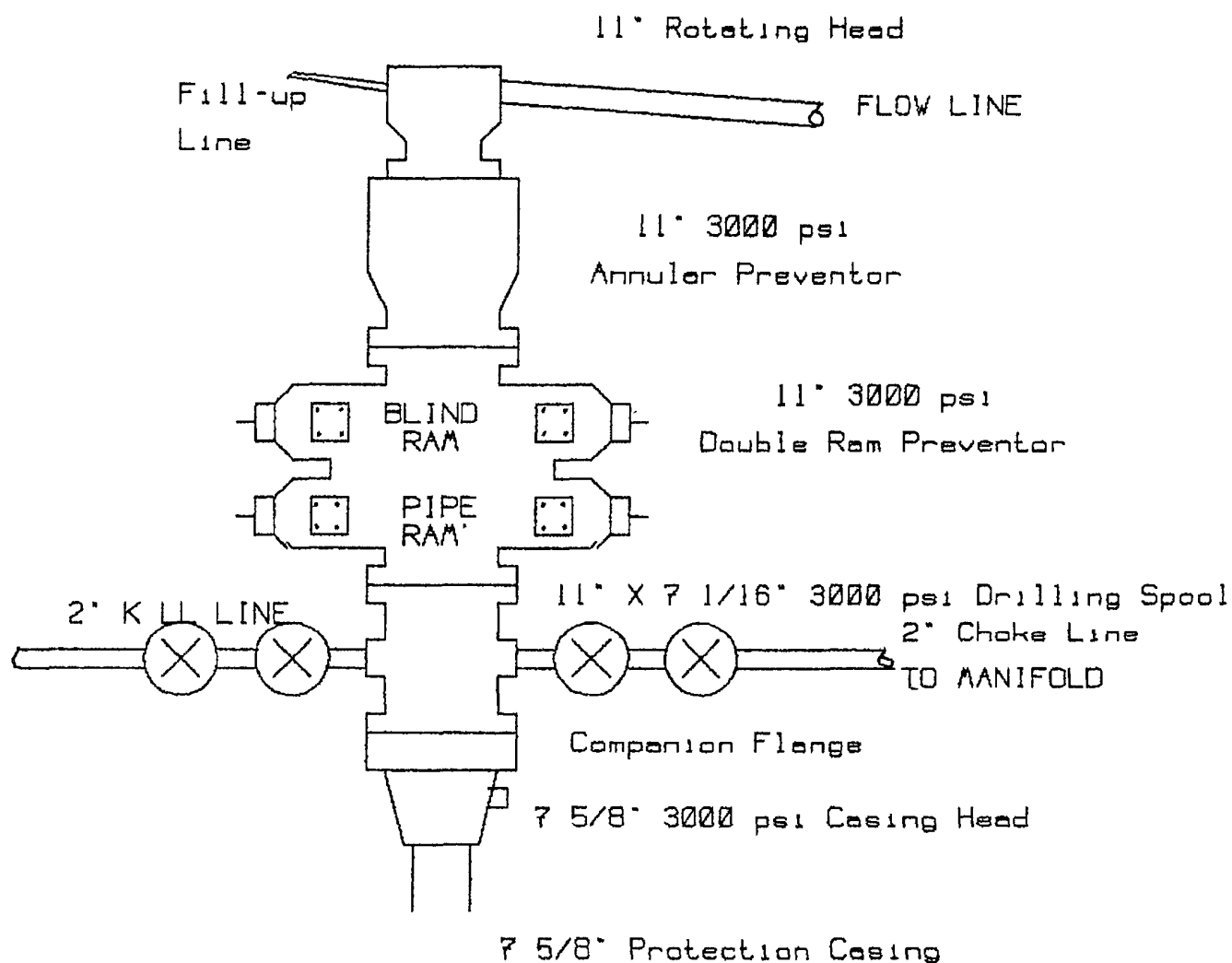
7/26/93

Not Drawn to Scale

FOR DRILLING 6 1/2" HOLE

AFTER SETTING 7 5/8" PROTECTION

CASING



ON SITE TECHNOLOGIES LTD

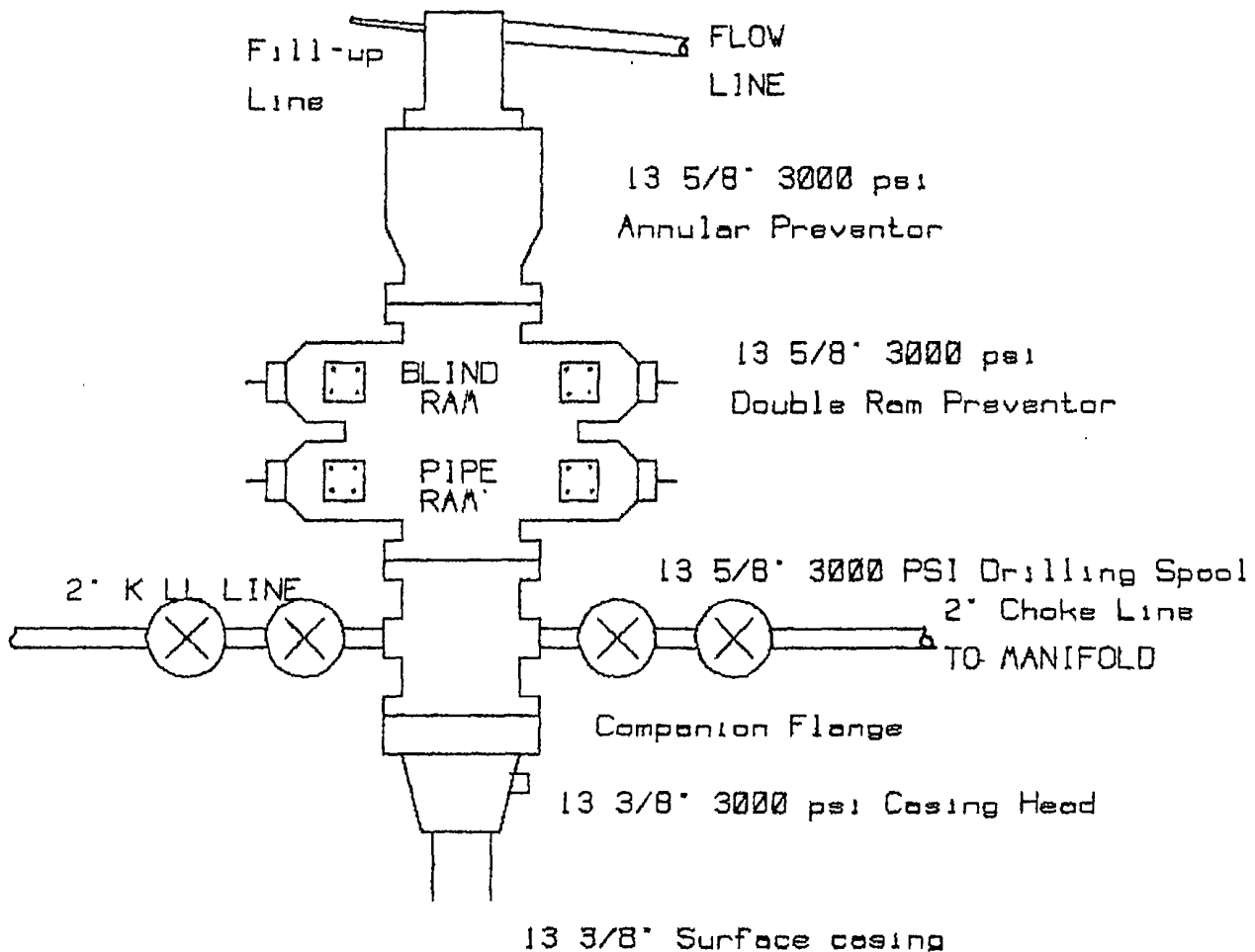
BOP DIAGRAM FOR
CUBA MESA 35-2
BRIGHT AND COMPANY

FOR DRILLING 12 1/4" AND 9 5/8" HOLE
AFTER SETTING 13 3/8" SURFACE CASING

R. Griffes

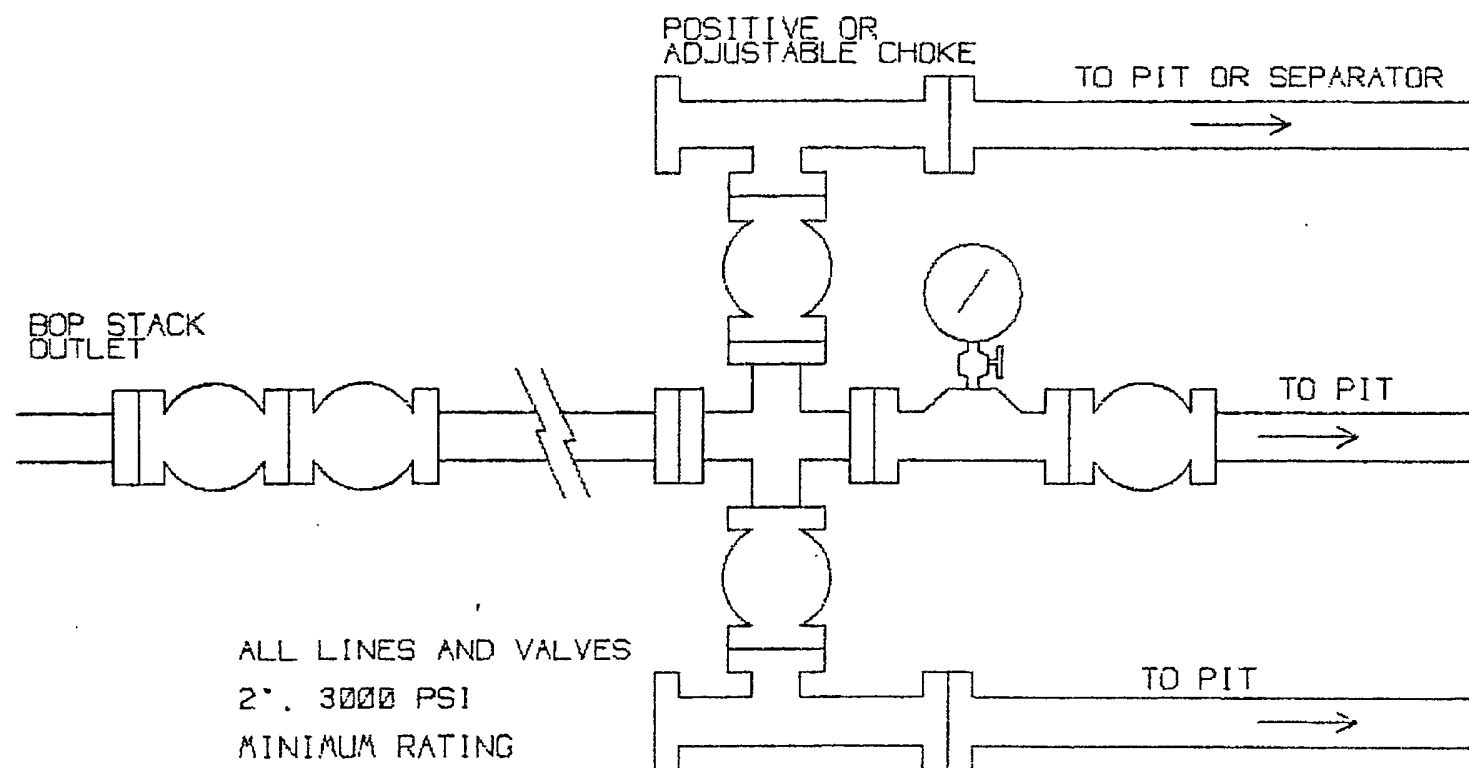
8/03/93

Not Drawn to Scale



VELLSITE ENGINEERING

CHOKE MANIFOLD DIAGRAM FOR:
CUBA MESA UNIT 35-2
BRIGHT AND COMPANY



Note: Below the 7-5/8" Casing,
a rotating head will be
installed.

ADJUSTABLE CHOKE

R. GRIFFEE
3/10/92

Bright and Company

Cuba Mesa Unit #35-2

1010' FSL and 820' FWL (Surface Location)

660' FNL and 660' FWL (Btn. Hole Location)

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Sandoval County, New Mexico

SURFACE USE PLAN

Page 1

ONSHORE OIL & GAS ORDER NO. 1

Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases1. Existing Roads

- a. Directions to the location from Cuba, New Mexico are as follows:

From Cuba, proceed South and West on 197 for 4.4 miles. Turn North onto an improved oilfield road. Proceed north approximately 2.1 miles to a fork in the road. Stay right and continue to follow the improved road for approximately 1.4 miles to the location.

- b. All existing roads within a 2-mile radius are shown on Map A.
- c. Improvement to the existing roads will not be necessary.
- d. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the SMA.

2. Access Roads to be Constructed and Reconstructed

- a. All roads to be utilized during the drilling, completion and production of this well are shown on Maps A.
- b. No new construction of roads will be required as the wellpad sits adjacent to the existing oilfield road.
- c. No new cattleguards will be required.
- d. Surfacing material will not be placed on the new access road unless weather conditions dictate or as required by the Authorized Officer.

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1010' FSL and 820' FWL (Surface Location)

660' FNL and 660' FWL (Btm. Hole Location)

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- b. All permanent above-the-ground structures, tank batteries, etc., that will remain longer than six months will be painted Sand Beige (5Y6/3 from the Munsell standard color chart). The exception being that Occupation Health and Safety Act Rules and Regulations are to be complied with where special safety colors are required.
- c. All storage facilities (including salt water tanks) must be diked. The dikes must be constructed of compacted subsoil, be impervious, hold the capacity of the largest tank within the battery, and be independent of the backcut. The dike must be covered with a layer of gravel/caliche to alleviate wind erosion. The loadout line must remain inside the dike.
- d. All engines must have an adequate muffler system.
- e. All individual production facilities will be fenced with cattle tight fencing. These facilities include the pump jack and wellhead, treater, tank battery and production pit. The fence will be constructed around the outside perimeter of any dikes. Wooden H braces must be constructed at all corners and a gate for access must be provided at each facility.
- f. Gravel/Caliche will be placed around the bases of well/meter buildings to alleviate wind erosion.
- g. Access roads will be upgraded and maintained as necessary to prevent erosion and accommodate year-round traffic.
- h. Any necessary pits will be fenced to prevent wildlife entry.
- i. Produced waste water will be confined to an unlined pit for a period not to exceed 90 days after initial production. During that 90 day period an application for approval of a permanent disposal method and location (NTL-2B), along with the required water analysis will be submitted.
- j. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.



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- e. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
 - f. All equipment and vehicles will be confined to the access road, pad and area specified in the A.P.D.
 - g. A R-O-W grant is on file with the BLM-Albuquerque for use of the existing road crossing Sections 3 and 10, T20N - R2W and Section 34, T21N - R2W, Sandoval County, New Mexico.
 - h. All roads constructed on BLM lands will be left in place after drilling operations and will not be reclaimed as requested by the Bureau of Land Management.
3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. See Map #A.
- a. Water Wells - none
 - b. Injection or Disposal Wells - none
 - c. Producing Wells - one
 - d. Drilling Wells - none
4. Location of Existing and/or Proposed Facilities if the Well is Productive.
- a. If the well is productive, a Sundry Notice will be submitted, requesting approval to construct production facilities. If possible, the production facilities will be placed with or near the tank battery for the Cuba Mesa Unit #35-1 well.



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- k. Control of noxious weeds that invade the wellpad and access road is required. Treatment by the operator will meet Forest Service requirements and specifications.
- l. The production facilities will be identified with a sign in legible condition showing the operator's name, lease name or unit number, well name and number and location (quarter quarter section, township, range and footages from section line.) The sign will remain in good condition until final abandonment of the location.

5. Location and Type of Water Supply

- a. The source of drilling water will be from a water well to be drilled near the reserve pit of the Cuba Mesa #35-1 well.
- b. Water will be pumped to the location which is adjacent to the proposed water well.
- c. The source of water is located on Forest Service Lands.
- d. An application to appropriate water has been filed with the State of New Mexico, Water Resources Division. A copy of this application is attached.

6. Construction Materials

- a. Surface and subsoil materials in the immediate area will be utilized.
- b. No construction materials will be removed from Federal lands.
- c. Gravel, stone and sand will be purchased from a commercial source.
- d. Any materials to be used which are under BLM jurisdiction shall be approved in advance, as per CFR 3610.2-3.



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7. Methods for Handling Waste Disposal

- a. Drill cuttings are to be contained and buried in the reserve pit.
- b. Garbage and nonflammable waste are to be contained in the trash cage. The trash cage will be totally enclosed on four sides and 3/4 of the top with small mesh wire to prevent wind scattering and wildlife entry. The trash cage will be hauled to an approved land fill after completion of drilling operations. No trash is to be placed in the reserve pit.
- c. Any salts and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- d. Sewage will be confined to a chemically-treated portable unit on location. Burying of sewage will not be allowed.
- e. The produced hydrocarbons will be produced into a test tank until such time as construction of production facilities is completed. Produced water will be put in the reserve pit during completion operations as per NTL-2B. Any spills of oil, gas salt water or other produced fluids will be cleaned up and removed.
- f. The operator shall inform the Forest Service immediately of the nature, time, date, location, and action taken for any oil or hazardous substance spill (including salt water).
- g. Any excess water in the reserve pit will be hauled to an approved disposal site. The remaining fluids contained in the pit will be allowed to evaporate. The pit will then be backfilled.
- h. No motor oils will be drained into the reserve pit or onto the wellpad. Any motor oil that is changed during drilling or completion operations will be placed in drums and removed by the contractor by the end of completion operations.

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8. Ancillary Facilities

No camps, airstrips or other facilities will be necessary.

9. Wellsite Layout

- a. The operator will notify the Forest Service (505/289-3265) forty-eight hours in advance of any pad construction.
- b. If there is snow on the ground when construction begins, the operator will remove it before the soil is disturbed, and pile it downhill from the topsoil stockpiles.
- c. Any trees removed will be limbed and stacked along the wellpad. All sagebrush will be removed and stockpiled along the location.
- d. The piles of slash (limbs) will not be burned, but will remain as wildlife habitat. Burying trees (with the exception of the stumps) will not be allowed.
- e. The top 6 inches of soil from the location including areas of cut, fill, and/or subsoil storage areas and will be stockpiled at the site and saved for later distribution over the recontoured site.
- f. The rig layout is attached.
- g. A wellpad diagram showing cross sections and Cuts and fills is attached.
- h. The location of reserve pit, trash pit, access roads onto the pad, turn around areas, parking areas, living facilities, soil material stockpiles and orientation of the rig with respect to the pad and other facilities is shown on the attached rig layout.
- i. The reserve pit will have a minimum of one-half the total depth below the original ground surface at the lowest point within the pit and will be designed to prevent the collection of surface runoff.



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- j. The reserve pit will be lined with a 12 ml plastic liner or liner capable of 200 psi puncture resistance or equivalent strength liner.
- k. The reserve pit will be fenced with four strand fencing on three (3) nonworking sides during drilling and the fourth side will be fenced immediately after the rig is removed. Wooden H bracing must be constructed at all corners, utilizing six (6) inch diameter wooden posts.

10. Plans for Reclamation of the Surface

- a. The Forest Service will be notified 3 days prior to initiation of reclamation work.
- b. For safety purposes, the rat and mouse holes shall be filled and compacted immediately after the drilling rig is removed from the location.
- c. Drill cuttings and mud will remain in the reserve pit until dry. When the pit is backfilled, cuttings and drilling mud will be covered with at least 3 feet of earth.
- d. During reclamation of the site, the fill material will be pushed back into the cuts and up over the backslope. No depressions will be left that trap water or form ponds.
- e. All areas on the pad which are not to be revegetated or which are not needed for production facilities, will be surfaced where needed to control erosion.
- f. Topsoil will be distributed evenly over the entire location and the seedbed prepared by disking or ripping to a depth of 4 to 6 inches following the contour.
- g. All disturbed areas will be scarified and all caliche/gravel will be removed from the location. The cut and fill slopes will be recontoured to approximate original contours. The entire disturbed area will then be backfilled with topsoil, landscaped, seeded, mulched, and fenced to exclude livestock. The fence will remain in place until vegetation has been established. It will be



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removed prior to approval of final abandonment.

- h. The following seed mixture has been recommended by the U.S. Forest Service for use in reclamation of the wellsite.

<u>Species</u>	<u>Lbs. pls/acre</u>	<u>Total #'s</u>
Blue Gramma	4.5	14.4
Pubescent Wheatgrass	2.5	8.0
Intermediate Wheatgrass	3.0	9.6
Yellow Clover	4.0	12.8
Rangeland Alfalfa	4.8	15.4

- i. Seed will be drill seeded on the contour at a depth of one-half (1/2) inch in late fall or early spring to be most effective.
- j. If the well is a dry hole, the small limbs and sage brush will be scattered over the location.
- k. Waste materials will be disposed of as stated in #7 of this Surface Use Plan.
- l. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted to the Bureau of Land Management for abandonment approval.
- m. Reclamation will be approved (minimum timeframe of two growing seasons) when the established vegetative cover is equal to 70% of the adjacent areas. The operator's bond will not be released until the area has been successfully reclaimed.

11. Surface Ownership

Wellsite - U.S. Forest Service

Roads - Roads are on lands managed by the U.S. Forest Service or the Bureau of Land Management.



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12. Other Information

- a. A Class III survey was conducted by William Whatley. No significant cultural resources were found and clearance has been recommended. A copy of this report will be submitted directly to the appropriate agencies by William Whatley.
- b. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the District Ranger.
- c. All gasoline and diesel powered equipment must be equipped with approved spark arrestors or mufflers.
- d. Drilling company signs will be allowed on National Forest system lands during the construction and drilling phase.
- e. A permanent abandonment marker inscribed with operator, well number, and location (quarter section, township, range) is required. This marker will be 24 inches below the surface level so that it has 24 inches of soil cover after final reclamation.
- f. "Sundry Notice and Report of Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 32 CFR 3164.
- g. The dirt contractor will be provided with an approved copy of the surface use plan.

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13. Lessee's or Operator's Representative and CertificationPERMIT MATTERS

PERMITCO INC.

Lisa L. Smith

13585 Jackson Drive

Denver, CO 80241

303/452-8888

DRILLING & COMPLETION MATTERS

BRIGHT & COMPANY

10100 Reunion Place, Suite 735

San Antonio, TX 78216

512/341-9773

505/325-8786 (W) Bob Griffiee

505/327-1906 (H)

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Bright and Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

July 28, 1993

Date:



Lisa L. Smith - PERMITCO INC.

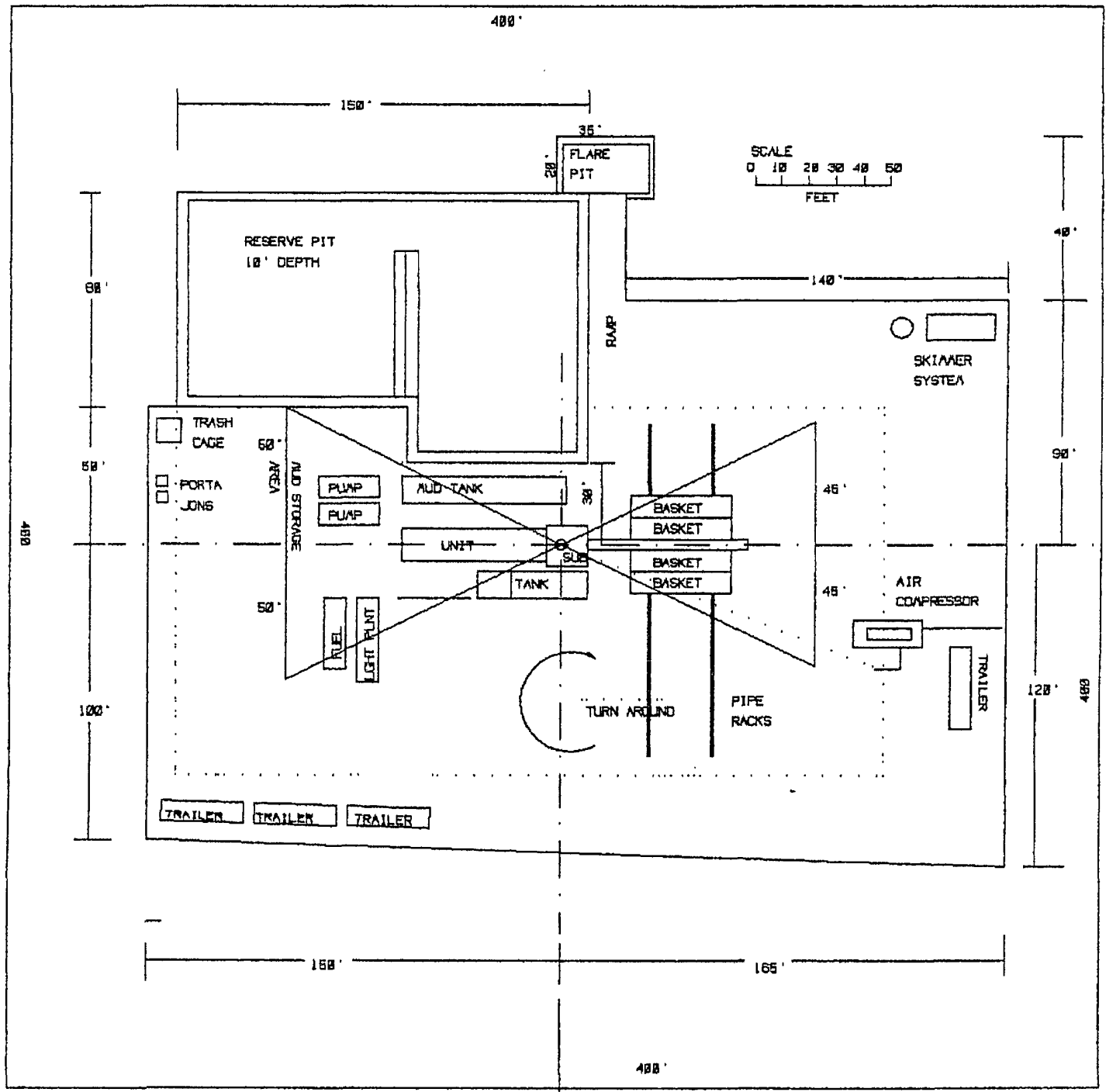
Authorized Agent for:

BRIGHT AND COMPANY

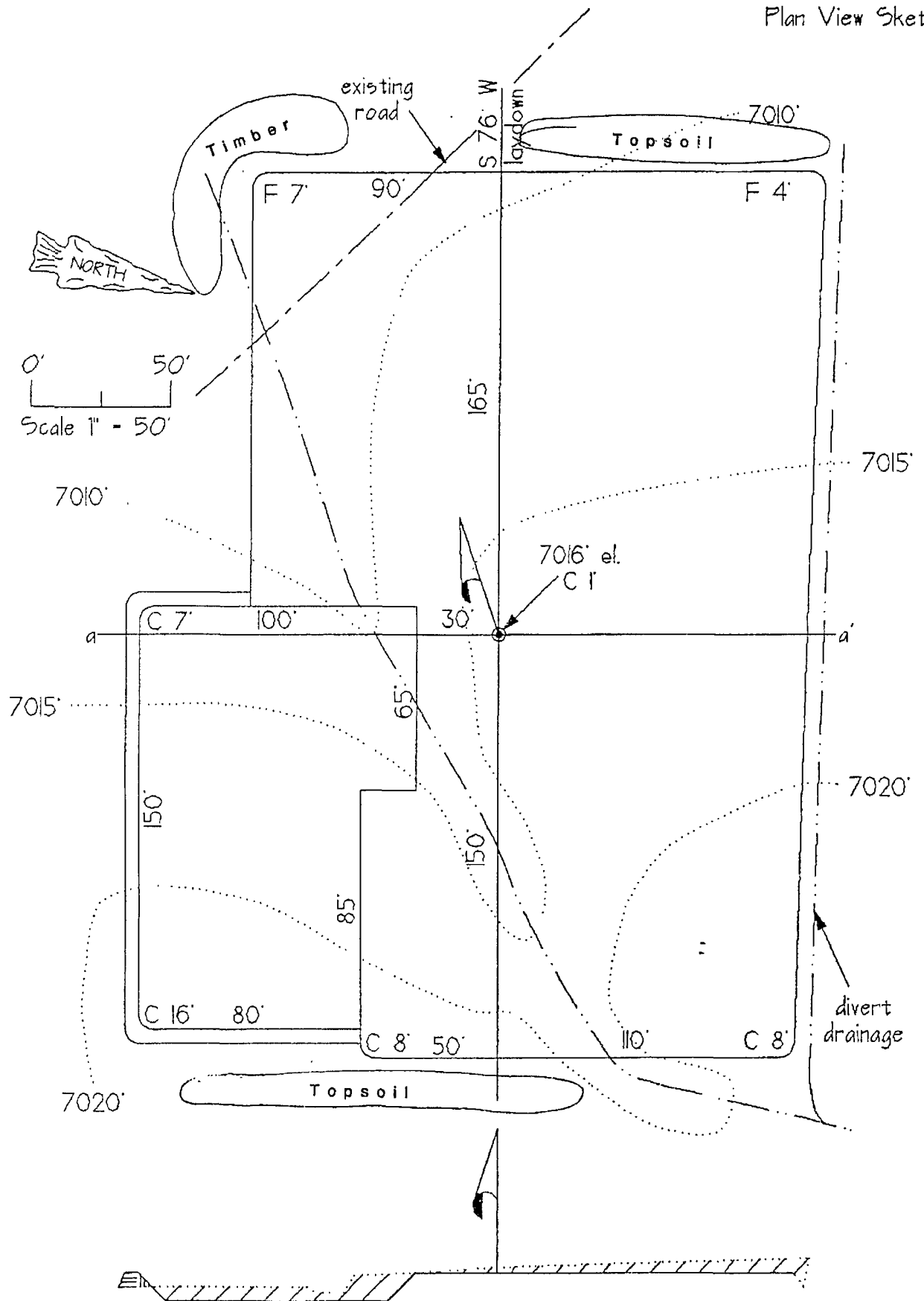
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LOCATION CONSTRUCTION DIAGRAM FOR
CUBA MESA 35-2
BRIGHT AND COMPANY

By: R. Griffes
7/12/93



Cuba Mesa #35-2
Plan View Sketch



Section a - a'

There are no additional stipulations at this time.

A Class III archeological study was conducted by William Whatley. No cultural resources were found and clearance has been recommended. A copy of the report will be filed directly with the appropriate agencies by William Whatley.



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