April 30, 1987

Mr. Bill LeMay New Mexico Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

Re: San Juan 30-6 Unit #404 Horizontal Wellbore

Dear Mr. LeMay:

Enclosed please find Meridian Oil's application for a non-standard gas well location in the Undesignated Fruitland pool. Also enclosed are courtesy copies of Meridian's application for permit to drill and subsequent sundry notices on the referenced well.

This well has an orthodox surface location; however, the lateral section of the wellbore extends beyond the orthodox location limits defined for regular gas spacing (New Mexico Oil Conservation Division District III Pools Plat "B").

Meridian Oil feels it is in the best interest of all parties involved to initiate the review procedure of the referenced well to allow for a timely approval of our application and subsequent sundry notices.

Sincerely yours,

. U. AAlconi D. Falconi

JDF:pd

cc: Frank Chavez, Aztec NMOCD

## MERIDIAN OIL

August 31, 1987

Mr. Mike Stogner New Mexico Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501 M.5. Case 9217

Dear Mr. Stogner:

In reference to the telephone conversation August 31 with Patrick Bent, the following bottom hole wellbore location clarification concerning the San Juan 30-6 Unit #404 is attached.

The possible bottom hole location will be situated on a 90° arc from due south to due east and extending approximately 1470' feet from the surface location (1135'N, 1635'E, Section 23, T-30-N, R-7-W, Rio Arriba County, New Mexico), as shown on the attached plat.

The exact direction of the high angle wellbore will be determined utilizing data received from oriented cores to be taken during drilling operations. The 90° south to east window will allow Meridian Oil leeway until the direction determination can be made.

We appreciate your help in this matter.

Very truly yours,

Wance

S. W. Nance Drilling Manager

PWB:pd

xc: Mr. Frank Chavez New Mexico Oil Conservation Division Aztec, New Mexico

## MERIDIAN OIL

August 25, 1987

Mr. Mike Stogner New Mexico Oil Conservation Division Post Office Box 2088 Santa Fe, New Mexico 87501

(ase 9217

Dear Mr. Stogner:

This is a request for administrative approval for an unorthodox bottom hole wellbore location in the Undesignated Fruitland Pool.

It is intended to locate the El Paso Natural Gas Company San Juan 30-6 Unit #404 at 1135' from the North line and 1635' from the East line of Section 23, T-30-N, R-7-W, Rio Arriba County, New Mexico.

Surface location of the subject well is orthodox. However, the lateral section of the wellbore extends beyond the orthodox location limits defined for regular gas spacing (New Mexico Oil Conservation Division District III Pools, Plat "B").

El Paso Natural Gas Company operates the offsetting leases. The wellbore location at Total Depth is indicated on the attached plat.

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S. W. Nance Drilling Manager

PWB:pd

xc: Mr. Frank Chavez New Mexico Oil Conservation Division Aztec, New Mexico STATE OF NEW MEXICO

## ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



October 13, 1987

GARREY CARRUTHERS

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FEINEW MEXICO 87501 (505) 827-5800

Mr. Thomas Kellahin	Re:	CASE NO. 9217
Kellahin, Kellahin &	Aubrey	ORDER NO. R-0526
Attorneys at Law		
Post Office Box 2265		Applicant:
Santa Fe, New Mexico	97504-2265	
		Meridian Oil Cnc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,

Florene Alavidson

FLORENE DAVIDSON OC Staff Specialist

Copy of order also sent to:

Hobbs OCD <u>x</u> Artesia OCD <u>x</u> Aztec OCD <u>x</u>

Other\_\_\_\_

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## OIL CONSERVATION DIVISION P. 0. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

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## OIL CONSERVATION DIVISION

P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

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🔥 subsequent

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Meridian Oil Inc. is operator of offsetting leases.

Plats showing the proposed well location in Section 23, along with an ownership plat, are attached.

Sincerely yours,

J. D. Jylimi

<sup>/</sup>J. D. Falconi Project Drilling Engineer

encl.

STATE OF NEW MEXICO ENERGY and MINERALS DÉPARTMENT

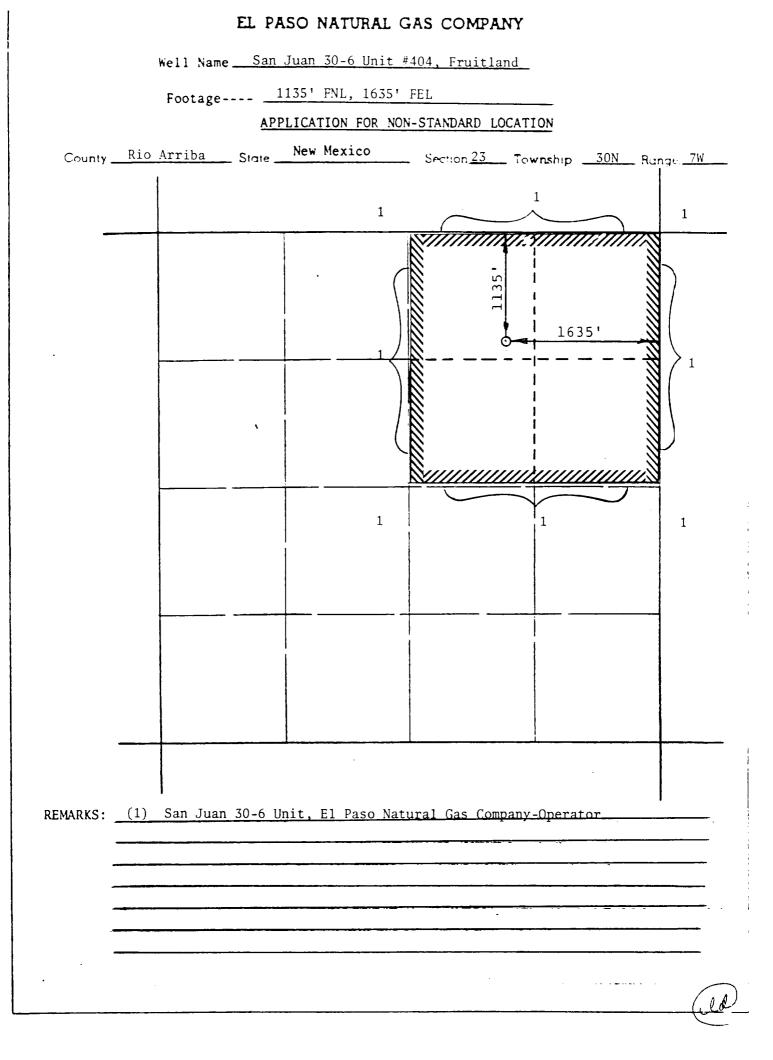
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## OIL CONSERVATION DIVISION

P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

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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.

STATE OF NEW MEXICO

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### OIL CONSERVATION DIVISION (0. 80× 2088

ENERGY NO MINERALS DEPARTMENT

### P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

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III.Drilling:

A: Mud Program: Mud from surface to 3065.

IV. Materials:

Α.	Casing	Program:	Hole Size	Depth Csg. Size	Weight	Grade
	_	-	12 1/4"	500 9 5/8"	36.0#	K-55
			8 3/4"	2565 7"	20.0#	K-55
			8 3/4"	3065 7"	23.0#	K-55

B. Float Equipment: 9 5/8" surface casing - Saw Tooth guide shoe

7" production casing - guide shoe and self-fill insert valve, one stage cementer equipped for two stage cementing. Set tool for second stage at 2080. Run 18 centralizers spaced as follows: two on each of the bottom five joints, one on the next two joints, one below the stage tool and five above spaced every other joint.

- C. Tubing: 3065 of 2 7/8", 6.5#, J-55 8rd EUE tubing bull plugged on bottom. Run a common pump seating nipple, a pump out plug, and a 10' perforated pup joint one joint off bottom.
- D. Wellhead Equipment: 9 5/8" 2000 psi x 11" casing head with 11" x 7" casing hanger, 11" 2000 psi x 7 1/16" 2000 psi xmas tree.

### Well Name - SAN JUAN 30-6 UNIT #404

V. Cementing:

9 5/8" surface casing-use 265 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride (313 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" production casing:

First stage use - 184 sks. 50/50 Class B Poz with 2% gel, and 1/4 cu. ft. Gilsonite per sk. ( 5.4 gallons of water per sk. ) ( 260 cu. ft. of slurry, 100% excess to cover the Kirtland ).

 Multi-Point Surface Use Plan EPNG San Juan 30-6 Unit #404

- 1. Existing Road Please refer to Maps No. 1 and 2 which show the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
- 2. Planned Access Roads Please refer to Map No. 2. The maximum grade of the access roads will be 3°. Approximately 100 feet of road will be constructed that will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. No culverts will be required to control drainage. No gates or cattleguards will be installed.
- 3. Location of Existing Wells Please refer to Map No. 3.
- 4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 2 and 3. Map No. 3 shows the existing gas gathering lines. Map No. 2 shows the existing roads and new proposed access roads. All proposed production facilities are shown on the attached anticipated production facility plat.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from Francis Creek located in SE 14-30-7.
- 6. Source of Construction Materials No additional materials will required to build either the access road or the proposed location.
- 7. Methods of Handling Waste Materials All garbage and trash materials will be put into trash baskets on location. A latrine, the location of which is also shown on Plat No. 1, will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.

#### Multi-Point Surface Use Plan

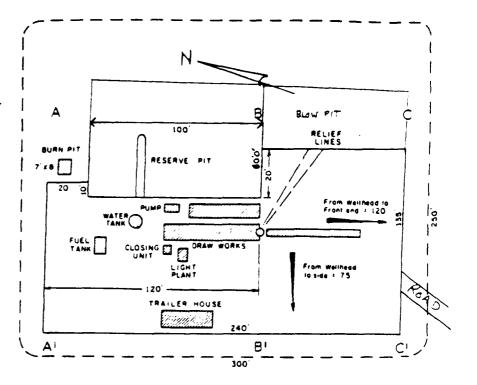
#### Page Two

- 8. Ancillary Facilities No camps or air strips will be associated with this project.
- 9. Wellsite Layout Please refer to the attached plat that includes cut and fill, orientation diagram and shows access road. The reserve pit will not be lined.
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
- 11. Other Information- Terrain is Navajo Lake with pinon, juniper and sage growing. Mr. Roque Abeyta is the surface owner. Deer, elk, rabbits and cattle are occasionally seen on the proposed project site.
- 12. Operators Representative D. C. Walker, Post Office Box 4289, Farmington, NM 87499, telephone (505) 327-0251.
- I hereby certify that I, or persons under my 13. Certification direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently 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 El Paso Natural Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. AШ Project Drilling Engineer

GWB:pd



WELL NAME El Paso Natural Gas Company San Juan 30-6 Unit #404 1135 F/NL 1635 F/EL Section 23 T-30-N R-7-W Rio Arriba Co., N.M. Fruitland

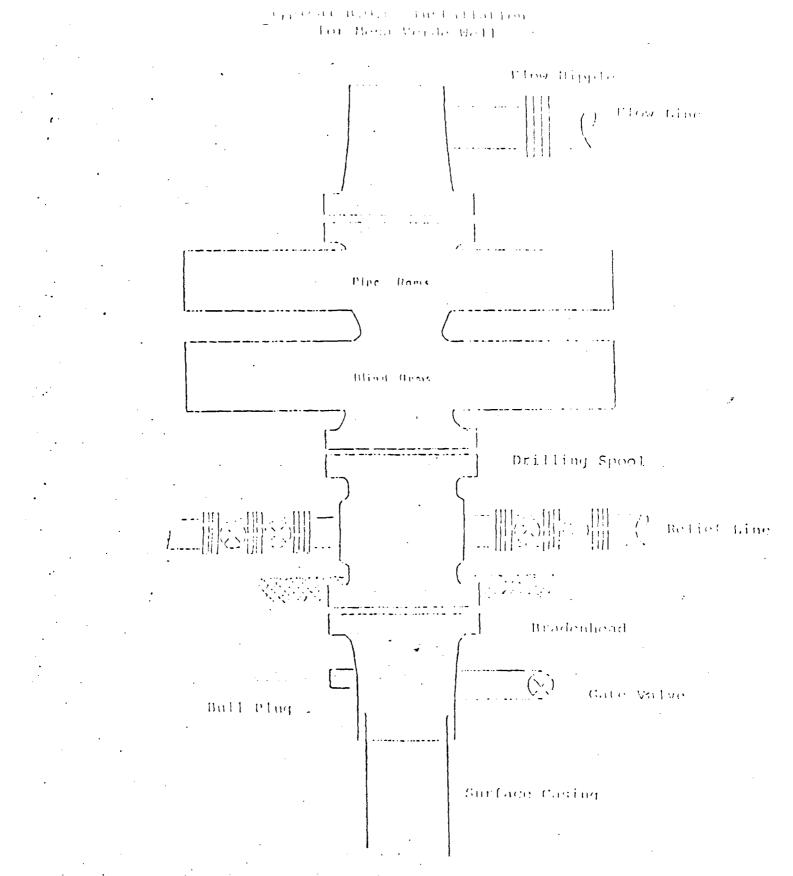


Α-Α'	Vert.: L" = 30	Horiz = 1" = 100'	C/L		
			·		
6650'					
6640'					- +
6630'		Fill HHH	HIM	Cut	
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			L		<u>_</u>

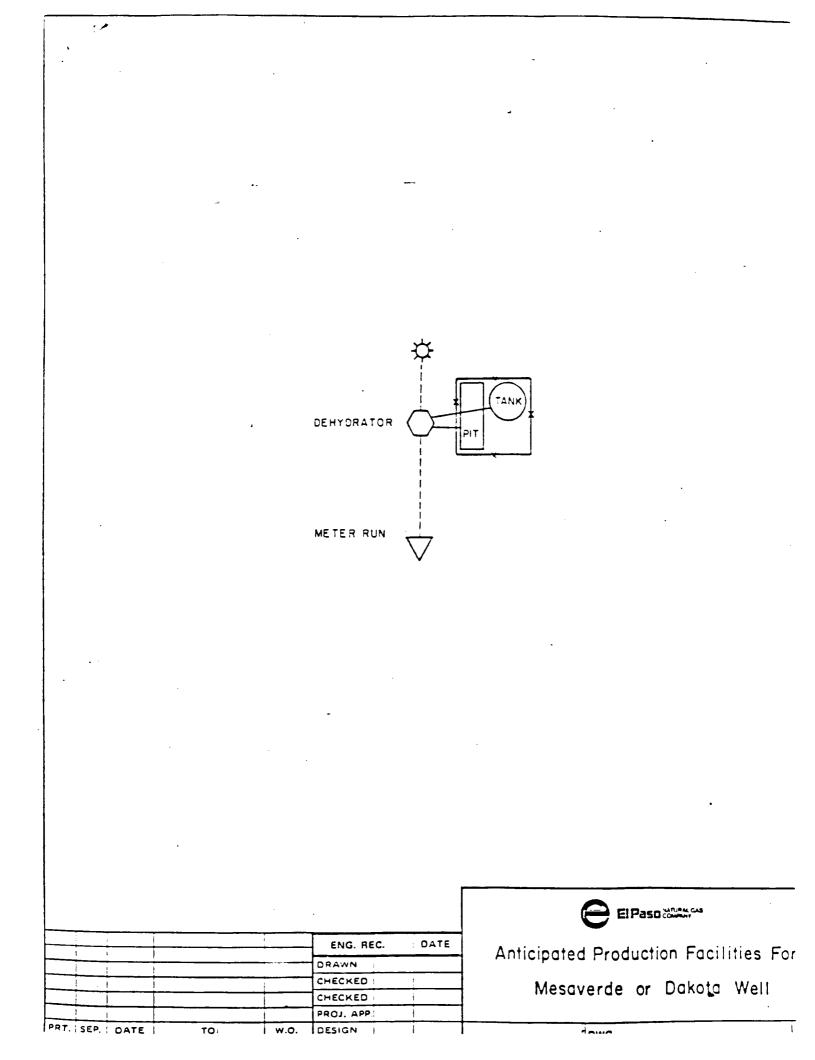
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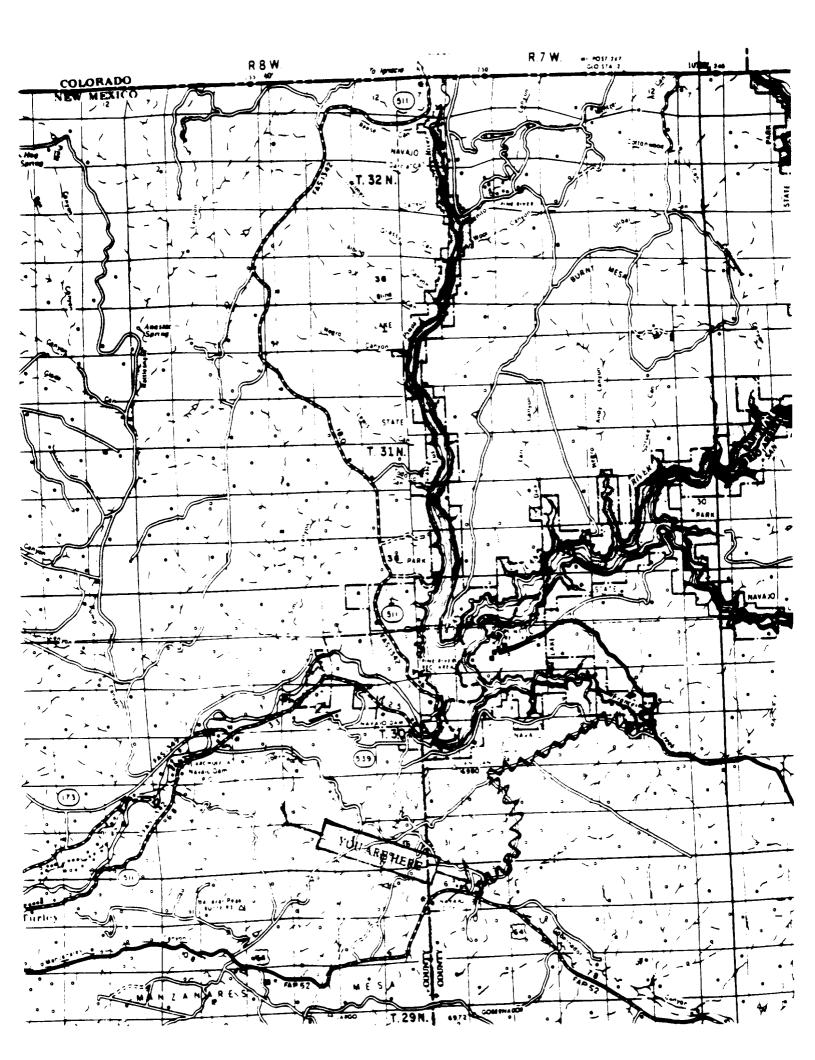
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6630'					

TYPICAL LOCATION PLAT FOR PICTURED CLIFFS DRILL SITE

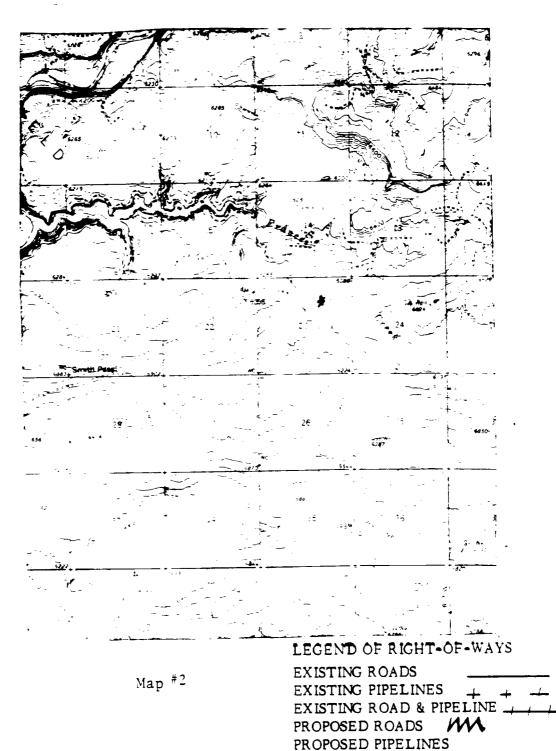


Series 900 Double Gale BOF, rated at 3000 psi Working Pressure When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line.

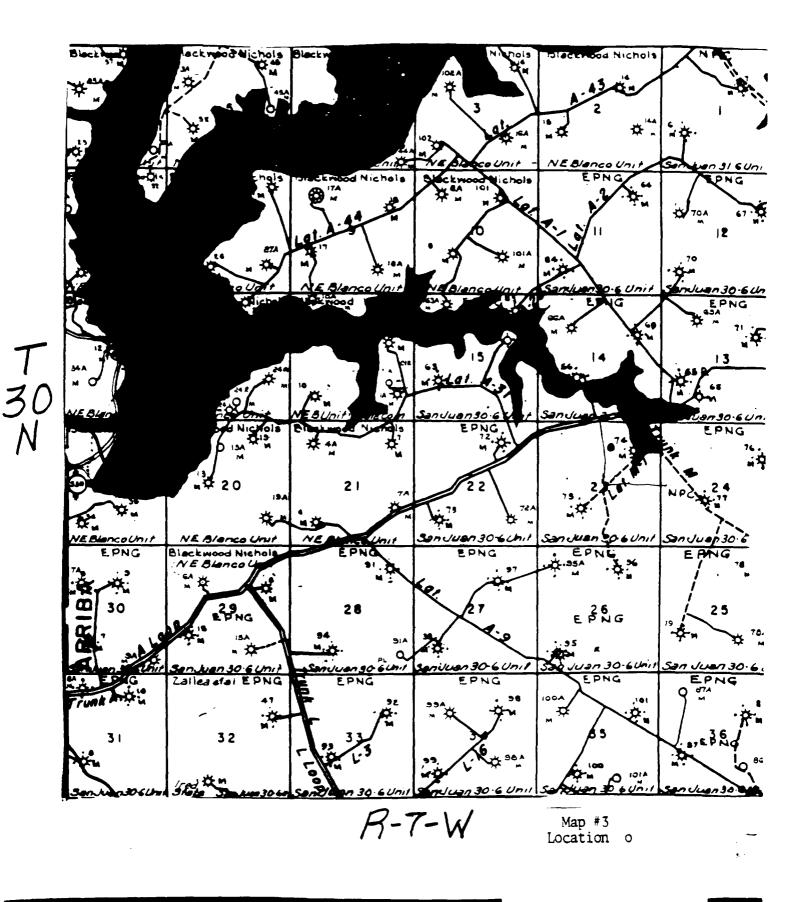




SAN JUAN 30-6 Unit 404 NE 23-30-7



PROPOSED ROAD & PIPELINE



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#### "Requirements for Production Start-up"

This addendum supersedes Part 1(J) of the "GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES"

Section 102(b)(3) of the Federal 011 and Gas Royalty Management Act of 1982, as implemented by the applicable provisions 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 a 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, Form 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 on which gas is first measured through permanent metering facilities, whichever first occurs.

If you fail to comply with this requirement in the manner and time allowed, you 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 3162.4-1(b)(5)(ii).

The following information is required on the production start-up notice:

1. Operator name.

2. Well name and number.

3. Well location (1/4 1/4, sec., T., R., P.M., County and State).

4. Date well was placed on production.

5. The nature of the well's production, i.e., crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.

6. The Federal or Indian lease prefix and number on which the well is located. Otherwise the non-Federal or non-Indian land category, i.e., State or private.

7. As appropriate, the unit agreement name, number and participating area name.

8. As appropriate, the communitization agreement number.



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT Caller Service 4104 Farmington, New Mexico 87499

> El Paso Natural Gas Company #404 San Juan 30-6 Unit Santa Fe 079382 NW\2NE\4 sec. 23, T. 30 N., R. 7 W. Rio Arriba County, New Mexico

Above Data Required on Well Sign

### GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

#### I. Operations:

These requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply <u>specifically</u> to the above-described well. <u>Special requirements</u> that apply and are effective for this well, if any, are check-marked in Section 13 of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports may result in the assessment of liquidated damages or penalties pursuant to 43 CFE 3163.3 or 3163.4.

#### I. GENERAL

A. Full compliance with all applicable laws and regulations, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.

B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease name or unit name, well number, location of the well, and the lease serial number, and whether lease is Tribal or allotted.

C. A complete copy of the approved Application for Permit to Drill and the accompanying Surface Use and Operations Plan, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active construction or drilling operations are under way.

D. For Wildcat wells only, a drilling operations progress report is to be submitted weekly from spud date until the well is completed and the Well Completion Report (Form 3160-4, formerly 9-330) is filed. The report should be on paper not less than 5 x 8 inches in size, and each page should identify the well by operator's name and number, and by well location. E. Immediate notice is required of all blowouts, fires, spills and accidents involving life-threatening injuries or loss of life.. (See NTL-3A).

F. No construction activities, such as roads, well sites, tank battery sites, pits, or other work involving surface disturbance of previously non-disturbed land will be commenced until a Surface Use and Operations Plan is submitted and approval obtained.

G. Prior approval of the Area Manager is required for variance from the approved drilling program and before commencing plugging operations, plugback work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval does not waive the written report requirements.

II. Blowout prevention equipment is to be installed, tested and in working order before drilling below the surface casing, and shall be maintained ready for use until drilling operations are completed.

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

J. This APD is approved subject to the requirement that, should the well be successfully completed for production, this Office must be notified when it is placed in a producing status. Such notification will be in writing and must be received in this Office by not later than the fifth business day following the date on which the well is placed on production. For oil wells first production is when first saleable oil is produced. (Includes oil re- covered from completion operations). Gas well is when a pipeline connection is made. The notification shall provide, as a minimum, the following informational items:

1. Operator name.

2. Well name and number.

3. Well location (1/4 1/4, sec., T., R., P.M., County and State).

4. Date well was placed on production.

5. The nature of the well's production, i.e., crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.

6. The Federal or Indian lease prefix and number on which the well is located. Otherwise the non-Federal or non-Indian land category, i.e., State or private.

7. As appropriate, the unit agreement name, number and participating area name.

8. As appropriate, the communitization agreement number.

K. Note Site Security Requirements of 43 CFR 3162.7-4.

L. Unless drilling operations are commenced within one year, approval of Application for Permit to Drill will expire. A written request for extension may ge granted if timely submitted.

M. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan, the conditions of approval, and a copy of Environmental Stipulations Section of these General Requirements.

#### 2. CASING AND CEMENTING REQUIREMENTS

A. Surface casing is to be set at sufficient depth to protect fresh water zones and provide well control; and cement circulated to the surface.

B. Intermediate and production casing strings are to be set and cemented as necessary to effectively isolate and seal off all water, oil, gas, or coalbearing strata encountered, and all potable water zones are to be covered with cement. When cement is not circulated to surface, a temperature or cement bond log is required to determine the cement top.

C. Prior to drilling the plug after cementing, all casing strings shall be pressure tested. Test pressure shall not be less than 600 psi for surface casing, and a minimum of 1,500 psi or 0.2 psi/ft., whichever is greater, for other casing strings. If the pressure declines more than 10 percent in 30 minutes, or if there is other indication of a leak, the casing shall be recemented, repaired, or an additional casing string run, and the casing shall be tested again in the same manner.

D. After cementing but before commencing any tests, 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 tests be initiated until cement has been in place at least 8 hours, WOC time will be recorded in the driller's log.

E. The Area Office shall be notified in sufficient time for a representative to witness cementing of all casing strings.

#### 3. BLOWOUT PREVENTION

A. Blowout preventers and related equipment for well control shall be installed, tested, and maintained in such a manner necessary to maintain well control at all times. All wells, as a minimum, shall be equipped with one blowout preventer rated to at least the anticipated formation pressure in accordance with API RP 53.

B. Blowout preventers shall be equipped with appropriate pressure control equipment for operations being performed. Appropriate size casing rams are required while running casing. C. Pipe rams shall be activated to test proper functioning at least once each day. Blind rams shall be activated to test proper functioning once each trip. Annular type preventers shall be actuated on the drill pipe no less than once every 7 days.

D. Blowout preventers shall have handwheels installed and operable.

E. A remote kill line shall be properly installed and operable as specified by API recommendations. The kill line is not to be used as a fill up line. A choke line and choke manifold shall be properly installed and operable as specified by API recommendations.

F. The accumulator system shall have a pressure capacity to close all hydraulics on the blowout preventer stack under repeated operations, plus a 200 psi reserve above the recommended precharge pressure.

G. Drill string safety values to fit all pipe in the drill string shall be maintained on the rig floor, in the open position, while drilling operations are in progress.

H. Blowout prevention drills shall be conducted at least once weekly to assure that equipment is operational and that each crew is properly trained to carry out emergency duties. All blowout prevention drills and tests shall be recorded in the driller's log.

I. The maximum pressure to be allowed on blowout preventers during well control operations shall be posted for each casing string.

J. The characteristics, use and testing of drilling mud shall be such as are necessary for well control. Quantities of mud materials sufficient to insure well control shall be maintained, readily accessible for use at all times.

K. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the toolpusher shall maintain rig surveillance at all times, unless the well is secured with blowout preventers or cement plugs.

4. REPORTS

A. The following reports shall be filed with the Resource Area Manager within 30 days after the work is completed:

1. Five copies of Sundry Report (Form 3160-5, formerly 9-331) giving complete information concerning:

a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amoung (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the <u>date work was done</u>. Show spud date on first report submitted. b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Show date work was done (a Sundry Report is not required if a Completion Report is submitted within 30 days of the operation).

2. Well Completion Report (Form 3160-4, formerly 9-330) shall be filled out in compliance with instructions of April 1, 1982.

3. Two copies of all electrical and radioactivity logs run.

#### 5. DRILLER'S LOG

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A. The following shall be entered in the daily driller's log:

1. Blowout preventer pressure tests, including test pressures and results.

2. Blowout preventer tests for proper functioning.

3. Blowout prevention drill conducted.

4. Casing run, including size, grade, weight, and depth set.

5. How pipe was cemented, including amount of cement, type, whether cement circulated, location of cementing tools, etc.

6. Waiting on cement time for each casing string.

7. Casing pressure tests after cementing, including test pressure and results.

#### 6. DRILLSTEM TESTS

A. Estimated amounts of oil and gas recovered and/or produced during drillstem tests are to be shown in the driller's log and reported in accordance with NTL-4A.

#### 7. GAS FLARING

A. Approval is granted to flare gas while drilling and completion testing.

B. When gas is used for drilling, the blooey line will be located where no damage to vegetation will occur. If this is not possible, an earthen baffle will be constructed to keep the heat and residue within the operating area.

C. Approval is granted to flare gas during completion and initial testing operations not to exceed a period of 30 days or the production of 50 MMCF of gas, whichever occurs first. The 30 calendar day period commences the first day gas is produced. Any gas vented other than that provided for above, and without approval, will result in compensation due the U.S. for the full value of gas so wasted. (See NTL-4A). All venting of gas after the initial 30 day period must be approved by the Area Manager prior to venting.

#### 8. WATER DISPOSAL

A. An application for approval of the disposal method for water production from all new wells must be filed with the Area Manager within 30 days following first production, pursuant to Section VII of NTL-2B. Failure to timely file such application will be considered an incident of noncompliance and will be grounds for issuing a shut-in order until the application is submitted and/or assessments pursuant to 43 CFR 3163.3(h).

### 9. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Drilling rig engines should have water-cooled exhausts.
- C. Rig safety lines are to be installed.
- D. Hard hats must be utilized.

### 10. SUBSEQUENT OR CHANGE OF PLANS

A. Any change of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require verbal approval of the Bureau of Land Management (Fluid Minerals Section) and submission of a Sundry Notice (Form 3160-5, formerly 9-331), five copies.

#### 11. REMOVAL OF DRILLING RIG

A. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drillsite without prior approval from the Bureau of Land Management (Fluids Section).

#### 12. ABANDONMENT

A. If the well is dry it is to be plugged in accord with 43 CFR 3162.3-4, approval of the proposed plugging program may be obtained orally; however, oral approval must be confirmed in writing by immediately filing a Notice of Intention to Abandon on Form 3160-5 (formerly 9-331), in quintuplicate with the Area Manager. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc.

B. Upon completion of approved plugging, erect a regulation well marker which should not be less than 4 inches in diameter and extend at least 4 feet above general ground level. Heap up the dirt around the base of the marker about 12 inches to take care of any settling of

the cellar. The top of the marker must be closed or capped. The following minimum information shall be permanently placed on the marker with a plate, cap, or welded bead:

- 1. Operator
- 2. Well number and name
- 3. Section, Township and Range
- 4. Footage location

If approval is obtained to omit the dry hole marker, casings should be cut off three feet below ground level.

C. Within 30 days after plugging the well, a Subsequent Report of Abandonment is to be filed on (Form 3160-5, formerly 9-331), in quintuplicate, showing the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were placed, and the date plugging was completed. When all surface restoration work is completed, advise the Farmington Resource Area Office by Sundry Notice so that a field inspection of the wellsite can be made.

#### 13. SPECIAL STIPULATIONS

# The following special requirements apply and are effective when checked:

A. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management Branch of Fluids, P. O. Box 6770, Albuquerque, New Mexico 87102. The effective date of the agreement must be prior to any sales.

B. In addition to the well-control equipment stipulated in Section 5, either an annular blowout preventer or a rotating head must be used while drilling below surface casing to

C. Note attachments.

### II. Environmental Stipulations

The following stipulations will apply to all wells unless a particular Surface Managing Agency has supplied to the 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 3163.3 or 3163.4.

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An agreement between the operator and fee landowner will take precedence over BLM surface stipulations unless 1) the BLM determines that the operator's actions will affect adjacent Federal or Indian surface (43 CFR Part 3160), or 2) the operator does not maintain the well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance (43 CFR Part 3162.7-4), or 3) no such agreement exists (43 CFR Part 3160), or 4) in the event of well abandonment, minimal Federal restoration requirements will be required (43 CFR Part 3162.7-2).

#### 1. Location and Access Road

A. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All waste associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site. If burial on site is used, waste must be buried at least 2' deep and metal containers will be crushed prior to burial. Trash pit must be secured during drilling activities, so as to keep the trash from spreading outside of the pit. Trash pits for drilling operations will be covered once the drilling rig leaves the location.

B. Pinyon and juniper trees will be uprooted from road rights-of-way and well pad locations and distributed beside rights-of-way and well pads for fuelwood salvage. Care will be taken to keep the trees as undamaged as practically possible. Large vegetation such as sagebrush, juniper and pinyon will not be incorporated into pit walls. Sagebrush removed during clearing operations will be placed in drainages and "walked down" by a crawler - type tractor. If no drainages are nearby, sagebrush will be buried in the reserve pit when it is filled in. All uprooted vegetation not subsequently buried will be scattered so it does not detract from the natural appearance of the area and does not accelerate erosion.

C. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.

D. Mud pits will be constructed so as not to leak, break, or allow discharge of liquids. The bottom of the reserve pit shall not be in fill material. Pits are not to be located in natural drainages. Any plastic material used to line pits must be removed to below-ground level before pits are covered. Pit walls are to be "walked down" by a crawler-type tractor following construction and prior to usage.

E. All unguarded pits containing liquids will be fenced. Drilling pits will be fenced on three sides and once the rig leaves the location, the fourth side will be fenced. 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. F. Unless otherwise approved, the driving surface on all access roads must be limited to 20 feet in width, and total disturbance will be limited to 35 feet, excluding turnouts.

G. 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 approveal from the Surface Managing Agency.

H. Water bars will be constructed on the access road to the well location and conform to surface management specifications. The maximum slope distance between water bars will be:

% Slope	Slope Distance			
Less than 17	400 feet			
1 <b>% -</b> 5 <b>%</b>	300 feet			
5 <b>% -</b> 15 <b>%</b>	200 feet			
157 - 257	100 feet			
Greater than 25%	50 feet			

When the access road is graded, water bars will be left in the road or replaced immediately upon completion of grading.

I. Prior to crossing any fence located on federal land, or any fence between Federal land and private land, the grantee shall contact the grazing lessee or owner of said fence and offer them the opportunity to be present when the fence is cut in order to satisfy himself that it is adequately braced and tied off in accordance with the attached drawing. All cut fences are to be tied to the braces prior to cutting.

Grazing	Lessee		
Address			
Telephon	e No.		

The opening will be protected as necessary during construction to prevent the escape of livestock. A temporary closure will be installed on all cut fences the same day the fence is cut. A permanent cattleguard will be installed and maintained in any cut fence unless otherwise stipulated in writing. A twelve-foot gate will be installed adjacent to all new cattleguards.

J. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of the tanks.

K. No well and/or production equipment within the irrigable fields of the Navajo Indian Irrigation Project will exceed two feet above the natural ground surface elevation, and will be adequately barricaded for safety.

L. All roads on public land must be maintained in a good passable condition.

M. A proposed use of pesticide, herbicide or other possible hazardous chemical on Bureau of Land Management land shall be cleared for use prior to application.

### 2. Cultural Resources (Archaeology)

A. The lessee will not commence construction on the lease until the cultural resource inventory has been approved by BLM (per 36 CFR 800).

B. Surface disturbance activities shall be kept 100' away from any archaeological site(s) located off the well pad, unless approved otherwise by the Area Manager.

C. If, in its operations, the APD grantee discovers any historic or prehistoric ruin, monument or site, or any object of antiquity subject to the Antiquities Act of 1906, The Archaeological Resources Protection Act of 1979, and 43 CFR Part 3, then work will be suspended and the discovery promptly reported to the BLM Area Manager. The BLM will then specify what action is to be taken. The APD grantee will obtain at his expense, a qualified archaeologist to carry out the specific instructions of the BLM.

### 3. Reseeding and Abandonment

A. All surface areas disturbed during drilling activities and not in use for production activities, will be reserved the first July - September period after the reserve pit has been filled in and/or location abandoned.

B. Compacted areas of the well pad will be plowed or ripped to a depth of 12" before reseeding. All seeding is recommended to be done between July 1 and September 15. Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted between one-half inch deep and three quarter inch deep. The seeder will be followed with a drag, packer or roller to insure uniform coverage of the seed, and adequate compaction. Drilling of the seed will be done on the contour where possible. Where slopes are too steep for contour drilling a "cyclone" hand-seeder or similar broadcast seeder will be used, using twice the recommended seed per acre. Seed will then be covered to a depth described above by whatever means is practical.

C. If, in the opinion of the surface management agency, the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.

D. 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 as stated in 1.H. 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 the affected areas may be required). E. Recommended Seed Mixtures. \*Species to be planted in pounds pure-live-seed per acre: Pure Live Seed = Germination x Purity

Seed Mix No. 1BLM CRESTED WHEATGRASS SMOOTH BROME FOURWING SALTBUSH (dewinged) NOMAD ALFALFA INDIAN RICEGRASS WESTERN WHEATGRASS	1 1/2 1/2 1 1/2 1
Seed Mix No. 2BLM CRESTED WHEATGRASS FOURWING SALTBUSH (dewinged) SAND DROPSEED INDIAN RICEGRASS WESTERN WHEATGRASS	1 1/2 1 1/4 1
Seed Mix No. 3BLM FOURWING SALTBUSH (dewinged) SAND DROPSEED ALKALI SACATON INDIAN RICEGRASS	1 1/4 1/4 1
Seed Mix No. 4NIIP INDIAN RICEGRASS SAND DROPSEED GALLETA	1 1 2
Seed Mix No. 5NIIP ALKALI SACATON SAND DROPSEED GALLETA	1 1 2
Seed Mix No. 6BIA (Crownpoint) CRESTED WHEATGRASS ALKALI SACATON SAND DROPSEED PUBESCENT WHEATGRASS INDIAN RICEGRASS	3 1/2 1/2 2 2
Seed Mix No. 7 Forest Service No. 3 CRESTED WHEATGRASS PUBESCENT WHEATGRASS BURNET LADAK ALFALFA PERENNIAL RYE	4 6 1 1 2

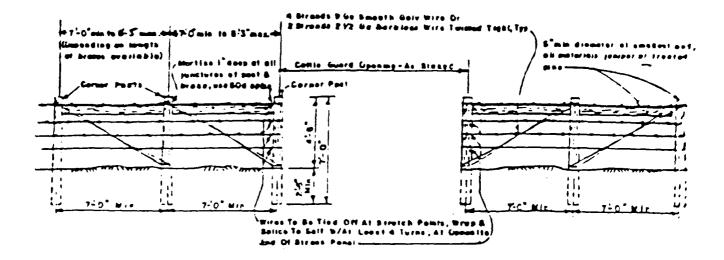
Seed Mix No. 8Forest Service No. 4	
PUBESCENT WHEATGRASS	6
LADAK ALFALFA	1
PERENNIAL RYE	2
SAND DROPSEED	1
INDIAN RICEGRASS	1/2
	-, -
Seed Mix No. 9Forest Service (Cuba)	
PUBESCENT WHEATGRASS	6
BURNET	1
LADAK ALFALFA	1/2
PERENNIAL RYE	2
WESTERN WHEATGRASS (Arriba Variety)	4
Seed Mix No. 10Forest Service (Cuba)	
PUBESCENT WHEATGRASS	
BURNET	<u> </u>
LADAK ALFALFA	
PERENNIAL RYE	
SAND DROP SEED	
INDIAN RICEGRASS	
WESTERN WHEATGRASS (Arriba Variety)	
Seed Mix No. 11 (Jicarilla)	
Vere him ove in (vicetite)	
PUBESCENT WHEATGRASS	4

rudescent wherturas	
INTERMEDIATE WHEATGRASS	4
WESTERN WHEATGRASS	4
SMOOTH BROME	2
YELLOW CLOVER	1/2

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F. Note Attachments.

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Stipulations:

1. A 12' gate must be installed between the cattleguard and brace assemblies on which ever side of the cattleguard is most convenient. If the gate is made of wire it must have at least four horizontal strands of barb wire, with at least four 3" diameter vertical wood stays evenly spaced. When the gate is closed the wires must be taut.

2. All cattleguards must have wings installed on both ends to prevent livestock from stepping around the ends. Cattleguards must be at least 8' wide, the length is left to the discretion of the operator. They must be set on concrete or pressure treated wood bases to prevent them from sinking. (If you will install the bases at least 12" above the surrounding contour, and provide drainage through the open area under the cattleguard, you will not have to clean them so often).

3. All cattleguards must have clearly visible identification marks welded into them indicating the ownership and well name and number associated with the cattleguard. Office, Fluids Surface Management Staff, at (505) 325-4572, approximately 48 hours prior to construction activities.

 $\sum_{and}^{2}$ . No construction or drilling activities shall be conducted between November 1 and March 31 because of elk/deer/bald eagle winter habitat areas. Contact BLM wildlife biologist (Dave Renwald) at 325-3581, with any questions.

3. The Fluids Surface Management Staff shall be notified upon site completion, prior to moving on drilling rig. (505) 325-4572.

\_\_\_\_4. A \_\_\_\_ (ft.) tree screen will be left on the \_\_\_\_\_ sides of the location.

5. Pits and/or pad will be constructed long and narrow, or to conform to natural contour of terrain, so as to avoid the edge of hazard by an amount that prevents pit failure.

\_\_\_\_6. Pits will be lined with an impervious material.

7. Earthen berm(s) will be placed on the \_\_\_\_\_ side(s) of the location between the reserve pit and the wash.

8. The corner of the well pad will be rounded off to avoid

X 9. The wash shall be diverted around the 5 side of the well pad. (TO west) X10. Diversion ditch(es) will be constructed on the 5 side of the location

above below (circle one) the cut slope, draining to the \_\_\_\_\_

11. A culvert of sufficient size will be placed where the drainage crosses access road.

12. The proposed access road shall utilize the upgraded 2-track trail approximately (ft. or mi.) as agreed upon during on-site inspection. Remainder of planned access road will follow flagged route.

13. The access road shall be rerouted around the \_\_\_\_\_\_edge of the well pad during construction and drilling activities for safety reasons. Upon completion of o drilling and cleanup, the road will be returned to its original alignment. X 14. The cut slope shall not exceed a 4:1, 3:1 2:1, or 1:1 ratio (circle). Hyperbolic formula is the state of the

X 14. The cut slope shall not exceed a 4:1, 3:1 2:1, or 1:1 ratio (circle). Hydr mulching or netting \_\_\_\_\_ is X is not required on the slopes.

 $X_{15}$ Paint color Green seed mix I .

Woven wire shall be required on all pits (See Standard Stipulation I.E.).

17. No hardwood tree with a diameter of ten inches or more at the base or any Ponderosa pine, Douglas-fir or aspen tree is to be removed or damaged without approval from the Authorized Officer.

18. Due to an active raptor nest no drilling or construction activities shall be conducted between March 1 and June 30. Contact BLM Wildlife Biologist at 325-3581, with any questions.

19. No surface disturbance shall occur until a paleontological resource investigation has been conducted by a BLM paleontologist or a professional paleontologist acceptable to BLM. The results of this investigation will dictate site specific stipulations for avoidance or salvage of any potentially significant paleontological resources.

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NOTE:

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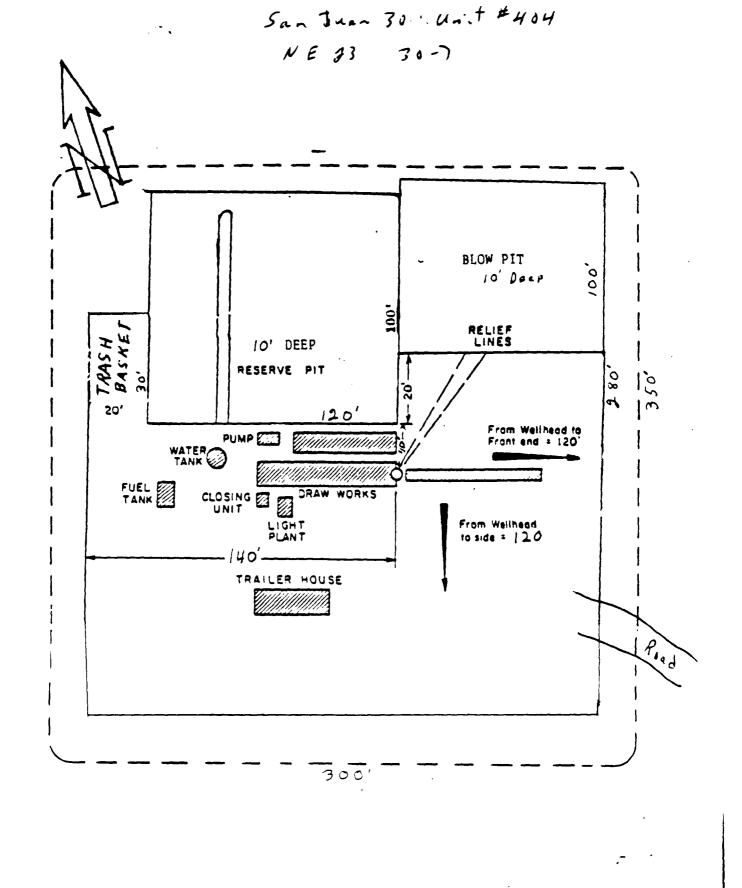
Form 3160-5 (Novembe, 1983) ( <sup>c</sup> ormerly 9-331)	UNITED STATES DEPARTM' T OF THE INTER	SUBMIT IN TRIPLICATE. (Other instruction of re- IOR verse side)	Budget Bureau No. 1004-0135 Expires August 31, 1985 5. LEASE DESIGNATION AND SERIAL NO.	
	BUREAU UF LAND MANAGEMEN	т	SF 079382	
(Do not use this	DRY NOTICES AND REPORTS	ON WELLS back to a different reservoir.	6. IP INDIAN, ALLOTTUS OR TRIBE NAME	
1.			7. UNTE AGREEMENT NAME	
OIL GAS (			San Juan 30-6 Unit	
2. NAME OF OPERATOR			S. FARM OR LEASE HAME	
	El Paso Natural Gas Com	nany	San Juan 30-6 Unit	
3. ADDESSE OF OPERATOR	EI FASO NACULAI GAS COM	puny	9. WBLL NO.	
	Post Office Box 4289,Fa	rmington.NM 87499	404	
4. LOCATION OF WELL IR	eport location clearly and in accordance with any	State requirements.*	10. FIELS AND POOL, OR WILDCAT	
See also space 17 belo At surface	1135'N, 1635'E		Undes. Fruitland	
	1155 N, 1055 L		11. SEC., T., R., M., OR BLE. AND	
			Sec. 23, T-30-N, R- 7-W	
RECEIVE	ED		N.M.P.M.	
14. PERMIT NO.	15. BLEVATIONS (Show whether D	7. RT. GB. etc.)	12. COURTY OR PARISE 18. STATE	
JUL 1.6.19	26 <b>6</b>	141'GL	Rio Arriba NM	
	Check Appropriate Box To Indicate N	Nature of Notice, Report, or C	Other Data	
BUREAU OF LAND MAN	AGEMENT TO TO			
TEST WATER SECT-OF		WATER SHUT-OFF		
PRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CARING	
SHOOT OR ACIDIZE	ABANDON*	SECOTING OS ACIDISING	ABANDONMENT"	
REPAIR WELL	CHANGE PLANS	(Other)		
(Other)		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)		
17 DESCRIBE PROPOSED OR proposed work. If nent to this work.)	COMPLETED OPERATIONS (Clearly state all pertiness well is directionally drilled, give subsurface loca	it details, and give pertinent dates.	including estimated date of starting any	

It is intended to increase the size of the pad on this location as shown on the attached plat.

18. I hereby certify that the foregoing is true and correct SIGNED 1994 - Dak	TITLE Drilling Clerk	DATB	7-16-86
(This space for Federal or State office use)			
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	TITLE	- APPR	OVED
•\$	ee Instructions on Reverse Side OPERATOR*	Con JEX MA	NAGER

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Title 13 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.



	ENG. REC. DATE	
	ORAWN C.A.G. 2-2085	MERIDIAN OIL INC.
	CHECKED	TYPICAL LOCATION PLAT FOR
	CHECKED	FRUITLAND COAL DRILL SITE
	PROJ. APPL	
T. SEP.: DATE TO W.O.	DESIGN	DWG>

The approval this action does NOT grant or ly approval of any off-lease or off-unit action. It is the responsibility of the applicant to obtain any such approvals from the appropriate Surface Management Agency, including BLM, and/or any private landowners.

· **. .** 

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Office, Fluids Surface Management Statt, at (202) 323-4372, approximately to more prior to construction ac+' 'ities.

Χ2. No construction or drilling activities shall be conducted between November 1 and March 31 because of elk/deer/bald eagle winter habitat areas. Contact BLM wildlife biologist (Dave Renwald) at 325-3581, with any questions.

3. The Fluids Surface Management Staff shall be notified upon site completion. prior to moving on drilling rig. (505) 325-4572.

4. A \_\_\_\_\_ (ft.) tree screen will be left on the \_\_\_\_\_ sides of the location.

5. Pits and/or pad will be constructed long and narrow, or to conform to natural contour of terrain, so as to avoid the edge of hazard by an amount that prevents pit failure.

6. Pits will be lined with an impervious material.

Earthen berm(s) will be placed on the side(s) of the location between 7. the reserve pit and the wash.

8. The corner of the well pad will be rounded off to avoid

 $\times 9$ . The wash shall be diverted around the 5 side of the well pad. To M $\times$  10. Diversion ditch(es) will be constructed on the 5 side of the location above below (circle one) the cut slope, draining to the

11. A culvert of sufficient size will be placed where the drainage crosses access road.

eement. 12. The proposed access road shall utilize the upgraded 2-track trail approximately (ft. or mi.) as agreed upon during on-site inspection. Remainder of planned access road will follow flagged route.

The access road shall be rerouted around the edge of the well pad 13. during construction and drilling activities for safety reasons. Upon completion of drilling and cleanup, the road will be returned to its original alignment.

 $\times$ 14. The cut slope shall not exceed a 4:1, (3:1), 2:1, or 1:1 ratio (circle). Hydro mulching or netting \_\_\_\_\_ is  $\bigvee$  is not required on the slopes.

X15. Paint color (norm seed mix  $\pm$ .

 $\times$  16. Woven wire shall be required on all pits (See Standard Stipulation I.E.).

No hardwood tree with a diameter of ten inches or more at the base or any 17. Ponderosa pine, Douglas-fir or aspen tree is to be removed or damaged without approval from the Authorized Officer.

Due to an active raptor nest no drilling or construction activities shall be 18. conducted between March 1 and June 30. Contact BLM Wildlife Biologist at 325-3581, with any questions.

No surface disturbance shall occur until a paleontological resource 19. investigation has been conducted by a BLM paleontologist or a professional paleontologist acceptable to BLM. The results of this investigation will dictate site specific stipulations for avoidance or salvage of any potentially significant paleontological resources.

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Form 3160-5 (November 1983) (Formerly 9-331)	UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANAG	TERIOR verse aide)	SF 079382
	NDRY NOTICES AND REPO		6. IF INDIAN, ALLOTTER OR TRIBE NAM
I. OIL GAS . WELL WELL	X		7. UNIT ACABEMENT NAME San Juan 30-6 Unit
2. NAME OF OPERATOR	Meridian Oil Inc.		8. FARM OF LEASE HAMB San Juan 30-6 Unit
3. ADDERS OF OFBRAT		armington_NM 87499	9. WELL NO. 404
4. LOCATION OF WELL See also space 17 by At surface	Post Office Box 4289,F Report location clearly and in accordance a 1135'N, 1635'E	The any State regulie ETVE	10. FIELD AND FOOL, OE WILDCAT Undes.Fruitland
		MARIGIA	11. 88C., T., S., M., OB BLE. AND SBRET OB AREA SPC - 23 - 1 - 1 - N - R - 7 -
14. PERMIT NO.	15. ELEVATIONS (Show w)	BUREAU OC LAND MANAGEA 6141 'GL RESOURCE AND	N.M.P.M. N.M.P.M. 12. COURTY OF PARISE 13. STATE MENT RIO Arriba NM WEA or Other Data
16.	Check Appropriate Box To Indi	cate Nature of Notice, Report,	, or Other Data
	NOTICE OF INTENTION TO :		UBSBQUENT REPORT OF:
TEST WATER BEUT- PRACTURE TREAT Shoot or acidize Repair Well (Other)	OFF PCLL OR ALTER CASING MULTIPLE COMPUTE ABANDON* CHANGE PLANE	WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (Note: Report r	
	DR CUMPLETED OPERATIONS - Clearly state all		tecompletion Report and Log form.)

. DESKNUR HOUSED OR COMPLETED OPERATIONS (Cleansy state all pertinent details, and give pertinent dates, including estimated date of starting approposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and some pertinent to this work.)\*

The attached operations plan reflects our current design plans and is being submitted for approval. Specific changes are in the Casing Program (Section IV) and Cementing Program (Section V). Also note the operator has changed from El Paso Natural Gas Company to Meridian Oil Inc.; and the drill site diagram has been changed. Due to the proximity of Navajo Lake, the orientation of this pad was changed to keep the reserve and blow pits upslope to reduce the chance for an accidental fluid spill.

18. I hereby certify that the foregoing is true and SIGNED Light Anale	TITLEDrilling Clerk	ARPROVED
(This space for Federal or State office use)		
APPROVED BY CONDITIONS OF APPROVAL, LF ANY :	TITLE	DATE (11)
CONDITIONS OF AFFROVAL, IS ANT.		Prestella
		FAREA MANAGER
	*See Instructions on Revense Side	
	OPERATUR	

Title 13 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.

Well Name - San Juan 30-6 Unit #404 Date: 12-Mar-87 I.Location: 1135'N, 1635'E, Sec.23, T-30-N, R-7-W, Rio Arriba Co., NM Field: Undesignated Fruitland Elevation: 6141' GL II. Geology: A. Formation Tops: Surface San Jose Ojo Alamo 1980 Kirtland 2200 Fruitland 2760 Total Depth 3055 B. Logging Program: I-ES & GR-FDC-CNL at Total Depth. C. Coring: None III.Drilling: A: Mud Program: Mud from surface to 3055. IV. Materials: Depth Csg. Size Weight A. Casing Program: Hole Size Grade 
 200
 9
 5/8"
 32.3#

 2820
 7"
 20.0#
 12 1/4" H-40 8 3/4" K-55 3055 5 1/2" 23.0# P-110 6 1/4" 51/2" liner hung @ 2610', w/ Baker Dauble Gup R. Jur B. Float Equipment: 9 5/8" surface casing - Saw Tooth guide shoe 7" production casing - guide shoe and self-fill insert valve, one stage cementer equipped for two stage cementing. Set tool for second stage at 2300 . Run 11 centralizers spaced as follows: one on each of the bottom five joints, one below the stage tool and five above spaced every other joint. 5 1/2" production liner - bull nose guide shoe on bottom. Liner

C. Tubing: 3055 of 2 3/8", 4.7#, J-55 8rd EUE tubing with an expendable check valve on bottom. Run an F-nipple one joint off bottom.

D. Wellhead Equipment: 9 5/8" 2000 psi x 11" casing head with 11" x 7" casing hanger, 11" 2000 psi x 7 1/16" 3000 psi xmas tree.

predrilled with 12 holes per foot.

V. Cementing:

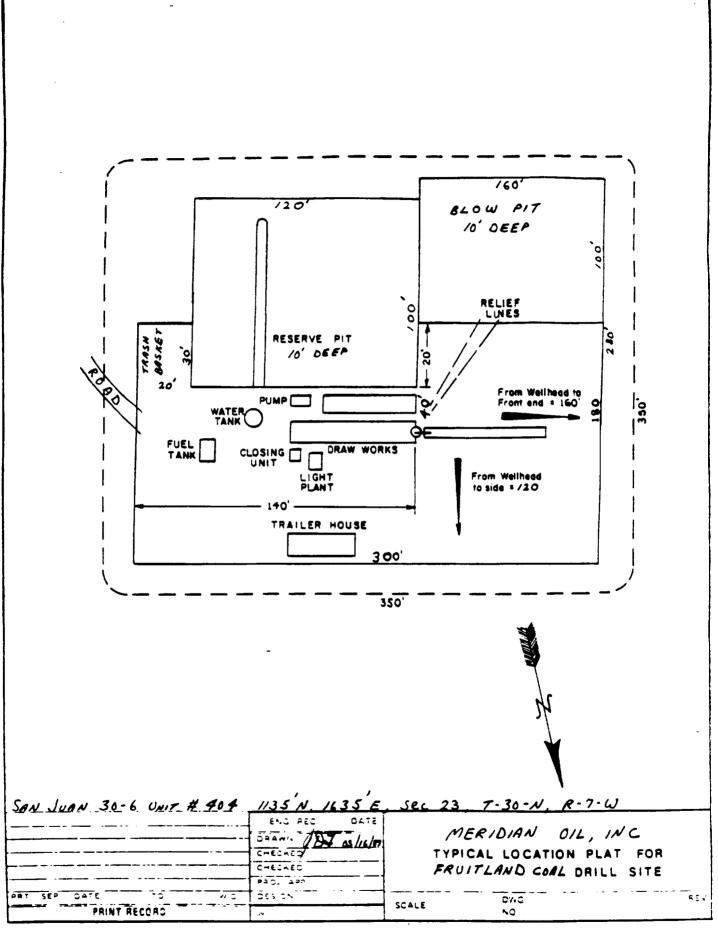
9 5/8" surface casing-use 106 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride ( 125 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" production casing:

First stage use - 132 sks. 50/50 Class B Poz with 2% gel, and 1/4 cu. ft. Gilsonite per sk. ( 5.4 gallons of water per sk. ) ( 186 cu. ft. of slurry, 100% excess to cover the Kirtland ).

5 1/2" liner:

Do not cement.



Form 7 1328 (Rev. 5-73)

CONDITIONS OF APPROVAL, IF ANY :

\*See Instructions on Reverse Side

Title 13 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 faise, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-5 (November 1983) (Formerly 9-331)	Budget Bureau No. 1004-0135 Expires August 31, 1985 5. LEADE DEGIGNATION AND EBELL NO. SF079382 6. IP INDIAN, ALLOTTER OR TRIBE NAME		
SUNDR (Do not use this form Units of the second	Y NOTICES AND REPORTS	back to a different reservoir.	
I. OIL GAB VELL			7. UNIT AGERBANNET MAME San Juan 30-6 Unit
2. HANS OF OPSEATOR			S. FABL OF LEASE NAME
Meridian 3. ADDRESS OF OFELATOR	San Juan 30-6 Unit 9. WBLL RO.		
PO Box 1	289, Farmington, NM 8	7199	404
4. LOCATION OF WELL (Repor	t location clearly and in accordance with any	y State requirements.*	10. FIELD AND POOL, OR WILDCAT
See also space 17 below.) At surface		1135'N, 1635'E	Undes.Fruitland
			11. BC. T. B. W. OF BLE. AFD SURVEY OF AMA Sec. 23, T-30-N, R-7-V NMPM
14. PERMIT NO.	15. SLEVATIONS (Show whether D	P. RT. GR. #4.)	12. COUNTY ON PARISH 13. STATE
		6141'GL	Rio Arriba NM
16.	Check Appropriate Box To Indicate 1	Nature of Notice, Report, or (	Other Data
POTIC	TO OF INTENTION TO :	pesete	CENT LEPORT OF :
TEST WATER SEUT-OFF	PELL OR ALTER CASING	WATER SEUT-OFF	SEPAIRING WELL
PRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CABING
SHOOT OR ACIDIZE	ABANDON®	SECOTING OR ACIDIZING	ABANDONMENT*
REPAIR WELL	CHANGE PLANS	(Other) Report remit	s of multiple completion on Well
(Other) Horizo	ntal Wellbore X	Completion or Recoup	letion Report and Log form.)

17 ULSCRIBE PROPOSED OF COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and somes pertinent to this work.)\*

The attached design summary, operations plan and wellbore diagram reflect Meridian Oil's proposal for the subject well. Specific changes are in the casing and cementing programs and the wellbore schematic.

18. I hereby certify that the fortholds is true and correct SIGNED Decice. 6		Drilling Clerk	DATE 04-21-87
(This space for Federal or State office ase)	TITLE		DATE
CONDITIONS OF APPROVAL, IF ANT :			

# \*See Instructions on Reverse Side

## Design Summary

## San Juan 30-6 Unit #404

The following is a summary of the manner in which Meridian Oil Inc. intends to drill and complete the subject well:

- 1. Drill 17 1/2" hole to 200' TVD. Set and cement 13 3/8" casing to surface.
- 2. Drill 12 1/4" hole to 2565' TVD. Set 9 5/8" casing. Cement to surface.
- 3. Drill 8 3/4" vertical hole to 2910' TVD.
- 4. Core 130' of gross coal thickness from 2910' TVD to 3040' TVD. Run orientation surveys on core samples to determine fracture orientation of coal seams.
- 5. Plug back 8 3/4" hole with cement plug to kick off point (KOP) at 2626' TVD.
- 6. Kick off at an orientation approximately N38°E (magnetic).
- 7. Drill 412' arc length of r = 286' (build rate of 20°/100') to 3038' MD, 2910' TVD.
- 8. Drill 1000' lateral section hole at 82.5° from vertical to 4038' MD, 3040' TVD.
- 9. Run 5 1/2" production string to 4038' MD, 3040' TVD. Production string is predrilled with 12 holes/foot from 4038' MD to 3038' MD, 3040' TVD to 2910' TVD.
- 10. Run 2 3/8" EUE tubing to 4038' MD, 3040' TVD.

Well Name - San Juan 30-6 Unit #404 Date: 21-Apr-87 I.Location: 1135'N, 1635'E, Sec.23, T-30-N, R-7-W, Rio Arriba Co., NM Field: Undesignated Fruitland Elevation: 6141' GL II. Geology: A. Formation Tops: Surface San Jose Ojo Alamo 1980 Kirtland 2200 Fruitland 2760 Total Depth 3040 B. Logging Program: I-ES & GR-FDC-CNL at Total Depth. C. Coring: Oriented core from 2910' to 3040'. III.Drilling: A: Mud Program: Mud from surface to 3040. IV. Materials: A. Casing Program: Hole Size Depth Csg. Size Weight Grade 17 1/2" 200 13 3/8" 48.0# H-402565 9 5/8" 12 1/4" 40.0# N-80 8 3/4" 3040 5 1/2" 23.0# P-110 B. Float Equipment: 13 3/8" surface casing - Saw Tooth guide shoe 7" intermediate casing - quide shoe and self-fill insert valve. Run 5 centralizers spaced one on each of the bottom five joints.

5 1/2" production casing - bull nose guide shoe on bottom. Production casing predrilled with 12 holes per foot from 2910' TVD - 3040' TVD.

- C. Tubing: 4038' of 2 3/8", 4.7#, J-55 8rd EUE tubing with an expendable check valve on bottom. Run an F-nipple one joint off bottom.
- D. Wellhead Equipment: 13 3/8" x 12" 3000 psi casing head with a 12" x 9 5/8" casing hanger. 12" 3000 psi x 11" 3000 psi casing spool with an 11" x 5 1/2" casing hanger. 11" 3000 psi x 7 1/16" 3000 psi xmas tree assembly.

# Well Name - San Juan 30-6 Unit #404

V. Cementing:

13 3/8" surface casing: 236 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride (278 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

9 5/8" intermediate casing: lead slurry is 905 sks. 65/35 class B poz with 6% gel, 2% calcium chloride and 8.3 gallons water per sack. Tail with 100 sks. 50/50 class B poz with 2% gel and 1/4 cu.ft. gilsonite per sk.( 1607 cu.ft. of slurry, 100% excess to circulate to surface.) Run temperature survey on top stage at 8 hours. WOC 18 hrs.

5 1/2" production casing: Do not cement.

Prepared by: J.D.Falconi

Well Name - SAN JUAN 30-6 UNIT #404 Date: 11-Apr-86 I.Location: 1135'N, 1635'E, SEC.23, T-30-N, R-7-W, RIO ARRIBA CO., NM Elevation: 6141' GL Field: UNDESIGNATED FRUITLAND II. Geology: A. Formation Tops: Surface SAN JOSE Ojo Alamo 1980 Kirtland 2200 Fruitland 2760 Total Depth 3065 B. Logging Program: I-ES & GR-FDC-CNL at Total Depth. C. Coring: None III.Drilling: A: Mud Program: Mud from surface to 3065. IV. Materials: A. Casing Program: Hole Size Depth Csg. Size Weight Grade 12 1/4" 500 9 5/8**"** 36.0# K-55 8 3/4" 2565 7" 20.0# K-55 8 3/4" 7 " 3065 K-55 23.0#

B. Float Equipment: 9 5/8" surface casing - Saw Tooth guide shoe

7" production casing - guide shoe and self-fill insert valve, one stage cementer equipped for two stage cementing. Set tool for second stage at 2080. Run 18 centralizers spaced as follows: two on each of the bottom five joints, one on the next two joints, one below the stage tool and five above spaced every other joint.

- C. Tubing: 3065 of 2 7/8", 6.5#, J-55 8rd EUE tubing bull plugged on bottom. Run a common pump seating nipple, a pump out plug, and a 10' perforated pup joint one joint off bottom.
- D. Wellhead Equipment: 9 5/8" 2000 psi x 11" casing head with 11" x 7" casing hanger, 11" 2000 psi x 7 1/16" 2000 psi xmas tree.

## Well Name - SAN JUAN 30-6 UNIT #404

V. Cementing:

9 5/8" surface casing-use 265 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride ( 313 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" production casing:

First stage use - 184 sks. 50/50 Class B Poz with 2% gel, and 1/4 cu. ft. Gilsonite per sk. ( 5.4 gallons of water per sk. ) ( 260 cu. ft. of slurry, 100% excess to cover the Kirtland ).

Multi-Point Surface Use Plan EPNG San Juan 30-6 Unit #404

- 1. Existing Road Please refer to Maps No. 1 and 2 which show the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during the duration of this project.
- 2. Planned Access Roads Please refer to Map No. 2. The maximum grade of the access roads will be 3°. Approximately 100 feet of road will be constructed that will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. No culverts will be required to control drainage. No gates or cattleguards will be installed.
- 3. Location of Existing Wells Please refer to Map No. 3.
- 4. Location of Tank Batteries, Production Facilities, and Production Gathering and Service Lines - Please refer to Maps No. 2 and 3. Map No. 3 shows the existing gas gathering lines. Map No. 2 shows the existing roads and new proposed access roads. All proposed production facilities are shown on the attached anticipated production facility plat.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from Francis Creek located in SE 14-30-7.
- Source of Construction Materials No additional materials will required to build either the access road or the proposed location.
- 7. Methods of Handling Waste Materials All garbage and trash materials will be put into trash baskets on location. A latrine, the location of which is also shown on Plat No. 1, will be provided for human waste. If large amounts of liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying any of these materials into the watershed. No earthen pit will be located on natural drainage; all earthen pits will be so constructed as to prevent leakage from occurring.

## Multi-Point Surface Use Plan

#### Page Two

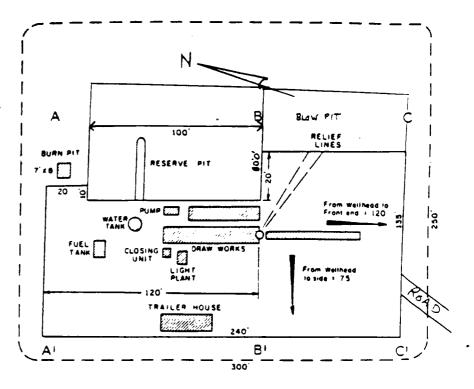
- 8. Ancillary Facilities No camps or air strips will be associated with this project.
- 9. Wellsite Layout Please refer to the attached plat that includes cut and fill, orientation diagram and shows access road. The reserve pit will not be lined.
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the regulatory body. The location production equipment will be painted as designated by the responsible government agency.
- 11. Other Information- Terrain is Navajo Lake with pinon, juniper and sage growing. Mr. Roque Abeyta is the surface owner. Deer, elk, rabbits and cattle are occasionally seen on the proposed project site.
- 12. Operators Representative D. C. Walker, Post Office Box 4289, Farmington, NM 87499, telephone (505) 327-0251.
- 13. 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 presently 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 El Paso Natural Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Project Drilling Engineer

GWB:pd



WELL NAME El Paso Natural Gas Company San Juan 30-6 Unit #404 1135 F/NL 1635 F/EL Section 23 T-30-N R-7-W Rio Arriba Co., N.M. Fruitland

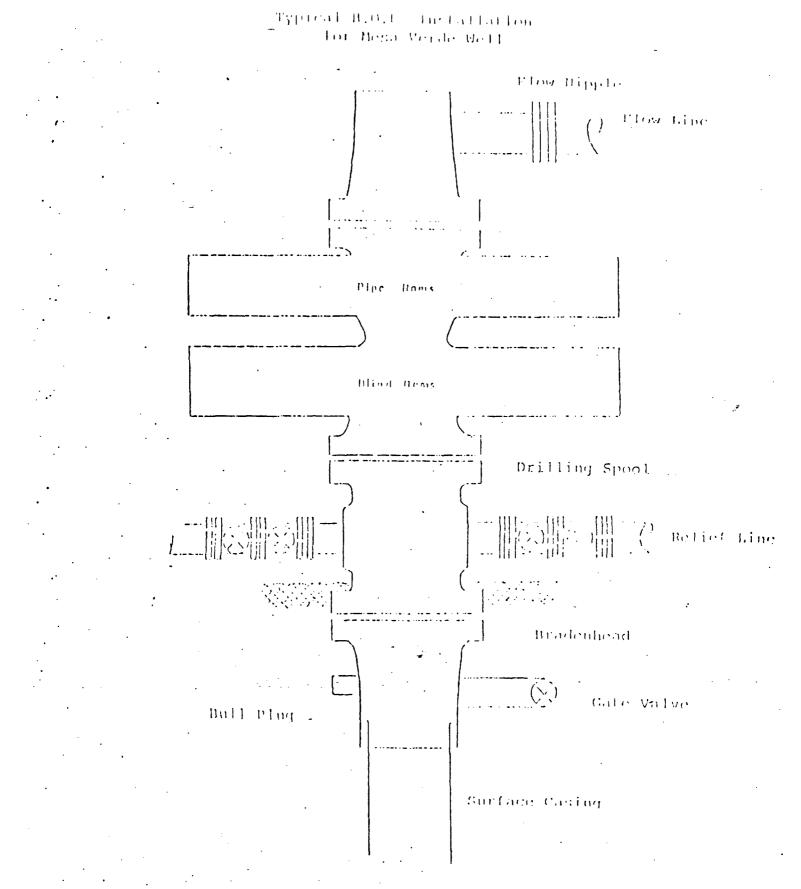


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6640'					
6630'		Fill HATH	<u> </u>	Cut	

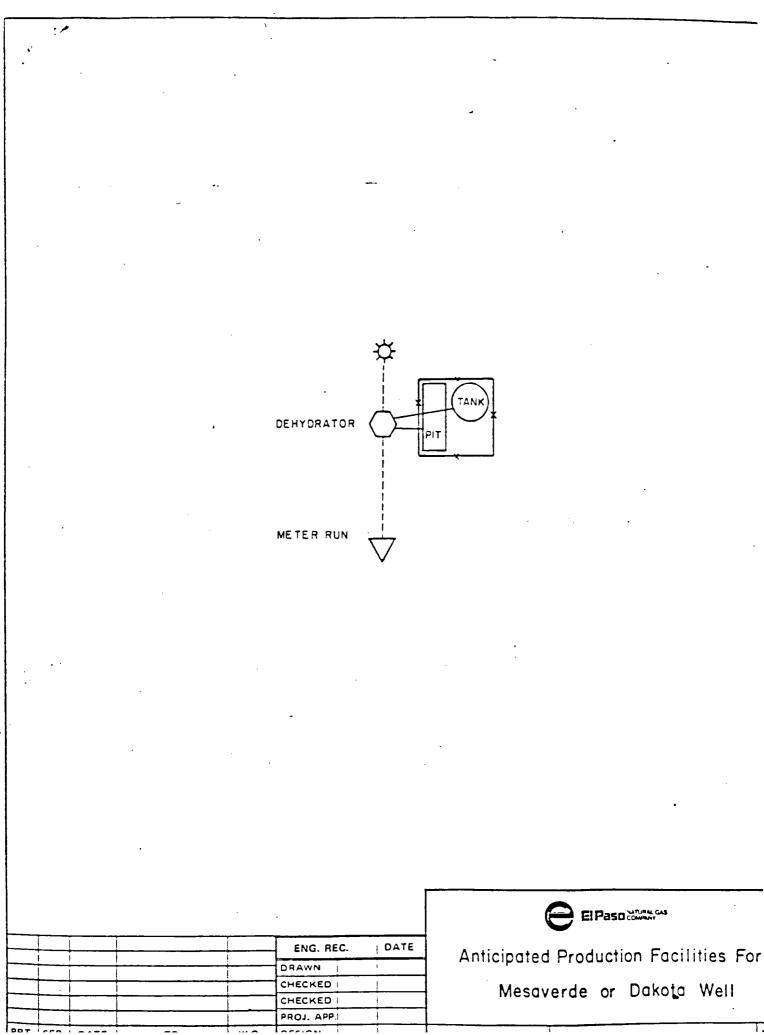
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6650'	• •	+	•	+		
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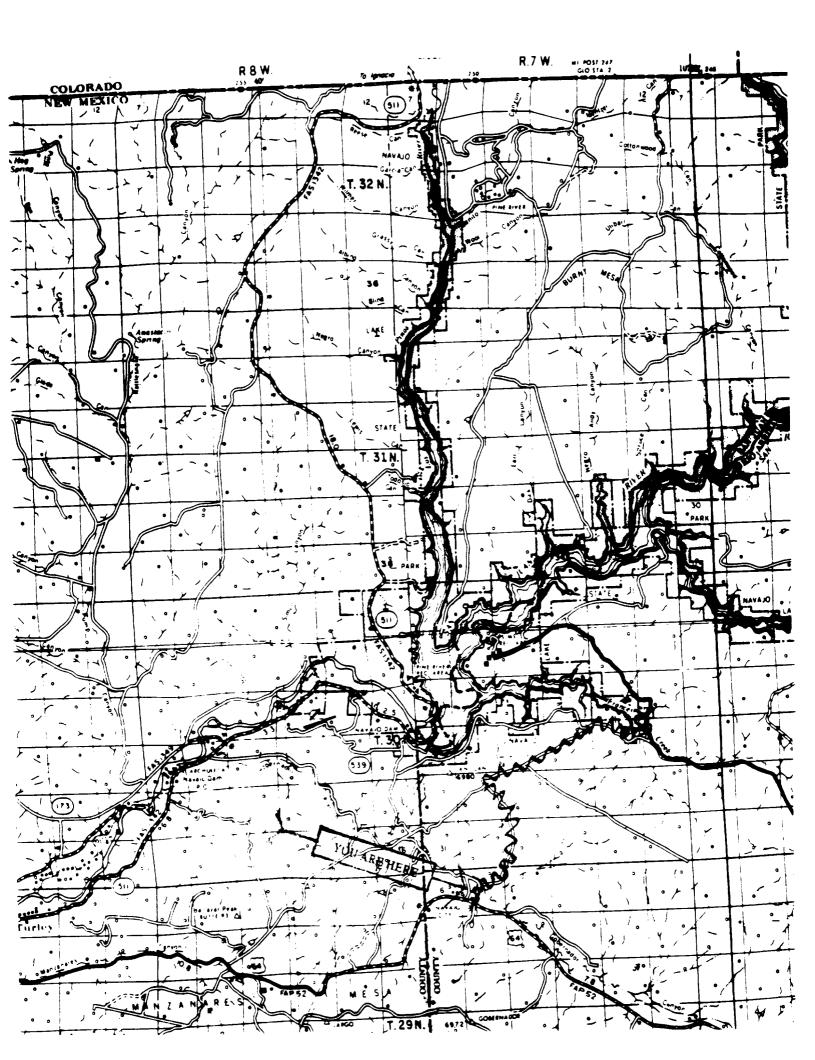
<u>C – CI</u>		c/L		
6650'				
6640'		Cut		
<u>6630'</u>	Fill	Cut		
		+		

TYPICAL LOCATION PLAT FOR PICTURED CLIFFS DRILL SITE

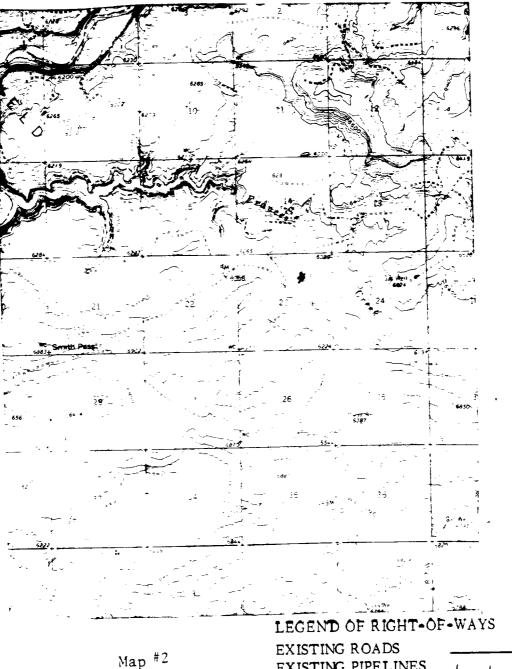


Series 900 Double Gale BOF, rated at 3000 psi Working Pressure When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line



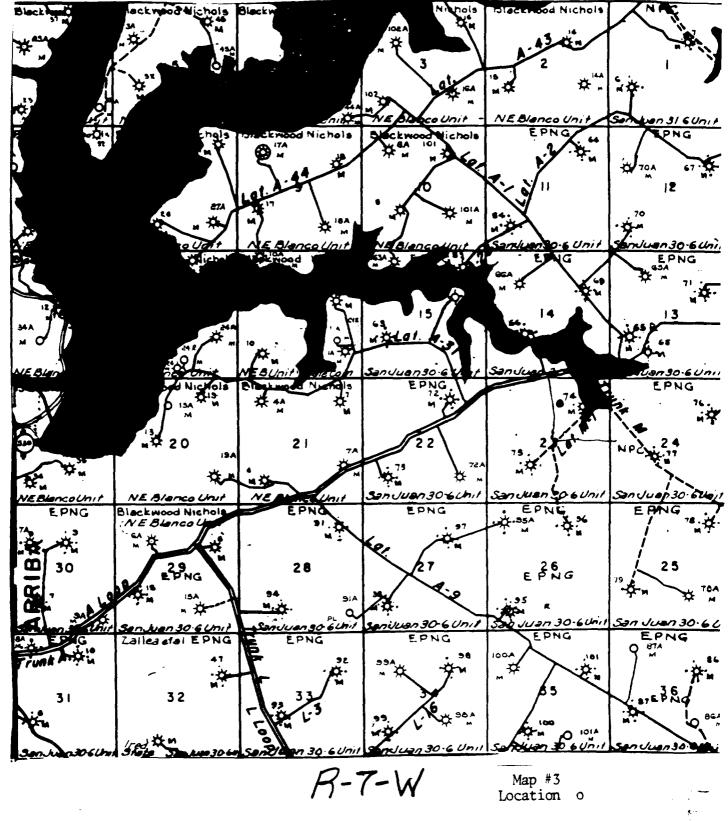


SAN JUAN 30-6 Unit 404 NE 23-30-7



EXISTING PIPELINES EXISTING ROAD & PIPELINE PROPOSED ROADS m PROPOSED PIPELINES

PROPOSED ROAD & PIPELINE



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## "Requirements for Production Start-up"

This addendum supersedes Part 1(J) of the "GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES"

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions 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 a 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, Form 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 on which gas is first measured through permanent metering facilities, whichever first occurs.

If you fail to comply with this requirement in the manner and time allowed, you 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 3162.4-1(b)(5)(ii).

The following information is required on the production start-up notice:

1. Operator name.

2. Well name and number.

3. Well location (1/4 1/4, sec., T., R., P.M., County and State).

4. Date well was placed on production.

5. The nature of the well's production, i.e., crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.

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6. The Federal or Indian lease prefix and number on which the well is located. Otherwise the non-Federal or non-Indian land category, i.e., State or private.

7. As appropriate, the unit agreement name, number and participating area name.

8. As appropriate, the communitization agreement number.

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IN REPLY REFER TO 3100 (016)



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT Caller Service 4104 Farmington, New Mexico 87499

> El Paso Natural Gas Company #404 San Juan 30-6 Unit Santa Fe 079382 NW½NE¼ sec. 23, T. 30 N., R. 7 W. Rio Arriba County, New Mexico

Above Data Required on Well Sign

# GENERAL PEQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

## 1. Operations:

These requirements apply generally to all oil and gas operations on Federal and Indian leases. They apply specifically to the above-described well. Special requirements that apply and are effective for this well, if any, are check-marked in Section 13 of these General Requirements. The failure of the operator to comply with these requirements and the filing of required reports may result in the assessment of liquidated damages or penalties pursuant to 43 CFE 3163.3 or 3163.4.

## I. GENERAL

A. Full compliance with all applicable laws and regulations, with the approved Permit to Drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors.

B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease name or unit name, well number, location of the well, and the lease serial number, and whether lease is Tribal or allotted.

C. A complete copy of the approved Application for Permit to Drill and the accompanying Surface Use and Operations Plan, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active construction or drilling operations are under way.

D. For Wildcat wells only, a drilling operations progress report is to be submitted weekly from spud date until the well is completed and the Well Completion Report (Form 3160-4, formerly 9-330) is filed. The report should be on paper not less than 5 x 8 inches in size, and each page should identify the well by operator's name and number, and by well location. E. Immediate notice is required of all blowouts, fires, spills and accidents involving life-threatening injuries or loss of life., (See NTL-3A).

F. No construction activities, such as roads, well sites, tank battery sites, pits, or other work involving surface disturbance of previously non-disturbed land will be commenced until a Surface Use and Operations Plan is submitted and approval obtained.

G. Prior approval of the Area Manager is required for variance from the approved drilling program and before commencing plugging operations, plugback work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval does not waive the written report requirements.

H. Blowout prevention equipment is to be installed, tested and in working order before drilling below the surface casing, and shall be maintained ready for use until drilling operations are completed.

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

J. This APD is approved subject to the requirement that, should the well be successfully completed for production, this Office must be notified when it is placed in a producing status. Such notification will be in writing and must be received in this Office by not later than the fifth business day following the date on which the well is placed on production. For oil wells first production is when first saleable oil is produced. (Includes oil re- covered from completion operations). Gas well is when a pipeline connection is made. The notification shall provide, as a minimum, the following informational items:

1. Operator name.

2. Well name and number.

3. Well location (1/4 1/4, sec., T., R., P.M., County and State).

4. Date well was placed on production.

5. The nature of the well's production, i.e., crude oil, or crude oil and casinghead gas, or natural gas and entrained liquid hydrocarbons.

6. The Federal or Indian lease prefix and number on which the well is located. Otherwise the non-Federal or non-Indian land category, i.e., State or private.

7. As appropriate, the unit agreement name, number and participating area name.

8. As appropriate, the communitization agreement number.

K. Note Site Security Requirements of 43 CFR 3162.7-4.

L. Unless drilling operations are commenced within one year, approval of Application for Permit to Drill will expire. A written request for extension may ge granted if timely submitted.

M. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the Surface Use Plan, the conditions of approval, and a copy of Environmental Stipulations Section of these General Requirements.

## 2. CASING AND CEMENTING REQUIREMENTS

A. Surface casing is to be set at sufficient depth to protect fresh water zones and provide well control; and cement circulated to the surface.

B. Intermediate and production casing strings are to be set and cemented as necessary to effectively isolate and seal off all water, oil, gas, or coalbearing strata encountered, and all potable water zones are to be covered with cement. When cement is not circulated to surface, a temperature or cement bond log is required to determine the cement top.

C. Prior to drilling the plug after cementing, all casing strings shall be pressure tested. Test pressure shall not be less than 600 psi for surface casing, and a minimum of 1,500 psi or 0.2 psi/ft., whichever is greater, for other casing strings. If the pressure declines more than 10 percent in 30 minutes, or if there is other indication of a leak, the casing shall be recemented, repaired, or an additional casing string run, and the casing shall be tested again in the same manner.

D. After cementing but before commencing any tests, 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 tests be initiated until cement has been in place at least 8 hours, WOC time will be recorded in the driller's log.

E. The Area Office shall be notified in sufficient time for a representative to witness cementing of all casing strings.

#### 3. BLOWOUT PREVENTION

A. Blowout preventers and related equipment for well control shall be installed, tested, and maintained in such a manner necessary to maintain well control at all times. All wells, as a minimum, shall be equipped with one blowout preventer rated to at least the anticipated formation pressure in accordance with API RP 53.

B. Blowout preventers shall be equipped with appropriate pressure control equipment for operations being performed. Appropriate size casing rams are required while running casing. C. Pipe rams shall be activated to test proper functioning at least once each day. Blind rams shall be activated to test proper functioning once each trip. Annular type preventers shall be actuated on the drill pipe no less than once every 7 days.

D. Blowout preventers shall have handwheels installed and operable.

E. A remote kill line shall be properly installed and operable as specified by API recommendations. The kill line is not to be used as a fill up line. A choke line and choke manifold shall be properly installed and operable as specified by API recommendations.

F. The accumulator system shall have a pressure capacity to close all hydraulics on the blowout preventer stack under repeated operations, plus a 200 psi reserve above the recommended precharge pressure.

G. Drill string safety values to fit all pipe in the drill string shall be maintained on the rig floor, in the open position, while drilling operations are in progress.

H. Blowout prevention drills shall be conducted at least once weekly to assure that equipment is operational and that each crew is properly trained to carry out emergency duties. All blowout prevention drills and tests shall be recorded in the driller's log.

I. The maximum pressure to be allowed on blowout preventers during well control operations shall be posted for each casing string.

J. The characteristics, use and testing of drilling mud shall be such as are necessary for well control. Quantities of mud materials sufficient to insure well control shall be maintained, readily accessible for use at all times.

K. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the toolpusher shall maintain rig surveillance at all times, unless the well is secured-with blowout preventers or cement plugs.

## 4. REPORTS

A. The following reports shall be filed with the Resource Area Manager within 30 days after the work is completed:

1. Five copies of Sundry Report (Form 3160-5, formerly 9-331) giving complete information concerning:

a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amoung (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the <u>date work was done</u>. Show spud date on first report submitted. b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Show date work was done (a Sundry Report is not required if a Completion Report is submitted within 30 days of the operation).

2. Well Completion Report (Form 3160-4, formerly 9-330) shall be filled out in compliance with instructions of April 1, 1982.

3. Two copies of all electrical and radioactivity logs run.

## 5. DRILLER'S LOG

A. The following shall be entered in the daily driller's log:

1. Blowout preventer pressure tests, including test pressures and results.

2. Blowout preventer tests for proper functioning.

3. Blowout prevention drill conducted.

4. Casing run, including size, grade, weight, and depth set.

5. How pipe was cemented, including amount of cement, type, whether cement circulated, location of cementing tools, etc.

6. Waiting on cement time for each casing string.

7. Casing pressure tests after cementing, including test pressure and results.

#### 6. DRILLSTEM TESTS

A. Estimated amounts of oil and gas recovered and/or produced during drillstem tests are to be shown in the driller's log and reported in accordance with NTL-4A.

## 7. GAS FLARING

A. Approval is granted to flare gas while drilling and completion testing.

B. When gas is used for drilling, the blooey line will be located where no damage to vegetation will occur. If this is not possible, an earthen baffle will be constructed to keep the heat and residue within the operating area.

C. Approval is granted to flare gas during completion and initial testing operations not to exceed a period of 30 days or the production of 50 MMCF of gas, whichever occurs first. The 30 calendar day period commences the first day gas is produced. Any gas vented other than that provided for above, and without approval, will result in compensation due the U.S. for the full value of gas so wasted. (See NTL-4A). All venting of gas after the initial 30 day period must be approved by the Area Manager prior to venting,

#### 8. WATER DISPOSAL

A. An application for approval of the disposal method for water production from all new wells must be filed with the Area Manager within 30 days following first production, pursuant to Section VII of NTL-2B. Failure to timely file such application will be considered an incident of noncompliance and will be grounds for issuing a shut-in order until the application is submitted and/or assessments pursuant to 43 CFR 3163.3(h).

#### 9. SAFETY

A. All rig heating stoves are to be of the explosion-proof type.

- B. Drilling rig engines should have water-cooled exhausts.
- C. Rig safety lines are to be installed.
- D. Hard hats must be utilized.

## 10. SUBSEQUENT OR CHANGE OF PLANS

A. Any change of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require verbal approval of the Bureau of Land Management (Fluid Minerals Section) and submission of a Sundry Notice (Form 3160-5, formerly 9-331), five copies.

#### 11. REMOVAL OF DRILLING RIG

A. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drillsite without prior approval from the Bureau of Land Management (Fluids Section).

#### 12. ABANDONMENT

A. If the well is dry it is to be plugged in accord with 43 CFR 3162.3-4, approval of the proposed plugging program may be obtained orally; however, oral approval must be confirmed in writing by immediately filing a Notice of Intention to Abandon on Form 3160-5 (formerly 9-331), in quintuplicate with the Area Manager. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc.

B. Upon completion of approved plugging, erect a regulation well marker which should not be less than 4 inches in diameter and extend at least 4 feet above general ground level. Heap up the dirt around the base of the marker about 12 inches to take care of any settling of

the cellar. The top of the marker must be closed or capped. The following minimum information shall be permanently placed on the marker with a plate, cap, or welded bead:

- 1. Operator
- 2. Well number and name
- 3. Section, Township and Range
- 4. Footage location

If approval is obtained to omit the dry hole marker, casings should be cut off three feet below ground level.

C. Within 30 days after plugging the well, a Subsequent Report of Abandonment is to be filed on (Form 3160-5, formerly 9-331), in quintuplicate, showing the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were placed, and the date plugging was completed. When all surface restoration work is completed, advise the Farmington Resource Area Office by Sundry Notice so that a field inspection of the wellsite can be made.

#### 13. SPECIAL STIPULATIONS

The following special requirements apply and are effective when checked:

A. A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the Bureau of Land Management Branch of Fluids, P. O. Box 6770, Albuquerque, New Mexico 87102. The effective date of the agreement must be prior to any sales.

B. In addition to the well-control equipment stipulated in Section 5, either an annular blowout preventer or a rotating head must be used while drilling below surface casing to

C. Note attachments.

El Paso natural Hash 404 San Juan 30-6

# II. Environmental Stipulations

The following stipulations will apply to all wells unless a particular Surface Managing Agency has supplied to the 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 3163.3 or 3163.4.

An agreement between the operator and fee landowner will take precedence over BLM surface stipulations unless 1) the BLM determines that the operator's actions will affect adjacent Federal or Indian surface (43 CFR Part 3160), or 2) the operator does not maintain the well area and lease premises in a workmanlike manner with due regard for safety, conservation and appearance (43 CFR Part 3162.7-4), or 3) no such agreement exists (43 CFR Part 3160), or 4) in the event of well abandonment, minimal Federal restoration requirements will be required (43 CFR Part 3162.7-2).

## 1. Location and Access Road

A. Well area and lease premises will be maintained in a workmanlike manner with due regard to safety, conservation and appearance. All waste associated with oil and gas operations will be contained and then buried in place, or removed and deposited in an approved disposal site. If burial on site is used, waste must be buried at least 2' deep and metal containers will be crushed prior to burial. Trash pit must be secured during drilling activities, so as to keep the trash from spreading outside of the pit. Trash pits for drilling operations will be covered once the drilling rig leaves the location.

B. Pinyon and juniper trees will be uprooted from road rights-of-way and well pad locations and distributed beside rights-of-way and well pads for fuelwood salvage. Care will be taken to keep the trees as undamaged as practically possible. Large vegetation such as sagebrush, juniper and pinyon will not be incorporated into pit walls. Sagebrush removed during clearing operations will be placed in drainages and "walked down" by a crawler - type tractor. If no drainages are nearby, sagebrush will be buried in the reserve pit when it is filled in. All uprooted vegetation not subsequently buried will be scattered so it does not detract from the natural appearance of the area and does not accelerate erosion.

C. Surface disturbance and vehicular traffic will be limited to the approved location and approved access road.

D. Mud pits will be constructed so as not to leak, break, or allow discharge of liquids. The bottom of the reserve pit shall not be in fill material. Pits are not to be located in natural drainages. Any plastic material used to line pits must be removed to below-ground level before pits are covered. Pit walls are to be "walked down" by a crawler-type tractor following construction and prior to usage.

E. All unguarded pits containing liquids will be fenced. Drilling pits will be fenced on three sides and once the rig leaves the location, the fourth side will be fenced. 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. F. Unless otherwise approved, the driving surface on all access roads must be limited to 20 feet in width, and total disturbance will be limited to 35 feet, excluding turnouts.

G. 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 approveal from the Surface Managing Agency.

H. Water bars will be constructed on the access road to the well location and conform to surface management specifications. The maximum slope distance between water bars will be:

% Slope	Slope Distance	
Less than 1%	400 feet	
17 - 57	300 feet	
57 - 157	200 feet	
15% - 25%	100 feet	
Greater than 25%	50 feet	

When the access road is graded, water bars will be left in the road or replaced immediately upon completion of grading.

I. Prior to crossing any fence located on federal land, or any fence between Federal land and private land, the grantee shall contact the grazing lessee or owner of said fence and offer them the opportunity to be present when the fence is cut in order to satisfy himself that it is adequately braced and tied off in accordance with the attached drawing. All cut fences are to be tied to the braces prior to cutting.

Grazing	Lessee	
Address		
Telephon	e No.	

The opening will be protected as necessary during construction to prevent the escape of livestock. A temporary closure will be installed on all cut fences the same day the fence is cut. A permanent cattleguard will be installed and maintained in any cut fence unless otherwise stipulated in writing. A twelve-foot gate will be installed adjacent to all new cattleguards.

J. Berms or firewalls will be constructed around all storage facilities sufficient in size to contain the storage capacity of the tanks.

K. No well and/or production equipment within the irrigable fields of the Navajo Indian Irrigation Project will exceed two feet above the natural ground surface elevation, and will be adequately barricaded for safety.

L. All roads on public land must be maintained in a good passable condition.

M. A proposed use of pesticide, herbicide or other possible hazardous chemical on Bureau of Land Management land shall be cleared for use prior to application.

## 2. Cultural Resources (Archaeology)

A. The lessee will not commence construction on the lease until the cultural resource inventory has been approved by BLM (per 36 CFR 800).

B. Surface disturbance activities shall be kept 100' away from any archaeological site(s) located off the well pad, unless approved otherwise by the Area Manager.

C. If, in its operations, the APD grantee discovers any historic or prehistoric ruin, monument or site, or any object of antiquity subject to the Antiquities Act of 1906, The Archaeological Resources Protection Act of 1979, and 43 CFR Part 3, then work will be suspended and the discovery promptly reported to the BLM Area Manager. The BLM will then specify what action is to be taken. The APD grantee will obtain at his expense, a qualified archaeologist to carry out the specific instructions of the BLM.

## 3. Reseeding and Abandonment

A. All surface areas disturbed during drilling activities and not in use for production activities, will be reserved the first July - September period after the reserve pit has been filled in and/or location abandoned.

B. Compacted areas of the well pad will be plowed or ripped to a depth of 12" before reseeding. All seeding is recommended to be done between July 1 and September 15. Seeding will be done with a disc-type drill with two boxes for various seed sizes. The drill rows will be eight to ten inches apart. The seed will be planted between one-half inch deep and three quarter inch deep. The seeder will be followed with a drag, packer or roller to insure uniform coverage of the seed, and adequate compaction. Drilling of the seed will be done on the contour where possible. Where slopes are too steep for contour drilling a "cyclone" hand-seeder or similar broadcast seeder will be used, using twice the recommended seed per acre. Seed will then be covered to a depth described above by whatever means is practical.

C. If, in the opinion of the surface management agency, the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.

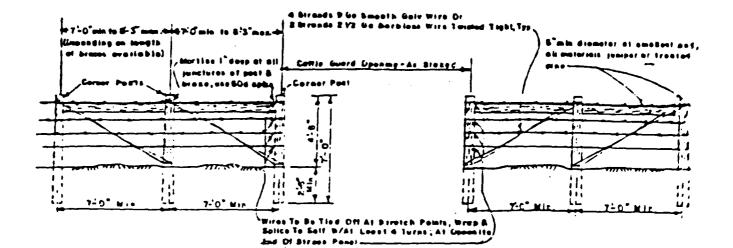
D. If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed as stated in 1.H. All ripped surfaces are to be protected from vehicular travel by construction of a dead-end ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of the affected areas may be required). E. Recommended Seed Mixtures. \*Species to be planted in pounds pure-live-seed per acre: Pure Live Seed = Germination x Purity

Seed Mix No. 1BLM CRESTED WHEATGRASS SMOOTH BROME FOURWING SALTBUSH (dewinged) NOMAD ALFALFA INDIAN RICEGRASS WESTERN WHEATGRASS	1 1/2 1/2 1 1/2 1
Seed Mix No. 2BLM CRESTED WHEATGRASS FOURWING SALTBUSH (dewinged) SAND DROPSEED INDIAN RICEGRASS WESTERN WHEATGRASS	1 1/2 1 1/4 1
Seed Mix No. 3BLM FOURWING SALTBUSH (dewinged) SAND DROPSEED ALKALI SACATON INDIAN RICEGRASS	1 1/4 1/4 1
Seed Mix No. 4NIIP INDIAN RICEGRASS SAND DROPSEED GALLETA	1 1 2
Seed Mix No. 5NIIP ALKALI SACATON SAND DROPSEED GALLETA	1 1 2
Seed Mix No. 6BIA (Crownpoint) CRESTED WHEATGRASS ALKALI SACATON SAND DROPSEED PUBESCENT WHEATGRASS INDIAN RICEGRASS	3 1/2 1/2 2 2
Seed Mix No. 7 Forest Service No. 3 CRESTED WHEATGRASS PUBESCENT WHEATGRASS BURNET LADAK ALFALFA PERENNIAL RYE	4 6 1 1 2

PUBESCENT WHEATGRASS	6
LADAK ALFALFA	1
PERENNIAL RYE	2
SAND DROPSEED	ī
INDIAN RICEGRASS	1/2
Seed Mix No. 9Forest Service (Cuba)	
PUBESCENT WHEATGRASS	6
BURNET	1
LADAK ALFALFA	1/2
PERENNIAL RYE	2
WESTERN WHEATGRASS (Arriba Variety)	4
BURNET LADAK ALFALFA PERENNIAL RYE SAND DROPSEED INDIAN RICEGRASS WESTERN WHEATGRASS (Arriba Variety)	
Seed Mix No. 11 (licerilla)	
Seed Mix No. 11 (Jicarilla) PUBESCENT WHEATGRASS	
PUBESCENT WHEATGRASS	4
PUBESCENT WHEATGRASS INTERMEDIATE WHEATGRASS	4
PUBESCENT WHEATGRASS	

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F. Note Attachments.



Stipulations:

1. A 12' gate must be installed between the cattleguard and brace assemblies on which ever side of the cattleguard is most convenient. If the gate is made of wire it must have at least four horizontal strands of barb wire, with at least four 3" diameter vertical wood stays evenly spaced. When the gate is closed the wires must be taut.

2. All cattleguards must have wings installed on both ends to prevent livestock from stepping around the ends. Cattleguards must be at least 8' wide, the length is left to the discretion of the operator. They must be set on concrete or pressure treated wood bases to prevent them from sinking. (If you will install the bases at least 12" above the surrounding contour, and provide drainage through the open area under the cattleguard, you will not have to clean them so often).

3. All cattleguards must have clearly visible identification marks welded into them indicating the ownership and well name and number associated with the cattleguard. Office, Fluids Surface Management Staff, at (505) 325-4572, approximately 48 hours prior to construction activities.

2. No construction or drilling activities shall be conducted between November 1 and March 31 because of elk/deer/bald eagle winter habitat areas. Contact BLM wildlife biologist (Dave Renwald) at 325-3581, with any questions.

\_\_\_\_3. The Fluids Surface Management Staff shall be notified upon site completion, prior to moving on drilling rig. (505) 325-4572.

4. A (ft.) tree screen will be left on the sides of the location.

5. Pits and/or pad will be constructed long and narrow, or to conform to natural contour of terrain, so as to avoid the edge of hazard by an amount that prevents pit failure.

6. Pits will be lined with an impervious material.

7. Earthen berm(s) will be placed on the \_\_\_\_\_ side(s) of the location between the reserve pit and the wash.

8. The corner of the well pad will be rounded off to avoid

X9. The wash shall be diverted around the 5 side of the well pad. (TO west) X10. Diversion ditch(es) will be constructed on the 5 side of the location above below (circle one) the cut slope, draining to the

11. A culvert of sufficient size will be placed where the drainage crosses access road.

12. The proposed access road shall utilize the upgraded 2-track trail approximately \_\_\_\_\_ (ft. or mi.) as agreed upon during on-site inspection. Remainder of planned access road will follow flagged route.

13. The access road shall be rerouted around the \_\_\_\_\_\_edge of the well pad during construction and drilling activities for safety reasons. Upon completion of drilling and cleanup, the road will be returned to its original alignment. 14. The cut slope shall not exceed a 4:1, 3:1 2:1, or 1:1 ratio (circle). Hyperbolic construction of the construction of the construction of the construction and drilling activities for safety reasons.

X 14. The cut slope shall not exceed a 4:1, 3:1 2:1, or 1:1 ratio (circle). Hydro mulching or netting \_\_\_\_\_ is X is not required on the slopes.

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the land is privately owned,

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NOTE:

X 15. Paint color Green seed mix I.

Woven wire shall be required on all pits (See Standard Stipulation I.E.).

17. No hardwood tree with a diameter of ten inches or more at the base or any Ponderosa pine, Douglas-fir or aspen tree is to be removed or damaged without approval from the Authorized Officer.

18. Due to an active raptor nest no drilling or construction activities shall be conducted between March 1 and June 30. Contact BLM Wildlife Biologist at 325-3581, with any questions.

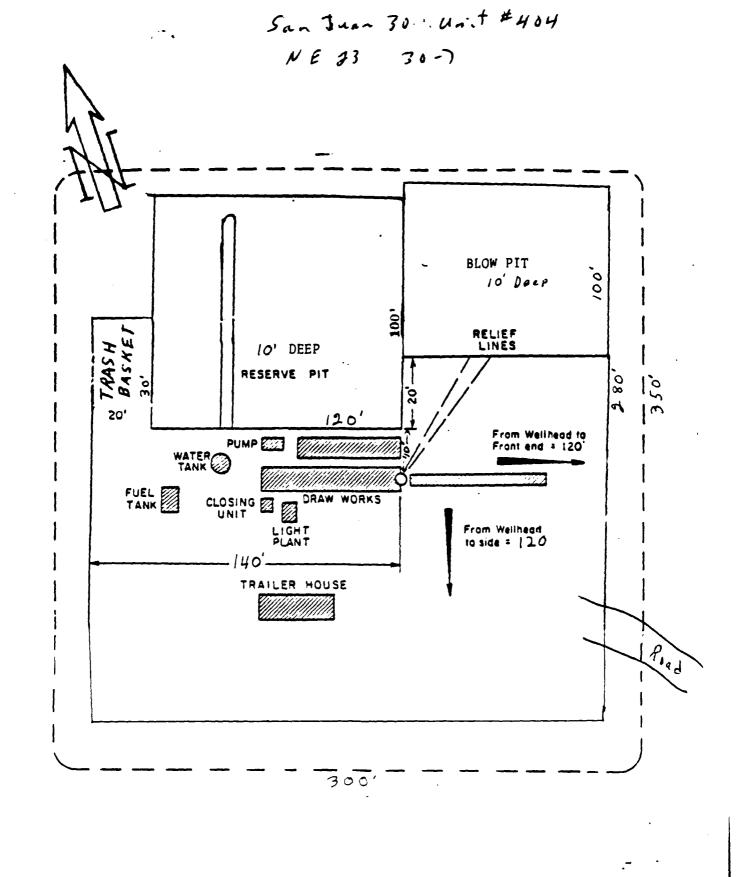
19. No surface disturbance shall occur until a paleontological resource investigation has been conducted by a BLM paleontologist or a professional paleontologist acceptable to BLM. The results of this investigation will dictate site specific stipulations for avoidance or salvage of any potentially significant paleontological resources.

Form 3160-5 (Novembe. 1983) ( <sup>+</sup> ormerly 9-331)	UNITED STATES DEPARTM T OF THE II BUREAU OF LAND MANAG	NTERIOR (Other Instruction on re-	Budget Bureau No. 1004-0135 Expires August 31, 1985 5. LEARE DESIGNATION AND SERIAL NO. SF 079382
	DRY NOTICES AND REPO		6. IF INDIAN, ALLOTTES OR TRIBE NAME
1.			7. UNIT AGREEMENT NAME
OIL CAS WELL WELL	X orses		San Juan 30-6 Unit
2. NAME OF OPERATOR			8. FARM OR LEASE HAME
	El Paso Natural Gas	Company	San Juan 30-6 Unit
3. ADDRESS OF OPERATO	8		9. WELL NO.
	Post Office Box 428	9,Farmington,NM 87499	404
4. LOCATION OF WELL ( See also space 17 be	Report location clearly and in accordance a	with any State requirements.*	10. FIELD AND POOL, OR WILDCAT
At surface	1135'N, 1635'E		Undes. Fruitland
	·		11. SBC., T., E., M., OE BLE. AND SUBVET OF AREA
DEACU			sec.23, T-30-N, R- 7-
RECEIV	ED		N.M.P.M.
14. PERMIT NO.	15. BLEVATIONS (Show w	hether DF. ST. GR. etc.)	12. COUNTY ON PARISE 13. STATE
	986	6141'GL	Rio Arriba NM
16.	-	icate Nature of Notice, Report, or O	Other Data
BUREAU OF LAND MA	NAGEMENT		BNT LEPORT OF :
TEST WATER SEUT-	1 1 1	WATER SHUT-OFF	REPAIRING WELL
FRACTURE TREAT	MULTIPLE COMPLETE	FRACTURE TREATMENT	ALTERING CASING
SHOOT OR ACIDIZE	ABANDON®	SHOOTING OF ACIDISING	ABANDON MENT"
REPAIR WELL	CHANGE PLANS	(Other)	
(Other)		(Nots: Report results Completion or Recomple	of multiple completion on Well etion Beport and Log form.)
17. DESCRIBE PROPOSED O proposed work. I nent to this work.)	t well is directionally drilled, give subsurf	pertinent details, and give pertinent dates, ace locations and measured and true vertica	including estimated date of starting any 1 depths for all markers and somes perti-
	It is intended t	o increase the size of	the pad on this

It is i	nten	ded to	in	creas	se the	size	e of	the	pad	on	this
locatio	n as	shown	on	the	attacl	hed j	plat.	•			

18. I hereby certify that the foregoing is true and correct SIGNED LOGAL BOOK	TITLE Drilling Clerk	<b>DATE</b> 7-16-86
(This space for Federal or State office use)		
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	TITLE	APPROVED
•	See Instructions on Reverse Side	JUL 1 8 1986
Title 18 U.S.C. Section 1001, makes it a crime for United States any false, fictitious or fraudulent st	OPERATOR <sup>®</sup> any person knowingly and willfully to make atements or representations as to any matter	to any department or agency of the

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			ENG. REC. DATE	MERIDIAN OIL INC.
			DRAWN [C.A.G. 2-2085	MERIDIAN OIE 1.40.
	· · · · · · · · · · · · · · · · · · ·		CHECKED	TYPICAL LOCATION PLAT FOR
			CHECKED	FRUITLAND COAL DRILL SITE
			PROJ. APPI	
T. SEP. DATE	TO	. w.o.	DESIGN	DWGP

The approval this action does NOT grant or ly approval of any off-lease or off-unit action. It is the responsibility of the applicant to obtain any such approvals from the appropriate Surface Management Agency, including BLM, and/or any private landowners.

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Office, Fluids Surface Management Staff, at (505) 325-4572, approximately 40 mours prior to construction ac+' vities.

X2. No construction or drilling activities shall be conducted between November 1 and March 31 because of elk/deer/bald eagle winter habitat areas. Contact BLM wildlife biologist (Dave Renwald) at 325-3581, with any questions.

3. The Fluids Surface Management Staff shall be notified upon site completion. prior to moving on drilling rig. (505) 325-4572.

4. A \_\_\_\_\_ (ft.) tree screen will be left on the sides of the location.

5. Pits and/or pad will be constructed long and narrow, or to conform to natural contour of terrain, so as to avoid the edge of hazard by an amount that prevents pit failure.

6. Pits will be lined with an impervious material.

7. Earthen berm(s) will be placed on the side(s) of the location between the reserve pit and the wash.

8. The corner of the well pad will be rounded off to avoid

 $\times 9$ . The wash shall be diverted around the <u>5</u> side of the well pad. To use  $\times$ 

 $\frac{10}{\text{above/below}}$  (circle one) the cut slope, draining to the  $\frac{5}{10}$  side of the location

A culvert of sufficient size will be placed where the drainage crosses access 11. road.

12. The proposed access road shall utilize the upgraded 2-track trail approximately \_\_\_\_\_ (ft. or mi.) as agreed upon during on-site inspection. Remainder U of planned access road will follow flagged route.

13. The access road shall be rerouted around the edge of the well pad during construction and drilling activities for safety reasons. Upon completion of drilling and cleanup, the road will be returned to its original alignment.

 $\bigvee_{14.}$ The cut slope shall not exceed a 4:1, (3:1), 2:1, or 1:1 ratio (circle). Hydro mulching or netting \_\_\_\_\_ is  $\bigvee$  is not required on the slopes.

X15. Paint color (norm seed mix I.

 $\times$  16. Woven wire shall be required on all pits (See Standard Stipulation I.E.).

No hardwood tree with a diameter of ten inches or more at the base or any 17. Ponderosa pine, Douglas-fir or aspen tree is to be removed or damaged without approval from the Authorized Officer.

Due to an active raptor nest no drilling or construction activities shall be 18. conducted between March 1 and June 30. Contact BLM Wildlife Biologist at 325-3581, with any questions.

No surface disturbance shall occur until a paleontological resource 19. investigation has been conducted by a BLM paleontologist or a professional paleontologist acceptable to BLM. The results of this investigation will dictate site specific stipulations for avoidance or salvage of any potentially significant paleontological resources.

eement.

Form 3160-5 (November 1983) (Formerly 9-331)	UNITED STATES DEPARTMENT OF THE INTE BUREAU OF LAND MANAGEME		Form approved. Budget Bureau No. 1004-0135 Expires August 31, 1985 5. LEARE DESIGNATION AND SERIAL NO. SF 079382
	INDRY NOTICES AND REPORTS his form for proposals to drill or to deepen or pit Use "APPLICATION FOR PERMIT-" for suc		6. IF INDIAN, ALLOTTER OR TRIBE NAME
1. OIL GAE WELL WEL	LX C OTHER		7. UNIT AGREEMENT NAME San Juan 30-6 Unit
2. NAME OF OPERATOR	Meridian Oil Inc.		8. FARM OR LEAGE HAME San Juan 30-6 Unit
3. ADDERES OF OPERA		nington NM 87499	9. WBLL NO. 404
4. LOCATION OF WELL See also space 17 1 At surface	Post Office Box 4289, Farm (Report location clearly and in accordance with a below) 1135'N, 1635'E	· · ·	10. FIELD AND POOL, OE WILDCAT Undes.Fruitland 11. SBC. T. S. M. OB BLE. AND SEC. 23, T-30-N, R-7 -W
14. FERMIT NO.	15. ELEVATIONS (Show whether 614	DT. ARAHINGTON MANAG	N.M.P.M. 12. COURTY OF FARISE 13. STATE RIO Arriba NM
16.		Nature of Notice, Report, or O	ther Data
TEST WATER SHUT FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other)	NOTICE OF INTENTION TO: F-OFF PELL OR ALTER CASING ULTIPLE COMPLETE ABANDON® CHANGE PLANS	WATER SHUT-OFF FRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (Note: Redort results)	ENT EEPOET OF : REPAIRING WELL ALTERING CARING ABANDONMENT* of multiple completion on Well tion Beport and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and some pertinent to this work.)\*

The attached operations plan reflects our current design plans and is being submitted for approval. Specific changes are in the Casing Program (Section IV) and Cementing Program (Section V). Also note the operator has changed from El Paso Natural Gas Company to Meridian Oil Inc.; and the drill site diagram has been changed. Due to the proximity of Navajo Lake, the orientation of this pad was changed to keep the reserve and blow pits upslope to reduce the chance for an accidental fluid spill.

18. I bereby certify that the foregoing is true and SIGNED diryc: Mak	correct TITLEDrilling Clerk	APPRO-VED
(This space for Federal or State office use)		
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	TITLE	- MAR & UIS
		FAREA MANAGER
	*See Instructions on Reverse Side	
	OPERATOR	

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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.

Well Name - San Juan 30-6 Unit #404 Date: 12-Mar-87 I.Location: 1135'N, 1635'E, Sec.23, T-30-N, R-7-W, Rio Arriba Co., NM Elevation: 6141' GL Field: Undesignated Fruitland II. Geology: A. Formation Tops: Surface San Jose Ojo Alamo 1980 Kirtland 2200 Fruitland 2760 Total Depth 3055 B. Logging Program: I-ES & GR-FDC-CNL at Total Depth. C. Coring: None III.Drilling: A: Mud Program: Mud from surface to 3055. IV. Materials: Depth Csg. Size Weight A. Casing Program: Hole Size Grade 12 1/4" 200 9 5/8" 32.3# H-40 2820 7" 8 3/4" 20.0# K-55 
 20.0#

 3055
 5
 1/2"
 23.0#
 6 1/4" P-110 51/2" liner hung @ 26-10", W/ Baker Double Gup Pr: Ner B. Float Equipment: 9 5/8" surface casing - Saw Tooth guide shoe 7" production casing - guide shoe and self-fill insert valve, one stage cementer equipped for two stage cementing. Set tool for second 2300 . Run 11 centralizers spaced as follows: one on each stage at of the bottom five joints, one below the stage tool and five above spaced every other joint. 5 1/2" production liner - bull nose guide shoe on bottom. Liner predrilled with 12 holes per foot.

- C. Tubing: 3055 of 2 3/8", 4.7#, J-55 8rd EUE tubing with an expendable check valve on bottom. Run an F-nipple one joint off bottom.
- D. Wellhead Equipment: 9 5/8" 2000 psi x 11" casing head with 11" x 7" casing hanger, 11" 2000 psi x 7 1/16" 3000 psi xmas tree.

Well Name - San Juan 30-6 Unit #404

V. Cementing:

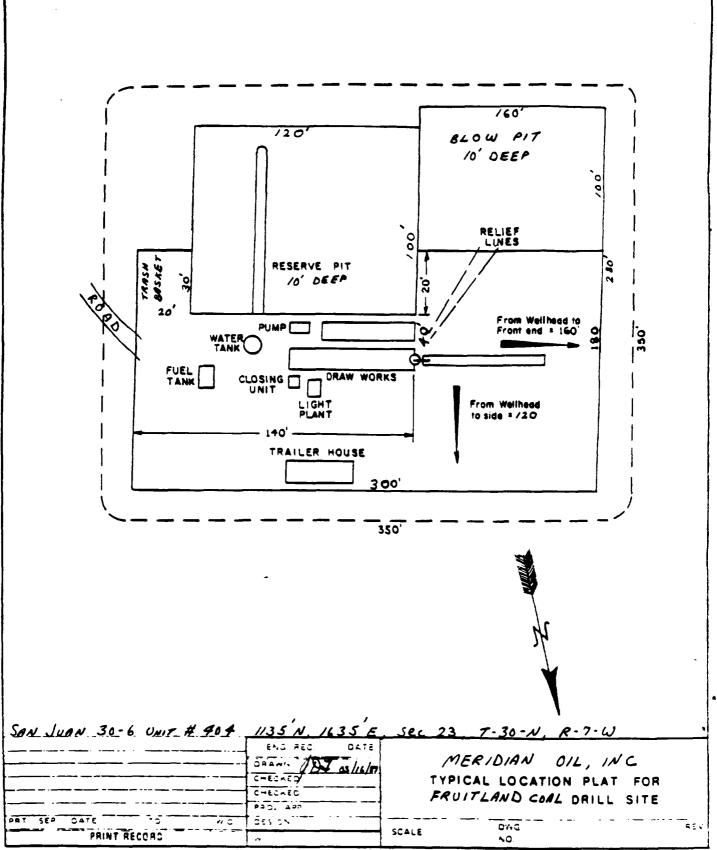
9 5/8" surface casing-use 106 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride ( 125 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" production casing:

First stage use - 132 sks. 50/50 Class B Poz with 2% gel, and 1/4 cu. ft. Gilsonite per sk. ( 5.4 gallons of water per sk. ) ( 186 cu. ft. of slurry, 100% excess to cover the Kirtland ).

5 1/2" liner:

Do not cement.



Form 7-1328 (Rev. 5-73)

BUR	UNITED STATES TMENT OF THE INTERI EAU OF LAND MANAGEMENT		Form approved. Budget Bureau No Expires August 31 5. LEASE DESIGNATION AN SF079382 6. IF INDIAN, ALLOTTER O	D BREAL NO.
SUNDRY NO (Do not use this form for pro- Use "APPL"	The second at the second se	E TRIBE NAME		
I. OIL CAS WELL OTESS			7. UNIT AGREEMENT NAME San Juan 30	
2. WANN OF OFBAATOR Meridian Oil 3. ADDREAS OF OFBAATOR	Inc.		8. FARM OR LEAGE NAME San Juan 30	D-6 Unit
	Farmington, NM 87 a clearly and in accordance with any i 1	499 State requirements.* 135'N, 1635'E	404 10. FIBLD AND POOL, OR V Undes. Fruit 11. SBC. T. B., M. OR BLE SURVEY OR ABAR Sec. 23, T-3	land
14. PERMIT NO.	15. ELEVATIONS (Show whether DP.	RT. GR. etc.)	12. COUNTY OF PARIAR 1 Rio Arriba	PM
16. Check A NOTICE OF INT	Appropriate Box To Indicate N	ature of Notice, Report, or O		
TEST WATER SECT-OFF FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other) Horizontal	PELL OR ALTER CASING	WATER SHUT-OFF FRACTURS TREATMENT SHOOTING OR ACIDIZING (Other) (Note: Report results)	REPAIRING WEL ALTERING CASI ABANDONMENT <sup>®</sup> Of multiple completion on	NG

17. UNSCRIBE (ROFOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and some pertinent to this work.) "

The attached design summary, operations plan and wellbore diagram reflect Meridian Oil's proposal for the subject well. Specific changes are in the casing and cementing programs and the wellbore schematic.

18. I berept certify that the foregoing is true and correct SIGNED Ligging, A. J.J.	TITLE	Drilling Clerk	DATE 04-21-87
(This space for Federal or State office use)			
APPROVED BY CONDITIONS OF APPROVAL, LF ANY :	TITLE		DATE

## \*See Instructions on Reverse Side

Title 13 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 faise, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## Design Summary

## San Juan 30-6 Unit #404

The following is a summary of the manner in which Meridian Oil Inc. intends to drill and complete the subject well:

- 1. Drill 17 1/2" hole to 200' TVD. Set and cement 13 3/8" casing to surface.
- 2. Drill 12 1/4" hole to 2565' TVD. Set 9 5/8" casing. Cement to surface.
- 3. Drill 8 3/4" vertical hole to 2910' TVD.
- 4. Core 130' of gross coal thickness from 2910' TVD to 3040' TVD. Run orientation surveys on core samples to determine fracture orientation of coal seams.
- 5. Plug back 8 3/4" hole with cement plug to kick off point (KOP) at 2626' TVD.
- 6. Kick off at an orientation approximately N38°E (magnetic).
- 7. Drill 412' arc length of r = 286' (build rate of 20°/100') to 3038' MD, 2910' TVD.

- 8. Drill 1000' lateral section hole at 82.5° from vertical to 4038' MD, 3040' TVD.
- 9. Run 5 1/2" production string to 4038' MD, 3040' TVD. Production string is predrilled with 12 holes/foot from 4038' MD to 3038' MD, 3040' TVD to 2910' TVD.
- 10. Run 2 3/8" EUE tubing to 4038' MD, 3040' TVD.

## OPERATIONS PLAN

Well Name - San Juan 30-6 Unit #404 Date: 21-Apr-87 I.Location: 1135'N, 1635'E, Sec.23, T-30-N, R-7-W, Rio Arriba Co., NM Elevation: 6141' GL Field: Undesignated Fruitland II. Geology: A. Formation Tops: Surface San Jose Ojo Alamo 1980 Kirtland 2200 Fruitland 2760 Total Depth 3040 B. Logging Program: I-ES & GR-FDC-CNL at Total Depth. C. Coring: Oriented core from 2910' to 3040'. III.Drilling: A: Mud Program: Mud from surface to 3040. IV. Materials: A. Casing Program: Hole Size Depth Csg. Size Weight Grade 17 1/2" 200 13 3/8" 48.0# H-4012 1/4" 9 5/8" 2565 40.0# N-80 8 3/4" 3040 5 1/2" 23.0# P-110 B. Float Equipment: 13 3/8" surface casing - Saw Tooth guide shoe 7" intermediate casing - guide shoe and self-fill insert valve. Run 5 centralizers spaced one on each of the bottom five joints.

5 1/2" production casing - bull nose guide shoe on bottom. Production casing predrilled with 12 holes per foot from 2910' TVD - 3040' TVD.

- C. Tubing: 4038' of 2 3/8", 4.7#, J-55 8rd EUE tubing with an expendable check valve on bottom. Run an F-nipple one joint off bottom.
- D. Wellhead Equipment: 13 3/8" x 12" 3000 psi casing head with a 12" x 9 5/8" casing hanger. 12" 3000 psi x 11" 3000 psi casing spool with an 11" x 5 1/2" casing hanger. 11" 3000 psi x 7 1/16" 3000 psi xmas tree assembly.

Well Name - San Juan 30-6 Unit #404

Date: 21-Apr-87

V. Cementing:

13 3/8" surface casing: 236 sks. of Class B cement with 1/4# gelflake/sk. and 3% calcium chloride (278 cu.ft. of slurry, 100% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

9 5/8" intermediate casing: lead slurry is 905 sks. 65/35 class B poz with 6% gel, 2% calcium chloride and 8.3 gallons water per sack. Tail with 100 sks. 50/50 class B poz with 2% gel and 1/4 cu.ft. gilsonite per sk.( 1607 cu.ft. of slurry, 100% excess to circulate to surface.) Run temperature survey on top stage at 8 hours. WOC 18 hrs.

5 1/2" production casing: Do not cement.

Prepared by: J.D.Falconi

