

VIA FEDERAL EXPRESS

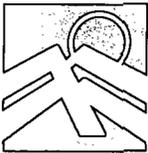
April 27, 1993

*Received 4/29/93*

Mr. Mike Stogner  
New Mexico Oil Conservation  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

Re: *Application for Unorthodox Well Location*  
*Apache "24" Federal Well No. 1*  
*1200' FSL & 330' FEL*  
*Section 24, Township 22 South, Range 30 East*  
*Eddy County, New Mexico*

*(Morrow) (Devonian)*



Dear Mr. Stogner:

Mitchell Energy Corporation hereby requests administrative approval of an unorthodox location for the subject well at the location shown above. An unorthodox location is being required due to potash restrictions. A copy of relevant correspondence from the Bureau of Land Management (BLM) is attached. The Application for Permit to Drill was filed with the BLM on April 21, 1993. The well will be drilled to a depth sufficient to test the Morrow formation.

A plat showing the ownership of all tracts offsetting the spacing unit for the subject well is attached. A copy of this application is being sent to each of these parties.

If you have any questions, please call me at (713) 377-5818.

Sincerely,

MITCHELL ENERGY CORPORATION

Mark N. Stephenson  
Manager  
Production-Regulatory Affairs

MNS:mtb  
apache2.mns

cc: All parties on Service List - VIA CERTIFIED MAIL

**Service List**  
**Application of Mitchell Energy Corporation**  
**for Unorthodox Well Location**  
**Apache "24" Federal Well No. 1**  
**Eddy County, New Mexico**

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**Plat Tracts 1, 8, 10, & 11**

*Certified Mail - RRR No. 143 506 856*

Arco Oil & Gas Company  
P.O. Box 1610  
Midland, Texas 79702

**Plat Tract 2**

*Certified Mail - RRR No. 143 506 857*

Kenneth Mark Smith, William Creed Smith,  
& Lora Nell Smith  
P.O. Box 727  
Lovington, New Mexico 88260

*Certified Mail - RRR No. 143 506 858*

Green London, Indiv.,  
Georgia Lou London Bergsten,  
Trustee of the Margaret S. London Test. Trust  
903 Pate  
Carlsbad, New Mexico 88220

**Plat Tracts 6 & 7**

*Certified Mail - RRR No. 143 506 859*

Dept. of Energy  
Waste Isolation Pilot Project  
P.O. Box 2078  
Carlsbad, New Mexico 88221

**Plat Tracts 9, 10, 11 & 12**

*Certified Mail - RRR No. 143 506 860*

Perry R. Bass, Inc., Lee M. Bass, Inc.  
Sid R. Bass, Inc., Thruline, Inc. & Keystone, Inc.  
Bass Enterprises Production Co.  
Attn: Jens Hansen  
201 Main Street  
Ft. Worth, Texas 76102-3105



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

New Mexico State Office  
1474 Rodeo Rd.  
P.O. Box 27115  
Santa Fe, New Mexico 87502-7115



IN REPLY REFER TO:  
3160(067)  
NM-89051

CERTIFIED--RETURN RECEIPT REQUESTED  
P 864 875 387

Mitchell Energy Corporation  
Attention: George Mullen  
P. O. Box 4000  
The Woodlands, TX 77387-4000

RE: Apache "24" Federal Well No. 1  
NM-89051  
990' FSL & 660' FEL, Sec. 24, T22S, R30E  
Eddy County, New Mexico

MAR 5 1993  
RECEIVED

MAR 11 1993

PRODUCTION  
REGULATORY AFFAIRS

Dear Mr. Mullen:

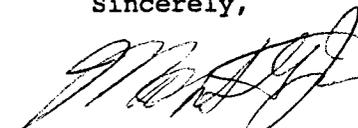
On December 3, 1992, this office received an Application for Permit to Drill (APD) for the above referenced well location. This location falls within the designated Secretary's Potash Area as defined in the 1986 Secretary's Order.

Considerable time has been spent evaluating the physical characteristics of the ore body and the feasibility of economically mining potash in the subject area. The Third, Fourth, Eighth and Tenth ore zones are the important potassium bearing formations in this area which meet the leasing criteria of 4 feet of 10 percent  $K_2O$  as sylvite or 4 feet of 4 percent  $K_2O$  as langbeinite. This combined with a mineralogical evaluation of the ore zone leads us to conclude that the Fourth ore zone constitutes a "Potash Enclave". Therefore, the drilling of this well may result in undue waste of potash.

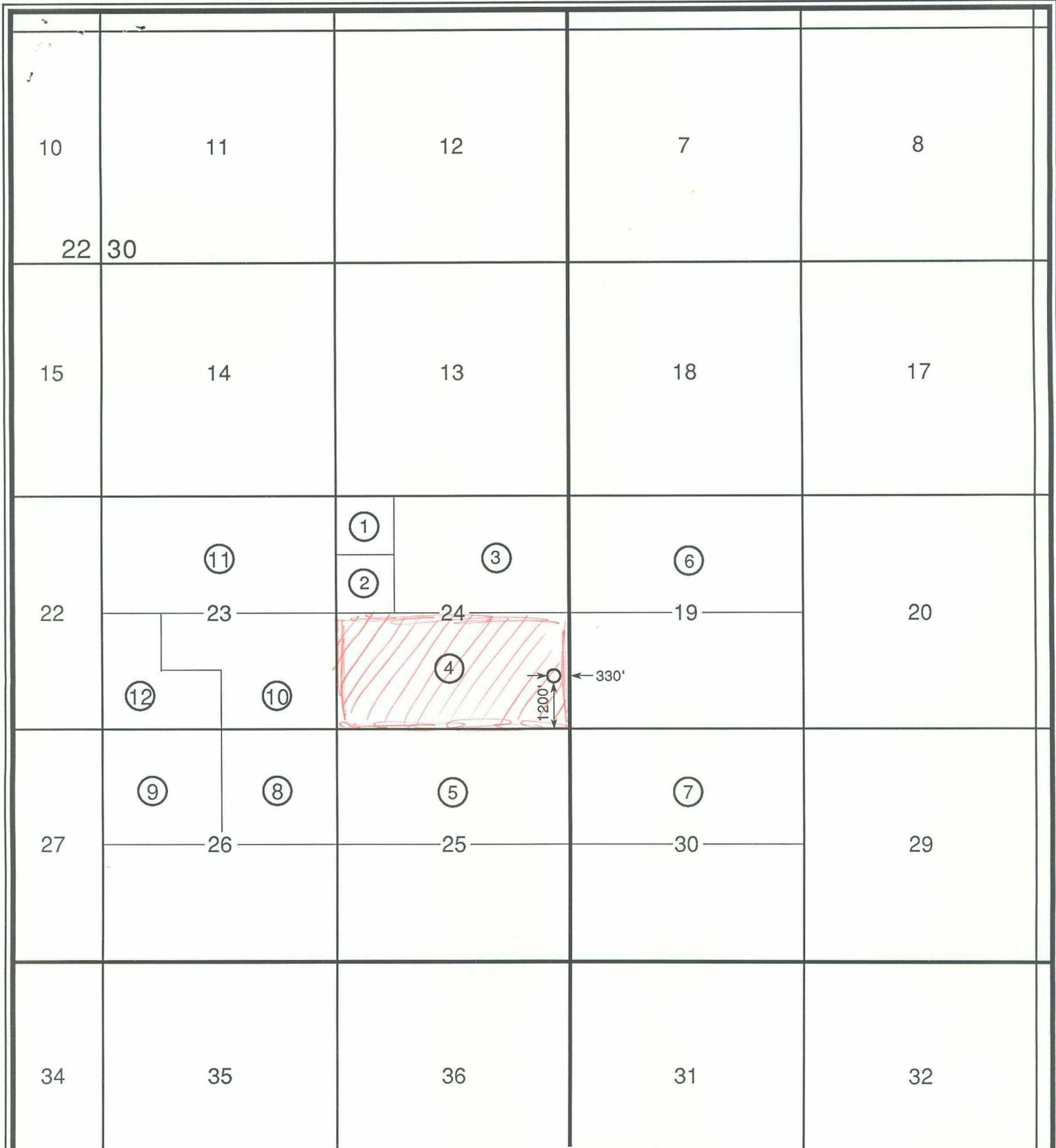
In accordance with the 1986 Secretary's Order, the APD can not be approved at the present location. Your copies of the APD are enclosed. In the original denial of this well, the Bureau of Land Management (BLM) described an area available for drilling wells to the base of the Delaware formation 1,750 feet to the east. This APD location is located only 1,320 feet to the east of the original location and is for a well deeper than the base of the Delaware Formation. However, through further analysis, an alternate location may be available for deep gas wells from within the area described as follows: 0 feet to 330 feet FEL between 330 feet and 1250 feet FSL of Section 24. A vertical or directional well can be drilled from within this area which can bottom at the original target. Once a well has been drilled, it will be established as a drill island with a radius of 150 feet from the well bore. Future wells can be drilled from this drill island for the production of oil and gas.

This decision was given serious consideration by the BLM, regrettably, it may have an adverse impact to your company. Therefore, and in accordance with 43 CFR 3165.4, you may appeal this decision to the Interior Board of Land Appeals according to the procedures outlined on the enclosed Form 1842-1. Please contact Tony Herrell at (505) 887-6544, if you have any further questions.

Sincerely,

  
LARRY L. WOODARD  
State Director

2 Enclosures



**LEGEND**

Plat Tracts

- 1,8,10,11 Arco Oil & Gas Company
- 2 Keneth Mark Smith et al
- 3,4,5 Mitchell Energy Corporation
- 6,7 Department of Energy (WIPP)
- 9,10,11,12 Perry R. Bass, Inc. et al



**Mitchell Energy Corporation**  
 P.O. BOX 4000 • THE WOODLANDS, TEXAS 77387-4000

Offset Operators for Unorthodox Well Location  
 Apache "24" Federal Well No. 1  
 Sec. 24, T22S, R30E  
 Eddy County, New Mexico

DATE: 4-27-93

SCALE: 1"=3000'

May 18, 1993

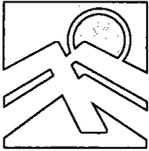
OIL CONSERVATION DIVISION  
RECEIVED

'93 MAY 21 AM 8 56

Mr. Mike Stogner  
New Mexico Oil Conservation Div.  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87501

Re:           **APPLICATION OF MITCHELL ENERGY CORPORATION  
FOR UNORTHODOX WELL LOCATION  
Apache "24" Federal Well No. 1  
Unit P, Sec. 24, T22S, R30E  
Eddy County, New Mexico**

Dear Mr. Stogner:



Per your request, I have enclosed a copy of the following information for your review and file:

1.     *Application for Permit to Drill* (including OCD Form C-102), which was submitted to the Bureau of Land Management (BLM) on April 21, 1993;
2.     *Certified Mail Receipts* from all interested parties evidencing their receipt of a copy of this application; and
3.     *Special Condition of Approval* included in the Permit to Drill issued by the BLM for Mitchell Energy Corporation's Apache "13" Federal Well No. 1

Please note that the application sent to Green London et al, on April 27 was returned due to an incorrect address. However, the application was mailed again on May 12 and received on May 15. It will therefore be necessary to adjust the 20 day notice period prescribed in Rule 104 F.(4).

In our phone conversation you mentioned to me that the Department of Energy had contacted you about this application. I expect the BLM to include a condition in the Permit to Drill the subject well similar to special condition for the Apache "13" Federal Well No. 1, as both wells are near the Waste Isolation Pilot Plant boundary.

If you need any additional information, please call me at 713-377-5818.

Sincerely,

Mitchell Energy Corporation

Mark N. Stephenson  
Manager  
Production-Regulatory Affairs

MNS:mtb

apach24  
enc. P.O. BOX 4000, THE WOODLANDS, TEXAS 77387-4000 713/377-5500  
A subsidiary of Mitchell Energy & Development Corp.

**VIA FEDERAL EXPRESS**

April 21, 1993

United States Department of  
the Interior  
Bureau of Land Management  
101 E. Mermod  
Carlsbad, NM 88220

Re: APPLICATION FOR PERMIT TO DRILL  
APACHE "24" FEDERAL WELL NO. 1  
Eddy County, New Mexico

Gentlemen:

Enclosed you will find an original and five (5) copies of Form 3160-3 and various other information to aid you in permitting the subject well.

Thank you in advance for your prompt attention to this matter and if I can be of any further help, kindly advise.

Very truly yours,

MITCHELL ENERGY CORPORATION

Original Signed By  
GEORGE MULLEN

George Mullen  
Regulatory Affairs Specialist

GM:mw  
3gfed.lt

Enclosures

bcc: Mark Whitley - MND-4N  
Ed Earles - Midland  
Jack Stanley - Midland  
George Tullos - Midland  
Bennie Davis - 2002-5  
Carol Osborne - MND-3N  
Betty Porter - MND-1N  
Susan Norman - OB3  
Central Records - MND-2N

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
 DRILL  DEEPEN

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 Mitchell Energy Corporation

3. ADDRESS AND TELEPHONE NO.  
 P.O. Box 4000 The Woodlands, TX 77387-4000

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 1200' FSL & 330' FEL (SE/SE)  
 At proposed prod. zone  
 1200' FSL & 330' FEL (SE/SE)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 23 E. of Carlsbad, NM

5. LEASE DESIGNATION AND SERIAL NO.  
 NM 89051

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 N/A

7. UNIT AGREEMENT NAME  
 N/A

8. FARM OR LEASE NAME WELL NO.  
 Apache "24" Federal No. 1

9. APL WELL NO.

10. FIELD AND POOL, OR WILDCAT  
 Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 24, T22S, R30E

12. COUNTY OR PARISH  
 Eddy

13. STATE  
 NM

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 330'

16. NO. OF ACRES IN LEASE  
 1,040

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
 2100'

19. PROPOSED DEPTH  
 15,750

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3407' GR

22. APPROX. DATE WORK WILL START\*  
 07-01-93

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.5#	550'	750 sks "C" to Surface
12-1/4"	9-5/8"	40#	3,800'	2100 sks Lite + 300 sks "C"-TOC=Sur
8-3/4"	7"	26# & 29#	12,300'	800 sks Lite + 300 sks "H"-TOC=3500
6"	4-1/2"	13.5#	TD	600 sks "H" to TOL

The operator proposes to drill to a depth sufficient to test the Devonian formation for gas. If productive, 4 1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with federal regulations. Specific programs as per Onshore Oil & Gas Order #1 are outlined in the following attachments:

Drilling Program  
Surface Use & Operating Plan

- Exhibit #1 & 1A - Blowout Preventer Equipment
- Exhibit #2 - Location & Elevation Plat
- Exhibit #3 - Planned Access Roads
- Exhibit #4 - One-mile Radius Map
- Exhibit #5 - Production Facilities Layout
- Exhibit #6 - Drilling Rig Layout

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

24. SIGNED George Mullen TITLE Regulatory Affairs Specialist DATE 04-20-93

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

\*See Instructions On Reverse Side

## DRILLING PROGRAM

Attached to Form 3160-3  
Mitchell Energy Corporation  
Apache "24" Federal No. 1  
1200' FSL & 330' FEL  
SE/SE, Sec. 24, T22S, R30E  
Eddy Co., New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Strawn	12530'
Top Salt	615'	Atoka	12805'
Base Salt	3580'	Morrow	12980'
Delaware	3850'	Mississippian	14850'
Brushy Canyon	5900'	Woodford	15300'
Bone spring	7625'	Devonian	15470'
Wolfcamp	11200'	Total Depth	15750'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands to 100'	fresh water
Delaware 3850'	oil
Brushy Canyon 5900'	oil
Strawn 12530'	gas/cond
Atoka "AC" 12880'	gas
Atoka Bank 12950'	gas
Morrow "B" SS 13680'	gas
Devonian 15470'	gas

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 550' and circulating cement back to surface. Any zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them behind the 9 5/8" or 7" intermediate casing or the 4-1/2" liner which will be cemented on bottom.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</u>	<u>Weight, Grade, Jt. Cond. Type</u>
26"	0-40'	20"	Conductor, 0.3" wall thickness
17-1/2"	Surf-550'	13-3/8"	54.5#, K-55, ST&C, New, R-3
12-1/4"	Surf-3800'	9-5/8"	40#, K-55, LT&C, New, R-3
8-3/4"	Surf-12300'	7"	26 & 29#, S-95 & P110, LT&C, New, R-3
6"	12000'-TD	4-1/2"	13.5#, S-95, LT&C, New, R-3

Cement Program:

13-3/8" Surface Casing  
@ 550':

Cemented to surface with 500 sacks of Class "C" + 4% gel + 2% CaCl<sub>2</sub> and 250 sx Class "C" + 2% CaCl<sub>2</sub>.

9-5/8" Intermediate Casing  
@ 3800':

Cemented to surface with 2100 sacks Halliburton Lite + 15#/sx salt + 1/4#/sx Flocele and 300 sx Class "C" + 2% CaCl<sub>2</sub>.

7" Intermediate Casing  
@ 12,300':

Cemented with 800 sacks Lite + 300 sx Class "H" + 5#/sx salt. TOC @ 3500'. Shallow productive zones if present will be cemented by placing a cementing stage tool below the zone of interest and cementing with Class "C" cement.

4-1/2" Liner @ TD:

Cemented with 600 sacks Class H + 4% TF-4 + 0.6% CF-9 + 0.6% Flo-LOK-1 + 5#/sx KCl. Cemented to TOL.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and a bag-type (hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be nipped up on the 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of 9-5/8" intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000 psi and the hydril to 70% of rated working pressure (3500 psi).

The testing procedure will be duplicated before drilling out of 7" intermediate casing and after any use under pressure during the drilling of the well.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 10,000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination brine, cut brine, and polymer/KCl mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0- 550'	Freshwater (spud)	8.5	40-45	N.C.
550- 7600'	Brine Water	10.0	30	N.C.
7600-10500'	Cut Brine	8.8-9.2	30	N.C.
10500-12300'	Cut Brine/Polymer	9.2-9.5	32-34	40
12300-12950'	Brine/Polymer	10.5-12.0	34-38	5
12950-TD	Brine/Polymer/KCl	10.5-12.0	40-42	5

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times. The 7" casing shoe will be tested to an EMW equal to the maximum expected mud weight required for drilling the Atoka formation.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. An electronic pit-volume-totalizer system will be used continuously below 10,000' to monitor the mud and pump system. The drilling fluids system will also be visually monitored at all times.
- D. A mud logging unit complete with H<sub>2</sub>S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 3800' to TD.
- E. A rotating head, mud-gas separator and vacuum degasser will be operational at all times below 10,000' to facilitate handling a gas kick or gas cutting of the mud until the mud weight can be increased.
- F. Drill pipe protectors will be used at all times while drilling inside the 7" casing, which will eventually become the production casing above the 4-1/2" liner top.

8. Logging, Testing and Coring Program:

- A. Drillstem tests will be run on the basis of drilling shows. At least two tests are anticipated.
- B. The electric logging program will consist of GR-Dual Laterolog-MSFL and GR-Sonic from TD to intermediate casing @ 3800' and GR-Compensated Neutron-Density from TD to surface. Selected SW cores will be taken in zones of interest.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 4-1/2" production liner has been cemented at TD based on drill shows, log evaluation and drill stem test results.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom-hole temperature (BHT) at TD is 190°F and estimated bottom-hole pressure (BHP) is 8000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is July 1, 1993. Once commenced, the drilling operation should be finished in approximately 60 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

## SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3  
Mitchell Energy Corporation  
Apache "24" Federal No. 1  
1200' FSL & 330' FEL  
SE/SE, Sec. 24, T22S, R30E  
Eddy Co., N.M.

### 1. Existing Roads:

- A. The well site and elevation plat for the proposed well is shown in Exhibit #2. It was staked by John Jacquess Consulting Engineers, Artesia, New Mexico.
- B. All roads to the location are shown in Exhibit #3. The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
- C. Directions to Location: From Loving, N.M., take Hwy 31 northeast for 8.0 miles. Turn east on Hwy 128 and go 8.2 miles. At MM8+, turn north on Cimarron Road and go 2.7 miles. Turn east on lease road and El Paso Pipeline ROW and go 2.0 miles. Turn south and go 1,800 feet to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

### 2. Proposed Access Road:

Exhibit #3 shows the 1800 feet of new access road to be constructed and is illustrated in yellow. The road will be constructed as follows:

- A. The maximum width of the running surface will be 15'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. One culvert will be required. No cattleguards, gates, low-water crossings, or fence cuts will be necessary. One new cattleguard will be required on the existing pipeline ROW where the metal gate is now located.

- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM-approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.
- F. The proposed access road as shown in Exhibit #3 has been centerline flagged by John Jacquess Consulting Engineers, Artesia, New Mexico.

3. Location of Existing Wells:

Exhibit #4 shows that there are no existing wells within a one-mile radius of this well.

4. Location of Existing And/Or Proposed Facilities:

- A. There are no existing facilities or pipelines of any kind owned or controlled by Mitchell Energy on this lease or within a one-mile radius of proposed well.
- B. If the well is productive, contemplated facilities will be as follows:
  - (1) Production facilities are shown in Exhibit #5 and will be located on the caliche drilling pad and within the 350' x 350' area of the pad.
  - (2) The tank battery and facilities including all flowlines and piping will be installed according to API specifications.
  - (3) Any additional caliche which is required for firewalls, etc. will be obtained from a BLM-approved caliche pit. Any additional construction materials will be purchased from contractors.
  - (4) No power will be required if the well is productive of gas. However, if productive of oil, an electric, gas or LPG-fueled, self-contained pumping unit may be required.
- C. If the well is productive, rehabilitation plans are as follows:
  - (1) The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after the well is completed).
  - (2) Caliche from unused portions of the drill pad will be removed. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level, as nearly as possible, and reseeded as per BLM specifications.
- D. In the event that gas production is established, plans for permanent gas lines will be submitted to the appropriate agencies for ROW approval.

5. Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud system as outlined in the drilling program. Fresh water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing access roads as shown in Exhibit #3. If a commercial fresh water source is nearby, pipeline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials:

Any caliche required for construction of the drill pad and the proposed new access road (approximately 5200 cubic yards) will be obtained from a BLM-approved caliche pit. All roads and pads will be constructed of 6" of rolled and compacted caliche.

7. Methods of Handling Waste Disposal:

- A. Drill cutting not retained for evaluation purposes will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 150' x 150' x 6' deep and fenced on three sides prior to drilling. It will be fenced on the fourth side immediately following rig removal. The reserve pit will be plastic-lined (5-7 mil thickness) to minimize loss of drilling fluids and saturation of the ground with brine water.
- C. Water produced from the well during completion may be disposed into the reserve pit or a steel tank (depending on the rates). After the well is permanently placed on production, produced water will be collected in tanks (fiberglass or steel) until hauled by transport to an approved disposal system; produced oil will be collected in steel tanks until sold.
- D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.
- E. Garbage and trash produced during drilling or completion operations will be contained in a trash bin and properly disposed of in an approved dump site. All waste material will be contained to prevent scattering by the wind. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.

- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and netted and kept closed until it has dried. When the reserve pit is dry enough to breakout and fill and, as weather permits, the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite, or other facilities will be built as a result of the operations on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by Jacquess Engineers, is shown in Exhibit #6. Dimensions of the pad and pits and location of major rig components are shown. Topsoil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 shows the planned orientation for the rig and associated drilling equipment, reserve pit, pipe racks, turn-around and parking areas, and access road. No permanent living facilities are planned but 2 temporary foreman/toolpusher trailers may be on location during the drilling operations.
- C. The reserve pit will be lined with a high-quality plastic sheeting (5-7 mil thickness).

10. Plans for Restoration of the Surface:

- A. Upon completion of the proposed operations, if the well is to be abandoned, the caliche will be removed from the location and road and returned to the pit from which it was taken. The pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topography as possible. All trash, garbage and pit lining will be buried or hauled away in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.
- B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.

- C. Three sides of the reserve pit will be fenced prior to drilling operations. At the time that the rig is removed, the reserve pit will be fenced on the rig (fourth) side and netted to prevent livestock or wildlife from being entrapped. The fencing and netting will remain in place until the pit area is cleaned up and leveled. No oil will be left on the surface of the fluid in the pit.
- D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from any area of the original drillsite not needed for production operations or facilities will be removed and used for construction of thicker pads or firewalls for the tank battery installation. Any additional caliche required for facilities will be obtained from a BLM - approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The wellsite and lease is located entirely on Federal surface. Kenneth Smith, Carlsbad, N.M. has the Federal grazing lease on this surface.

12. Other Information:

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. There is no permanent or live water in the immediate area.
- C. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

13. Lessee's and Operator's Representative:

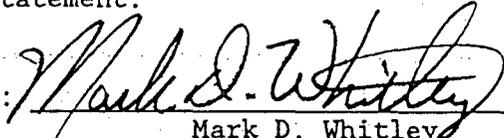
The Mitchell Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

George W. Tullos, District Drilling Manager  
Mitchell Energy Corporation  
400 W. Illinois, Ste 1000  
Midland, Texas 79701  
Phone: (915) 682-5396 (office)  
(915) 687-3711 (home)

Certification:

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

Date: April 20, 1993

Signed: 

Mark D. Whitley

Vice President and General Manager

Attachment

3DRILL24.MW

**MINIMUM BLOWOUT PREVENTER REQUIREMENTS**

10,000 psi Working Pressure

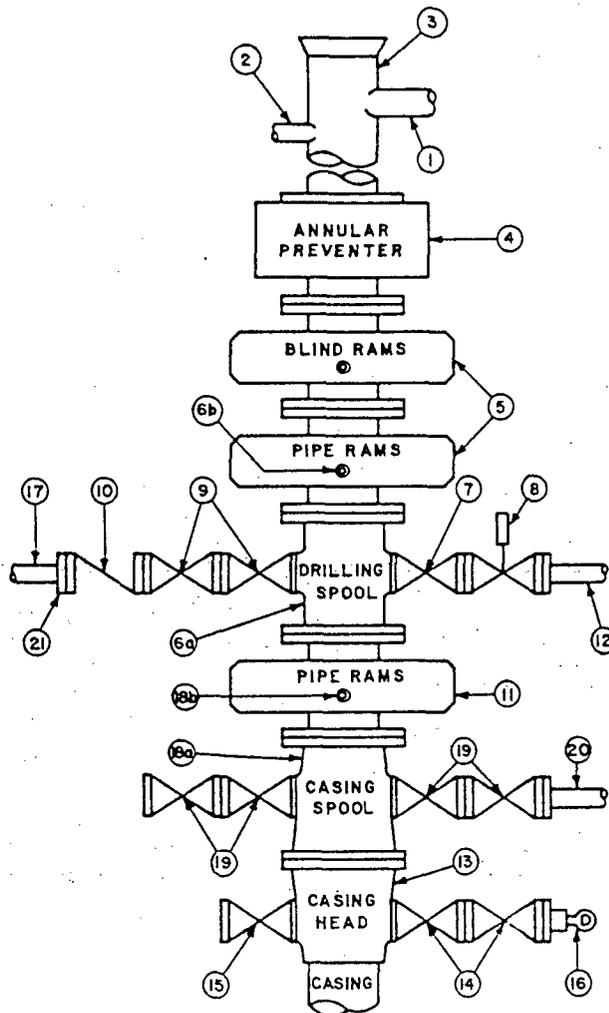
10 MWP

Exhibit #1  
Apache "24" Federal No. 1  
Eddy County, New Mexico

**STACK REQUIREMENTS**

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min. choke line outlets.		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Gate valve	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Gate valves	2-1/16"	
10	Check valve	2-1/16"	
11	Single hydraulically operated ram		
12	Line to choke manifold		3"
13	Casing head		
14	Gate valves	1-13/16"	
15	Gate Valve or Flanged Valve w/Control Plug	1-13/16"	
16	Pressure gauge with needle valve		
17	Kill line to rig mud pump manifold		2"

OPTIONAL			
18a	Casing spool with 2" outlet	or	
18b	2" outlet in ram preventer		
19	Gate valves	2-1/16"	
20	Auxiliary choke line (emergency only)		2"
21	Roadside connection to kill line		2"
22	Shear ram blocks for blind rams		



**CONTRACTOR'S OPTION TO FURNISH:**

- All equipment and connections above bradenhead or casinghead.
- Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
- BOP controls, including control for hydraulically operated wing valve, to be located near drillers position with remote controls located away from rig floor.
- Kelly equipped with Kelly cock and Hydril Kelly valve, or its approved equivalent.
- Hydril Kelly valve or its approved equivalent and approved inside blow-out preventer to fit drill pipe in use on derrick floor at all times.
- Kelly saver-sub equipped with rubber casing protector at all times.
- Extra set of pipe rams to fit pipe being used on location.
- Plug type blowout preventer tester.
- Type RX ring gaskets in place of Type R.

**10. Outlet for Halliburton on kill line.**

**MEC TO FURNISH:**

- Bradenhead or casinghead and side valves.
- Wear bushing, if required.

**GENERAL NOTES:**

- Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers. Valves must be full opening and suitable for high pressure mud service.
- Controls to be of standard design and each marked, showing opening and closing position.
- Chokes will be positioned so as not to hamper or delay changing of choke

beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.

- All valves to be equipped with handwheels or handles ready for immediate use.
- Choke lines must be suitably anchored.
- Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
- All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Approved hoses will be permitted.
- Casinghead connections shall not be used except in case of emergency.
- Do not use kill line for routine fill-up operations.
- Rig pumps ready for hook-up to BOP control manifold for emergency use only.

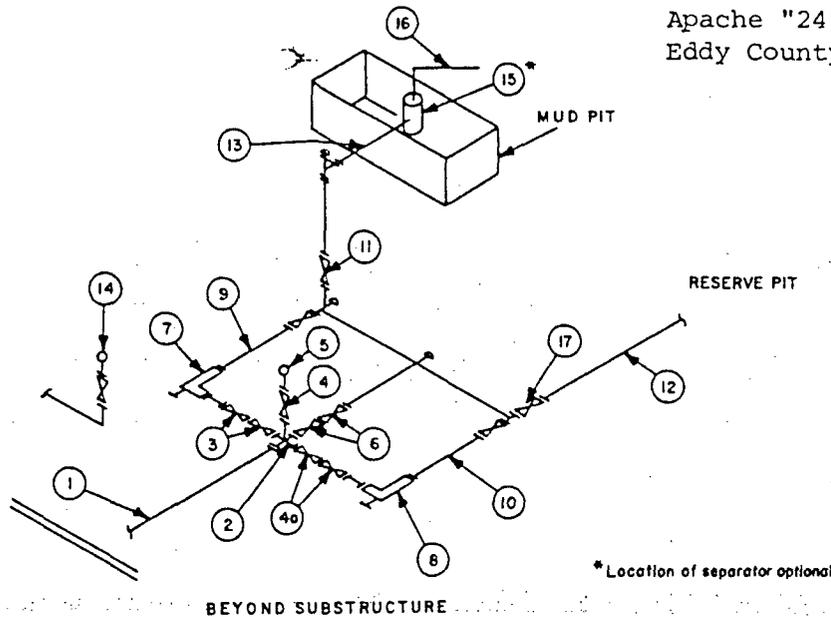
Attachment to Exhibit #1  
NOTES REGARDING THE BLOWOUT PREVENTERS  
Apache "24" Federal No. 1  
Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 10,000 psi W.P. minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 10,000 psi W.P. minimum.
6. All choke and fill lines to be securely anchored, especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on kelly.
9. Extension wrenches and had wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 80 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

**MINIMUM CHOKE MANIFOLD**  
**3,000, 5,000 and 10,000 PSI Working Pressure**

**3 MWP - 5 MWP - 10 MWP**

EXHIBIT 1-A  
 Apache "24" Federal No. 1  
 Eddy County, New Mexico



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

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

State of New Mexico  
 Energy, Minerals and Natural Resources Department

Form C-102  
 Revised 1-1-89

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

Exhibit #2  
 Apache "24" Federal No. 1  
 Eddy County, New Mexico

DISTRICT I  
 P.O. Box 1980, Hobbs, NM 88240

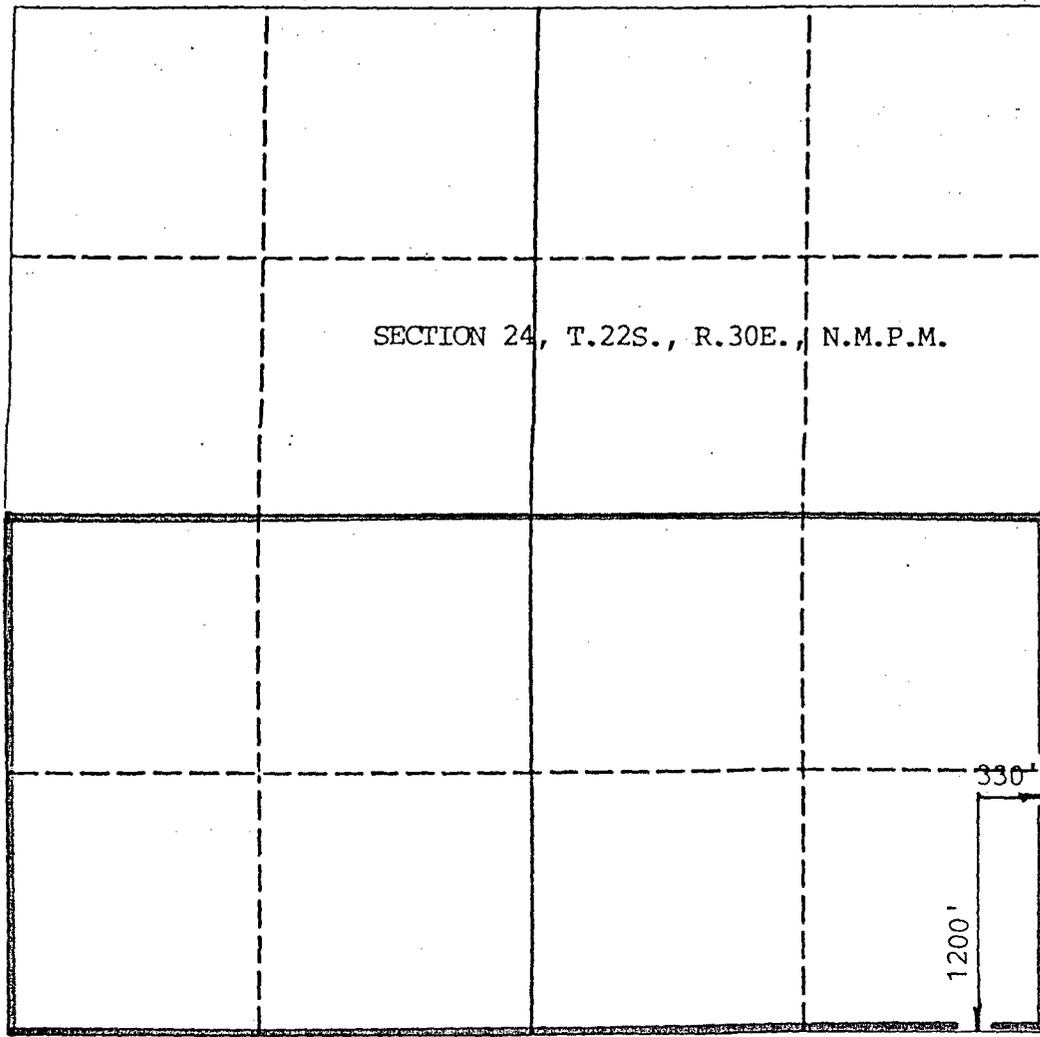
DISTRICT II  
 P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
 600 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT  
 All Distances must be from the outer boundaries of the section

Operator MITCHELL ENERGY Corporation		Lease APACHE 24 FEDERAL		Well No. #1 RESTAKE	
Unit Letter P	Section 24	Township 22S.	Range 30E.	County NMPM EDDY	
Actual Footage Location of Well:					
1200 feet from the SOUTH line and		330 feet from the EAST line			
Ground level Elev. 3407	Producing Formation Devonian		Pool Wildcat	Dedicated Acreage: 320 Acres	

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

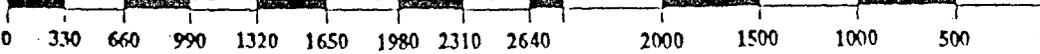


**OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *George Mullen*  
 Printed Name: George Mullen  
 Position: Reg. Affairs Specialist  
 Company: Mitchell Energy Corp.  
 Date: April 20, 1993

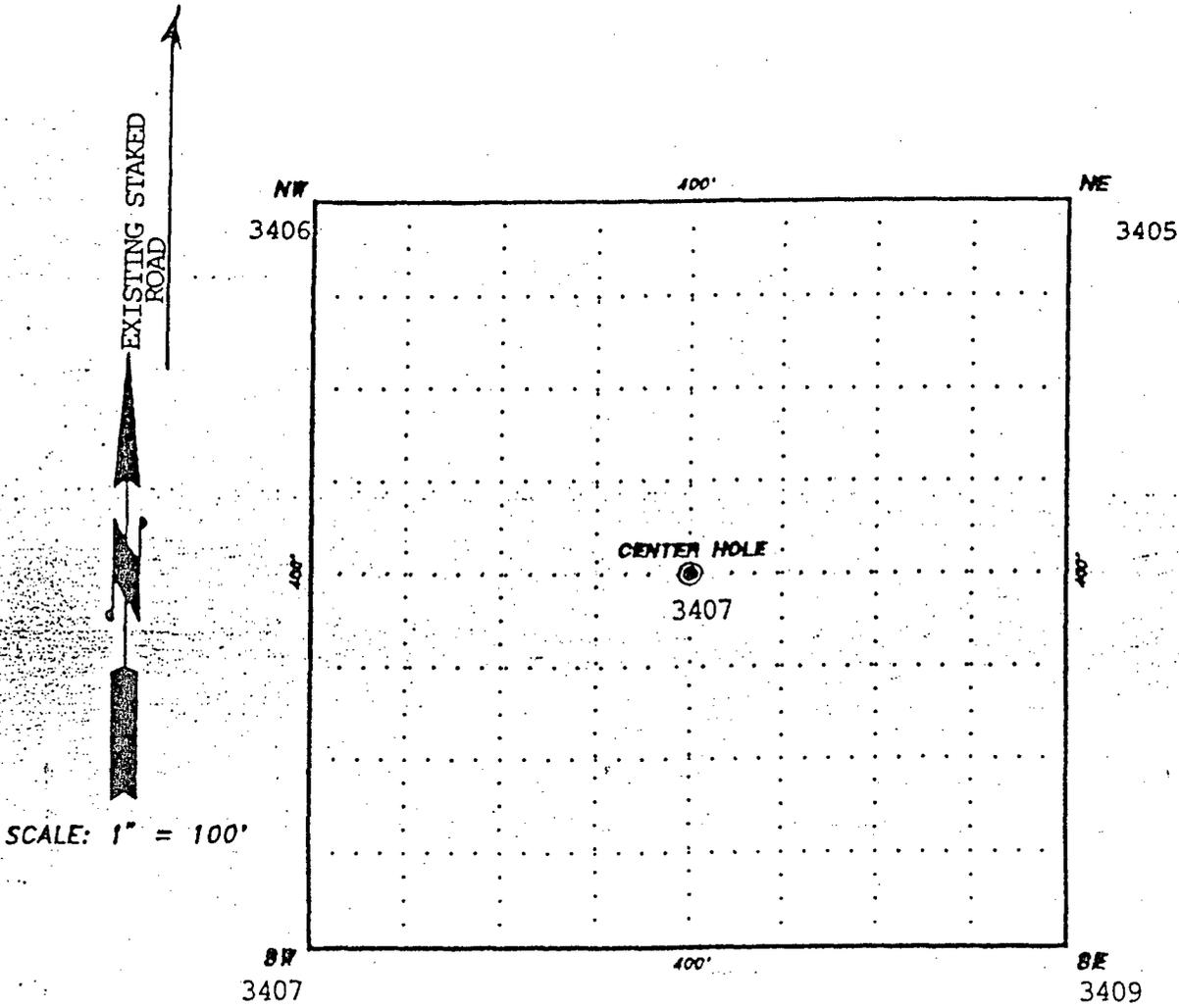
**SURVEYOR CERTIFICATION**  
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 3/25/93  
 Signature & Seal of Professional Surveyor: *[Signature]*  
 Certificate No.: 62903  
 APACHE 24



# GRID ELEVATIONS

JOHN D. JAQUESS & ASSOCIATES  
CONSULTING ENGINEERS



## WELL INFORMATION

Attached to Exhibit #2  
APACHE 24 FEDERAL #1  
(RESTAKE)  
1200 FSL, 330 FEL  
SECTION 24, T.22S., R.30E., N.M.P.M.

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Dept. of Energy (Apache 24)  
Waste Isolation Pilot Plj.  
P.O. Box 2078  
Carlsbad, NM 88221

4a. Article Number

143 506 859

4b. Service Type

- Registered  Insured
- Certified  COD
- Express-Mail  Return Receipt for Merchandise

7. Date of Delivery

5-3-93

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 \* U.S. GPO: 1991-287-088

**DOMESTIC RETURN RECEIPT**

6. Signature (Agent)

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

4a. Article Number

143 506 857

4b. Service Type

- Registered  Insured
- Certified  COD
- Express-Mail  Return Receipt for Merchandise

7. Date of Delivery

5-4-93

8. Addressee's Address (Only if requested and fee is paid)

Lora Nell Smith (Apache 24)  
P.O. Box 727  
Lovington, NM 88260

6. Signature (Agent)

PS Form 3811, November 1990 \* U.S. GPO: 1991-287-088

**DOMESTIC RETURN RECEIPT****SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Arco Oil & Gas Company  
P.O. Box 1610 (Apache24)  
Midland, TX 79702

4a. Article Number

143 506 856

4b. Service Type

- Registered  Insured
- Certified  COD
- Express-Mail  Return Receipt for Merchandise

7. Date of Delivery

MAY 3 1993

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, November 1990 \* U.S. GPO: 1991-287-088

**DOMESTIC RETURN RECEIPT**

6. Signature (Agent)

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt Fee will provide you the signature of the person delivered to and the date of delivery.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

4a. Article Number

143 506 860

4b. Service Type

- Registered  Insured
- Certified  COD
- Express-Mail  Return Receipt for Merchandise

7. Date of Delivery

MAY 3 1993

8. Addressee's Address (Only if requested and fee is paid)

Bass Enterprises, Production Co.  
Attn: Jens Hansen (Apache 24)  
201 Main Street  
Fl. Worth, TX 76102-3105

6. Signature (Agent)

PS Form 3811, November 1990 \* U.S. GPO: 1991-287-088

**DOMESTIC RETURN RECEIPT**

Fold at line over top of envelope to the right of the return address

**CERTIFIED**

P 143 506 858

**MAIL**

Forwarding Order Expired  
5-4-93 C-03

Certified Mail - RRR

Green London, Indiv. & Georgia Lou  
London Bergsten, Trust. Margaret S. London  
903 Pate  
Carlsbad, NM 88220



PRODUCTION  
REGULATORY AFFAIRS

MAY 12 1993

RECEIVED

resub  
Albys  
Address  
Attached

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt fee will provide you the signature of the person delivered to and the date of delivery.

- 1.  Addressee's Address
- 2.  Restricted Delivery
- 3.  Consult postmaster for fee.

Green London London  
Bergsten Trust Margaret  
S London  
2303 Lopez Drive NE  
Albys NM 87101

5. Signature (Addressee)

6. Signature (Agent)

PS Form 3811, November 1990 \*U.S. GPO: 1991-287-068

4a. Article Number  
SB 143 506 861

4b. Service Type  
 Registered  
 Certified  
 Insured  
 COD  
 Express Mail  
 Return Receipt for Merchandise

7. Date of Delivery  
5/15/93

8. Addressee's Address (Only if requested and fee is paid)

**DOMESTIC RETURN RECEIPT**

\*\*\*\*\*  
\*\*\*\*\*

BLM Lease Number NM-89051  
Well Name & Number Apache '13' Fed. #1  
Operator Mitchell Energy Corp.

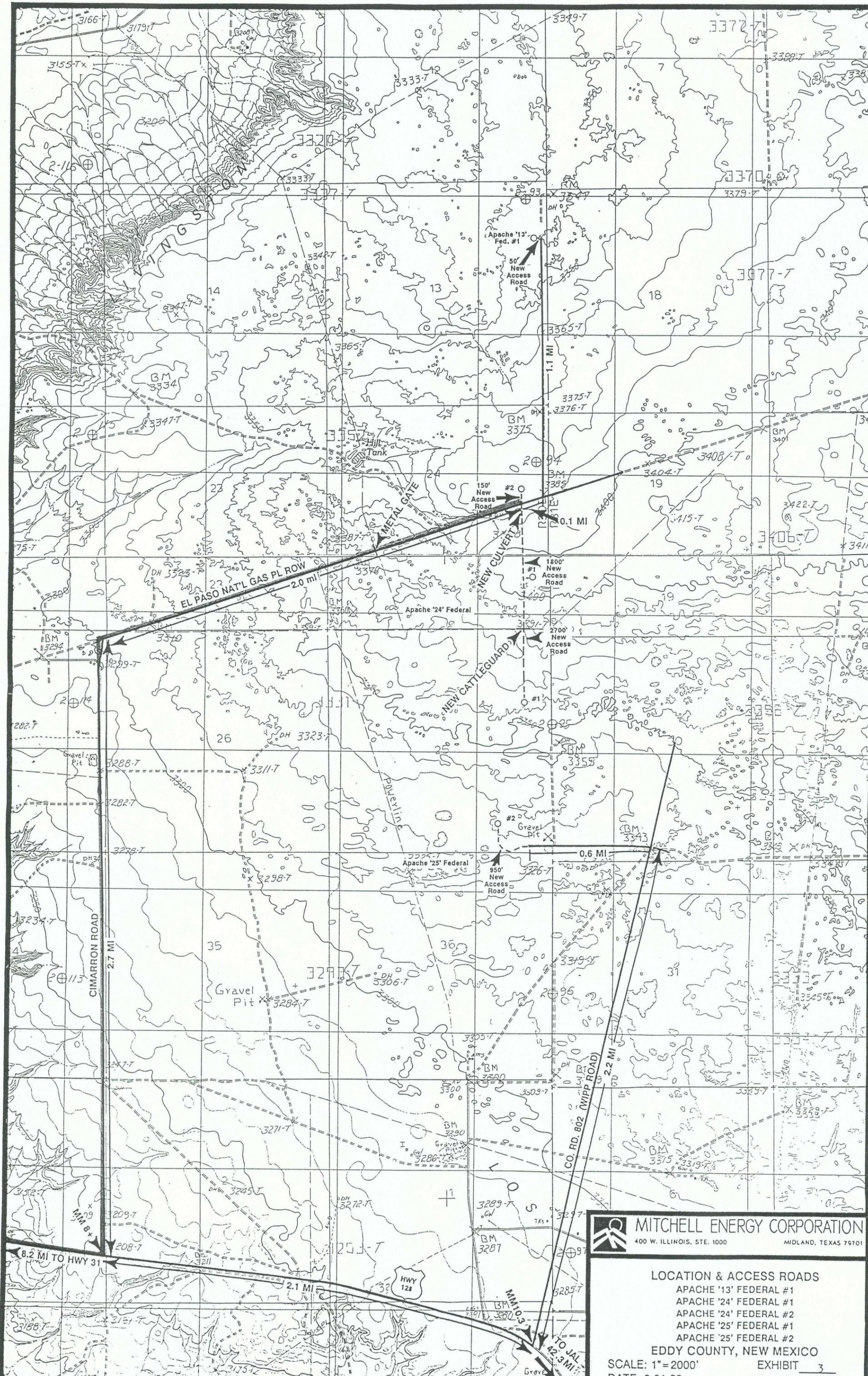
SPECIAL CONDITION OF APPROVAL

Your proposed well location falls within 330 feet of The Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP) boundary.

In accordance with 43 CFR 3162.4-2, and pursuant to a Memorandum of Understanding (MOU) between BLM & DOE, the operator is required to submit daily drilling reports (including borehole deviation survey results) by facsimile to Ms. Patty Baratti-Sallani of DOE's WIPP Office [FAX:(505)887-0707 ; Phone:(505)887-8117].

The operator is also required to perform a directional survey to establish bottomhole location on wells which experience deviation averages of more than five degrees from vertical in any 500-foot interval.

\*\*\*\*\*  
\*\*\*\*\*




**MITCHELL ENERGY CORPORATION**  
 400 W. ILLINOIS, STE. 1000  
 MIDLAND, TEXAS 79701

**LOCATION & ACCESS ROADS**  
 APACHE '13' FEDERAL #1  
 APACHE '24' FEDERAL #1  
 APACHE '24' FEDERAL #2  
 APACHE '25' FEDERAL #1  
 APACHE '25' FEDERAL #2  
**EDDY COUNTY, NEW MEXICO**  
 SCALE: 1"=2000'  
 DATE: 3-31-93 EXHIBIT 3

**ATTACHMENT TO EXHIBIT #4  
Apache "24" Federal No. 1  
Eddy County, New Mexico**

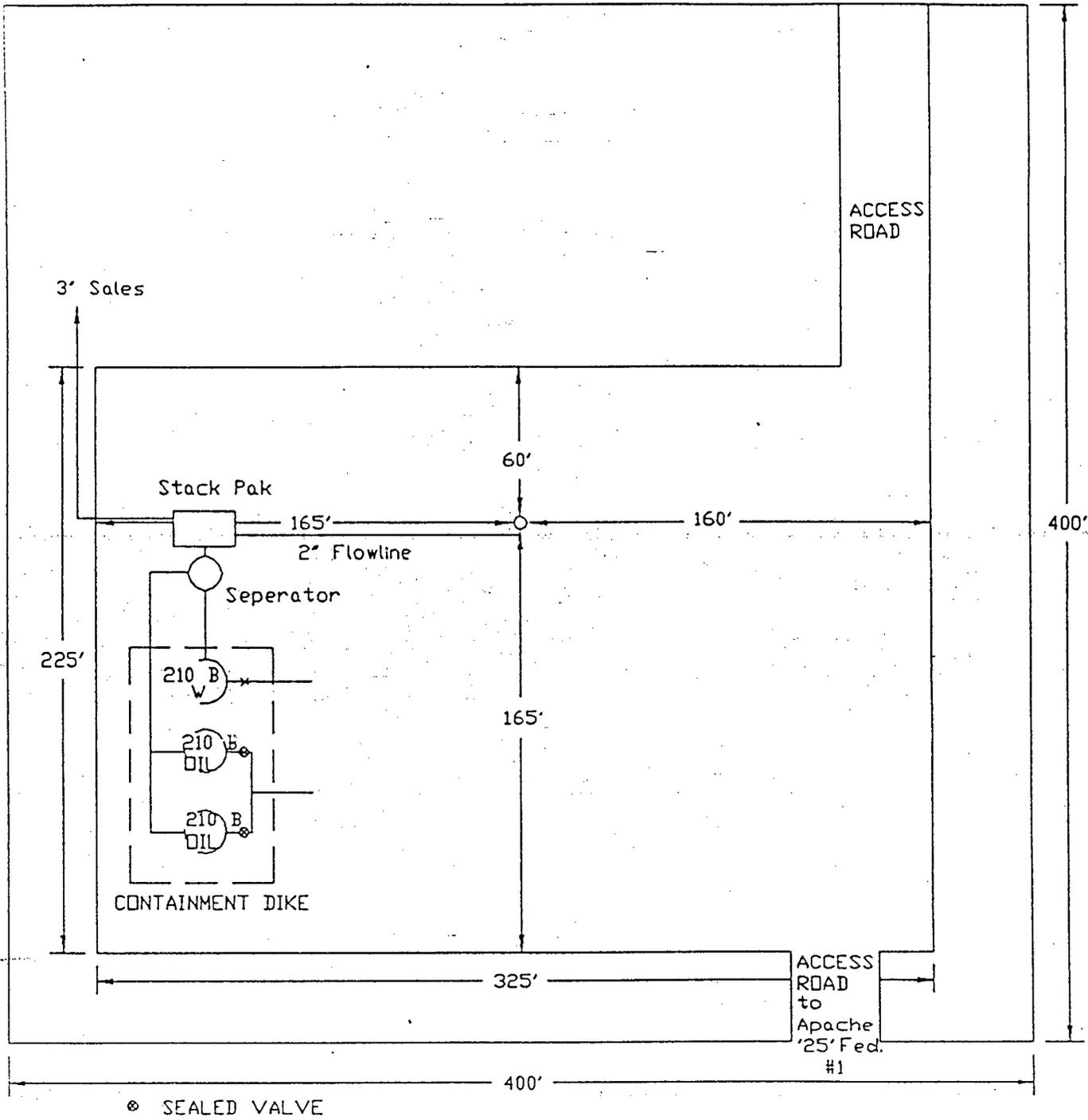
**Section 24, T22S, R30E**

Mitchell Energy Apache "24" Federal #2 (1980' FNL & 660' FEL) Proposed Devonian Gas Well

**Section 25, T22S, R30E**

Mitchell Energy Apache "25" Federal #1 (1730' FNL & 660' FEL) Proposed Morrow Gas Well

Mitchell Energy Apache "25" Federal #2 (1320' FEL & 660' FSL) Proposed Morrow Gas Well



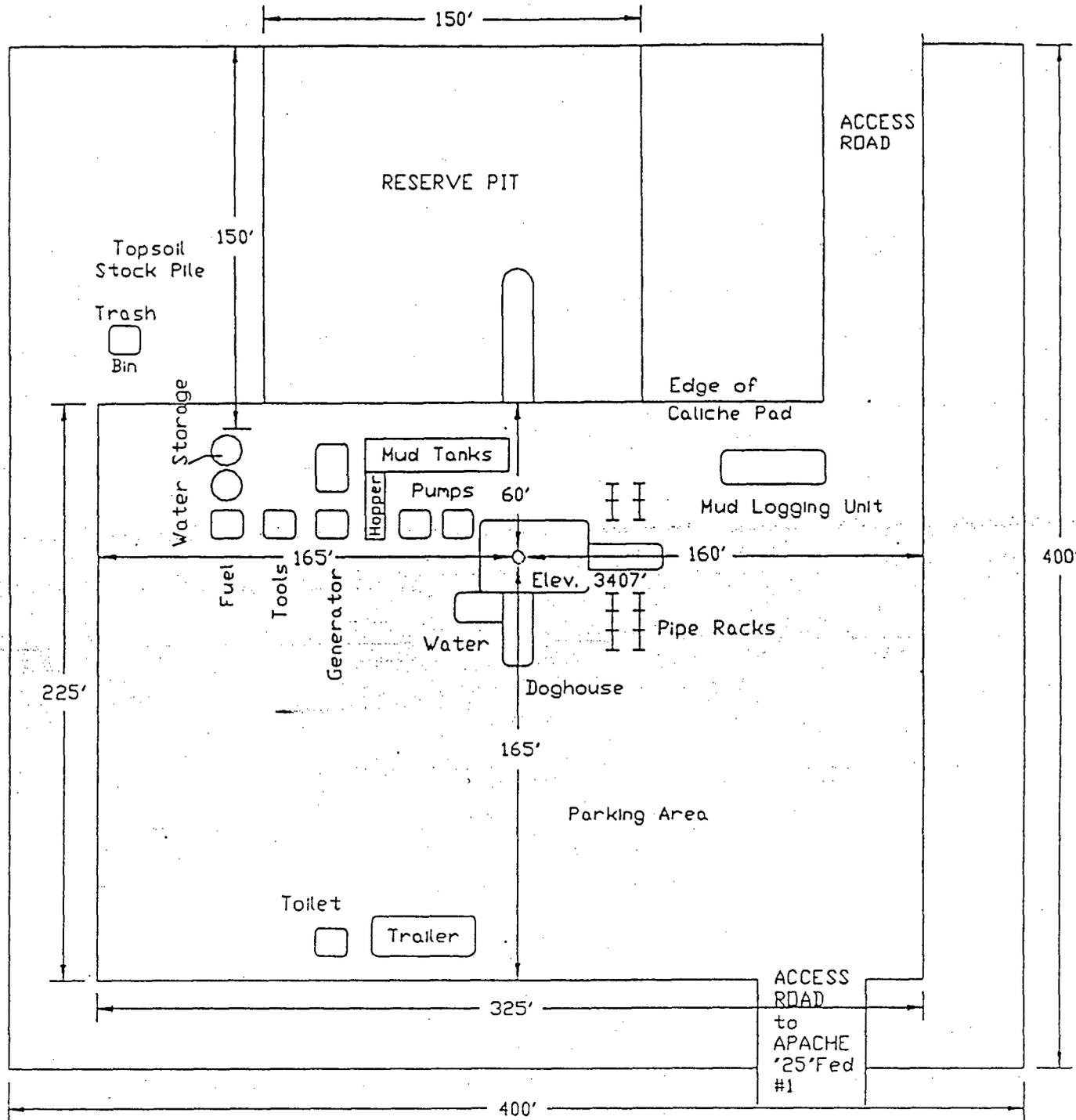
**MITCHELL ENERGY CORP.**

PRODUCTION FACILITIES LAYOUT FOR  
APACHE '24' FEDERAL #1

EDDY COUNTY, NEW MEXICO

SCALE: 1"=60'  
DATE: 11-92

EXHIBIT 5



**MITCHELL ENERGY CORP.**

DRILLING RIG LAYOUT AND ELEVATIONS  
APACHE '24' FEDERAL #1

EDDY COUNTY, NEW MEXICO

SCALE: 1" = 60'  
DATE: 11-23-92

EXHIBIT 6

13

18

24

19

MEC  
Apache '24' Fed. #2



MEC  
Apache '24' Fed. #1



MEC  
Apache '25' Fed. #1



25

30

MEC  
Apache '25' Fed. #2



Belco Pet  
James Ranch Unit  
23377 (11)  
#  
14600

Belco Pet Corp.

36



**MITCHELL ENERGY CORP.**

ONE-MILE RADIUS MAP  
APACHE '24' FEDERAL #1

EDDY COUNTY, NEW MEXICO

SCALE: 1" = 2000'  
DATE: 11-92

EXHIBIT 4