

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(August 1999)

2004 FEB 27 PM 2:47

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-05561 055561
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NA
2. Name of Operator MCQuadrangle LLC		7. If Unit or CA Agreement, Name and No. None
3a. Address 7008 Salem Ave., Lubbock, Texas 79424		8. Lease Name and Well No. Midnight Matador Fed." A"
3b. Phone No. (include area code) (806) 797-3162		9. API Well No. 30-015-33351
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2155' FNL & 1650' FEL (SW/4 NE/4) At proposed prod. zone Same		10. Field and Pool, or Exploratory X Redlake Qu, GB, SA
14. Distance in miles and direction from nearest town or post office* 8 miles ESE of Artesia, New Mexico		11. Sec. T., R., M., or Blk. and Survey or Area Sec. 35, T-17-S, R-27-E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease 80	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 40	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	13. State NM
19. Proposed Depth 2420'	20. BLM/BIA Bond No. on file NM 2742	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3611.6' GL	22. Approximate date work will start* March 15, 2004	23. Estimated duration 30 days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Charles C Joy</i>	Name (Printed/Typed) Charles C. Joy	Date Feb. 26, 2004
Title Agent		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date MAR 30 2004
Title ACTING FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

APPROVAL FOR 1 YEAR

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Witness Surface Casing.

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 AFI Number		2 Pool Code		3 Pool Name		
4 Property Code		5 Property Name			6 Well Number	
		MIDNIGHT MATADOR "A"			1	
7 OGRID No.		8 Operator Name			9 Elevation	
		McQuadrangle, LLC			3611.6	

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	17S	27E		2155	NORTH	1650	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Charles C Joy</i></p> <p>Signature</p> <p>Charles C. Joy</p> <p>Printed Name</p> <p>Agent</p> <p>Title</p> <p>Feb. 26, 2004</p> <p>Date</p>	
	<p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>February 20, 2004</p> <p>Date of Survey</p> <p>PATTON</p> <p>Signature and Seal of Professional Surveyor:</p> <p><i>[Signature]</i></p> <p>NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 8112</p>	

Drilling Program
McQuadrangle LLC
Midnight Matador Fed. "A" No. 1
Eddy County, Neq Mexico

1. Geologic Name of Surface Formation: Permian
2. Estimated Top of Important Geologic Markers:

Grayburg	1322'
San Andres	1658'

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

Upper Permian Sands	100'	Fresh Water
Grayburg	1620'	Oil
San Andres	2213'	Oil

It is anticipated that no other fresh water or economical oil and gas formations will be encountered. Surface fresh water sands will be protected by setting 8 5/8" casing at 500' and circulating cement from T. D. to surfacs. All zones from T. D. (2400') to bottom of 8 5/8" casing will have cement circulated across them.

4. Casing Program:

Hole Size	Interval	OD Casing	Weight	Grade
18.0"	0'-40'	13 3/8"	48.0#	J-55
12 1/4"	0'-500' 300'	8 5/8"	24.0#	J-55
7 7/8"	0'-2400'	5 1/2"	17.0#	J-55

WITNESS

5. Cement Program:

- A. 13 3/8" conductor casing: Cement from T. D. to surface with 60 Sxs of ready mix.
- B. 8 5/8" surface casing: Cement from T. D. to surface with 150 Sxs class H and 320 Sxs class C containing 4% gel, 2% cacl and 1/2 #/Sx Flocele.
- C. 5 1/2" producing casing: Cement with 440 Sxs Class H containing 3% SMS and 1/4#/Sx Flocele.

6. Minimum Specifications for Pressure Control: The B. O. P. shown on Exhibit 1 will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydrill) preventer (3000 psi WP). Both will be operated hydraulically and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both B. O. P.s will be nipped up on the 8 5/8" surface casing and used continuously until T. D. is reached. The B. O. P.s and accessory equipment will be tested to 1000 psi before drilling out surface casing. Before drilling out production casing, the ram-type B. O. P. and accessory equipment will be tested to 3000 psi and the hydrill to 70% (2100 psi) of rated working pressure.

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 B. O. P. Other accessories to the B. O. P. equipment will include a kelly cock and floor safety valve (inside B. O. P.) and choke lines and choke manifold with 3000 psi rating.

7. Types and Characteristics of the mud System: The well will be drilled to T. D. with a combination of brine, cut brine and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss
0'-40'	fresh water	8.5	40-45	n. c
0'-500'	fresh water	8.5	40-45	n. c
300'-500'-TD	cut brine	8.8-9.2	28	n. c

Sufficient mud materials to maintain mud properties and meet minimum circulation loss and weight increase requirements will be kept at the site at all times.

8. 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 B. O. P.) with proper drill pipe connections will be on the rig floor at all times.
- C. A mud logging unit complete with hydrogen sulfide detector will continuously monitor drilling penetration rate and hydrocarbon shows to T. D.

9. Logging, Testing, and Coring Program:

- A. No drill stem test is anticipated.
- B. Logging program will consist of a GR-CNL & Micro-CFL/GR from T. D. to bottom of surface casing.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 5 1/2" casing has been cemented at T. D., based on drill shows and log evaluations.

10. Abnormal Conditions, Pressures, Temperatures, or Potential Hazards:

- A. No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature at T. D. is 88 degrees Fahrenheit. The estimated maximum bottom hole pressure is estimated at 2000 psig. No hydrogen sulfide is known to exist at this depth in this area. No major circulation loss zones have been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations: Road and location work will begin after receiving B. L. M. approval. The anticipated spud date is March 15, 2004. Once commenced, the drilling operations should be finished in approximately 30 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
McQuadrangle LLC
Midnight Matador Fed. "A" No. 1
Eddy County, New Mexico

1. Existing Roads:

- A. The well location and acreage dedication plat for the proposed well is shown on Exhibit 2. Location was staked by P. R. Patton & Associates.
- B. All roads to the location are shown in Exhibit 3. The existing roads 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 on-site inspection.
- C. Travel 8 miles East of Artesia, New Mexico on Lovington Highway. Turn South on C. R. 204 and proceed 0.4 mile and turn Southwest on C. R. 225. Go 1 mile and turn East onto lease road. Travel approximately 250 ft. East to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operation continues on the lease.

2. Proposed Access road: Exhibits 3 shows that there will be no new access road to be constructed.

3. Location of Existing Wells: No existing well map is included.

4. Location of Existing and Proposed Facilities:

- A. McQuadrangle LLC does operate other production facilities on this lease.
- B. If well is productive the facilities will be as follows:
 - 1. The oil production from this lease will be produced into the tank battery located on the Midnight Matador Fed. No. 1 well (Lease LC 050158). This battery is located approximately 960 ft. East of proposed well. Flowlines and piping will be installed according to A. P. I. specifications. 3" Poly to follow road
 - 2. Any additional caliche which is required for firewalls, etc. will be obtained from a B. L. M. approved caliche pit. Any additional construction materials will be purchase from contractors.
 - 3. No power will be required if the well is productive of gas. If the well is productive of oil it may be necessary to run electrical power to the well.

C. If the well is productive, rehabilitation plans are as follows:

1. The reserve pit will be back-filled after the contents are dry, within 120 days after well completion.

2. Caliche from unused portions of the drill pad will be removed. Top soil 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 per B. L. M. specifications.

D. In the event that gas production is established, plans for permanent gas lines will be submitted to the appropriate agencies for 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. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck over existing and proposed access roads as shown in Exhibit 3. If a commercial fresh water source is nearby, pipeline may be laid along existing roads and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials: All caliche required for construction of the drill pad and proposed new access road will be obtained from a B. L. M. approved caliche pit. All roads and pads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal;

- A. Drill cuttings not retained for evaluation will be disposed into the reserve pit.

- B. Drilling fluids will be contained in lined earthen pits. 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 100'X50'X6' deep and fenced on three sides prior to drilling. The reserve pit will be fenced on the fourth side immediately following rig removal. The reserve pit will be plastic-lined (5 - 7 mil. thick) 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 fiberglass or steel tanks and 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 location for human waste during drilling and completion operations.

E. Garbage and trash produced during drilling and/or completion operations will be stored and removed from a separate trash trailer. 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 materials 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 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, as weather permits, the unused portion of the well site will be leveled and reseeded per B. L. M. specifications. Only the 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 P.R. Patton and Associates, is shown in Exhibit 4. Dimensions of the pad and pits and location of major rig components are shown. Top soil, if available, will be stock-piled per B. L. M. specifications determined during the on-site inspection. Because the pad is almost level, no major cuts will be required.

B. Exhibit 5 shows the planned orientation of the rig and associated drilling equipment, reserve pit, pipe racks, turn around and parking areas, and access road. No permanent living facilities are planned. A temporary foreman/toolpusher will be on location during the drilling operations.

C. The reserve pit will be high quality plastic-lined.

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 dried, 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 as possible, the original topography.

The trash, garbage and pit lining will be 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 of 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 B. L. M.
 - C. The four-sided fence around the reserve pit will remain in place until the pit area is cleaned and leveled. No oil will be left on the surface of the fluid in the pit. The entire reserve pit will be fenced until the fluid has completely evaporated.
 - D. Upon completion of the proposed operations, if the well is completed, the reserve pit will be treated as outlined within the same prescribed time. The caliche from any area of the original site 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 the facilities will be obtained from a B. L. M. 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 B. L. M. instructions.
11. Surface Ownership: The site and lease is located entirely on State surface and leased by Turkey Track Ranch.
12. Other information
- A. The area around the site is grassland and the soil is sandy. The vegetation is native scrub grasses with abundant 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. Operator's Representatives: The McQuadrangle LLC representatives responsible for assuring compliance with this surface use plan are as follows:
- | | |
|-----------------------|----------------------------|
| Horace DeLong | Office Phone: 505-677-2334 |
| P.O. Box 7 | Cell Phone: 505-748-7596 |
| Loco Hills, NM. 88255 | Fax: 505-677-3221 |

Hydrogen Sulfide drilling Operations Plan
McQuadrangle, Inc.
Midnight Matador Fed. "A" No. 1
Eddy County, New Mexico

I. Hydrogen Sulfide Training: All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500') and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This Plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S Safety Equipment and Systems; All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500' above, or 3 days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Well Control Equipment:
 - A. Flare line with electronic igniter or continuous pilot.
 - B. Choke manifold with a minimum of 1 remote choke.

C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

D. Auxiliary equipment will include annular preventer, mud-gas separator, rotating head, and flare gun with flares.

2. Protective equipment for essential personnel is Mark II Surviveair 30 minute units located in the dog house and at briefing areas, as indicated on well site diagram.

3. H2S Detection and Monitoring Equipment:

A. 2 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

B. 1 portable SO2 monitor positioned near flare line.

4. Visual Warning Systems:

A. Wind direction indicators as shown on well site diagram.

B. Caution/Danger signs shall be posted on roads providing direct access to the location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. When appropriate, bilingual signs will be used.

5. Mud Program:

A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

B. A mud-gas separator and an H2S gas buster will be utilized.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, B. O. P., drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

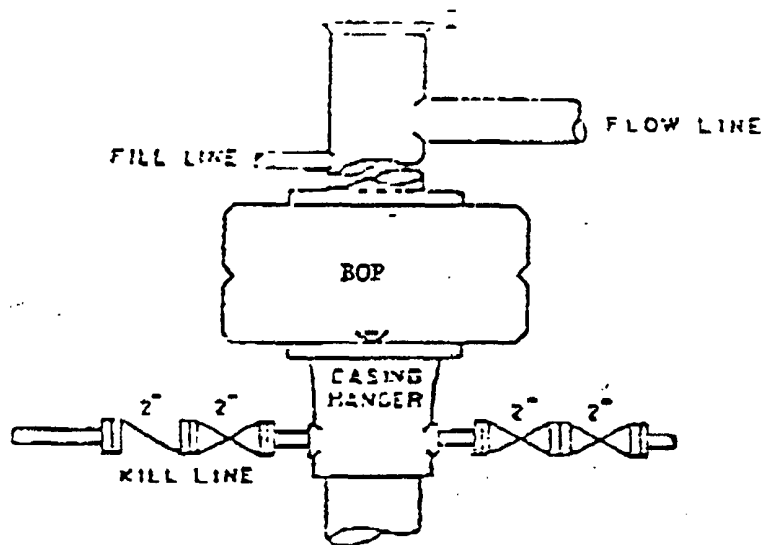
B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

A. Radio communications in company vehicles included cellular telephone and 2-way radio.

B. Telephone communications at field office.

8. Well Testing: Drill stem testing will be performed with the minimum number of personnel in the immediate area necessary to safely and adequately conduct the testing. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.



ANNULAR BOP STACK

PRESSURE 1000#

PDF Arrangement

EXHIBIT 1

CHOKE MANIFOLD

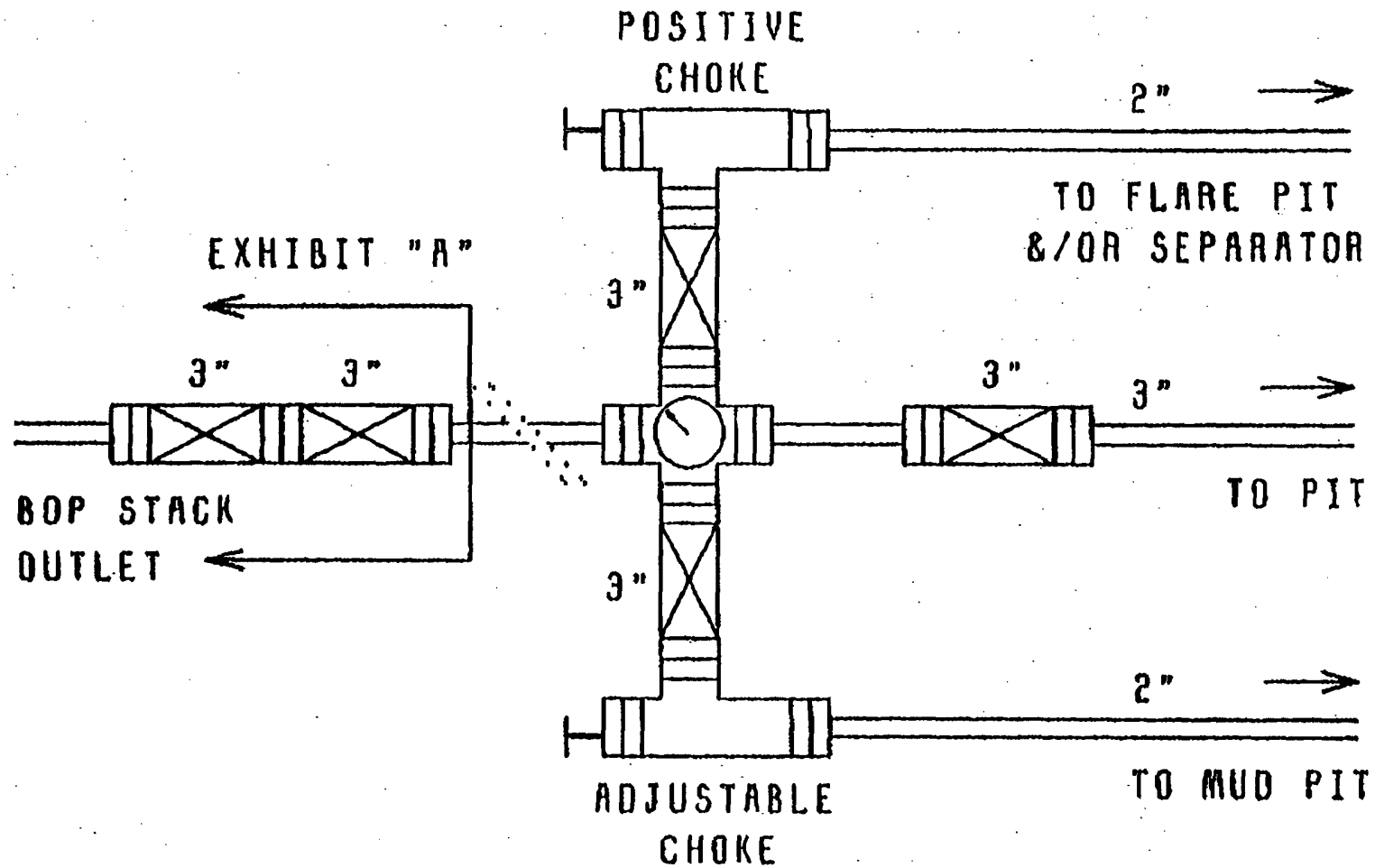
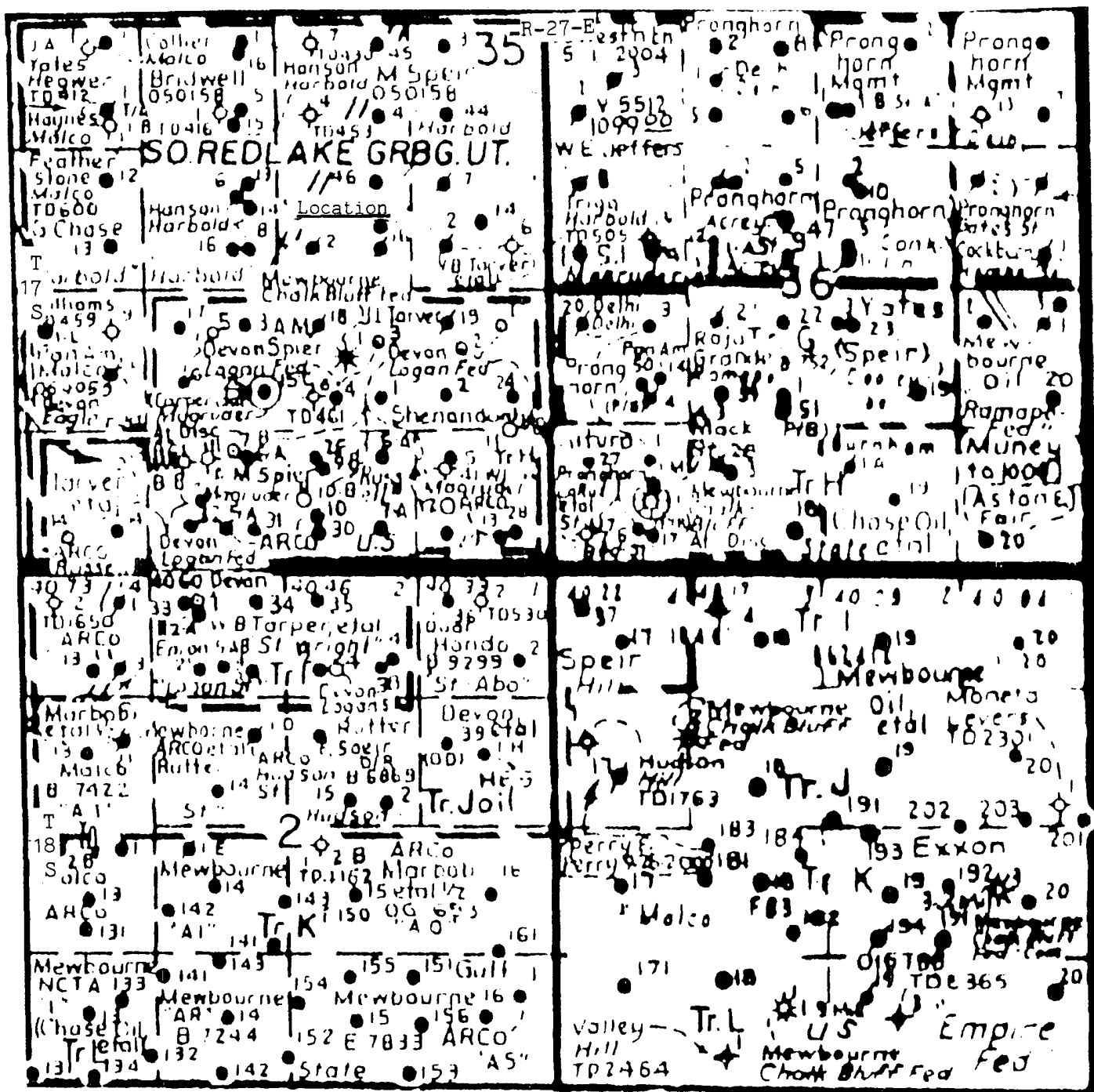


EXHIBIT 1-A

Notes Regarding Blowout Preventers
McQuandgranle, LLC
Midnight Matador Fed. "A" No. 1
Eddy County, New Mexico

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal B. O. P. bore.
2. Wear ring will be properly installed in head.
3. B. O. P and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000psi W. P. with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All B. O. P. equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for B. O. P. will be located as near in proximity to driller's controls as possible.
11. All B. O. P. equipment will meet A. P. I. standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.



SOUTH REDLAKE QU, GB, SA. FIELD
Eddy County, New Mexico

Scale 1" = 1445'

Date: Feb. 7, 2004

EXHIBIT 2

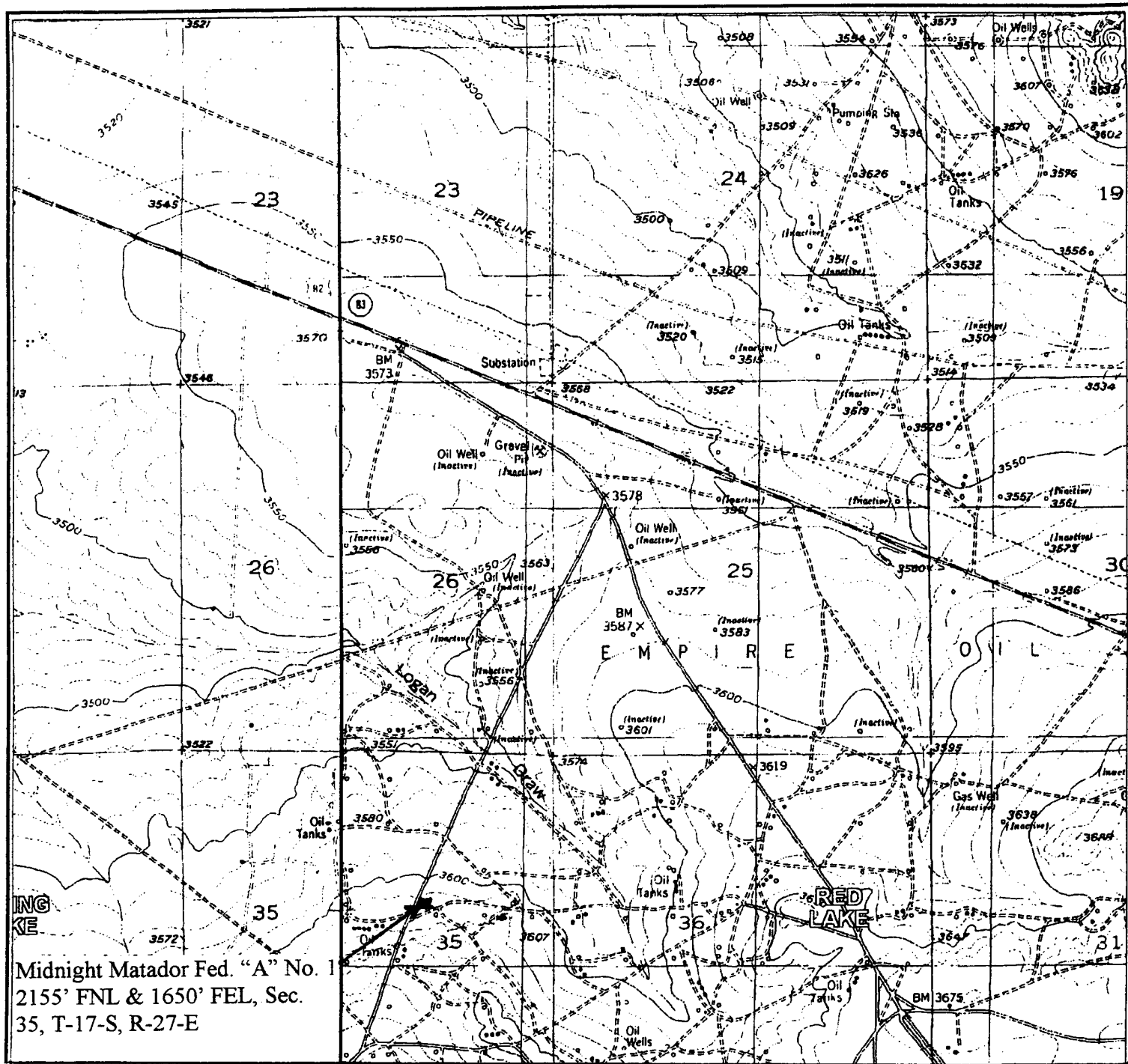


EXHIBIT 3

McQuadrangle, LLC
Midnight Matador "A" #1
2155 FNL 1650 FEL
Sec. 35, T17S, R27E
Eddy Co., NM

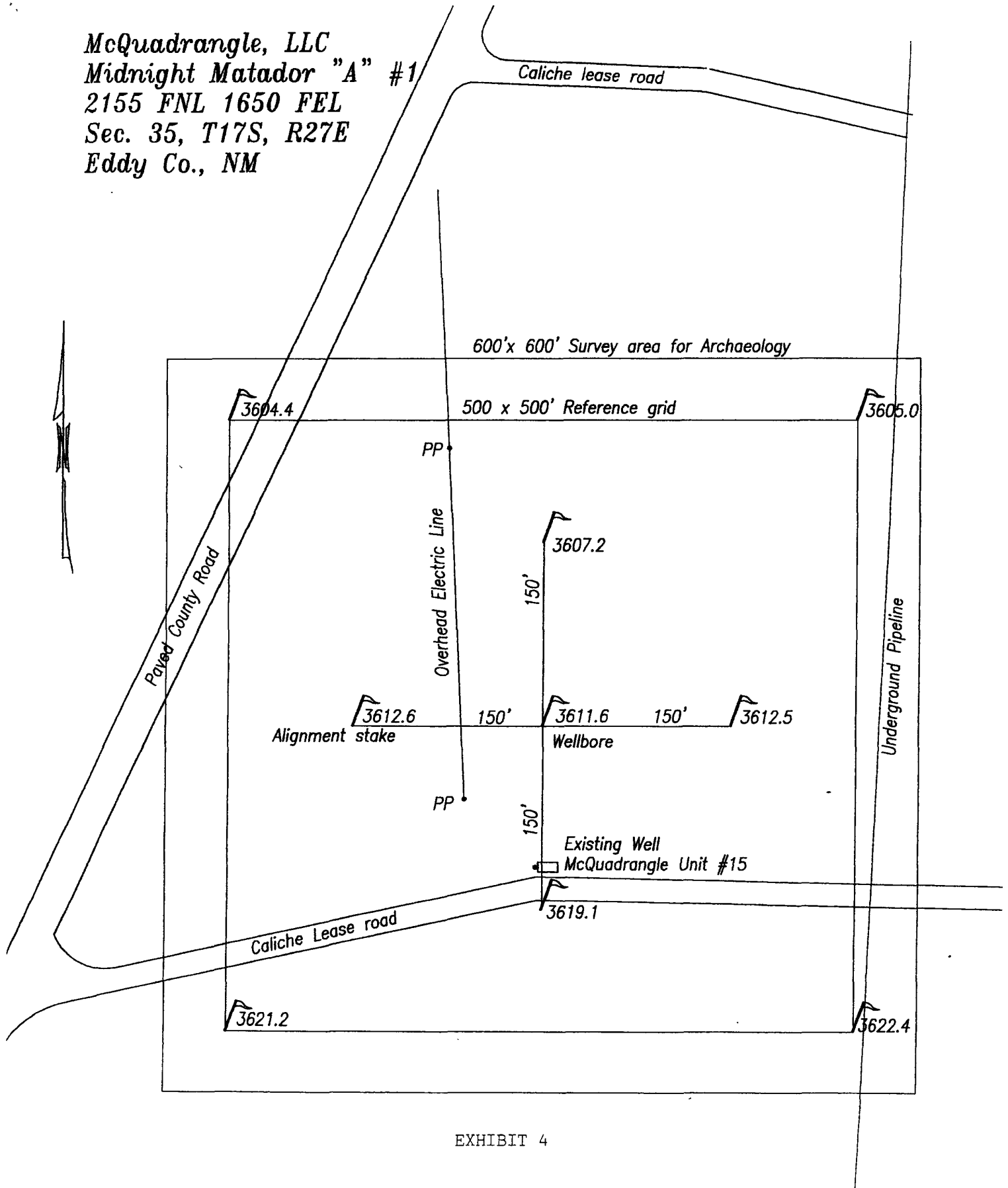
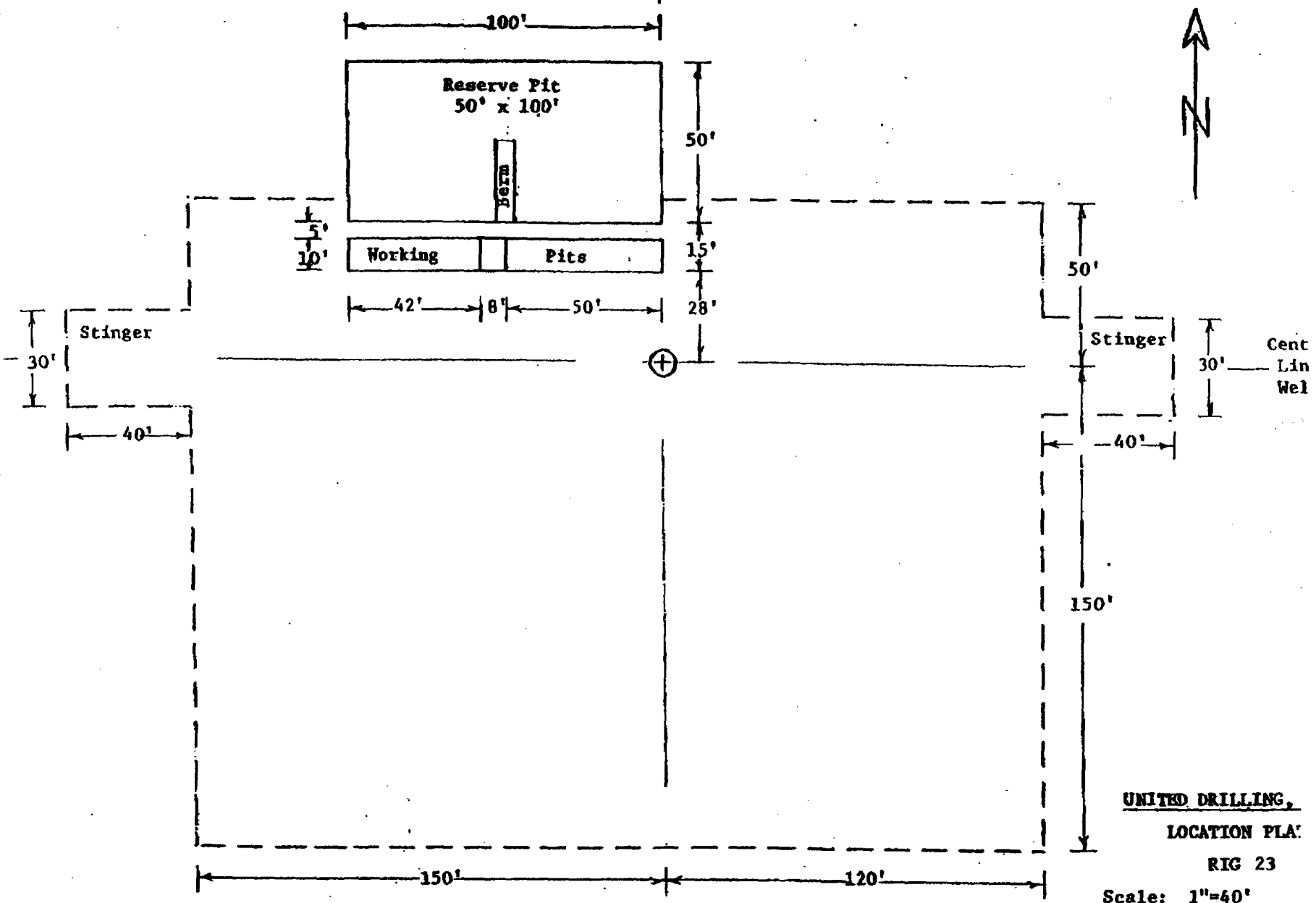


EXHIBIT 4

**Line
Well**



UNITED DRILLING,
LOCATION PLAT.
RIG 23
Scale: 1"=40'

EXHIBIT 5

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

McQuadrangle, LLC
7008 Salem Ave.
Lubbock, TX 79424

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease Number: LC-05561

Legal Description of Land: Township 17 South, Range 27 East, N.M.P.M.
Section 35: SW/4 NE/4,
2155' FNL & 1650' FEL, Unit G,
Eddy County, New Mexico

Formation: San Andres

Bond Coverage: Statewide Federal Bond

BLM bond file number: NM 2742



Authorized Signature:

Title: Agent

Date: February 26, 2004