

N. M. Oil Cons. Division

APPROVED FOR DRILLING

C/SF

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-065478-B
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 N/A
2. Name of Operator Amtex Energy, Inc. 785		7. If Unit or CA Agreement, Name and No.
3a. Address 301 N. Colorado, Ste 354, Midland 79701		8. Lease Name and Well No. Malco A #5 28625
3b. Phone No. (include area code) 915-686-0847		9. API Well No. 30-015 - 31965
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 330' FNL & 420' FEL At proposed prod. zone Lot 1, Unit A		10. Field and Pool, or Exploratory Red Lake (Q-GB-SA)
14. Distance in miles and direction from nearest town or post office* Approximately 7 miles southeast of Artesia, NM		11. Sec., T., R., M., or Blk. and Survey or Area Lot 1, Section 3 T18S-R27E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of Acres in lease 642.88	12. County or Parish Eddy County
17. Spacing Unit dedicated to this well 40	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 510'	13. State NM
19. Proposed Depth 2500'	20. BLM/BIA Bond No. on file NM2846	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 3582'	22. Approximate date work will start* 10-01-01	23. Estimated duration 10 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 SCUPO 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>William J. Savage</i>	Name (Printed/Typed) William J. Savage	Date 6-11-01
Title President		
Approved by (Signature) /s/ LESLIE A. THEISS	Name (Printed/Typed) /s/ LESLIE A. THEISS	Date AUG 13 2001
Title 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.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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)

**DECLARED WATER BASIN
CEMENT BEHIND THE 8 5/8"
CASING MUST BE CIRCULATED**

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

RECEIVED

2001 JUL 12 AM 10:38

BUREAU OF LAND MGMT.
ROSWELL OFFICE

7/12/01
10:38 AM

DRILLING PROGRAM

Attachment to Form 3160-3
Amtex Energy, Inc.
Malco A #5
990' FNL & 990' FEL
Lot 1, Section 3-T18S-R27E
Eddy County, New Mexico

1. Geologic Name of Surface Formation

Permian

2. Estimated Tops of Important Geologic Markers

Queen	540'
Grayburg	930'
San Andres	1190'

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

The estimated depths at which water, oil and gas will be encountered are as follows:

Water:	None anticipated.
Oil:	1690-1975'
Gas:	None anticipated.

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 8 5/8" casing at 350' and circulating cement back to surface. The Grayburg and San Andres intervals will be isolated by setting 5 1/2" casing to total depth (2500'±) and circulating cement to surface.

MALCO A #5
DRILLING PROGRAM
PAGE 2

4. Casing Program

<u>Hole Size</u>	<u>Interval</u>	<u>Casing OD</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>
12 1/4"	0' - 350'	8 5/8"	24#	J-55	ST&C, new R-3
7 7/8"	0' - TD (2500'±)	5 1/2"	15.5#	J-55	ST&C, new R-3

Cementing Program

8 5/8" Surface Casing: Cement to surface: 105 sx Lite (35% Poz, 65% Class C, 6% gel) with 2% CaC12 and 1/4 lb/sx Cellophane flakes + 70 sx Class C with 2% CaC12 and 1/4 lb/sx Cellophane flakes.

5 1/2" Production
Casing:

WITNESS

Cement to surface: 100 sx Lite (35% Poz, 65% Class C, 6% gel) with 5 lb/sx salt and 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% KC1, .3% Fluid Loss, 1/4 lb/sx Cellophane flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach surface.

5. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000 psi WP) preventer and a bag-type (Hydril) preventer (3000 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 installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be function tested.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System

The well will be drilled to total depth with fresh water, cut brine and starch mud systems. Depths of systems are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (1/sec)</u>	<u>Water Loss (cc)</u>
0' - 350'	Fresh Water	8.3-8.8	28-36	No control
350' - TD	Cut Brine with starch	10.0-10.1	28-30	10-20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. Auxiliary Well Control and Monitoring Equipment

- A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program

- A. No drillstem tests are planned.
- B. The open hole electrical logging program will be:
 - Dual Laterolog-Micro SFL with Gamma Ray, Caliper and SP from total depth to 350'.
 - Compensated Neutron-Litho Density with Gamma Ray and Caliper from total depth to 350'.
 - Gamma Ray/Neutron from total depth to surface.
- C. No coring program is planned.
- D. No additional testing will be initiated subsequent to setting the 5 ½" production casing.

9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal Pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 104 degrees and maximum bottom hole pressure is 800 psig. No major loss circulation intervals have been encountered in adjacent wells. Small quantities of hydrogen sulfide gas are associated with the Yates and Queen formations in this area. A hydrogen sulfide operations plan is attached.

10. Anticipated Starting Date and Duration of Operations

Barry Hunt of the Carlsbad, New Mexico BLM office has performed the onsite inspection for the proposed pad site of this location. A cultural resources examination will be submitted by Desert West Archaeological Services to the BLM office in Carlsbad, New Mexico.

Road and location preparation will not be undertaken until approval has been received from the BLM. If approved, this well will be drilled as part of a development project. The anticipated spud date for the project is approximately September 18, 2001. The drilling operation should require approximately 10 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

SURFACE USE AND OPERATING PLAN

Attachment to Form 3160-3
Amtex Energy, Inc.
Malco A #5
990' FNL & 990' FEL
Lot 1, Section 3-T18S-R27E
Eddy County, New Mexico

1. Existing Roads

- A. The well site and elevation plat for the proposed Malco A #5 are reflected on Exhibit #2. This well was staked by John West Surveying of Hobbs, New Mexico.
- B. All roads into the location are depicted in Exhibit #3. No new road will be required to access the location. The existing roads will be upgraded as needed.
- C. Directions to location: From Artesia go east on Highway 82 for 4.5 miles to Chalk Bluff Road. Turn south off Highway 82 onto Chalk Bluff Road and go approximately 4.2 miles. Turn east onto Little Diamond Road and go approximately 2 miles to the Malco A #5 location.

2. Proposed Access Road

Exhibit #3 shows the existing lease roads that will be used to access the location.

3. Location of Existing Wells

Exhibit #4 shows all existing wells within a one-mile radius of the proposed Malco A #5.

4. Location of Existing and/or Proposed Facilities

- A. The production facilities will be located on a well pad.
- B. In the event the well is found productive, facilities will be constructed similar to those shown in Exhibit #5.
- C. The well will be operated by means of an electric motor.

MALCO A #5
SURFACE USE AND OPERATING PLAN
PAGE 2

D. 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 completion, weather permitting.)
2. Caliche from unused portions of the drill pad will be removed. The original topsoil from the well site will be returned to the location. The drill site will then be contoured to the original natural state.

5. Location and Type of Water Supply

The Malco A #5 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from commercial sources and trucked to the location. Additionally, produced salt water from lease gathering tanks may be used. No water well will be drilled on the location.

6. Source of Construction Materials

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit. All roads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks or lined earthen pits and the reserve pit. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit roughly 100' x 80' x 5', or smaller, in size.
- C. The working pits and reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 5-7 mil plastic to minimize loss of drilling fluids.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks and injected into the water injection system. Produced oil will be separated into steel stock tanks until sold.

- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at an approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has dried. At the point the reserve pit is found sufficiently dry, it will be backfilled and reclaimed. The portion of the drilling pad used by the production equipment (pumping unit) will remain in use. If the well is deemed non-commercial, only a dry hole marker will remain.

8. Ancillary Facilities

No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout

- A. The drill pad is shown on Exhibit #6. Approximate dimensions of the pad, pits and general location of the rig equipment are displayed. Top soil, if any found, will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the tool pusher, drilling foreman and mud logger may be on location throughout drilling operations.
- C. The reserve pit and earthen pits will be lined using plastic sheeting of 5-7 mil thickness.

10. Plans for Restoration of Surface

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.
- C. The location and road will be rehabilitated as recommended by the BLM.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.
- E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days after the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership

The well site is owned by the Bureau of Land Management.

12. Other Information

- A. The area surrounding the well site is gypsiferous and supportive of desert scrub and grassland formation. The vegetation is moderately sparse with desert scrub.
- B. There is permanent water (Pecos River) approximately 0.8 mile W/SW of the location.
- C. A cultural resources examination will be submitted by Don Clifton, Archaeological Consultant, to the BLM office in Carlsbad, New Mexico.

MALCO A #5
SURFACE USE AND OPERATING PLAN
PAGE 5

13. Lessee's and Operator's Representative

The Amtex Energy, Inc. representatives responsible for ensuring compliance of the surface use plan is:

William J. Savage (915) 686-0847 (office)
President (915) 683-6549 (home)
Amtex Energy, Inc.
P.O. Box 3418
Midland, TX 79702

Brent D. Hilliard (915) 683-9100 (work)
Agent
550 W. Texas, Ste. 410
Midland, TX 79701

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the 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 Amtex Energy, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: William J. Savage Date: 7/11/01
William J. Savage
President

MINIMUM BLOWOUT PREVENTER REQ

3,000 psi Working Pressure

EXHIBIT 1

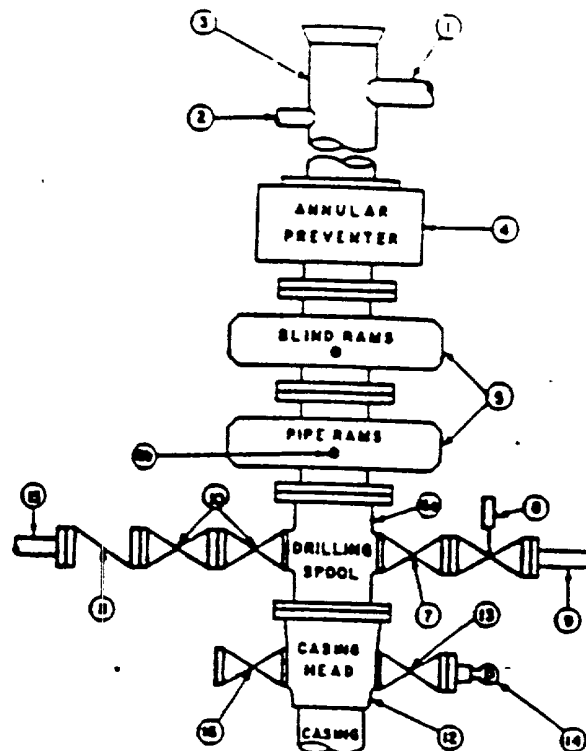
3 MWP

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	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL			
16	Flanged valve	1-13/16"	

CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

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

GENERAL NOTES:

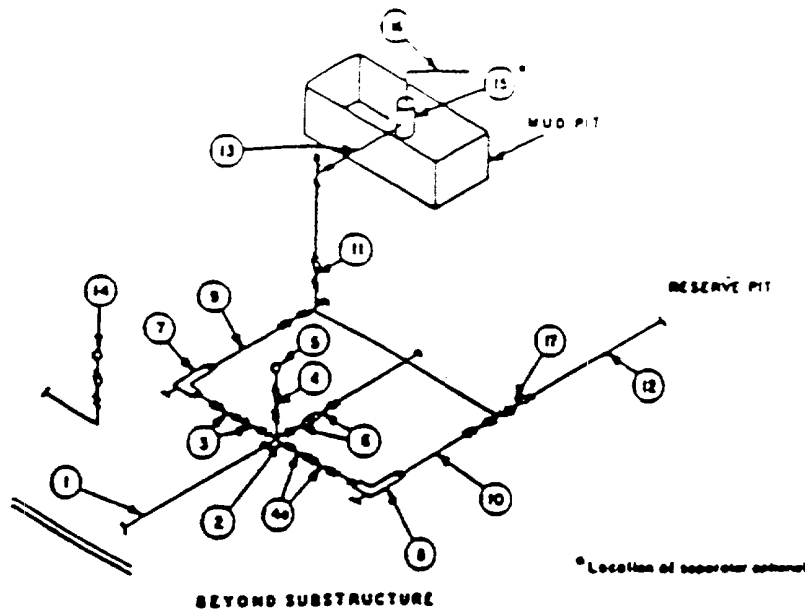
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chokes. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable chokes, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS

Amtex Energy, Inc.
Malco A #5
990' FNL & 990' FEL
Lot 1, Section 3-T18S-R27E
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 BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer 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 3000 psi WP 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 BOP 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 blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.



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.

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

P.O. Box 1800, Hobbs, NM 88241-1800

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Antec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name MALCO A	Well Number 5
OGRID No.	AMTEX ENERGY, INC. AMTEX ENERGY, INC.	Elevation 3602'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	3	18-S	27-E		330	NORTH	420	EAST	EDDY

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
Dedicated Acres 40.78	Joint or Infill	Consolidation Code	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

LOT 4	LOT 3	LOT 2	LOT 1
		3604.0' 3607.3'	
		3596.0' 3596.1'	
38.58 AC	38.88 AC	39.17 AC	39.47 AC

OPERATOR CERTIFICATION

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

William J. Savage
Signature

Printed Name _____

Title _____

Date _____

SURVEYOR CERTIFICATION

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

MAY 23, 2001

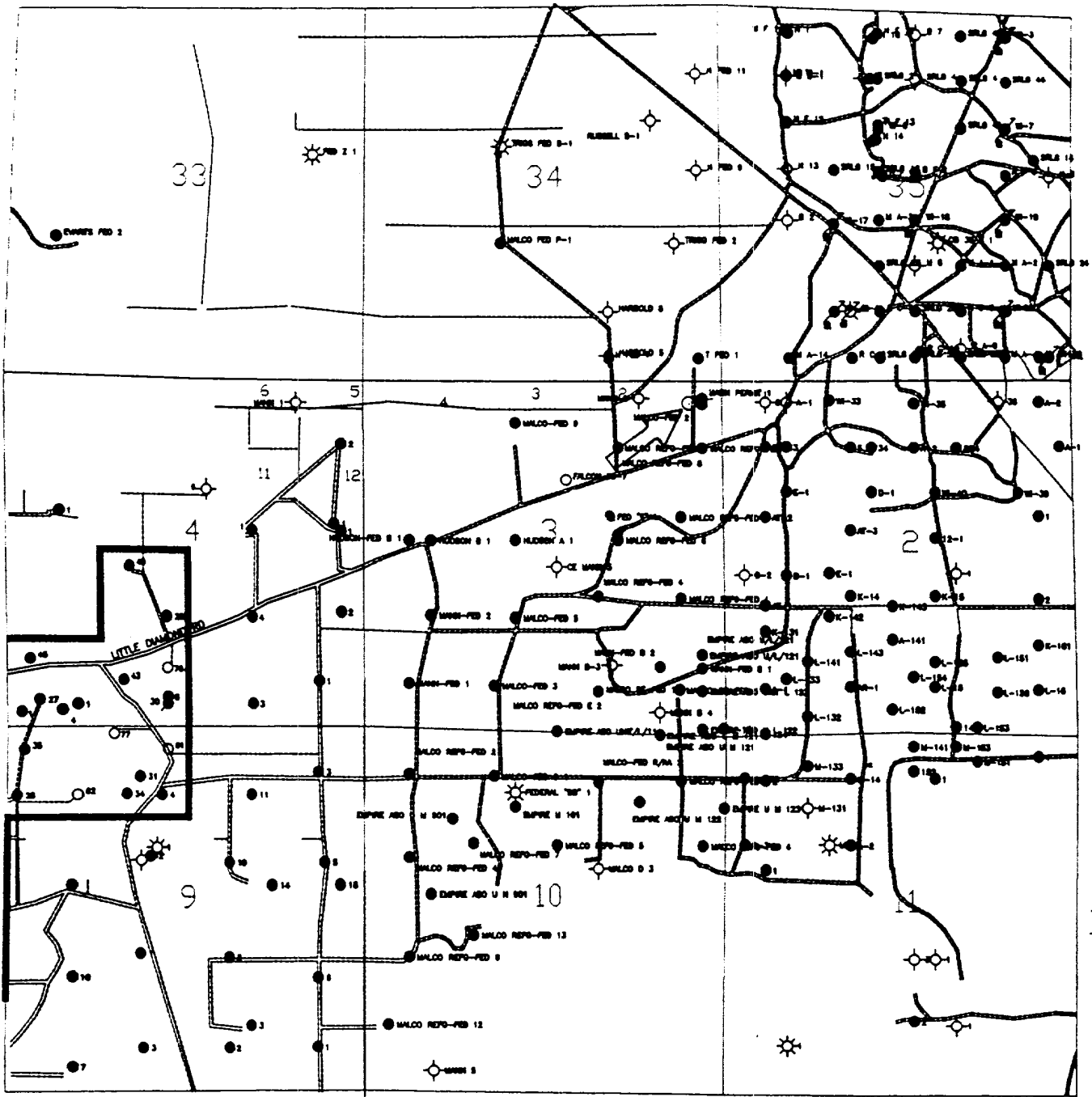
Date Surveyed _____ AWB

Signature & Seal of Professional Surveyor
Ronald J. Edson 5/29/01

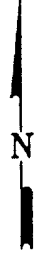
01-11-0659

Certificate No. RONALD J. EDSON 3239
GARY EDSON 12641

R 27 E

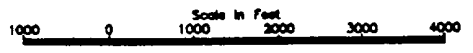


T 18 S



WEST RED LAKE AREA
EDDY COUNTY, NEW MEXICO

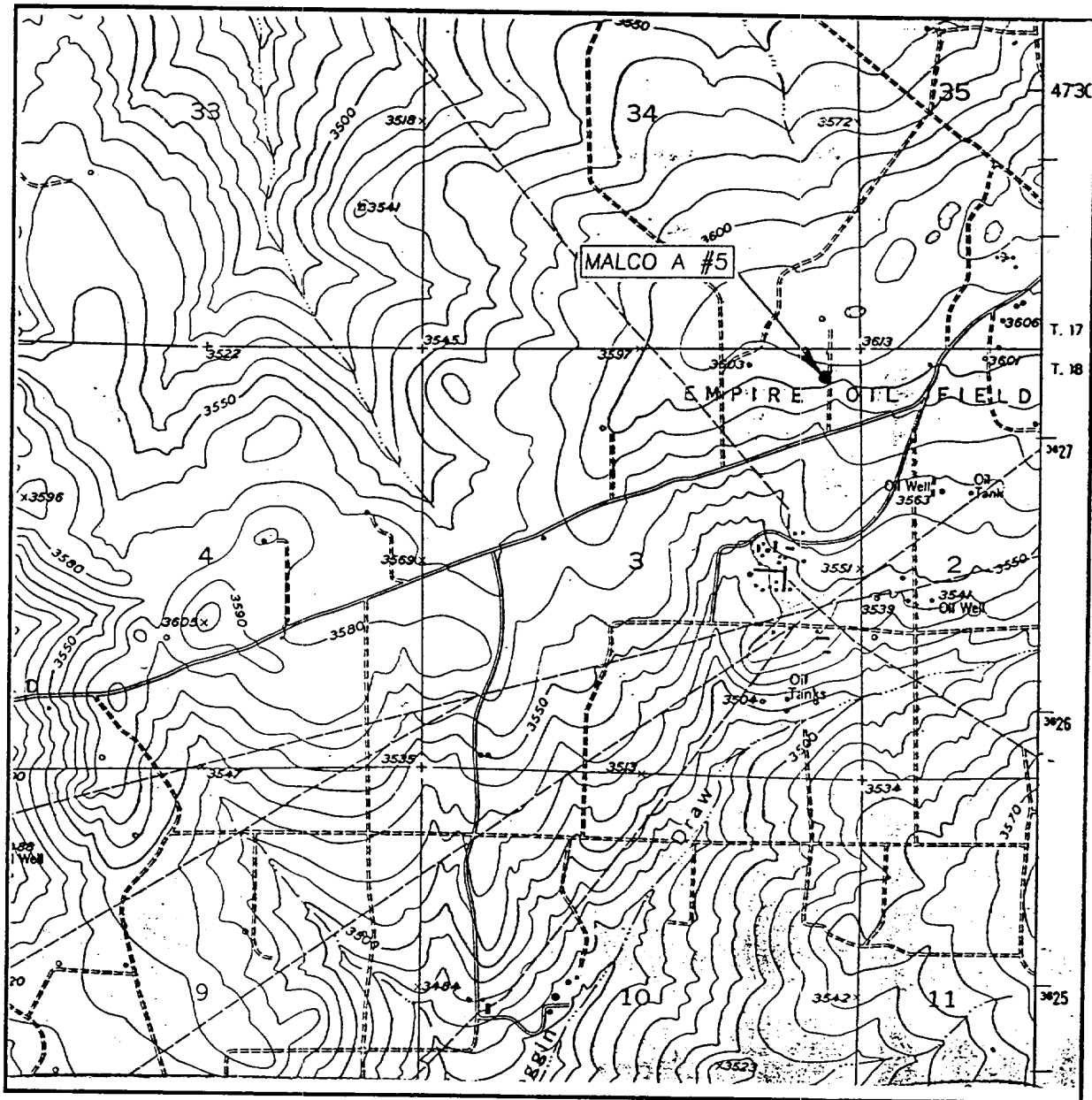
PROPOSED ROAD
MALCO A #5
EXHIBIT 3



WRLUSECS	

LOCATION VERIFICATION MAP

EXHIBIT 3A



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 3 TWP. 18-S RGE. 27-E

SPRING LAKE, N.M.

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FNL & 420' FEL

ELEVATION 3602'

OPERATOR AMTEX ENERGY, INC.

LEASE MALCO A

U.S.G.S. TOPOGRAPHIC MAP
SPRING LAKE, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

State of New Mexico

Energy, Minerals and Natural Resources Department

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Drawer 80, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name MALCO A	Well Number 5
OGRID No.	AMTEX ENERGY, INC. AMTEX ENERGY, INC.	Elevation 3602'

Surface Location

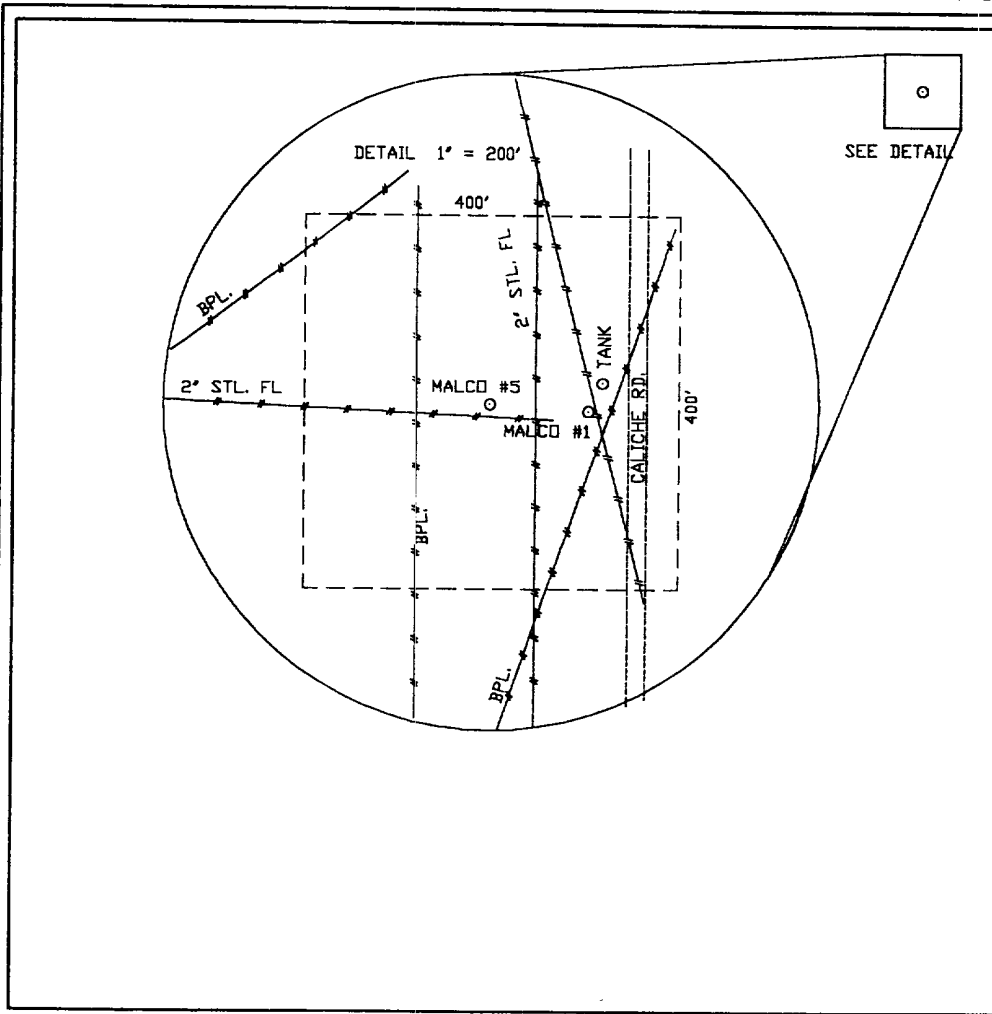
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	3	18-S	27-E		330	NORTH	420	EAST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	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



OPERATOR CERTIFICATION

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

Signature

Printed Name

Title

Date

SURVEYOR CERTIFICATION

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

MAY 23, 2001

Date Surveyed **AWB**
Signature & Seal of
Professional Surveyor

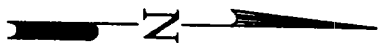
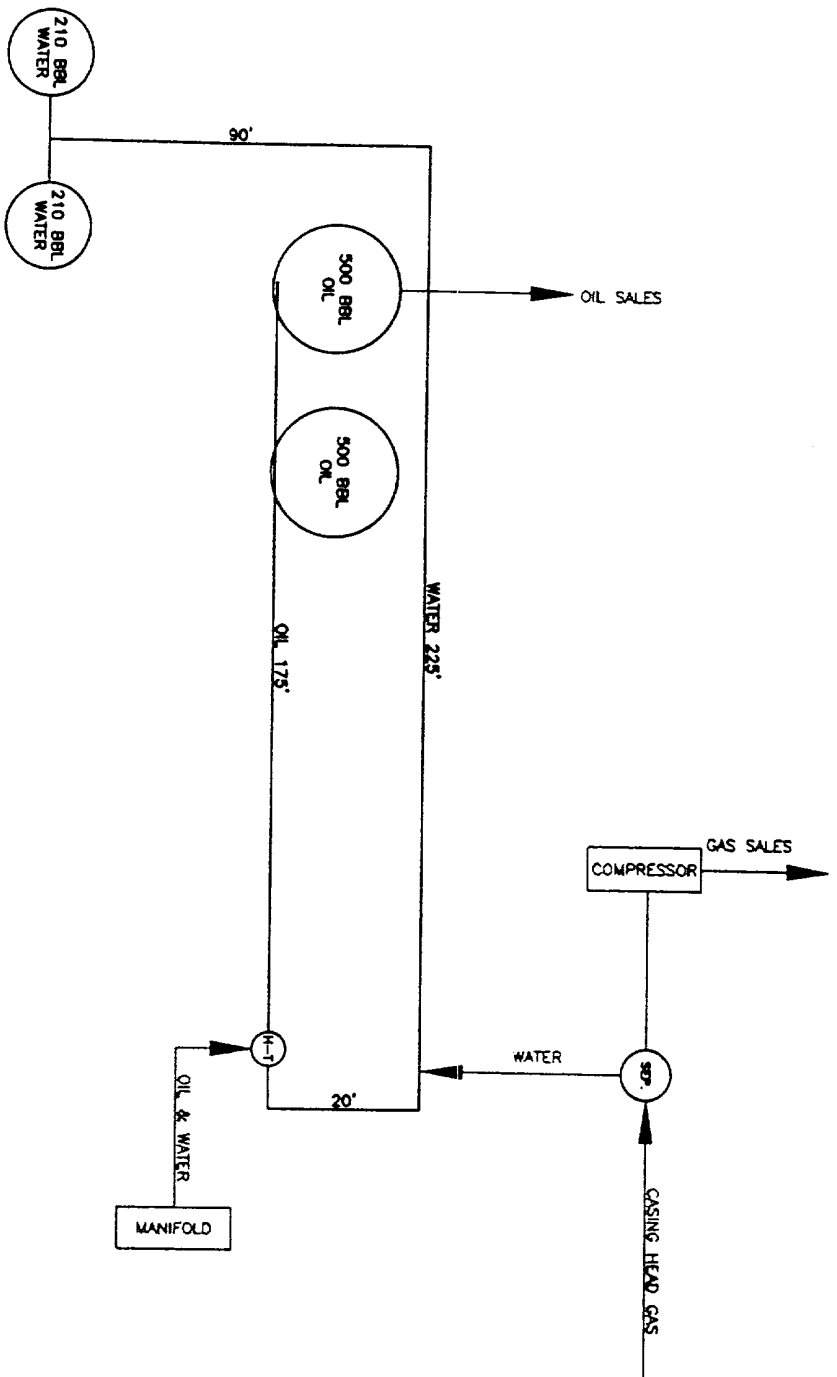
01-11-0659

Certificate No. **RONALD J. KIDSON 3239**
GARY KIDSON 12641

AMTEX ENERGY, INC.

WELLS WITHIN 1 MILE RADIUS
MALCO A #5

SCALE: 1:4,000



AMTEX ENERGY, INC.

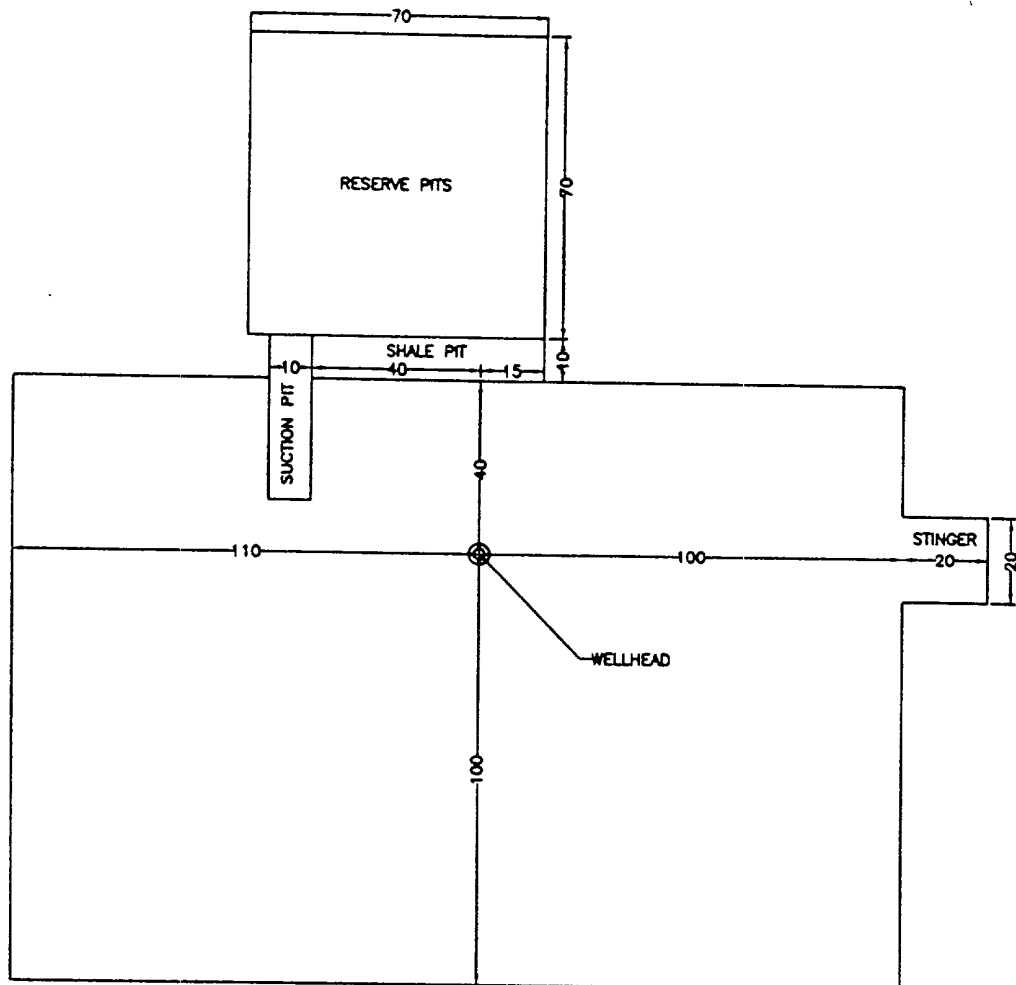
WEST RED LAKE AREA

EDDY COUNTY, NEW MEXICO

TANK BATTERY

MALCO A #5

EXHIBIT 5



ELEV. 3602'



WEST RED LAKE AREA

EDDY COUNTY, NEW MEXICO

DRILLING PAD FOR
MALCO A #5

EXHIBIT 6

Scale in Feet
25 0 25 50 75 100

DEVON ENERGY

Operator: Amtex Energy, Inc.	Well Name: Malco A #5
Project ID:	Location: Eddy County, New Mexico

Design Parameters:

Mud weight (9.20 ppg) : 0.478 psi/ft
 Shut in surface pressure : 1035 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (8)
 Overpull : 0 lbs.

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	350	8-5/8"	24.00	J-55	ST&C	350	7.972		
	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	550	1370	2.491	1150	2950	2.57	27.60	244	8.84 J

Prepared by :
 Date :
 Remarks :

Minimum segment length for the 1,150 foot well is 1,100 feet.

Surface/Intermediate string:

Next string will set at 2,800 ft. with 9.20 ppg mud (pore pressure of 1,338 psi.) The frac gradient of 1.000 at the casing seat results in an injection

pressure of 1,150 psi. Effective BHP (for burst) is 1,150 psi.

The minimum specified drift diameter is 4.887 in.

NOTE: The design factors used in this casing string design are as shown above. As a general guide-line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON ENERGY

Operator: Amtex Energy, Inc.	Well Name: Malco A #5
Project ID:	Location: Eddy County, New Mexico

Design Parameters:

Mud weight (9.20 ppg) : 0.478 psi/ft
 Shut in surface pressure : 1058 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	2,800	5-1/2"	15.50	J-55	ST&C	2,800	4.825
	Collapse Load Strgth S.F. (psi) (psi)		Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load Strgth S.F. (kips) (kips)	
1	1338	4040	3.019	1338	4810	3.59	43.40 202 4.65 J

Prepared by : ,
 Date :
 Remarks :

Minimum segment length for the 2,800 foot well is 1,500 feet.

The mud gradient and bottom hole pressures (for burst) are 0.478 psi/ft and 1,338 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general guide-line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

AMTEX ENERGY, INC.
HYDROGEN SULFIDE DRILLING
OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of the H₂S safety equipment and of personal protective equipment to be utilized at the location such as H₂S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - O - 250 - 212.

Prior to penetrating any known H₂S bearing formation, H₂S training will be required at the rig site for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H₂S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H₂S training.

This Hydrogen Sulfide Drilling and Operations Plan shall be available at the well site during drilling operations.

B. H₂S Safety Equipment and Systems

All H₂S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H₂S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

- (a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.
- (b) A choke manifold with a minimum of one remote choke.

2. H2S Detection And Monitoring Equipment

- (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.
- (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) - five minute escape packs located at strategic points around the rig.
- (b) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

5. Mud Program

- (a) The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H₂S bearing formations.

6. Metallurgy

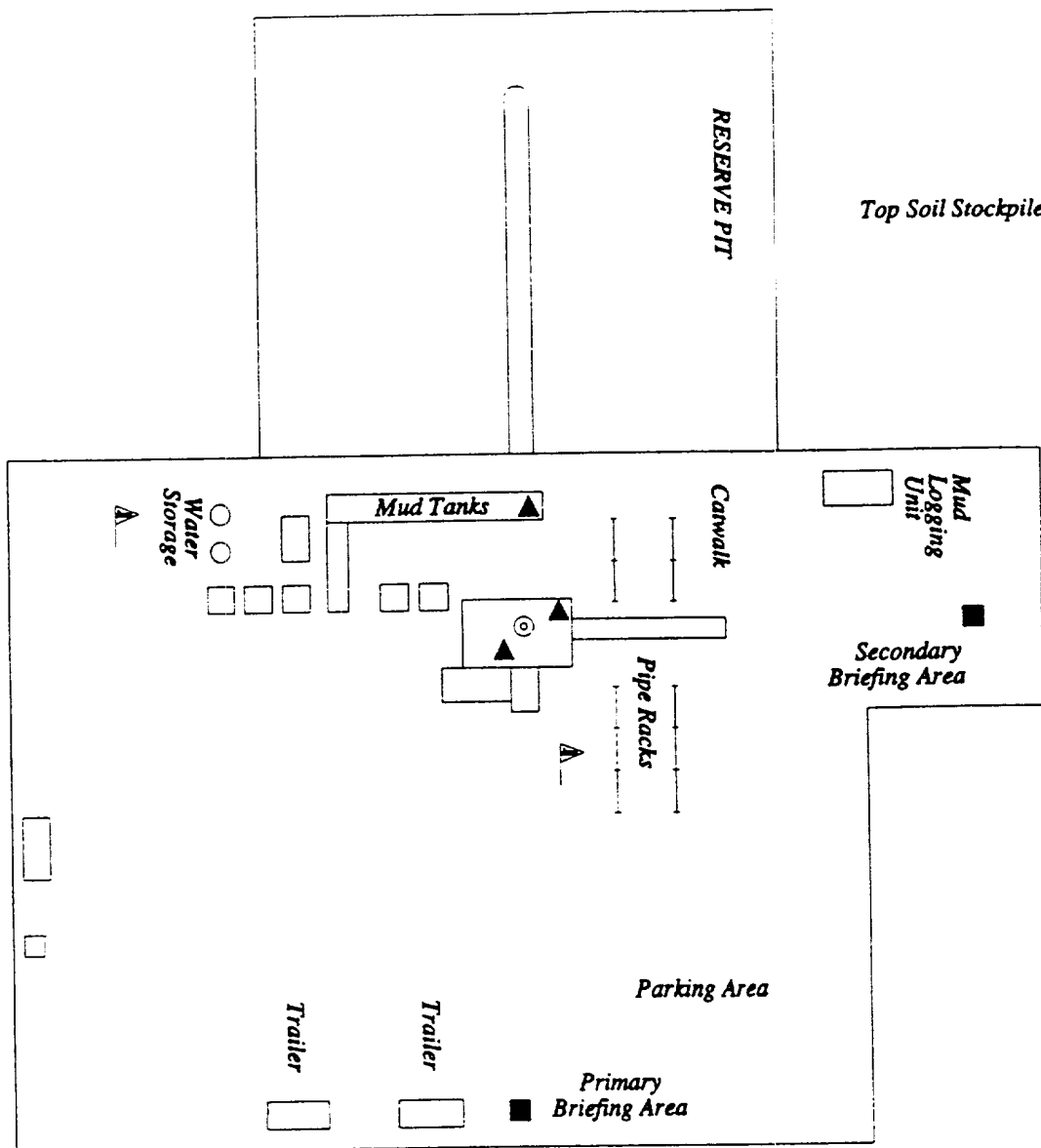
- (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

7. Communication

- (a) Two way radio and cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

- 1. Attached is a diagram representing a typical location layout as well as the location of H₂S monitors, briefing areas, and wind direction indicators.



- ▲ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER
- WIND DIRECTION INDICATORS
- SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT



AMTEX ENERGY, INC.

WEST RED LAKE AREA

EDDY COUNTY, NEW MEXICO

H2S PLAN

Scale in Feet
25 0 25 50 75 100