New Mexico Oil Conservation Division, District I

Form 3160-3
(August 1999)

863

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

5. Lease Serial No. LC-061936-A

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. Ray Federal #1

2. Name of Operator: Sahara Operating Company

9. API Well No. 30-025-35206

3a. Address: P.O. Box 4130, Midland, TX 79704

3b. Phone No. *(include area code)*: 915/697-0967

10. Field and Pool, or Exploratory: Paduca Delaware

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface: Unit Letter B, 983' FNL & 1896' FEL
At proposed prod. zone: Same as above

11. Sec., T., R., M., or Blk. and Survey or Area: Sec.9, T-25-S, R-32-E N.M.P.M.

14. Distance in miles and direction from nearest town or post office*: 30 miles west of Jal, New Mexico

12. County or Parish: Lea

13. State: N.M.

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 744'

16. No. of Acres in lease: 2,399.24 acres

17. Spacing Unit dedicated to this well: NW/4 of NE/4. Sec. 9, UL B 40 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 3075'

19. Proposed Depth: 4825'

20. BLM/BIA Bond No. on file: NM 2352

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3460' G.L.

22. Approximate date work will start*: As soon as possible

23. Estimated duration: 12 days

24. Attachments

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature: [signature] Name *(Printed/Typed)*: Robert McAlpine Date: 7-11-2000

Title: President

Approved by *(Signature)*: [signature] Name *(Printed/Typed)*: /S/LARRY D. BRAY Date: 10/31/00

Title: Assistant Field Manager, Lands And Minerals Office: APPROVED FOR 1 YEAR

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.

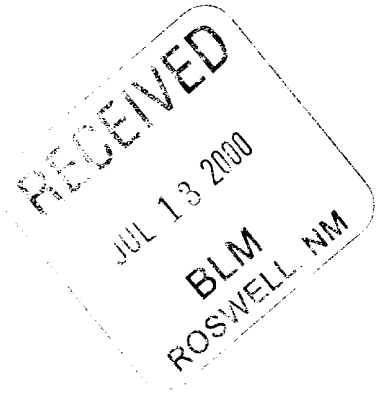
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**(Instructions on reverse)*

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

CW/sp

OPER. OGRID NO. 20077
PROPERTY NO. 26797
POOL CODE 49460
EFF. DATE 10-20-00
API NO. 30-025-35206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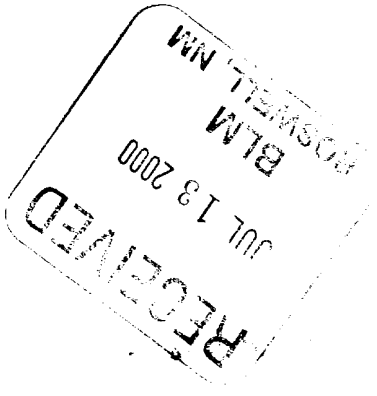
JUL 13 2000
BLM
ROSWELL, NM


RECEIVED
JUL 13 2000
BLM
ROSWELL, NM

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

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

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

Revised 02-10-94
Instructions on back

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-35206	49460	PADUCA DELAWARE

4 Property Code	5 Property Name	6 Well Number
26797	RAY 9 FEDERAL	1

7 OGRID No.	8 Operator Name	9 Elevation
020077	SAHARA OPERATING COMPANY	3460'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
B	9	25 SOUTH	32 EAST, N.M.P.M.		983'	NORTH	1896'	EAST	LEA

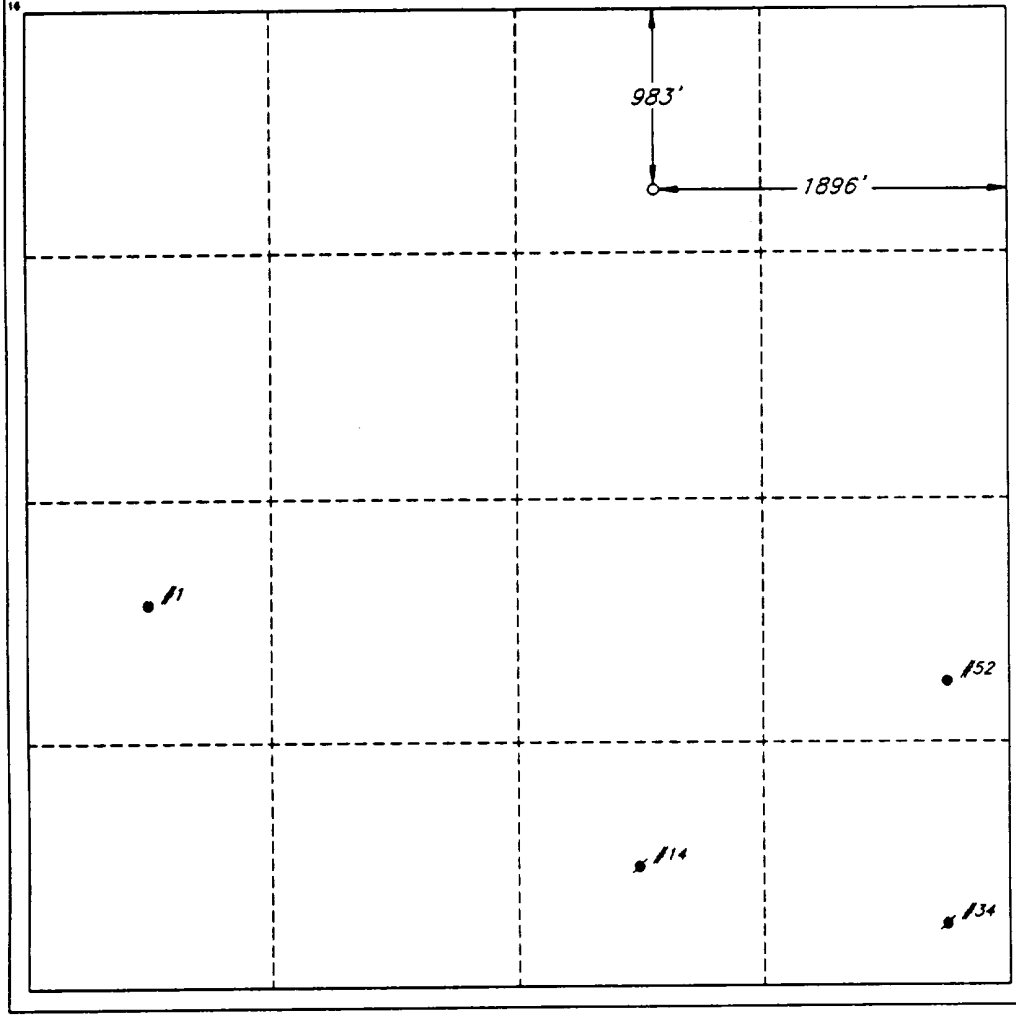
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	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.
40	NO		

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

16



OPERATOR CERTIFICATION

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

Signature

Printed Name
ROBERT MCALPINE

Title
PRESIDENT

Date
7 /11/2000

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.

Date of Survey
JUNE 23, 2000

Signature and Seal of Professional Surveyor

Certificate No.
V. L. BEZNER R.P.S. #7920

JOB #70020 / 22 NW / J.C.P.

New Mexico Oil Conservation Division
C-102 Instructions

IF THIS IS AN AMENDED REPORT, CHECK THE BOX LABLED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the appropriate OCD district office. Independent subdivision surveys will not be acceptable.

1. The OCD assigned API number for this well
2. The pool code for this (proposed) completion
3. The pool name for this (proposed) completion
4. The property code for this (proposed) completion
5. The property name (well name) for this (proposed) completion
6. The well number for this (proposed) completion
7. Operator's OGRID number
8. The operator's name
9. The ground level elevation of this well
10. The surveyed surface location of this well measured from the section lines NOTE: If the United States government survey designates a Lot Number for this location use that number in the "UL or lot no." box. Otherwise use the OCD unit letter.
11. Proposed bottom hole location. If this is a horizontal hole indicate the location of the end of the hole.
12. The calculated acreage dedicated to this completion to nearest hundredth of an acre
13. Put a Y if more than one completion will be sharing this same acreage or N if this is the only completion on this acreage
14. If more than one lease of different ownership has been dedicated to the well show the consolidation code from the following table:
    - C Communitization
    - U Unitization
    - F Forced pooling
    - O Other
    - P Consolidation pending

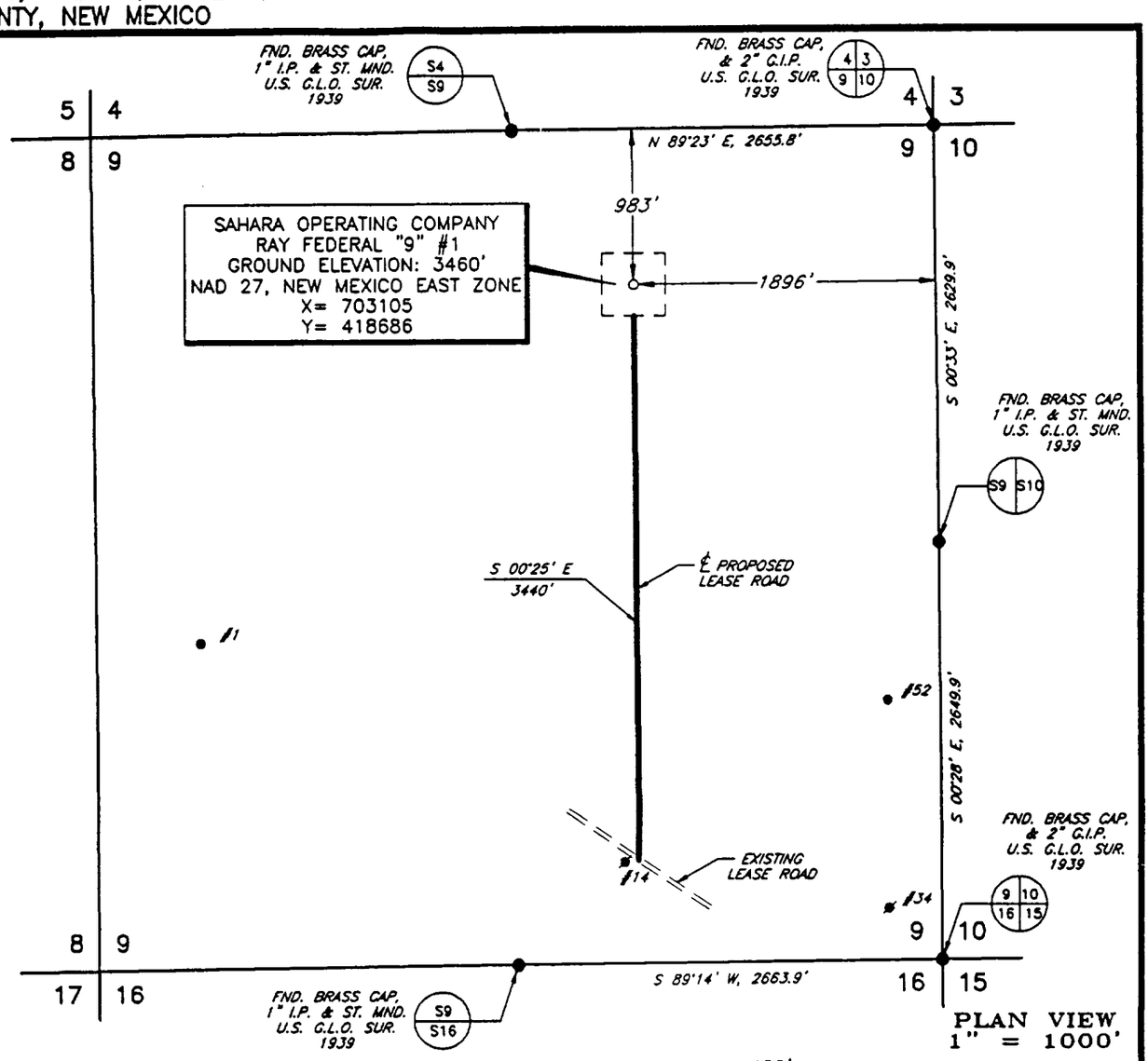
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION!

15. Write in the OCD order(s) approving a non-standard location, non-standard spacing, or directional or horizontal drilling
16. This grid represents a standard section. You may superimpose a non-standard section over this grid. Outline the dedicated acreage and the separate leases within that dedicated acreage. Show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the dimensions from the section lines in the cardinal directions. (Note: A legal location is determined form the perpendicular distance to the edge of the tract.) If this is a high angle or horizontal hole show that portion of the well bore that is open within this pool.

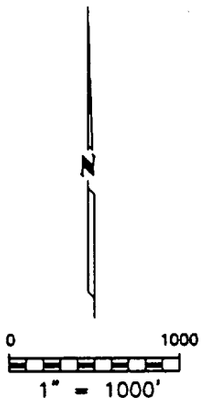
    Show all lots, lot numbers, and their respective acreage.

    If more than one lease has been dedicated to this completion, outline each one and identify the ownership as to both working interest and royalty.
17. The signature, printed name, and title of the person authorized to make this report, and the date this document was signed.
18. The Registered surveyors certification. This section does not have to be completed if this form has been previously accepted by the OCD and is being filed for a change of pool or dedicated acreage.

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 9, T-25-S, R-32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

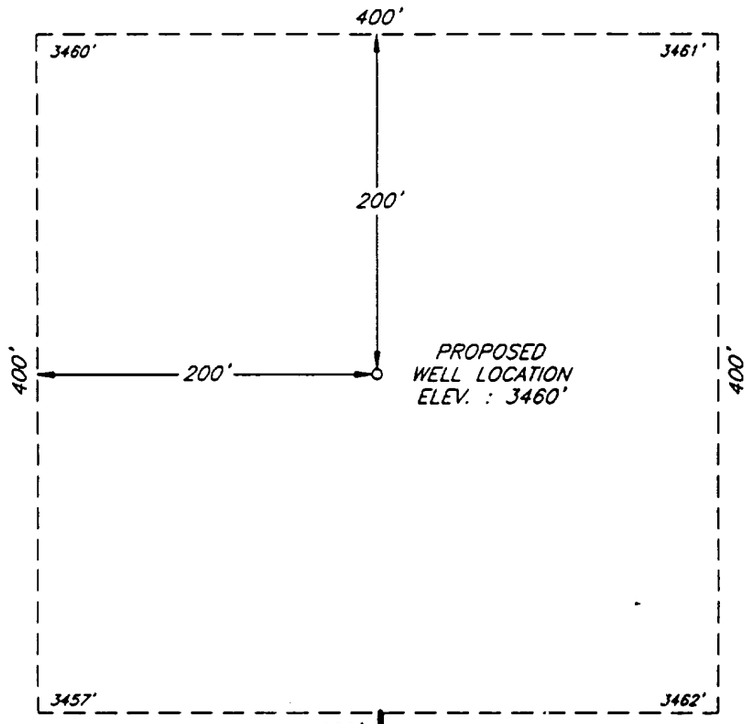


PLAN VIEW
1" = 1000'



1" = 1000'

DATE OF FIELD WORK: JUNE 23, 2000



DETAIL VIEW
1" = 100'

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT IS BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. Bezner 2-27-2000

V. L. BEZNER, P.S. NO. 7920

NO.	REVISION	DATE	BY

SAHARA OPERATING COMPANY

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SURVEYED BY:	C.M.
DRAWN BY:	J.C.P.
APPROVED BY:	V.L.B.

SCALE:	AS SHOWN
DATE:	JUNE 23, 2000
JOB NO.:	70020-F
QUAD NO.:	22 NW
SHEET :	1 OF 1

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SAHARA OPERATING COMPANY
RAY FEDERAL "9" #1
983' FNL & 1896' FEL
Sec. 9, T25S, R32E

LIST OF EXHIBITS

APPLICATION FOR PERMIT TO DRILL
SAHARA OPERATING COMPANY
RAY FEDERAL "9" #1
983' FNL & 1896' FEL
Sec. 9, T25S, R32E

DRILLING PLAN

In conjunction with Form 3160-3, Application for Permit to Drill, Sahara Operating Company respectfully submits the following pertinent information in accordance with Onshore Oil & Gas Order Nos. 1&2, and with all other applicable federal and state regulations.

1. The geologic surface formation is Quarternary Alluvium.

2. Estimated tops of geologic markers are as follows:

Ogallala	100'	Base Salt	4385'
Dewey Lake	350'	Lamar Lime	4610'
Top Anhydrite	750'	Delaware Sand	4640'

3. The estimated depths at which water, oil, or gas bearing formation are expected to be encountered:

* - Water: 100' & 355' (Ogallala & Dewey Lake)
** - Oil and/or gas: 4650' (Delaware Sand)

* - Groundwater to be protected by 8-5/8" surface casing set into the Rustler Anhydrite with cement circulated to the surface of the ground.
** - Potentially productive horizons to be protected by 5-1/2" production casing with the top of cement brought to at least 3000'.

4. Proposed Casing Program: As Below, Also see Summary for running and cementing detail.

Hole Size	Casing Size	Weight/ft	Grade	Thread	Setting Depth	Cement	Est TOC
12-1/4"	8-5/8"	24.0	K-55	ST&C	±780'	400 sx	Surface
7-7/8"	5-1/2"	15.50 or	K-55	LT&C	4825'	530 sx	Surface
		17.0	K-55	LT&C			

Note: If acceptable to the BLM, it is proposed to utilize used, electronically inspected casing for the 5-1/2" string. Any used pipe so utilized will be either Yellow Band (0-15% wall loss) or White Band (0-12½% wall loss). As a point of reference, API spec for new pipe allows for 12½% reduction in wall thickness, meaning White Band is electronically indistinguishable from new pipe.

5. Pressure Control Equipment (Blowout Preventer): Please see Exhibit F
To be installed and tested after Surface Pipe is set at or below 750'

6. Mud Program: Please see Exhibit D.

7. This well will test the Delaware Sand. The testing, logging and coring program is as follows:

- DST's: Up to two (2) drill stem tests will be run in the Delaware Sand

- Logging: 1 man Mudlogging Unit from 4000' to TD.

- Electric Logs: Gamma Ray - TD to Surface
  BHC Sonic - TD to surface casing depth
  FMI if productive
  Wireline sidewall cores if productive

- No rotary coring by drillstring is anticipated

8. Abnormal Pressures, temperatures, or other hazards:
- No abnormal pressures or temperatures are anticipated to be encountered in this well. Lost circulation is possible while drilling the surface hole.
The bottom hole pressure is expected to be less than 2000 psi.

9. The anticipated starting date for this well is August 20, 2000.

SURFACE USE PLAN

Sahara Operating Company
Ray Federal "9" #1
983' FNL & 1896' FEL, Sec 9, T25S, R32E
Lea County, NM

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to identify the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal may be made of the environmental effects associated with the operation.

The well has been staked by a registered New Mexico land surveyor and the work area staked and flagged.

1. EXISTING ROADS - Area Map. Exhibit "A" is a Location & Elevation Verification Map reproducting a portion of the USGS New Mexico 15 minute quadrangle for Paduca Breaks, NW, New Mexico. Existing and proposed roads are shown on the exhibit. All roads shall be maintained in a condition equal to that which existed prior to the start of construction.

   A. Exhibit "A" shows the proposed well site as staked.

   B. As shown on Exhibit B, Vicinity Map, from Jal, New Mexico, travel ±30 miles West on Hwy 128 to County Rd C-1. Travel south on C-1 for 5.3 miles and turn right (west) on an oilfield lease road. Travel west on this road 0.4 miles, north 0.1 mile, continue west & northwest 0.1 mile to the flagged 3440 feet of proposed road leading north to the proposed well site location.

2. PLANNED ACCESS ROADS - The planned access road is staked and flagged. Approximately ± 3440' of new access road will be constructed.
   A. The access road will be crowned and ditched to a 12' -00" wide travel surface with a 40' right-of-way.

   B. Gradient on all roads will be less than 5%.

   C. No turnouts will be necessary.

   D. If needed, the road will be surfaced with a minimum of 4" of comapcted caliche. This material will be obtained from a local source.

   E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.

F. Culverts will not be needed.

G. Only minor leveling will be required. No significant cuts and fills will be necessary.

F. No new gates or cattleguards will be required.

3. Location of Existing Wells Within a One-Mile Radius (See Exhibit H)

A. Water Wells - None Known

B. Disposal Wells - None Known

C. Drilling Wells - None Known

D. Producing Wells - As shown on Exhibit H

E. Abandoned Wells - As shown on Exhibit H

4. Location of Poposed Facilities. - If, upon completion, the well is a producer, Sahara Operating Company will furnish maps or Plats showing On Well Pad facilities and Off Well Pad facilities (if needed) on a Sundry Notice before construction of these facilities starts.

5. Location and Type of Water Supply

A. Fresh Water - Fresh water for this well will be obtained from the Cotton Draw Unit water supply system shown on Exhibit D and trucked to the location.

B. Brine Water - Brine water will be purchased locally from a private source and trucked to the location.

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access road as shown on Exhibit A.

7. METHODS FOR HANDLING WASTE DISPOSAL

A. 1. Drill cuttings will be disposed of in the drilling pits.

2. Trash, waste paper and garbage will be contained in a fenced trash trailer which will be hauled to disposal. Any trash, junk or debris left when the rig moves out will be contained to prevent scattering and will be buried at least 36" deep within a reasonable period of time.

3. Salts, chemicals, and unused mud materials remianing after completion of the well will be picked up by the supplier, including broken sacks.

4. Sewage from trailer houses will drain into holes at least 10'-00" deep. These holes will be covered during drilling and backfilled upon completion. A porta-john will be provided for rig crews. This will be properly maintained during drilling operations and removed upon completion of the well.

B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time, they will be transported in a tank truck to a state approved disposal site.

Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

A. Exhibit G (Scale 1"=50') shows the proposed well site layout.

B. This exhibit shows the proposed location of the working pits, reserve pits, and red bed pit. The pits will be to the north and the V-door to the east.

C. Mud pits in the active circulating system (working pits) are proposed to be earthen, dug and lined with polyethylene plastic film. If required by the BLM, steel pits will be used.

D. The reserve pits will be lined with polyethylene plastic film, sewn in place. The liner will extend a minimum of 2'-00" over the reserve pit dikes where the liner will be anchored down.

E. As it will only contain fresh water and surface (native) muds, it is proposed that the red bed pit not be lined unless subsurface conditions encountered during construction indicate that lining is necessary for lateral containment of fluids and to protect dike integrity.

F. The reserve and slush pits will be fenced on three sides with four strands of barbed wire duing drilling and completion phases. The fourth (rig) side will be fenced after all drilling operations have ceased. The pits and those areas of the location not essential for production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF THE SURFACE

A. Rehabilitation of the surface will begin in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

B. After completion of the drilling and completion operations, all equipment not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk.

C. Any pits containing fluids will be fenced until they are filled.

D. The reserve pit will be allowed to dry properly and fluid removed and disposed of in accordance with Article 7.B as previously described. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. After the area has been reshaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will be in accordance with BLM standards.

E. If the well is a dry hole, the pad and access road area will be recontoured to match the existing terrain. Topsoil will be spread to the extent possible and the area revegetated to BLM standards.

F. If the well is a producer, the foregoing procedures will be applied to all areas which are not required for production facilities and for production and operation of the well.

11. OTHER INFORMATION

A. Topography: The land surface is very sandy and slopes gently gently to the Southwest. Surface elevation of the drillsite is 3460 feet.

B. Soil: Very sandy.

C. Flora and Fauna: The vegetative cover is sparse and consists of mesquite, shinnery oak, yucca, and perennial native grasses. Wildlife in the area, also sparse, is typical of a semi-arid desert and includes coyotes, rabbits, rodents and reptiles.

D. Ponds and Streams: There are no rivers, streams, lakes or ponds in this area.

E. Residences: The nearest ranch house is approximately 1.5 miles north of the location.

F. Land Use: The surface is used for grazing and to access producing wells in the area.

G. Surface Ownership: The wellsite and road are on Federal land.

12. CULTURAL RESOURCES

An Archaeological Survey of the wellsite and road is being conducted by Desert West Archaeological Services of Carlsbad, N.M. The results of this survey will be transmitted directly to the BLM by Desert West.

13. OPERATOR'S REPRESENTATIVE

The field representatives responsible for assuring compliance with the approved Surface Use Plan are:

Rob McAlpine, President
P.O. Box 4130
Midland, TX 79704
915/697-0967 (office)
915/683-2907 (home)
915/556-2303 (mobile)

George McAlpine, Production Manager
P.O. Box 4130
Midland, TX 79704
915/697-0967 (office)
915/687-2925 (home)
915/556-2295 (mobile)

13. 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 that the work associated with the operations proposed herein will be performed by Sahara Operating Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement

7-11-2000
Date

Robert McAlpine
President, Sahara Operating Company

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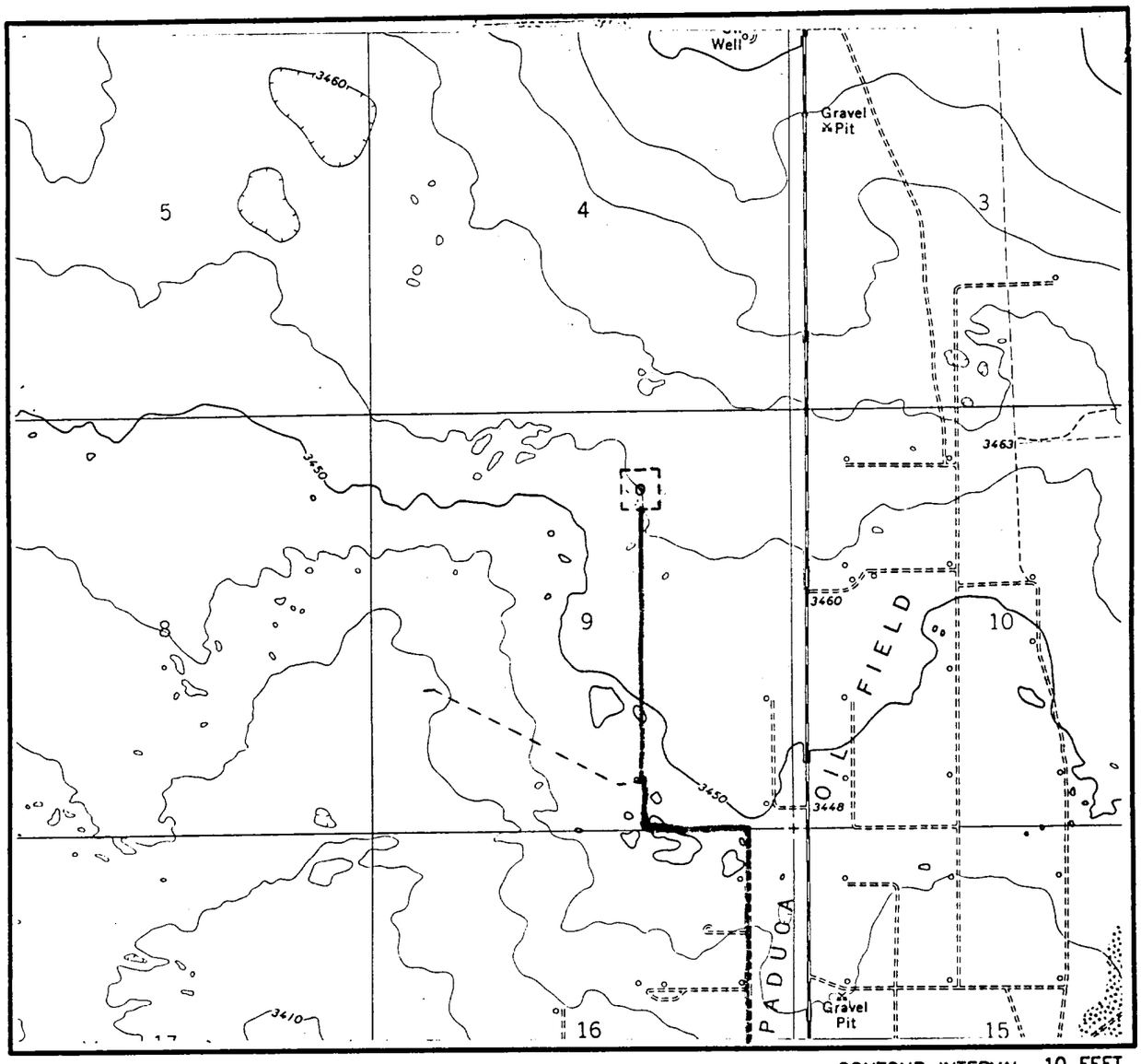
SAHARA OPERATING COMPANY
RAY FEDERAL "9" #1
983' FNL & 1896' FEL
Sec. 9, T25S, R32E

LIST OF EXHIBITS

EXHIBIT A

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10 FEET

SECTION 9 TWP T-25-S RGE R-32-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 983' FNL & 1896' FEL

ELEVATION 3460'

OPERATOR SAHARA OPERATING COMPANY

LEASE RAY FEDERAL "9" #1

U.S.G.S. TOPOGRAPHIC MAP

PADUCA BREAKS NW, NEW MEXICO

LAT. 32°08'58"

LONG. 103°40'38"

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plat and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

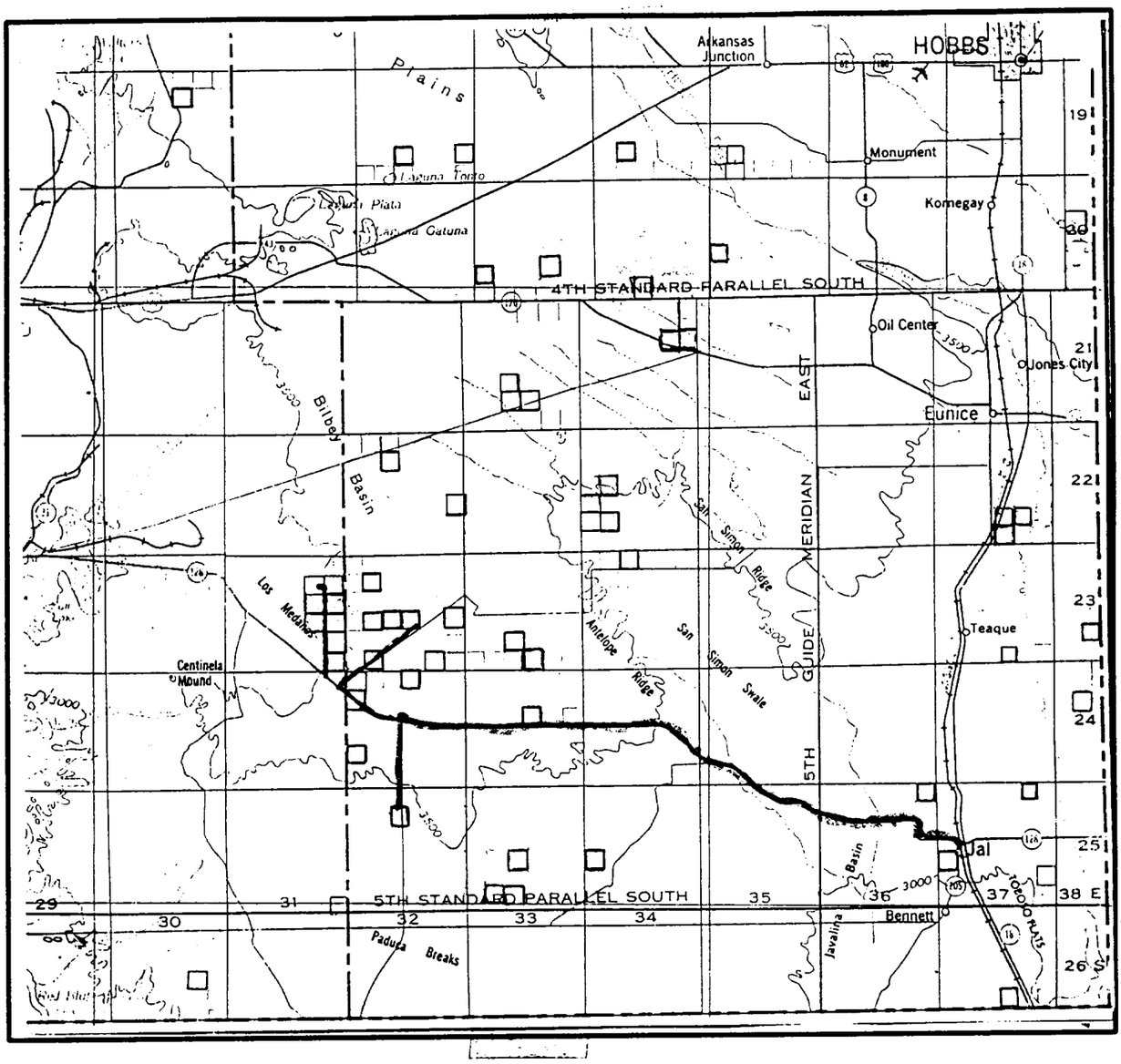
1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

EXHIBIT B

VICINITY MAP



SECTION 9 TWP T-25-S RGE R-32-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 983' FNL & 1896' FEL

OPERATOR **SAHARA OPERATING COMPANY**

LEASE RAY FEDERAL "9" #1

DISTANCE & DIRECTION FROM JCT. OF S.H. 128 AND PAVED CO. RD. #1 ±30 MILES WEST OF JAL, NM, GO SOUTH 5.3 MILES ON PAVED CO. RD., THENCE WEST 0.4 MILES ON LEASE RD., CONTINUE NORTH 0.1 MILE, CONTINUE WEST AND NORTHWEST 0.1 MILE TO A POINT ±3500' SOUTH OF LOCATION.

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plat and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

Exhibit C

SUMMARY

Drilling, Drill Stem Tests, Casing and Cementing Program

1. Drill 12.25' hole to ± 750' or 20' into the anhydrite.

2. Run & set 8-5/8", 24#/ft, J-55 casing and cement with 200 sacks 35:65 poz:Class "C" cement with 6% gel, 2% calcium chloride and ¼ lb/sk celloflake, followed by 200 sacks Class "C" cement with 2% calcium chloride. Use a notched Texas Pattern guide shoe and an insert float or float collar on top of the shoe joint. Centralize the shoe joint, next two (2) joints, and every 4rth joint to surface. Thread lock the guide shoe and shoe joint. Displace the cement slurry with a wooden or rubber top plug.

3. Wait on cement, then cut off and nipple up a Larkin Fig. 92 casing head. Nipple up BOP's and choke manifold. Test BOP's. Test casing to 600 psi after 18 hours, displace hole with brine water and drill out cement.

4. Drill 7-7/8" hole with brine water to ±4,000'. Rig up mud logger and mud up with starch to reduce the water loss to 10-15 cc for logs and tests. It is anticipated that, with a mud weight of 10.1+ lb/gal, the wellbore will be substantially overbalanced (mud column pressure of 2470 psi @ 4700' versus original reservoir pressures ~2000 psi). Evaluate sample shows and drilling times to choose drill stem test point and packer seat. Run DST on first Delaware sand porosity.

5. Log well with Sonic log from TD to 2500', pull gamma-ray log to surface. If well appears from tests and samples to be productive, run FMI log from TD to 4300'. If well appears productive selectively obtain sidewall cores.

6. Run 5.500", 15.5#/ft or 17.0 #/ft, K-55 casing, new or electronically inspected white or yellow band, and cement with 430 sacks of 50:50 Pozmix:Class C with 10% gel and 5% salt, tailed with 100 sacks class "C" with 3% KCL, 0.6% FL-62 fluid loss control and 0.2% cd-32 dispersant. Use a guide shoe and float collar, centralize the shoe joint and through the pay zone. Preflush before cement with 20-30 bbls of fresh water or mud cleaner, displace with a top rubber plug.

7. Cut off casing and weld on belled nipple and nipple up Larkin Model "R" tubing head. Release and move off drilling rig.

8. Perforations, acid job, and additional stimulation to be determined.

Exhibit D

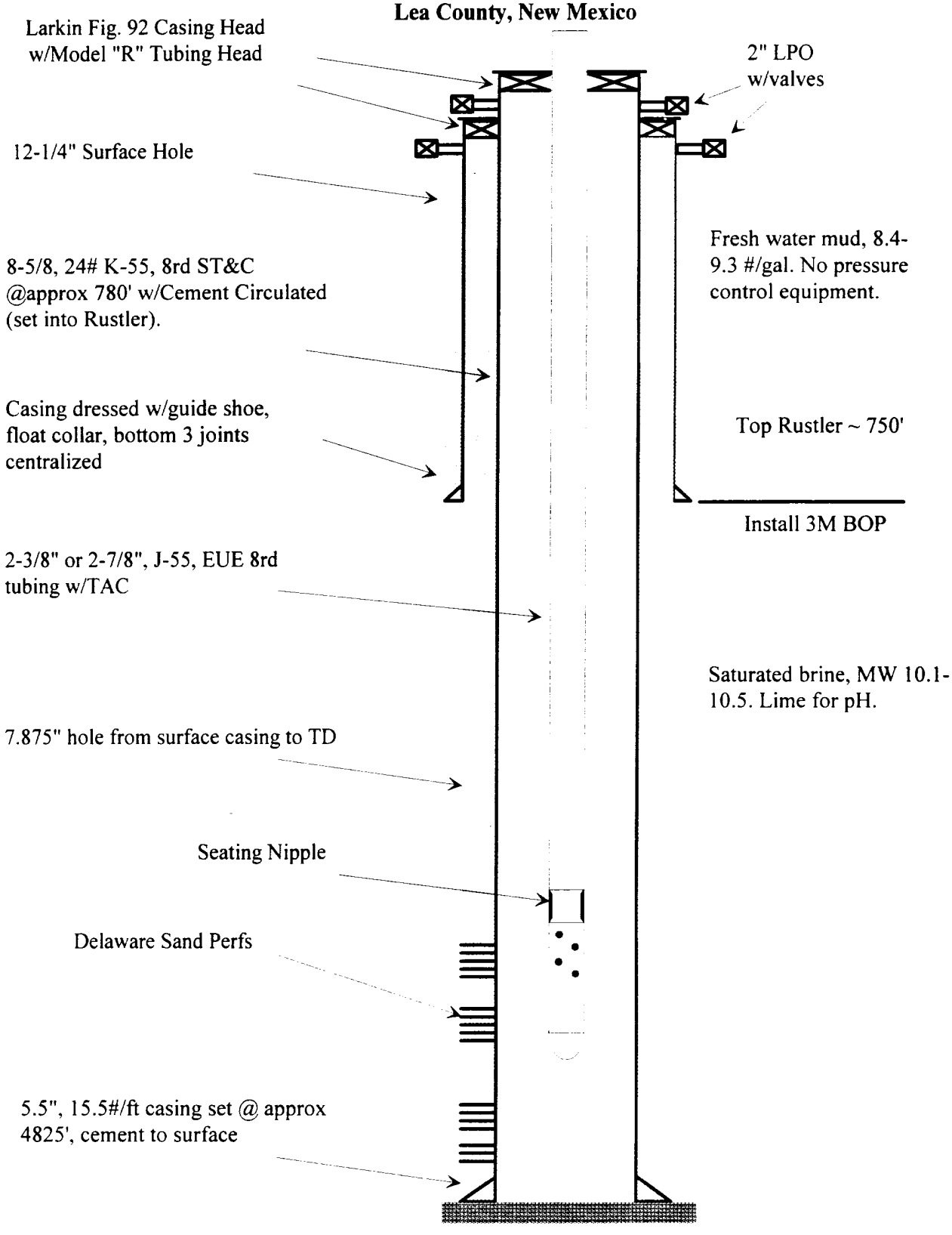
DRILLING FLUID PROGRAM

Surface:	Spud with fresh water with gel/lime. Add paper for seepage. Lost circulation is possible. In this event, "dry-drill" to surface casing point.
Production:	After setting surface casing, displace hole jet all fresh water and redbed to the redbed pit. Drill out with 10# brine water, using lime to control pH, circulating the reserve pit. At 4400', switch circulation to the working pits and mud up with starch to reduce fluid loss to 10-15cc's and tag mud with ammonium nitrate. After mud up, maintain pH with caustic soda. Before running DST's or casing, clean the hole with a vicous sweep.

Exhibit E

SAHARA OPERATING COMPANY

Completed Well Schematic
Ray Federal "9" #1
983' FNL & 1896' FEL
Unit Letter B, Sec 9, T-25-S, R-32-E
Lea County, New Mexico

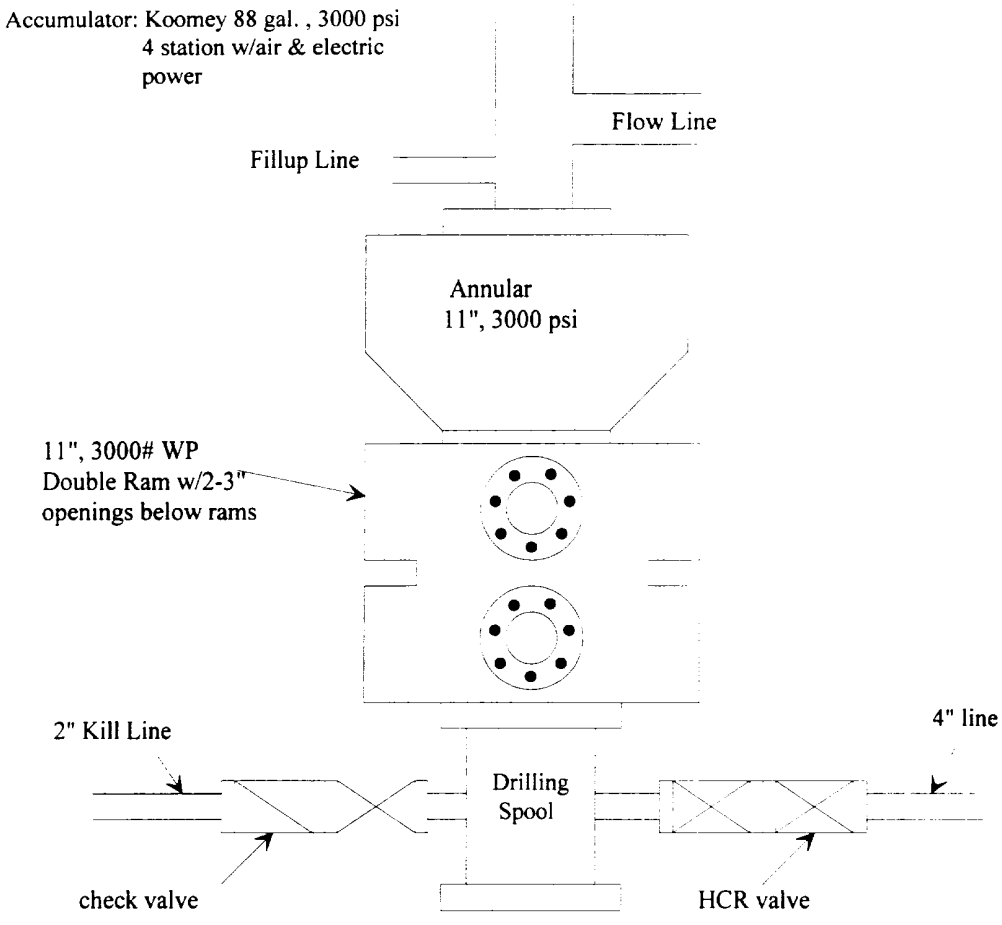


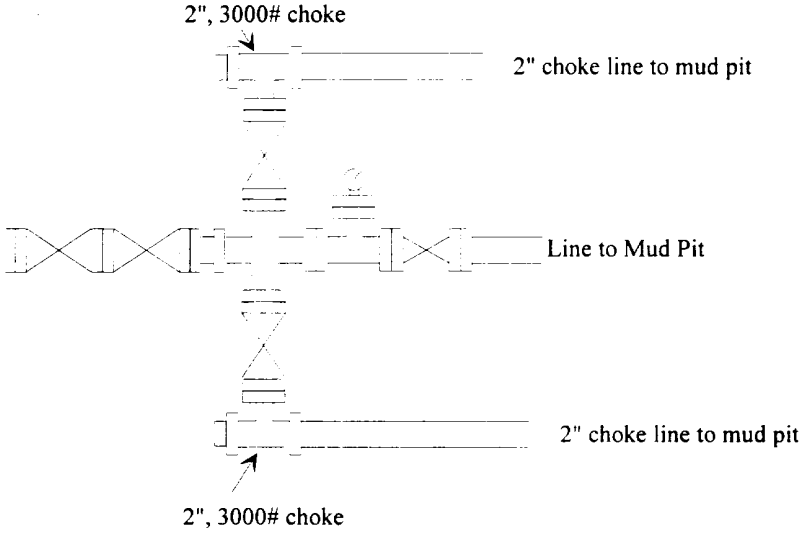
SAHARA OPERATING COMPANY
RAY FEDERAL "9" #1
983' FNL, 1896' FEL
Sec. 9, T25S, R32E
LEA CO., N.M.

Exhibit F

Blow Out Preventer Schematic

Rod Ric Rig #3 or #10



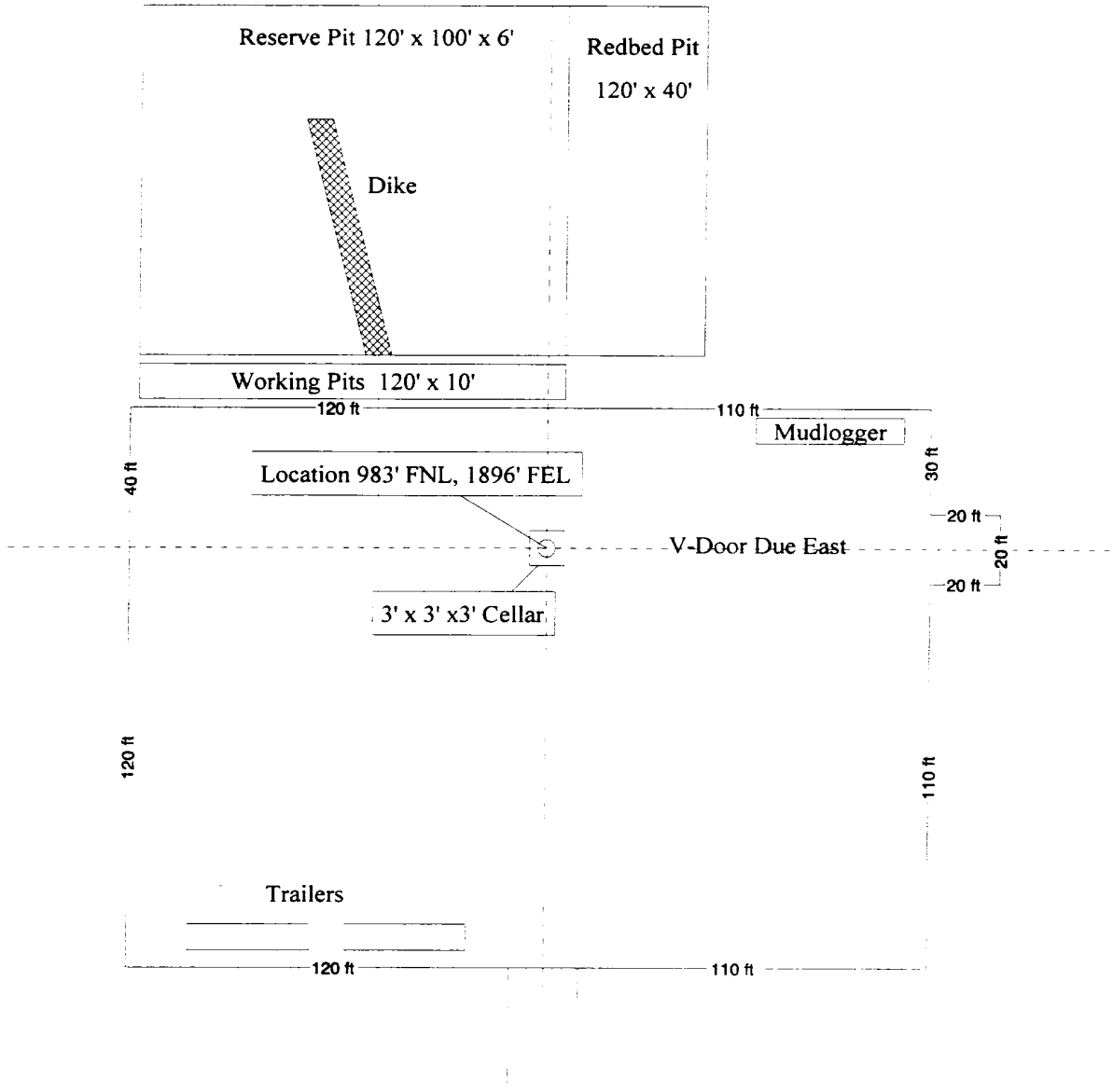


SAHARA OPERATING COMPANY

Exhibit G

RAY FEDERAL "9" #1
B - 9 - 25S - 32E
Lea County, New Mexico

WELL SITE LAYOUT



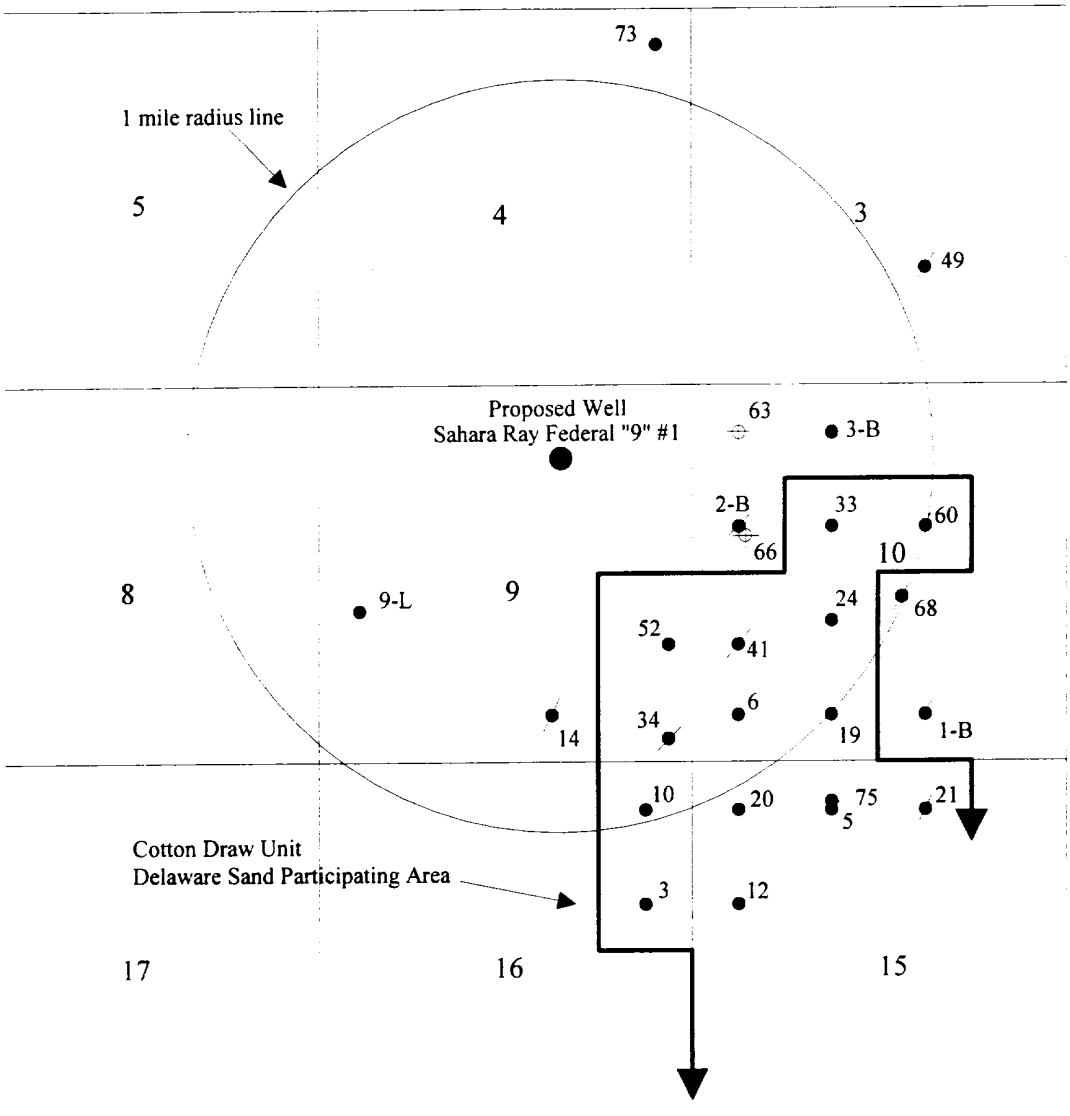
Road Access From South

SAHARA OPERATING COMPANY

Exhibit H

RAY FEDERAL "9" #1

LOCATION OF EXISTING WELLS WITHIN A ONE-MILE RADIUS



Well Name	Location (Section)	Footage	Well Status
E.F. Ray Federal "B" #1	10	660' FS & 1980 FE	P&A
E.F. Ray Federal "B" #2	10	1980' FNL & 660' FWL	P&A
E.F. Ray Federal "B" #3	10	1980' FWL & 660' FNL	P&A
Cotton Draw Unit #6	10	660 FS&W	Active Injector
Cotton Draw 9-L Federal	9	2080 FSL 7 600 FWL	Producing
Cotton Draw Unit #10	16	660 FN&E	Inactive
Cotton Draw Unit #14	9	660 FS & 1980 FE	P&A
Cotton Draw Unit #19	10	660' FSL & 1980' FWL	Active Injector
Cotton Draw Unit #24	10	1980 FS&W	Inactive
Cotton Draw Unit #33	10	1980 FN&W	Inactive
Cotton Draw Unit #34	9	330 FS&E	P&A
Cotton Draw Unit #41	10	1650 FS & 660 FW	P&A
Cotton Draw Unit #52	9	1650 FS & 330 FE	Producing
Cotton Draw Unit #60	10	2145 FN & 2310 FE	P&A
Cotton Draw Unit #63	10	660 FN&W	P&A
Cotton Draw Unit #66	10	2080 FN & 760 FW	P&A
Cotton Draw Unit #68	10	2309 FS & 2310 FE	P&A

ELF 4/26/01

ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED