

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

(Other instructions on  
reverse side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input type="checkbox"/> DEEPEN <input type="checkbox"/>		1b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>	
2. NAME OF OPERATOR Saga Petroleum LLC c/o Continental Land Resources LLC			
3. ADDRESS AND TELEPHONE NO. P.O. Box 2691, Roswell, NM 88202			
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) 2450' FSL & 2581' FEL			
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 11 miles north of Loco, NM		15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O. 2450'	
16. NO. OF ACRES IN LEASE 160.00		17. NO. OF ACRES ASSIGNED TO THIS WELL 40.0	
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1000'		19. PROPOSED DEPTH 3000'	
20. ROTARY OR CABLE TOOLS Rotary		21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3835'	
22. APPROX. DATE WORK WILL START ASAP		23. PROPOSED CASING AND CEMENTING PROGRAM	

SIZE OF HOLE	GRADE, SIZE OF CASING	WIRELINE WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	450'	Circulate to surface
7-7/8"	5-1/2"	15.5#	3000'	380 sxs

Duration of Program: Drilling - Ten (10) days  
Completion - Nine (9) days  
See attached for complete Drilling Program

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

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

EXHIBITS

Exhibit "A": Drilling Program  
Exhibit "B": Surface Use Plan  
Exhibit "C": Land Survey Plat  
Exhibit "D": Location Plat  
Exhibit "E": Existing Well Plat  
Exhibit "F": Rig Layout  
Exhibit "G": BOP Program

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

24 SIGNED [Signature] TITLE Agent/Saga Petroleum LLC DATE 8/8/00

(This space for Federal or State office use)

PERMIT No.

APPROVAL DATE

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

CONDITIONS OF APPROVAL IF ANY:  
APPROVED BY /S/ LARRY D. BRAY

TITLE

Lands And Minerals

DATE

OCT 02 2000

\*See Instructions On Reverse Side

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

**EXHIBIT "A"**  
**West Henshaw Premier Unit #406**

**DRILLING PROGRAM**

- I. The geological surface formation is Quaternary.
- II. Estimated Tops of Geological Markers:

<u>FORMATION</u>	<u>DEPTH</u>
Yates	1400'
Queen	2125'
Penrose	2275'
Premier	2825'
San Andres	2850'
TD	3000'

- III. Estimated depths at which water, oil, gas or other mineral-bearing formations are expected to be encountered:

<u>SUBSTANCE</u>	<u>DEPTH</u>
Fresh Water	None anticipated
Oil	2850'
Gas	2850'

- IV. Proposed Casing Program:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Grade</u>	<u>Weight Per Foot</u>	<u>Depth</u>
12-1/4"	8-5/8"	J-55	24#	450'
7-7/8"	5-1/2"	J-55	15.5#	3000'

**B. Proposed Cement Program:**

8-5/8"	Cement with 310 sacks Class C, 2.% CACL2 and 56.0% H2O, circulate to surface.
5-1/2"	Cement with 260 sacks 35:65 POZ (35% POZ 65% Class C) 6.0% Gel (Bentonite), 5.0 LB/SK salt and 105% H2O and 120 sacks 50:50 POZ (50% POZ: 50% Class C), 2.0% Gel (Bentonite), 5.0% LB/SK salt, 0.2% CD-32, 0.4% FL-62 and 57.0% H2O

**V. Proposed Mud Program:**

The well will be drilled to 450' using fresh water/soad ash/bentonite and ground paper (Weight 8.4 to 9.4). From 450' to 2,700', brine water will be used (Weight 10-10.2). From 2,700' to 2,900', mud up mixing yellow starch for a water loss of 10-15cc and salt gel for a viscosity of 32 to 35 sec/1000cc. Maintain a 9-10pH with caustic soda and continue to mix paper for seepage losses and to sweep hole. At TD mix 3,5 gal cns of Envirodrill NE (MF-55) prior to pulling out of the hole for E Logs & to run casing.

**VI. Proposed Control Equipment:**

Will install Shaffer type E 10" series 900 hydraulic BOP. See Exhibit "G" for BOP layout.

**VII. Auxiliary Equipment:**

Blowout preventor, gas detector, kelly cock, pit level monitor, flow sensors, and stabbing valve.

**VIII. A. Testing Program:**

Drill Stem Tests: If necessary

**B. Logging Program:**

CNL, DLL or GL, CDL or GR

**C. Coring Program:**

None planned

- IX. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified.
- X. H2S: None anticipated as none encountered in previously drilled wells in the vicinity.

**EXHIBIT "B"**  
**SURFACE USE AND OPERATIONS PLAN**  
**CULTURAL RESOURCES SURVEY**  
**APPROXIMATE REHABILITATION SCHEDULE**

**LOCALITY: West Henshaw Premier Unit #406**  
**LOCATION: NWSE OF SECTION 4 T16S-R30E, NMPM**  
**EDDY COUNTY, NEW MEXICO**  
**OPERATOR: SAGA PETROLEUM LLC**

**SUBMITTED TO:**  
  
**UNITED STATES DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**  
**CARLSBAD DISTRICT OFFICE**  
**P.O. BOX 1778**  
**CARLSBAD, NEW MEXICO 88220**  
**TELEPHONE (505) 887-6544**

This plan is submitted to provide permitting agencies with information necessary to allow an appraisal of the environmental effects associated with the proposed drilling operations. Within the context of typical drilling operations, this plan provides for protection of surface resources and other environmental components. This plan has been developed in conformity with the United States Geological Survey NTL-6 guidelines, Bureau of Land Management Oil and Gas Order No. 1, and in connection and consultation with the private surface owner of record, it other than the United States of America, as well as the Roswell District Office for the Bureau of Land Management and the United States Department of the Interior personnel.

**PART #1**

1) **Surface Location:**

NWSE of Section 4, Township 16 South, Range 30 East, NMPM  
Eddy County, New Mexico  
2450' FSL & 2581' FEL  
See attached Exhibit "C"

2) **Bottom Hole Location**

NWSE of Section 4, Township 16 South, Range 30 East, NMPM  
Eddy County, New Mexico  
2450' FSL & 2581' FEL  
See attached Exhibit "C"

3) **Lease Issued:**

a) LC-067610

4) **Record Lessee:**

a)	Occidental Permian Ltd.	100%
	580 Westlake Park Blvd	
	Houston, TX 77079	

5) Acres in Lease: 160.00

6) Acres Dedicated to Well:

There are 40.0.00 acres dedicated to this well which takes in the NWSE of Sec. 4, Township 16 South, Range 30 East, Eddy County, New Mexico.

**PART #2:**

1) Existing Roads:

Exhibit "D" comprises 2 maps showing location of the proposed well, as staked, in relation to Eddy County Road 217 and existing roads. Road 217 will be used for approximately 11 miles north of Loco Hills, New Mexico to Eddy County Road 256. Turn east go approximately 1/2 mile to the new access road on the right (south). The new access road goes south for approximately 300' to the West Henshaw Premier Unit #406. Access is highlighted on the Exhibit "D".

2) Planned Access:

A. Length and Width: The new access road will be approximately 300 feet long and 20' wide.

3) Location of Existing Wells:

Exhibit "E" shows exiting wells within a 1-mile radius of the proposed well.

4) Location of Tank Battery, production Facilities & Production Gathering & Service Lines:

If gas production is achieved, the location of the line will be determined by the purchaser laying the gather system to is existing lines.

5) Location and Type of Water Supply:

There is no useable water in this area. All water needed for drilling, testing and completion will be trucked in by a commercial transport on existing roads as shown on Exhibit "D".

6) Source of Construction Materials:

If it is necessary to use caliche on the new road and location, it will be obtained from the existing pits in the area as determined by the dirt contractor. The topsoil from the location (if any) will be stockpiled near the SE/corner of the location for future rehabilitation. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7) Method of Handling Waste Material:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system.
- E. Saga Petroleum LLC will comply with current laws and regulations pertaining to the disposal of human waste.
- F. All waste materials will be contained to prevent scattering by the wind and will be removed from the well site within 30 days after drilling and/or completion operations are finished.

8) Ancillary Facilities: None required.

9) Well Site Layout:

- A. Exhibit 'F' shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area have been staked and flagged.
- B. Mat Size: 100' X 250' plus reserve pits.
- C. Cut & Fill: Only minor leveling of the drilling site is anticipated.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.



10) Plans for Restoration of the Surface:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, Saga Petroleum LLC will comply with all rehabilitation and/or vegetation requirements of the Bureau of Land Management, and such rehabilitation will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11) Other Information:

- A. Topography: The topography of the land surrounding the staked well is gentle rolling sand dunes, but generally flat, depicted on Exhibit "D".
- B. Soil: The topsoil at the well site is a brown sandy loam.
- C. Flora and Fauna: Vegetation consists of chinery oat and a sparse cover of grass, mainly grama, dropseed, three-awn, some tobosa and burro grass along with mesquite, yucca, cactus and miscellaneous wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, dove, quail, prairie chickens and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: There are not ponds or streams in the area of the well location or access road.
- E. Residences and Other Structures: There are no occupied residences or other structures on, or in the immediate vicinity of the proposed location.
- F. Surface Ownership: The surface around the location and access road is owned by the United States of America under the management of the Bureau of Land Management.
- G. Land Use: The land is used for grazing cattle.

H. Archaeological, Historical, and Other Cultural Sites:

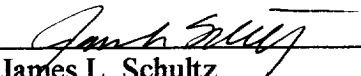
In 1997, Desert West Archaeological Services conducted an archaeological survey of the proposed well which covers the drilling location, production facilities, and access road, including a corridor along said access road for power and flow lines. Their report has previously been filed with the BLM under separate cover.

I. Operator's Senior Representatives:

Joe Clement  
Saga Petroleum LLC  
415 W. Wall, Suite 835  
Midland, TX 79705  
(915) 684-4293  
Mobile (915) 557-7929

CERTIFICATION

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Saga Petroleum LLC 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.

  
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James L. Schultz  
Agent for Saga Petroleum LLC  
c/o Continental Land Resources LLC  
P.O. Box 2691  
Roswell, NM 88202-2691  
(505) 626-6879 FAX (505) 622-3615  
Date: 8-8-00

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, N.M. 87504-2088

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

Form C-102  
Revised February 10, 1994  
Submit to 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

API Number	Pool Code	Pool Name
		West Henshaw Grayburg
Property Code	Property Name	Well Number
	WEST HENSHAW PREMIER UNIT	406
OGRID No.	Operator Name	Elevation
	SAGA PETROLEUM LLC	3851

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	4	16 S	30 E		2450	SOUTH	2581	EAST	EDDY

Bottom Hole Location If Different From Surface

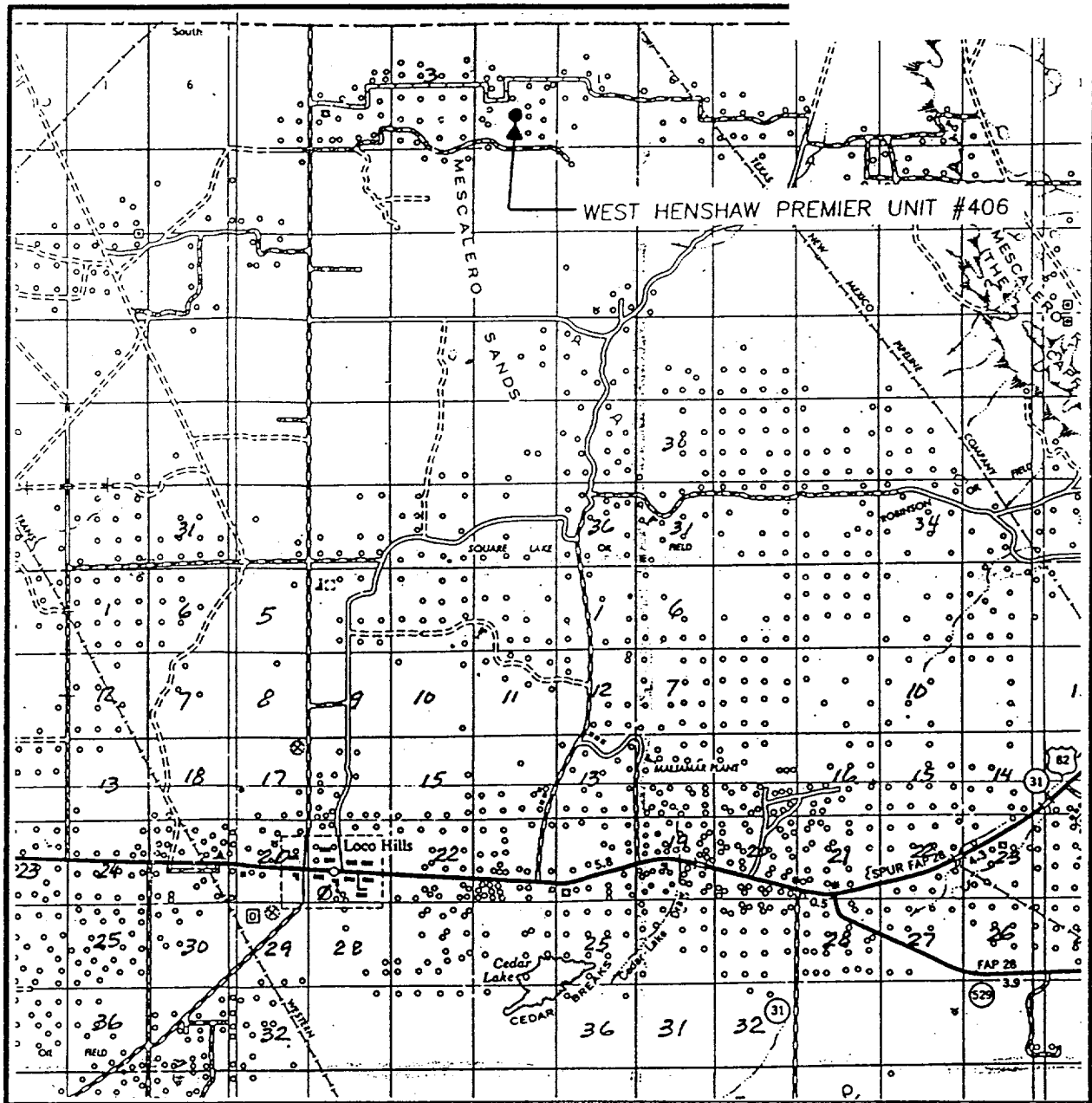
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
40.0									

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

<div><div><div><div><div>4</div><div>3</div><div>2</div><div>1</div></div><div><div>41.16 AC.</div><div>41.12 AC.</div><div>41.08 AC.</div><div>41.04 AC.</div></div><div><div>5</div><div>6</div><div>7</div><div>8</div></div><div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div></div><div><div>12</div><div>11</div><div>10</div><div>9</div></div><div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div></div><div><div>13</div><div>14</div><div>15</div><div>16</div></div><div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div><div>40.00 AC.</div></div></div><div><div>SEE DETAIL</div><div>2581</div><div>LC-067610</div><div>2450</div></div></div><div><div>EXISTING ROAD</div><div>3855.7'</div><div>3848.1'</div><div>363' OF PROPOSED ACCESS ROAD</div><div>400'</div><div>3849.2'</div><div>400'</div><div>3846.3'</div></div><div><div>DETAIL</div><div>1"=1000'</div></div></div>				<div><div>OPERATOR CERTIFICATION</div><div>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</div><div><div>Signature</div><div>James L. Schultz</div><div>Printed Name</div><div>Agent/Saga Petroleum LLC</div><div>Title</div><div>8/8/00</div><div>Date</div></div><div><div>SURVEYOR CERTIFICATION</div><div>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.</div><div>SEPTEMBER 15, 1997</div><div><div>Date Surveyed</div><div>DMCC</div><div>Signature &amp; Seal of Professional Surveyor</div><div><div>Ronald J. Edson</div><div>9-25-97</div><div>67-11-1470</div></div><div><div>Certificate No.</div><div>JOHN W. WEST</div><div>RONALD J. EDSON</div><div>GARY EDSON</div><div>676</div><div>3239</div><div>12641</div></div></div></div></div>	
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# VICINITY MAP

EXHIBIT D - 1



SCALE: 1" = 2 MILES

SEC. 4 TWP. 16-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2450' FSL & 2581' FEL

ELEVATION 3851

OPERATOR SAGA PETROLEUM LLC

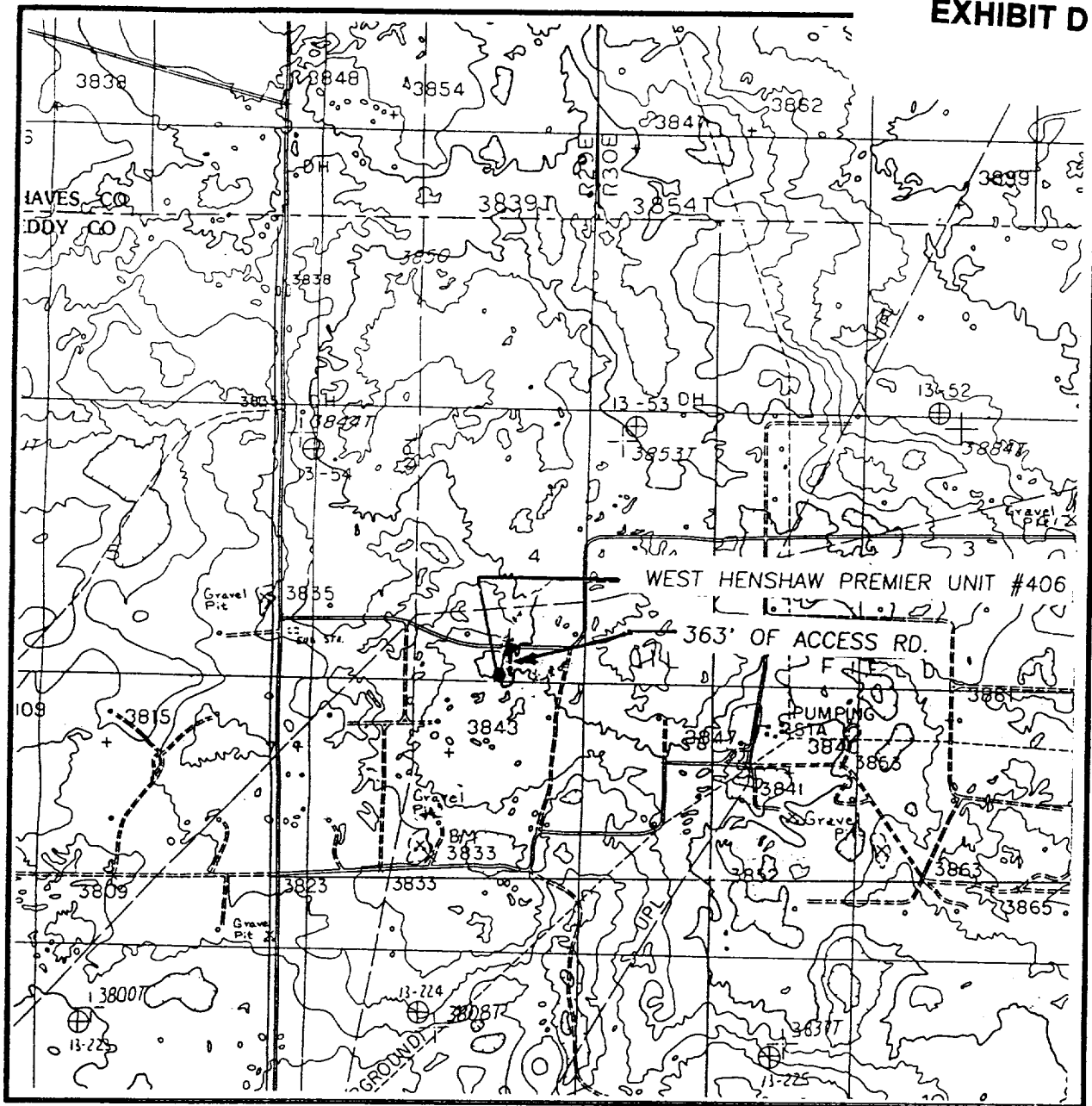
LEASE WEST HENSHAW PREMIER UNIT

**JOHN WEST ENGINEERING  
HOBBS, NEW MEXICO**

**(505) 393-3117**

# LOCATION VERIFICATION MAP

EXHIBIT D - 2



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
HENSHAW TANK - 10'

SEC. 4 TWP. 16-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2450' FSL & 2581' FEL

ELEVATION 3851

OPERATOR SAGA PETROLEUM LLC

LEASE WEST HENSHAW PREMIER UNIT

U.S.G.S. TOPOGRAPHIC MAP

HENSHAW TANK, N.M.

**JOHN WEST ENGINEERING  
HOBBS, NEW MEXICO**

**(505) 393-3117**

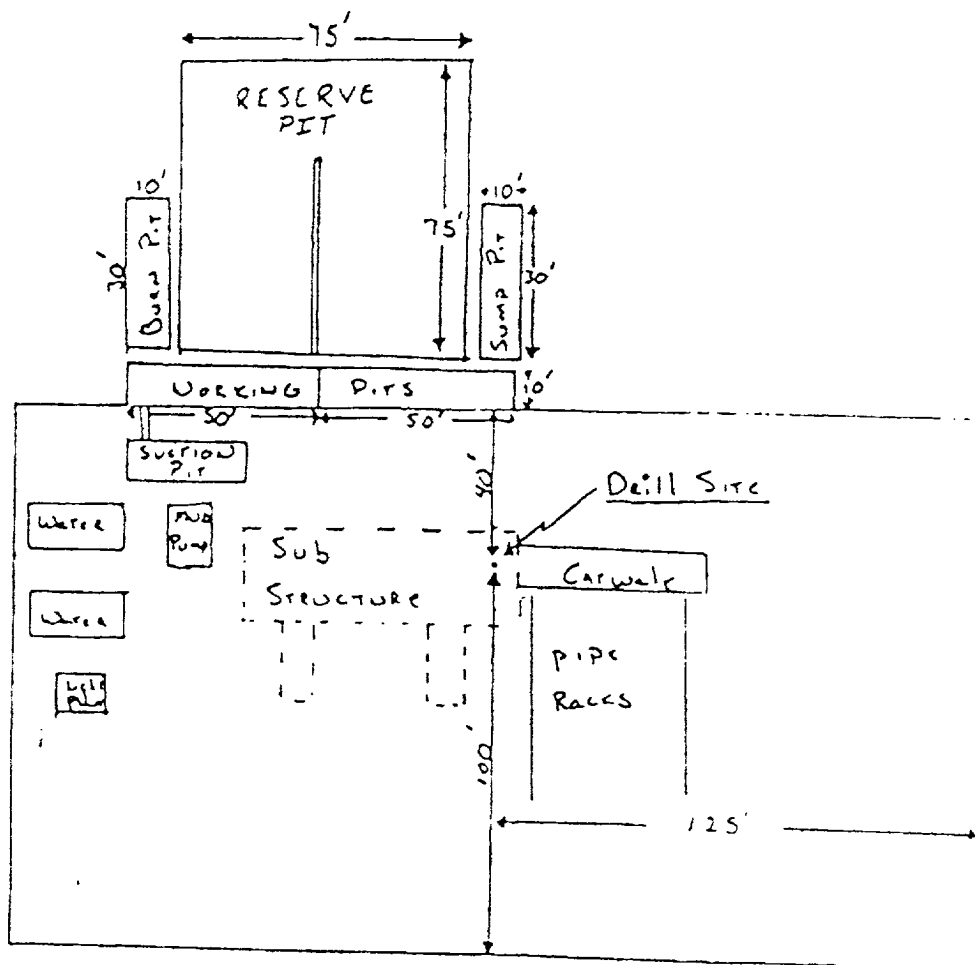
## EXHIBIT E

SUGGESTED PAD DIMENSIONS

Reserve Pits 4 ft. deep, plastic lined

Working pits 5 ft. deep

No cellar



Scale 1" = 50'

