Form 3160-3
(July 1992)

N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
1997 MAY 27 P 9:18
BUREAU OF LAND MGMT.
ROSWELL OFFICE

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Parker & Parsley Development L.P.

3. ADDRESS AND TELEPHONE NO.
P.O. Box 3178 Midland, TX 79702 915 571-3976

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
UL - P, 990' FSL & 990' FEL, Sec. 20, T19S, R32E
At proposed prod. zone
Same As Above

5. LEASE DESIGNATION AND SERIAL NO.: NM LC065710A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: Lusk Deep Unit "A"
8. FARM OR LEASE NAME, WELL NO.: 21
9. API WELL NO.:
10. FIELD AND POOL, OR WILDCAT: Lusk Delaware, West
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20, T19S, R32E
12. COUNTY OR PARISH: Lea
13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
40 miles West-Southwest of Hobbs, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 990'
16. NO. OF ACRES IN LEASE: 640
17. NO. OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1190'
19. PROPOSED DEPTH: 7200'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF,RT, GR, etc.): GR 3575'

CAPITAN CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: September 20, 1997

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8", J-55	54.5#	850'	675 sx WITNESS
11"	8 5/8", J-55	24# & 32#	4200'	1625 sx - Two Stage
7 7/8"	5 1/2", K-55	15.5#	7200' TD	1250 sx

OPER. OGRID NO. 36324
PROPERTY NO. 18278
POOL CODE 41540
EFF. DATE 6/19/97
API NO. 30-025-34031

SEE ATTACHED

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

acv 6/13/97

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 J. Britt Keith TITLE Sr. Operations Engineer DATE 5/14/97

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

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

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY (ORIG. SGD.) ARMANDO A. LOPEZ TITLE Acting ADM, MINERALS DATE 6-16-97

*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.

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 Depa t

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
30-025-34031	41540	Lusk Delaware, West

Property Code	Property Name	Well Number
018278	LUSK DEEP UNIT "A"	21

OGRID No.	Operator Name	Elevation
036324	PARKER & PARSLEY DEVELOPMENT L.P.	3575

Surface Location

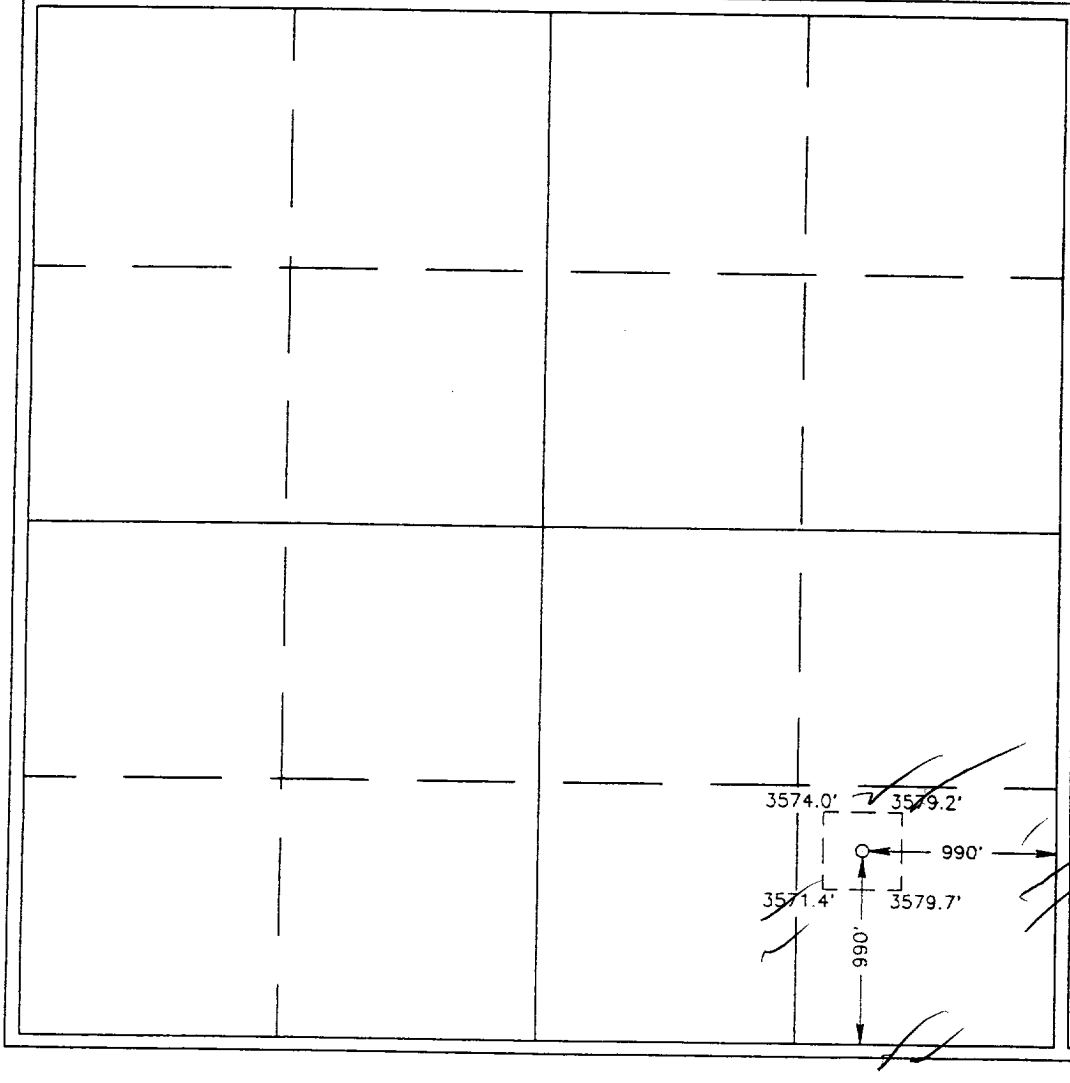
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	20	19 S	32 E		990	SOUTH	990	EAST	LEA

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			

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.

J. Britt Hirth
Signature

J. Britt Hirth
Printed Name

Sr. Operations Engineer
Title

5/14/97
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 supervison, and that the same is true and correct to the best of my belief.

JAN 30, 1997
Date Surveyed DMCC

Signature & Seal of Professional Surveyor

RONALD J. EIDSON
NEW MEXICO
3239
REGISTERED PROFESSIONAL SURVEYOR

2-07-97

97-11-017

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. EIDSON 12641

DRILLING PROGRAM

Attached to Form 3160-3
Parker & Parsley Development L.P.
Lusk Deep Unit "A", No. 21
990' FEL & 990' FSL
SE/SE, Sec. 20, T19S, R32E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

   Quaternary Alluvium & Bolson deposits (dune sand; sandy, silty clay)

2. Estimated Tops of Important Geologic Markers:

Anhydrite	850'
Salt	975'
Base of Salt	2475'
Yates	2625'
Delaware Sands	4425'
Bone Springs Lime	7125'

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

Surface Water Sands	above 250'	Fresh water
Yates	2625'	Oil
Delaware	4425' to 7100'	Oil

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 850' +/- and circulating cement to the surface. Potash will be protected by setting 8-5/8" casing at 4200'+/- and circulating cement back to the surface with the use of a stage tool at 2600'+/- . In the event 5-1/2" production casing is set, sufficient cement volume will be pumped to attempt to fill the entire annular area from TD to surface.

4. Casing Program:

Hole Size	Interval	OD csg	Weight,Grade, Jt.,Cond.Type
17-1/2"	0 - 850'	13-3/8"	54.5#, J-55, ST&C, New
11"	0 - 2600'	8-5/8"	24#, J-55, ST&C, New
11"	2600 - 4200'	8-5/8"	32#, J-55, ST&C, New
7-7/8"	0 - 7200'	5-1/2"	15.5#, K-55, LT&C, New

Cementing Program:

13-3/8" Surface Casing	475 sx 35/65 Poz "C", 6% gel., 5% salt, 1/4#/sx cellophane flakes; followed by 200 sx "C", 2% CaCl, 1/4#/sx cellophane flakes.
8-5/8" Intermediate: (Stage Tool @ 2600')	1st stage: 500 sx 35/65 Poz "C", 6% gel., 5% salt, 1/4#/sx cellophane; followed by 200 sx "C", 1% CaCl, 1/4#/sx cellophane flakes. 2nd stage: 800 sx 35/65 Poz "C", 6% gel., 5% salt, 1/4#/sx cellophane flakes; followed by 125 sx "C", 2% CaCl, 1/4#/sx cellophane flakes.
5-1/2" Production Casing:	1250 sx 50/50 Poz "C", 2% gel., 5% salt, 0.5% FL-25 (Fluid Loss). This is designed to bring cement to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 PSI WP) preventer and a bag-type (Hydril) preventer (3000 PSI WP). Both units will be hyraulically 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 13-3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 PSI before drilling out of surface casing. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 PSI and the bag-type (Hydril) preventer will be tested to 70% of rated working pressure (2100 PSI).

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 time sheets.

A 2" kill line and a 3" choke line will be installed on the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include the choke lines and choke manifold (3000 PSI WP), kelly cock and floor safety valve (inside BOP).

6. Types and Characteristics of the Proposed Mud System:

This well will be drilled to TD with a combination of fresh water, brine and fresh water polymer systems. The applicable depths and properties of systems are planned as follows:

DEPTH	TYPE	WEIGHT (ppg)	VISCOSITY (Sec)	WATER LOSS (cc)
0 - 850'	Fresh Water-Gel	8.4 - 8.9	30 - 32	25 cc - N/C
850 - 4200'	Brine Water	9.9 - 10.1	28 - 29	N/C
4200 - 6000'	Fresh Water	8.4 - 8.5	28	N/C
6000 - TD	Fresh Water, Gel, Polymer	8.7 - 9.1	30 - 36	12 cc or less

Loss of circulation may occur in the Capitan Reef at about 2800'. If loss can not be corrected reasonably, it may be necessary to dry-drill from the loss depth to 4200'+/- . Sufficient mud mixing materials to maintain the mud properties and to meet reasonable lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

A. A lower kelly cock will be in continuous service while drilling.

B. A fully opened, fully serviceable drillpipe stabbing valve (inside BOP) with proper drillpipe connections will be on the rig floor at all times.

C. No H2S gas or abnormal pressures are known to exist, in this heavily developed area, down to the proposed TD. Therefore, no pit-volume totalizing system will be employed. The drilling fluid system will be visually monitored at all times.

8. Logging, Testing and Coring Program:

A. A two man mud logging unit will be in service from 4200' to TD.

B. No drill stem tests are planned for this well.

C. Open hole electric logs at TD are planned to be as follows:

Dual Lateralog (DLL) w/MSFL (Micro Spherical Focused Log) w/GR and Caliper from TD to base of 8-5/8 casing at 4200'+/- . Compensated Neutron w/Z-Density & GR & Caliper from TD to 4200'; Gamma-Ray to surface.

D. No conventional cores are planned

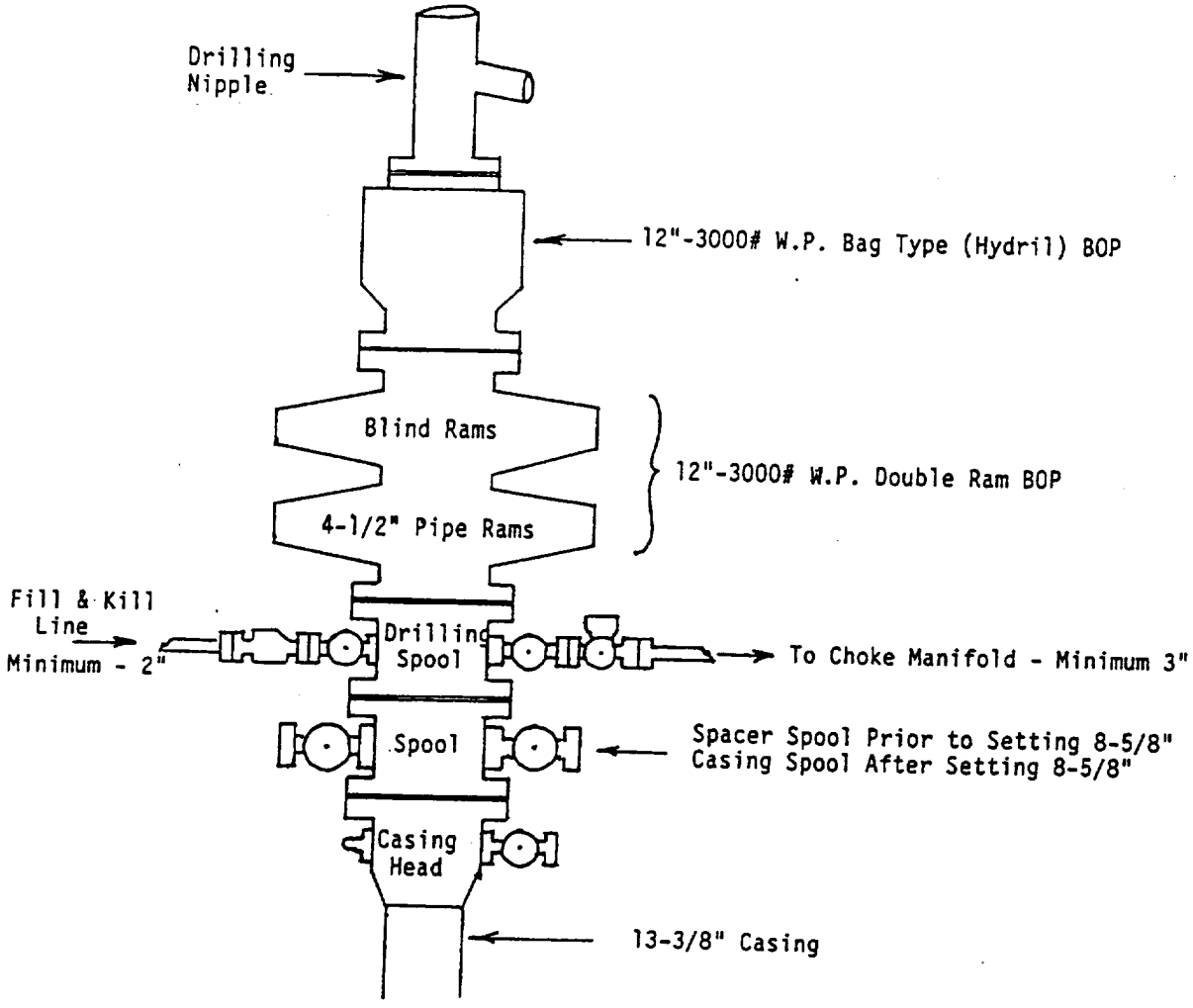
E. Additional evaluation may be required by the company geologist based on drilling shows and log evaluation.

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

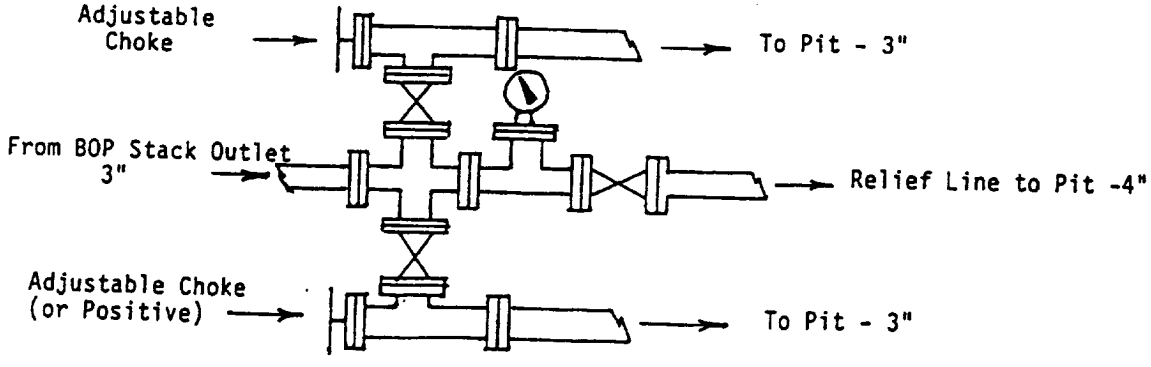
No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is expected to be 135°F and the estimated maximum bottom hole pressure (BHP) is 2800 PSI. No H2S or other hazardous gases or fluid have been encountered, reported or are known to exist to this depth in this area. Some wells in this area have encountered severe to total loss of circulation in the Capitan Reef at about 2800'. If this occurs at this location, several attempts will be made to regain circulation, but if it appears necessary, the well will be dry-drilled to the intermediate casing depth of 4200'+/- .

10. Anticipated Starting Date and Duration of Operations:

Location construction work will not begin until approval has been received from the BLM. The anticipated spud date will be around September 20, 1997. Once commenced, the drilling operations should be completed in approximately twenty (20) days. If the well is productive, an additional thirty (30) days will be required for completion and testing before a decision is made on installation of permanent 3" polyline to the Lusk Deep Unit "A" Tank Battery production facilities.



CHOKE MANIFOLD SCHEMATIC
(3000 PSI W P)

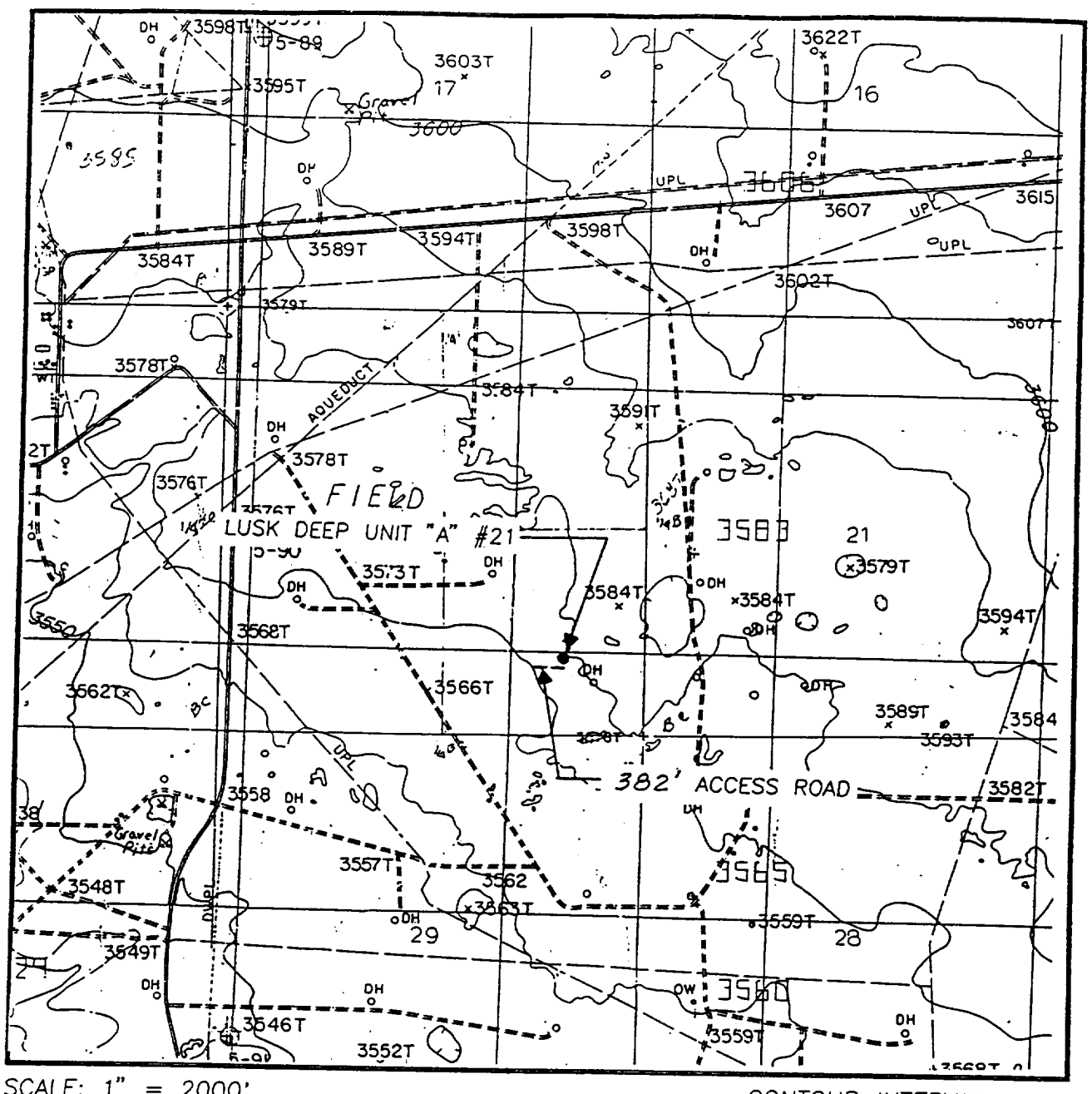


Parker & Parsley Development L.P.

BOPE SCHEMATIC (3000 PSI W.P.)
Lusk Deep Unit "A" No. 21
Lea County, New Mexico
Scale: 1"= 50' Date: April 1997
EXHIBIT #1

LOCATION VERIFICATION MAP

EXHIBIT #3



SCALE: 1" = 2000'

CONTOUR INTERVAL:
GREENWOOD LAKE – 10'

SEC. 20 TWP. 19-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 990' FSL & 990' FEL

ELEVATION 3575

OPERATOR PARKER & PARSLEY

LEASE LUSK DEEP UNIT "A"

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

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