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Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM NM 104617

6. If Indian, Allotee 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.
Shoe Box 1921-17 Federal #1 35866

2. Name of Operator
Parallel Petroleum Corporation 230387

Subject to Like Approval By State

9. API Well No.
30-015-35018

3a. Address **1004 North Big Spring, Suite 400 Midland, Texas**

3b. Phone No. *(include area code)*
432/684-3727

Undes.

10. Field and Pool, or Exploratory
Gardner Draw; Morrow

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface **733' FNL and 1880' FEL, same BHL unless drilled as alternate horizontal**

At proposed prod. zone **Alternate horizontal Wolfcamp test, Terminus @ 660' FSL and 1876' FEL**

11. Sec., T. R. M. or Blk. and Survey or Area
17-19S-21E

14. Distance in miles and direction from nearest town or post office*
9 miles south of Hope, New Mexico

12. County or Parish
Eddy

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **733'**	16. No. of acres in lease **320**	17. Spacing Unit dedicated to this well **320**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **None**	19. Proposed Depth **7,700'**	20. BLM/BIA Bond No. on file **NMB000265**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **GL 4425'**	22. Approximate date work will start* **09/01/2005**	23. Estimated duration **30 days**

24. Attachments — Roswell Controlled Water Basin

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

1. Well plat certified by a registered surveyor.
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	Name *(Printed/Typed)*	Date
Deane Durham	**Deane Durham**	12 JUNE 06

Title
Drilling Engineer, Parallel Petroleum Corporation

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	JUL 12 2006
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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, 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 page 2)

If an earthen pit(s) will be utilized in association with this work, a permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

29.1

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	77340	Undes. Gardner Draw; Morrow

Property Code	Property Name	Well Number
	SHOE BOX 1921-17 FEDERAL	1

OGRID No.	Operator Name	Elevation
	PARALLEL PETROLEUM CORPORATION	4425'

Surface Location

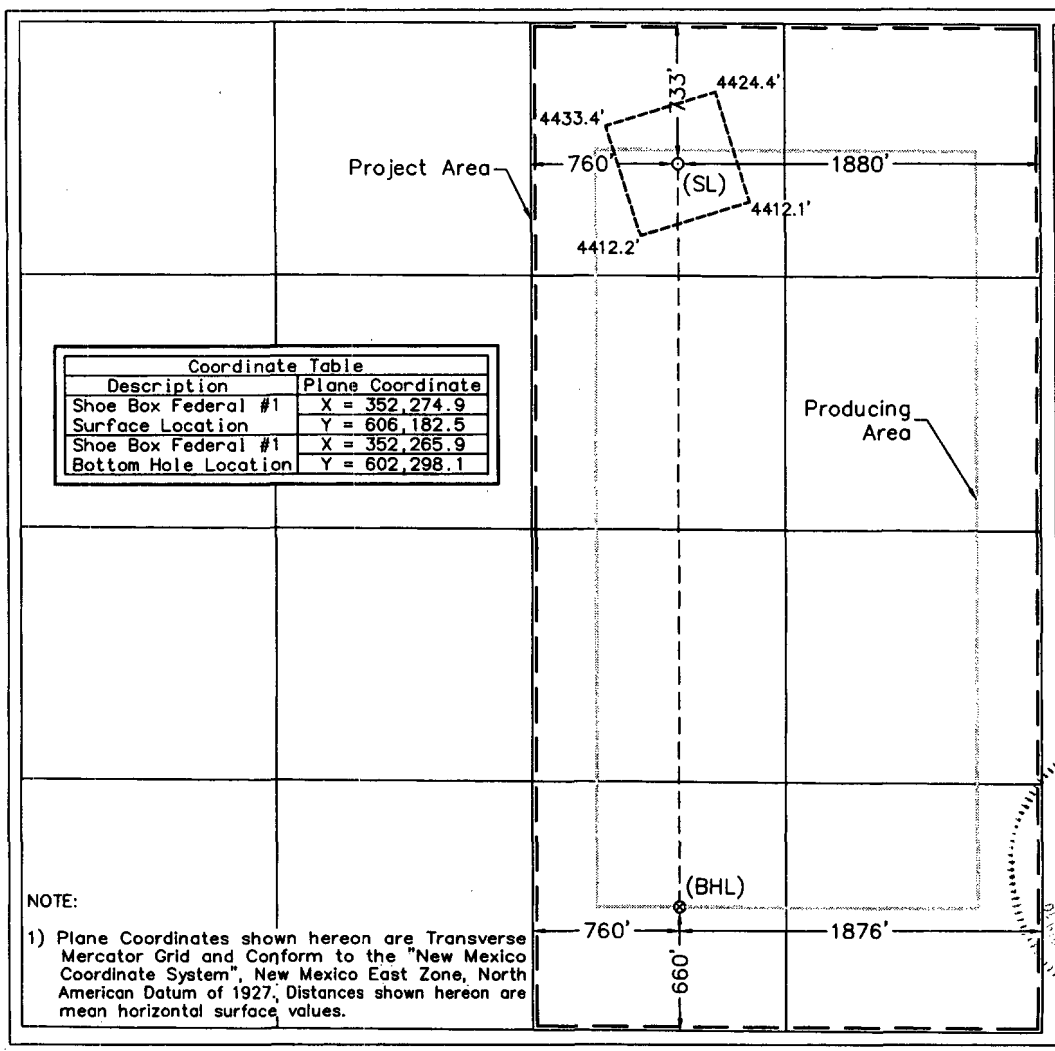
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	17	19 S	21 E		733	NORTH	1880	EAST	EDDY

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
O	17	19 S	21 E		660	SOUTH	1876	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



Coordinate Table	
Description	Plane Coordinate
Shoe Box Federal #1 Surface Location	X = 352,274.9
	Y = 606,182.5
Shoe Box Federal #1 Bottom Hole Location	X = 352,265.9
	Y = 602,298.1

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interestin the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 12 June 2006
Date

DEANE DURHAM
Printed Name

SURVEYOR CERTIFICATION

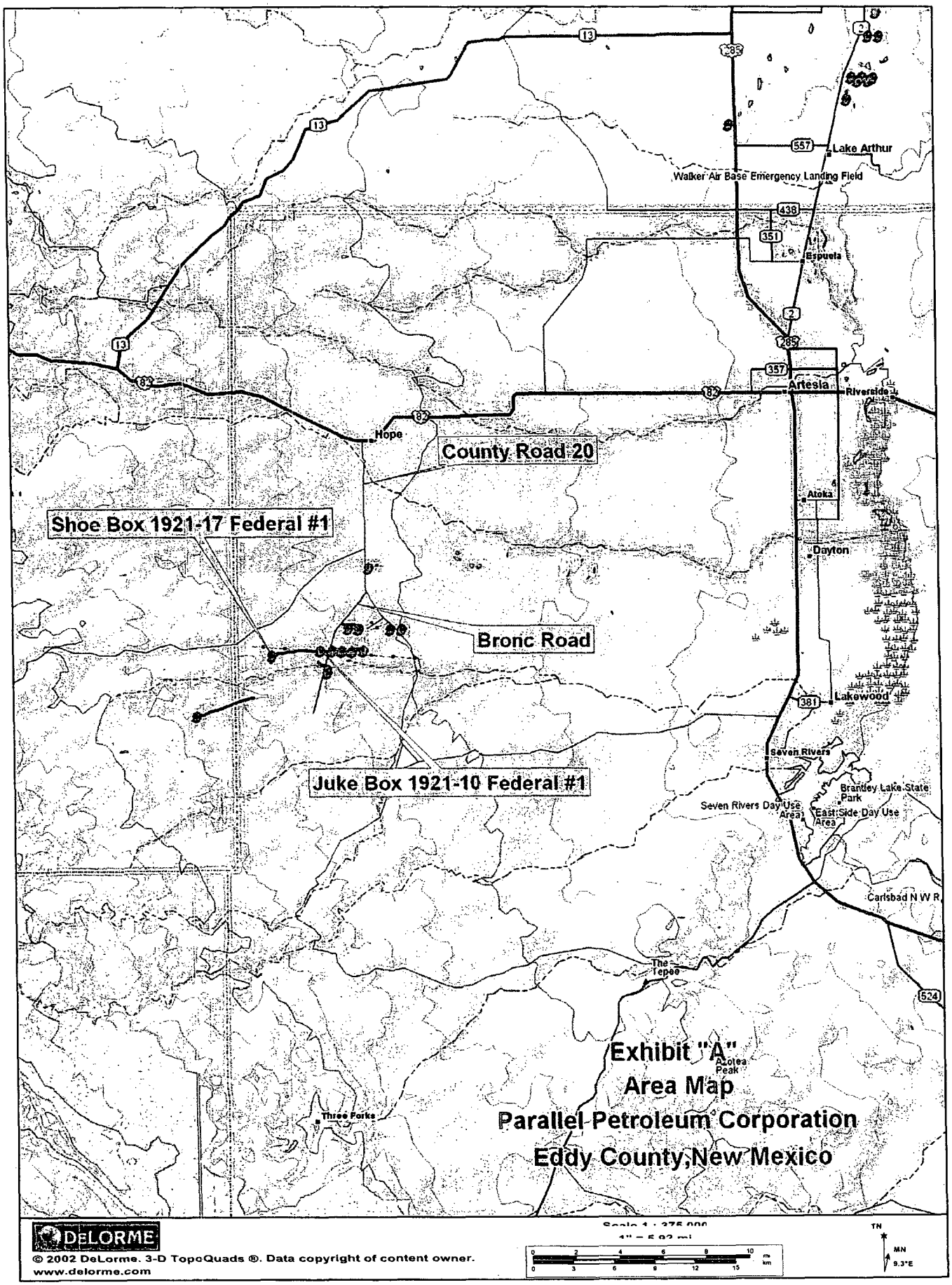
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison and that the same is true and correct to the best of my belief.

May 23, 2006
Date of Survey

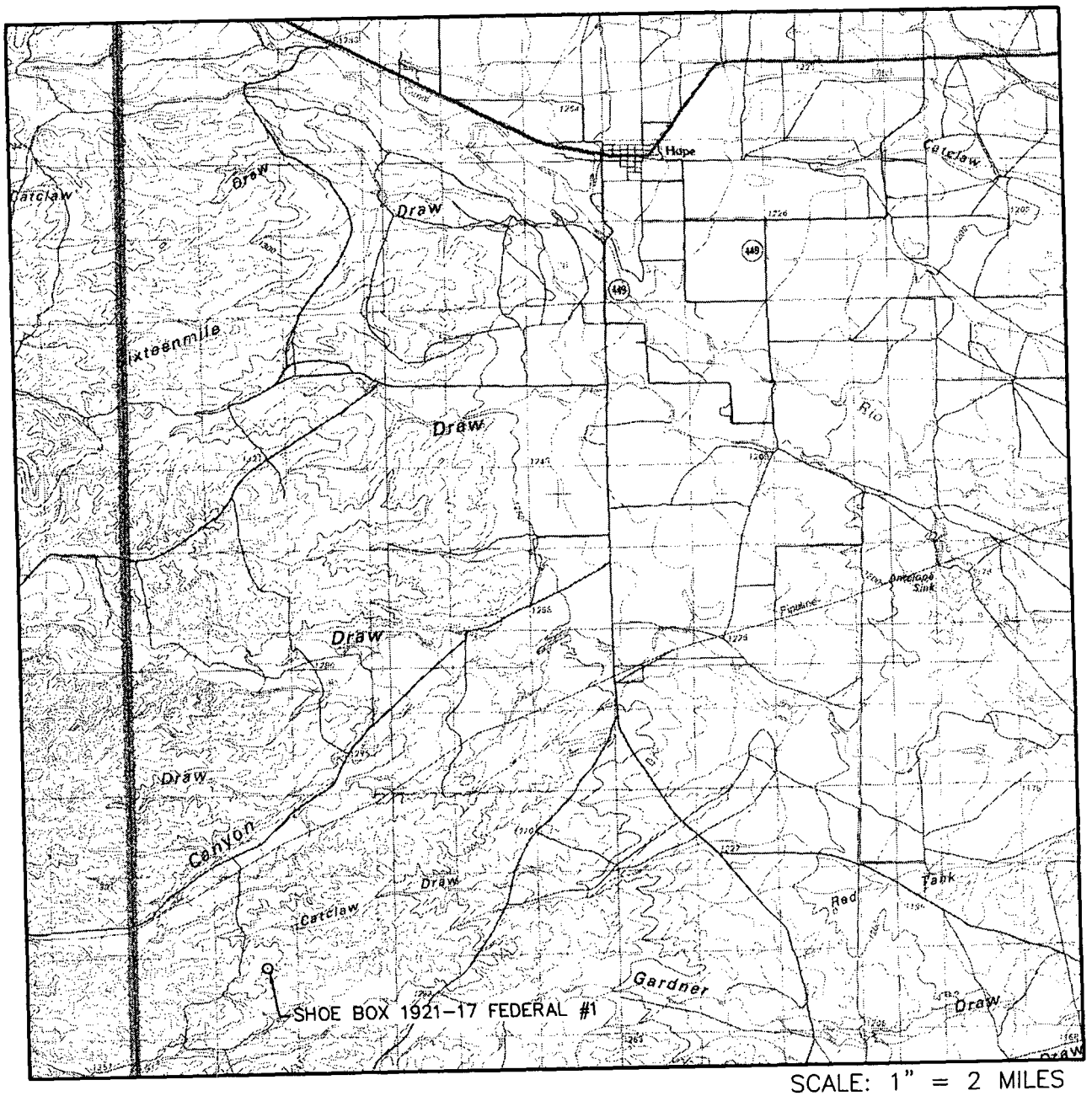
LVA
Signature & Seal of Professional Surveyor

W.O. Num. 2006-0300

Certificate No. MACON McDONALD 12185


County Road 20
Shoe Box 1921-17 Federal #1
Bronc Road
Juke Box 1921-10 Federal #1
Hope
Artesia
Riverside
Atoka
Dayton
Lakewood
Lake Arthur
Walker Air Base Emergency Landing Field
Espuela
Seven Rivers
Seven Rivers Day Use Area
Brantley Lake State Park
East Side Day Use Area
Carlsbad N W R
The Tepee
Three Forks
Exhibit "A"
Area Map
Parallel Petroleum Corporation
Eddy County,New Mexico
DeLORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 19-S RGE. 21-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 733' FNL & 1880' FEL

ELEVATION 4425'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE SHOE BOX 1921-17 FEDERAL

NORTH

Exhibit D

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

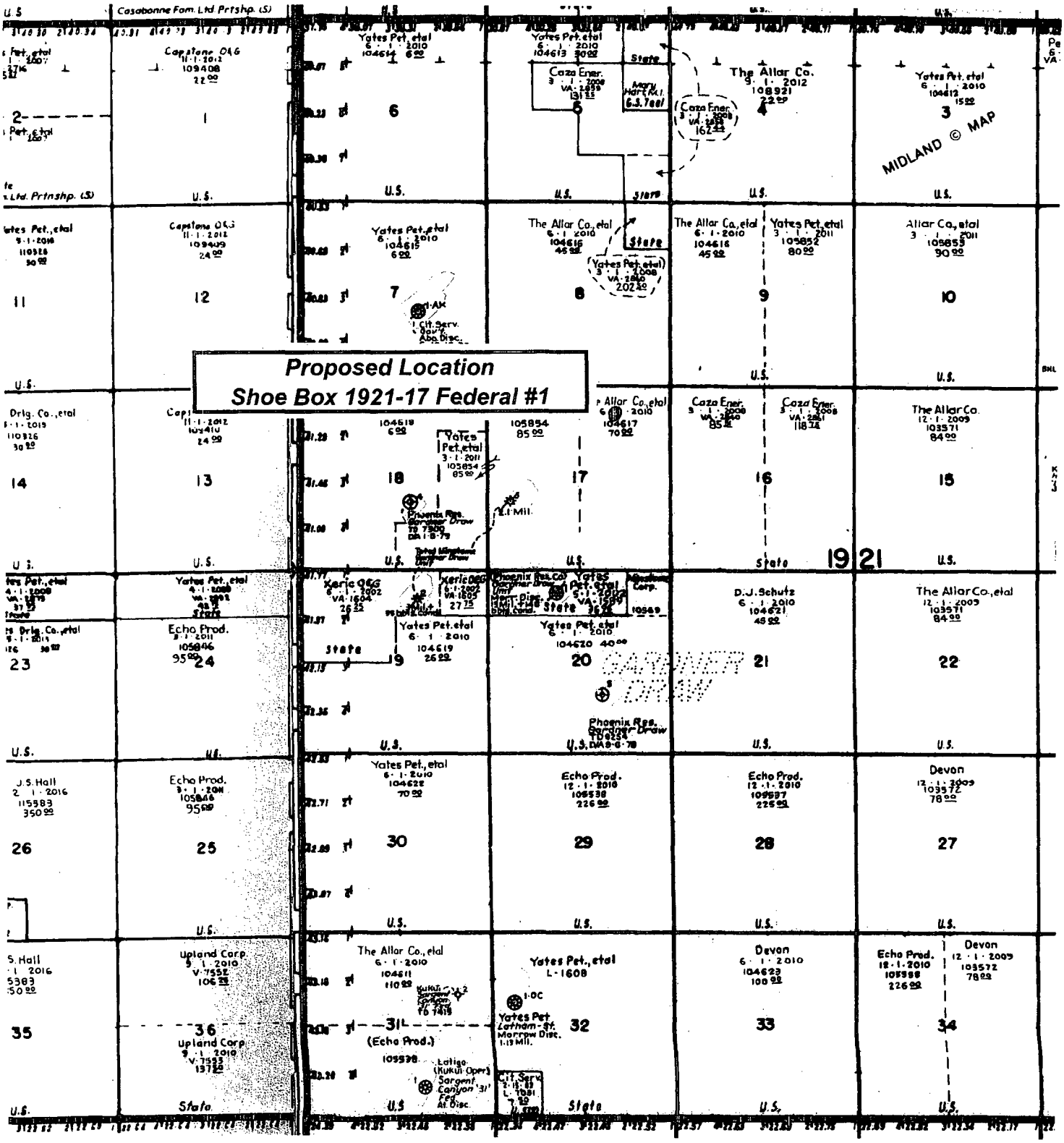
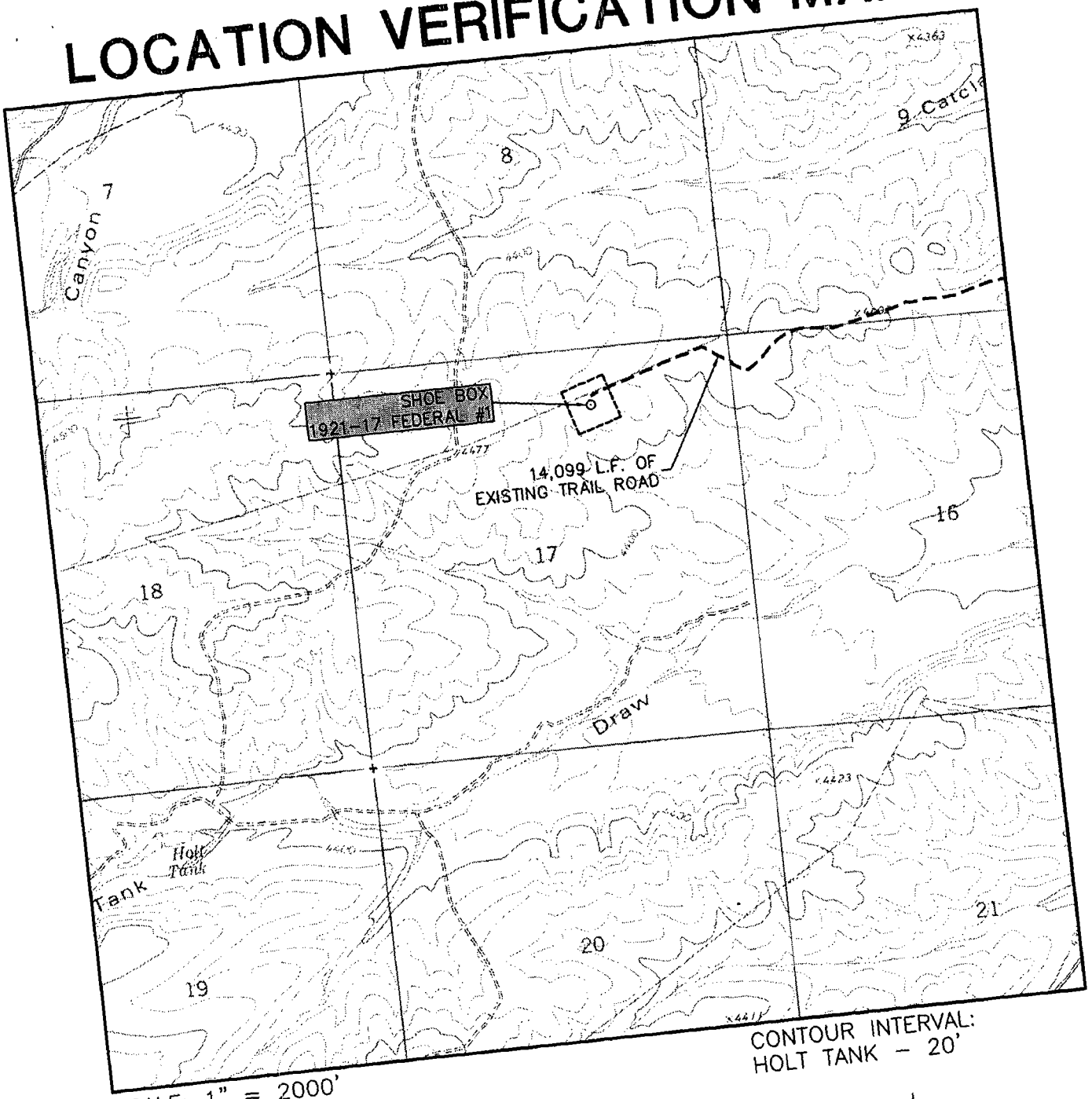


Exhibit "E"
AREA PRODUCTION MAP
PARALLEL PETROLEUM CORPORATION
SHOE BOX 1921-17 FEDERAL #1
SHL: 733' FNL AND 1880' FEL, SEC 17, T19S, R21E
EDDY COUNTY, NEW MEXICO

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOLT TANK - 20'

SEC. 17 TWP. 19-S RGE. 21-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 733' FNL & 1880' FEL

ELEVATION 4425'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE SHOE BOX 1921-17 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
HOLT TANK, N.M.

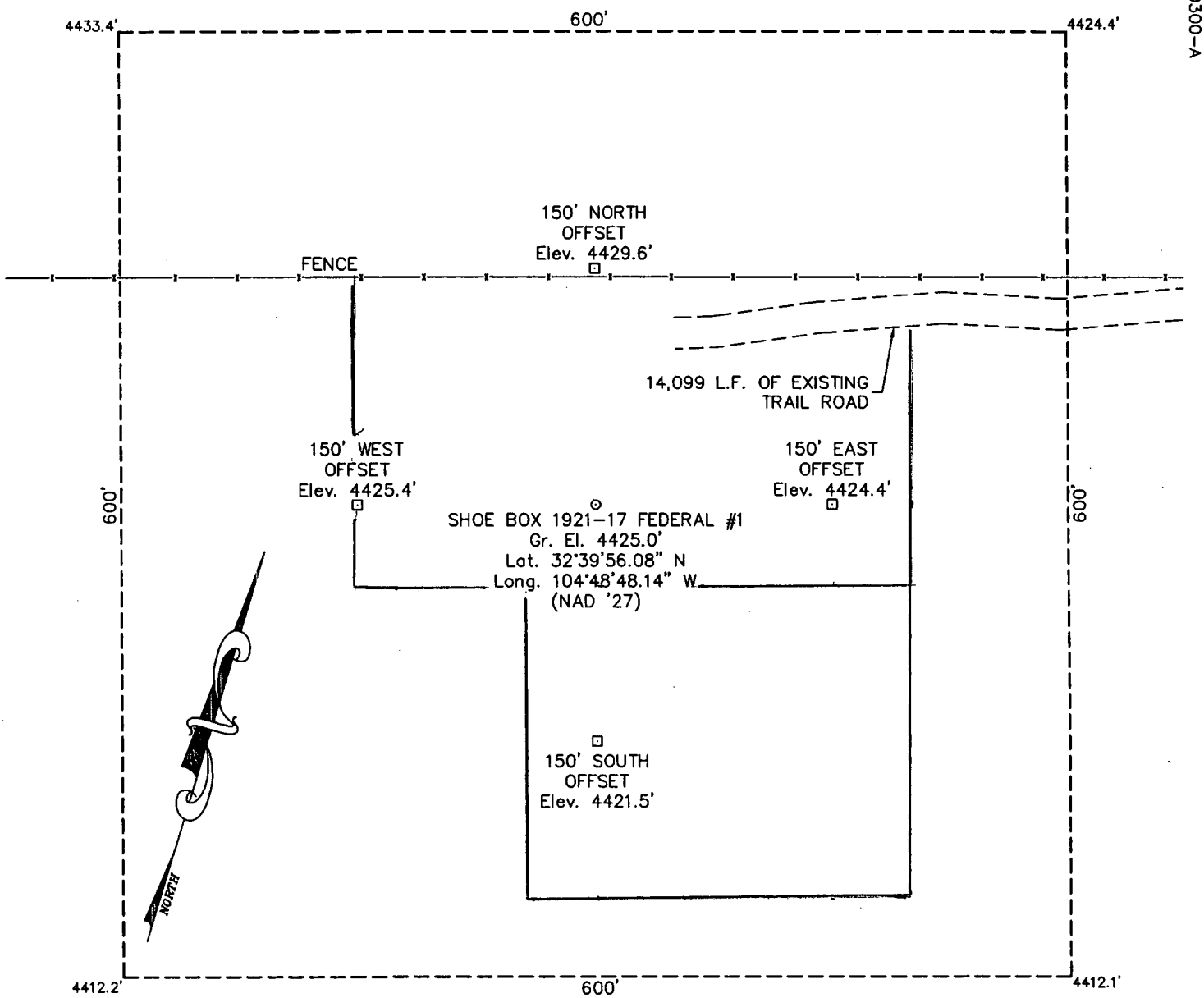
Exhibit F

WEST COMPANY of Midland, Inc.
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868

SECTION 17, TOWNSHIP 19 SOUTH, RANGE 21 EAST, N.M.P.M.

EDDY COUNTY NEW MEXICO

L-2006-0300-A



100 0 100 200

Graphic Scale in Feet

DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 82 AND STATE HIGHWAY 449 IN HOPE, NM GO SOUTH ON SAID STATE HIGHWAY 449 2.2 MILES TO THE END OF SAID STATE HIGHWAY 449 AND THE BEGINNING OF COUNTY ROAD 12, THEN CONTINUE SOUTH ANOTHER 4.8 MILES (6.9 TOTAL) TO A FORK IN THE ROAD, THE INTERSECTION OF SAID COUNTY ROAD 12 AND A LEASE ROAD HEADING SOUTHWEST (RIGHT FORK), THEN GO SOUTHWEST ALONG SAID LEASE ROAD 3.5 MILES TO A TWO-TRACK ON WEST (RIGHT) SIDE OF SAID LEASE ROAD, THEN GO WEST ALONG SAID TWO-TRACK ROAD 2.7 MILES TO THE PROPOSED LOCATION.

PARALLEL PETROLEUM CORPORATION

SHOE BOX 1921-17 FEDERAL #1

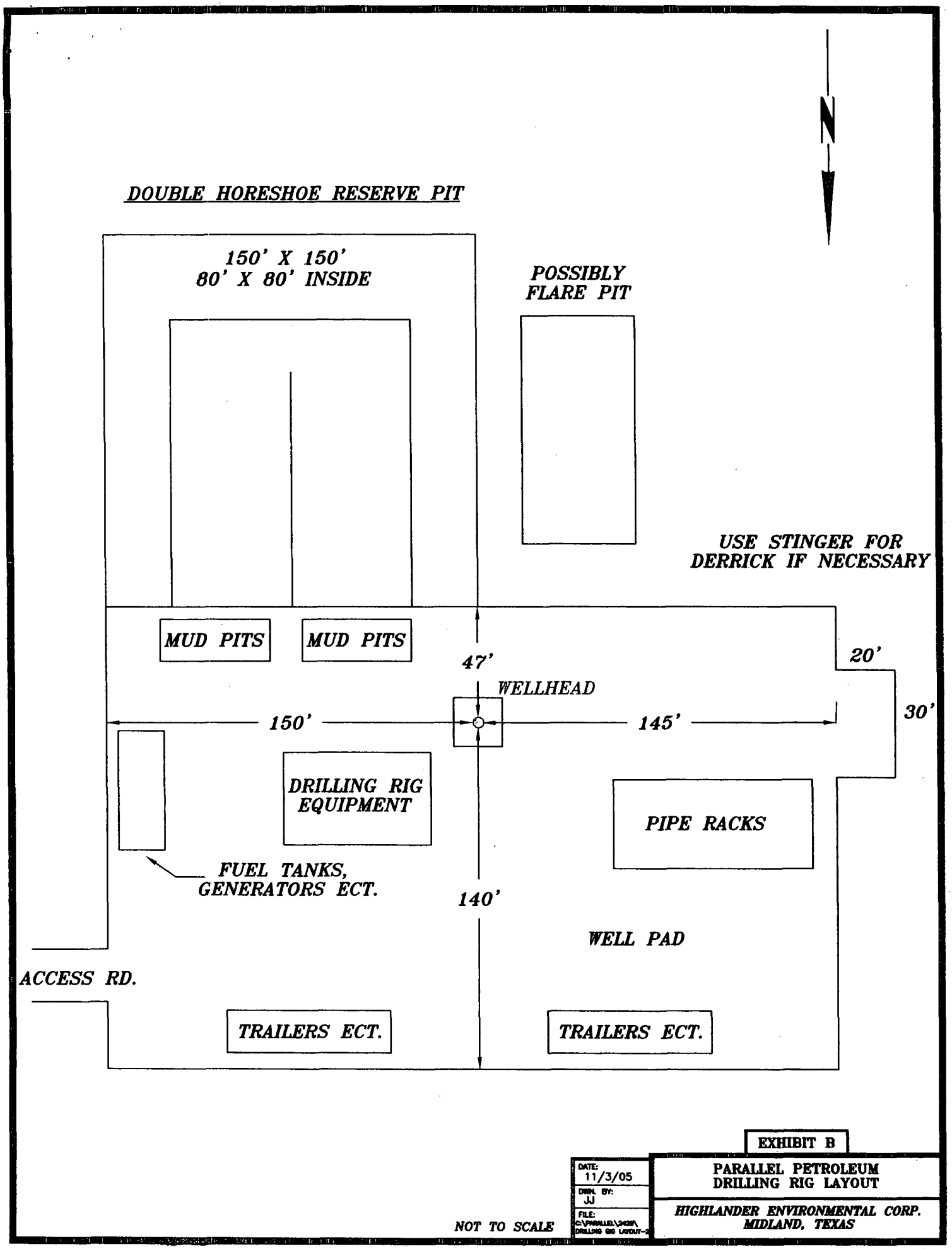
Located 733' FNL & 1880' FEL, Section 17
Township 19 South, Range 21 East, N.M.P.M.
Eddy County, New Mexico

Drawn By: LVA	Date: May 30, 2006
Scale: 1"=100'	Field Book: 338 / 22-27
Revision Date:	Quadrangle: Holt Tank
W.O. No: 2006-0300	Dwg. No.: L-2006-0300-A

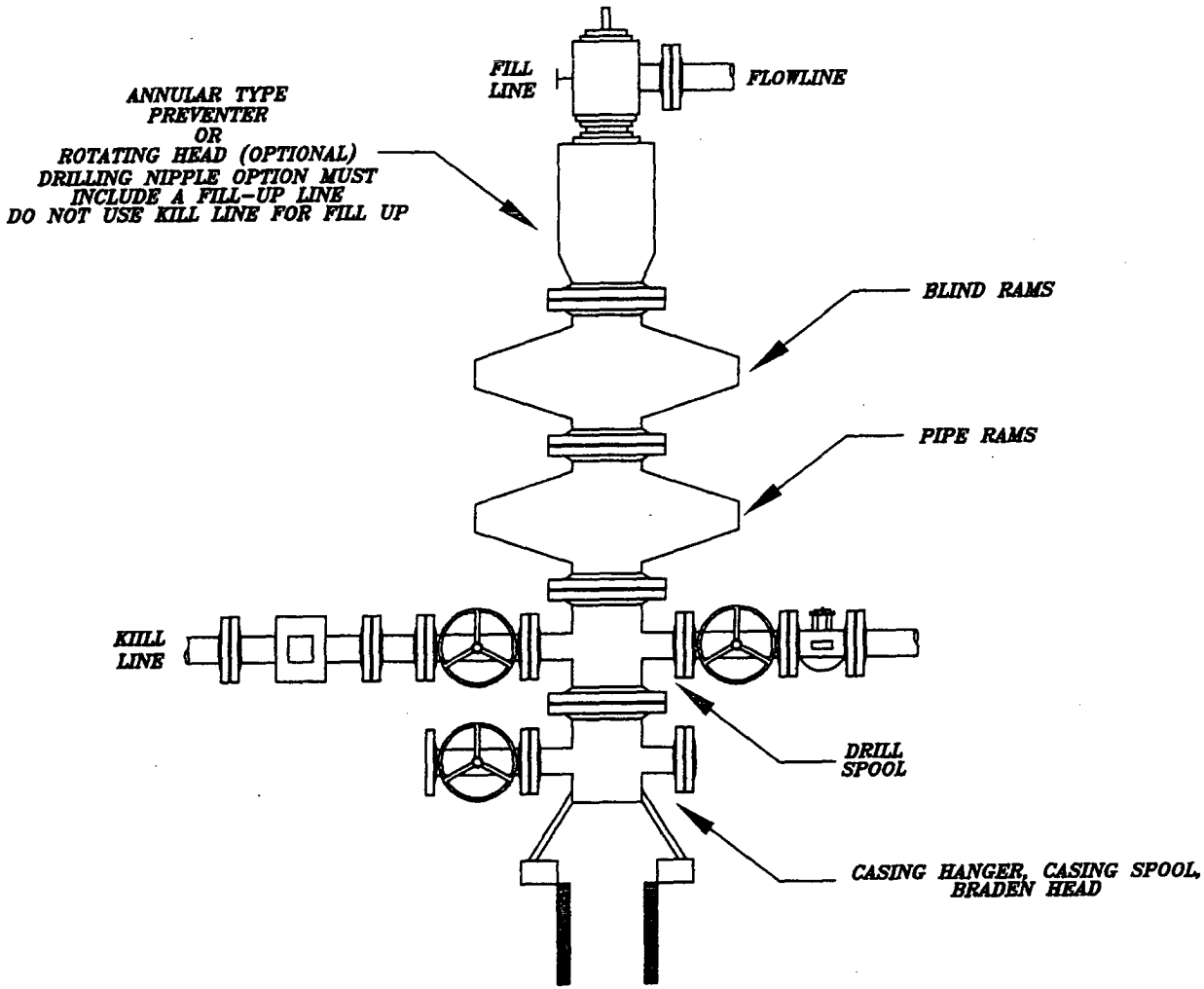
WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

Exhibit C


DOUBLE HORESHOE RESERVE PIT
150' X 150'
80' X 80' INSIDE
POSSIBLY
FLARE PIT
USE STINGER FOR
DERRICK IF NECESSARY
MUD PITS
MUD PITS
47'
WELLHEAD
20'
30'
150'
145'
DRILLING RIG
EQUIPMENT
PIPE RACKS
FUEL TANKS,
GENERATORS ECT.
140'
WELL PAD
ACCESS RD.
TRAILERS ECT.
TRAILERS ECT.
NOT TO SCALE
EXHIBIT B
DATE: 11/3/05
DWN. BY: JJ
FILE: C:\PARALLEL\2405\ DRILLING RIG LAYOUT-2
PARALLEL PETROLEUM
DRILLING RIG LAYOUT
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

MINIMUM BOP SCHEMATIC

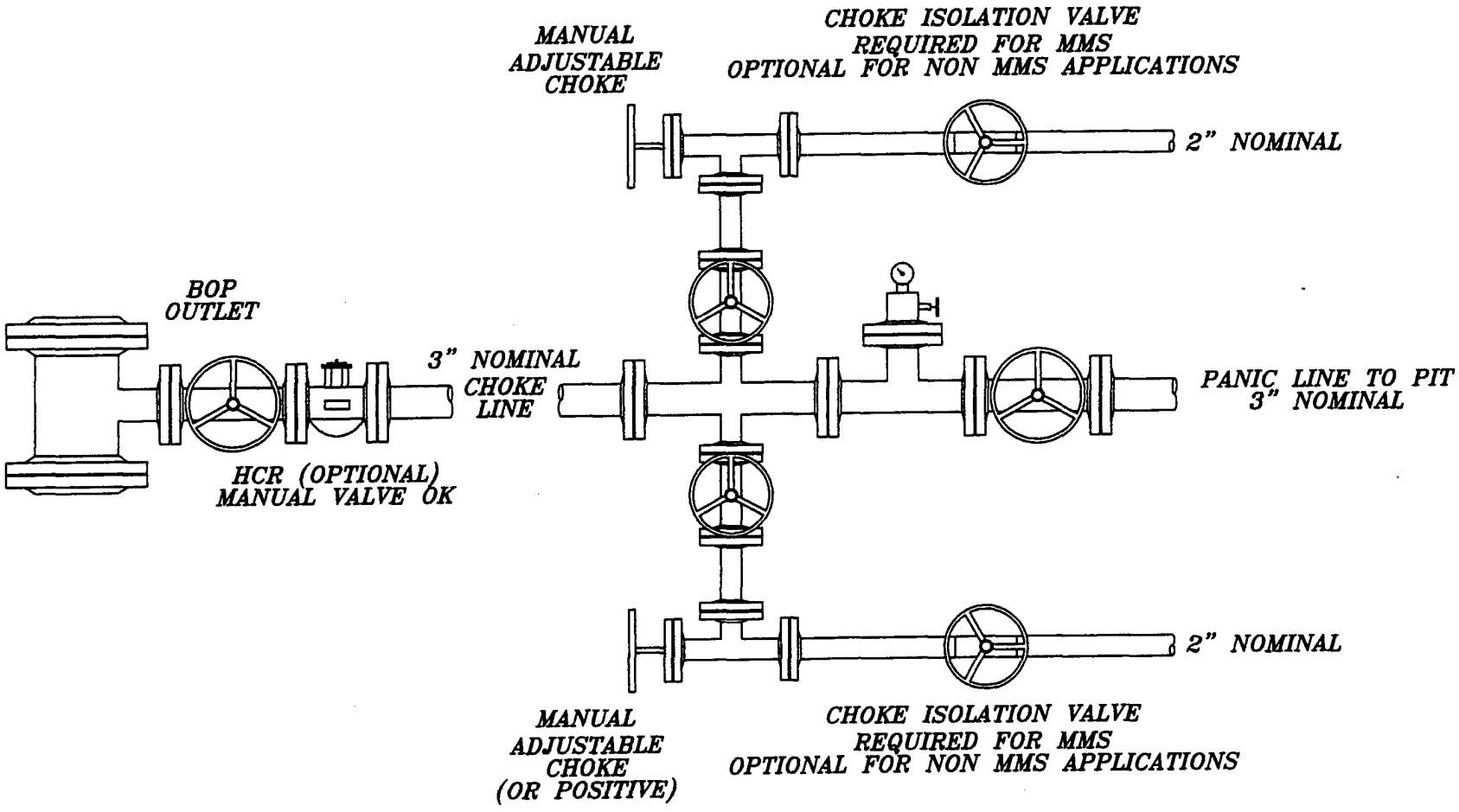


NOT TO SCALE

EXHIBIT I

DATE: 7/26/05	PARALLEL PETROLEUM BOP SCHEMATIC
DWN. BY: JJ	HIGHLANDER ENVIRONMENTAL CORP. MIDLAND, TEXAS
FILE: C:\PARALLEL\2439\BOP SCHEMATIC	

CHOKE MANIFOLD
5M SERVICE



NOT TO SCALE

EXHIBIT J

DATE: 8/17/05	PARALLEL PETROLEUM CHOKE MANIFOLD
DWN. BY: JJ	HIGHLANDER ENVIRONMENTAL CORP. MIDLAND, TEXAS
FILE: C:\PARALLEL\2429\ CHOKE MANIFOLD	

SURFACE AND OPERATIONS PLAN FOR
DRILLING, COMPLETION, AND PRODUCING

PARALLEL PETROLEUM CORPORATION
SHOE BOX 1921-17 FEDERAL #1
SHL: 733' FNL AND 1880' FEL, SEC 17, T19S, R21E
EDDY COUNTY, NEW MEXICO

LOCATED:

9 miles South of Hope, New Mexico

OIL & GAS LEASE:

NM NM 104617

RECORD LESSEE:

Echo Production Inc.
P.O. Box 1210
Graham, Texas 76450

BOND COVERAGE:

$25,000 statewide bond # NMB000265 of Parallel Petroleum Corporation

ACRES IN LEASE:

320

SURFACE OWNER:

Federal

SURFACE TENANT:

Michael Bennett Ranch
Hope, NM
505-484-3687

POOL:

Primary Objective - Wolfcamp

EXHIBITS:

A. Area Road Map
B. Drilling Rig Layout
C. Pad Elevation Plat
D. Vicinity Map
E. Area Production Map
F. Topographic & Location Verification Map
G. Well Location & Acreage Dedication Map (NMOCD Form C-102)
H. NMOCD Form C-144, Pit Registration (Original forwarded to NMOCD)
I. Blow Out Preventer (BOP) Schematic
J. Choke Manifold Schematic
K. Estimated Horizontal Survey Calculation Program
L. Estimated Wellbore Plot

1. EXISTING ROADS

A. Exhibits A and D are area road maps showing existing roads in the vicinity of the site.

B. Exhibit F and F-1 is a topographic map of the location showing existing roads and the proposed new access road.

2. ACCESS ROADS

A. Length and Width
The access road will be built as shown on Exhibit F and F-1. The access road will come off County Road 20 and go west on and existing 2 track road that runs along side an H-Frame power line. This portion of the access road may be utilized for as many as four drill sites including this one. The access road will go east 1400' and then veer right (north) 400' to the Juke Box 1921-10 Federal #1 wellsite. The road will then veer back to the power line 2 track and continue east one mile and turn south west on a two track road. This road will continue west southwest ¾ mile to a north/south fence line where a cattle guard will be installed. A new road will then be constructed northwest to the next fence line and then on a two track ½ mile. Both the improved two track and new access road will be surfaced with caliche and will be 16' to 24' wide with a total length of 2.7 miles. A 75' wide turn in will be constructed onto the access road at County Road 20.

B. Surface Material
Caliche from a commercial source.

C. Maximum Grade
Less than five percent.

D. Turnouts
Two turnouts may be constructed on this section of the access road.

E. Drainage Design
No low water crossings will be constructed on this section of the access road.

F. Culverts
It is not anticipated that any culverts will be needed on the access road at this time.

G. Gates and Cattle Guards
A cattle guard and gate will be installed on the fence line between sections 16 and 17.

3. LOCATION OF EXISTING WELLS

Existing wells in the immediate area are shown in Exhibit "E".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Necessary production facilities for this well will be located on the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY

A water well may be drilled on this location for water supply for both drilling and completion. Upon completion of operations on this site the well may be used for drilling of additional wells on this lease. The well will be made available for the surface tenant upon completion of drilling in this area for use as stock water. A permit will be secured from the New Mexico Office of the State Engineer for this water well. Or water will be secured and trucked or transported by poly line to the location from a commercial source.

6. METHODS OF HANDLING WASTE DISPOSAL

A. Drilling fluids will be allowed to dry in the drilling pits until the pits are closed.

B. Water produced during tests will be disposed of in the drilling pits.

C. Oil produced during tests will be stored in test tanks.

D. Trash will be contained in a trash trailer and removed from well site.

E. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

F. The reserve pit will be closed as per BLM and NMOCD regulations and guidelines. This will include leaving the drill cuttings in place in the pit, allowing them to dry, and covering the pit with at least 3' of backfill while not disturbing the pit liner. The cuttings may also be placed in a lined trench along side the drilling pit for disposal. If this disposal method is used the cuttings will be covered with a plastic liner and then covered with a minimum of 3' of backfill.

7. ANCILLARY FACILITIES

None required.

8. WELL SITE LAYOUT

Exhibit B shows the relative location and dimensions of the well pad, mud pits, reserve pit, and the location of major rig components.

9. PLANS FOR RESTORATION OF THE SURFACE

A. After completion of drilling and/or completion operations, all equipment and other material that will not be used lease for operations will be removed from the site.

B. After abandonment, all equipment, trash, and debris will be removed and the site will be reclaimed as per BLM permit stipulations.

10. OTHER INFORMATION

A. Topography
The project is located on open, rolling ridge slopes, with southeast exposure. The regional drainage of the site being to the south and east toward Holt Tank Draw.

B. Soil
Soils are very thin and shallow, tan/pink/grey loamy sandy silts, overlying limestone bedrock.

C. Flora and Fauna
The location is located on a ridge and the vegetation consist of broom snakeweed, grasses, creosote, cholla, yucca catclaw, prickly pear, beargrass and various species of cacti.

D. Ponds and Streams
Holt Tank Draw, an intermittent stream which flows west to east, is located ¾ mile south north of the site. A small drainage that is flows south and east into Holt Tank Draw is located 1100' south and east and down slope from this location. There are no other rivers, lakes, ponds, or streams in the area.

E. Residences and Other Structures
The Michael Bennet Ranch house is located 3.5 miles south west of the site and the Barbra Runyon Ranch house is located 5.5 miles northeast of the proposed well site

F. Archaeological, Historical, and Cultural Sites
See archaeological report # SNMAS-06NM-2221
submitted by: Southern New Mexico Archaeological Services, Inc.,
P.O. Box 1
Bent, New Mexico 88314 Phone 505-671-4797

G. Land Use
Grazing

H. Surface Ownership
Federal

11. OPERATOR'S REPRESENTATIVE

Deane Durham, Engineer
Parallel Petroleum Corporation
1004 North Big Spring Street, Suite 400
Midland, Texas 79701
Office: (432) 684-3727

12. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which 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 Parallel Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

12 June 2006
Date

Name: Deane Durham
Title: Engineer

ATTACHMENT TO FORM 3160-3
SHOE BOX 1921-17 FEDERAL #1
Surface Hole Location
733 FNL AND 1880 FEL, SEC 17, 19S, 21E
Alternate Bottom Hole Location
660 FSL AND 1876 FEL, SEC 17, 19S, 21E
EDDY COUNTY, NEW MEXICO

DRILLING PROGRAM

This well is designed as a vertical Morrow test. In the event that the Morrow is found to be non-productive, a horizontal test in the Wolfcamp formation will be drilled.

1. GEOLOGIC NAME OF SURFACE FORMATION

San Andres

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Glorieta 1650'(+ 2775')
Tubb 2660'(+1765')
Abo Shale 3300' (+1125')
Abo Carbonate 3420' (+1005')
Wolfcamp 4225' (+200')
Wolfcamp Shale 4415'(+10')
Penn Cisco 5885' (-1460')
Canyon 6350' (-1925')
Strawn 6765' (-2340')
Atoka 7150' (-2725')
Morrow 7275' (-2850')
Miss. Chester 7525'(-3100')

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL, OR GAS

Fresh water	790'
Oil and Gas	Morrow 7275' (-2850') to 7525'(-3100')
Alternate Horizontal Completion	
Oil and Gas	Wolfcamp 4225' (+200')

No H_2S gas should be encountered

4. CASING AND CEMENTING PROGRAM

Casing Size	From To	Weight	Grade	Joint
20" conductor	0'-120'			
9 5/8"	0' – 1400'	36#	J-55	LTC
7"	0' – 7,700'	23#	J-55	LTC
Horizontal casing program for Production String				
7"	0' – 4000'	23#	J-55	LTC
4 1/2"	0' – 7948'	11.6#	N-80	LTC
Or no 7" and				
5 ½"	0'- 7948'	17#	N-80	LTC

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability.

Primary Drilling Procedure

a. Set 20" conductor pipe at 120' with a rathole unit.
b. Drill 12 ¼" surface hole to an approximate depth of 1400', using fresh water and viscous sweeps for hole cleaning. Set 9 5/8", 36# J-55 casing with 460 sx, Class C cement (lead will be 50/50 Poz, circulate to surface, 1" if necessary).
c. Set slips on 9 5/8. Cut 9 5/8 and NU WH & BOP.
d. Drill 8 3/4" production hole to 7700', using cut brine to an approximate depth of 3200' and a starch mud system to TD.
e. Log and Test Morrow zone of interest.
f. Set 7" 23# J-55 casing at TD with 1070 sx Class C cement with the estimated top of cement at 3100' (lead 50/50 Poz).

Alternate Drilling Procedure (if Morrow is Non-Productive)

a. Plug lower portion of the hole, per OCD/BLM specifications.
b. Set 18 ppg CMT kick-off plug across Wolfcamp zone.
c. Dress CMT to kick off point at approximately 3842', oriented at 180 degree (grid) azimuth.
d. Build angle in 8-3/4" hole at 15 degrees per 100' to 90 degrees and hold.
e. Drill 7-7/8" horizontal drain hole to a terminus of 660' FSL (7948' MD).
f. Run 5 ½" 17# N-80 Casing from TD back to surface, cement with acid soluble cement per completion
g. Rig Down Rotary Tools

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

The BOP stack will consist of a 3,000 psi working pressure, dual ram type preventer and annular.

A BOP sketch is attached.

6. TYPES AND CHARACTERS OF THE PROPOSED MUD SYSTEM

a. Spud and drill to 1400' with fresh water gel spud mud for surface string.
b. The production section from 1,400' to 3,100' will utilize a cut brine mud system.
c. The remaining production section from 3,100' to TD will be a starch mud system with mud weight sufficient to control formation pressures.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

None required.

8. LOGGING, TESTING, AND CORING PROGRAM

Mud logs as well as DLL/CNL/LDT/CAL/GR logging is planned. Drill stem tests, cores and sidewall cores are possible.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES & POTENTIAL HAZARDS

None anticipated.

BHP expected to be 1,100 psi.

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence around forth quarter of 2006 with drilling and completion operation lasting about 30 days.

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Parallel Petroleum Corporation
1004 N. Big Spring St.
Suite 400
Midland, Texas 79701

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

Lease No:	NM NM 104617
Legal Description of Land:	Shoe Box 1921-17 Federal #1 SHL: 733' FNL AND 1880' FEL, SEC 17, T19S, R21E If well completed as a Morrow test BHL will be same as SHL If well completed as a horizontal Wolfcamp test as an alternate if the Morrow is non-commercial BHL: 660' FSL AND 1880' FEL, SEC 17, T19S, R21E Eddy County, New Mexico
Formation(s) (if applicable:	Morrow with alternate in the Wolfcamp
Bond Coverage:	$25,000 statewide bond of Parallel Petroleum Corporation
BLM Bond File No:	**NMB000265**

12 JUNE 2006
Date

Name: Deane Durham
Title: Engineer

PARALLEL
PETROLEUM CORPORATION

SURVEY CALCULATION PROGRAM

OPERATOR:	Parallel Petroleum Corporation	Supervisors:	
WELL:	Shoe Box 1921-17 Federal #1		
LOCATION:	Sec. 17 T-19-S R-21-E		
API NUMBER:			
COMMENTS:			
		MAG DEC.(-/+)	
		GRID CORR.(-/+)	
		TOTAL CORR.(-/+)	0.0

DATE: 06/02/06 TIME: 3:57 PM — TRUE TO GRID

MINIMUM CURVATURE CALCULATIONS(SPE-3362) — PROPOSED DIRECTION: 180.0 — TARGET TRACKING TO CENTER

SVY NUM	MD	INC	GRID AZM	TVD	VERT SECT	N-S	E-W	DLS/ 100	ABOVE(+) BELOW(-)	RIGHT(+) LEFT(-)
TIE	0	0.0	0.0	0.0	0.0	0.0	0.0			
1	3842	0.0	0.0	3842.0	0.0	0.0	0.0	0.0	383.0	0.0
2	3852	1.5	180.0	3852.0	0.1	-0.1	0.0	15.0	373.0	0.0
3	3862	3.0	180.0	3862.0	0.5	-0.5	0.0	15.0	363.0	0.0
4	4444	90.0	180.0	4225.2	383.3	-383.3	0.0	14.9	-0.2	0.0
5	7948	90.0	180.0	4225.2	3887.3	-3887.3	0.0	0.0	-0.2	0.0

KOP @ 3842' MD
BUR = 15 DEG per 100 FT
End Curve @ 4444' MD, 4225.2' TVD
BHL @ 7948' MD, 4225.2' TVD, 3887.3' VS

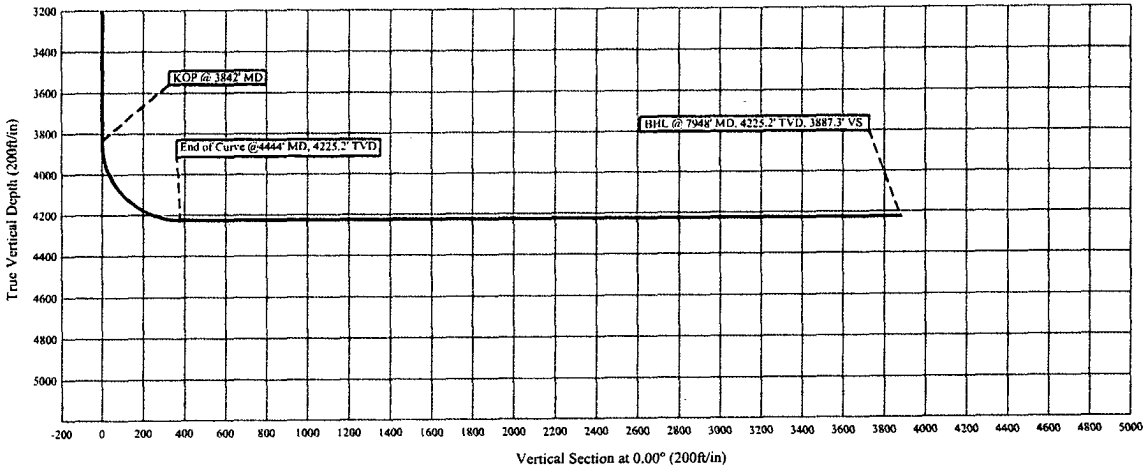
Exhibit K

Parallel Petroleum Corp.

Shoe Box 1921-17 Federal #1
Section 17, T 19-S, R 21-E
Eddy County, New Mexico

COMPANY DETAILS

Parallel Petroleum Corp.
1004 N. Big Spring, Ste 400
Midland, Texas 79701



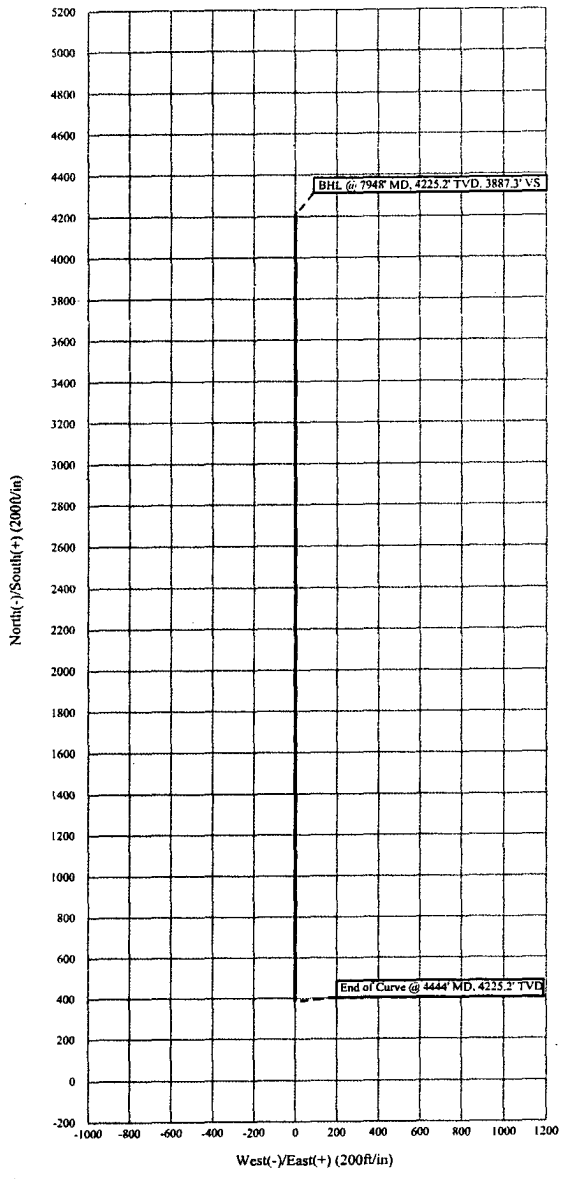


Exhibit L

PARALLEL
Petroleum Corporation
1004 North Big Spring, Suite 400 • Midland, TX 79701 • Ph: 432-684-3727 • Fax: 432-685-6580

June 12, 2006

Mr. Bryan Arrant
New Mexico Oil Conservation Division
1301 W. Grand Ave.
Artesia, New Mexico 88210

Re: Hydrogen Sulfide Potential
South Hope Area Wolfcamp Program
SW Chaves and Eddy Counties, New Mexico

Dear Mr. Arrant:

Parallel Petroleum Corporation operates the Boxtop 1921-1 Federal #1 well located in Section 1, T-19-S, R-21-E. The well which was tested in the Wolfcamp formation did not have any indications of hydrogen sulfide from this formation. We believe the potential for it on locations in this area are negligible. There are no occupied dwellings in the area of these new drilling locations.

Should you need any additional information regarding this issue, please contact me at the address or phone number listed or email at ddurham@plll.com .

Sincerely,

A. Deane Durham
Senior Engineer

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**Parallel Petroleum Corporation**
Well Name & No.	**Shoe Federal 1921-10 #1**
Location:	**733' FNL, 1880' FEL, Section 17, T. 19 S., R. 21 E., Eddy County, New Mexico** SHL
Lease:	**NM-104617**
Location:	660'FSL & 1876' FEL, Section 17, T.19S., R.21E., Eddy County, NM BHL

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

   A. Well spud

   B. Cementing casing **9-5/8** inch **7** inch

   C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The **9-5/8** inch surface casing shall be set at **approximately 1400 feet and cement circulated to the surface.** If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the **7** inch production casing is **to reach at least 500 feet above the top of the uppermost productive hydrocarbon interval**.

3. If the Morrow formation is dry and the operator elects to drill a horizontal Wolfcamp hole, a 7 inch intermediate string will be set with cement circulated to the surface.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **9-5/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **3000** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of

drilling mud for testing is not permitted since it can mask small leaks.

- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

6/21/2006
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