

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-101

May 27, 2004

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

Submit to appropriate District Office

JUN 20 2006

OCD-ARTECIA

☐ AMENDED REPORTAPPLICATION FOR PERMIT TO **DRILL**, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Parallel Petroleum Corp. 1004 N. Big Spring Street, Suite 400, Midland, TX. 79701		OGRID Number 230387
Property Code 35806	Property Name Bernardini 1426-22 M	API Number 30-005-63831
Proposed Pool 1 Wolfcamp		Proposed Pool 2

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	14S	26E		399	N	744'	W	Chaves

8 Proposed 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
D	22	14S	26E		660'	N	744'	W	Chaves

Additional Well Information

Work Type Code N	Well Type Code O & G	Cable/Rotary R	Lease Type Code P	Ground Level Elevation 3424'
Multiple No	Proposed Depth 9799MD, 5235TVD	Formation Wolfcamp	Contractor NA	Spud Date NA
Depth to Groundwater 65'		Distance from nearest fresh water well 900'		Distance from nearest surface water 3000'
Pit: Liner: Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume: 25,000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	36#	1400'	325	Surface
8-3/4"	5-1/2"	17#	TVD 5235'	NA	Tie back
			MD 9799'		To surface
					casing

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Well to be Drilled as a Horizontal Wolfcamp test and will be drilled from the pad of the Assault #1. The attached drilling plan will be utilized for this test and contains details on the cement and mud programs as well as the directional information. The following is a summary of this plan.

1. Prepare surface location. Move in and rig up drilling rig, spud well and drill and set conductor. Install and test BOP's.
2. Drill 12 1/4" surface hole to a minimum depth of 1400'. Set 9 5/8" casing and cement.
3. Drill 8 3/4" production hole 5500' TD and evaluate running mud logs as well as DLL/CNL/LDT/CAL/GR to TD.
4. Set Kickoff point at 4177' and drill and advance hole to a Wolfcamp penetration point at approximately 662' FSL and 744' FWL of the section 22 and continue drilling to BHL. (9799' MD & 5235' TVD)
5. Set 5 1/2" to TD and tie cement back to surface casing. Perforate porosity and stimulate as necessary (specific procedure to be determined).
6. Place well on test.
7. No H2S is anticipated during the drilling of this well.

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOC guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Deane Durham

Title: Drilling Engineer

E-mail Address: ddurham@plll.com

Date: 6-16-2006

Phone: 432-684-3727

OIL CONSERVATION DIVISION

Approved by:

BRYAN G. ARANT

Title:

DISTRICT II GEOLOGIST

Approval Date: JUN 28 2006

Expiration Date: JUN 28 2007

Conditions of Approval Attached ☐

SEE REVERSE

As a condition of approval, if during
pit construction water is
encountered or if water seeps in pits
after construction the OCD MUST
BE CONTACTED IMMEDIATELY!

**USGS information
shows this area to be
water sensitive.**

**NOTIFY OCD OF SPUD & TIME
TO WITNESS CEMENTING OF
SURFACE CASING**

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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 96086	Pool Name Wildcat, Wolfcamp
Property Code	Property Name BERNARDINI 1426-22 M	Well Number 1
OGRID No.	Operator Name PARALLEL PETROLEUM CORPORATION	Elevation 3425'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	14 S	26 E		399	NORTH	744	WEST	CHAVES

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
D	22	14 S	26 E		660	NORTH	744	WEST	CHAVES

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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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

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.

Coordinate Table	
Description	Plane Coordinate
Bernardini 1426-22 M#1	X = 500,113.4
Surface Location	Y = 756,680.0
Bernardini 1426-22 M#1	X = 500,088.1
Bottom Hole Location	Y = 761,701.5

OPERATOR CERTIFICATION

I hereby certify 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 interest in 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.

Deane Dunham 6-16-06
Signature Date

Deane Dunham
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 supervision and that the same is true and correct to the best of my belief.

June 1, 2006
Date of Survey

Signature & Seal of Professional Surveyor LVA

W.O. Num. 2006-0642

Certificate No. MACON McDONALD 12185

PARALLEL PETROLEUM CORPORATION
BERNARDINI 1426-22 M#1
SL: 744' FWL AND 399' FNL, SEC 27, T14S, R26E
BHL: 744' FWL AND 660' FNL, SEC 22, T14S, R26E
CHAVES COUNTY, NEW MEXICO

Objective

Drill a horizontal well in the Wolfcamp.

Expected Geologic Tops

GL: 3425', KB 3437'.
Glorieta 2525'
Tubb 3560'
Abo Shale 4300'
Wolfcamp 5235'
Wolfcamp Shale 5420'

Well Geometry

- 9 5/8" casing at 1400'
- 5 1/2" casing through the horizontal Wolfcamp; Cement per completion.

Casing Program

<u>Hole</u>	<u>MD</u> <u>(ft)</u>	<u>Casing</u>	<u>Weight</u>	<u>Grade</u>	<u>Coupling</u>	<u>COMMENT</u>
12-1/4"	0 – 1400	9-5/8"	36	J55	LT&C	
8-3/4"	0 – TD'	5-1/2"	17	N80	LT&C	Run through the horizontal lateral.

Casing Cementing Program

9-5/8" slurry: Lead: 125 sacks (50:50) Poz (Fly Ash): Class C + 5% bwow Sodium Chloride + 10% bwoc Bentonite + 151.7% fresh water. Tail: 200 sacks Class C + 1% bwoc Calcium Chloride + 56.3% fresh water

Note: If cement does not circulate to surface, notify OCD. A temperature survey will most likely be required. Top out to surface with 1" pipe in the annulus.

Note: 5-1/2" Cement per completion procedure. Top of Cement should be a minimum depth to tie back to the 9-5/8" casing.

Mud Program

<u>Depth</u>	<u>Hole</u>	<u>MW</u>	<u>Visc.</u>	<u>WL</u>	<u>Synopsis</u>
0 - 1400	12-1/4"	8.4 – 8.6	28 - 29	No control	FRESH WATER mud only to 1200 ft. Severe loss potential. Circulate inner reserve. LCM: paper, fiber, cotton seed hulls.
1400 – 4100	8-3/4"	8.6 – 9.2	28 -29	No control	Cut brine. Start w/existing & add brine t/80K-120K chlorides
KOP – TD Horizontal	8-3/4" & 7-7/8"	8.9 – 9.5	38 - 45	6 - 10	XCD/Starch polymer as req'd for hole cleaning. Lubricants.

PARALLEL SURVEY CALCULATION PROGRAM PETROLEUM CORPORATION

OPERATOR:	Parallel Petroleum Corporation	Supervisors:	
WELL:	Bernardini 1426-22 M#1		
LOCATION:	Sec. 22 T-14-S R-26-E		
API NUMBER:			
COMMENTS:			

	MAG DEC. (-/+)	
	GRID CORR. (-/+)	
	TOTAL CORR. (-/+)	0.0

DATE: 06/14/06	TIME: 2:12 PM	TRUE TO GRID	▼
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MINIMUM CURVATURE CALCULATIONS(SPE-3362)					PROPOSED DIRECTION			0.0	TARGET TRACKING TO CENTER	
SVY		GRID		VERT				DLS/	ABOVE(+)	RIGHT(+)
NUM	MD	INC	AZM	TVD	SECT	N-S	E-W	100	BELOW(-)	LEFT(-)

TIE	0	0.0	0.0	0.0	0.0	0.0	0.0			
1	4177	0.0	0.0	4177.0	0.0	0.0	0.0	0.0	1058.0	0.0
2	4187	0.6	0.0	4187.0	0.1	0.1	0.0	6.0	1048.0	0.0
3	4197	1.2	0.0	4197.0	0.2	0.2	0.0	6.0	1038.0	0.0
4	5841	90.0	0.0	5235.5	1060.7	1060.7	0.0	5.4	-0.5	0.0
5	9799	90.0	0.0	5235.5	5018.7	5018.7	0.0	0.0	-0.5	0.0

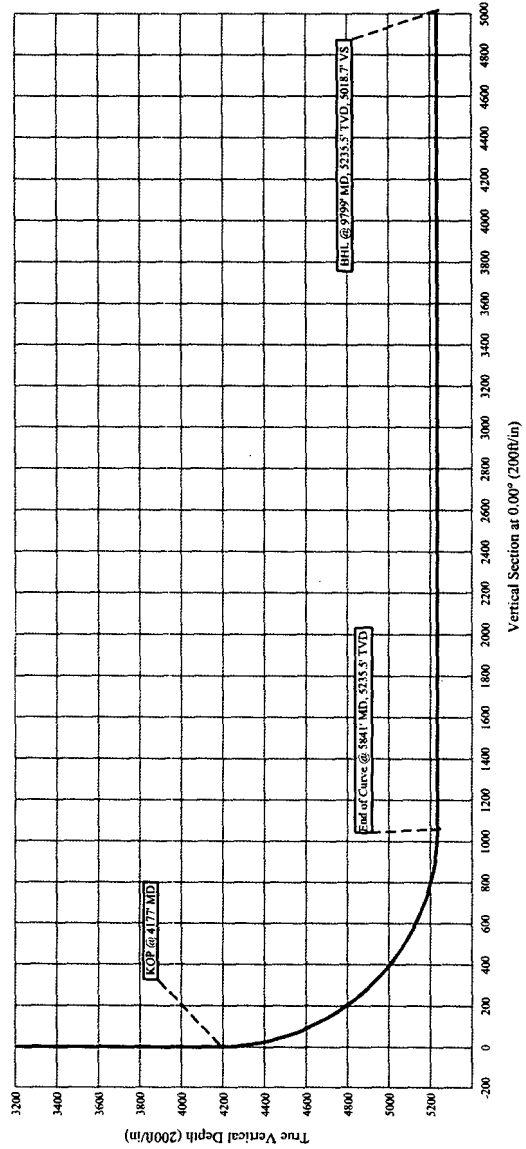
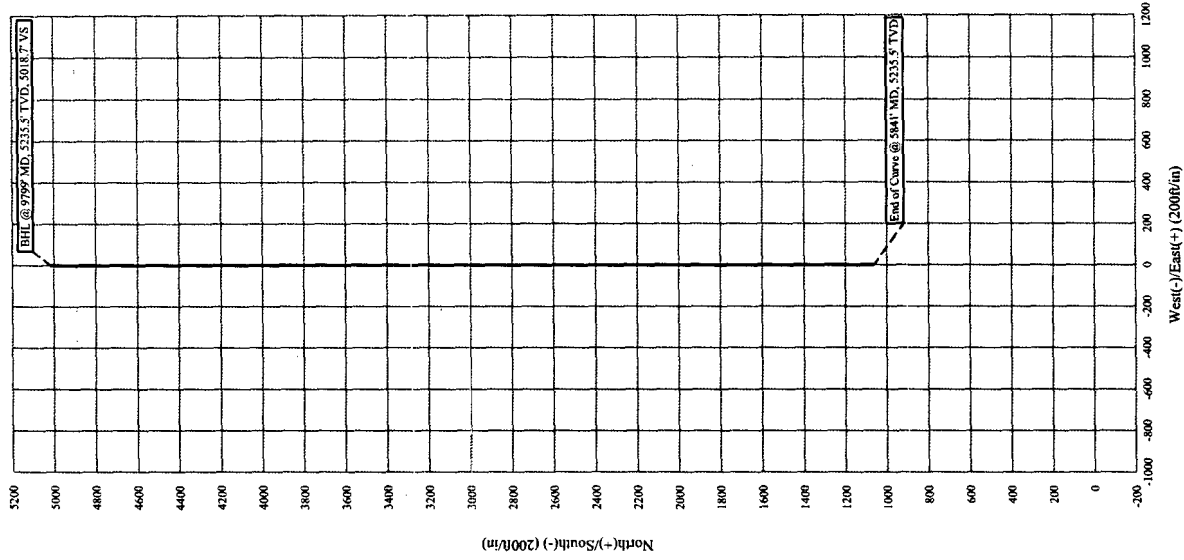
KOP @ 4177' MD
 BUR = 5.4 DEG per 100 FT
 End Curve @ 5841' MD, 5235.5' TVD
 BHL @ 9799' MD, 5235.5' TVD, 5018.7' VS

Parallel Petroleum Corp.

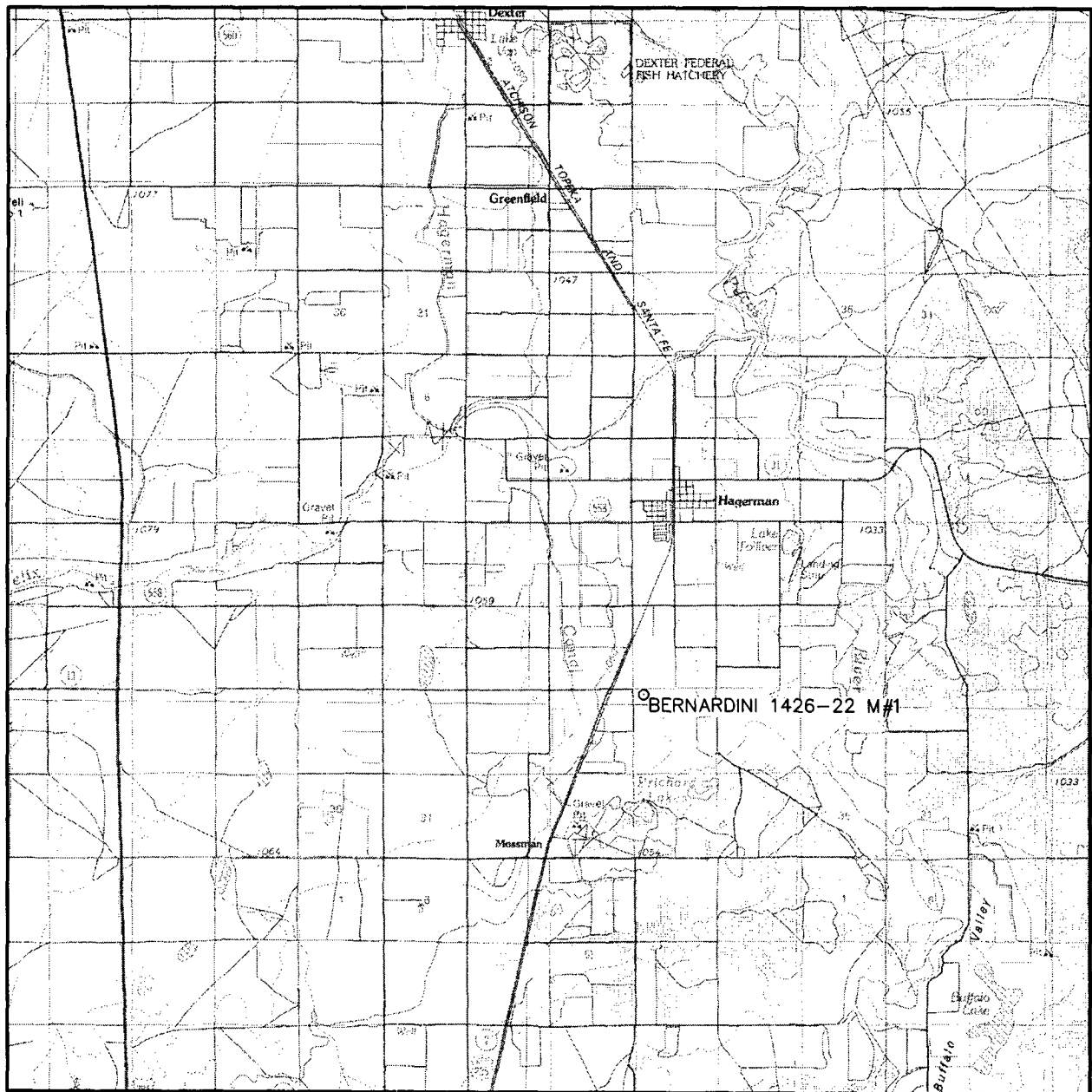
Bernardini 1426-22 M#1
Section 22, T 14-S, R 26-E
Chaves County, New Mexico

COMPANY DETAILS

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



VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 27 TWP. 14-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 399' FNL & 744' FWL

ELEVATION 3425'

OPERATOR PARALLEL PETROLEUM CORPORATION

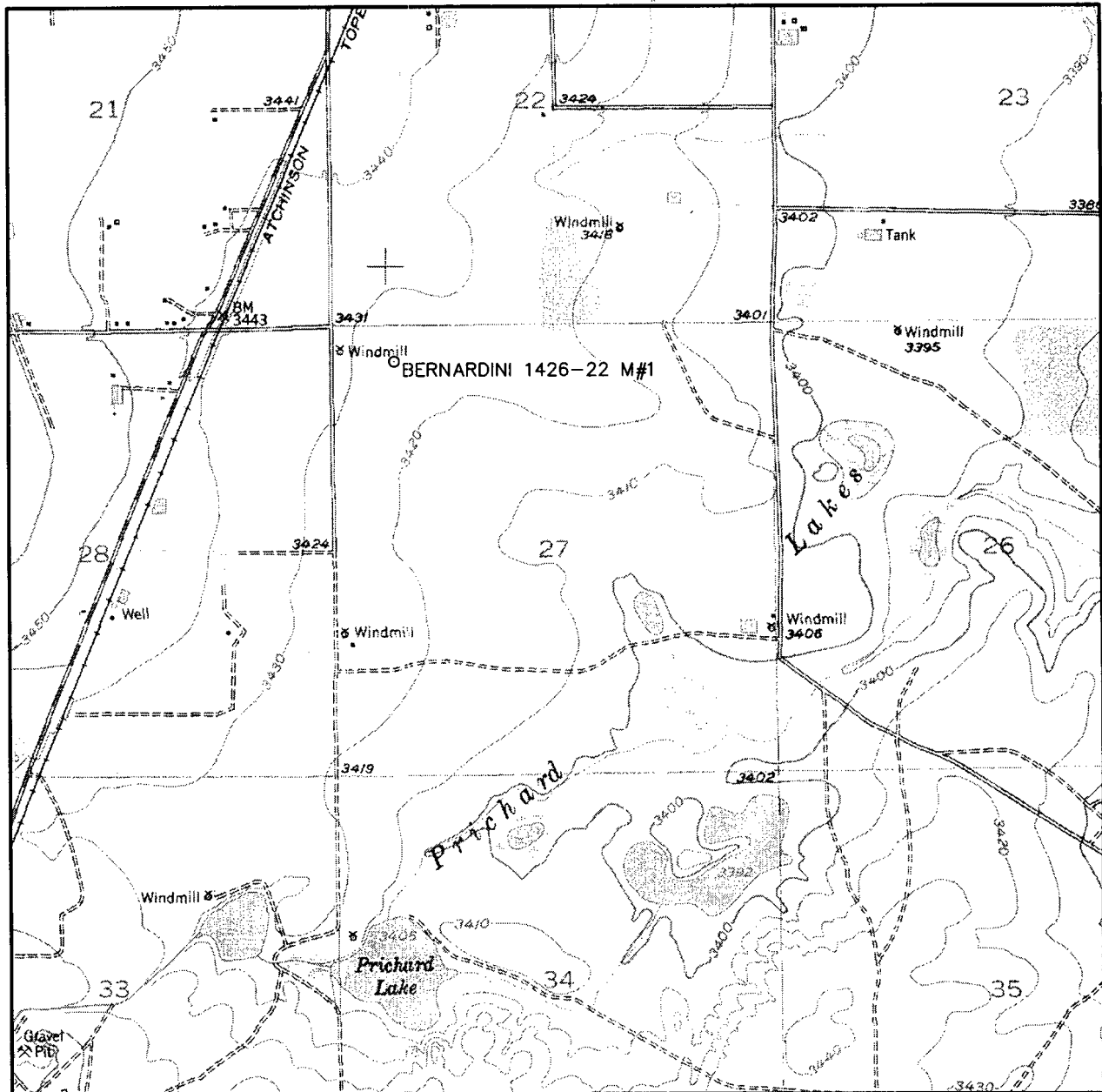
LEASE BERNARDINI 1426-22 M



**WEST
COMPANY**
of Midland, Inc.

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HAGERMAN - 10'

SEC. 27 TWP. 14-S RGE. 26-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 399' FNL & 744' FWL

ELEVATION 3425'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE BERNARDINI 1426-22 M

U.S.G.S. TOPOGRAPHIC MAP
HAGERMAN, N.M.



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MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX



PARALLEL

Petroleum Corporation

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

June 16, 2006

New Mexico Oil conservation Division
1301 W. Grand Ave.
Artesia, New Mexico 88210

Re: Hydrogen Sulfide Potential
Hagerman Area Wolfcamp Program
Section 27, T14S, R26E
Chaves County, New Mexico

Gentlemen:

Parallel Petroleum Corporation operates the Seabiscuit #1 well located in Section 33, T-14-S, R-26-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 within 1.5 miles of this well.

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

Sincerely,

Deane Durham
Drilling Engineer