

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

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO **DRILL**, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Parallel Petroleum Corp. 1004 N. Big Spring Street, Suite 400, Midland, TX. 79701		² OGRID Number 230387
³ Property Code 35688	⁴ Property Name Box O Chocolates 1923-5 State Com	⁵ API Number 30-015-34843
⁶ Proposed Pool 1 Wildcat		⁷ Proposed Pool 2 MAY 08 2006 JUV-ARTESIA

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
M	5	19S	23E		300	South	760'	West	Eddy

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	5	19S	23E		660'	North	760'	West	Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 4036'
¹⁶ Multiple No	¹⁷ Proposed Depth 8588MD, 5500TVD	¹⁸ Formation Wolfcamp	¹⁹ Contractor NA	²⁰ Spud Date NA
Depth to Groundwater 500'		Distance from nearest fresh water well 6000'		Distance from nearest surface water 2000'
Pit: Liner: Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume: 25,000 bbls Drilling Method: Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				
Closed-Loop System <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"	8-5/8"	24#	1300'	225	Surface
8-3/4"	5-1/2"	17#	TVD 5500'	NA	100' Above
			MD 8588'		Glometa
				Tie back	

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. 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 1300'. Set 8 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 4030' drill and advance hole to a Wolfcamp penetration point at approximately 419' FSL and 760' FWL of the SW corner of the section and continue drilling to BHL. (8588' MD & 4447' TVD)
5. Set 5 1/2" to TD and cement to a point 100' above 1300'. Perforate porosity (first perforations will be 660' FSL of Section) and stimulate as necessary (specific procedure to be determined).
6. Place well on test.
7. No H2S if 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 NMOCD guidelines X, a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Deane Durham		Approved by: BRYAN G. ARANT	
Title: Drilling Engineer		Title: DISTRICT II GEOLOGIST	
E-mail Address: ddurham@plll.com]		Approval Date: MAY 08 2006 Expiration Date: MAY 08 2007	
Date: 5-4-06	Phone: 432-684-3727	Conditions of Approval A	

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 BOX 0 CHOCOLATES 1923-5 STATE COM	Well Number 1
OGRID No.	Operator Name PARALLEL PETROLEUM CORPORATION	Elevation 4036'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	5	19 S	23 E		300	SOUTH	760	WEST	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
D	5	19 S	23 E		660	NORTH	760	WEST	EDDY

Dedicated Acres	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

	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p>Signature: <i>Dean Dahan</i> Date: 5-4-06</p> <p>Printed Name: Dean Dahan</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>April 19, 2006</p> <p>Date of Survey: <i>MAJOR McDONALD</i> LVA Signature & Seal of Professional Surveyor</p> <p>W.O. Num: 2006-0294 Certificate No. MAJOR McDONALD 12185</p>
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**PARALLEL PETROLEUM CORPORATION
BOX O CHOCOLATES 1923-5 STATE COM #1
SL: 760' FWL AND 300' FSL, BHL: 760' FWL AND 660' FNL
SEC 5, T19S, R23E
EDDY COUNTY, NEW MEXICO**

Objective

Drill a vertical well through the Wolfcamp pay. Log and evaluate for a sidetrack to horizontal in the Wolfcamp.

Expected Geologic Tops

GL: 4036', KB 4048'.
Glorieta 1780'
Tubb 2790'
Abo Shale 3435'
Wolfcamp 4450'
Wolfcamp Shale 4560'

Well Geometry

- 8 5/8" casing at 1300'
- Set kick-off plug for horizontal through the zone of interest
- 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 – 1300	8-5/8"	24	J55	ST&C	
8-3/4"	0 – 5500'	5-1/2"	17	N80	LT&C	Run through the horizontal lateral.

Casing Cementing Program

8-5/8" 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

Tie back

Mud Program

<u>Depth</u>	<u>Hole</u>	<u>MW</u>	<u>Visc.</u>	<u>WL</u>	<u>Synopsis</u>
0 - 1300	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.
1300 – 3400	7-7/8"	8.6 – 9.2	28 -29	No control	Cut brine. Start w/existing & add brine t/80K-120K chlorides
3400 – TD	7-7/8"	8.9 – 9.5	38 - 45	6 - 10	XCD/Starch polymer as req'd for hole cleaning. Lubricants.
KOP – TD Horizontal	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:	Box O Chocolates 1923-5 State Com #1			
LOCATION:	Sec. 5 T-19-S R-23-E			
API NUMBER:				
COMMENTS:				
			MAG DEC. (-/+)	
			GRID CORR. (-/+)	
			TOTAL CORR. (-/+)	0.0

DATE: 05/01/06 TIME: 7:54 AM TRUE TO GRID ☐

MINIMUM CURVATURE CALCULATIONS(SPE-3382)								PROPOSED DIRECTION	0.0	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	4030	0.0	0.0	4030.0	0.0	0.0	0.0	0.0		420.0	0.0
2	4041	1.5	0.0	4041.0	0.1	0.1	0.0	13.6		409.0	0.0
3	4052	3.0	0.0	4052.0	0.6	0.6	0.0	13.6		398.0	0.0
4	4688	90.3	0.0	4447.6	419.6	419.6	0.0	13.7		0.3	0.0
5	8588	90.3	0.0	4427.1	4319.5	4319.5	0.0	0.0		0.3	0.0

KOP @ 4030' MD
 BUR = 13.6 DEG per 100 FT
 End Curve @ 4688' MD, 4447.6' TVD
 BHL @ 8588' MD, 4427.1' TVD, 4319.5' VS

Parallel Petroleum Corp.

Box O Chocolates 1923-5 State Com #1
Section 5, T 19-S, R 23-E
Eddy County, New Mexico

COMPANY DETAILS

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

