Printed name: Gary Mill

E-mail Address: ddurham@plll.com

Title: Agent

Date: Nov. 30, 2006

eane Durham

Phone: 432-684-3727

State of New Mexico
Energy Minerals and Magural Resources

May 27, 2004

Form C-101

Oil Conservation Division 2006 1220 South St. Gran Oso ARTESIA Santa Fe, NVL 87505 ubmit to appropriate District Office

DISTRICT II GEOLOGIST

Expiration Date:

DEC 0 7 2007

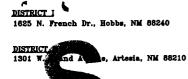
☐ AMENDED REPORT

1220 S. St. Francis Dr., Santa Fe, NM 87505 APPLICATION FOR PERMIT TO DRILL RE-ENTER DEEPEN, P. KĠBACK, OR ADD A ZONE Operator Name and Address
Parallel Petroleum Corp. 1004 N. Big Spring Street, Suite 400, Midland, TX. 79701 Property Name
Wish Box 1920-36 State Proposed Pool 1 ¹⁰ Proposed Pool 2 Wolfcamp ⁷ Surface Location UL or lot no. Lot Idn Feet from the North/South line Feet from the East/West line Section Township Range 20E 1000 West 19S South 560' M 36 ⁸ Proposed Bottom Hole Location If Different From Surface Lot Idn Feet from the North/South line Feet from the East/West line UL or lot no. Section Township Range P 19S 20E 1000' South 660' West 36 Additional Well Information 13 Cable/Rotary 15 Ground Level Elevation 11 Work Type Code 12 Well Type Code ¹⁴ Lease Type Code 4744 N O & G R S 16 Multiple 19 Contractor 20 Spud Date 18 Formation ¹⁷ Proposed Depth 7907MD, 4030TVD NA NA Wolfcamp No Distance from nearest surface water 1500' Distance from nearest fresh water well 6000' Depth to Groundwater 500 Drilling Method: Liner: Synthetic X 12 mils thick Clay Pit Volume:25,000 bbls Fresh Water X Brine Diesel/Oil-based Gas/Air Closed-Loop System ²¹ Proposed Casing and Cement Program Casing weight/foot Setting Depth Sacks of Cement Estimated TOC Hole Size Casing Size 11" 8-5/8" 24# 1500' 325 Surface 5-1/2" 7-7/8" 17# 7907' MD Tie back to NA 4030' TVD Surface casing Jer if Survey CBL 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 program as well as the directional information. The following is a summary of this plan. Prepare surface location. Move in and rig up drilling rig, spud well and drill and set conductor. Install and test BOP's. 2. Drill 11" Surface hole to a minimum depth of 1500'. Set 8 5/8" casing and cement. Drill 7-7/8" production hole 5500' TD and evaluate running mud logs as well as DLL/CNL/LDT/CAL/GR to TD. 3. Plug back well and set Kickoff Point at 3605' drill and advance hole to a Wolfcamp penetration point at approximately 1000' FSL and 860' FWL of the section and continue drilling to BHL. (7907' MD & 4030' TVD) Set 5 1/2" to TD and tie cement back to surface casing. Perforate porosity and stimulate as necessary (specific procedure to be 5. determined). Place well on test. 6. No H2S if anticipated during the drilling of this well. NOTIFY OCD OF SPUD & TIME 7. TO WITNESS CEMENTING OF ²³ I hereby certify that the information given above is true and complete to the SURFACE CASING OIL C best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit , or an Approved by: (attached) alternative OCD-approved plan **BRYAN G. ARRANT**

Title:

Approval Date

Conditions of Approval Attached



1000 Rio Brazos

State of New Mexico

Revised October 12, 2005

Energy, Minerals & Natural Resources Department

A Control of New Mexico

Revised October 12, 2005

Energy, Minerals & Natural Resources Department

A Control of New Mexico

Revised October 12, 2005 OIL CONSERVATION DIVISION 1220 South St. Frances Dream O South St. 1. Santa Fe, NM 87505 OCD - ARTESIA

Form C-102 State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

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

tec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION

API Number	GT 489	Wildcat; Walfcam	
Property Code	-	erty Name 1920–36 STATE	Well Number
OGRID No.		ator Name LEUM CORPORATION	Elevation 4744

Surface Location

Γ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	М	36	19 S	20 E		1000	SOUTH	560	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
Р	36	19 S	20 E		1000	SOUTH	660	EAST	EDDY
Dedicated Acres Joint or Infill Consolidation Code		Code Or	der 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

Mercator Grid and Co Coordinate System", N	own hereon are Transverse inform to the "New Mexico ew Mexico East Zone, North 7, Distances shown hereon are e 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 hale location or has a right to drill this well at this location pursuant to a contract with an owner of such a memoral or working interest, or to a woluntary pooling agreement or a paginisory pooling order heretofore entered by the division.
	Coording Description Wish Box 1920-36 Stat Surface Location Wish Box 1920-36 Stat Penetration Point Wish Box 1920-36 Stat Bottom Hole Location	Y = 586,885.2 e #1 X = 339,042.0 Y = 586,883.7		Signature Date Signature Date Printed Name SURVEYOR CERTIFICATION
	Project / Area			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. October 252006
860'		Producing Area	(BHL) 660,	Date of Survey Signature & Scal of Professional Surveyor 12185

PARALLEL PETROLEUM CORPORATION WISH BOX 1920-36 STATE #1

SL: 1000' FSL AND 560' FWL, BHL: 1000' FSL AND 660' FEL SEC 36, T19S, R20E 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: 4744', KB 4756'. Glorieta 1780' Tubb 2790' Abo Shale 3435' Wolfcamp 4030' Wolfcamp Shale 4560'

Well Geometry

- 8 5/8" casing at 1500'
- Set kick-off plug for horizontal through the zone of interest
- 5 1/2" casing through the horizontal Wolfcamp; Cement per completion.

Casing Program

Hole	MD	Casing	Weight	<u>Grade</u>	Coupling	COMMENT
	<u>(ft)</u>					
11"	0 –	8-5/8"	24	J55	ST&C	
	1500					
7-7/8"	0 –	5-1/2"	17	N80	LT&C	Run through the
	TD'					horizontal lateral.



Casing Cementing Program

8-5/8" slurry: Lead: Foam cement, Lead#2 125 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 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 tied back to surface casing at a minimum.

Mud Program

Depth	<u>Hole</u>	MW	Visc.	<u>WL</u>	Synopsis
0 - 1500	11"	8.4 –	28 - 29	No	FRESH WATER mud only to
		8.6		control	1200 ft. Severe loss potential.
					Circulate inner reserve. LCM:
					paper, fiber, cotton seed hulls.
1500 - 3400	7-7/8"	8.6 –	28 -29	No	Cut brine. Start w/existing & add
		9.2	<u></u>	control	brine t/80K-120K chlorides
3400 – TD	7-7/8"	8.9 –	38 - 45	6 - 10	XCD polymer as req'd for hole
		9.5			cleaning. Lubricants.
KOP – TD	7-7/8"	8.9 –	38 - 45	6 - 10	XCD polymer as req'd for hole
Horizontal		9.5			cleaning. Lubricants.



	PET	AR	A L UM CORP	LE		IRVEY C	ALCULA	ATIOI	N PROGI	RAM
OPER	RATOR		Parallel Pe	etroleum (Corporation	on	Supervisor	s:		
WELL: Wish Box 1920-36 St					State #1					
.,,,,,	TION:		S/2 Sec. 3	6 T-19-S F	R-20-E					
API N	UMBEI	₹;	1				1	····		
			COMM	ENTS:			<u> </u>	reib wii		
									EC.(-/+)	<u> </u>
									ORR.(-/+)	
			· · · · · · · · · · · · · · · · · · ·					TOTAL	CORR.(-/+)	1 0.0
		DATE:	11/20/06		TIME:	7:54 PM	TRUE TO GRI)		▼
MINIM	JM CURV	ATURE C	ALCULATION	IS(SPE-3362	2) P)	ROPOSEDI	DIRECTION	90.0	TARGET 1	RACKING NTER
SVY NUM	MD	INC	GRID AZM	TVD	VERT SECT	N-S	E-W	DLS/ 100	ABOVE(+) BELOW(-)	4
TIE	0	0.0	0.0	0.0	0.0	0.0	0.0			<u> </u>
1	3605	0.0	0.0	3605.0	0.0	0.0	0.0	0.0	425.0	0.0
2	3615	1.4	90.0	3615.0	0.1	0.0	0.1	13.5	415.0	0.0
3	3625	2.7	90.0	3625.0	0.5	0.0	0.5	13.5	405.0	0.0
4	4273	90.0	90.0	4030.2	425.3	0.0	425.3	13.5	-0.2	0.0
5	7907	90.0	90.0	4030.2	4059.3	0.0	4059.3	0.0	-0.2	0.0

KOP @ 3605' MD BUR = 13.5 DEG per 100 FT End Curve @ 4273' MD, 4030.2' TVD BHL @ 7907' MD, 44030.2' TVD, 4059.3' VS

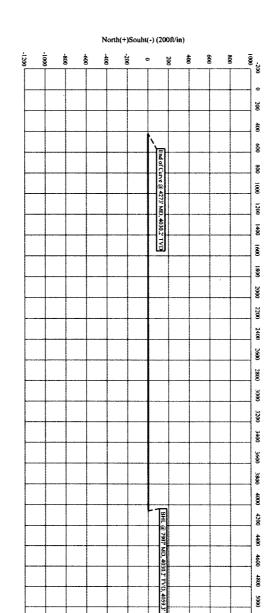
Parallel Petroleum Corp.

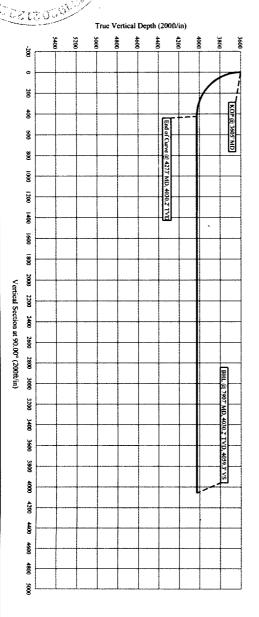
Wish Box 1920-36 St. #1 S/2 Sec. 36, T-19-S, R-20-E Eddy County, New Mexico

COMPANY DETAILS

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

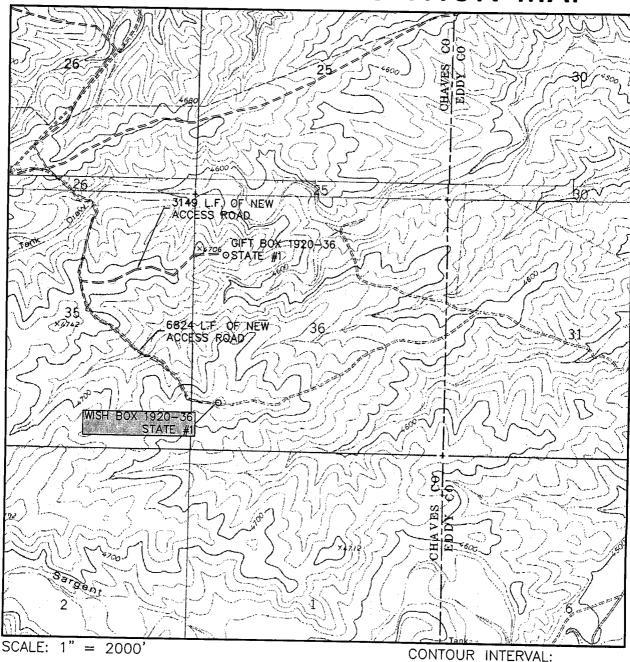
East(+)/Wcst(-) (200ft/in)





RECLIVED CD - ARTESIA

LOCATION VERIFICATION MAP



STRYCHNINE DRAW - 20'

SEC. 36 TWP. 19-S RGE. 20-E SURVEY N.M.P.M. COUNTY ____CHAVES DESCRIPTION 1000' FSL & 560' FWL ELEVATION 4744' OPERATOR PARALLEL PETROLEUM CORPORATION LEASE WISH BOX 1920-36 STATE

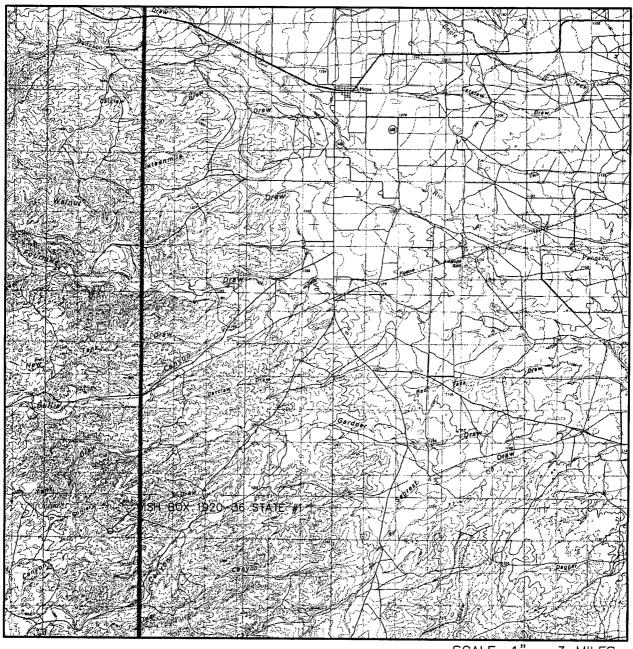
U.S.G.S. TOPOGRAPHIC MAP

STRYCHNINE DRAW, N.M.

WEST

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

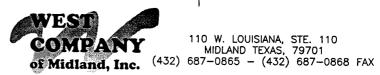
VICINITY MAP



SCALE: 1" = 3 MILES

SEC. 36 TWP. 19-S RGE. 20-E SURVEY N.M.P.M. COUNTY ____ CHAVES DESCRIPTION 1000' FSL & 560' FWL ELEVATION 4744 OPERATOR PARALLEL PETROLEUM CORPORATION LEASE WISH BOX 1920-36 STATE







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