K-06-66

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orm 3160-3					APPROVED	
April 2004) UNITED STATES	٦			OMB No Expires M	o. 1004-0137 March 31, 2007	
DEPARTMENT OF THE BUREAU OF LAND MAN	INTERIOR			5. Lease Serial No. NM NM 10461	16	
APPLICATION FOR PERMIT TO				6. If Indian, Allotee	or Tribe Name	
la. Type of work: 🖌 DRILL 📃 REENT	ER			7 If Unit or CA Agre	ement, Name and No.	-11
				8. Lease Name and	<u> </u>	7
Ib. Type of Well: Oil Well Gas Well Other	✓ Sin	ngle ZoneMultip	le Zone		x 1921-8 Federal #1	
2. Name of Operator Parallel Petroleum Corporation		27078	7	9. API Well No. 30-015-	35116	
3a. Address 1004 North Big Spring, Suite 400	3b. Phone No	(include area code)	/	10. Field and Pool, or	Exploratory	
Midland. Texas	432/68	4-3727		Gardner D		ncu
4. Location of Well (Report location clearly and in accordance with an At surface 700' FEL and 300' FSL	ny State requirem	ents.*)		11. Sec., T. R. M. or B		
At surface700' FEL and 300' FSLAt proposed prod. zone660' FSL and 660' FEL	P	Liko Appres	el	8-19S-21E		
4. Distance in miles and direction from nearest town or post office*	¥¥	By Rein		12. County or Parish	13. State	
9 miles south of Hope, New Mexico	- <u> </u>			Eddy	NN	1
5. Distance from proposed* location to nearest property or lease line, ft.	16. No. of a	cres in lease		ng Unit dedicated to this	well	
(Also to nearest drig. unit line, if any) 300'	920	1D	320	BIA Bond No. on file		
8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. None	19. Propose 7,700'	Depth		BLA Bond No. on Hie 8000265		
1. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approxi	mate date work will sta	l rt*	23. Estimated duratio		
GL 4418'		10/01/2006		30 days		
	24. Attac	ROS	WELL	CONTROLLED	WATER BASI	N
he following, completed in accordance with the requirements of Onsho	ore Oil and Gas	Order No.1, shall be a	ttached to the	is form:		
 Well plat certified by a registered surveyor. A Drilling Plan. 		4. Bond to cover the ltem 20 above).	ne operatio	ons unless covered by an	existing bond on file ((see
A Surface Use Plan (if the location is on National Forest System	Lands, the	5. Operator certific	ation			
SUPO shall be filed with the appropriate Forest Service Office).	·	6. Such other site authorized offic	specific inf	ormation and/or plans as	s may be required by th	ie
5. Signature	Name	(Printed/Typed)			Date	—
bene Ahkin		Deane Durham			Date 8-25-00	5
itle Drilling Engineer, Parallel Petroleum Corporati	on					
Approved by (Signer Tony J. Herrell	Name	(Printed/Typed)			DateSEP 2 8 2	2006
FIELD MANAGER	Office	CADISD	ADF	ELD OFFIC	1	
	ds legal or equi					
Application approval does not warrant or certify that the applicant hole onduct operations thereon. Conditions of approval, if any, are attached.	as regurer equi	APPROV	ral t	UK asl where we we we we we we wanted a state of the second state	entitle the applicant to	
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c tates any false, fictitious or fraudulent statements or representations as	crime for any p to any matter w	erson knowingly and w vithin its jurisdiction.	villfully to 1	nake to any department of	or agency of the United	 j
(Instructions on page 2)		-	· <u> </u>		A CALLER X	
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APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

If earthen pits are used is association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

REL

1625 N. French Dr., Hobbs, NM 66240 DISTRICT II 1301 W. Grand Avenue, Artesia, NH 66210 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 W. API Number Property Code			Energy. Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Frances Dr. Santa Fe, NM 87505 VELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code 77340 Property Name PANDORA'S BOX 1921-8 FEDERAL					to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies AMENDED REPORT * to w Well Number 1	
OGRID No.	•				Operator Na		Elevation		
					Surface Loc				
UL or lot No.	Section	Townshi	- 1 -	Lot Idm	Feet from the	North/South line	Feet from the	East/West line	Count
Р	8	19 S	21 E		300	SOUTH	700	EAST	EDD
			Bottom	Hole Lo	cation If Diff	erent From Sur	face		
JL or lot No.	Section	Townshi	- -	Lot Idm	Feet from the	North/South line	Feet from the	East/West line	Count
P Dedicated Acres	8 Joint of	19 S	Consolidation	<u> </u>	660	SOUTH	660	EAST	EDD
320 NO ALLOWAE	BLE WILI					FIL ALL INTERES PPROVED BY THI			
	Coordina iption 21-8 Federa tion 221-8 Federa	Pro Pro	ject Area				E DIVISION OPERAT I hereby certify the the the best of my knowledge working interest or unlea beform hele location or ha a contract with an own	COR CERTIFICA information contained herein is i and beliaf, and that this ergeniz as a might to drill this well at this wer of such a mineral or working and or a compulsory pooling order h Dual Sample Sample Date	TION us and comple blion either on tuding the pro- tuding pursus y interest, or resolver enter

Exhibit G

300'

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 104616

Legal Description of Land:

Pandora's Box 1921-8 Federal #1 SHL: 300' FSL AND 700' FEL, SEC 8, T19S, R21E BHL: 660' FSL AND 660' FEL, SEC 8, T19S, R21E Eddy County, New Mexico

Formation(s) (if applicable: Morrow with alternate in the Wolfcamp

Bond Coverage:

BLM Bond File No:

NMB000265

-25-06

Date

\$25,000 statewide bond of Parallel Petroleum Corporation

Name: Deane Durham Title: Engineer

ATTACHMENT TO FORM 3160-3 PANDORA'S BOX 1921-8 FEDERAL #1 Surface Hole Location 300 FSL AND 700 FEL, SEC 8, 19S, 21E Bottom Hole Location 660 FSL AND 660 FEL, SEC 8, 19S, 21E EDDY COUNTY, NEW MEXICO

DRILLING PROGRAM

This well is designed as a 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. <u>GEOLOGIC NAME OF SURFACE FORMATION</u>

San Andres

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Glorieta 1650'(+ 2768') Tubb 2660'(+1758') Abo Shale 3300' (+1118') Abo Carbonate 3420' (+998') Wolfcamp 4225' (+193') Wolfcamp Shale 4415'(+3') Penn Cisco 5885' (-1467') Canyon 6350' (-1932') Strawn 6765' (-2347') Atoka 7150' (-2732') Morrow 7275' (-2857') Miss. Chester 7525'(-3107')

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

Fresh water790'Oil and GasMorrow 7275' (-2857') to 7525'(-3107')Alternate Horizontal CompletionOil and GasOil and GasWolfcamp 4225' (+193')No H2S gas should be encountered

4. CASING AND CEMENTING PROGRAM

Casing Size	<u>From To</u>	Weight	Grade	<u>Joint</u>
20" conductor	0'-120'			
9 5/8"	0'-1500'	36#	J-55	LTC
7"	0' – 7,800'	23#	J-55	LTC
Horizontal agains	nrogram for Producti	on Stains		

riorizontai casing p	nogram for Frouuene	n sung		
5 1/2"	0'- 8400'	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 as deep as possible up to 120' with a rathole unit.
- b. Drill 12 ¼" surface hole to an approximate depth of 1500', 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 7800', using cut brine to an approximate depth of 3200' and a starch mud system to TD.
- e. Pick up directional tools and kick-off at 5000' to drill directionally to an orthodox bottom-hole location of 660 FSL and 660 FEL Sec. 8, T19S, R21E.
- f. Log and Test Morrow zone of interest.
- g. Set 7" 23# J-55 casing at TD with 1070 sx Class C cement with the estimated top of cement at 1300' (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 3800'.
- d. Build angle in 8-3/4" hole at 13.5 degrees per 100' to 90 degrees and hold.
- e. Drill 7-7/8" horizontal drain hole to a terminus of 660' FWL (8400' MD).
- f. Run 5 ¹/₂" 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. <u>TYPES AND CHARACTERS OF THE PROPOSED MUD SYSTEM</u>

- a. Spud and drill to 1500' with fresh water gel spud mud for surface string.
- b. The production section from 1,500' to 3,200' will utilize a cut brine mud system.
- c. The remaining production section from 3,200' 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. <u>ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES &</u> <u>POTENTIAL HAZARDS</u>

None anticipated.

BHP expected to be 1,100 psi.

10. <u>ANTICIPATED STARTING DATE:</u>

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

SURFACE AND OPERATIONS PLAN FOR DRILLING, COMPLETION, AND PRODUCING

PARALLEL PETROLEUM CORPORATION PANDORA'S BOX 1921-8 FEDERAL #1 SHL: 300' FSL AND 700' FEL, SEC 8, T19S, R21E EDDY COUNTY, NEW MEXICO

LOCATED:

.

1

9 miles South of Hope, New Mexico

OIL & GAS LEASE:

NM NM 104616

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:

920

SURFACE OWNER:

Federal

SURFACE TENANT:

Phyllis Crockett P.O. Box C Hope, NM 88250 505-484-3687

POOL:

Primary Objective - Morrow with Wolfcamp Alternative

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. <u>EXISTING ROADS</u>

- 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. <u>ACCESS ROADS</u>

A. Length and Width

The access road will be built as shown on Exhibit F and F-1. The existing access road will come off County Road 20 and go west 2.2 mile to a cattle guard. Go thru the cattle guard and at the intersection just pas the cattle guard turn left and go .2 mile to location. This ROW and access road will share a ROW with Bold Energy and will be used for the Parallel Petroleum Corp. Shoe Box 1921-17 Federal #1 and Juke Box 1921-10 Federal #1. The new access road will be surfaced with caliche and will be 16' to 24' wide with a total length of .2 mile.

- B. <u>Surface Material</u> Caliche from a commercial source.
- C. <u>Maximum Grade</u> Less than five percent.
- D. Turnouts

One turnout may be constructed on the new section of the access road.

- E. <u>Drainage Design</u> No low water crossings will be constructed on this section of the access road.
- F. <u>Culverts</u>

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 8 and 9 for the original access road.

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 northeast exposure. The regional drainage of the site being to the north and east toward Catclaw 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

Catclaw Draw, an intermittent stream which flows west to east, is located 1/2 mile north of the site. There are no other rivers, lakes, ponds, or streams in the area.

E. <u>Residences and Other Structures</u>

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-2353 submitted by: Southern New Mexico Archaeological Services, Inc., P.O. Box 1 Bent, New Mexico 88314 Phone 505-671-4797
- G. <u>Land Use</u> Grazing
- H. <u>Surface Ownership</u> 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. <u>CERTIFICATION</u>

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.

8-25-06

Date

Name: Deane Durham Title: Engineer







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

Midla

Drawn By: LVA	Date: August 14, 2006
Scale: 1"=100'	Field Book: 347 / 15-16
Revision Date: 8-25-2006	Quadrangle: Holt Tank
W.O. No: 2006-0809	Dwg. No.: L-2006-0809-A

Exhibit C

LOCATION VERIFICATION MAP

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OPER	ATOR.		Parallel Pe	ORATIO		n				
WELL	And a day in the day of a		Pandora's							
LOCATION:			300 FSL, 700 FEL Sec. 8 19-21			Eddy Cour				
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									CORR.(-/+)	0.0
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3	5020	0.6				•••				
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Parallel Petroleum Corp.

Pandora's Box 1921-8 Fed. #1 Section 8, T 19-S, R 21-E Eddy County, New Mexico



1004 North Big Spring, Suite 400 · Midland, TX 79701 · Ph: 432-684-3727 · Fax: 432-684-3905

November 9, 2005

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

Re: Hydrogen Sulfide Potential Parallel Petroleum Corporation, Box Area wells, T-19-S, R-21-E Eddy County, New Mexico

Dear Mr. Arrant;

The Box Top Federal 19 21-1 #1 site which is being drilled seven miles south of Hope, New Mexico was reviewed for its potential for hydrogen sulfide. Mr. John Simitz, Geologist for the Bureau of Land Management, Roswell, New Mexico reviewed the site and stated that no potential for gas was found a Morrow test in this area. Based on this information we believe the potential H_2S at well locations in this area are negligible.

Should you need additional information regarding this issue, please contact me at the address or phone number listed above or my email address at <u>ddurham@plll.com</u>.

Sincerely,

Durham

Deane Durham Engineer

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	Parallel Petroleum Corporation
Well Name & No.	Pandora's Box Federal 1921-8 #1
SH Location:	300' FSL, 700' FEL, Section 8 T. 19 S., R. 21 E., Eddy County, New Mexico
BH Location:	660' FSL, 660' FEL, Section 8 T. 19 S., R. 21 E., Eddy County, New Mexico
Lease:	NM-104616

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 <u>9-5/8</u> inch <u>7</u> inch (<u>5-1/2</u> inch if horizontal lateral drilled)
- 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.

5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

II. CASING:

1. The <u>9-5/8</u> inch surface casing shall be set at <u>approximately 1500 feet and cement circulated to the</u> <u>surface</u>. 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 <u>7</u> inch production casing is <u>to reach at least 500 feet</u> <u>above the top of the uppermost productive hydrocarbon interval</u>.

3. If the Morrow formation is dry and the operator elects to drill a horizontal Wolfcamp hole, a <u>5-1/2</u> inch production string will be set with cement <u>to reach at least 500 feet above the top of the uppermost productive hydrocarbon interval</u>.

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 <u>9-5/8</u> 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 <u>Wolfcamp</u> 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.

9/22/2006 acs