

N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

JUN 20 2007

OCD-ARTESIA

Form 3160-3  
(April 2004)



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM NM 112249
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Parallel Petroleum Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address 1004 North Big Spring, Suite 400 Midland, Texas		8. Lease Name and Well No. War Emblem 1525-9 Fed Com #14
3b. Phone No. (include area code) 432/684-3727 Wildcat		9. API Well No. 30-005-63950
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface SHL 1880' FSL AND 190' FEL Sec 8, T15S-R25E At proposed prod. zone BHL 1880' FSL AND 660' FEL Sec 9, T15S-R25E		10. Field and Pool, or Exploratory Wolfcamp
11. Sec., T. R. M. or Blk and Survey or Area 9-T15S-R25E		12. County or Parish Chaves
13. State NM		14. Distance in miles and direction from nearest town or post office* 5 miles North of Artesia, New Mexico
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 2435.41	17. Spacing Unit dedicated to this well 320 total w/ 160 acres being federal minerals
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2500'	19. Proposed Depth 5500'	20. BLM/BIA Bond No. on file NMB000265
21. Elevations (Show whether DF, KDB, RT, GL, etc) GL 3524'	22. Approximate date work will start* .05/15/2007	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:

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Deane Durham Name (Printed/Typed) Deane Durham Date 3-19-07

Title  
Engineer, Parallel Petroleum Corporation

Approved by (Signature) /s/ JOHN S. SIMITZ  
Title Acting Assistant Field Manager,  
Lands And Minerals

Name (Printed/Typed) /s/ JOHN S. SIMITZ Date JUN 18 2007  
Office ROSWELL FIELD OFFICE APPROVED FOR 2 YEARS

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.

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)

DECLARED WATER BASIN

CEMENT BEHIND THE 85"  
CASING MUST BE CIRCULATED

WITNESS

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS ATTACHED

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

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 97489	Pool Name Wildcat; Wolfcamp
Property Code	Property Name WAR EMBLEM 1525-9 FED COM	Well Number 1
OGRID No.	Operator Name PARALLEL PETROLEUM CORPORATION	Elevation 3524'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	8	15 S	25 E		1880	SOUTH	190	EAST	CHAVES

Bottom Hole Location If Different From Surface

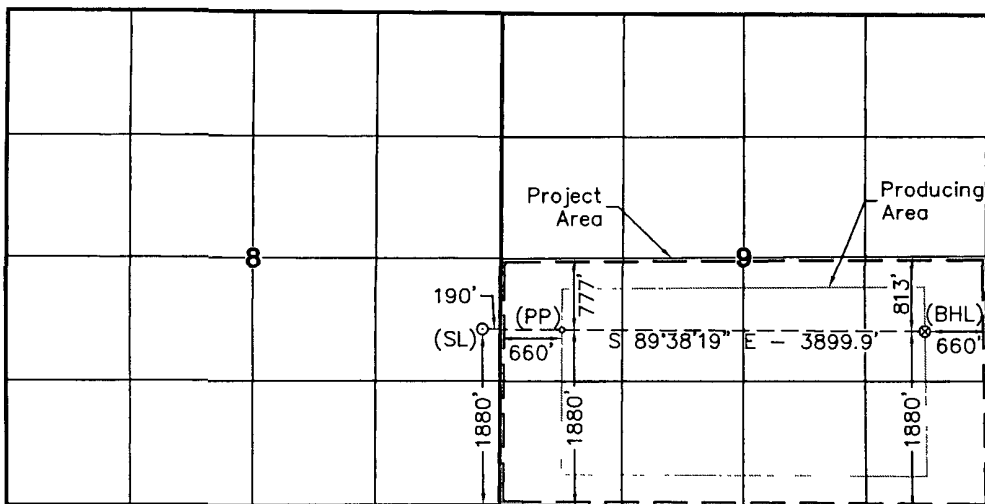
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	9	15 S	25 E		1880	SOUTH	660	EAST	CHAVES

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.



<u>Surface Location</u> <u>Plane Coordinate</u> X = 462,206.6 Y = 737,594.7 <u>Geodetic Coordinate</u> Lat. 33°01'39.54" N Long. 104°27'23.92" W (NAD '27)	<u>Penetration Point</u> <u>Plane Coordinate</u> X = 463,056.4 Y = 737,589.3 <u>Geodetic Coordinate</u> Lat. 33°01'39.50" N Long. 104°27'13.94" W (NAD '27)	<u>Bottom Hole Location</u> <u>Plane Coordinate</u> X = 466,955.3 Y = 737,564.7 <u>Geodetic Coordinate</u> Lat. 33°01'39.30" N Long. 104°26'28.14" W (NAD '27)
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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* 3-19-07  
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.

January 29, 2007

Date of Survey

Signature & Seal of Professional Surveyor

*MAJOR McDONALD*  
NEW MEXICO  
12185

W.O. Num. 2007-0076

Certificate No. MAJOR McDONALD 12185

## 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 112249


Legal Description of Land: War Emblem 1525-9 Fed Com #1  
SHL: 1880' FSL and 190' FEL, Sec. 8, T15S, R25E  
BHL: 1880' FSL and 660' FEL, Sec. 9, T15S, R25E  
Chaves County, New Mexico

Formation(s) (if applicable): Wolfcamp

Bond Coverage: \$25,000 statewide bond of Parallel Petroleum Corporation

BLM Bond File No: NMB000265

3-19-07  
Date

  
Name: Deane Durham  
Title: Engineer

ATTACHMENT TO FORM 3160-3  
WAR EMBLEM 1525-9 FED COM #1  
Surface Hole Location  
1880 FSL AND 190 FEL, SEC 8, 15S, 25E  
Bottom Hole Location  
1880 FSL AND 660 FEL, SEC 9, 15S, 25E  
CHAVES COUNTY, NEW MEXICO

**DRILLING PROGRAM**

**This well is designed as a horizontal test in the Wolfcamp formation.**

1. GEOLOGIC NAME OF SURFACE FORMATION

San Andres

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Glorieta 2565'(+959')  
Tubb 3575'(-51')  
Abo Shale 4325' (-801')  
Wolfcamp 5250' (-1726')  
Wolfcamp Shale 5425'(-1901')

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

Fresh water 65'  
Oil and Gas Wolfcamp 5250' (-1726')  
No H<sub>2</sub>S gas should be encountered

4. CASING AND CEMENTING PROGRAM

<u>Casing Size</u>	<u>From</u> <u>To</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
16" conductor	0'-120'			
8 5/8"	0' - 1400'	24#	J-55	STC
5 1/2"	0' - TOTAL DEPTH	17#	N-80	LTC

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

## **WAR EMBLEM 1525-9 FED COM #1**

### **Page 2**

8-5/8" slurry: Lead: 225 sacks (50:50) Poz (Fly Ash): Class C + 5% bwow Sodium Chloride + 10% bwoc Bentonite + 151.7% fresh water. Tail: 235 sacks Class C + 1% bwoc Calcium Chloride + 56.3% fresh water

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

Note: 5-1/2" Acid-soluble cement per completion procedure.

### **Drilling Procedure**

- a. Set 16" conductor pipe as deep as possible up to 120' with a rathole unit.
- b. Drill 11" surface hole to an approximate depth of 1400', using fresh water and viscous sweeps for hole cleaning. Set 8 5/8", 24# 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 8 5/8" CSG. Cut 8 5/8" CSG and NU & test BOP.
- d. Drill 7 7/8" production hole to approximately 5,500'.
- e. Run open-hole logs and make Wolfcamp target decision.
- f. Plug back to kick-off point of approximately 4,400'.
- g. Kick off and build angle at 6.7 degrees per 100' to 90 degrees and hold.
- h. Drill 7 7/8" horizontal drain hole to a terminus of 660' FEL approximately 9,690'.
- i. Run 5 1/2" 17# N-80 CSG to TD. Cement with 750 sx Class C Acid Soluble
- j. Circulate to surface or run temperature survey to verify tie in to surface casing.
- k. 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 1,400' with 8.3 ppg Fresh Water system and viscous sweeps for hole cleaning.
- c. The production section from 1,500' to 4,300' will utilize a cut brine mud system from 8.8 to 9.2 ppg.
- d. The remaining production section from 4,300' to TD will be a polymer mud system with mud weight (8.8 – 9.6) sufficient to control formation pressure anticipated to be approximately 1,900 psi.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

None required.

8. LOGGING, TESTING, AND CORING PROGRAM

Mud logs and porosity/GR open-hole logs are planned, however, additional open-hole logs, drill stem tests, cores and sidewall cores are possible.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES & POTENTIAL HAZARDS

None anticipated.

BHP expected to be 1,900 psi.

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence around third quarter of 2007 with drilling and completion operation lasting about 35 days.

**SURFACE AND OPERATIONS PLAN FOR  
DRILLING, COMPLETION, AND PRODUCING**

**PARALLEL PETROLEUM CORPORATION  
WAR EMBLEM 1525-9 FED. COM. #1  
(Will share a location with the Funny Cide 1525-8 Fed Com #1)  
SHL: 1880' FSL AND 190' FEL, SEC 8, T15S, R25E  
CHAVES COUNTY, NEW MEXICO**

LOCATED:

8 miles north of Artesia, New Mexico

OIL & GAS LEASE:

NM NM 112249

RECORD LESSEE:

J Bar Cane Inc.  
P.O. Box 16  
Stanley, NM 87056

BOND COVERAGE:

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

ACRES IN LEASE:

2435.41

SURFACE OWNER:

George Denton  
405 S. 15<sup>th</sup> Street  
Artesia, NM 88210, 505-746-2517

POOL:

Wolfcamp (Gas)

**WAR EMBLEM 1525-9 FED. COM. #1**

**Page 2**

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

2. ACCESS ROADS

A. Length and Width

Access to this location will be from State Highway 285. A cattle guard has been placed in the fence and an access road constructed to the Parallel Petroleum Company, Forgo State #1 and the Swale 1525-16 State #1. From the Forgo location, go west 2500' on the exiting access road and turn right on new access road and go through a new cattle guard. Continue north approximately ¼ mile to location. The road will be surfaced with 4 to 6 inches of caliche and is 16' wide.

B. Surface Material

Caliche from a commercial source.

C. Maximum Grade

Less than five percent.



D. Turnouts

No turnouts will be constructed.

E. Drainage Design

No Change.

F. Culverts

None necessary.

G. Gates and Cattle Guards

A cattle guard has been constructed at the entrance off State Highway 285, and a new cattle guard will be constructed in the fence between sections 9 and 16.

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. If no well is drilled water will be purchased 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.

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 not needed for operations will be removed. The well site will be cleaned of all trash and junk to leave the site in as aesthetically pleasing condition as possible.
- B. After abandonment, all equipment, trash, and junk will be removed from the site.

10. OTHER INFORMATION

A. Topography

The land surface at the well site is rolling native grass with a regional slope being to the south and east.

B. Soil

The limited topsoil at the well site is rocky, sandy soil.

C. Flora and Fauna

The location is in an area sparsely covered with mesquite and range grasses.

**WAR EMBLEM 1525-9 FED. COM. #1**

**Page 5**

D. Ponds and Streams

Walnut Creek, an intermittent stream runs west to east and is located approximately 3 miles south of the site. Drainage from the site will be to the south and east, to a drainage that eventually flows to Walnut Creek. A playa is located 1.5 miles east of the site and no drainage from this site will flow to this lake.

E. Residences and Other Structures

Homes are located 3.5 miles west and east of the site.

F. Archaeological, Historical, and Cultural Sites

See archaeological report submitted by:

Southern New Mexico Archaeological Services, Inc.,  
P.O. Box 1  
Bent, New Mexico 88314 Phone 505-671-4797

G. Land Use

Undeveloped pasture

H. Surface Ownership:

Fee, see page one

11. OPERATOR'S REPRESENTATIVE

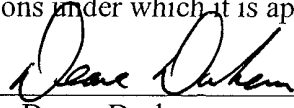
Deane Durham, Engineer  
Parallel Petroleum Corporation  
1004 North Big Spring Street, Suite 400  
Midland, Texas 79701  
Office: (432) 684-3727

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.

Date

3-19-07

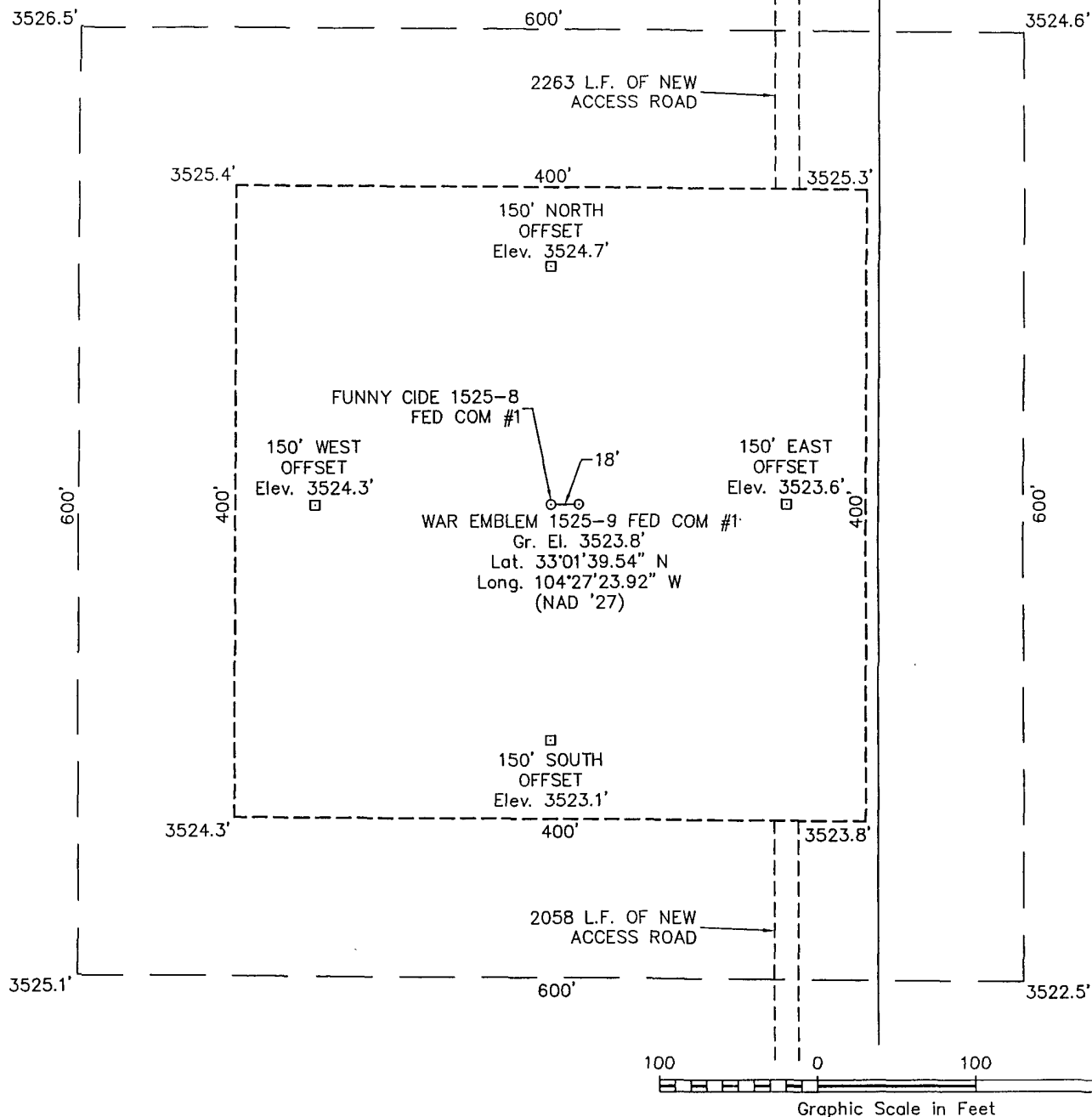
  
Name: Deane Durham  
Title: Engineer

# SECTION 8, TOWNSHIP 15 SOUTH, RANGE 25 EAST, N.M.P.M.

CHAVES COUNTY

NEW MEXICO

L-2007-0076-A



## DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 380 and 285 IN ROSWELL, NM GO SOUTH ON SAID U. S. HIGHWAY 285 ABOUT 27 MILES TO A POINT WHERE AN ACCESS ROAD BEGINS ON THE WEST (RIGHT SIDE) OF SAID HIGHWAY 285, THEN GO WEST ON SAID ACCESS ROAD 0.8 MILES TO A POINT, WHERE ANOTHER ACCESS ROAD TURNS NORTHWEST, THEN GO NORTHWEST AND NORTH ALONG SAID ACCESS ROAD 0.4 MILE TO THE PROPOSED LOCATION.



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

## PARALLEL PETROLEUM CORPORATION

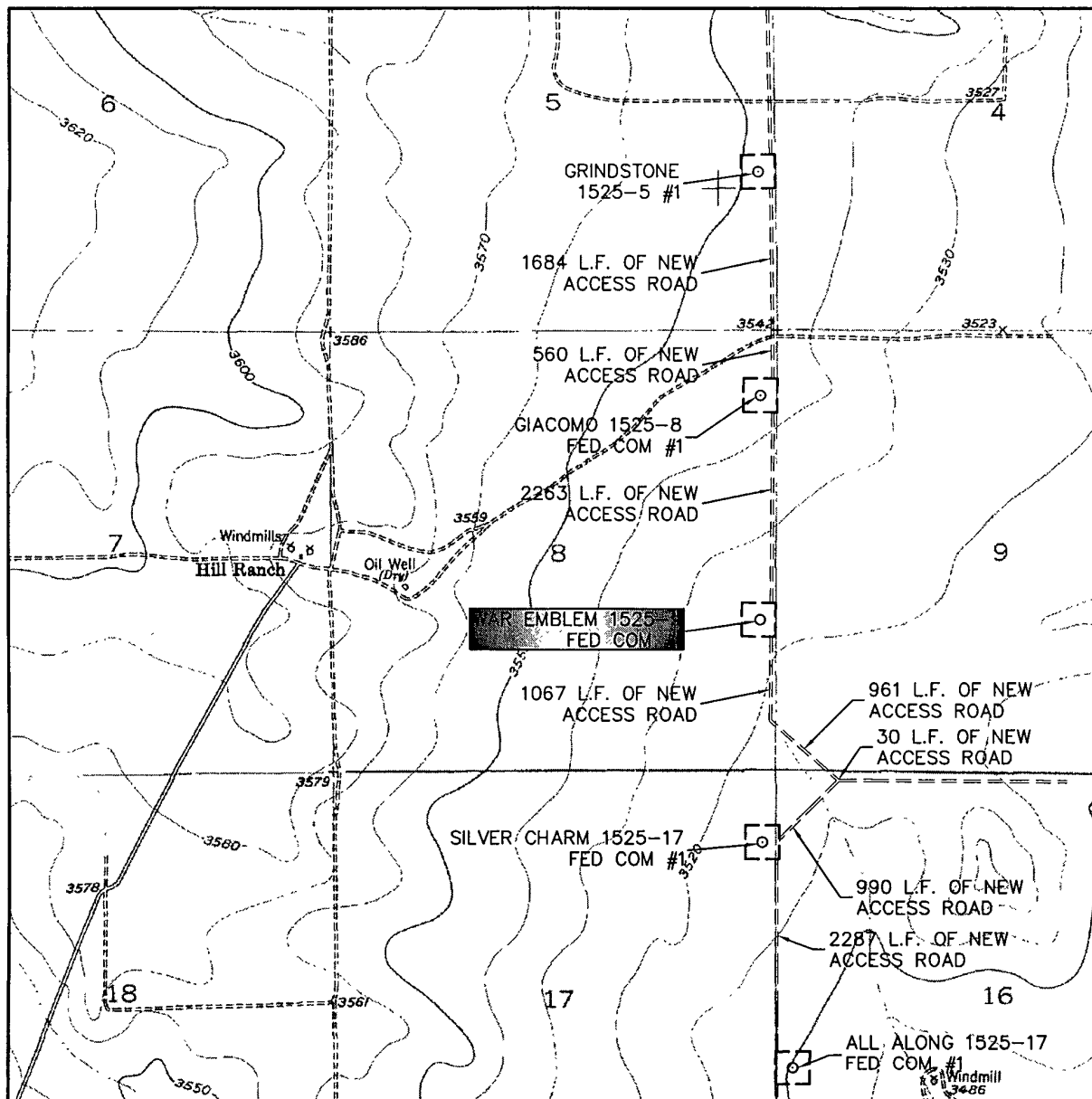
### WAR EMBLEM 1525-9 FED COM #1

Located 1880' FSL & 190' FEL, Section 8  
Township 15 South, Range 25 East, N.M.P.M.  
Chaves County, New Mexico

Drawn By: LVA	Date: March 27, 2007
Scale: 1"=100'	Field Book: 365 / 5-7, 29-30
Revision Date:	Quadrangle: Hagerman SW
W.O. No: 2007-0076	Dwg. No.: L-2007-0076-A

EXHIBIT C

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
HAGERMAN SW - 10'

SEC. 8 TWP. 15-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 1880' FSL & 190' FEL

ELEVATION 3524'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE WAR EMBLEM 1525-9 FED COM

U.S.G.S. TOPOGRAPHIC MAP  
HAGERMAN SW



EXHIBIT F



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

# *CHOKE MANIFOLD* *5M SERVICE*

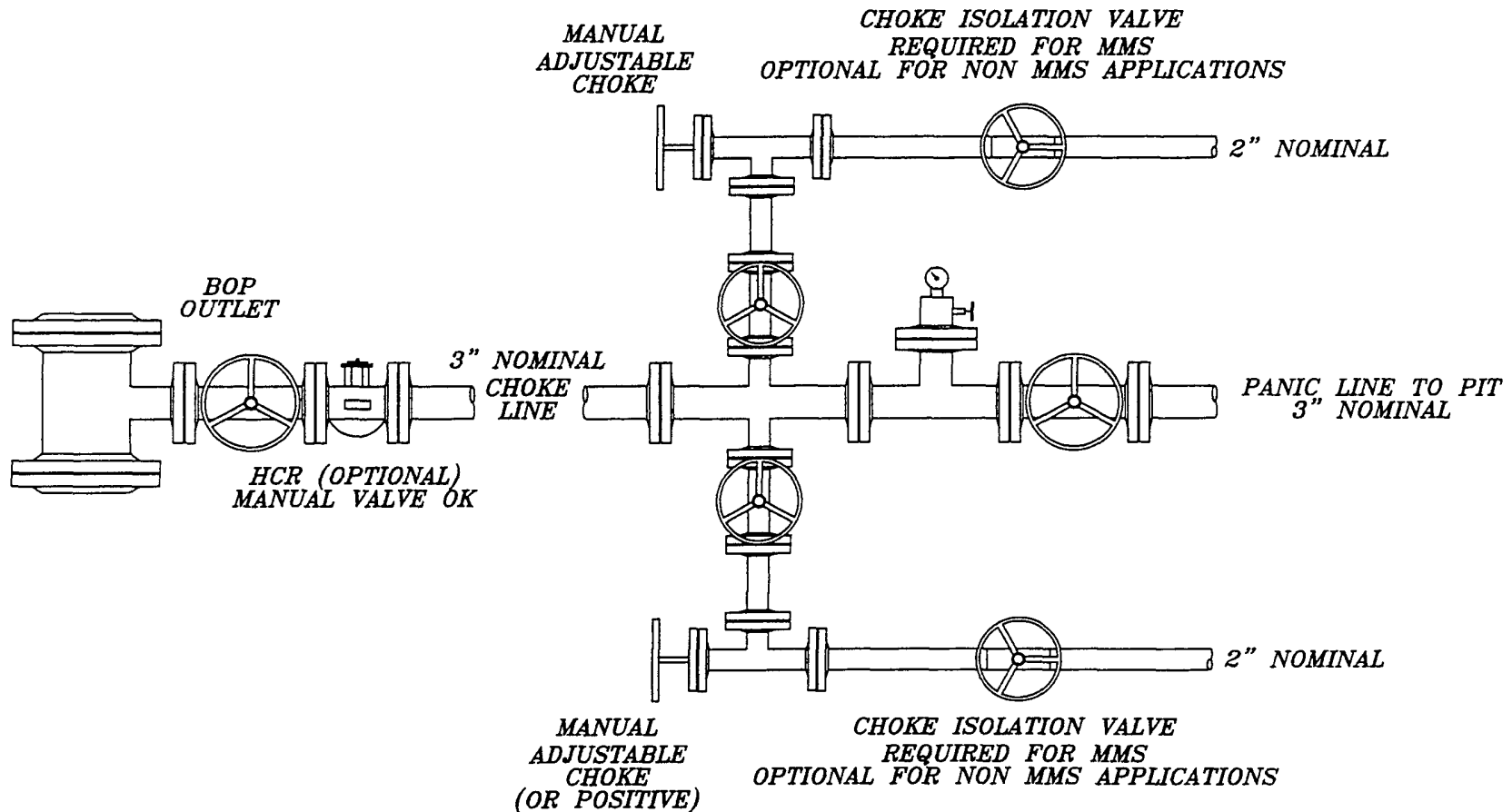


EXHIBIT J

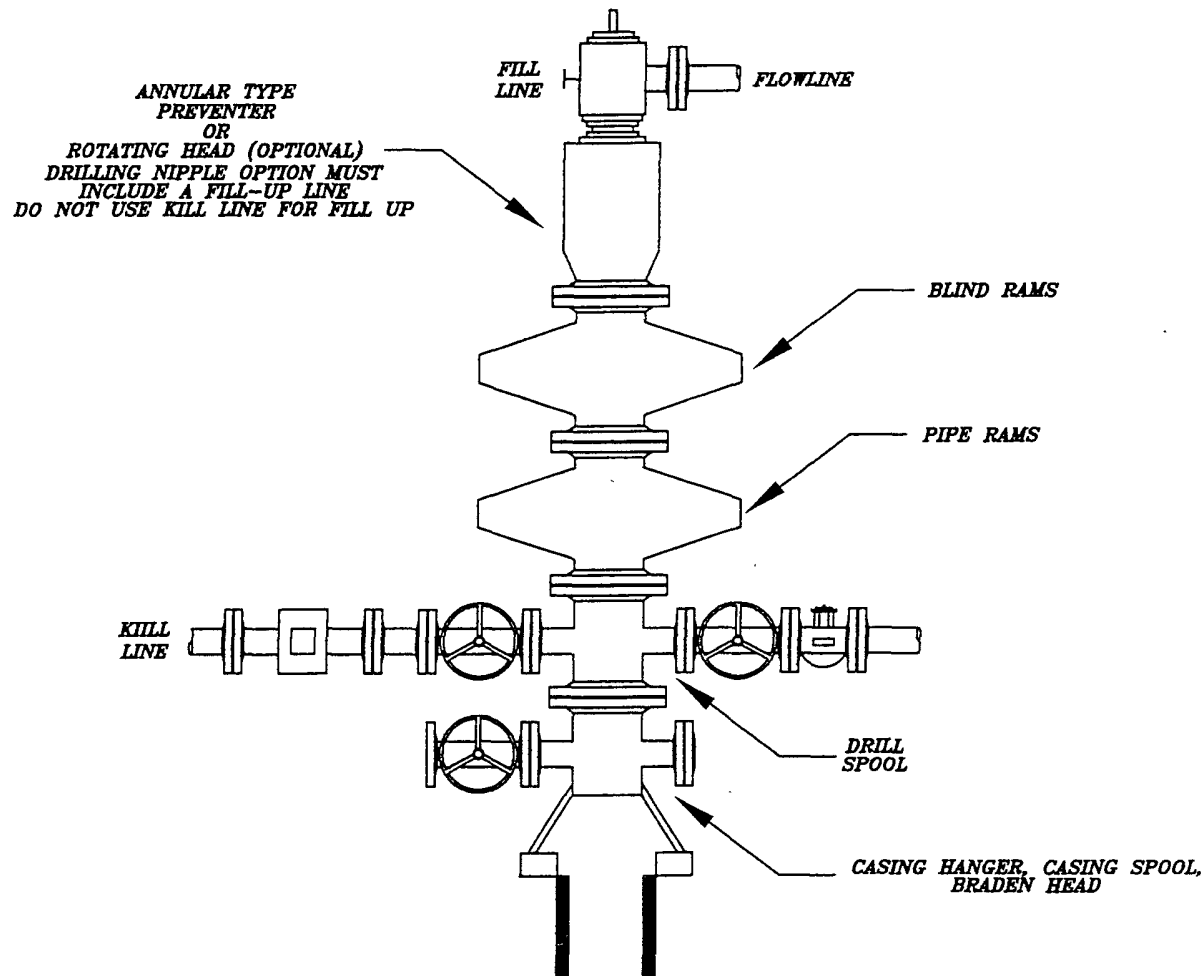
PARALLEL PETROLEUM  
CHOKE MANIFOLD

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

DATE:  
8/17/05  
DWN. BY:  
JJ  
FILE:  
C:\PARALLEL\3427\CHOKE MANIFOLD

NOT TO SCALE

# MINIMUM BOP SCHEMATIC



NOT TO SCALE

EXHIBIT I

DATE:  
7/26/05  
DWN. BY:  
JJ  
FILE:  
C:\HALL\BOP SCHEMATIC

PARALLEL PETROLEUM  
BOP SCHEMATIC

HIGHLANDER ENVIRONMENTAL CORP.  
MIDLAND, TEXAS

# **PARALLEL** SURVEY CALCULATION PROGRAM PETROLEUM CORPORATION

OPERATOR:	Parallel Petroleum Corporation	Supervisors:	
WELL:	War Emblem 1525-9 Fed Com #1		
LOCATION:	S/2 Sec. 9 T-15-S R-25-E		
API NUMBER:			
COMMENTS:			
		MAG DEC. (-/+)	
		GRID CORR. (-/+)	
		TOTAL CORR. (-/+)	0.0
DATE: 03/19/07		TIME: 4:14 PM	TRUE TO GRID <input type="checkbox"/>

MINIMUM CURVATURE CALCULATIONS(SPE-3362)									PROPOSED DIRECTION 90.0		TARGET TRACKING TO CENTER	
SVY	NUM	MD	INC	GRID AZM	TVD	VERT SECT	N-S	E-W	DLS/100		ABOVE(+)	RIGHT(+)
											BELOW(-)	LEFT(-)
TIE		0	0.0	0.0	0.0	0.0	0.0	0.0				
1		4400	0.0	0.0	4400.0	0.0	0.0	0.0	0.0		850.0	0.0
2		4410	0.7	90.0	4410.0	0.1	0.0	0.1	6.7		840.0	0.0
3		4420	1.3	90.0	4420.0	0.2	0.0	0.2	6.7		830.0	0.0
4		5736	90.0	90.0	5250.6	850.5	0.0	850.5	6.7		-0.6	0.0
5		9690	90.0	90.0	5250.6	4804.5	0.0	4804.5	0.0		-0.6	0.0

KOP @ 4400' MD  
 BUR = 6.7 DEG per 100 FT  
 End Curve @ 5736' MD, 5250' TVD  
 BHL @ 9690' MD, 5250' TVD, 4804.5' VS

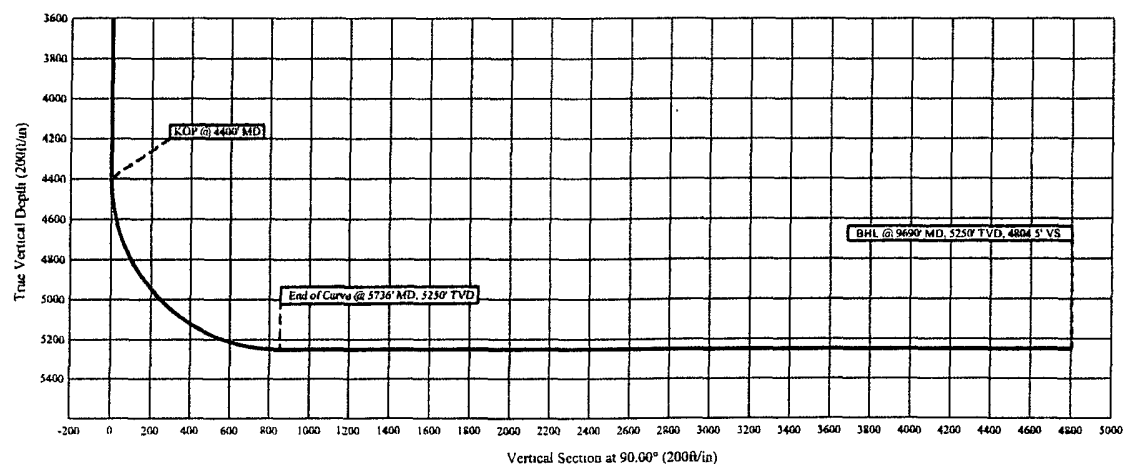
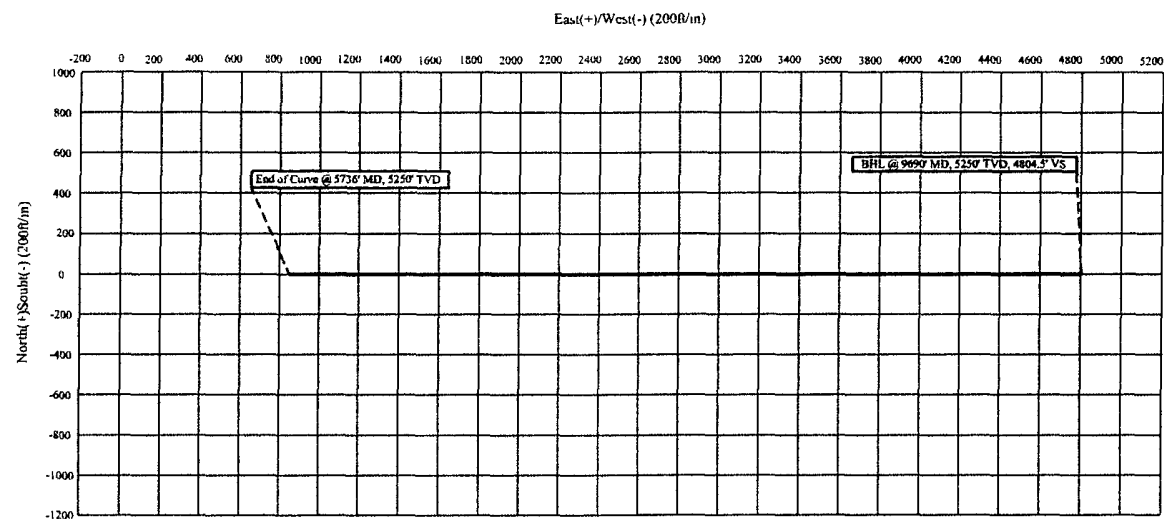


# Parallel Petroleum Corp.

War Emblem 1525-9 #1  
S/2 Sec. 9, T-15-S, R-25-E  
Chaves County, New Mexico

## COMPANY DETAILS

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





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

August 24, 2006

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

Re: Hydrogen Sulfide Potential  
Hagerman Area Wolfcamp Program  
Chavez County, New Mexico

Gentlemen:

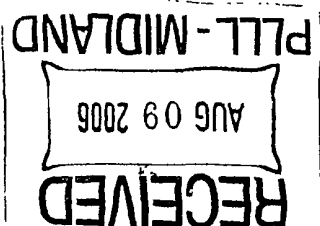
Parallel Petroleum Corporation operates the Seabiscuit #1 and the Seabiscuit #2 wells located in Section 33, T-14-S, R-26-E and the Dash for Cash #1 in Section 4, T-15-S, R-26-E. These wells were tested in the Wolfcamp formation and did not have any indications of hydrogen sulfide from this formation. Please see the gas analysis attached to this letter. We believe the potential for H<sub>2</sub>S on locations in this area are negligible.

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

Sincerely,

A handwritten signature in cursive script that reads "Deane Durham".

Deane Durham  
Drilling Engineer



Approved by: DON NORMAN

Fri Jul 28 15:04:04 2006

REMARKS:  
H2S IN GAS STREAM: NONE DETECTED

GAS COMPONENT ANALYSIS			
Mol %		GPM	
Carbon Dioxide	CO2	5.6514	
Nitrogen	N2	1.8667	
Hydrogen Sulfide	H2S	0.0000	
Methane	C1	80.6277	
Ethane	C2	6.7430	1.8023
Propane	C3	3.0262	0.8332
Iso-Butane	IC4	0.4434	0.1450
Not-Butane	NC4	0.8870	0.2796
Iso-Pentane	IC5	0.2361	0.0864
Not-Pentane	NC5	0.2341	0.0848
Hexanes Plus	C6+	0.2844	0.1241
		3.3555	100.0000
TOTAL			

Pressure Base:	14.7300
Real BTU Dry:	1092.27
Real BTU Wet:	1073.26
Real Calc. Specific Gravity:	0.7159
Field Specific Gravity:	0.0000
Standard Pressure:	14.6960
RTU Dry:	1086.59
RTU Wet:	1067.68
Z Factor:	0.9971
M Value:	1.2913
Avg Mol Weight:	20.6848
Avg Cuft/Gal:	56.8397
26 Lb Product:	0.4422
Methane+ GPM:	17.0215
Ethane+ GPM:	3.3555
Propane+ GPM:	1.5531
Butane+ GPM:	0.7199
Pentane+ GPM:	0.2953

Analysis for: PARALLEL PETROLEUM CORPORATION  
Well Name: DASH FOR CASH #1  
Field:  
Sta. Number:  
Purpose: SPOT  
Sampling Temp: 60 DEG F  
Volume/day:  
Pressure on Cylinder: 733 PSIG  
Formation:  
Line Pressure: 746.2 PSIA  
Pressure Base: 14.7300  
Product: PARALLEL PETROLEUM CORP.  
County: CHAVES  
State: NM  
Sampled By: DON NORMAN  
Atmos Temp: 91 DEG F  
Date Run: 07/28/2006  
Run No. 260728-01  
Date Sampled 07/27/2006  
GPM: 1.62

Wildcat Measurement Service  
P.O. Box 1836  
Artesia, New Mexico 88211-1836  
Toll Free 888-421-9453  
Office 505-746-3481  
"Quality and Service is our First Concern"

PDS 06/25/00

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"Quality and Service is our First Concern"

PDS 06/25/00

Run No. 260728-02  
Date Run 07/28/2006  
Date Sampled 07/27/2006

Analysis for: PARALLEL PETROLEUM CORPORATION

GPANGL.L62

Well Name: SEABISCUIT #2

Field:

Producer: PARALLEL PETROLEUM CORP.

Sta. Number:

County: CHAVES

State: NM

Purpose: SPOT

Sampled By: DON NORMAN

Sampling Temp: 60 DEG F

Atmos Temp: 90 DEG F

Volume/day:

Formation:

Pressure on Cylinder: 576 PSIG

Line Pressure: 589.2 PSIA

GAS COMPONENT ANALYSIS

Pressure Base: 14.7300

		Mol %	GPM
Carbon Dioxide	CO2	3.8765	
Nitrogen	N2	1.1954	
Hydrogen Sulfide	H2S	0.0000	
Methane	C1	84.4558	
Ethane	C2	6.1856	1.6534
Propane	C3	2.4877	0.6850
Iso-Butane	IC4	0.3548	0.1161
Nor-Butane	NC4	0.7054	0.2224
Iso-Pentane	IC5	0.1941	0.0710
Nor-Pentane	NC5	0.1929	0.0699
Hexanes Plus	C6+	0.3518	0.1535
TOTAL		100.0000	2.9711

Real BTU Dry: 1098.66  
Real BTU Wet: 1079.53  
Real Calc. Specific Gravity: 0.6842  
Field Specific Gravity: 0.0000

Standard Pressure: 14.6960  
BTU Dry: 1093.16  
BTU Wet: 1074.14

Z Factor: 0.9973  
N Value: 1.2930  
Avg Mol Weight: 19.7705  
Avg CuFt/Gal: 56.9423  
26 Lb Product: 0.4521  
Methane+ GPM: 17.2860  
Ethane+ GPM: 2.9711  
Propane+ GPM: 1.3178  
Butane+ GPM: 0.6328  
Pentane+ GPM: 0.2944

REMARKS:  
H2S IN GAS STREAM: NONE DETECTED

Approved by: DON NORMAN

Fri Jul 28 15:04:04 2006

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## WELL DRILLING REQUIREMENTS

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### III. WELL SUBSURFACE REQUIREMENTS:

#### A. GENERAL DRILLING REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at (505) 627-0272 in sufficient time for a representative to witness:

a. Spudding

b. Cementing casing: 8-5/8 inch 5-1/2 inch

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. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

4. 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.

#### B. CASING:

1. 8-5/8 inch surface casing should be set at approximately 1400 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the Roswell Field Office shall be notified at (505) 627-0275 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. Minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to tie back 500 feet above the uppermost perforation in the pay zone.

#### C. PRESSURE CONTROL:

1. Before drilling below the 8-5/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.

3. The BOPE shall be installed before drilling below the 8-5/8 inch surface casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The results of the test will be reported to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.

b. 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.

c. Testing must be done in a safe workman like manner. Hard line connections shall be required. mud returns from the well.

## WELL DRILLING REQUIREMENTS

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### IV. ON LEASE - WELL REQUIREMENTS:

A. The holder shall post signs identifying the location permitted herein with the requirements contained in Onshore Oil and Gas Order #1 and 43 CFR 3162.6.

B. The following data is required on the well sign that shall be posted in a conspicuous place on the well pad. **The communitization agreement number shall be posted on the well sign.** The sign shall be kept up with current identification and shall be legible for as long as the well is in existence:

Operator Name: Parallel Petroleum Corporation

Well Name & No.: Funny Cide 1525-8 Federal Com. #1H

Lease No.: NM-112249

Footage: SL; 1880' FSL & 208' FEL & BHL; 1880' FSL & 660' FWL

Location: Section 8, T. 15 S., R. 25 E.

C. UPON ABANDONMENT OF THE WELL, THE SAME INFORMATION SHALL BE INSCRIBED ON THE DRY HOLE MARKER WITH A BEADED WELD.

D. The approval of the APD does not in any way imply or grant approval of any on-lease, off-lease, or off-unit action(s). It is the responsibility of the holder to obtain other approval(s) such as rights-of-way from the Roswell Field Office or other agencies, including private surface landowner(s).

E. All vehicles, including caterpillar track-type tractors, motor graders, off-highway trucks and any other type of motorized equipment that is used in the construction of the access road and well pad shall be confined to the area(s) herein approved. The drilling rig that is used to drill the well shall also be confined to the approved area(s).

#### F. **Containment Structure Requirement:**

1. A containment structure or earthen dike shall be constructed and maintained around all storage facilities/batteries. The containment structure or earthen dike shall surround the storage facilities/batteries.
2. The containment structure or earthen dike shall be constructed two (2) feet high around the facilities/batteries (the containment structure or earthen dike can be constructed higher than the two (2) feet high minimum).
3. The perimeter of the containment structure or earthen dike can be constructed substantial larger for greater holding capacity of the contents of the largest tank.
4. The containment structure or earthen dike shall be constructed so that in case of a spill the structure can contain the entire contents of the largest tank, plus 24 hour production, within the containment structure or earthen dike, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

## WELL DRILLING REQUIREMENTS

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### G. Painting Requirement:

All above-ground structures (e.g.: meter houses, tanks, above ground pipelines, and related appurtenance, etc.) not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard or supplemental Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for painting all the well facilities is "**Olive Drab 18-0622 TPX**" (Colors derived from "**PANTONE**" For Architecture and Interiors Color Guide).

### H. Fence Requirement:

The holder shall minimize disturbance to existing fences and other improvements on public land. The holder is required to promptly repair impacted improvements to at least their former state. On private surface the holder shall contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates shall be allowed unless approved by the Authorized Officer.

### I. Open-vent Exhaust Stack Requirements:

1. All open-vent exhaust stacks associated with heater-treater, separators and dehydrator units shall be modified to prevent birds and bats from entering them and to the extent practical to discourage perching and nesting.
2. New production equipment installed on federal leases after November 1<sup>st</sup>, 1993, shall have the open-vent exhaust stacks constructed to prevent the entry of birds and bats and to the extent practical, to discourage perching, and nesting.

## V. Invasive and Noxious Weeds Requirement:

A. The holder shall be held responsible if noxious weeds become established within the area. Evaluation of the growth of noxious weeds shall be made upon discovery. Weed control will be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipelines, and adjacent land affected by the establishment of weeds due to this action. The holder is responsible for consultation with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policy.

B. The holder shall insure that the equipment and or vehicles that will be used to construct, maintain and administer the access roads, well pad and resulting well are not polluted with invasive and noxious weed seed. Transporting of invasive and noxious weed seed could occur if the equipment and vehicles were previously used in noxious weed infested areas. In order to prevent the spread of noxious weeds, the Authorized Officer shall require that the equipment and vehicles be cleaned with either high pressure water or air prior to construction, maintenance and administration of the access roads, well pad, and resulting well.

## VI. SPECIAL REQUIREMENT(S):

A. Low-profile facilities no greater than eight-feet-high shall be used. If necessary, multiple tanks shall be used.