		OCD-ART	esia		232425	-06 25 TANK
om 3160-3 April 2004)				FORM OMB N	APPROVE	ARTESIA
UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MAN APPLICATION FOR PERMIT TO	INTERIOR NAGEMENT			Expires 1 5. Lease Serial No. NM NM 1159 6. If Indian, Allotee		618171818141
la. Type of work: 🔽 DRILL 🗌 REENT		····		7. If Unit or CA Agr	eement, N	ame and No.
lb. Type of Well: Oil Well Gas Well Other		ngle Zone Multip	le Zone	8. Lease Name and Roy Rogers 1	Well No.	35907
2. Name of Operator Parallel Petroleum Corporation	1303			9_API Well No.		<u>s-6384</u>
3a. Address 1004 North Big Spring, Suite 400 Midland, Texas	432/68). (include area code) 4-3727	bo	10. Field and Pool, or Wolfcamp	Explorato	ry
A. Location of Well (Report location clearly and in accordance with a At surface 110' FSL and 765' FWL At proposed prod. zone Penetration Point in Wolfcamp 66		Dy State)	11. Sec., T. R. M. or E 20 SL 26-19S-24		•
4. Distance in miles and direction from nearest town or post office* 12 miles south of Hope, New Mexico				12. County or Parish Chaves		13. State NM
5. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 760'	16. No. of a 1760	acres in lease	17. Spacin 320	ng Unit dedicated to this	well	L
 B. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 18' North 	19. Proposed	d Depth	20. BLM/	BLA Bond No. on file 8000265		
Elevations (Show whether DF, KDB, RT, GL, etc.) GL 4735'	22. Approxi	mate date work will star 09/01/2005	t*	23. Estimated duration 30 days	on	
	24. Attac	r n n n n n n n n n n n n n n n n n n n	swell C	ontrolled Water	Basin	<u>,</u>
ne following, completed in accordance with the requirements of Onsh . Well plat certified by a registered surveyor. . A Drilling Plan.	ore Oil and Gas			nis form: ons unless covered by an	existing	bond on file (see
A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).	Lands, the	5. Operator certific	specific inf	ormation and/or plans a	s may be i	required by the
5. Signature Cleane Auham		(Printed/Typed) Deane Durham			Date	WE DE
tle Drilling Engineer, Parallel Petroleum Corporati						· · ·
pproved by (Signature)/s/ Tony J. Herrell	Name	(Printed/Typed) /s/ Top	y J. 1	Herrell	Date J	JL 2 8 2006
TIELD MANAGER	0	CAHLSBA	DFI	ELD OFFI	CF	
pplication approval does not warrant or certify that the applicant hol induct operations thereon. onditions of approval, if any, are attached.		4	\PPF	ROVAL FO	R 1	YEAD
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a ates any false, fictitious or fraudulent statements or representations as	crime for any period to any matter w	erson knowingly and w	illfully to n	nake to any department of	or agency	of the United

Witness Surface Casing

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APPR**OVAL SUBJECT** TO GENER**AL 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.



ATTACHMENT TO FORM 3160-3 ROY ROGERS 1920-35 FEDERAL #1 Surface Hole Location 110 FSL AND 765 FWL, SEC 26, 19S, 20E Bottom Hole Location 660 FSL AND 765 FWL, SEC 35, 19S, 20E CHAVES COUNTY, NEW MEXICO



DRILLING PROGRAM

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

1. <u>GEOLOGIC NAME OF SURFACE FORMATION</u>

San Andres

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Glorieta 1775'(+2960') Tubb 2781'(+1954') Yeso 2921' (+1814') Abo Shale 3421' (+1314') Abo Carbonate 3535' (+1200') Wolfcamp 4373' (+362') Wolfcamp Shale 4479'(+256')

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

Fresh water790'Oil and GasWolfcamp 4373' (+362')No H2S gas should be encountered

4. <u>CASING AND CEMENTING PROGRAM</u>

<u>Casing Size</u> 20" conductor	<u>From To</u> 0'-120'	<u>Weight</u>	Grade	<u>Joint</u>
9 5/8" WITNESS	0'-120'' 0'-1400''	36#	J-55	STC
5 1/2"	0'-8,770'	17#	N-80	LTC

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



9-5/8" slurry: Lead: 125 sacks (N2 Foamed): Class C + 5% bwow Sodium Chloride + 10% bwoc Bentonite + 151.7% fresh water. Tail: 200 sacks Class C + 1% bwoc Level Calcium Chloride + 56.3% fresh water

Note: If cement does not circulate to surface, notify BLM. 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.

Drilling Procedure

- a. Set 20" conductor pipe at 120' with a rathole unit.
- b. Drill 12 ¼" surface hole to an approximate depth of 1400', 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 N2 Foamed cement, circulate to surface, 1" if necessary).
- c. Set slips on 9 5/8" CSG. Cut 9 5/8" CSG and NU & test BOP.
- d. Drill 8 ¾" production hole to 3500', using cut brine to an approximate depth of 3400' and a starch mud system to TD.
- e. Drill 8 ¾" curve. Kick off and build angle at 7.5 degrees per 100' to 90 degrees and hold.
- f. Drill 7 7/8" horizontal drain hole to a terminus of 660' FSL.
- g. Run 5¹/₂" 17# N-80 CSG to TD. Cement with sufficient Class C acid soluble cement to tie back to surface casing.
- h. 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 1,400' with 8.3 ppg Fresh Water system and viscous sweeps for hole cleaning.
- c. The production section from 1,400' to 3,400' will utilize a cut brine mud system.
- d. The remaining production section from 3,400' to TD will be a starch mud system with mud weight sufficient to control formation pressures.

7. <u>AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT</u>

None required.

8. LOGGING, TESTING, AND CORING PROGRAM

Mud log is planned. Drill stem tests, cores and sidewall cores as well as DLL/CNL/LDT/CAL/GR logging 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 fourth quarter of 2006 with drilling and completion operation lasting about 35 days.

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:

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NM NM 115995

NMB000265

Legal Description of Land:

Roy Rogers 1920-35 Federal #1 SHL: 110' FSL AND 765' FWL, SEC 26, T19S, R20E BHL: 660' FSL AND 765' FWL, SEC 35, T19S, R20E Chaves County, New Mexico

\$25,000 statewide bond of Parallel Petroleum Corporation

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

Bond Coverage:

BLM Bond File No:

JUNE 06

Date

Name: Deane Durham Title: Engineer

SURFACE AND OPERATIONS PLAN FOR DRILLING, COMPLETION, AND PRODUCING

22324253 0/ 0/ 0/ PARALLEL PETROLEUM CORPORATION **ROY ROGERS 1920-35 FEDERAL #1** SHL: 110' FSL AND 765' FWL, SEC 26, T19S, R20E BHL: 660' FSL AND 765' FWL, SEC 35, T19S, R20E **CHAVES COUNTY, NEW MEXICO**

LOCATED:

12 miles South of Hope, New Mexico

OIL & GAS LEASE:

NM NM 115995

RECORD LESSEE:

Upland Corporation P.O. Box 582 Midland, TX 79705

BOND COVERAGE:

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

ACRES IN LEASE:

1760

SURFACE OWNER:

State of New Mexico

SURFACE TENANT:

Michael Bennett Ranch Hope, NM 505-484-3687

POOL:

Primary Objective – Wolfcamp

EXHIBITS:

- A. Area Road Map
- B. Drilling Rig Layout
- C. Pad Elevation Plat
- D. Vicinity Map
- E. Area Production Map
- F. and F-1. Location Topographic & Location Verification Maps
- 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. EXISTING ROADS

- 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 access road will come off County Road 20 and go west on and existing caliche road for approximately 1.25 mile. At the cattle guard turn left or west on two track road and go .75 mile to a fence and gap gate that is located on the Chaves County, Eddy County line. A cattle guard will be installed at this gate location. Then continue on west approximately 2 miles to the location. Both the caliche road and the two track will be surfaced with caliche and will be 16" to 24' wide with a total length of 4.2 miles. A 75' wide turn in will be constructed onto the access road at County Road 20.

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



- D. <u>Turnouts</u> Three turnouts may be constructed on this 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. Culverts

It is not anticipated that any culverts will be needed on the access road at this time.

G. <u>Gates and Cattle Guards</u> A cattle guard and gate will be installed on the fence line between sections 25 and 30.

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 that is located 800' east of the wellsite may be utilized for water supply for both drilling and completion. If the well is found to be inadequate for drilling a completion, 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.

Page 4

ROGERS 1920-35 FEDERAL #1 F. The reserve pit will be closed as per BLM and NMOCD regulations cand guidelines. This will include leaving the drill cuttings in place in the pit. 81 (1919 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.

128293031

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. It is planned to drill two wells for this pad. The Dale Eaves 1920-26 State Com #1, which is being applied for in a separate APD will be directionally drilled into section 26, the section north of the subject well.

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 southeast exposure. The regional drainage of the site being to the south and east toward Collier Tank 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.

Page 5

D. <u>Ponds and Streams</u>

Collier Tank Draw, an intermittent stream which flows west to east, is a located ½ mile south 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 2.5 miles south west of the site and the Barbra Runyon Ranch house is located 8.5 miles northeast of the proposed well site

 F. <u>Archaeological, Historical, and Cultural Sites</u> See archaeological report # SNMAS-06NM-2271-B 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> State of New Mexico

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.

JUNE 06 Date

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Name: Deane Durham Title: Engineer









Exhibit "E" AREA PRODUCTION MAP PARALLEL PETROLEUM CORPORATION ROY ROGERS 1920-35 FEDERAL #1 SHL: 110' FSL AND 765' FWL, SEC 26, T19S, R20E CHAVES COUNTY, NEW MEXICO

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OPER	ATOR		Parallel P	etroleum (Corporatio	on	Superviso	S		
WELL			Roy Roge							
		TION:				19-S R-20-E				
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1	3598	0.0	0.0	3598.0	0.0	0.0	0.0	0.0	775.0	0.0
2	3608	0.8	180.0	3608.0	0.1	-0.1	0.0	7.5	765.0	0.0
3	3618	1.5	180.0	3618.0	0.3	-0.3	0.0	7.5	755.0	0.0
4	4815	90.0	180.0	4372.7	774.9	-774.9	0.0	7.4	0.3	0.0
	8770	90.0	180.0	4372.7	4729.9	-4729.9	0.0	0.0	0.3	0.0

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KOP @ 3598' MD BUR = 7.4 DEG per 100 FT End Curve @ 4815' MD, 4372.7' TVD BHL @ 8770' MD, 4372.7' TVD, 4729.9' VS



N PARALLEL Petroleum Corporation

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

June 16, 2006

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

12829 723242526

Re: Hydrogen Sulfide Potential South Hope Area Wolfcamp Program Specifically: Roy Rogers 1920-35 Federal #1 Chaves County, 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 within 2 miles of this well.

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

Sincerely.

A. Deane Durham Senior Engineer

Conditions of Approval Cave and Karst

EA#: NM-520-06-1105 Lease #: NMNM-115995

Parallel Petroleum Corporation

2324252623 .02-61 81 (1.9) Dale Evans 1920-26 State Com. # 1, & Roy Rogers 1920-35 Federal # 1

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

Buried Cuttings Pit:

A 70X100 foot cuttings pit will be utilized for this location. The cuttings pit will be lined with 4 oz. felt and a layer of 20 mil. plastic. Upon completion of the well all excess fluids will be vacuumed off the cuttings pit and allowed to dry. The pit liner will then be folded over the cuttings, covered with a 20 mil plastic cover and then covered with at least three feet of top soil.

Closed Mud System with Cuttings Removed:

A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

Florescene Dye (Acid Yellow 73):

Sixteen ounces of Yellow Green (Acid Yellow 73) Florescene dye will be added to the drilling fluid during the drilling of the first 750 feet of the well.

Florescene Dye Orange (Eosin Y):

Sixteen ounces of Orange (Eosin Y) Florescene dye will be added to the drilling fluid during the drilling of the first 2,500 feet of the well. Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone as identified in the geologic report.

Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

Cementing:

All casing strings will be cemented to the surface.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cavebearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

Delaved Blasting:

Any blasting will be a phased and time delayed.

Abandonment Cementing:

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

Pressure Tests:

Annual pressure tests will be performed by the Operator on all casing annuli. If the test results indicated a casing failure, remedial actions approved by the BLM will be undertaken to correct the problem.

Differential Shut-off Systems:

A leak detection system and differential shut off systems will be installed for pipelines and tanks used in production or drilling.

Record Keeping:

The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

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CONDITIONS OF APPROVAL - DRILLING

•	2293031-122
	CONDITIONS OF APPROVAL - DRILLING
Operator's Name:	Parallel Petroleum Corporation
Well Name & No.	Roy Rogers 1920-35 Federal #1
SH Location:	110' FSL, 765' FWL, Section 26, T. 19 S., R. 20 E., Chaves County, New Mexic $q_{R/Fourthermal}$
BH Location:	660' FSL, 765' FWL, Section 35, T. 19 S., R. 20 E., Chaves County, New Mexico
Lease:	NM-115995
	TIONS DECLUDEMENTS:

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>5-1/2</u> inch
- 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.

II. CASING:

1. The 9-5/8 inch surface casing shall be set at approximately 1400 feet and cement circulated to the surface. 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 7 inch production casing is to reach at least 500 feet above the top of the uppermost productive hydrocarbon interval.

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 9-5/8 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 2000 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.

6/29/2006

IV. DRILLING MUD:

202128293031 22 Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, snall be used until production casing is run and demented. before drilling into the <u>Wolfcamp</u> formation, and shall be used until production casing is run and demented. AR/ES/A2006 ESIA

34567891011,

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- 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 11919
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

6/29/2006 acs