



30-025-11153

July 14, 2011

HOBBS OCD

SEP 06 2011

RECEIVED

Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Carlsbad, New Mexico 88220

Gentlemen:

Please be informed that Brian Wood with Permits West, Inc. is an Agent employed by Resaca Exploitation, Inc. and Resaca Operating Company. Resaca Operating Company is a subsidiary of Resaca Exploitation, Inc. Mr. Wood is authorized to prepare and submit APD's, Right of Way applications and other BLM required forms.

✓ Permits West, Inc.'s address is as follows:

37 Verano Loop
Santa Fe, New Mexico 87508

505-466-8120 Office
505-466-9682 Fax
505-699-2276 Cell

Should you have any questions or require any additional information, please contact Dennis Hammond at 713-753-1281 or e-mail hammond@resacaexploitation.com.

Sincerely,

Dennis Hammond
President
Resaca Exploitation, Inc.

SEP 27 2011

REVISED RE-ENTRY PROGNOSIS

HOBBS OCD

SEP 06 2011

Resaca Operating Co.
Cooper Jal Unit #124
API No. 30-025-11153
660' FNL, 1,917' FWL
Section 19, T-24S, R-37E
Lea Co., New Mexico

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**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

* DESCRIPTION OF OPERATION * *See COA*

Resaca proposes to re-enter and deepen subject well which was drilled in 1956 and temporarily abandoned in 1999 as part of an effort to re-develop certain acreage within the Cooper Jal Unit, an existing Secondary Recovery project. The Unitized Interval includes both the Jalmat and the Langlie Mattix pools. Subject well will be commingled as to these intervals and utilized as a producing well. Commingling authority will be obtained prior to production.

1) SURFACE DESCRIPTION

The surface is a mildly undulating dunal plain consisting of Quaternary alluvium sediments. Vegetation is sparse, and includes snakeweed, shinoak, yucca cactus, assorted grasses and, on a more limited basis, other flora. The ground elevation at the wellsite is 3,300' above sea level.

2) FORMATION TOPS

Formation	Estimated Top - MD (ft)	Lithology	Fluid Content
Alluvium	0	Sand, Caliche	Fresh Water
Ogalalla	148	Red Beds	None
Rustler	1,195	Anhydrite	None
Salado	1,307	Salt	None
Tansill	2,870	Anhydrite, Dolomite	None
Yates	2,972	Sandstone, Dolomite	Oil
Seven Rivers	3,203	Sandstone, Dolomite	Oil
Queen	3,615	Sandstone, Dolomite	Oil

The surface casing previously set and cemented in this well isolates and thereby protects the fresh water interval. The production casing previously set and cemented in this well isolates various productive intervals. It is not anticipated that any additional casing or remedial cementing will be required. The deepened portion of the well will be an open-hole interval.

The Jalmat Pool is defined, in this area, as the interval from the top of the Tansill formation to a point 250' above the base of the Seven Rivers formation, thereby including all of the Yates formation. The top of the Tansill formation is at a depth of 2,870' in subject well.

The Langlie Mattix Pool is defined as the interval from 100' above the base of the Seven Rivers formation to the base of the Queen formation. The base of the Queen formation is estimated from offset well logs to be below the proposed total depth of subject well.

3) WELL CONTROL EQUIPMENT

~~*~~ See COA

A 2M system (as defined by BLM Onshore Oil and Gas Order No. 2), including a 3,000 PSI dual ram BOP dressed with 2-1/16" pipe rams and blind rams and choke manifold will be utilized throughout the proposed operations. The configuration and components of the BOP stack are set forth on Exhibit A, attached hereto. The configuration and components of the choke manifold are set forth on Exhibit B, attached hereto. The serial number and a copy of the test certificate for the rubber hose which will connect the BOP stack to the choke manifold will be provided by sundry notice prior to commencement of operations.

All blowout prevention equipment will meet the minimum standards outlined in BLM Onshore Oil and Gas Order 2. A schematic indicating the routing to the choke manifold and the closed loop system is attached hereto as Exhibit C. A safety valve and crossovers to facilitate make-up to each workstring component will be kept on or near the rig floor.

The blowout preventers and choke manifold will be tested in accordance with the provisions of BLM Onshore Oil and Gas Order 2 upon installation. Pipe rams will be function tested once each 24-hour period, and blind rams will be function tested each time the workstring is out of the hole.

4) WELL CONSTRUCTION

Surface and production casing were set and cemented when the well was drilled in 1956. Wellhead equipment with a working pressure of 3,000 psi is in place.

Existing casing is as follows:

Hole Size (in)	Setting Depth (ft)	Outer Diameter (in)	Weight (ppf)	Grade	Threads
12.250	308	9.625	36	Unknown	Unknown
7.875	3,528	5.500	15.5	Unknown	Unknown

A casing design audit has been conducted as follows:

- Maximum collapse loading was assumed to occur at the bottom of each casing string. An external pressure equivalent to that which would be exerted by a column of 10 ppg brine water (0.520 psi/ft), and an internal pressure of 0 psi were assumed.
- Maximum burst loading was assumed to occur at the top of each casing string. An internal pressure equivalent to that which would be exerted at setting depth by a column of 10 ppg brine water (0.520 psi/ft), and an external pressure of 0 psi were assumed.

- Tensile loading was not evaluated as both casing strings have been run and are cemented in place.
- To the extent the casing grade is unknown, the lowest applicable API standard grade was assumed.

Based upon these evaluation criteria, the surface casing was determined to have a collapse safety factor of 10.86 and a burst safety factor of 15.98, and the production casing was determined to have a collapse safety factor of 2.20 and a burst safety factor of 2.62.

The surface casing was cemented with 175 sacks of cement of unknown composition and yield. Cement was circulated to the surface.

The production casing was cemented in two stages. For the first stage, 200 sacks of cement of unknown composition and yield were pumped. Available well records do not document the top of cement; however, the calculated cement top, based on an assumed yield of 1.18 ft³/sk (neat Class A) and hole enlargement factor of 20 percent, is at 2,438'. A DV tool was set at 1,200', and for the second stage, 100 sacks of cement of unknown composition and yield were pumped. Available well records do not document circulation of the cement to surface; however, the calculated cement top, based on an assumed yield of 1.18 ft³/sk (neat Class A) and hole enlargement factor of 20 percent, is at 655'.

5) WORKING FLUID

Working fluid will be fresh water with 2% KCl, with a density of 8.4 ppg. Gelled sweeps and lost circulation material will be utilized as necessary. Working volume will be approximately 500 barrels. Given the low anticipated bottom-hole pressure, use of weighting materials is not anticipated, and no circulating system monitoring equipment will be utilized.

6) LOGGING, CORING AND TESTING

No mud-logging, coring, or testing are anticipated. The Unitized Interval will be logged in whole or part. Specific logs to be run have not yet been determined.

7) ANTICIPATED PRESSURES AND DRILLING HAZARDS * See COA

All formations above the Unitized Interval are cased off. The previous producing intervals, as well as the interval through which the well will be deepened, are believed to be partially pressure depleted due to production from the Unit and surrounding wells.

Based on a static fluid level survey conducted in June 2010 in an offset well (the Cooper Jal #202), reservoir pressure was 778 psi at a depth of 3,665'. Since that time, increased injection rates have been sustained, and reservoir pressure is likely to have risen; however, it is anticipated that the working fluid will create an overbalanced condition, and lost circulation may occur.

Hydrogen Sulfide may be present in the Yates and Seven Rivers. H₂S equipment will be operational prior to drilling out any cement plugs, and all operations will be conducted in accordance with BLM Onshore Oil and Gas Order 6. An H₂S plan is attached.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

GENERAL PROCEDURE

** See COA*

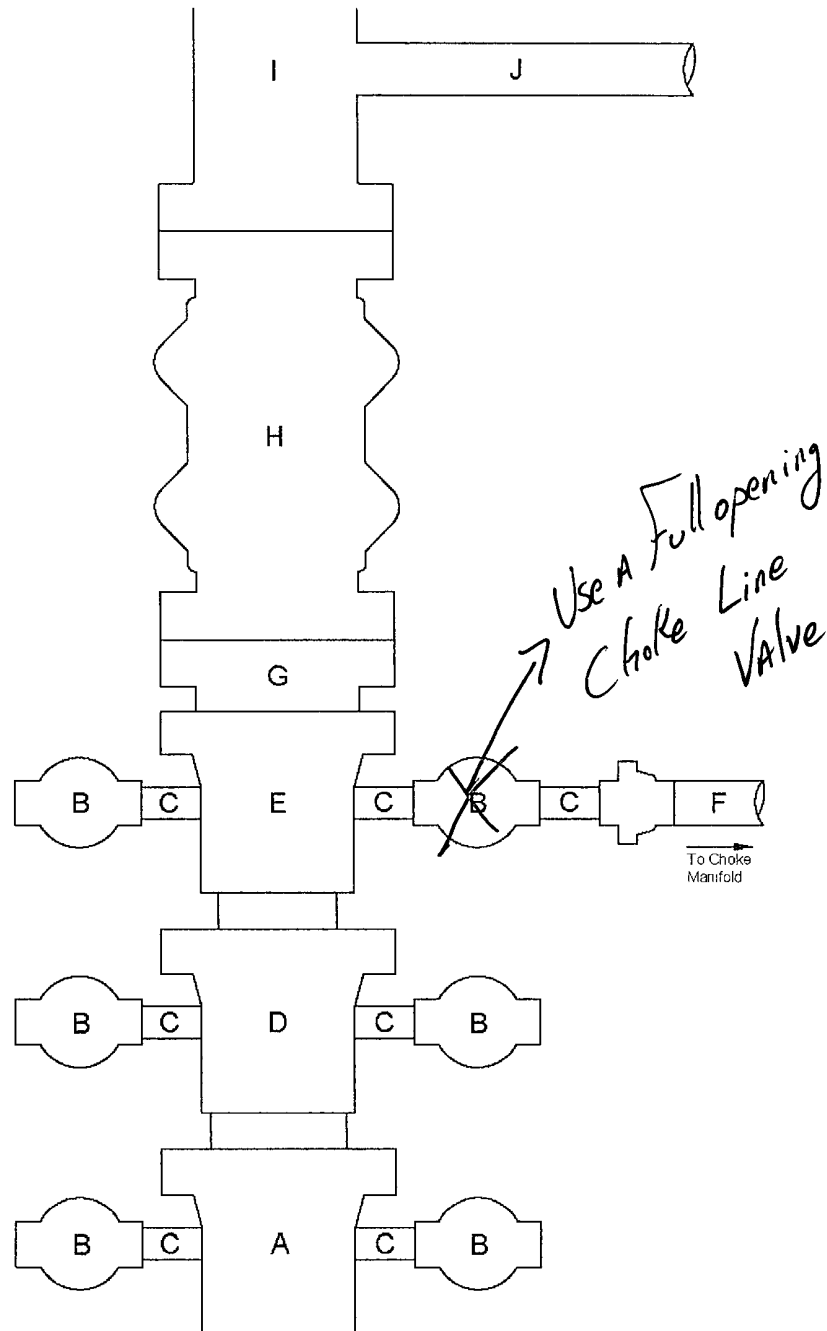
- 1) MIRU pulling unit and reverse unit. Closed loop system to be utilized. Install H₂S equipment.
- 2) N/U and test 2M BOP system as depicted on Exhibits A and B. N/U and test choke manifold.
- 3) P/U 4-3/4" bit on 2-7/8" production tubing (BHA design to be determined), and drill out:
 - a. Cement plug 3,225' – 3,260' (not previously tagged)
 - b. CIBP @ 3,260'.
- 4) Clean out well to 3,528' (current TD). Drill new hole to 3,730'. Circulate well clean and POOH and L/D 4-3/4" bit.
- 5) Log per supplemental procedure.
- 6) P/U 5-1/2" tension packer and RIH to 3,330'. Set packer @ 3,330' and test casing to 500 psi. If leaks occur, isolate and repair per supplemental procedure. POOH and L/D packer.
- 7) Perforate 2 spf (120 degree phasing) as follows:
 - a. 3,322' – 3,326'
 - b. 3,307' – 3,311'
 - c. 3,294' – 3,296'
 - d. 3,247' – 3,262'
 - e. 3,232' – 3,235'
 - f. 3,192' – 3,208'
 - g. 3,174' – 3,190'
 - h. 3,169' – 3,172'
 - i. 3,161' – 3,167'
 - j. 3,153' – 3,155'
 - k. 3,148' – 3,152'
 - l. 3,138' – 3,146'
 - m. 3,106' – 3,134'
 - n. 3,091' – 3,103'
 - o. 3,085' – 3,090'
 - p. 3,072' – 3,082'
 - q. 3,002' – 3,069'
 - r. 2,995' – 3,011'
 - s. 2,974' – 2,993'.
- 8) Frac well and flow back per supplemental procedure.
- 9) P/U 5-1/2" TAC and RIH w/ 2-7/8" production tubing. Space out and set TAC per supplemental procedure. Land tubing.
- 10) N/D BOPs. N/U pumping tee.

- 11) N/U rod stripper. P/U & RIH w/ downhole pump and rods (design to be determined). Seat pump.
Hang off rods. N/D rod stripper and pack off rods.
- 12) RDMO pulling unit and other equipment.

REVISED EXHIBIT A:

2M BOP STACK CONFIGURATION - CJU #124

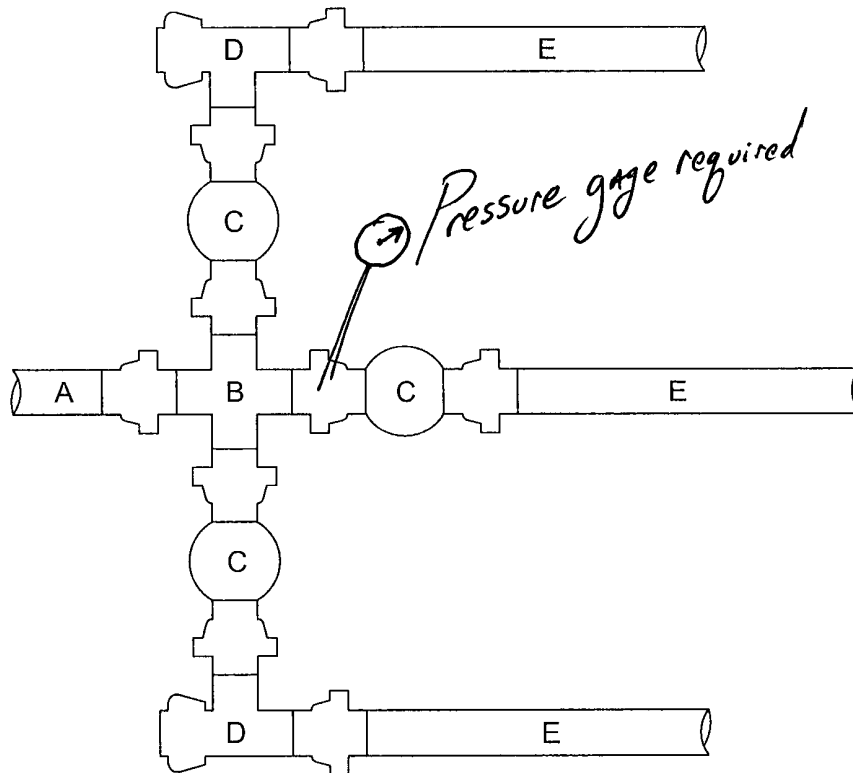
- A. 8 $\frac{5}{8}$ " SW x 10 $\frac{3}{4}$ " 3000 PSI WP Casing Mandrel w/ Threaded Outlets
- B. 2 $\frac{1}{16}$ " 3000 PSI WP Ball Valve
- C. 2" Schedule 80 Nipple
- D. 5 $\frac{1}{2}$ " SW x 8 $\frac{5}{8}$ " 3000 PSI WP Casing Mandrel w/ Threaded Outlets
- E. 3 $\frac{1}{2}$ " SW x 8 $\frac{5}{8}$ " 3000 PSI WP Tubing Head w/ Threaded Outlets
- F. 2" 2500 PSI WP Rubber Hose
- G. 8 $\frac{5}{8}$ " x 7 $\frac{1}{16}$ " 3000 PSI WP Drilling Flange
- H. 7 $\frac{1}{16}$ " 3000 PSI WP Type "U" Double Ram Type BOP w/ Blind Rams & 2 $\frac{1}{16}$ " Pipe Rams
- I. Bell Nipple
- J. Fill-Up Line



REVISED EXHIBIT B:

2M CHOKE MANIFOLD CONFIGURATION

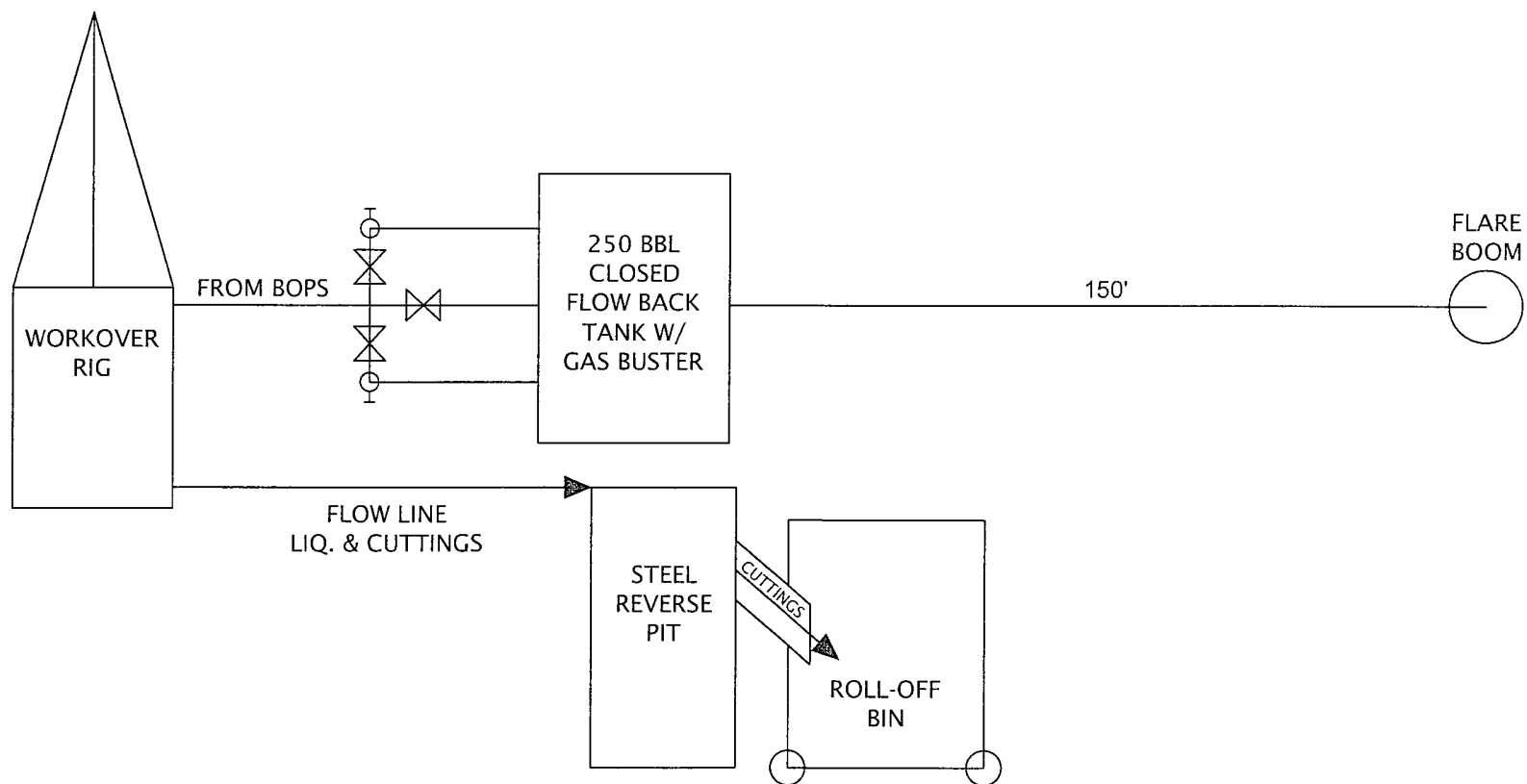
- A. 2" 2500 PSI WP Rubber Hose
- B. 2 $\frac{1}{16}$ " 3000 PSI WP Cross
- C. 2 $\frac{1}{16}$ " 3000 PSI WP Ball Valve
- D. 2 $\frac{1}{16}$ " 3000 PSI WP Manual Choke
- E. 2" Schedule 80 Line Pipe



Note: All connections are hammer unions.

REVISED EXHIBIT C:

CLOSED-LOOP FLOW DIAGRAM



Fuel/Petroleum/ Oil Field Service Hose

Oil Field Hose

Serial #: EN856
Test date: 4-26-11
Test pressure: 3,250 psi

Refer to warnings and safety
information on pages A-1 thru A-2
and page I-2.

*Mark
Richie*

Kelly Power



Tube: Neoprene
Reinforcement: Wire, 4 Spiral
Cover: Neoprene
Color: Black
Temperature Range: -40°F to +250°F

Type Of Branding: Printed Strip
Working Pressure: 3000 psi
4:1 Safety Factor
Type Of Coupling: 430 'U' Series.

Features:

- Neoprene cover
- Neoprene tube
- Patch brand

Advantages:

- Abrasion, oil and weather resistant
- Good oil resistance
- Easy identification

Markets:

- Oil exploration
- Drilling

Applications:

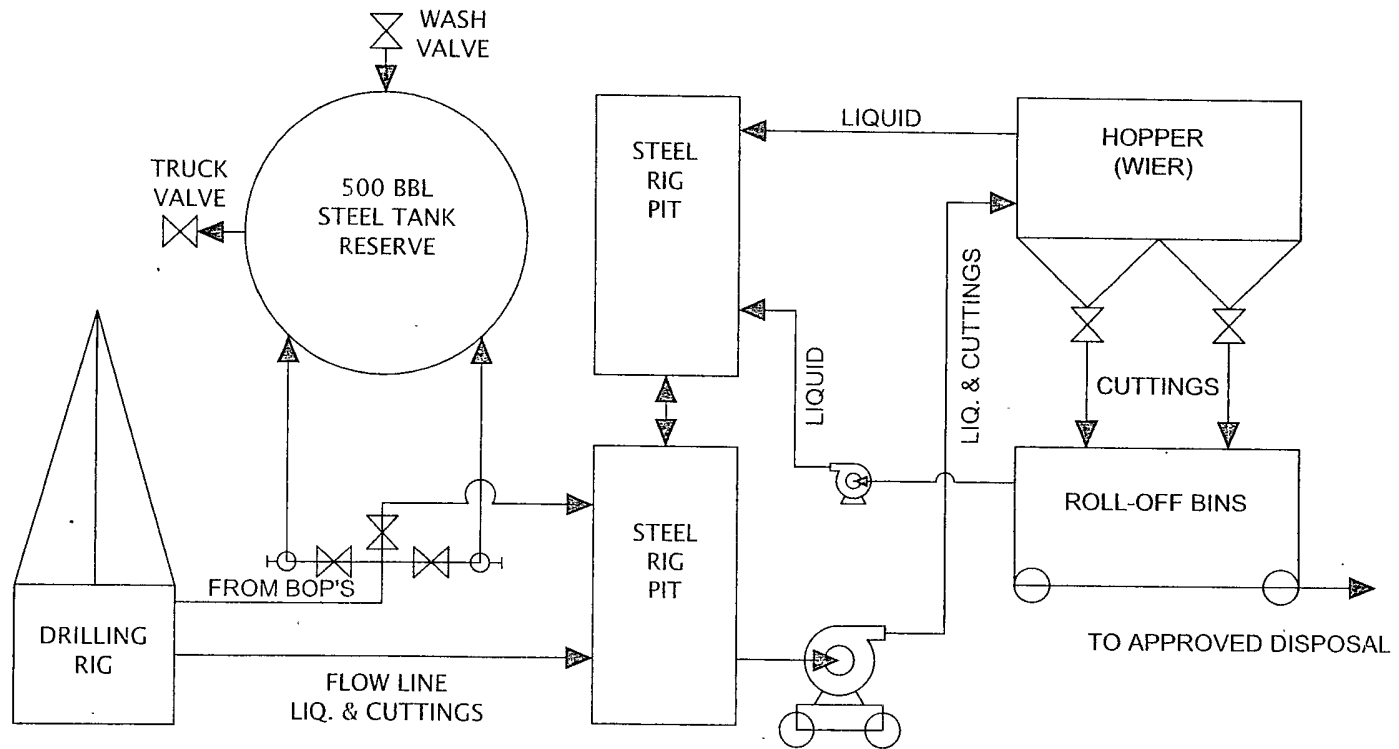
- Rotary drilling on portable drilling rigs, work over rigs, and slim hole rigs

PRODUCT NUMBER	NOMINAL I.D. (IN.)	(MM)	SPIRAL	NOMINAL O.D. (IN.)	(MM)	APPROX. LBS. WEIGHT PER 100 FT.	MAXIMUM WORKING PRESS. (PSI)	MINIMUM BEND RADIUS (IN.)	(MM)	STANDARD LENGTH (FT)
H037732	2	50.8	4	2-21/32	67.5	310	3,000	25	635	50*

*150' available on request.

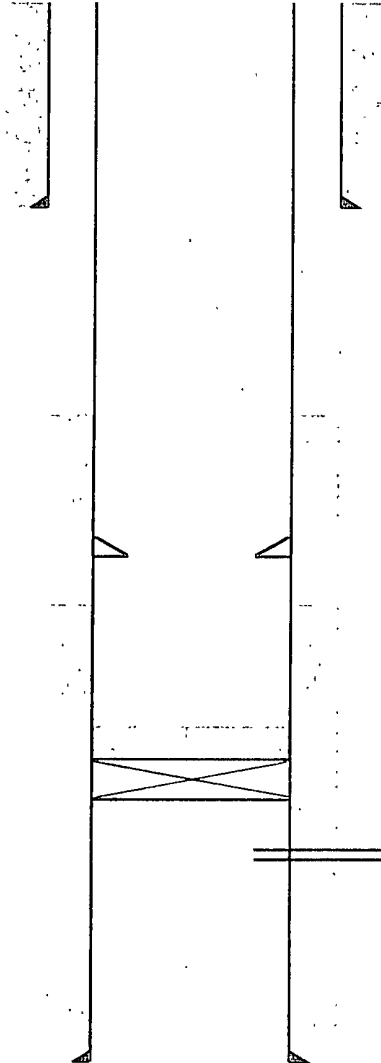
EXHIBIT C:

CLOSED-LOOP FLOW DIAGRAM



CURRENT WELLBORE SCHEMATIC

Operator Resaca Operating Co
Well Name Cooper Jal #124
Well Location
Calls 660' FNL, 1917' FWL
Unit C
Section 19
Township 24S
Range 37E



CIBP @ 3260' w/ 35' cmt

Surface Casing

Hole Size (in) 12 1/4
Casing Size (in) 9 5/8
Casing Weight (ppf) 36
Setting Depth (ft) 308
Amount Cement (sx) 175
Top of Cement (ft) 0
TOC Method Circulated

DV Tool

Depth (ft) 1200
Amount Cement (sx) 100
Top of Cement (ft) Unknown
TOC Method -----

Perforations

Top (ft) 3380
Bottom (ft) 3482

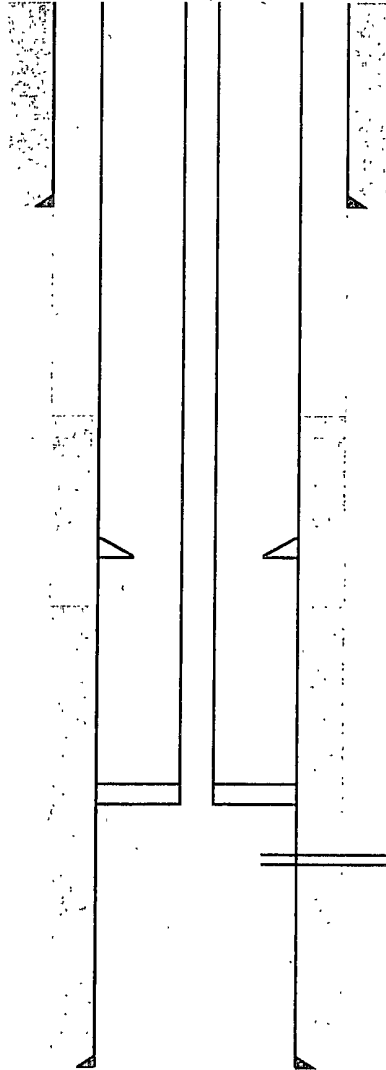
Production Casing

Hole Size (in) 7 7/8
Casing Size (in) 5 1/2
Casing Weight (ppf) 15.5
Setting Depth (ft) 3528
Amount Cement (sx) 200
Top of Cement (ft) 2438
TOC Method Calculated

Total Depth (ft) 3528

PROPOSED WELLBORE SCHEMATIC

Operator: Resaca Operating Co
Well Name: Cooper Jal #124
Well Location:
Calls: 660' FNL, 1917' FWL
Unit: C
Section: 19
Township: 24S
Range: 37E



Surface Casing

Hole Size (in) 12 1/4
Casing Size (in) 9 5/8
Casing Weight (ppf) 36
Setting Depth (ft) 308
Amount Cement (sx) 175
Top of Cement (ft) 0
TOC Method Circulated

DV Tool

Depth (ft) 1200
Amount Cement (sx) 100
Top of Cement (ft) Unknown
TOC Method -----

Production Tubing

Tubing Size (in) 2 7/8
Tubing Weight (ppf) 6.5
TAC Depth (ft) 3000
Setting Depth (ft) 3000

Perforations

Top (ft) 2974
Bottom (ft) 3482

Production Casing

Hole Size (in) 7 7/8
Casing Size (in) 5 1/2
Casing Weight (ppf) 15.5
Setting Depth (ft) 3528
Amount Cement (sx) 200
Top of Cement (ft) 2438
TOC Method Calculated

Open Hole

Hole Size (in) 4 3/4
Top (ft) 3528
Bottom (ft) 3730

Total Depth (ft) 3730