REVISED APPLICATION FOR PERMIT TO RE-ENTER
Fasken Oil and Ranch, Ltd.
Shell Federal #2 SWD Re-Entry
3300' FSL & 660' FWL
Sec. 5, T21S, R24E
Eddy County, New Mexico

Shell FedCom

In conjunction with Form 3160-3, Application for Permit to Re-Enter, Fasken Oil and Ranch, Ltd. submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

This well is a re-entry of an existing wellbore. Before and after wellbore sketches are attached as Exhibits 6 & 7. This well will be re-entered, and the plugs will be cleaned out to the original TD of 10,020'. The 7-7-7/8" hole will then be deepened to 11,000' to be utilized as an SWD well, with produced water being injected into the Devonian formation as the primary objective. 5-1/2" casing will be set at 10,250' into the top of the Devonian and the Devonian injection interval will be left open hole.

1.   The geologic surface formation is of Permian age.   Ground elevation is 3766'.

2.   Estimate tops of geologic markers are as follows;

Seven Rivers	434'
San Andres	843'
Yeso/Glorieta	2504'
Bone Springs	3377'
Wolfcamp	7018'
Cisco	7835'
Canyon	8237'
Strawn	8765'
Atoka	9230'
Morrow	9622'
Barnett Shale	9888'
Devonian	10,200'

3.   The estimated depths at which water, oil or gas formation are expected to be encountered;

None, all water zones were drilled and cased during the drilling of the initial wellbore, and the remaining formations did not contain any commercial hydrocarbons as this wellbore was a dry hole.

   * 13 3/8" casing is set and cemented to surface at 400'. 8 5/8" casing is set at 3000' and cemented to surface. These casing strings are already in place and protect existing water and oil/gas zones.

4.   Proposed Casing and Cementing Program: The only new string of casing will be 5-1/2" production

   casing. This casing will be set "off bottom" to allow open hole completion of the Devonian formation

   Casing Design (all casing is new)

   0'-9,000'   5-1/2"   17#   J-55   LT&C--New

   9,000'-10,250'   5-1/2"   17#   L-80   LT&C—New

   Casing Design Factors: Burst 1.0, Collapse 1.125, Joint Strength 1.8

Note: TD is 11,000', the 5-1/2" casing is being set off bottom so that the Devonian injection interval can be completed openhole.

5. <u>Cementing Design</u>:

Packer/Shoe @ 10,250', DV Tool @ 7,000'

<u>First Stage:</u> 300 sx "H" 50:50 Poz with 1% HR-7, 0.5% LAP-1 (s.w. 14.2 ppg, yield 1.24 ft^3/sx) plus 350 sx Super H (s.w. 13.2 ppg, 1.62 yield ft^3/sx). Open DV tool and circulate for 6 hrs.

<u>Second Stage:</u> 750 sx "C" with 1/8# Poly-E-Flake, 1% salt and 6% gel (s.w. 12.4, yield 2.00 ft^3/sx) and 250 sx Class "H" (s.w. 15.6 ppg, yield 1.18 ft^3/sx). Second stage cement volume calculated for TOC @ Surface.

6. <u>Pressure Control Equipment</u>: An 11" x 3000# BOP will be NU on the 8-5/8" casing see Exhibit #5 (11" 3000# BOP) and the 8-5/8" casing and BOP stack will be hydrotested before drilling out the shoe joint. Hydrotest will included testing the rams, choke line, choke manifold, upper and lower kelly valves and floor safety valves to 3000 psig high and 300 psig low. The annular preventor will be hydrotested to 1500 psig high and 300 psig low. Additional BOP Hydrotesting will be performed after any pressure seal is broken, following any BOP repair and at 30 day intervals.

7. <u>Abnormal Pressure, Temperatures or Other Hazards</u>: None anticipated. Maximum Anticipated Bottom Hole Pressure is anticipated to be 5250 psi.

8. <u>Mud Program</u>:

Depth	Type	Weight	Viscosity	Waterloss
0'-11,000'	Gel/Starch/PAC	8.8-9.2	30-40	12 cc

9. <u>Auxiliary Equipment</u>: Upper Kelly Cock, Full Opening Stabbing Valve, PVT.

10. <u>Testing Logging and Coring Programs</u>: See COA

- DST's: None anticipated.

- Logging: 2-man Mudlogging unit from 10,020' to T.D.

- Electric Logs: Platform Express with CNL-LDT, DLL-MSFL, GR and Caliper.

- Coring: None anticipated

10. Anticipated Starting Date: April 31st, 2011

Shell Federal Com No. 2

D&A 12-9-78

GL: 3765.70', KB: 3781.7'

Frmtn Tops

Operator: **Fasken Oil and Ranch, Ltd.**
Location: 3300' FSL and 660' FWL
Sec 5, T21S, R24
Eddy County, NM
Compl.: 12/10/1978 Rig Released
API #: 30-015-22717
TD: 10020'
PBTD: D&A 12-9-1978; set 10sx surf plug 6-15-79
Casing: **13-3/8" 54.5# J55 @ 400'**
w/400sx Lite w/2%CaCl2, 13.6ppg
+200 sx "C" w/2%CaCl2, 14.8ppg.
TOC surf, cir 201sx
8-5/8" 32#&24# K55 @ 3000' KB
w/925sx Lite, 13 1-13.6 ppg
+200 sx "C" w/2%CaCl2, 14.8ppg.
TOC surf, cir 137sx

7Rvrs 434'

San Andres 843'

Glorietta 2504'

(btm 628.12' 32#)

Bone Spring 3377'

Wlfcmp 7018'

Plug 6   10sx Surface 6-15-79
          Delay to evaluate re-entry, deviated hole potential

Cisco 7835'

Plug 5   65sx @ 3100'-2900' 12-9-78
Plug 4   60sx @ 5100'-4900'
Plug 3   70sx @ 7150'-6950'
Plug 2   80sx @ 8750'-8550'
Plug1   125sx @ 9850'-9500'

Canyon 8237'

Strawn 8765'

Atoka 9230'

Morrow 9622'

Barnett 9888'

Hole Sizes:
17-1/2" 0-400'; 12-14/" 400-3000" ; 7/7/8" 3000'-10020'

Plug 6 10s Surface

13-3/8" 54.5# J55 @ 400'
TOC surf, cir 201sx

8-5/8" 32#&24# K55 @ 3000' KB
TOC surf, cir 137sx
Plug 5   65sx @ 3100'-2900' 12-9-78

Plug 4   60sx @ 5100'-4900'

Plug 3   70sx @ 7150'-6950'

Plug 2   80sx @ 8750'-8550'

Plug1   125sx @ 9850'-9500'

TD: 10020'

Exhibit 6

Shell Federal No. 2 SWD

Proposed SWD

GL 3765.70'; KB: 3781.7'

Frmtn Tops

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Eddy County, NM
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TD: 10020'
Casing: **13-3/8" 54.5# J55 @ 400'**
w/400sx Lite w/2%CaCl2, 13 6ppg
+200 sx "C" w/2%CaCl2, 14.8ppg.
TOC surf, cir 201sx
8-5/8" 32#&24# K55 @ 3000' KB   (btm 628.12' 32#)
w/925 sx Lite, 13 1-13.6 ppg
+200 sx "C" w/2%CaCl2, 14 8ppg.
TOC surf, cir 137sx

Proposed:

5-1/2" 17# N-80 & J-55 @ +/-10250'
1st stg:300 sx "H" 50:50 Poz with 1% HR-7, 0.5%
LAP-1 (s.w. 14.2 ppg, yield 1.24 ft3/sx) plus 350 sx
Super H (s.w. 13.2 ppg, 1.62 yield ft3/sx). Open DV
tool and circulate for 6 hrs.

2nd stg:750 sx "C" with 1/8# Poly-E-Flake, 1% salt
and 6% gel (s.w. 12.4, yield 2.00 ft3/sx) and 250 sx
Class "H" (s.w. 15.6 ppg, yield 1.18 ft3/sx). Second
stage cement volume calculated for TOC @ Surface.

Wlfcmp 7018'

Tubing and packer
Arrowet II 10k pkr @10000' w/1.875" "F" PN
3-1/2" 9.3#/ft EUE 8rd N-80 IPC tubing 10050'

13-3/8" 54.5# J55 @ 400'
TOC surf, cir 201sx

8-5/8" 32#&24# K55 @ 3000' KB
TOC surf, cir 137sx

DV   +/-7000'

Devonian +/-10200'

5-1/2" 17# N-80 & J-55 @ +/-10250'

Devonian OH +/-10250'-11000'

Hole Sizes:
17-1/2" 0-400'; 12-14/" 400-3000" ; 7/7/8" 3000'-10020'
New 7-7/8" 10020'-11000'   (OH +/-10250'-11000')

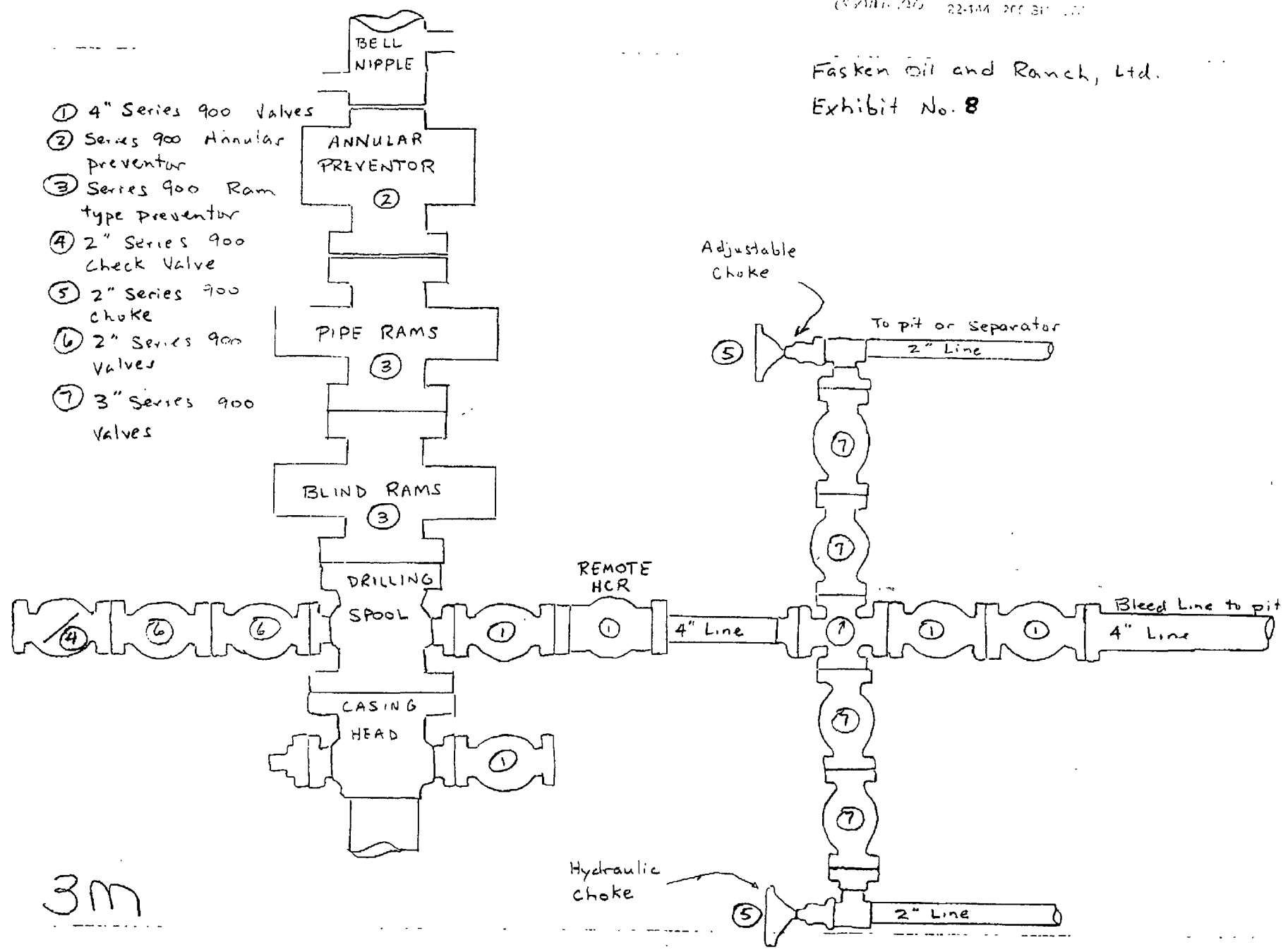TD   **11000' proposed**   cwb
8/20/2010
ShellFed2 wb diagram.xls

Exhibit 7

BELL NIPPLE

ANNULAR PREVENTOR ②

PIPE RAMS ③

BLIND RAMS ③

DRILLING SPOOL

CASING HEAD

① 4" Series 900 Valves
② Series 900 Annular preventor
③ Series 900 Ram type preventor
④ 2" Series 900 Check Valve
⑤ 2" Series 900 Choke
⑥ 2" Series 900 Valves
⑦ 3" Series 900 Valves

Fasken Oil and Ranch, Ltd.
Exhibit No. 8

Adjustable Choke

To pit or separator
2" Line

REMOTE HCR

4" Line

Bleed Line to pit
4" Line

Hydraulic Choke

2" Line

3M