

DATE IN 1-14-10	SUSPENSE	ENGINEER Jones	LOGGED IN 1-14-10	TYPE DHC	PTGW APP NO. 1001456226
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ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED

NEW MEXICO OIL CONSERVATION DIVISION



Fasken

2010 JAN 14 PM 1 46 - Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

Federal 26A # 7

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

30-025-29249

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
  - [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
  - [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
  - [B]  Offset Operators, Leaseholders or Surface Owner
  - [C]  Application is One Which Requires Published Legal Notice
  - [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
  - [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
  - [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Kim Tyson	<i>Kim Tyson</i>	Regulatory Analyst	1-12-2010
Print or Type Name	Signature	Title	Date
		kimt@for1.com	
		e-mail Address	

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

District II  
1301 W. Grand Avenue, Artesia, NM 88210

**Oil Conservation Division**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

District III  
1010 Rio Hondo Road, Artesia, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

**APPLICATION FOR DOWNHOLE COMMINGLING**

Fasken Oil and Ranch, Ltd. 303 W. Wall St., Ste. 1800, Midland, TX 79701

Operator Federal "26A" Address 1 N, Sec. 26, T18S, R33E County Lea  
Lease Well No. 1 Unit Letter-Section-Township-Range 1 Lease Type:  Federal  State  Fee  
OGRID No. 151416 Property Code 30-025-29249 API No. 30-025-29249 Lease Type:  Federal  State  Fee

*DHC-4285*

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Corbin; Queen; South (Oil)		E-K; Delaware
Pool Code	13290		21655
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	4532' - 4549' Perforated		5354' - 5808' Perforated
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	Not Required		Not Required
Oil Gravity or Gas BTU (Degree API or Gas BTU)	37° API		38° API
Producing, Shut-In or New Zone	Producing		New
Date and Oil/Gas/Water Rates of Last Production (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 11-15-09 to 12-15-09 Average Rates: 4 BO + 0 BW + 11 MCF	Date:	Projection Date: Rates: 60 BO + 43 MCF
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 6 % Gas 20 %	Oil % Gas %	Oil 94 % Gas 80 %

**ADDITIONAL DATA**

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes  No   
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes  No

Are all produced fluids from all commingled zones compatible with each other? Yes  No

Will commingling decrease the value of production? Yes  No

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes  No

NMOC Reference Case No. applicable to this well: \_\_\_\_\_

**Attachments:**

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

**PRE-APPROVED POOLS**

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kim Tyson TITLE Regulatory Analyst DATE 1-12-2010

TYPE OR PRINT NAME Kim Tyson TELEPHONE NO. (432) 687-1777

E-MAIL ADDRESS kimt@forl.com





**Fasken Oil and Ranch, Ltd.**

**Federal 26 "A" No. 1**

**Application for Downhole Commingling**

Additional Data

A production curve for the Queen is attached and averaged 4 bopd and 11 mcfpd in from 11/15/09 to 12/15/09. Production for the Delaware zone in this well is not available since it has yet to be opened. However, a production projection curve was created based upon this well's petrophysical properties and normalized EK Delaware production.

Based on the information stated above and shown on attached pages, the production allocation for the Delaware and Bone Springs should be as follows:

EK Delaware	60 bopd	94%	43 mcfpd	80%
Corbin South Queen	4 bopd	6%	11 mcfpd	20%

All working, royalty and overriding interests in this well are common and therefore, no notice is required.

# Rate/Time Graph

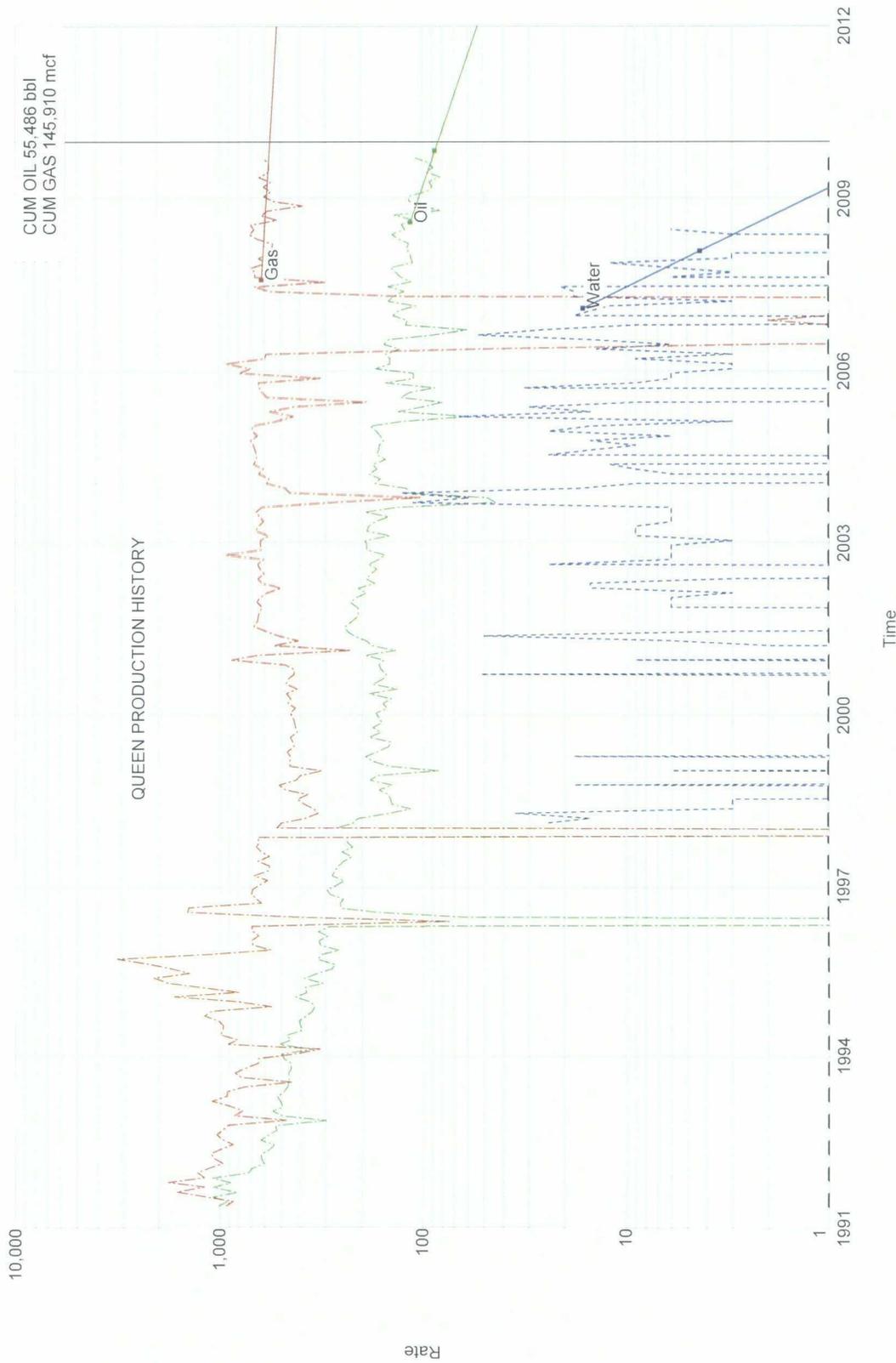
Lease Name: FEDERAL 26 A (1)  
County, ST: LEA, NM  
Location: 26N 18S 33E SE SW

Project: j:\piapps\dwights\pools90\projects\cs\lfederal 26 a 3.mdb

Operator: FASKEN OIL AND RANCH LTD  
Field Name: CORBIN SOUTH

Date: 12/14/2009  
Time: 2:36 PM

## FEDERAL 26 A - CORBIN SOUTH



# Rate/Time Graph

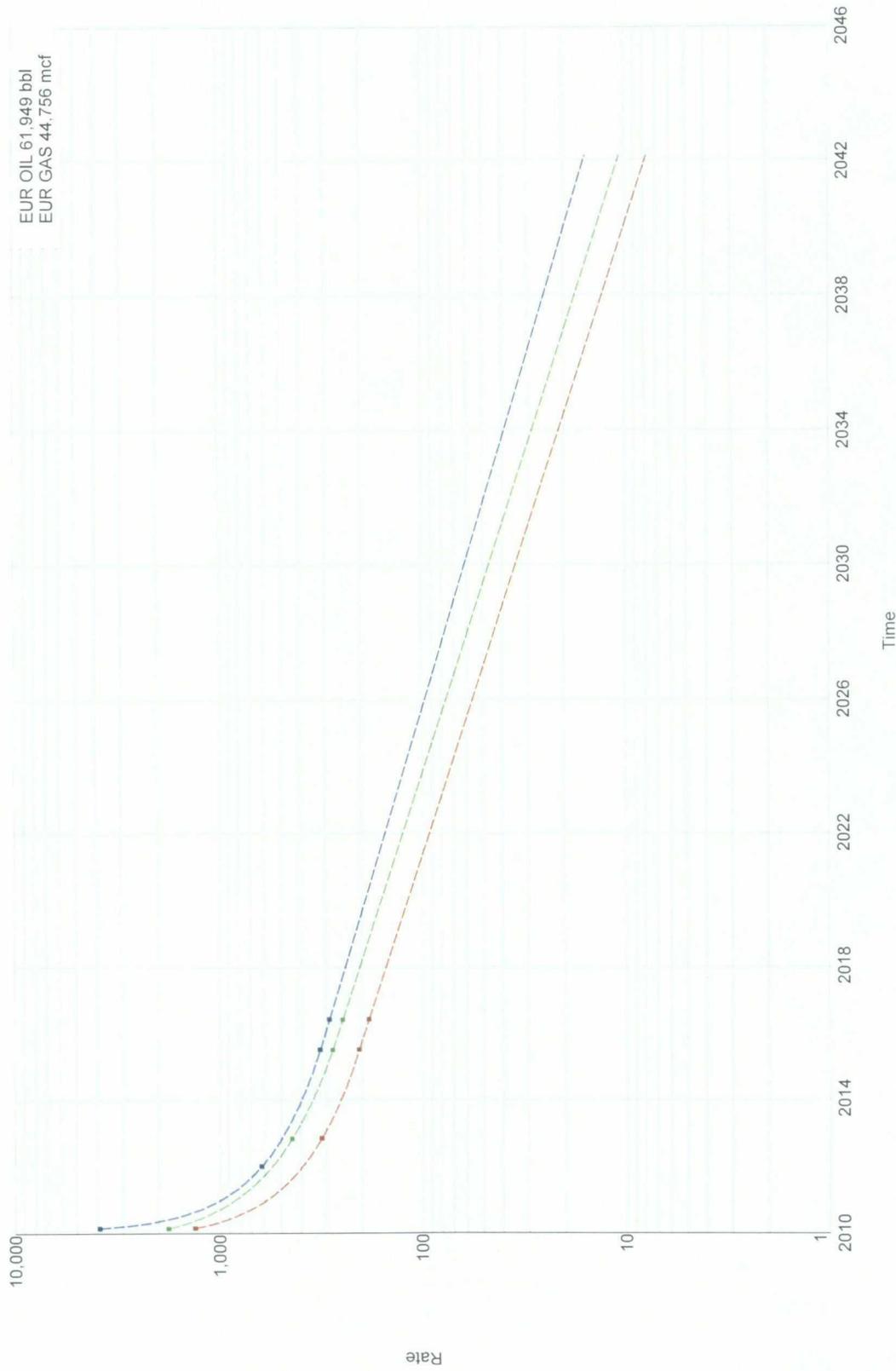
Date: 12/14/2009  
Time: 2:24 PM

Project: j:\piapps\dwrights\pools90\projects\cs\lfederal 26 a 3.mdb

Operator: FASKEN OIL & RANCH, LTD.  
Field Name: E-K

Lease Name: FEDERAL 26 A - DELAWARE PROJECTION (60 MBO) (1)  
County, ST: LEA, NM  
Location: 25J 18S 33E C NW SE

## FEDERAL 26 A - DELAWARE PROJECTION (60 MBO) - E-K



# Rate/Time Graph

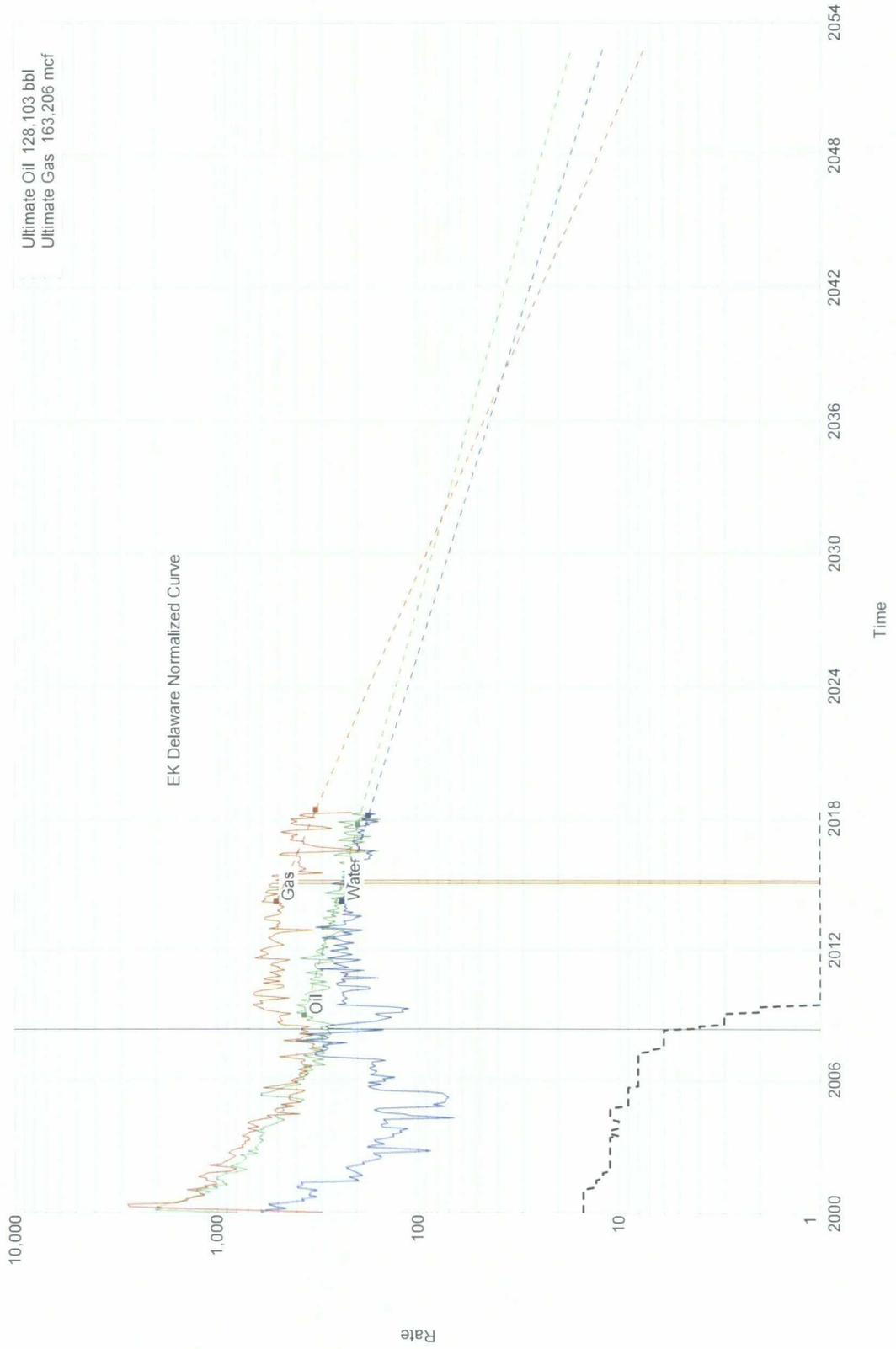
Project: j:\piapps\dwrights\pools90\projects\cs\lfederal 26 a 3.mdb

Date: 4/15/2009  
Time: 3:36 PM

Lease Name: EK DELAWARE NORMALIZED ()  
County, ST: ,  
Location: 0-0-0

Operator:  
Field Name:

## EK DELAWARE NORMALIZED -



**FASKEN OIL & RANCH, LTD.**  
**Federal "26-A" No. 1**

Well Data		
Surface Temp	64	°F
Max BHT	133	°F
Loggers TD	10,578	ft
Temp Gradient	0.012573	°F/ft

Zone	Depth	Depth to	X-plot Φ	Sw	Pay, h	B <sub>vw</sub>	Φh	hcf Φ*h*(1-sw)	Temp °F	B <sub>o</sub> (rb/stb)	Recovery Factor	Acres	EUR MBO	
<u>Rw</u> <b>DELAWARE</b>														
0.045	BELL CANYON	5354.00	5374.00	19.00%	53.00%	20.0	0.1007	3.8000	1.7860	132	1.50	0.15	20	27.71
0.045	CHERRY CANYON	5742.00	5888.00	15.00%	60.00%	37.0	0.0900	5.5500	2.2200	138	1.50	0.15	20	34.45
	<b>Total Delaware:</b>			<b>16.40%</b>	<b>57.16%</b>	<b>57</b>	<b>0.0938</b>	<b>9.3500</b>	<b>4.0060</b>					<b>62.16</b>

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NM-26692

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

Oil Well     Gas Well     Other

2. Name of Operator  
Fasken Oil and Ranch, Ltd.

3a. Address  
303 West Wall St., Suite 1800, Midland, TX 79701

3b. Phone No. (include area code)  
432-687-1777

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Unit N, 660' FSL & 1980' FWL, Sec. 26, T18S, R33E

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Federal "26A" No. 1

9. API Well No.  
30-025-29249

10. Field and Pool or Exploratory Area  
Corbin; Queen, South (Oil)

11. Country or Parish, State  
Lea, New Mexico

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Down-hole</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>Commingle</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Fasken Oil and Ranch, Ltd. is planning to down-hole commingle the E-K; Delaware with the Corbin; Queen, South (Oil) pool.

This is for your information only.

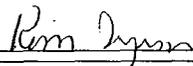
The Down-hole Commingling application is currently being prepared and will be submitted to the NMOCD in next few weeks for approval.

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)  
Kim Tyson

Title Regulatory Analyst

Signature



Date 12/16/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice 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.	Office	

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)

**Recommended Recompletion Procedure**  
**Federal 26 "A" No. 1**  
**660' FSL and 1980' FEL**  
**Sec. 31, T19S, R34E**

<b>OBJECTIVE:</b>	Add Delaware and Commingle with Queen	
<b>WELL DATA:</b>		
13-3/8" 54.5# K-55 casing:	Set at 365' w/ 375 sx, Circ	
8-5/8 24&28# K-55 casing:	Set at 3700' w/ 1895 sx, Circ	
5-1/2" 15.5&17# K-55 LT&C casing:	Set at 10363', DV Tool @ 6818', cmt w/ 1895 sx - TOC	
	1330' by CBL.	
Perfs:	9033'-10,219' (Inactive Bone Spring)	
	4532'49' (Active Queen Penrose)	
	4305'-15' (Squeezed '96 Upper Queen)	
KB:	16'	
TD:	10,600'	
PBTD:	8,950' CIBP	

1. Make sure mast anchors have been tested. Test if necessary.
2. Check with Kim Tyson and make sure we have received pit and commingling permits before starting workover.
3. Set test tank and open top flowback tank and build manifold in flowline to go to either one of test tanks.
4. Hot oil well one week prior to rigging up.
5. RUPU. Unseat pump and POW with rods and pump. LD any damaged or pitted rods. Send pump into shop for inspection.
6. NDWH and NU 3k manual BOP equipped with 2-3/8" pipe rams and blind rams. Will need an extra set of 2-7/8" pipe rams.
7. Unseat TA and POW with tubing and RIW +/- 2 joints tubing or tag PBTD.
8. RIW with 5-1/2" treating packer with bypass, sn, and 2-3/8" tubing to +/- 4600'. Set packer, RU pump truck on annulus and attempt to load annulus. Note there are open perforations and old squeeze holes above packer on annulus. If annulus loads do not put more than 300 psi on annulus.
9. RU pump truck on tubing and pressure test casing below packer to 3000 psi for 15" using 2% KCl water on chart recorder. Report results to Midland Office.
10. Release packer and RIW to put EOT @ +/-5810'. Attempt to establish circulation with 2% Kcl water. If unable to get circulation notify Midland office. If able to establish circulation then continue with procedure.
11. Displace well with 2% KCl water, spotting 500 gallons of 7-1/2% double-inhibited NEFE HCl @ 5810'. POW with tubing and packer.
12. RUWL. Run GR/CCL from 6000' to 4000' (or over the minimum charged interval) correlated to Schlumberger's Simultaneous Compensated Neutron-Litho Density log dated 11-13-85, and perforate *Delaware Cherry Canyon* with 3-1/8" slick casing gun with as follows:

**5743' – 5763' 1 JSPF, 0.42" EH, 120° phasing, 21 holes**

**5773' – 5808' 1 JSPF, 0.42" EH, 120° phasing, 36 holes**

POW, make sure all shots fired and RDWL.

13. RIW with 5-1/2" RBP with ball catcher, retrieving tool, 6' X 2-3/8" tubing sub, 5-1/2" treating packer with bypass, and 2-3/8" tubing. Set RBP at +/- 5875 and release retrieving tool. POW and set plug +/-10', above plug and pressure test tubing and plug to 1000 psi for 10". Test tubing to 6000 psi above slips while running in with tools.
14. Release packer, POW to put EOT @ +/- 5680', reverse acid into tubing and set packer in 12-14K compression.
15. RU pump truck and breakdown perfs using 12 bbls of 2% KCl. Max pressure = 3,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
16. RU swab and swab back spot acid load. Obtain hourly entry rates and fluid cuts. Report results to Midland Office. After approval is given by Midland office continue with procedure.
17. RU stimulation company. Spot acid open bypass and spot acid to end of tubing. Close bypass and acidize Cherry Canyon perfs with 3,000 gallons of 7-1/2% NEFE HCl containing clay stabilizer dropping 114 7/8" ball sealers evenly spaced for diversion. Max pressure = 5,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
18. RU swab and swab back acid load. Obtain hourly entry rates and fluid cuts. Report results to Midland Office. If zone appears unproductive, orders will be given to set CIBP @ 5700' with 10' class "C" cement on top (after retrieving RBP).
19. Unseat packer, RIW and retrieve RBP @ +/- 5875'. POW and reset RBP @ +/- 5475'. PU 10', set packer and test tubing and RBP to 1000 psi for 10".
20. POW to put EOT @ 5375'. Spot 500 gallons of 7-1/2% double-inhibited NEFE HCl @ 5375'. Displace acid with 2% KCl water. POW with tubing and packer.
21. RUWL and lubricator. RIW and perforate *Delaware Bell Canyon* with 3-1/8" slick casing gun as follows:

**5354'-74' 1 JSPF, 0.42" EH, 120° phasing, 21 total holes.**

Correlate all perforations to strip log obtained above. POW, make sure all shots fired and RDWL.

22. RIW with retrieving tool, 10' tubing sub, 5-1/2" treating packer with bypass, and 2-3/8" tubing to +/- 5300'. Reverse acid into tubing and set packer in 12 pts compression.
23. RU pump truck and breakdown perfs using 12 bbls of 2% KCl. Max pressure = 3,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
24. RU swab and swab back acid load. Obtain hourly entry rates and fluid cuts. Report results to Midland Office.
25. If necessary, RU stimulation company. Spot acid to end of tubing utilizing packer bypass and acidize Bell Canyon perforations with 1,500 gallons of 7-1/2% NEFE HCl dropping 42 7/8" RCN ball sealers evenly spaced for diversion. Max pressure = 3,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.

26. RU swab and swab back load. Obtain hourly fluid entry rates and fluid cuts. Report results to Midland Office.
27. NOTE: CALL MIDLAND OFFICE BEFORE PROCEEDING WITH STEPS 28-34. BASED ON RESULTS FROM FIRST TWO ZONES WE MAY NOT ADD DELAWARE DOLOMITE AS SHOWN BELOW.
28. Release packer and RIW to retrieve RBP @ +/- 5475'. POW and reset RBP @ +/- 5300'. PU 10', set packer, test tubing and RBP for 10".
29. Release packer and POW to put EOT @ 5260'. Spot 500 gallons of 7-1/2% double inhibited acid @ 5260' using 2% KCl water to get on spot. POW with tubing and packer.
30. RUWL and lubricator. RIW and perforate *Delaware Dolomite Stray* with 3-1/8" slick casing gun as follows:

**5252'-60' 1 JSPF, 0.42" EH, 120° phasing, 9 total holes.**

Correlate all perforations to strip log obtained above. POW, make sure all shots fired and RDWL.
31. RIW with retrieving tool, 10' tubing sub, 5-1/2" treating packer with bypass, and 2-3/8" tubing to +/- 5150'. Reverse acid into tubing and set packer in 12 pts compression.
32. RU pump truck and breakdown perms using 12 bbls of 2% KCl. Max pressure = 3,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
33. RU swab and swab back acid load. Obtain hourly fluid entry rates and fluid cuts. Report results to Midland Office.
34. If necessary, RU stimulation company. Spot acid to the end of the tubing utilizing packer bypass and acidize Dolomite Stray perforation with 1,000 gallons of 7-1/2% NEFE HCl dropping 18 7/8" RCN ball sealers evenly spaced for diversion. Max pressure = 3,000 psi. Record instantaneous, 5", 10", and 15" shut-in pressures.
35. RU swab and try to swab back acid load. Obtain hourly fluid entry rates and cuts.
36. Based on the results from the swab test in each zone, a decision will be made regarding fracture stimulation. The rest of the procedure assumes that we frac the bottom two zones and is subject to change.
37. Unseat packer, RIW and retrieve RBP @ +/- 5300'. POW and stand back all tubing and LD packer.
38. Receive +/-5800' of 2-7/8" N-80 frac string on location. Clean boxes and pins and tally.
39. RIW with 5-1/2" Weatherford dual-frac packer system, sn, and 2-7/8" tubing to put EOT @ +/- 5600'. Test tubing to 10,000 psi above slips while running in well with tubing and tools. Set bottom packer (right hand set) @ +/- 5600' in 14 pts compression.
40. Set and fill X-500 bbl frac tanks (call Midland Office before ordering) and fill to maximum capacity with 2% KCl water. Have service company check water for fluid compatibility before the frac, and add the recommended amount of biocide to all frac tanks.
41. Receive 10k flowback manifold on location and build line going from manifold to test tank.

42. RU Fracture Stimulation company. Frac the *Cherry Canyon* according to recommendation to follow. Flush to top perf @ 5743'. Max Pressure = 8,500 psi.
43. Get off frac packer #1 @ +/- 5600', sealing off *Cherry Canyon*.
44. POW with top frac packer #2 (left hand set) and set @ +/- 5300' in 14 pts compression.
45. Frac the *Bell Canyon* according to frac recommendation to follow. Flush to top perf @ 5354'. Record instantaneous, 5", 10", and 15" shut-in pressures. RD frac company.
46. RU tubing to flowback manifold and flow back the *Bell Canyon* to workover tank until well dies.
47. Release packer @ 5300', POW and LD Packer.
48. RIW with 2-7/8" perforated seat nipple and tubing to 5600' and sting into frac packer. NU tubing to flowback manifold and flow well to test tank until well dies. Unseat packer, POW and reset packer #1 (right hand set) @ +/- 5200' in 12 pts compression.
49. RU swab and swab well to determine fluid entry rates and any oil cut. Report results to Midland Office.
50. Release packer and POW and LD tubing and packer.
51. Send 2-7/8" workstring back to Fasken stock.
52. RIW with tubing and rods according to design to follow. Return well to production.
53. Report daily production volumes on daily drilling report.