CORRECTION #1

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1073808

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 34318
Name: BEREXCO LLC
Address 1: 2020 N. BRAMBLEWOOD
Address 2:
City: WICHITA State: KS Zip: 67206 + 1094
Contact Person: Evan Mayhew
Phone: (316) 265-3311
CONTRACTOR: License # 34318
Name: BEREXCO LLC
Wellsite Geologist: Ed Grieves
Purchaser: Central Crude Corporation

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

08/31/2011	09/16/2011	11/02/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-081-21963-00-00
Spot Description:
NW - SE - SE - NE Sec. 12 Twp. 27 S. R. 33 [ ] East [x] West
2220 Feet from [x] North / [ ] South Line of Section
335 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Haskell
Lease Name: Tate A Well #: 2-12
Field Name: Kisner South
Producing Formation: Morrow
Elevation: Ground: 2892 Kelly Bushing: 2905
Total Depth: 5404 Plug Back Total Depth: 5360
Amount of Surface Pipe Set and Cemented at: 1804 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 3109 Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 8000 ppm Fluid volume: 1600 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. [ ] East [ ] West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] **Letter of Confidentiality Received**
  Date: 12/08/2011
- [x] **Confidential Release Date:** 12/07/2013
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] **I** [ ] **II** [ ] **III** **Approved by:** NAOMI JAMES **Date:** 02/10/2012

CORRECTION #1
Side Two

1073808

Operator Name: BEREXCO LLC Lease Name: Tate A Well #: 2-12

Sec. 12 Twp. 27 S. R. 33 ☐ East ☑ West County: Haskell

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Array Induction Shallow Focused Electric Log
Compact Photo Density Compensated Neutron Log
MicroResistivity Log

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	5036 - 5045 (Morrow)	1,000 gallons 7-1/2% MCA + 30 ball sealers	5036 - 5045
4	5036 - 5045 (Morrow)	25,500 gals. 25# X-Link Gel & 30,000 lbs 20/40 Ottowa Sand	5036 - 5045

TUBING RECORD: Size: 2.875 Set At: SN @ 5012 Packer At: no packer

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/07/2012

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	25		13		38

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
5036 - 5045

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Tate A 2-12
Doc ID	1073808

Tops

Name	Top	Datum
Heebner Shale (base)	4020	-1115
Toronto	4031	-1126
Lansing	4061	-1156
Marmaton	4606	-1701
Pawnee	4708	-1803
Fort Scott	4744	-1839
Cherokee	4760	-1855
Morrow	5003	-2098
Chester	5104	-2199
St. Genevieve	5152	-2247
St. Louis	5126	-2321
RTD	5404	

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Tate A 2-12
Doc ID	1073808

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1804	60/40 POZ	600	8%gel,3% cc,1/4#flakes
Surface	12.25	8.625	24	1804	Common	150	3% cc
Production	7.875	5.50	15.50	5400	60/40 POZ	30	8%gel,1/4 #flakes
Production	7.785	5.50	15.50	5400	ASC	270	2%gel,10 %salt,6#Gilsonite

Summary of Changes

Lease Name and Number: Tate A 2-12

API/Permit #: 15-081-21963-00-00

Doc ID: 1073808

Correction Number: 1

Approved By: NAOMI JAMES

Field Name	Previous Value	New Value
Approved Date	12/08/2011	02/10/2012
Date of First or Resumed Production or SWD or Enhr		01/07/2012
Method Of Completion - Other	Yes	No
Method Of Completion - Other Detail	Temporarily Abandoned	
Producing Method Pumping	No	Yes
Production - Barrels Oil		25
Production - Barrels of Water		13
Production - Oil Gravity		38
Save Link	../../kcc/detail/operatorEditDetail.cfm?docID=1069640	../../kcc/detail/operatorEditDetail.cfm?docID=1073808

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1069640

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

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City: WICHITA State: KS Zip: 67206 + 1094
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Phone: (316) 265-3311
CONTRACTOR: License # 34318
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- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
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- [ ] Plug Back: Plug Back Total Depth
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- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

08/31/2011	09/16/2011	11/02/2011
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2220 Feet from [x] North / [ ] South Line of Section
335 Feet from [x] East / [ ] West Line of Section

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- [x] NE
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- [ ] SE
- [ ] SW

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Elevation: Ground: 2892 Kelly Bushing: 2905
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(Data must be collected from the Reserve Pit)

Chloride content: 8000 ppm Fluid volume: 1600 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. [ ] East [ ] West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] Letter of Confidentiality Received
  Date: 12/08/2011
- [ ] Confidential Release Date:
- [x] Wireline Log Received
- [x] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: NAOMI JAMES Date: 12/08/2011

Side Two

1069640

Operator Name: BEREXCO LLC Lease Name: Tate A Well #: 2-12

Sec. 12 Twp. 27 S. R. 33 ☐ East ☑ West County: Haskell

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Array Induction Shallow Focused Electric Log
Compact Photo Density Compensated Neutron Log
MicroResistivity Log

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	5036 - 5045 (Morrow)	1,000 gallons 7-1/2% MCA + 30 ball sealers	5036 - 5045
4	5036 - 5045 (Morrow)	25,500 gals. 25# X-Link Gel & 30,000 lbs 20/40 Ottowa Sand	5036 - 5045

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Liner Run: ☐ Yes ☑ No

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DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☑ Other *(Specify)* Temporarily Abandoned

PRODUCTION INTERVAL:
5036 - 5045

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Tate A 2-12
Doc ID	1069640

Tops

Name	Top	Datum
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Toronto	4031	-1126
Lansing	4061	-1156
Marmaton	4606	-1701
Pawnee	4708	-1803
Fort Scott	4744	-1839
Cherokee	4760	-1855
Morrow	5003	-2098
Chester	5104	-2199
St. Genevieve	5152	-2247
St. Louis	5126	-2321
RTD	5404	

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Tate A 2-12
Doc ID	1069640

Casing

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Surface	12.25	8.625	24	1804	Common	150	3% cc
Production	7.875	5.50	15.50	5400	60/40 POZ	30	8%gel,1/4 #flakes
Production	7.785	5.50	15.50	5400	ASC	270	2%gel,10 %salt,6#Gilsonite

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

December 05, 2011

Evan Mayhew
BEREXCO LLC
2020 N. BRAMBLEWOOD
WICHITA, KS 67206-1094

Re: ACO1
API 15-081-21963-00-00
Tate A 2-12
NE/4 Sec.12-27S-33W
Haskell County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Evan Mayhew

ALLIED CEMENTING CO., LLC. 036534

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Liberal Ks

DATE 9-1-11	SEC. 12	TWP. 27	RANGE 33W	CALLED OUT	ON LOCATION	JOB START 12:30AM	JOB FINISH 2:00Am
LEASE TATE	WELL# 2-12A	LOCATION Finney Haskell Line				COUNTY Haskell	STATE KS
OLD OR [✓ NEW] (Circle one)		Wint					

CONTRACTOR Bradeco #2 OWNER Same

TYPE OF JOB 8 5/8
HOLE SIZE 12 1/4 T.D. 1806
CASING SIZE 8 5/8 24# DEPTH 1806'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 900 PSI MINIMUM Ø
MEAS. LINE SHOE JOINT 42.57'
CEMENT LEFT IN CSG. 42.57'
PERFS.
DISPLACEMENT 112.2 BBL

EQUIPMENT

PUMP TRUCK # 352 CEMENTER Bob
HELPER David
BULK TRUCK # 456/239 DRIVER Rubin
BULK TRUCK # 457/251 DRIVER

REMARKS:

Thank You
Circ Cmt To
Surface

CHARGE TO: Brexeco

STREET

CITY STATE ZIP

CEMENT

AMOUNT ORDERED 600 SK 60/40 8% Gel 3% CC 1/4 Floseal
150 A 3% CC

COMMON	150 A	@ 16.25	2437.50
POZMIX		@	
GEL		@	
CHLORIDE	25 SK CC	@ 58.20	1455.00
ASC		@	
600 Lite		@ 14.50	8700.00
		@	
		@	
Floseal	150 LB	@ 2.70	405.00
		@	
		@	
		@	
		@	
HANDLING	781	@ 2.25	1757.25
MILEAGE	SK/mi x .11		1295.50
		TOTAL	19050.25

SERVICE

DEPTH OF JOB	1806'		
PUMP TRUCK CHARGE			1925.00
EXTRA FOOTAGE		@	
MILEAGE	100 mi	@ 7.00	700.00
MANIFOLD + Head		@	200.00
LT Veh mi	100 mi	@ 4.00	400.00
		@	
		TOTAL	3225.00

8 5/8 **PLUG & FLOAT EQUIPMENT**

1 Basket	@		478.00
1 - AFU	@		382.00
1 - 5W plug	@		112.00
3 - Centralizers	@	64	192.00
	@		
		TOTAL	1164.00

SALES TAX (If Any)

TOTAL CHARGES 23,439.25

DISCOUNT IF PAID IN 30 DAYS

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Gilbert Davila Jr

SIGNATURE [illegible]

ALLIED CEMENTING CO., LLC. 036478

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Liberal KS.

DATE 9-18-11	SEC. 12	TWP. 27	RANGE 33W	CALLED OUT	ON LOCATION	JOB START 1:00 Am	JOB FINISH 2:30 Am
LEASE Tate	WELL # 2-12A	LOCATION Vec Sublette KS.				COUNTY Haskell	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Beredco #2
TYPE OF JOB Production
HOLE SIZE 7 7/8 T.D. 5400
CASING SIZE 5 1/2 DEPTH 5363
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL @ DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42.15
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER

CEMENT
AMOUNT ORDERED 270 SK ASC
65 SK 60/40

EQUIPMENT

PUMP TRUCK CEMENTER Kenny
#372 HELPER Jose
BULK TRUCK
#457-251 DRIVER Kenny
BULK TRUCK
DRIVER

REMARKS:
THANK You!!!

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC 270	@	19.00	5130.00
	@		
Kolseal 1620	@	.89	1441.80
Flosea 25	@	2.70	67.50
Light Weight 65	@	14.50	942.50
	@		
	@		
	@		
	@		
HANDLING 368	@	2.25	828.00
MILEAGE			2024.00
TOTAL			10433.80

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			2695.00
EXTRA FOOTAGE	@		
MILEAGE 50	@	7.00	350.00
MANIFOLD	@		
	@		
	@		
TOTAL			3045.00

CHARGE TO: Beredco
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

Centralizers 16	@	37.00	592.00
Basket 1	@	178.00	178.00
Port Collar 1	@	2600.00	2600.00
Float shoe 1	@	232.00	232.00
Baffle & latch down Plug 1	@	154.00	148.00
TOTAL			3750.00

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES $17228.80
DISCOUNT $13266.18 IF PAID IN 30 DAYS

PRINTED NAME Gilberto Davila Jr
SIGNATURE

GEOLOGIST'S REPORT
DRILLING TIME & SAMPLE LOG

COMPANY: BEREXCO LLC
LEASE: TATE "A" NO. 2-12
LOCATION: 2220'FNL & 335'FEL
SEC. 12 TWP. 27W RNG. 33W
COUNTY: HASKELL, STATE: KANSAS
FIELD: KISNER SOUTH

ELEVATIONS
KB 2905
DF 2902
GL 2892
MEASUREMENTS ARE ALL FROM KB

CONTRACTOR: BEREDCO DRLG. RIG NO. 2
COMM. 8-30-2011 COMP. 9-17-2011
RTD 5400 LTD 5404
No. of DST'S 4 No. of CORES NONE

CASING RECORD
5 8/8" at 1802' w/ ___ sx.
___ at ___ w/ ___ sx.
___ at ___ w/ ___ sx.
___ at ___ w/ ___ sx.

EL. LOG AR IND-SP-GR DEN-NEUT-GR-CALIPER ML-SONIC

SAMPLES SAVED FROM 3800 TO TD
DRILLING TIME KEPT FROM 3800 TO TD
SAMPLES EXAMINED FROM 3800 TO TD
GEOLOGICAL SUPERVISION FROM 3800 TO TD
GEOLOGIST ON WELL: EDWIN H. GRIEVES

FORMATION TOPS

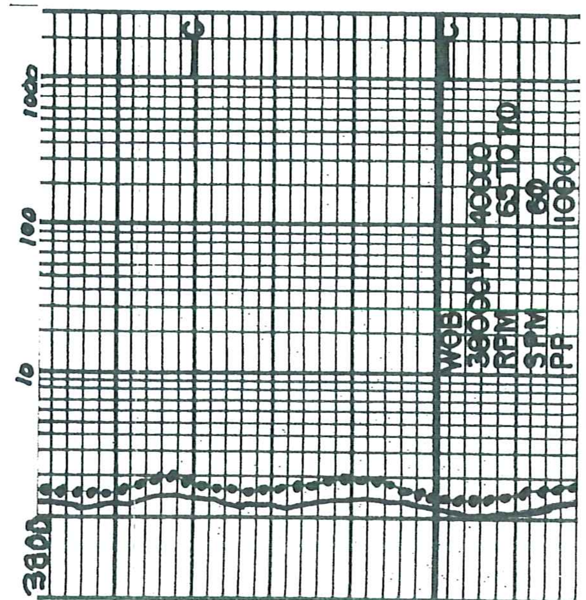
	SAMPLE	LOG	SUBSEA
BASE HEEBNER	4017	4020	-1115
TORONTO	4029	4031	-1126
LANSING FM.	4060	4061	-1156
MARMATON	4600	4606	-1701
PAWNEE	4707	4708	-1803
FT. SCOTT	4744	4744	-1839
CHEROKEE	4759	4760	-1855
MORROW FM.	5000	5003	-2098
CHESTER FM.	5101	5104	-2199
ST. GENEVIEVE	5162	5152	-2247
ST. LOUIS	5229	5126	-2321
TD	5400	5404	

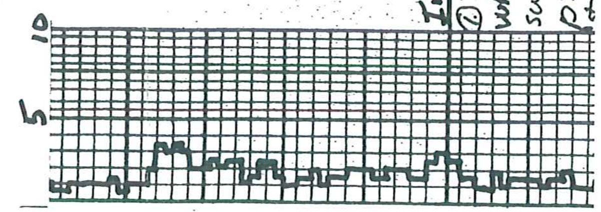
12

API #15-081-21963

REMARKS: Earth-Tech had an unmanned gas detection trailer on this well from 3800 feet to total depth.

Thank you,
Edwin H. Grieves
Geologist





Interbedded Limestones

① Faster Drlg. Lms. v. to extrly chlky. crm. to wht. at crm.. to lt. tan; crypto. to v.v. fn. xln. sub-chlk, sub-sucro. to sucro & trs. packstn.; ph. zutom oolitic to oolitic ...

oolicastic IPs; dul H. to H. yel. fluor
No Cut; TR to huy. trs. PR to fr micro PP
POR. IPs + poss interxln POR IPs

(2.) Slower Drlg. Lms. tan, gryish. IPs; crypto
to v.v.fn.xln.; sub-chlk, sub-sucro+
packstn.; dul. H. to H. yel. fluor; No Cut
No Vis. por.

3900

4000

Base Heebner
4017-11'2

BLK. SH. IIU

Toronto
4029-11'24

Lansing Fm.
4060-1155

Sh black - carb
4017-19 Lms. crm to tan; crypto to wkstn
xln; sub-sucro, packstn. to trs. sub-lithogr.
dul. H. yel. fluor; No cut; No Vis POR
Sh H. gry. to H. green

Lms. abn. wht. to crm. - chlk + crm to tan
sub-chlk, sub-sucro. to sucro; dul. yel. to
yel. fluor.; No Cut; abn. PR. to trs TR. micro pp
POR. + poss. interxln POR. IPs; abn chert
grys. opaque
Interbedded limestones
(1) Lms. crm to tan; crypto to v.v.fn.-xln.; sub-chlk,
sub-sucro + packstn; dul. yel. to yel. fluor; No Cut
No Vis POR.
(2) Lms. tan ish gry. to lt. tan; crypto to v.v.fn.xln.; Shly
sub-chlk to pel shly, sub-sucro + packstn, dul. yel. fluor
IPs; No Cut; No Vis POR

Lms. tan, gryish. tan to tanish gry; crypto
to v.v.fn.xln.; trs. sub-chlk, sub-sucro.,
packstn + trs. sub-lithogr.; dul. H. yel
to dul yel. fluor; No Cut; No Vis POR

Lms. tan, gryish. IPs; crypto. to v.v.fn.xln
sub-sucro + packstn.; v. dul. yel. fluor.;
No Cut; No Vis. POR
Lms. trs. wht. to crm chlk + tan; v.v.fn.xln; sub-sucro to
sucro; phantom oolicastic IPs; dul. H. yel. to dul. yel
fluor.; No cut; abn. PR to trs. TR micro-pp. POR +
carb. interxln. POR IPs; trs Chert grys - opaque

Lms. gryish. tan to tan; crypto. to v.v.fn.xln
trs. sub-chlk, sub-sucro. + packstn.;
dul. yel. fluor. IPs; No Cut; No Vis POR.

Lms. abn. wht. to crm - chlk + tan; crypto. to v.v.fn.xln.
trs. sub-chlk., sub-sucro. to sucro.; trs phantom
oolicastic to sli. trs. oolicastic; dul. H. yel. fluor; No cut;
trs PR to gd + sli. trs excel. oolicastic por zone
abn. PR, trs. TR to sli. trs. gd micro-pp POR +
poss. interxln POR. IPs
Lms. H. gry, tanish IPs. crypto. to v.v.fn.xln.; trs
sub-chlk, sub-sucro., packstn + sub-lithogr.
trs. phantom oolitic; dul. yel. fluor; No Cut;
No Vis. POR.; w/ huy. trs. Chert grys to tan, opaque

Sh med to v. dk. gry - calc to blk - carb
Lms. abn. wht. to crm - chlk. w/ chlk oolites
IPs + lt. gry. to tan; crypto to v.v.fn.xln.;

sub-chlk; sub-sucro. to sucro. & packstn.; sli to extrly. phantom oolitic to trs oolitic

dul. yel. fluor.; No Cut; trs. pr to fr micro-pp. POR.

Lms. lt. gry. to tan; crypto. to v.v.fn. xln.; trs. sub-chlk, sub-sucro., packstn & trs sub-lithogr. dul. yel. fluor.; No Cut; No Vis. POR.

Lms. lt. to med. gry.; crypto. to v.v.fn. xln sli. to very Shly.; trs. sub-chlk &/or Shly., trs. sub-sucro & packstn.; trs. v. dul. yel. fluor.; No Cut; No Vis POR.

Lms. abn. wht. to crm. chlk & tan, grayish. lP's crypto. to v.v.fn. xln.; v. to extrly. oolicastic &/or sli. to frly. oolitic; matrix: trs sub-chlk, sub-sucro & sucro & packstn.; dul. yel. fluor No Cut; abn. pr. fr. gd. to excel oolicastic POR Prob. No Perm.

Lms. similar 4207–4222

Lms. similar 4241–4261 w/ less oolicastic in bottom of zone and more oolitic

4300

Lms. similar 4207–4222

Sh. lt. to med. gry.; sl. to extrly. calc

Lms. similar 4207–4222

Sh. lt. to v. drk. gry. - calc to v. drk gry to black - carb.

Lms. lt. to med. gry. - shly. to tan; crypto to v.v.fn. xln.; sub-chlk &/or Shly. lP's; sub-sucro, packstn & trs. sub-lithogr.; dul. lt. yel. to dul yel. fluor.; No Cut No Vis POR.

4400

Sh lt. gry. to lt. green; sl. to frly. calc

Lms. lt. gry. to tanish gry.; crypto. to v.v.fn. xln., v. abn. sub-chlk, trs. sub-sucro. & packstn.; dul. yel. fluor No Cut; No Vis. POR.

Lms. grayish. tan to tan; crypto to v.v.fn. xln.; sub chlk; sub-sucro to sucro.; dul. yel. fluor.; No Cut; huy trs poor to fair micro-p.p. POR.

Lms. similar 4417–4444

Sh v. drk. gry to black - carb

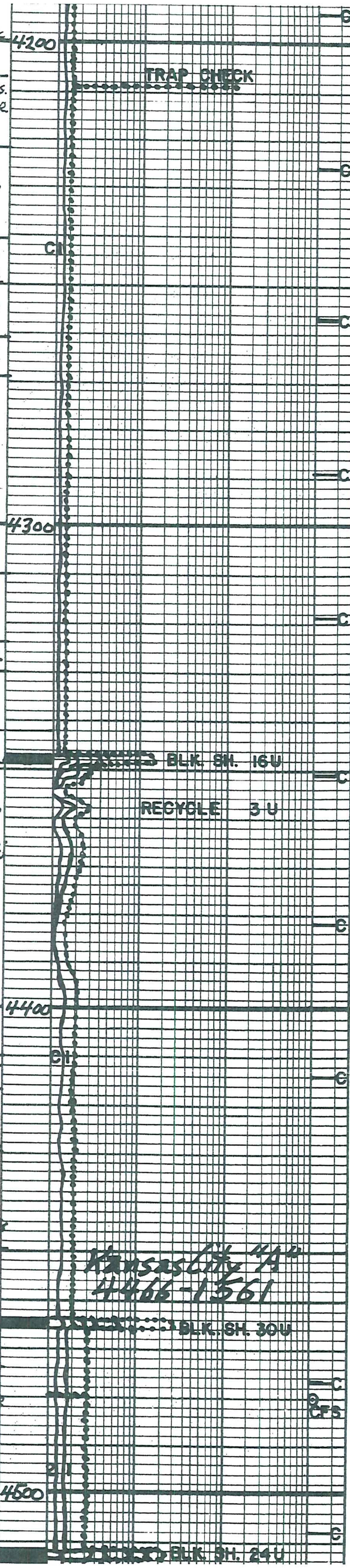
Lms. lt. to med. gry. - sli. to extrly. Shly; crypto to v.v.fn. xln.; sub-chlk &/or Shly., trs sub-sucro & packstn; dul. yel. fluor lP's; No Cut; No Vis POR.

Lms. trs. wht. to crm - chlk & tan, grayish. lP's crypto to v.v.fn. xln.; extrly oolicastic &/or sl. & pfrly. oolitic; matrix trs sub-chlk., sub-sucro to sucro & trs. packstn.; dul. yel. to gldn. yel. fluor. No Cut; abn. pr, fr, gd. to excel. oolicastic por & huy. trs pr to trs. fr micro pp & poss interxln POR.

4482–4512 Lms. lt. gry. to tan; crypto. to v.v.fn. xln.; sub-chlk, Sli trs sub-sucro packstn. & Sub-lithogr.; v. dul. yel. fluor. No Cut; No Vis. POR

4500

Sh black - carb



Lms. abn. wht to crm-chlk & lt gry. to tan; crypto to v.v.fn. xln.; sli. to v. oolitic and/or sli. oolicastic; matrix: trs. sub-chlk, sub-sucro to sucro & packstn.; dul. yel. to trs. yel fluor.; No Cut; abn. pr. to gd. oolicastic & micro-p.p. POR.; Quest. Perm. w/ hvy trs chert grys.; opque

4526-4556 Lms. trs. wht to crm-chlk & lt gry, tanish IP's; sub-chlk, sub-sucro, packstn & trs. sub-lithogr.; sli. to frly. Shly. IP's; dul. yel. fluor.; No Cut No Vis POR

Sh. med. to v. drk. gry.; sli. to extrly. calc.

Lms. lt to med. gry.; v. to extrly Shly. to tan; crypto xln.; packstn. to sub lithogr.; tan's have dul. yel. fluor.; No Cut; No Vis POR

Sh med to drk. gry.-v. to extrly calc grdng to Shly Limestones

4600-4610 Lms. tan w/ even brn. oil stn. v.v.fn to v.fn. xln. w/ sli. trs. fn. calc xlstreaks prob along fractures; sub-sucro to sucro

RECYCLE 17U

Marmaton Fm 4600-1695

4600

sli. trs. foss.; hvy trs. oolitic; hvy tr phantom oolicastic; strng oil oder; yel. to gldn. yel. fluor.; flush to excel. strmng. cuts; abn. pr. to trs. hvy trs. gd. to excel vugular, p.p, micro-pp + interxln. POR. w/ prob. fracturing

4610-4628 Lms. lt gry. to tan; crypto. to v.v.fn. xln.; sub-chlk trs sub-sucro & packstn.; phantom oolitic IP's dul. yel. fluor.; No Cut, No Vis POR

4628-4636 Lms. tan to trs. lt gry.; crypto to v.v. fn. xln.; sub-sucro to sucro & packstn to sub-lithogr.; solution & rexlzation; trs oolitic, trs. phantom oolicastic; trs. foss. fnt. to fr. oil oder, sptd tan to brown w/ trs blk oil stn; lt. yel. yel. & gld. yel fluor., mottled flush to gd. strmng cuts; abn. pr. to frt hvy trs. gd to sli. trs excel. vugular, p.p., micro-pp. & interxln. por.; sugst along fractures; V. Quest Perm.

4636-53 Lms. sli. trs. wht to crm-chlk & lt gry to tanish gry.; crypto xln.; sub-chlk, packstn and sub-lithogr.; dul. yel. fluor.; No Cut No Vis POR

SHOW 27 U
SHOW 15 U
TRIP GAS 973 U

SHOW 58 U
SHOW 58 U
TRIP GAS 145 U

4653-71 Lms hvy. trs. to abn. wht to crm-chlk & tan; crypto. to v.v.fn. xln.; sub-chlk, sub-sucro & packstn; phantom oolitic IP's to oolitic IP's; dul. yel. fluor.; No Cut; No Vis POR w/ v. sli. trs chert gry-opque

Lms. extr. abn. wht to crm-chlk & crm tan v. lt tan; crypto to v.v.fn. xln.; sub-chlk, sub-sucro. to trs sucro & packstn.; phantom oolitic IP's to trs oolitic dul. lt to trs. lt. yel. fluor.; No Cut, abn. pr. to fr. trs gd. micro-pp POR.

TRAP CHECK

Lms. trs. crm. to lt. gry.-chlk IP's & lt. gry. to tan; crypto. to v.v. fn. xln.; trs. sub-chlk, trs sub-sucro, packstn & sub-lithogr.; dul. lt yel. IP's to dul. yel. fluor. IP's; No Cut, No Vis POR

Pawnee 4707-1802

4700

Sh. v. drk gry.-calc to black-carb

Sh med to v. drk. gry.; v. to extrly. calc

BLK. SH. 55U

Lms. abn. wht. to crm-chlk & tan, grayish IP's crypto. to v.v. fn. xln.; sub-chlk, sub-sucro to trs. sucro. & packstn.; trs phantom oolitic; dul. yel. to trs. dul. lt yel. fluor No Cut; widely scattered trs v. poor micro-pp POR

Lms. hvy trs. wht. to crm.-chlk & lt gry to tan, crypto to v.v. fn xln; sub-chlk, sub-sucro, packstn & trs. sub-lithogr.; phantom oolitic IP's; dul yel. fluor.; No Cut; No Vis POR

Ft Scott 4744-1839

Sh Black-carb.

BLK. SH. 43U

Lms. trs. wht. to crm.-chlk & lt. gry. to tan; crypto to v.v. fn. xln.; phantom oolitic IP's sub-chlk, sub-sucro & packstn.; trs. foss.; dul. yel. to dul lt. yel. fluor No Cut; No Vis POR w/ trs. chert. gry opque

Sh very drk gry to black-carb

BLK. SH. 41 U

Lms. similar 4744-4756

Cherokee Fm 4759-1854

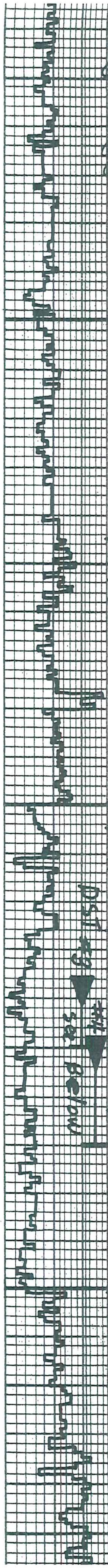
Lms. lt. to med. gry.-sli. to v. Shly. to tan crypto. to v.v. fn. xln.; sub-chlk, sub-sucro & packstn; dul. yel. fluor. IP's; No Cut; No Vis POR

Lms. lt. gry. to tan; crypto. to v.v.fn. xln.; very to extrly oolitic (tan w/ trs gry), matrix sub-chlk, packstn. & trs. sub-lithogr. dul. lt. yel. fluor. IP's; No Cut, No Vis POR.

4800

Interbedded Limestones and Shales

1. Lms. lt. to med & trs. drk. gry., sli to extrly Shly. grdng to v. calc. Shs; crypto to v.v.fn xln; sub-chlk &/or Shly., trs sub-sucro.,



xln; sub-chlk +/or Shly., trs sub-sucro., packstn. + trs. to abn. sub-lithogr. v.dul. yel. fluor. IP's; No Cut; No Vis. Por.

(12) Lms. grayish tan to tan, crypto to v.v.fn. xln; trs sub-chlk, trs to hvy trs. sub-sucro, packstn and sub-lithogr.; dul. yel. to sli trs. yel. fluor; No Cut; No Vis Por

(13) Sh med. to drk gry. - sli to extrly calc

(14) Sh v. drk gry to blk - carb. looking

4945-5000 Interbedded Limestones + Shales similar 4802-4945 w/trs to abn Shs. lt. green to olive greens & greenish grys to gryish greens; sli. silty IP's.

A. 5000-5005 Sh v. drk. gry to black splintery

B. 5005-5011 Sh med. to v. drk gry + trs. black - splintery IP's w/trs pyrite w/abn Lms. lt. to med gry. - sli. to v. calc. to tan, crypto. to v.v. fn. xln packstn. + sub-lithogr.; No fluor; No Cut; No Vis Por. w/v. abn. Siltstn. lt. to med gry. and lt green & lt. tan from Lms. w/sh. filled IP's Lm filled IP's, trs to v. abn glauc +/or Chlorite No fluor.; No Cut; No Vis Por.

A.

B.

C.

C. 5011-5013 Siltstn, tan; Qtz Sdy. - v.v. fn. gr. - ang.; prly sorted No fluor; No Cut; No Vis Por.

D.

D. 5013-5026 Sh. w/Lms ts & siltstn Similar 5005-5011

E. Siltstn. trs. gry. to brn. from oil stn. grdng. IP's to Qtz Sdst. brn. from oil stn. v.v. fn. gr., + silt filled, ang.; prly sorted; trs w/trs glauc +/or chlorite, trs. w/trs fnly disseminated pyr.; tr to abn Sh + Coal laminations + partings; gldn yel. fluor when air dried w/flush to gd strmng cuts v. widely scattered v. pr. micro pp. por Prob. No Perm.

E.

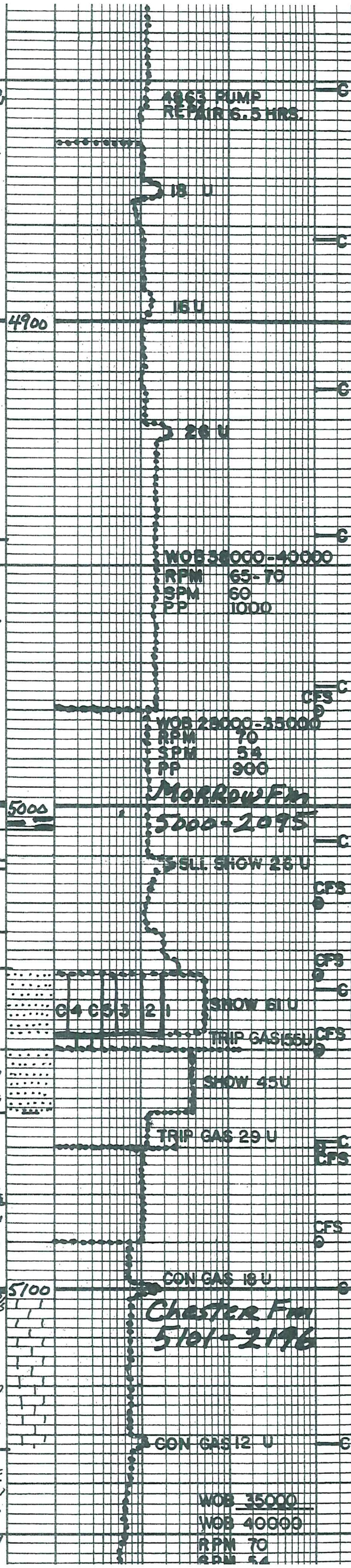
F.

F. 5034-5063 Qtz Sdst brn from even oil stn.; v.v. fn. gr. - ang.; silt filled IP's; pr to gd. sort; trs. w/trs. glauc. +/or chlorite; abn v. drk. gry. to blk. Sh. laminations + partings + trs. w/trs to abn. finely disseminated pyrite trs. to abn. lt. green Sh. partings + laminations silty + shly IP's; gldn. yel. fluor when air dried; w/flush to gd strmng cuts about 1/4 to 1/3 w/abn pr to fr, trs gd. to sli trs excel. micro-pp to inter gr. por Quest. Perm

5063-5101 Sh. med. to v. drk gry. - splintery IP's w/hvy trs. pyrite; abn. sli. to extrly. silty +/or Sdy. - v.v. fn gr. ang. grading. to siltstn. med. to drk. gry.; shale filled + hvy. trs siltstn. tan to brown from even oil stn. w/yel. to gldn. yel. fluor when air dried w/gd strmng cuts IP's; No Vis Por

Lms. trs. wht. to crm. - chlk + lt. gry., tanish IP's crypto. to trs v.v. fn xln.; trs. sub-chlk, sub-sucro. to sucro., packstn + trs. sub-lithogr.; sli. trs. foss.; trs. phantom oolitic to trs. oolitic w/sucro. matrix; w/sptd tan oil stn. w/yel. fluor w/flush to good strmng. Cuts; w/sli. trs. pr. to fr micro-pp to inter xln por in sucro. matrix

Lms lt. gry. to tan, greenish IP's; crypto to v.v. fn. xln, Predom. extrly micro-oolitic +/or sli. to fr ly Qtz. Sdy - v.v. fn. gr - ang.; matrix trs. chlk, sub-chlk, sub-sucro; v. dul. yel. fluor; No Cut; No Vis Por w/trs. to abn. in bottom of zone Lms w/med to lg oolites, matrix sub-chlk, sub-sucro. and packstn.; v. dul. yel. fluor.; No Cut



NoVis POR

Lms. lt. gry., tanish IP's; crypto to v.v.fn. xln.; extrly. micro-oolitic to trs small +/or sli to frly. Qtz Sdy v.v. fngr-ang.; matrix; trs. chlk, trs sub-chlk + sub-sucro, dul. lt. yel. fluor; No Cut, No Vis Por

5200

Lms similar 5162-5201 w/ large incr in small oolites w/ abn. incrs. of chlk and sub-chlk in matrix

—Olive grn shs wavy IP's grdng to olive grn

Lms.; crypto. xln., packstn + Lms. tan, gryish IP's; crypto to v.v. fn. xln.; sli. to extrly. oolitic (sm, med + lg) matrix chlk, sub-chlk, sub-sucro + packstn.; dul. yel. fluor. IP's; No Cut; NoVis Por

Lms. tan gryish. IP's; crypto. to v.v. fn. xln. v. to extrly. oolitic (med to lg + trs sm) matrix abn chlk, sub-chlk, sub-sucro + packstn; dul yel. fluor, No Cut, NoVis Por w/ v. abn Chert gry to tan, transl. to opque; oolite Replacement IP's

5229-5250 Lms similar 5223-5229 w/ only trs. chert similar 5223-5229

Lms. med. tan, gryish. IP's; crypto to v.v. fn xln.; trs. chlk, sub-chlk, sub-sucro + packstn; trs to abn. sli. to extrly. oolitic (sm, med + lg); v. dul. yel. fluor.; No Cut; NoVis POR.

—Lms. trs. to hvy. trs. wht. to crm-chlk w/ chlk oolites IP's (sm to med) + hvy trs. Lms tan; crypto to v.v. fn xln.; sli to extrly. oolitic (sm, med + lg), matrix chlk, sub-chlk, sub-sucro + trs packstn; v. dul. yel. fluor.; No Cut; NoVis POR

Predominately Lms lt. gry to tan; crypto to v.v. fn xln.; v. to extrly micro-oolitic +/or sli. to v. Qtz sdy. - v.v. fngr-ang.; matrix: trs chlk, sub-chlk + sub-sucro; v. dul. yel. fluor No Cut; NoVis POR w/ v. sl. trs. chert gry to tan transl. to opque; oolite Replacement IP's

5300

5289-5311 Lms. similar 5269-5290 w/ chlkiness incr to extrly abn + sli tr chert

—Lms. tan, gryish. IP's; crypto. xln.; packstn to trs. sub-lithogr; dul. yel. fluor; No Cut NoVis POR.

Lms. trs to hvy. trs. wht to crm-chlk, trs w/ chlk oolites, + tan, gryish. IP's; crypto. to v.v. fn. xln.; sli. to extrly. oolitic (sm, med + lg.); matrix: chlk, sub-chlk sub-sucro + packstn.; dul. yel. fluor. No Cut; NoVis POR. w/ trs. to hvy. trs. chert gry to tan; opque to transl

Lms. similar 5317-5327 Interbedded with Lms. gry. to tan; crypto xln.; packstn. to sub-lithographic; dul yel. to trs. yel. fluor.; No Cut; NoVis Por. w/ trs Chert gry to tan opque to transl.

5400

SPM 34
PP 950

St. Genevieve
5162-2257

St. Louis
5229-2324

TRAP CHECK

TRAP CHECK
SLI. GAS SHOW 5 U

CFS

CFS

TD 5400

Bit Info: 7 7/8 inch Bits
#1 New Hughs GX 225
in 1806 out 5400 TD

Dev. Surv.:

1.	743	½°	5.	2887	1°
2.	1241	¾°	6.	4611	1°
3.	1806	1½°	7.	5050	1¼°
4.	2357	1°	8.	5400	1½° TD

Cir Points:

1. 4480	8. 4670	15. 5035
2. 4530	9. 4680	16. 5050
3. 4540	10. 4710	17. 5070
4. 4611	11. 4726	18. 5090
5. 4632	12. 4770	19. 5310
6. 4637	13. 4980	20. 5400 TD
7. 4660	14. 5020	

6. 4637	13. 4980	20. 5400 TD
7. 4660	14. 5020	

Daily Drlg Progress

1.	3800	2:45 PM	9-5-2011
2.	4191	7:00 AM	9-6-2011
3.	4532	7:00 AM	9-7-2011
4.	4611	7:00 AM	9-8-2011
5.	4637	7:00 AM	9-9-2011
6.	4660	7:00 AM	9-10-2011
7.	4863	7:00 AM	9-11-2011
8.	5035	7:00 AM	9-12-2011
9.	5050	7:00 AM	9-13-2011
10.	5070	7:00 AM	9-14-2011
11.	5222	7:00 AM	9-15-2011
12.	5400	7:00 AM	9-16-2011

DST #1 Marmaton "A" 4586-4611

IO Strng Blow BOB 1 min
FO Strng Blow BOB 1 min GTS 8 min
Gas Burned Nicely
Rec 528 ft of Fluid BHT 122°F
341 ft 10% gas 42% oil 48% mud
187 ft 2% gas 78% oil 20% mud
Grv. 38.2 @ 60°
Tool Samp 75% oil 25% mud
IHP 2175# FFP 114-191# in 60 min
IFP 41-108# in 30 min FSIP 1045# in 120 min
ISIP 1045# in 60 min FHP 2153#

DST #2 Marmaton "B" 4623-4637

IO weak surf blow built to 1½ inch
FO weak surf. blow built to 1 inch
Rec 5 ft fluid 1% gas 99% mud
Tool Sample 22% oil + 78% mud
BHT 117
IHP 2133#
IFP 7-17# in 30 min
ISIP 96# in 60 min
FFP 18-22# in 60 min
FSIP 132# in 120 min
FHP 2109#

DST #3 Morrow 5036-5050

IO V. weak surf blow after 15 min
began to incr. to ½ inch @ Shut-In
FO weak surf blow incr to 2¾ inch
Rec 20 ft fluid 2% Oil 98% mud
Tool Sample 3% gas, 20% oil, 77% mud
BHT 126°F
IHP 2396#
IFP 8-19# in 30 min
ISIP 295# in 60 min
FFP 20-27# in 60 min
FSIP 347# in 120 min
FHP 2370#

DST #4 Morrow 5048-5070

IO weak surf. blow incr to ¼ inch
FO V. weak surface blow died in 10 min
Rec 5 ft fluid mud w/A scum of oil
BHT 123°F
Tool Sample Drlg Mud w/spots of oil
IHP 2352#
IFP 8-13# in 30 min
ISIP 29# in 60 min
FFP 16-16# in 30 min
FSIP 23# in 60 min
FHP 2318#

Mud Info:

Date	9-5 [illegible]	9-6 [illegible]P	9-7 [illegible]P	9-8 [illegible]P	9-9 [illegible]A	9-10 1:15P	9-11 [illegible]A	[illegible]
Depth	3818	4329	4611	4611	4637	4710	4864	[illegible]
Wt.	8.65	9.1	9.3	9.1	8.95	8.75	9.1	9.25
Vis	46	46	52	49	54	53	55	53
PV	14	15	17	15	17	15	17	17
YP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

IHP 2376#
IFP 8-19# in 30 min
ISIP 295# in 60 min
FFP 20-27# in 60 min
FSIP 347# in 120 min
FHP 2370#

DST#4 Morrow 5048-5070
IO weak surf. blow inc to 1/4 inch
FO V. weak surface blow died in 10 min
Rec 5 ft fluid mud w/ A scum of oil
BHT 123° F
Tool Sample Drlg Mud w/ spots of oil
IHP 2352#
IFP 8-13# in 30 min
ISIP 29# in 60 min
FFP 16-16# in 30 min
FSIP 23# in 60 min
FHP 2318#

Mud Info:

Date	9-5 [illegible]P	9-6 1:35P	9-7 [illegible]P	9-8 [illegible]P	9-9 [illegible]A	9-10 1:15P	9-11 [illegible]A	[illegible]
Depth	3818	4329	4611	4611	4637	4710	4864	[illegible]
Wt.	8.65	9.1	9.3	9.1	8.95	8.75	9.1	9.25
Vis	46	46	52	49	54	53	55	53
PV	14	15	17	15	17	15	17	17
YP	15	16	17	15	17	17	21	17
GS	14/43	14/40	16/49	14/43	16/49	14/45	16/49	16/49
WL	9.6	9.2	8.8	7.6	7.6	8.4	6.8	8.4
Cake	1/32	1/32	1/32	1/32	1/32	1/32	1/32	1/32
pH	11.0	9.5	10.5	10.5	11.0	9.5	11.0	10.5
Chl	2100	3600	3400	3800	2300	2500	1400	3000
Ca	20	20	20	20	20	20	20	20
LCM	3	3	5	4	4	4	4	2

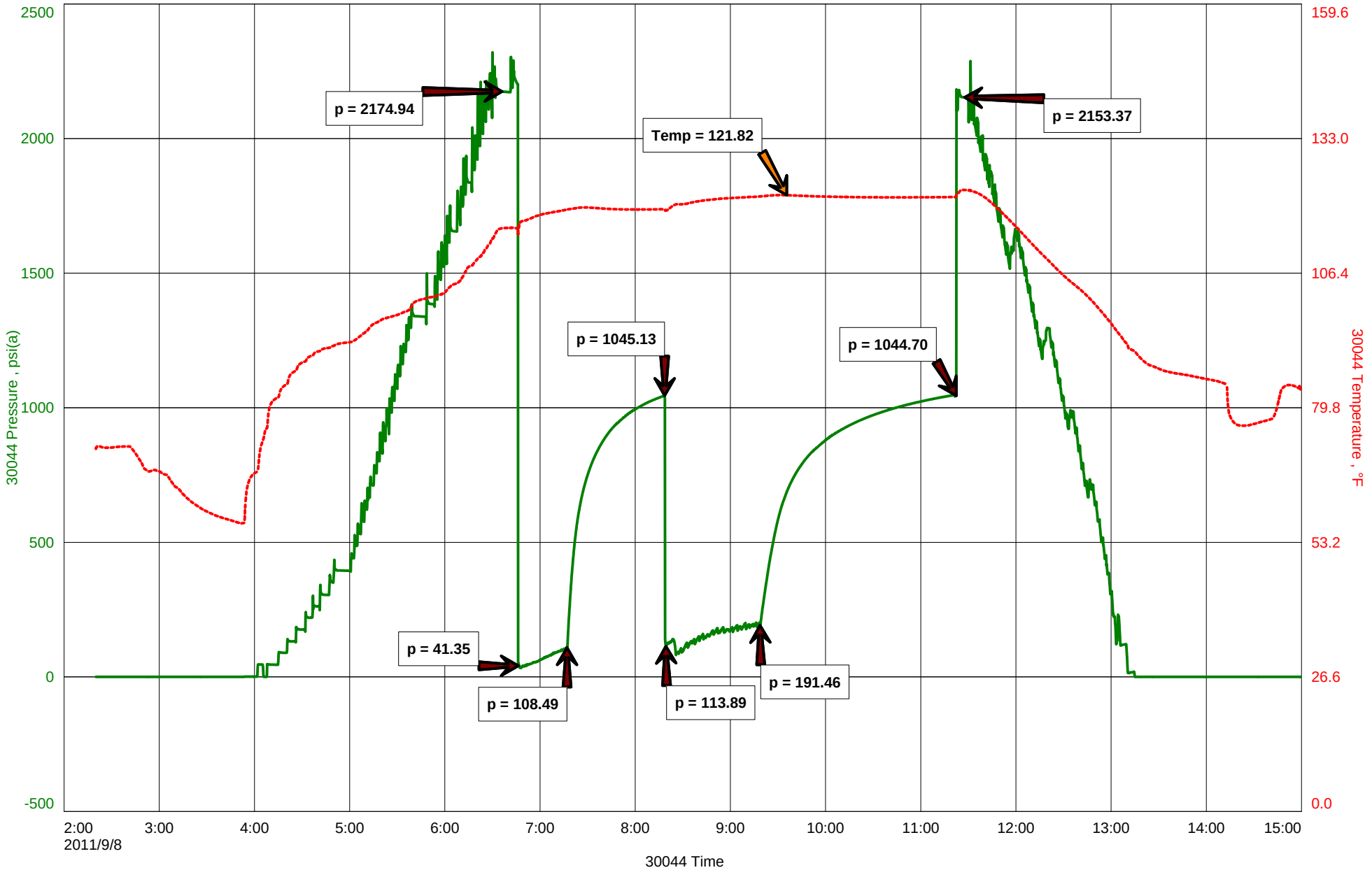
Date	9-13 5:40A	9-14 2:20P	9-15 12:45P					
Depth	5050	5090	5270					
Wt.	9.2	9.1	9.15					
Vis	53	71	52					
PV	16	20	17					
YP	16	22	17					
GS	14/45	19/56	15/48					
WL	8.0	8.8	8.4					
Cake	1/32	1/32	1/32					
pH	10.5	9.5	9.5					
Chl	1800	2800	2900					
Ca	40	20	20					
LCM	3	2	2					

OPERATOR BEREXCO LLC LOCATION 2220'FNL & 335'FEL
LEASE TATE "A" NO. 2-12 SEC. 12 TWP. 27S RNG. 33W
ELEVATION 2905 KB RTD 5400 COUNTY HASKELL STATE KANSAS

BEREXCO
DST#1 4586-4611 MARMATON
Start Test Date: 2011/09/08
Final Test Date: 2011/09/08

TATE "A" #2-12
Formation: DST#1 4586-4611 MARMATON
Pool: WILDCAT
Job Number: M203

TATE "A" #2-12



DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	BEREXCO	Job Number	M203
Well Name	TATE "A" #2-12	Representative	MIKE COCHRAN
Unique Well ID	DST#1 4586-4611 MARMATON	Well Operator	BEREXCO
Surface Location	SEC.12-27S-33W HASKELL CO.KS.	Report Date	2011/09/08
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	EDWIN H. GRIEVES
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL
Formation	DST#1 4586-4611 MARMATON
Test Purpose (AEUB)	Initial Test

Start Test Date	2011/09/08	Start Test Time	02:20:00
Final Test Date	2011/09/08	Final Test Time	15:00:00
		Well Fluid Type	01 Oil

Gauge Name	30044
Gauge Serial Number	

Test Results

Remarks

RECOVERED:

GTS 8 MIN 2ND OPEN
341' GHOCM, 10% GAS, 42% OIL, 48% MUD
187' GMCO 2% GAS, 78% OIL, 20% MUD
528' TOTAL FLUID

GRAVITY: 38.2@ 60 DEG.

TOOL SAMPLE: 75% OIL, 25% MUD

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

TIME ON: 0220
TIME OFF: 1500

DRILL-STEM TEST TICKET
FILE: TATEA2-12DST1

Company BEREXCO Lease & Well No. TATE "A" #2-12
Contractor BEREXCO RIG 2 Charge to BEREXCO
Elevation 2892 GL Formation MARMATON Effective Pay ____ Ft. Ticket No. M203
Date 09/08/2011 Sec. 12 Twp. 27 S Range 33 W County HASKELL State KANSAS
Test Approved By EDWIN H. GRIEVES Diamond Representative MIKE COCHRAN

Formation Test No. 1 Interval Tested from 4586 ft. to 4611 ft. Total Depth 4611 ft.
Packer Depth 4581 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4586 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4568 ft. Recorder Number 30044 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 4608 ft. Recorder Number 13386 Cap. 3,875 P.S.I.
Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____ P.S.I.

Mud Type CHEM Viscosity 55 Drill Collar Length 636 ft. I.D. 2 1/4 in.
Weight 9.1 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in
Chlorides 3,400 P.P.M. Drill Pipe Length 3918 ft. I.D. 3 1/2 in
Jars: Make STERLING Serial Number N/A Test Tool Length 32 ft. Tool Size 3 1/2-IF in
Did Well Flow? NO Reversed Out NO Anchor Length 25 ft. Size 4 1/2-FH in
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in

Blow: 1st Open: GSB, BOB 1 MIN (NO BB)
2nd Open: GSB, BOB 1 MIN, GTS 8 MIN, GAS BURNED NICELY (4" BB)

Recovered 341 ft. of GHOCM 10% GAS, 42% OIL, 48% MUD
Recovered 187 ft. of GMCO 2% GAS, 78% OIL, 20% MUD
Recovered 528 ft. of TOTAL FLUID
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks:
GRAVITY: 38.2@60°
TOOLSAMPLE:75% OIL, 25% MUD

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 6:45 A.M. A.M./P.M. Time Started Off Bottom 11:15 A.M. A.M./P.M. Maximum Temperature 122

Initial Hydrostatic Pressure .... (A) 2175 P.S.I.
Initial Flow Period .... Minutes 30 (B) 41 P.S.I. to (C) 108 P.S.I.
Initial Closed In Period .... Minutes 60 (D) 1045 P.S.I.
Final Flow Period .... Minutes 60 (E) 114 P.S.I. to (F) 191 P.S.I.
Final Closed In Period .... Minutes 120 (G) 1045 P.S.I.
Final Hydrostatic Pressure .... (H) 2153 P.S.I.

DIAMOND TESTING
P. O. Box 157
HOISINGTON, KANSAS 67544
(316) 653-7550

GAS VOLUME REPORT

Company BEREXCO Lease & Well No. TATE "A" #2-12

Date 09-08-2011 Sec. 12 Twp. 27 S Rge. 33 W Location County HASKELL State KS

Drilling Contractor BEREXCO RIG 2 Formation MARMATON DST No. 1

Remarks: GTS 8MIN 2nd OPEN, GAS BURNED NICELY (ORANGE)

INITIAL FLOW PSI

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

FINAL FLOW PSI

Time O'Clock	Orifice Size	Gauge	CF/D
	125 in.	OZ/SQ. IN. in.	MCF/D
20MIN	in.	4.5 in.	1.12
25 MIN.	in.	4.75 in.	1.15
30 MIN.	in.	3.5 in.	0.98
35 MIN.	in.	4 in.	1.06
40 MIN	in.	5 in.	1.18
45 MIN.	in.	5 in.	1.18
55 MIN	in.	6.25 in.	1.32
60 MIN	in.	6 in.	1.29
	in.	in.	

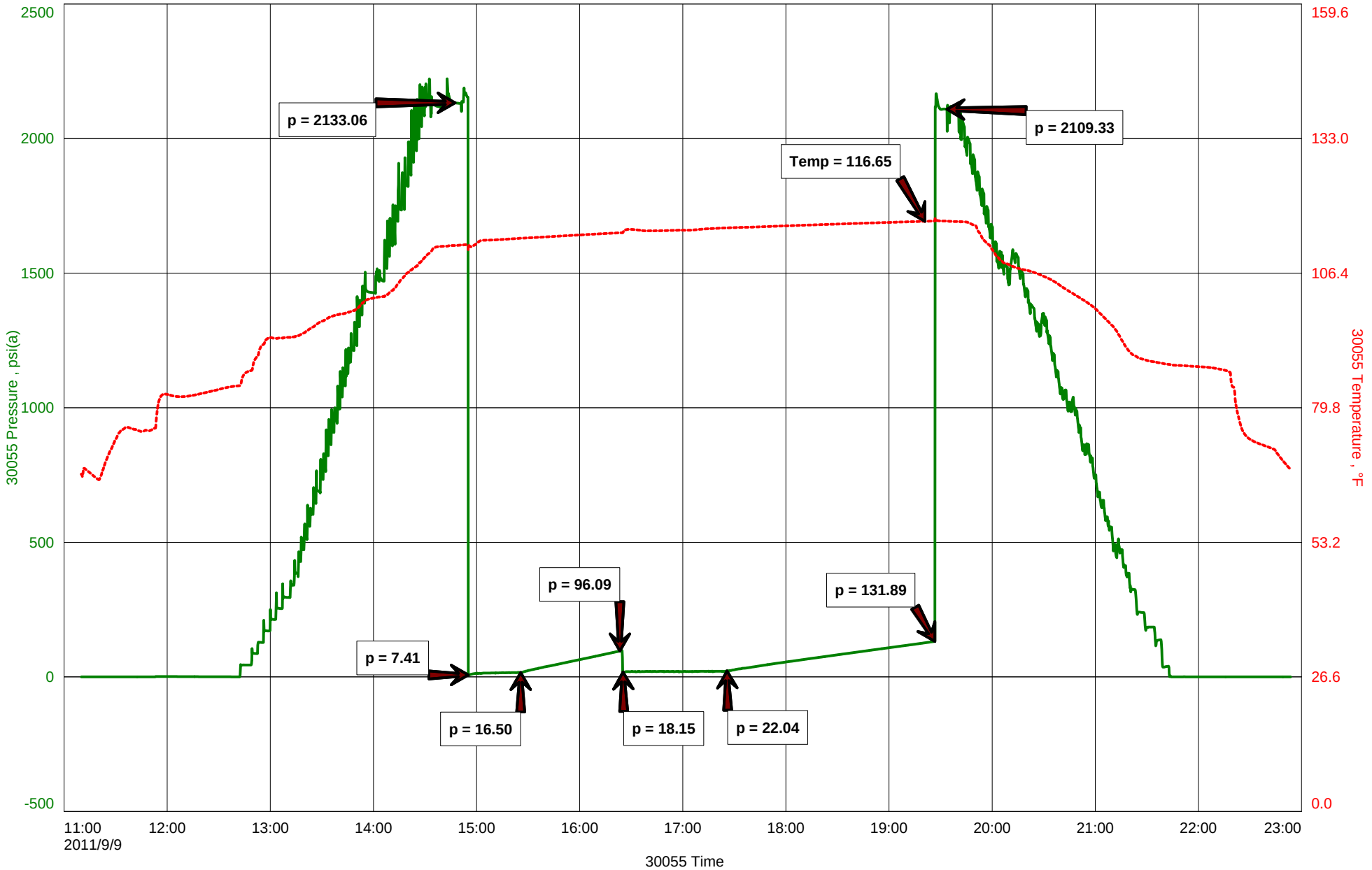
SAMPLE TAKEN YES

FINAL FLOW: 1.29 MCF/D

BEREXCO
DST#2 4623-4637 MARMATON "B"
Start Test Date: 2011/09/09
Final Test Date: 2011/09/09

TATE "A" #2-12
Formation: DST#2 4623-4637 MARMATON "B"
Pool: WILDCAT
Job Number: M204

TATE "A" #2-12



DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	BEREXCO	Job Number	M204
Well Name	TATE "A" #2-12	Representative	MIKE COCHRAN
Unique Well ID	DST#2 4623-4637 MARMATON "B"	Well Operator	BEREXCO
Surface Location	SEC.12-27S-33W HASKELL CO.KS.	Report Date	2011/09/09
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	EDWIN H. GRIEVES
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL
Formation	DST#2 4623-4637 MARMATON "B"
Test Purpose (AEUB)	Initial Test

Start Test Date	2011/09/09	Start Test Time	11:10:00
Final Test Date	2011/09/09	Final Test Time	22:55:00
		Well Fluid Type	01 Oil

Gauge Name	30055
Gauge Serial Number	

Test Results

Remarks

RECOVERED:

5' GDM 1% GAS, 99% MUD

5' TOTAL FLUID

TOOL SAMPLE: 22% OIL, 78%MUD

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: TATEA2-12DST2

TIME ON: 1110
TIME OFF: 2255

Company BEREXCO — Lease & Well No. TATE "A" #2-12
Contractor BEREXCO RIG 2 — Charge to BEREXCO
Elevation 2892 GL — Formation MARMATON "B" — Effective Pay ____ Ft. — Ticket No. M204
Date 09/09/2011 — Sec. 12 — Twp. 27 S — Range 33 W — County HASKELL — State KANSAS
Test Approved By EDWIN H. GRIEVES — Diamond Representative MIKE COCHRAN

Formation Test No. 2 — Interval Tested from 4623 ft. to 4637 ft. — Total Depth 4637 ft.

Packer Depth	4618 ft. Size 6 3/4 in.	Packer depth	NA ft. Size 6 3/4 in.
Packer Depth	4623 ft. Size 6 3/4 in.	Packer depth	NA ft. Size 6 3/4 in.
Depth of Selective Zone Set			
Top Recorder Depth (Inside)	4605 ft.	Recorder Number	30044 Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside)	4634 ft.	Recorder Number	13386 Cap. 3,875 P.S.I.
Below Straddle Recorder Depth	ft.	Recorder Number	Cap. P.S.I.

Mud Type CHEM	Viscosity 52	Drill Collar Length	636 ft. I.D. 2 1/4 in.
Weight 8.9	Water Loss 7.6 cc.	Weight Pipe Length	0 ft. I.D. 2 7/8 in
Chlorides	2,300 P.P.M.	Drill Pipe Length	3955 ft. I.D. 3 1/2 in
Jars: Make STERLING	Serial Number N/A	Test Tool Length	32 ft. Tool Size 3 1/2-IF in
Did Well Flow? NO	Reversed Out NO	Anchor Length	14 ft. Size 4 1/2-FH in
Main Hole Size 7 7/8	Tool Joint Size 4 1/2 XH in.	Surface Choke Size 1 in.	Bottom Choke Size 5/8 in

Blow: 1st Open: WSB, BUILT TO A 1½" SURGING BLOW (NO BB)
2nd Open: WSB, BUILT TO A 1" SURGING BLOW (NO BB)

Recovered 5 ft. of GDM 1% GAS, 99% MUD
Recovered 5 ft. of TOTAL FLUID
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of
Remarks:

TOOL SAMPLE: 22% OIL, 78% MUD

Price Job	
Other Charges	
Insurance	
Total	

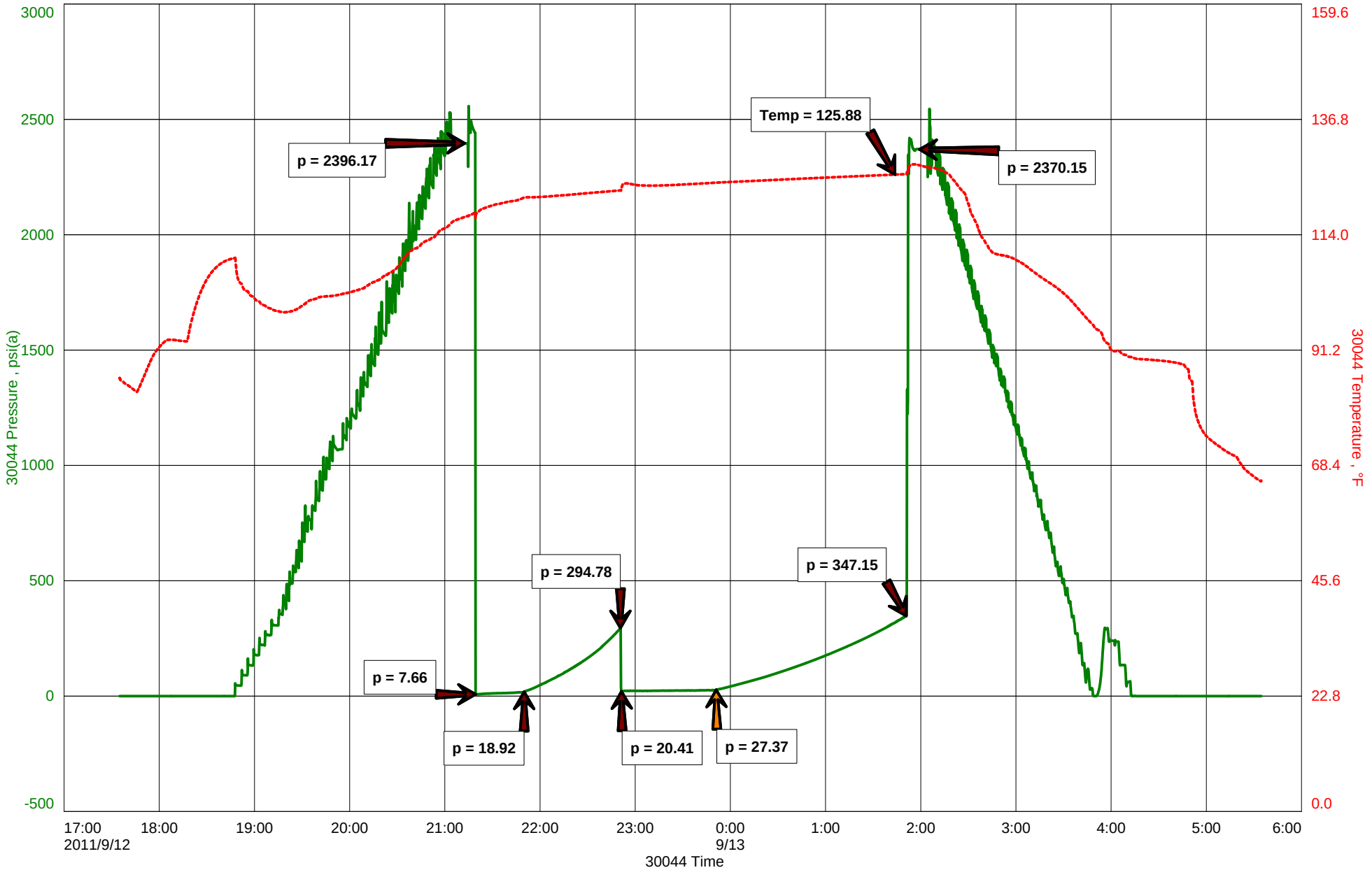
Time Set Packer(s) 3:00 P.M. A.M. P.M. — Time Started Off Bottom 7:30 P.M. A.M. P.M. — Maximum Temperature 117

Initial Hydrostatic Pressure ..... (A) 2133 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 7 P.S.I. to (C) 17 P.S.I.
Initial Closed In Period ..... Minutes 60 (D) 96 P.S.I.
Final Flow Period ..... Minutes 60 (E) 18 P.S.I. to (F) 22 P.S.I.
Final Closed In Period ..... Minutes 120 (G) 132 P.S.I.
Final Hydrostatic Pressure ..... (H) 2109 P.S.I.

BEREXCO
DST#3 5036-5050 MORROW SD. ST.
Start Test Date: 2011/09/12
Final Test Date: 2011/09/13

TATE "A" #2-12
Formation: DST#3 5036-5050 MORROW SD. ST.
Pool: WILDCAT
Job Number: M205

TATE "A" #2-12



DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	BEREXCO	Job Number	M205
Well Name	TATE "A" #2-12	Representative	MIKE COCHRAN
Unique Well ID	DST#3 5036-5050 MORROW SD. ST.	Well Operator	BEREXCO
Surface Location	SEC.12-27S-33W HASKELL CO.KS.	Report Date	2011/09/13
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	EDWIN H. GRIEVES
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL
Formation	DST#3 5036-5050 MORROW SD. ST.
Test Purpose (AEUB)	Initial Test

Start Test Date	2011/09/12	Start Test Time	17:35:00
Final Test Date	2011/09/13	Final Test Time	05:35:00
		Well Fluid Type	01 Oil

Gauge Name	30044
Gauge Serial Number	

Test Results

Remarks

RECOVERED:
20' OSM 2% OIL, 98% MUD
20' TOTAL FLUID

TOOL SAMPLE: 3% GAS, 20% OIL, 77% MUD

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: TATEA2-12DST3

TIME ON: 1735 (9/12)
TIME OFF: 0535 (9/13)

Company BEREXCO — Lease & Well No. TATE "A" #2-12
Contractor BEREXCO RIG 2 — Charge to BEREXCO
Elevation 2892 GL — Formation MORROW SD. ST. — Effective Pay ____ Ft. — Ticket No. M205
Date 09/12/2011 — Sec. 12 — Twp. 27 S — Range 33 W — County HASKELL — State KANSAS
Test Approved By EDWIN H. GRIEVES — Diamond Representative MIKE COCHRAN

Formation Test No. 3 — Interval Tested from 5036 ft. to 5050 ft. — Total Depth 5050 ft.

Packer Depth 5031 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Packer Depth 5036 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 5018 ft. — Recorder Number 30044 — Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 5047 ft. — Recorder Number 13386 — Cap. 3,875 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEM — Viscosity 56 — Drill Collar Length 636 ft. — I.D. 2 1/4 in.
Weight 9.3 — Water Loss 8.4 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 3,000 P.P.M. — Drill Pipe Length 4368 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number N/A — Test Tool Length 32 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 14 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: VWSB, AFTER 15 MIN, BEGAN TO INC. TO ½" @ SHUT IN (NO BB)
2nd Open: WSB, INC. TO 2¾" (NO BB)

Recovered 20 ft. of OSM 2% OIL, 98% MUD
Recovered 20 ft. of TOTAL FLUID
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Remarks: ____

TOOL SAMPLE: 3% GAS, 20% OIL, 77% MUD

Price Job	
Other Charges	
Insurance	
Total	

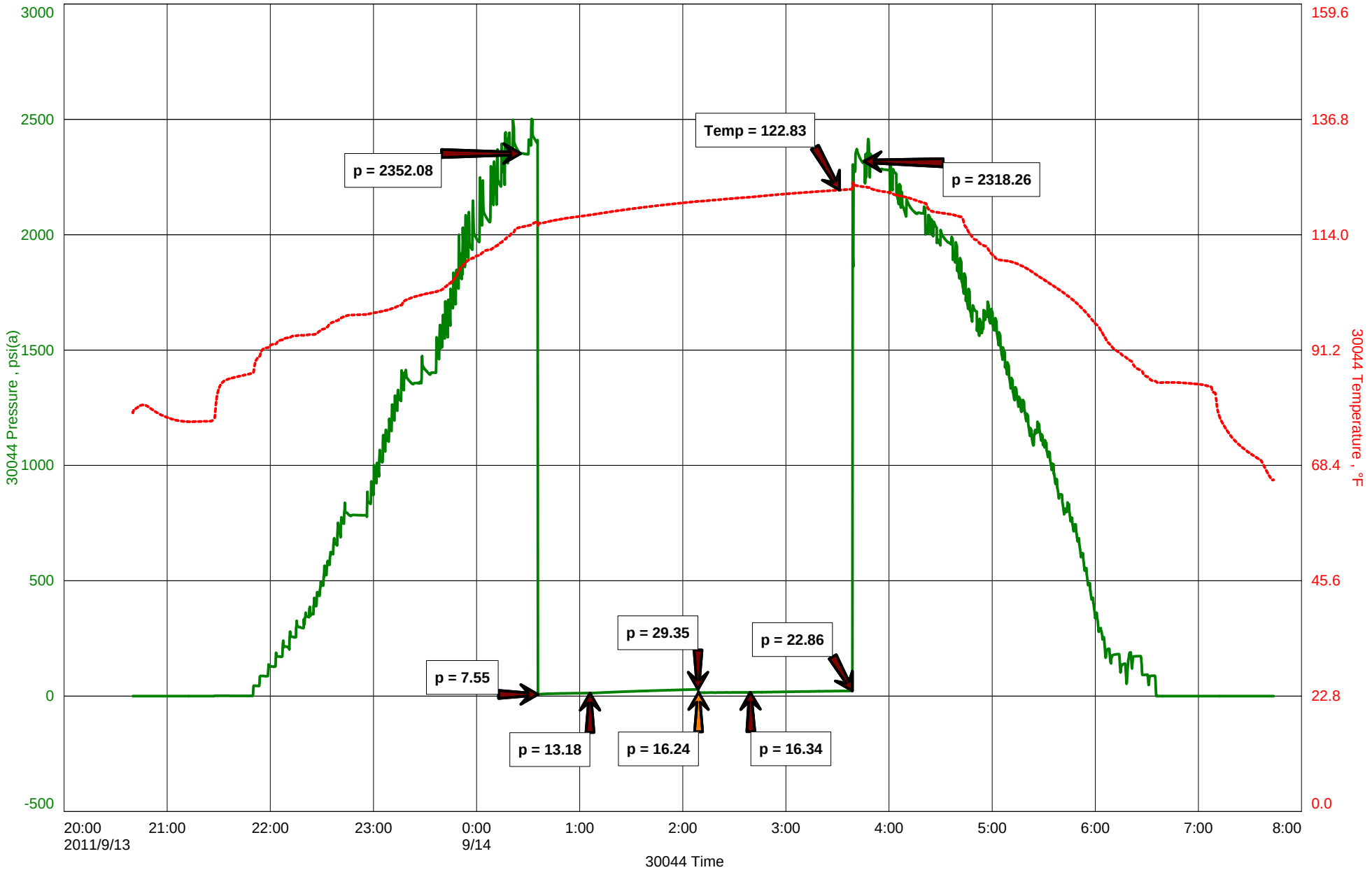
Time Set Packer(s) 9:15 P.M. A.M. P.M. — Time Started Off Bottom 1:45 A.M. A.M. P.M. — Maximum Temperature 126

Initial Hydrostatic Pressure ..... (A) 2396 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 8 P.S.I. to (C) 19 P.S.I.
Initial Closed In Period ..... Minutes 60 (D) 295 P.S.I.
Final Flow Period ..... Minutes 60 (E) 20 P.S.I. to (F) 27 P.S.I.
Final Closed In Period ..... Minutes 120 (G) 347 P.S.I.
Final Hydrostatic Pressure ..... (H) 2370 P.S.I.

BEREXCO
DST#4 5048-5070 MORROW SD. ST.
Start Test Date: 2011/09/13
Final Test Date: 2011/09/14

TATE "A" #2-12
Formation: DST#4 5048-5070 MORROW SD. ST.
Pool: WILDCAT
Job Number: M206

TATE "A" #2-12



DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	BEREXCO	Job Number	M206
Well Name	TATE "A" #2-12	Representative	MIKE COCHRAN
Unique Well ID	DST#4 5048-5070 MORROW SD. ST.	Well Operator	BEREXCO
Surface Location	SEC.12-27S-33W HASKELL CO.KS.	Report Date	2011/09/14
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	EDWIN H. GRIEVES
		Test Unit	NO. 1

Test Information

Test Type	CONVENTIONAL
Formation	DST#4 5048-5070 MORROW SD. ST.
Test Purpose (AEUB)	Initial Test

Start Test Date	2011/09/13	Start Test Time	20:40:00
Final Test Date	2011/09/14	Final Test Time	07:45:00
		Well Fluid Type	01 Oil

Gauge Name	30044
Gauge Serial Number	

Test Results

Remarks

RECOVERED:
5' SOS DM 100% MUD W/ A SCUM OF OIL
5' TOTAL FLUID

TOOL SAMPLE: DRLG MUD W/ SPOTS OF OIL

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET

FILE: TATEA2-12DST4

TIME ON: 2040 (9/13)

TIME OFF: 0745 (9/14)

Company BEREXCO — Lease & Well No. TATE "A" #2-12

Contractor BEREXCO RIG 2 — Charge to BEREXCO

Elevation 2892 GL — Formation MORROW SD. ST. — Effective Pay ____ Ft. — Ticket No. M206

Date 09/13/2011 — Sec. 12 — Twp. 27 S — Range 33 W — County HASKELL — State KANSAS

Test Approved By EDWIN H. GRIEVES — Diamond Representative MIKE COCHRAN

Formation Test No. 4 — Interval Tested from 5048 ft. to 5070 ft. — Total Depth 5070 ft.

Packer Depth 5043 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.

Packer Depth 5048 ft. — Size 6 3/4 in. — Packer depth NA ft. — Size 6 3/4 in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 5030 ft. — Recorder Number 30044 — Cap. 5,000 P.S.I.

Bottom Recorder Depth (Outside) 5067 ft. — Recorder Number 13386 — Cap. 3,875 P.S.I.

Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEM — Viscosity 55 — Drill Collar Length 636 ft. — I.D. 2 1/4 in.

Weight 9.2 — Water Loss 8.0 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in

Chlorides 1.800 P.P.M. — Drill Pipe Length ____ ft. — I.D. 3 1/2 in

Jars: Make STERLING — Serial Number 1 — Test Tool Length 32 ft. — Tool Size 3 1/2-IF in

Did Well Flow? NO — Reversed Out NO — Anchor Length 22 ft. — Size 4 1/2-FH in

Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WSB, INC. TO ¼" (NO BB)

2nd Open: A FEW BUBBLES ON TOOLOPEN, THEN A VWSB THAT DIED IN 10 MIN (NO BB) (NO BB)

Recovered 5 ft. of SOSDM 100% MUD W/ A SCUM OF OIL

Recovered 5 ft. of TOTAL FLUID

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Remarks: ____

TOOL SAMPLE: DRLG MUD W/SPOTS OF OIL

Price Job	
Other Charges	
Insurance	
Total	

Time Set Packer(s) 12:30 P.M. A.M. P.M. — Time Started Off Bottom 3:30 A.M. A.M. P.M. — Maximum Temperature 123

Initial Hydrostatic Pressure ..... (A) 2352 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 8 P.S.I. to (C) 13 P.S.I.

Initial Closed In Period ..... Minutes 60 (D) 29 P.S.I.

Final Flow Period ..... Minutes 30 (E) 16 P.S.I. to (F) 16 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 23 P.S.I.

Final Hydrostatic Pressure ..... (H) 2318 P.S.I.