



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1081520  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- 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
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ 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: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1081520

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Balthazor A 3
Doc ID	1081520

Tops

Name	Top	Datum
Anhydrite	1716	+524
Anhydrite (base)	1748	+490
Topeka	3195	-957
35' Topeka	3215	-977
Plattsmouth	3338	-1100
Heebner	3392	-1154
Heebner (base)	3396	-1158
Toronto	3416	-1178
Lansing A	3433	-1195
Lansing B	3472	-1234
Lansing C	3490	-1252
Lansing F	3510	-1272
Lansing G	3524	-1286
Lansing H	3562	-1324
Lansing I	3588	-1350
Lansing J	3602	-1364
Lansing K	3620	-1382
Kansas City (base)	3662	-1424
Arbuckle	3736	-1498
RTD	3830	
LTD	3833	
Granite Wash	4136	-1898
RTD	4189	

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



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

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

May 17, 2012

Bruce Meyer  
BEREXCO LLC  
2020 N. BRAMBLEWOOD  
WICHITA, KS 67206-1094

Re: ACO1  
API 15-065-23825-00-00  
Balthazor A 3  
NE/4 Sec.23-09S-21W  
Graham 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,  
Bruce Meyer

# ALLIED CEMENTING CO., LLC. 03.048

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
RUSSELL

DATE <u>4-14-12</u>	SEC <u>23</u>	TWP. <u>S 9</u>	RANGE <u>21<sup>W</sup></u>	CALLED OUT	ON LOCATION	JOB START <u>11 AM</u>	JOB FINISH <u>11:30 AM</u>
ALTAZOR LEASE		WELL# <u>A#3</u>	LOCATION <u>Red Line Church - 2<sup>N</sup> 1/2<sup>E</sup></u>		COUNTY <u>GRAHAM</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)			SOUTH INTO				

CONTRACTOR Bredeco #10

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4 T.D. 325

CASING SIZE 8 5/8 DEPTH 323.23

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15 FT

PERFS.

DISPLACEMENT 19.63 bbl

OWNER

CEMENT AMOUNT ORDERED 225<sup>SK</sup> 3<sup>0</sup>/<sub>10</sub><sup>CC</sup> 2<sup>0</sup>/<sub>10</sub><sup>GR</sup>

COMMON	<u>225</u>	@	<u>16.25</u>	<u>3656.25</u>
POZMIX		@		
GEL	<u>4</u>	@	<u>21.25</u>	<u>85.00</u>
CHLORIDE	<u>8</u>	@	<u>58.20</u>	<u>465.60</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>237</u>	@	<u>2.25</u>	<u>533.25</u>
MILEAGE	<u>50 X 237 X .11</u>			<u>1303.50</u>
<u>Drayage</u>	<u>11,850</u>			<u>TOTAL 6043.60</u>

EQUIPMENT

PUMP TRUCK CEMENTER Bob Smith + Todd

# 409 HELPER TONY

BULK TRUCK

# 410 DRIVER ROBERT Y

BULK TRUCK

# DRIVER

REMARKS:

Pumped 225<sup>sk</sup>

CEMENT CIRCULATED TO SURFACE

CHARGE TO: BEREXCO

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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 Myle Salinas

SIGNATURE Myle Salinas

SERVICE

DEPTH OF JOB 323.23

PUMP TRUCK CHARGE 1125.00

EXTRA FOOTAGE 23.23 @ .95 22.07

MILEAGE H 50 @ 7.00 350.00

MANIFOLD Swadoc @ 250.00 0

Ldv m 50 @ 0 0

TOTAL 1497.07

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL 0

SALES TAX (If Any) 317.61

TOTAL CHARGES 7540.67

DISCOUNT 24% 1809.76 IF PAID IN 30 DAYS

# ALLIED OIL & GAS SERVICES, LLC 056390

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:

Russell Ks.

DATE <u>4-22-12</u>	SEC. <u>23</u>	TWP. <u>9 S</u>	RANGE <u>21W</u>	CALLED OUT	ON LOCATION	JOB START <u>4:00AM</u>	JOB FINISH <u>6:30AM</u>
LEASE <u>BOLT HAZ 78</u>	WELL # <u>A-3</u>	LOCATION <u>Palco 1N 4W 1/2 SE</u>			COUNTY <u>Graham</u>	STATE <u>KANSAS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Bredco R.G #10 (milo)

TYPE OF JOB Production STRING (D.V. 2-Stage)

HOLE SIZE 7 7/8 T.D. 4188'

CASING SIZE 5 1/2 New DEPTH 15.50' @ 3860

TUBING SIZE 8 5/8 SURFACE DEPTH 323'

DRILL PIPE DEPTH

TOOL DV TOOL @ DEPTH 1748'

PRES. MAX 2,000 MINIMUM

MEAS. LINE SHOE JOINT 85'

CEMENT LEFT IN CSG. 85'

PERFS. (Bottom) (Top)

DISPLACEMENT (89.2) (41.60)

OWNER

CEMENT AMOUNT ORDERED

150 SX ASC. 4.5 GILSONITE

200 SX 40 6% GEL 4# F10 SEAL

450 SX 40 4% GEL 4# F10 SEAL

500 GAL WFR 2 MUD FLUSH

COMMON 5X @

POZMIX 5X @

GEL 5X @

CHLORIDE @

ASC 150 SX @

GYP Seal 18 SX @

Salt 16 SX @

F10 Seal 650 LBS @

GILSONITE 900 LBS @

500 GAL WFR 2 FLUSH @

HANDLING TOTAL SA @ 2.25

MILEAGE 72 TAN Mile @ 112

TOTAL

EQUIPMENT

PUMP TRUCK CEMENTER Brian G.

# 417 HELPER Woody O.

BULK TRUCK

# 410/481 DRIVER CHRIS G.

BULK TRUCK

# 473 DRIVER CODY H.

REMARKS: DV TOOL ON # JOINT @ 150

ST'S OUT 92, 93, 94, 95, 96

Run 91 New Joints of 15.50' 5 1/2 reg.

Set @ 3860, Reviewed circulation, 1 HR.

PUMP, WFR 2 mud flush & cement w/ 150 SX

40 6% GEL, 4# F10 Seal, Add salt, etc.

LATCH DN. Plug & Displace 90 BBL - Land @

1800# (Held). Drop Port & Open DV Tool

@ 1200#. Circulate 1 HR, & cement top

Stage w/ 450 SX 40 4% gel 4# F10 Seal

Release top stage plug & displace 4 1/4 BBL

H2O Land @ 2000#. Release # & Held.

SERVICE

150 SX ASC. Release

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 72 HV MT @

MANIFOLD @

72 LV ME @

TOTAL

CHARGE TO: Bredco LLC

STREET

CITY STATE ZIP

95 SX @ Mouse Hole 30 SX @ RAT HOLE

**\* Cement Did Circulate TO SURFACE!**

To: Allied Oil & Gas Services, 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.

PLUG & FLOAT EQUIPMENT

1 Guide Shoe

1 AFU INSERT @

1 LATCH Down Plug Assy @

1 Lock - RINGS @

1 Thread Lock @

12 TURBO CENTRALIZERS @

1 DV 2 Stage TOOL @

3 BASKET'S @

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME Lyle S. Lee

SIGNATURE [Signature]

**BEREXCO, LLC.  
BALHAZOR A # 3  
N2SWNE SECTION 23 9S-21W  
GRAHAM COUNTY, KANSAS**

**GEOLOGIST  
WILLIAM B. BYNOG**

## DISCUSSION

Balthazor A # 3 was drilled a total depth of 4189 feet testing the Lansing Kansas City and Arbuckle formations in Graham County, Kansas. It was planned that if Balthazor A # 3 was a dry hole drilling would continue to the Granite wash for a water disposal well.

Structurally, Balthazor A # 3 came in four feet low to a nearby producing well Balthazor A # 2 on the Lansing top and ten feet low on the Arbuckle.

The Lansing Kansas City formation had a few sample shows with poor to fair porosity development, none worthy of a drill stem test. The top four feet of the Arbuckle has good porosity development with good sample shows and was tested with poor results recovering 2405 feet of water and mud with a trace of oil. After logs, another drill stem straddle test was attempted on the second Arbuckle bench but the top packer failed. Drilling continued to the Granite wash in preparation for a water disposal well.

Logs agreed with sample evaluation recording poor to fair porosity development in the Lansing Kansas City. The Arbuckle has good porosity development and the second bench calculates productive with very good sample shows of free oil.

A decision was made to run production pipe for a disposal well and possible production from the Arbuckle second bench.



BALTHAZOR A #3 SAMPLE DESCRIPTIONS  
BEREDCO DRILLING RIG 10 DRILLING 7 7/8 HOLE

ANHYDRITE 1716(+524) L

BASE 1748(+490) L

SAMPLE DESCRIPTIONS

3100-60 LIMESTONE buff,hard,micxln, slightly sandy,fossils,poor porosity,no shows

3160-95 SHALE gray,green,soft,argillaceous

TOPEKA

3195-3215 LIMESTONE buff,very hard,dense, blocky,poor porosity,no shows

35' TOPEKA

3215-25 LIMESTONE white,firm,very fossils, slightly chalky,poor to fair porosity,no shows

3225-66 LIMESTONE buff,hard,dense,as above

BALTHAZOR A #3 SAMPLE DESCRIPTIONS

3266-80 LIMESTONE white, buff, firm, fossils, fair porosity, no shows

3280-3310 SHALE gray, as above

3310-38 LIMESTONE buff, hard, fossils, poor porosity, no shows,

PLATTSMOUTH

3338-50 LIMESTONE white, buff, firm, slightly chalky, very fossils, fair intg porosity, no shows with thin  
SHALE as above

3350-60 LIMESTONE as above dense

3360-84 LIMESTONE white, buff, soft, sandy, slightly chalky, fair porosity, no shows

3384-92 LIMESTONE buff, very hard, dense, abundant Chert white

HEEBNER

3392-96 SHALE black, green, carbonaceous

3396-3404 LIMESTONE buff, very hard, dense, black

3402-16 SHALE gray, green, red, firm, fissile

TORONTO

## BALTHAZOR A #3 SAMPLE DESCRIPTIONS

3416-24 LIMESTONE buff,very hard,dense, abundant Chert white,gray

3424-33 SHALE as above

LANSING A

3433-48 LIMESTONE buff,slightly hard,fossils, slightly chalky,poor to fair porosity,no shows some Chert white,gray

3448-60 LIMESTONE buff,hard,blocky, dense,fossils,poor porosity,no shows

3460-72 SHALE as above

B ZONE

3472-82 LIMESTONE as above dense,fossils,poor porosity,no shows,abundant Chert gray,white

3482-90 SHALE as above

C ZONE

3490-3510 LIMESTONE as above,no shows

F ZONE

3510-16 LIMESTONE buf,firm,fossils,poor to fair intg porosity,spotty brown live stain,good cut,poor

BALTHAZOR A #3 SAMPLE DESCRIPTIONS

show free oil

3516-24 SHALE as above

G ZONE

3524-54 LIMESTONE buff,hard,blocky, dense,poor porosity,no shows

3554-62 SHALE color as above

H ZONE

3562-80 LIMESTONE buff,very hard,dense, trace micxln,poor porosity,no shows,abundant Chert  
white,gray

3580-88 SHALE as above

I ZONE

3588-96 LIMESTONE buff,very hard,dense, with Chert as above

3596-3602 SHALE as above

J ZONE

3602-06 LIMESTONE buff,firm,fossils, slightly chalky,poor porosity,very spotty brown stain,poor cut

### BALTHAZOR A #3 SAMPLE DESCRIPTIONS

3606-20 LIMESTONE buff,very hard,dense,no shows

K ZONE

3620-30 LIMESTONE buff,hard,dense,poor pinpoint vuggy porosity,very spotty brown stain,poor cut

3630-40 LIMESTONE buff,very hard,dense, no shows

3640-62 SHALE red,soft,very argillaceous with thin LIMESTONE as above dense,no shows

BKC

3662-70 LIMESTONE white,buff,firm, oolitic,poor to fair intg porosity,spotty brown live stain,good cut and odor,nfo

3670-80 SHALE red,soft,argillaceous

3680-88 LIMESTONE buff,pale gray,very hard,dense,abundant Chert yell,translucent

3680-3715 SHALE red,green,yell,with very abundant Chert red,yell,translucent

3715-20 SANDSTONE translucent,firm,fine to mg, srnd,wsrtd,fair intg porosity,even live brown stain,very good cut and odor, good show free oil

3720-36 SHALE red,green,yell,ble,firm, fissile, with thin SANDSTONE translucent, friable, mg,rounded,fair porosity,abundant dead black flaky stain,poor cut

BALTHAZOR A #3 SAMPLE DESCRIPTIONS

ARBUCKLE

3736-44 DOLOMITE buff,firm to slightly hard,micxln to micsuc texture,fair to good intxln porosity,even live brown stain,very good cut and odor,good show free oil

3744-66 DOLOMITE buff,hard,micsuc,good crystalline porosity,even live brown stain,very good cut and odor,good show free oil

3766-75 DOLOMITE buff,very hard,very dense,very spotty live brown stain,good cut,abundant Chert white,

3775-85 DOLOMITE buff,firm,micsuc,good crystalline porosity,spotty to even live brown stain,very good cut and odor,good show free oil

3785-3798 DOLOMITE buff,hard,dense,no shows, abundant Chert white

3798-05 DOLOMITE buff,slightly hard,micsuc, good crystalline porosity,spotty brown stain,good cut,fair show free oil

3805-60 DOLOMITE buff,very hard,dense,abundant Chert white

RTD 3830'

LTD 3833'

BALTHAZOR A #3 SAMPLE DESCRIPTIONS

3860-72 DOLOMITE buff,slightly hard, fair to good micsuc porosity,no shows

3872-3910 DOLOMITE as above very hard,dense, abundant Chert white

3910-30 DOLOMITE buff,pale green,fair micsuc porosity,no shows

3930-78 DOLOMITE very hard,dense,abundant Chert white with thin DOLOMITE hard, micsuc,fair porosity,no shows

3978-90 DOLOMITE buff,firm,micsuc, good intg porosity,no shows

3990-40 DOLOMITE as above dense

4000-60 DOLOMITE buff,firm, good intxln micsuc to coarse crystalline porosity,no shows

4060-4100 DOLOMITE as above dense, with thin DOLOMITE buff,slightly hard,fair to good porosity,no shows

4100-36 DOLOMITE buff,firm,good crse crystalline porosity,no shows

GRANITE WASH

4136-63 GRANITE WASH red, some mica abundant very sandy

4163-89 SANDSTONE translucent,firm,m to cg, rounded,wsrtd,good intg porosity,no shows

BALTHAZOR A #3 SAMPLE DESCRIPTIONS

4189' RTD



# LITHOLOGY STRIP LOG

## WellSight Systems

Scale 1:240 (5"=100') Imperial

Well Name: BALTHAZOR A # 3  
 Location: N2SWNE 23-T9S-R21W GRAHAM COUNTY, KANSAS  
 Licence Number: 15-065-23825  
 Spud Date: 4-14-2012  
 Surface Coordinates: 740' FNL & 1000' FEL  
 Region: MIDCONTINENT  
 Drilling Completed: 4-21-2012

Bottom Hole Coordinates:  
 Ground Elevation (ft): 2227  
 Logged Interval (ft): 3000 To: 4189  
 Formation: LKC & ARBUCKLE  
 Type of Drilling Fluid: CHEMICAL  
 K.B. Elevation (ft): 2238  
 Total Depth (ft): 4189

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

### OPERATOR

Company: BEREXCO, LLC.  
 Address: 2020 N. BRAMBLEWOOD  
 WICHITA, KANSAS 67206

### GEOLOGIST

Name: WILLIAM B. BYNOG  
 Company:  
 Address: P.O. BOX 687  
 PINECLIFFE, CO. 80471  
 303-642-3681 OFFICE 303-250-0727 CELL

### SURVEYs

DEPTH	ANGLE
330'	3/4
1220'	1/2
3740'	1/4


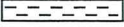

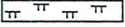
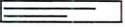
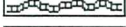




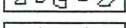
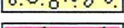

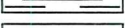
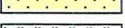


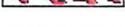

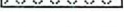
### DSTs

DST#1 3684-3740'






























































### Comments

DRILLED TO 3830' RTD AND 3833' LTD, CONTINUED TO DRILL DEEPER TO 4189', THEN RAN 5 1/2 CASING

### ROCK TYPES

 Anhy	 Clyst	 Gyp	 Mrlst	 Shgy
 Bent	 Coal	 Igne	 Salt	 Slstt
 Brec	 Congl	 Lmst	 Shale	 Ss
 Cht	 Dol	 Meta	 Shcol	 Till

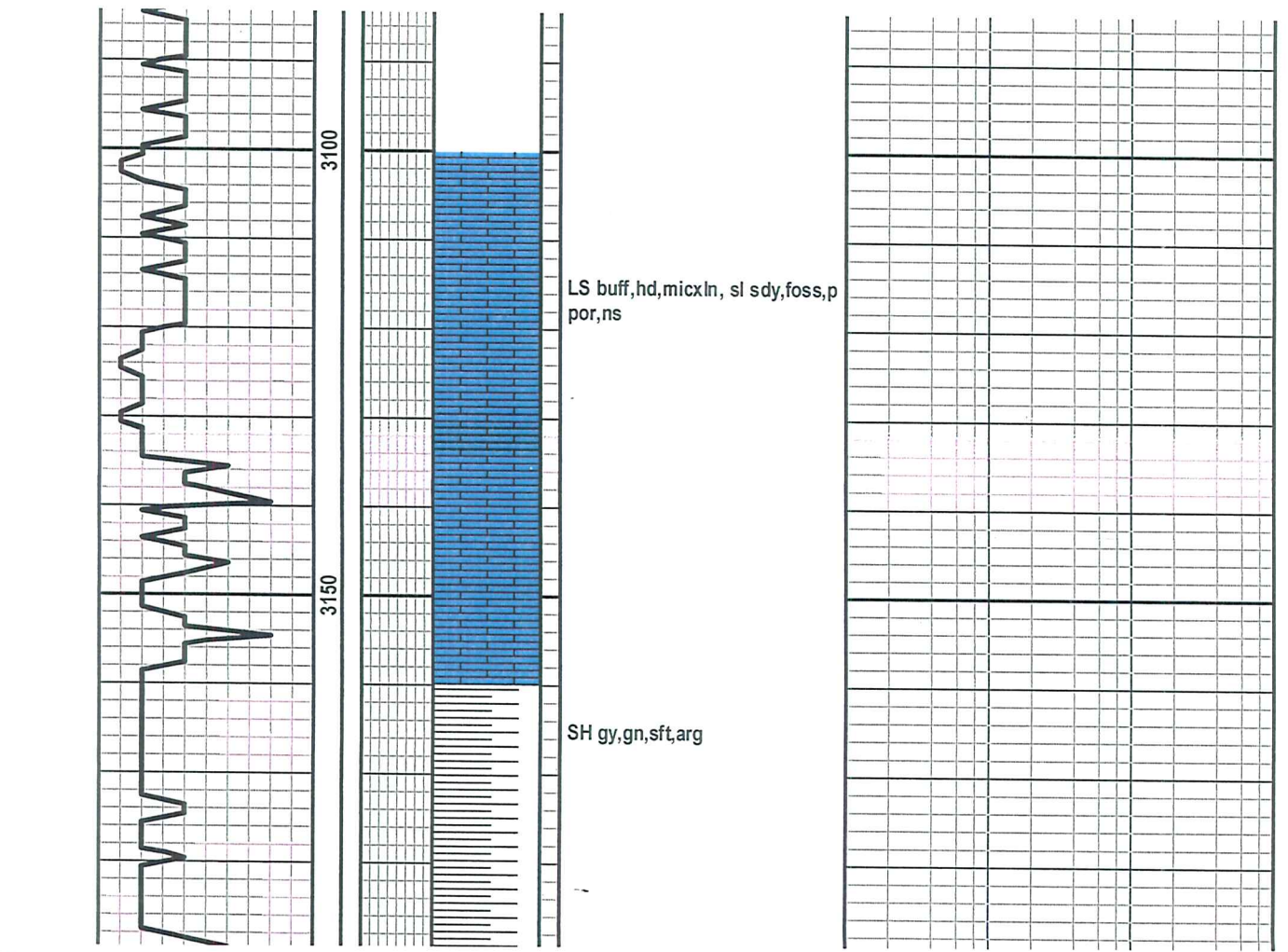
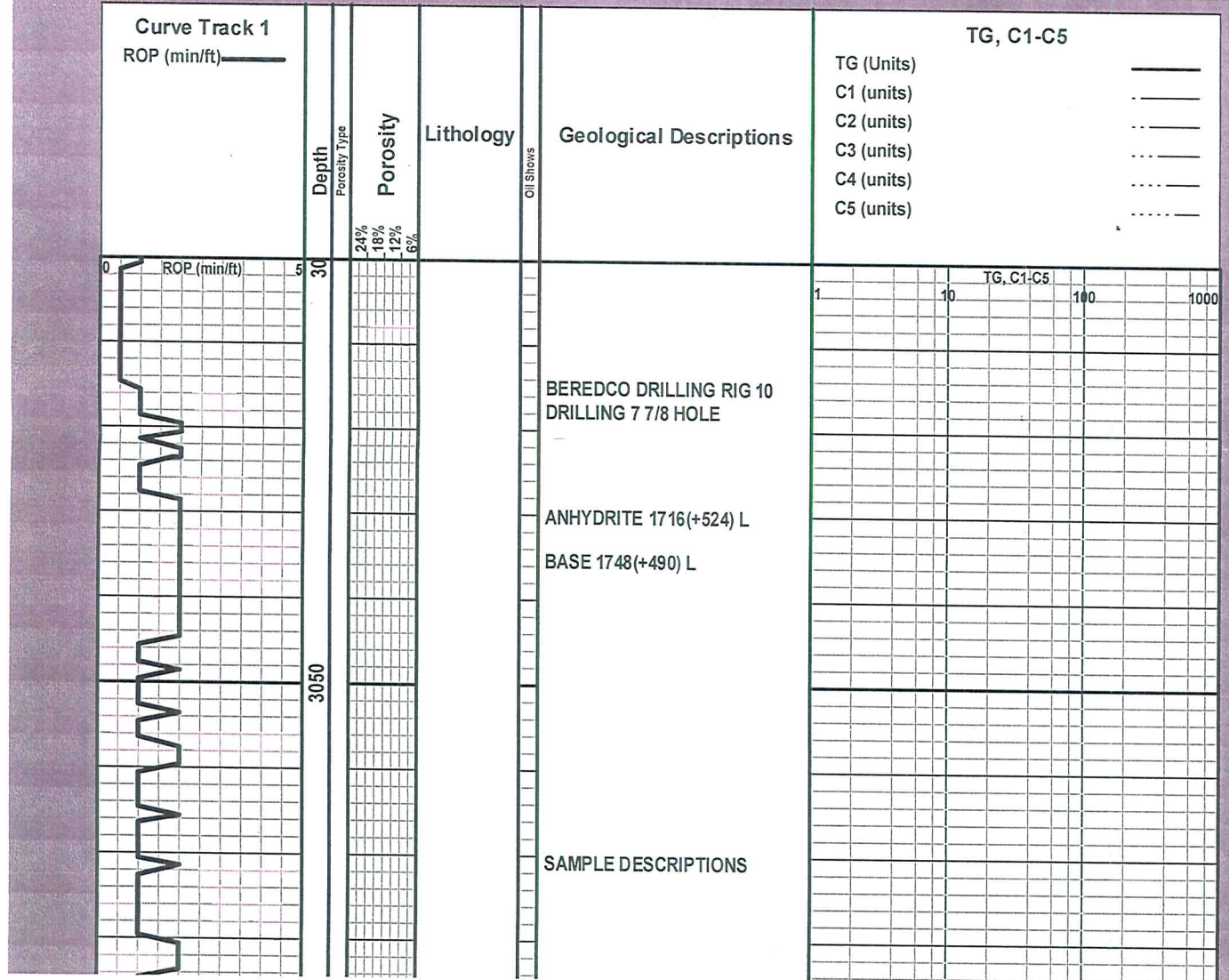
### ACCESSORIES

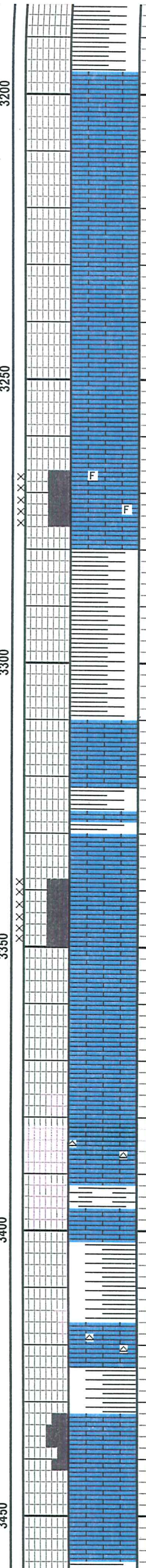
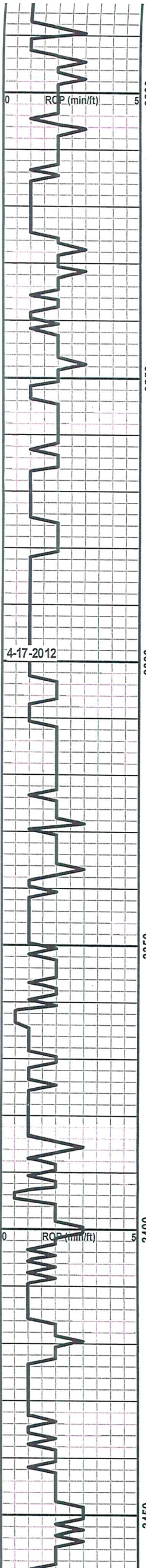
<b>MINERAL</b>	 Gyp	<b>FOSSIL</b>	 Ostra	 Slststrg
 Anhy	 Hvymin	 Algae	 Pelec	 Ssstrg
 Arggrn	 Kaol	 Amph	 Pellet	<b>TEXTURE</b>
 Arg	 Marl	 Belm	 Pisolite	 Boundst
 Bent	 Minxl	 Bioclst	 Plant	 Chalky
 Bit	 Nodule	 Brach	 Strom	 Cryxln
 Brecfrag	 Phos	 Bryozoa	<b>STRINGER</b>	 Earthy
 Calc	 Pyr	 Cephal	 Anhy	 Finexln
 Carb	 Salt	 Coral	 Arg	 Grainst
 Chtdk	 Sandy	 Crin	 Bent	 Lithogr
 Chtlt	 Silt	 Echin	 Coal	 Microxln
 Dol	 Sil	 Fish	 Dol	 Mudst
 Feldspar	 Sulphur	 Foram	 Gyp	 Packst
Ferrnel	Tuff	Fossil		

- Feldspar
- Sulphur
- Foram
- Dol
- Mudst
- Ferrpel
- Tuff
- Fossil
- Gyp
- Packst
- Ferr
- Gastro
- Ls
- Wackest
- Glau
- Oolite
- Mrst

OTHER SYMBOLS

- POROSITY**  
 E Earthy  
 B Fenest  
 F Fracture  
 X Inter  
 A Moldic  
 O Organic  
 P Pinpoint
- V Vuggy  
 SORTING  
 W Well  
 M Moderate  
 P Poor
- ROUNDING**  
 R Rounded  
 P Subrnd  
 B Subang  
 A Angular  
 OIL SHOW  
 E Even
- Spotted  
 Ques  
 Dead  
**INTERVAL**  
 Dst  
 Dst
- EVENT**  
 Rft  
 Sidewall





LS buff,v hd,dns, blk,y,p por,ns

LS wh,frm,v foss, sl chky,p-fr por,ns

LS buff,hd,dns,aa

LS wh,buff,frm, foss,fr por,ns

SH gy,aa

LS buff,hd,foss,p por,ns,

LS wh,buff,frm,sl chky,v foss,fr intg por,ns with thin SH aa

LS aa dns

LS wh,buff,sft,sdy,sl chky,fr por,ns

LS buff,v hd,dns, abnt Cht wh

SH blk,gn,carb

LS buff,v hd,dns, blk

SH gy,gn,red,frm, fiss

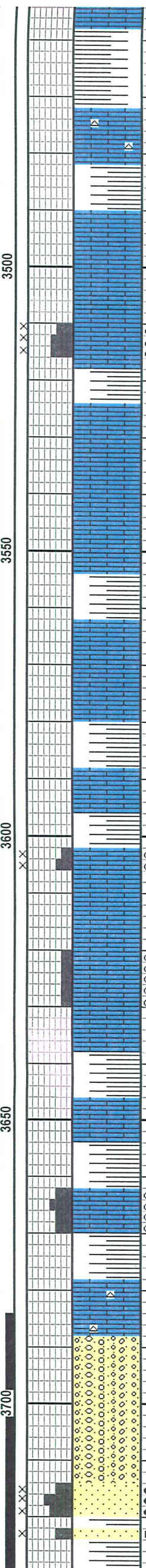
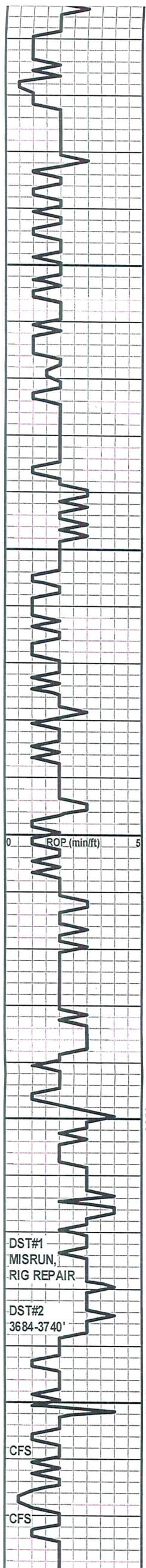
LS buff,v hd,dns, abnt Cht wh,gy

SH aa

LS buff,sl hd,foss, sl chky,p-fr por,ns some Cht wh,gy

LS buff,hd,blk,y, dns,foss,p por,ns

TOPEKA			
3188(-950) S			
3192(-954) L			
1	10	100	1000
TG, C1-C5			
35' TOPEKA			
3215(-978) S			
3218(-981) L			
4-17-2012			
3338(-1100) S			
3342(-1104) L			
PLATTSMOUTH			
MUD DATA 3358'			
WT 9.0 VIS 48			
FL 8.0 Ph 11.5			
CK 1 CL 1500			
LCM 2#			
3393(-1155) S			
3396(-1158) L			
HEEBNER			
1	10	100	1000
TG, C1-C5			
3433(-1195) S			
3434(-1196) L			
LANSING A			



SH aa

LS aa dns, foss, p por, ns, abnt Cht gy, wh

SH aa

LS aa, ns

LS buff, frm, foss, p-fr intg por, spty brn live stn, g cut, p show free oil

SH aa

LS buff, hd, blk, dns, p por, ns

SH col aa

LS buff, v hd, dns, tr micln, p por, ns, abnt Cht wh, gy

SH aa

LS buff, v hd, dns, with Cht aa

SH aa

LS buff, frm, foss, sl chky, p por, v spty brn stn, p cut

LS buff, v hd, dns, ns

LS buff, hd, dns, p pp vuggy por, v spty brn stn, p cut

LS buff, v hd, dns, ns

SH red, sft, v arg with thin LS aa dns, ns

LS wh, buff, frm, oolitic, p-fr intg por, spty brn live stn, g cut & odor, nfo

SH red, sft, arg

LS buff, pale gy, v hd, dns, abnt Cht yell, trnsl

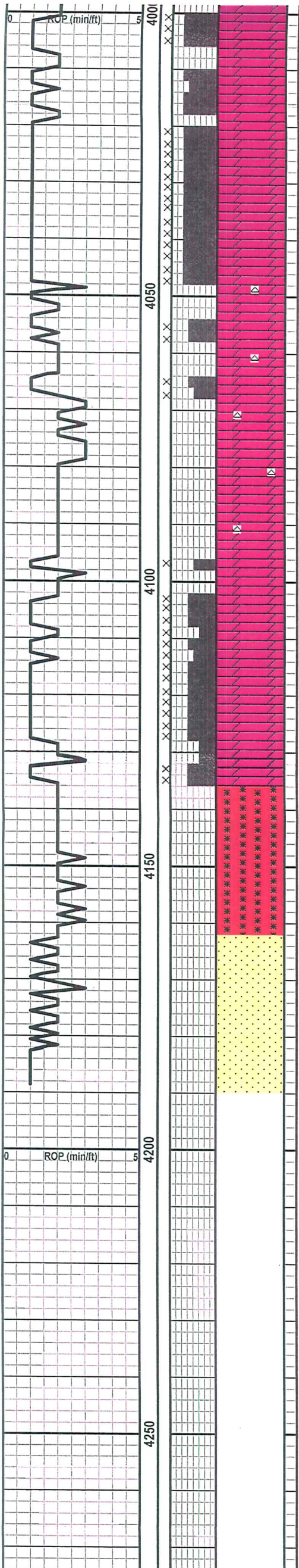
SH red, gn, yell, with v abnt Cht red, yell, trnsl

SS trnsf, frm, f-mg, srnd, wsrtd, fr intg por, even live brn stn, v g cut & odor, g show free oil

SH red, gn, yell, ble, frm, fiss, with thin SS trnsf, fri, mg, md, fr por, abnt dd blk flky stn, p cut

B ZONE	3472(-1234) S	3475(-1237) L	
E ZONE	3506(-1268) S	3508(-1270) L	
G ZONE	3524(-1286) S		
H ZONE	3562(-1324) S	3566(-1328) L	
J ZONE	3602(-1362) S	3604(-1364) L	TG, C1-C5
K ZONE	3620(-1382) S	3624(-1386) L	
BKC	3652(-1414) S	3654(-1416) L	
MUD DATA 3740	WT 9.1 VIS 51	FL 8.8 Ph 9.5	CK 1 CL 2000
		LCM 8#	
LOST CIRCULATION VOLUME	180 BBLs, BUILD		
MUD DATA 3740	WT 9.1 VIS 49	FL 8.8 Ph 9.5	





DOL buff, frm, g intxn  
micsuc-coarse xln por, ns

DOL aa dns, with thin DOL  
buff, sl hd, fr-g por, ns

DOL buff, frm, g crse xln por, ns

GRANITE WASH red, some  
mica abnt v sdy

SS trns l, frm, m-cg, rnd, wsrtd, g  
intg por, ns

4189' RTD

TG, C1-C5

MUD DATA 4025'  
WT 9.3 VIS 50  
FL 8.8 Ph 9.0  
CK 1 CL 2000

TG, C1-C5









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco LLC

**23/9s/21w Graham KS**

2020 N Bramblewood  
Wichita, KS 67206

**Balthazor A #3**

Job Ticket: 45672

**DST#: 1**

ATTN: Bryan Bynog

Test Start: 2012.04.18 @ 11:27:05

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

Num Fluid Samples: 0                      Num Gas Bombs: 0                      Serial #:

Laboratory Name:                      Laboratory Location:

Recovery Comments: 8# of LCM

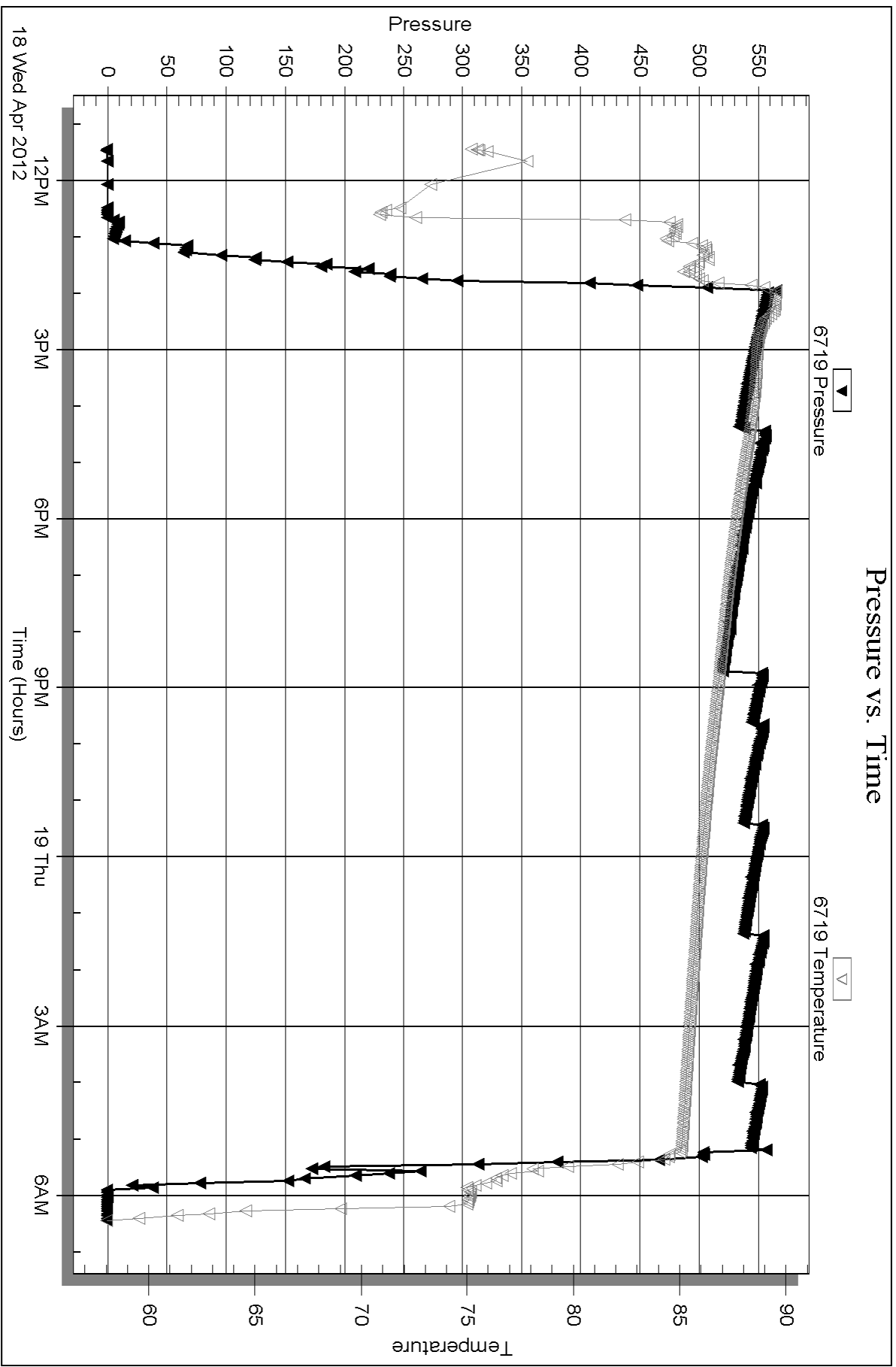
Serial #: 6719

Inside

Berexco LLC

Balthazor A #3

DST Test Number: 1





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N Bramblewood  
 Wichita, KS 67206  
 ATTN: Bryan Bynog

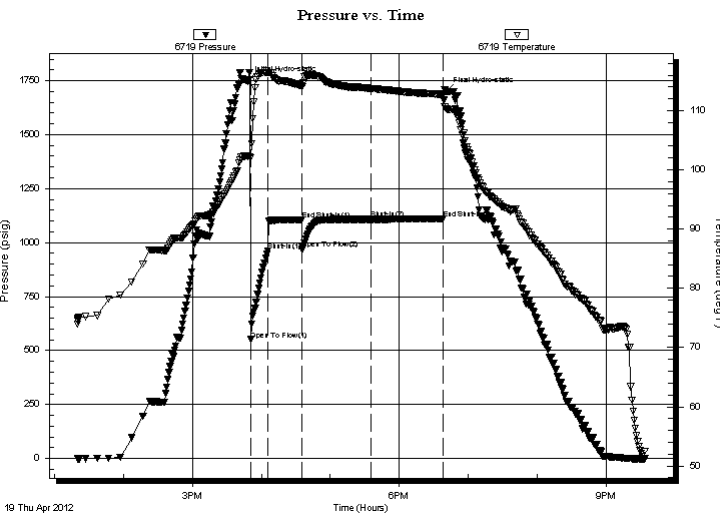
**23/9s/21w Graham KS**  
**Balthazor A #3**  
 Job Ticket: 45673      **DST#: 2**  
 Test Start: 2012.04.19 @ 13:20:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:50:30  
 Time Test Ended: 21:33:30  
 Interval: **3684.00 ft (KB) To 3740.00 ft (KB) (TVD)**  
 Total Depth: 3740.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 2238.00 ft (KB)  
 2227.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 6719 Inside**  
 Press @ Run Depth: 1108.25 psig @ 3685.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.04.19 End Date: 2012.04.19 Last Calib.: 2012.04.19  
 Start Time: 13:20:05 End Time: 21:33:29 Time On Btm: 2012.04.19 @ 15:48:00  
 Time Off Btm: 2012.04.19 @ 18:41:00

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") in 30 sec.  
 30 - IS: Bled off, No blow back  
 60 - FF: Blow built to BOB in 40 sec., dead by 45 min.  
 60 - FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1751.72	102.34	Initial Hydro-static
3	550.26	102.00	Open To Flow (1)
18	961.95	116.41	Shut-In(1)
47	1106.68	114.18	End Shut-In(1)
48	969.02	114.02	Open To Flow (2)
108	1108.25	113.75	Shut-In(2)
170	1109.27	112.73	End Shut-In(2)
173	1699.45	110.30	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1500.00	Water 98%w , 2%m, trace oil	16.09
250.00	M CW 89%w , 11%m, trace oil	3.51
560.00	WCM 72%m, 23%w , 5%g, trace oil	7.86
95.00	Mud w /trace oil 100%m	1.33

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco LLC

**23/9s/21w Graham KS**

2020 N Bramblewood  
Wichita, KS 67206

**Balthazor A #3**

Job Ticket: 45673

**DST#: 2**

ATTN: Bryan Bynog

Test Start: 2012.04.19 @ 13:20:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	32000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.75 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1500.00	Water 98%w , 2%m, trace oil	16.085
250.00	MCW 89%w , 11%m, trace oil	3.507
560.00	WCM 72%m, 23%w , 5%g, trace oil	7.855
95.00	Mud w /trace oil 100%m	1.333

Total Length: 2405.00 ft      Total Volume: 28.780 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 6# LCM

RW = .279 ohms @ 55.3 deg F

Chlorides = 32,000 ppm

### Pressure vs. Time

