



1271096

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

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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i>			PRODUCTION INTERVAL: Top _____ Bottom _____	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:
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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	SC Unit 1-30
Doc ID	1271096

All Electric Logs Run

Radiation Guard Log
Dual Induction Log
Microresistivity Log
Dual Compensated Porosity Log

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	SC Unit 1-30
Doc ID	1271096

Tops

Name	Top	Datum
Anhydrite	785	+988
Anhydrite (base)	824	+953
Topeka	2675	-898
Heebner	2897	-1120
Toronto	2913	-1136
LKC	2954	-1177
BKC	3188	-1411
Arbuckle	3191	-1414
RTD	3280	-1503
LTD	3279	-1502



# ALLIED OIL & GAS SERVICES, LLC 055075

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Russell

DATE <u>8-5-15</u>	SEC <u>30</u>	TWP <u>14</u>	RANGE <u>14</u>	CALLED OUT <u>5:30pm</u>	ON LOCATION <u>4:00pm</u>	JOB START <u>7:30am</u>	JOB FINISH <u>2:30</u>
LEASE <u>SC Unit</u>		WELL# <u>1</u>	LOCATION <u>Russell - South to 4 corners</u>			COUNTY <u>Russell</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)			<u>3 West To Open Range South West</u>				

CONTRACTOR American Eagle OWNER \_\_\_\_\_

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 800

CASING SIZE 8 5/8 DEPTH \_\_\_\_\_

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. 25

PERFS. \_\_\_\_\_

DISPLACEMENT 50 bbl

EQUIPMENT

PUMP TRUCK CEMENTER Ontario

# 409 HELPER Yakovovich

BULK TRUCK \_\_\_\_\_

# 410 DRIVER Gifford

BULK TRUCK \_\_\_\_\_

# 378 DRIVER Wentz

REMARKS:

Material  
8789.40  
Alex  
4318.92

CEMENT	AMOUNT ORDERED	Price	Total
COMMON	<u>150 sus</u>	@ <u>17.90</u>	<u>2685.00</u>
POZMIX	_____	@ _____	_____
GEL	_____	@ _____	_____
CHLORIDE	<u>627 lb</u>	@ <u>1.10</u>	<u>689.70</u>
ASC	_____	@ _____	_____
Allied Light Weight	_____	@ _____	_____
	<u>240 sus</u>	@ <u>19.88</u>	<u>4771.20</u>
	_____	@ _____	_____
Cellulose	<u>60 lb</u>	@ <u>2.97</u>	<u>178.20</u>
	_____	@ _____	_____
Chloride	<u>423 lb</u>	@ <u>1.10</u>	<u>465.30</u>
	_____	@ _____	_____
	_____	@ _____	_____
HANDLING	<u>436 cu ft</u>	@ <u>2.48</u>	<u>1081.28</u>
MILEAGE	<u>187 tm</u>	@ <u>2.75</u>	<u>514.25</u>
TOTAL			_____

**SERVICE**

DEPTH OF JOB	<u>811</u>		
PUMP TRUCK CHARGE			<u>2058.50</u>
EXTRA FOOTAGE	_____	@ _____	_____
MILEAGE	<u>10 mi</u>	@ <u>7.70</u>	<u>77.00</u>
MANIFOLD	_____	@ _____	_____
	<u>LVIM 10</u>	@ _____	<u>N/A</u>
	_____	@ _____	_____

Now 1790.90 TOTAL 3731.03

**PLUG & FLOAT EQUIPMENT**

<del>Guide Shoe</del>	<del>All I R</del>	<del>Clack</del>	<del>80 ft</del>	<del>_____</del>
Guide Shoe	1ea	@	<u>460.00</u>	<u>460.00</u>
Baffle Plate	1ea	@	<u>320.00</u>	<u>320.00</u>
Top Rubber Plug	1ea	@	<u>131.00</u>	<u>131.00</u>
Centrizers	2 ea	@	<u>75.00</u>	<u>150.00</u>
	_____	@ _____	_____	_____

Now 509.28 TOTAL 1061.00

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGES 13,581.43  
DISCOUNT 6519.09 IF PAID IN 30 DAYS

Net 7062.34

CHARGE TO: Barekco  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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.

PRINTED NAME \_\_\_\_\_

SIGNATURE [Signature]

Date 8-5-15 District Russell Ticket No. 55075  
 Company Beneko Rig American Eagle  
 Lease SC Unit Well No. 1  
 County Russell State KS

CEMENT DATA:  
 Spacer Type: \_\_\_\_\_  
 Amt. \_\_\_\_\_ Sks Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG \_\_\_\_\_

Location Russell South to H Corner Rd - 3 West - South Thru Open Range Towell Field \_\_\_\_\_  
 CASING DATA: Conductor  PTA  Squeeze  Misc   
 Surface  Intermediate  Production  Liner   
 Size 8 5/8 Type J-55 Weight 23 Collar \_\_\_\_\_

LEAD: Pump Time \_\_\_\_\_ hrs. Type Light weight  
 Amt. 240 Sks Yield 1.97 Excess 100 ft<sup>3</sup>/sk Density 12.5 PPG

TAIL: Pump Time \_\_\_\_\_ hrs. Type Common  
 Amt. 150 Sks Yield 1.33 Excess 100 ft<sup>3</sup>/sk Density 14.9 PPG

WATER: Lead \_\_\_\_\_ gals/sk Tail \_\_\_\_\_ gals/sk Total \_\_\_\_\_ Bbls.

Casing Depths: Top \_\_\_\_\_ Bottom \_\_\_\_\_

Pump Trucks Used 409

Bulk Equip. 410

Drill Pipe: Size 4 1/2 Weight \_\_\_\_\_ Collars \_\_\_\_\_  
 Open Hole: Size 12 1/4 T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

378

CAPACITY FACTORS:  
 Casing: Bbls/Lin. ft. .0636 Lin. ft./Bbl. \_\_\_\_\_  
 Open Holes: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Drill Pipe: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Annulus: Bbls/Lin. ft. .8255 Lin. ft./Bbl. \_\_\_\_\_  
 Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Float Equip: Manufacturer Industrial Rubber

Shoe: Type 8 5/8 Guide Shoe Depth \_\_\_\_\_

Float: Type Baffle Depth \_\_\_\_\_

Centralizers: Quantity 2 Plugs Top \_\_\_\_\_ Btm. \_\_\_\_\_

Stage Collars \_\_\_\_\_

Special Equip. \_\_\_\_\_

Disp. Fluid Type \_\_\_\_\_ Amt. \_\_\_\_\_ Bbls. Weight \_\_\_\_\_ PPG \_\_\_\_\_

Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG \_\_\_\_\_

COMPANY REPRESENTATIVE \_\_\_\_\_

CEMENTER Steve Orlando

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
6:00 pm						On location - Safety meeting
						Run 19 Jts 8 5/8 23 # Casing
						Centralizers on Jts
						Casing on bottom - Break circuit/plug
7:30 AM		300		84	4	Mix 240 sks Light weight @ 12.5 #
		250		35 1/2	4	Mix 150 sks Common @ 14.9 #
						Shut Down - Release plug
		0		0	5	Start H2O Displacement
		300		20	4	Cement to Surface
8:50 pm		300		50	3	Plug Down - Close to wellhead
						Circulation thru job
						Circulated 30 bbls to pit
						Job Complete
						Thanks, Steve

FINAL DISP. PRESS: 300 PSI BUMP PLUG TO 300 PSI BLEEDBACK 0 BBLs. THANK YOU

# ALLIED OIL & GAS SERVICES, LLC 055076

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Russell

DATE <u>8-11-15</u>	SEC <u>30</u>	TWP. <u>14</u>	RANGE <u>14</u>	CALLED OUT <u>11:00</u>	ON LOCATION <u>11:00</u>	JOB START <u>5:00 AM</u>	JOB FINISH <u>6:00 AM</u>
LEASE <u>S. Unit</u>	WELL # <u>1</u>	LOCATION <u>Russell South to H corners</u>			COUNTY <u>Russell</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)		<u>2 3/4 West + Southwest into</u>					

CONTRACTOR \_\_\_\_\_ OWNER \_\_\_\_\_

TYPE OF JOB 5 1/2 Long string

HOLE SIZE 7 7/8 T.D. 3274 CEMENT AMOUNT ORDERED 150 sks ASCA

CASING SIZE 5 1/2 DEPTH 3278 AMOUNT ORDERED 195 sks Lite weight

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX 2000 MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT 86

CEMENT LEFT IN CSG. 86

PERFS. \_\_\_\_\_

DISPLACEMENT \_\_\_\_\_

**EQUIPMENT**

PUMP TRUCK CEMENTER Orlando

# 447 HELPER Yakovlevich

BULK TRUCK \_\_\_\_\_

# 858 DRIVER Griffin

BULK TRUCK \_\_\_\_\_

# \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:

*8432.10  
4047.41  
Total*

COMMON \_\_\_\_\_ @ \_\_\_\_\_

POZMIX \_\_\_\_\_ @ \_\_\_\_\_

GEL \_\_\_\_\_ @ \_\_\_\_\_

CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_

ASC \_\_\_\_\_ @ \_\_\_\_\_

150 sks Lite weight @ 19.88 2982.00

45 sks Lite weight @ 19.88 894.60

150 sks ASC @ 23.50 3525.00

cell flukes 38lb @ 2.97 112.86

cell flukes 12lb @ 2.97 35.64

Kol Seal 900lb @ 1.98 882.00

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

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

HANDLING 414 cost @ 248 1026.72

MILEAGE 175 Tme @ 2.25 481.25

TOTAL \_\_\_\_\_

**SERVICE**

DEPTH OF JOB 3278 2558.25

PUMP TRUCK CHARGE \_\_\_\_\_

EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_

HV MILEAGE 10 @ 7.20 72.00

MANIFOLD LV 5 @ \_\_\_\_\_ N/C

Derriek Charge @ \_\_\_\_\_ 577.50

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

*Also 2266.19* TOTAL 4721.22

**PLUG & FLOAT EQUIPMENT**

AS. Float Shoe 1 @ 545.00 545.00

Turbolizers 13 @ 95.00 1235.00

Baskets 2 @ 395.00 790.00

Stop Ring 2 @ 34.00 68.00

Latch Down Pins 1 @ 660.00 660.00

4 Bubbles

*Also 1583.04* TOTAL 3298.00

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 16,451.32

DISCOUNT 7896.64 IF PAID IN 30 DAYS

*Net 8554.68*

CHARGE TO: Barexco

STREET \_\_\_\_\_

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

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.

PRINTED NAME \_\_\_\_\_

SIGNATURE Dennis Kimey



Date 8-11-15 District Russell Ticket No. 55076

Company Borexco Rig \_\_\_\_\_

Lease S.C. Unit Well No. 1

County Russell State KS

Location Russell - South To Field \_\_\_\_\_

4 corners rd - 2 3/4 W - south + west

CASING DATA: Conductor  PTA  Squeeze  Misc

Surface  Intermediate  Production  Liner

Size 5 1/2 Type J-55 Weight 15.5 Collar \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Casing Depths: Top \_\_\_\_\_ Bottom 3276

\_\_\_\_\_

\_\_\_\_\_

3190 B-PH

Drill Pipe: Size \_\_\_\_\_ Weight \_\_\_\_\_ Collars \_\_\_\_\_

Open Hole: Size \_\_\_\_\_ T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

CAPACITY FACTORS:

Casing: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Open Holes: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Drill Pipe: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Annulus: Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Bbbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_

Perforations: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. \_\_\_\_\_

CEMENT DATA:

Spacer Type: \_\_\_\_\_  
Amt. \_\_\_\_\_ Skys Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG

LEAD: Pump Time \_\_\_\_\_ hrs. Type Common  
Excess \_\_\_\_\_

Amt. 150 Skys Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG

TAIL: Pump Time \_\_\_\_\_ hrs. Type Common  
Excess \_\_\_\_\_

Amt. 150 Skys Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG

WATER: Lead \_\_\_\_\_ gals/sk Tail \_\_\_\_\_ gals/sk Total \_\_\_\_\_ Bbbls.

Pump Trucks Used 447

Bulk Equip. 958

Float Equip: Manufacturer Weatherford/IK

Shoe: Type 5 1/2 ASU Depth \_\_\_\_\_

Float: Type \_\_\_\_\_ Depth \_\_\_\_\_

Centralizers: Quantity 13 Plugs Top \_\_\_\_\_ Btm. \_\_\_\_\_

Stage Collars \_\_\_\_\_

Special Equip. stop collars 2

Disp. Fluid Type 1#20 Amt. \_\_\_\_\_ Bbbls. Weight 833 PPG

Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG

COMPANY REPRESENTATIVE Dennis

CEMENTER Steve Orlando

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
11:20 AM		8-10-15				D allocation Run 27 sks 5 1/2 15.5 # casing Centralizers 1-2-3-4-5-7-8-9-10 12-14-19-21 Insert J+ #2 Basket 3-6 stop clamps 1+3 Casing on bottom - Break Circ w/air 1 hour Circulate
12:45 AM		8-11-15				
5:00 AM		100	60		5	Mix 150 sks Lite cement @
		100			5	12# 160
		100	42		5	Mix 150 sks ASCA cement @ 14.8
		0	0		6	Shut Down - Clear pump line
		250	42		5	Start H2O Displacement
		450	70		4	lift pressure
6:00		700	76		4	slow Rate
						plug Down - Hold
						Job Complete
						Circulation thru Job
						plug RHW 30/5Ks
						Run 15 sks Scummers ahead

FINAL DISP. PRESS: 200 PSI BUMP PLUG TO 1500 PSI BLEEDBACK 1/2 BBLS. THANK YOU



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC

**Sec. 30-14s-14w Russell,KS**

2020 N Bromblew ood  
Wichita, KS 67206

**SC Unit #1-30**

Job Ticket: 61640

**DST#: 1**

ATTN: Jeff Lawler

Test Start: 2015.08.09 @ 10:11:00

## GENERAL INFORMATION:

Formation: **Toronto-LKC "C"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:43:00  
 Time Test Ended: 19:13:40  
 Interval: **2898.00 ft (KB) To 3012.00 ft (KB) (TVD)**  
 Total Depth: 3012.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Phillip Gage  
 Unit No: 77  
 Reference Elevations: 1775.00 ft (KB)  
 1770.00 ft (CF)  
 KB to GR/CF: 5.00 ft

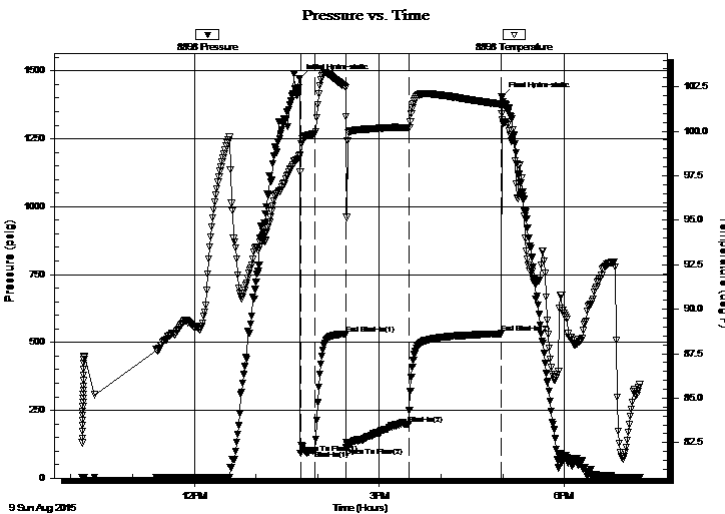
## Serial #: 8898

**Outside**

Press@RunDepth: 197.75 psig @ 2899.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.08.09 End Date: 2015.08.09 Last Calib.: 2015.08.09  
 Start Time: 10:11:01 End Time: 19:13:40 Time On Btm: 2015.08.09 @ 13:42:50  
 Time Off Btm: 2015.08.09 @ 16:58:50

TEST COMMENT: 15-IF-BOB in 2 mins  
 30-ISI-BOB in 10 mins.  
 60-FF-BOB instantly  
 90-FSI-BOB in 9 mins, died back to 6"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1472.83	98.68	Initial Hydro-static
1	91.62	97.72	Open To Flow (1)
15	102.28	99.85	Shut-In(1)
45	530.92	102.47	End Shut-In(1)
45	112.13	100.82	Open To Flow (2)
106	197.75	100.19	Shut-In(2)
196	534.43	101.52	End Shut-In(2)
197	1405.69	100.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
126.00	SOMCG, 10%o, 30%m, 60%g	1.49
252.00	VSOCM, 98%m, 2%o	3.53
73.00	M, w ith oil spots, 100%m	1.02
0.00	GIP-2434'	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	0.00	22.84
Last Gas Rate	0.25	9.00	37.12
Max. Gas Rate	0.25	9.00	37.12



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**Sec. 30-14s-14w Russell, KS**

2020 N Bromblew ood  
Wichita, KS 67206

**SC Unit #1-30**

Job Ticket: 61640

**DST#: 1**

ATTN: Jeff Lawler

Test Start: 2015.08.09 @ 10:11:00

### 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:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.50 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	SOMCG, 10%o, 30%m, 60%g	1.494
252.00	VSOCM, 98%m, 2%o	3.535
73.00	M, with oil spots, 100%m	1.024
0.00	GIP-2434'	0.000

Total Length: 451.00 ft

Total Volume: 6.053 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Berexco LLC

**Sec. 30-14s-14w Russell, KS**

2020 N Bromblewood  
Wichita, KS 67206

**SC Unit #1-30**

Job Ticket: 61640

**DST#: 1**

ATTN: Jeff Lawler

Test Start: 2015.08.09 @ 10:11:00

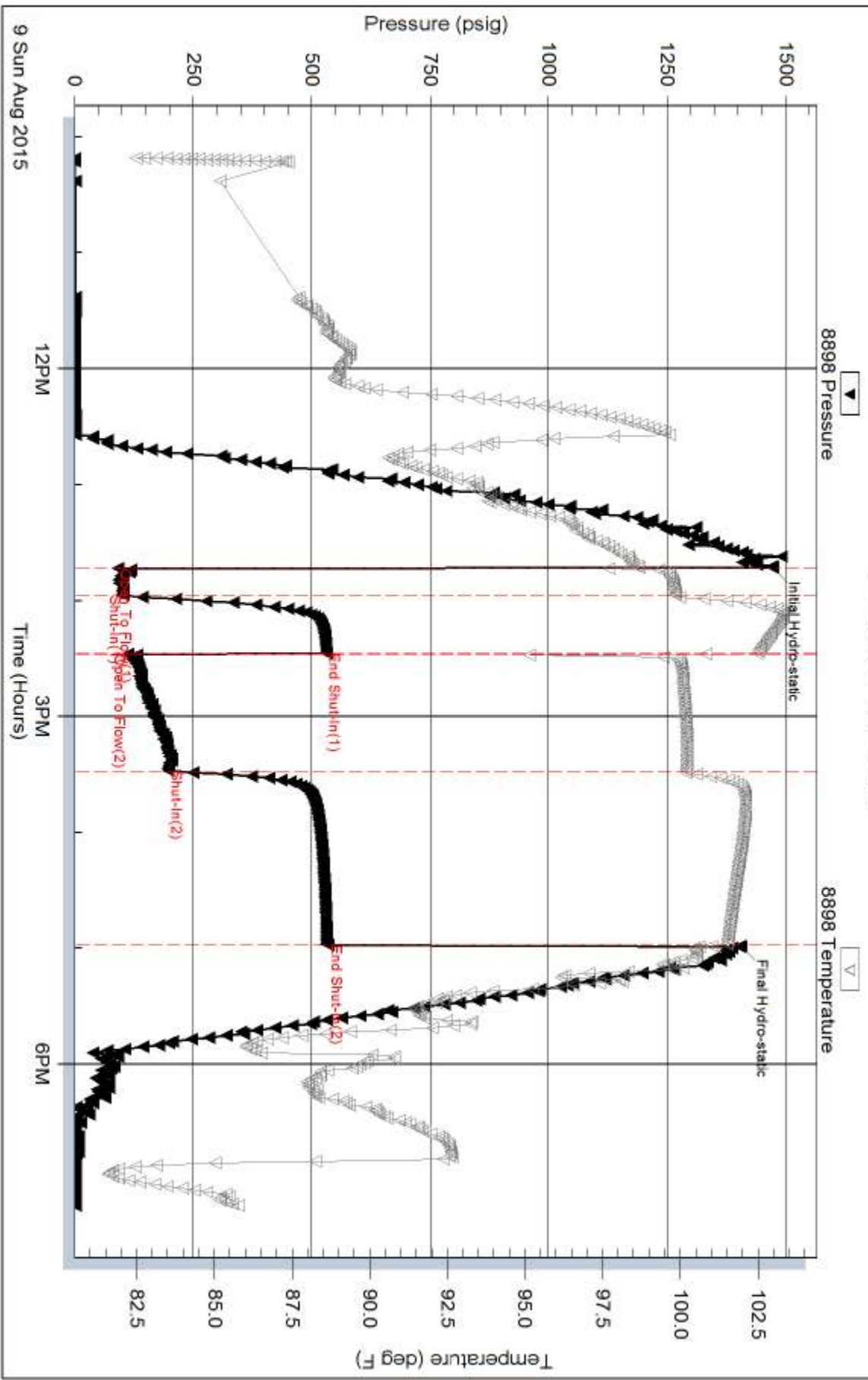
### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
60	10	0.25	0.00	22.84
60	10	0.25	7.00	33.95
60	10	0.25	8.00	35.54
60	10	0.25	9.00	37.12
60	10	0.25	9.00	37.12
60	10	0.25	9.00	37.12

### Pressure vs. Time





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC

**Sec. 30-14s-14w Russell,KS**

2020 N Bromblew ood  
Wichita, KS 67206

**SC Unit #1-30**

Job Ticket: 61641

**DST#: 2**

ATTN: Jeff Lawler

Test Start: 2015.08.10 @ 04:10:00

## GENERAL INFORMATION:

Formation: **LKC "D-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:23:39

Time Test Ended: 15:39:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 77

**Interval: 3015.00 ft (KB) To 3090.00 ft (KB) (TVD)**

Reference Elevations: 1775.00 ft (KB)

Total Depth: 3090.00 ft (KB) (TVD)

1770.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8898 Outside**

Press@RunDepth: 376.48 psig @ 3016.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.08.10

End Date:

2015.08.10

Last Calib.:

2015.08.10

Start Time: 04:10:01

End Time:

15:39:10

Time On Btm:

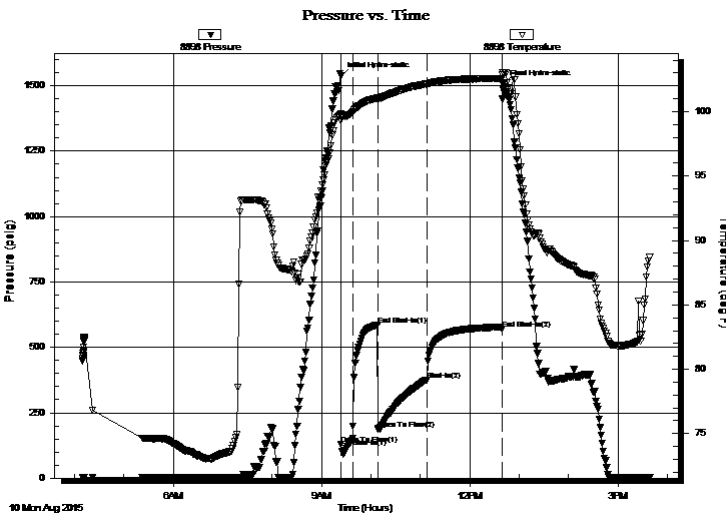
2015.08.10 @ 09:23:30

Time Off Btm:

2015.08.10 @ 12:40:09

**TEST COMMENT:** 15-IF-BOB in 1 min.  
30-ISI-BOB in 4 mins, Gas to Surface.  
60-FF-BOB in 30 seconds.  
90-FSI-BOB in 4 mins.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1537.06	99.84	Initial Hydro-static
1	128.85	99.31	Open To Flow (1)
15	151.87	99.97	Shut-In(1)
45	585.29	101.07	End Shut-In(1)
46	186.08	101.00	Open To Flow (2)
105	376.48	102.16	Shut-In(2)
196	570.59	102.56	End Shut-In(2)
197	1506.01	103.04	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	SOGCM, 10%o, 40%g, 50%m	0.61
63.00	GOCM, 20%g, 30%o, 50%m	0.88
1008.00	GO, 40%g, 60%o	14.14
0.00	GIP- 1827'	0.00

\* 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

**Sec. 30-14s-14w Russell,KS**

2020 N Bromblew ood  
Wichita, KS 67206

**SC Unit #1-30**

Job Ticket: 61641

**DST#: 2**

ATTN: Jeff Lawler

Test Start: 2015.08.10 @ 04:10:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	SOGCM, 10%o, 40%g, 50%m	0.610
63.00	GOCM, 20%g, 30%o, 50%m	0.884
1008.00	GO, 40%g, 60%o	14.140
0.00	GIP- 1827'	0.000

Total Length: 1134.00 ft

Total Volume: 15.634 bbl

Num Fluid Samples: 0

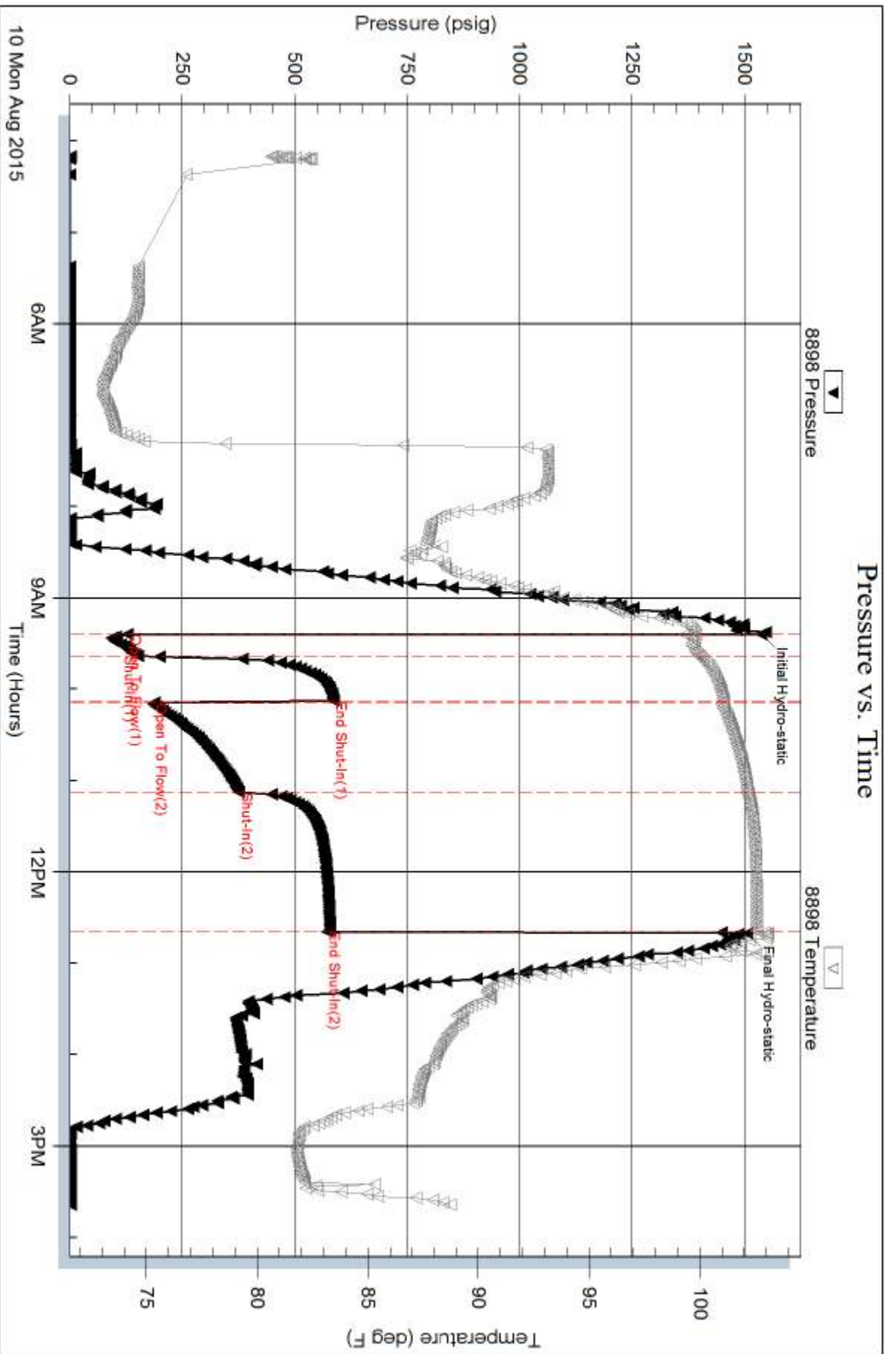
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







# BEREXCO

Scale 1:240 Imperial

Well Name: SC UNIT #1-30  
Surface Location: NW SW SW SE Sec. 30 - 14S - 14W  
Bottom Location:  
API: 15-167-24034  
License Number: 34318  
Spud Date: 8/4/2015 Time: 8:45 PM  
Region: RUSSELL COUNTY KANSAS  
Drilling Completed: 8/10/2015 Time: 5:56 AM  
Surface Coordinates: 470' FSL & 2555' FEL  
Bottom Hole Coordinates:  
Ground Elevation: 1770.00ft  
K.B. Elevation: 1777.00ft  
Logged Interval: 2200.00ft To: 3280.00ft  
Total Depth: 3280.00ft  
Formation: LANSING - KANSAS CITY; ARBUCKLE  
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

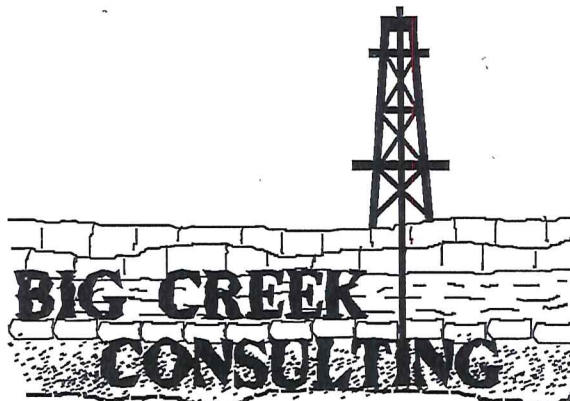
## OPERATOR

Company: BEREXCO, LLC  
Address: 2020 N. BRAMBLEWOOD  
WICHITA, KS 67206  
Contact Geologist: BRUCE MEYER  
Contact Phone Nbr: (316) 265-3311  
Well Name: SC UNIT #1-30  
Location: NW SW SW SE Sec. 30 - 14S - 14W  
API: 15-167-24034  
Pool:  
State: KANSAS  
Field: GORHAM  
Country: USA

## SURFACE CO-ORDINATES

Well Type: Vertical  
Longitude: -98.9190498  
Latitude: 38.7997190  
N/S Co-ord: 470' FSL  
E/W Co-ord: 2555' FEL

## LOGGED BY



Company: BIG CREEK CONSULTING, INC.  
Address: 1909 MAPLE  
ELLIS, KS 67637

Phone Nbr: (785) 259-3737  
Logged By: GEOLGIST

Name: JEFF LAWLER / STEVE REED

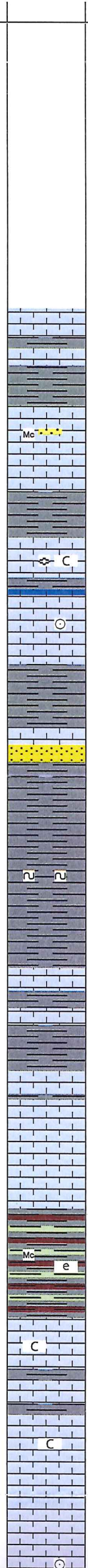
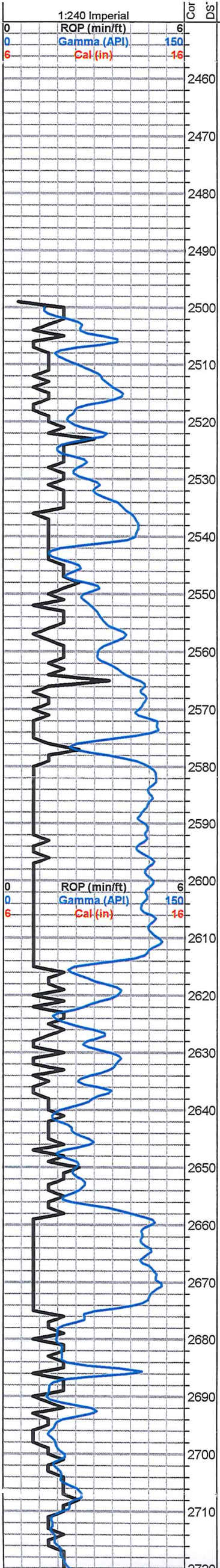
## CONTRACTOR

Contractor: AMERICAN EAGLE DRILLING, LLC  
Rig #: 3  
Rig Type: MUD ROTARY  
Spud Date: 8/4/2015

Time: 8:45 PM







**1' DRILL TIME THROUGH ANHYDRITE FROM 750' - 830'**  
**1' DRILL TIME FROM 2500' - RTD**  
**10' WET/DRY SAMPLES FROM 2500' - RTD**

**GEOLOGICAL SUPERVISION BY JEFF LAWLER/STEVE REED**  
**FROM 2500' - RTD**

**8 5/8" SURFACE PIPE SET @ 798' SURVEY 2 1/2 dgr.**

**ANHYDRITE TOP 785' (+992) E-LOG 789' (+988)**  
**ANHYDRITE BASE 813' (+964) E-LOG 824' (+953)**

Sh- Lt & Drk Gray, silty & calcareous, abundant gummy argillaceous clumps & soft white chalk

Lm- Cream Tan, VFXLN, dense, well cemented, mix of high-energy Ls w/ fsl frag., poor to no vis. porosity, tight sl cherty Ls w/ min. vis. porosity, & tan gritty sl dolomitic Ls w/ consistent micro XLN porosity, all barren

Lm- A/A w/ interbedded gray shale benches & sl shaley fn grn Ss, sl unconsolidated, well sorted, micaceous, barren

Lm- Buff Cream, VF-FXLN, fsl, poorly dev. & chalky, loosely cemented, poor vis. porosity, mixed w/ some well cemented & tight, 2-3 PCS OF FROSTED/GRAY Ss, loosely cemented, sl shaley, WK SHEEN, LT STN, NSFO, NO ODR, WK HALO FLOR.

Lm- Cream Off White, FXLN, fsl w/ fusulinids, sl chalky in part, sctrd XLN porosity, clean & barren, interbedded calcareous gray shale lenses

Lm- Cream Tan, FXLN, fsl w/ crinoids, most loosely cemented & crumbly, some chalky in part, sctrd XLN & vry fn ppt porosity, barren

Lm- Tan Buff, VFXLN, dense, well cemented high-energy w/ fsl frag. poor vis. porosity, 2 PCS consolidated & mod. mature fn grn Ss, well sorted, friable, SCTD STN, TR FO, WK ODR,

Sh/Ss- Gray, dense & semi-waxy, arenaceous shale/shaley Ss

A/A- sl influx of cleaner more mature Ss, well sorted, spkld w/ glauconite, mod. Ca cementation, consistent intergranular porosity, barren

Sh- Lt Gray, silty & micaceous, some calcareous

Lm- Cream Tan, VF-FXLN, dense, well cemented high-energy fsl Ls w/ poor vis. porosity

Lm- Buff Brown, VF-FXLN, dense, well cemented, tight & trashy, poor vis. porosity,

Lm- Cream, VFXLN, fsl, tight w/ poor vis. porosity, some w/ sctrd XLN porosity

Lm- A/A

Sh- Gray Maroon Lm Green, silty & calcareous, some micaceous, some arenaceous, gritty & earthy, dense & crumbly

**TOPEKA 2677' (-900) E-LOG 2675' (-898)**

Lm- Cream Off White, VFXLN, dense, most well cemented lithographic Ls w/ vis. porosity, some chalky & crumbly and soft white chalk

Lm- Cream Off White, FXLN, dense, well cemented, fsl w/ sctrd XLN porosity, some chalky in part, all vry clean

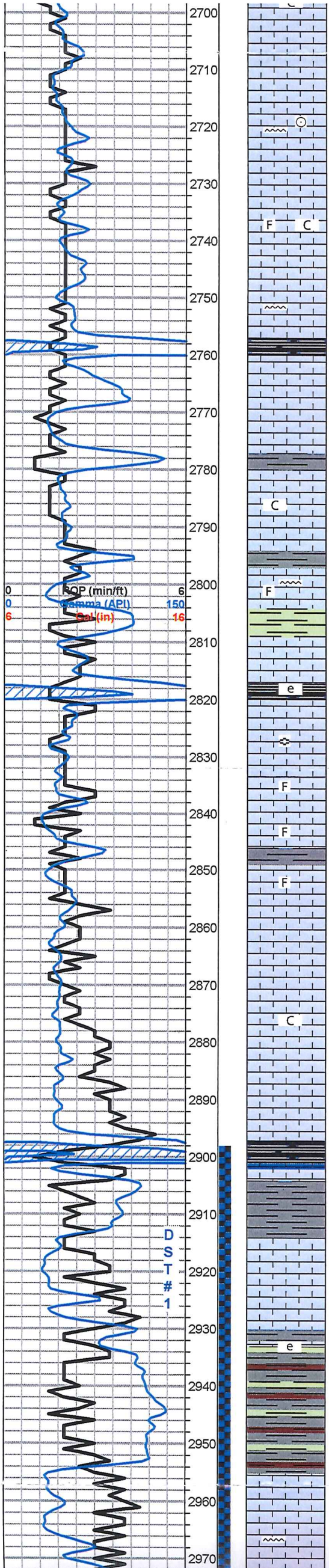
Lm- Cream Buff, VF-FXLN, fsl, poorly dev, few pcs of sl cherty Ls, all w/ sctrd XLN porosity, barren

Lm- Gray Cream, mix of loosely cemented & crumbly, sl chalk, fsl w/ sctrd to dense XLN porosity, several pcs of fresh bedded gray fsl cherty Ls w/ vis. porosity

1:240 Imperial

TARK.jpg





chalky in part, all vry clean

Lm- Cream Buff, VF-FXLN, fsl, poorly dev, few pcs of sl cherty Ls, all w/ sctrd XLN porosity, barren

Lm- Gray Cream, mix of loosely cemented & crumbly, sl chalk, fsl w/ sctrd to dense XLN porosity, several pcs of fresh bedded gray fsl chert/cherty Ls w/o vis. porosity

Lm- Cream Off White, FXLN, fsl, poorly dev. w/ sctrd XLN porosity, semi-grainy

Lm- Cream Off White, FXLN, high-energy mix w/ fsl fragments, poor vis. porosity, some loosely cemented, chalky, & crumbly

Lm- Cream Off White, A/A, chalky & sl unconsolidated, few pcs of gray fresh bedded cherty Ls w/o vis. porosity

Sh- Black Maroon, fissile & carbonaceous, gritty & earthy

Lm- Cream Off White, FXLN Fn Grn, chalky loosely cemented mix of XLN & mud supported matrix, all mottled w/ poor vis. porosity, sctrd XLN porosity, FEW PCS W/ WK TR STN, NSFO, NO ODR

Lm- Cream Off White, VF-FXLN, dense, most well cemented, some chalky mud supported matrix, sctrd to dense XLN porosity, vry clean & barren

Lm- Cream Buff, FXLN, dense, well cemented, sl fsl, poorly dev. w/ sctrd XLN porosity, barren, few pcs of blk fsl fresh bedded chert

Sh- Gray Lm Green, silty & calcareous, dense & semi-waxy

Sh- Black Gray Maroon, fissile & carbonaceous, silty & soft, gritty & earthy

Lm- Cream Tan, FXLN, fsl, dense XLN porosity, semi-crumbly, barren, sctrd fn-med reXLN, barren, several loose fusulinids

Lm- Cream Tan, VFXLN, dense, well cemented, tight w/ min. vis. porosity, slick cherty like Ls, fsl

Lm- Gray Buff, VF-FXLN, dense, well cemented, poorly dev. w/ sctrd XLN porosity, fsl, barren

Lm- Cream Off White, FXLN, fsl, loosely cemented, dense reXLN & XLN porosity, SCTRD DRK STN, NSFO, WK ODR

Lm- Cream Off White, A/A sl better development w/ sctrd fn ppt porosity, SCTRD DRK STN, SL TR FO, WK-MOD ODR.

Lm- Cream Off White, FXLN, fsl, poorly dev. & mostly tight w/ sctrd XLN porosity, barren, some soft white chalk

Lm- A/A

**HEEBNER 2900' (-1123) E-LOG 2897' (-1120)**

Sh- Black Gray, fissile & carbonaceous, silty & soft

Sh- Gray, silty & soft, some calcareous

**TORONTO 2918' (-1141) E-LOG 2913' (-1136)**

Lm- Cream Off White, VF-FXLN, dense, loosely cemented, some crumbly & mottled, sctrd to dense reXLN, XLN porosity, LT FLAKEY STN, NSFO, WK ODR

Sh- Gray Maroon Lm Green, gummy argillaceous clumps, gritty & earthy, soft & calcareous

Sh- A/A w/ arenaceous shale

**LKC 2957' (-1180) E-LOG 2954' (-1177)**

Lm- Cream Tan, FXLN, mod. dev. w/ sctrd reXLN, XLN to sctrd ppt porosity, SUB-SAT LT STN, NSFO, WK ODR

Lm- Cream Tan, VF-FXLN, dense, well cemented, poorly dev. & mostly tight, some sl cherty Ls, barren

PLATTS...

SHORT TRIP STRAP -2.93' SURVEY 1 dgr.

DST #1  
TOR - LKC D  
15-30-60-90  
451' TOTAL FLUID  
2434' GIP  
126' SOMCG  
(10%O,30%M,60%G)  
252' VSOCM  
(2%O, 98%M)  
73' M w/ OIL  
SPOTS  
GAS: 22.84-  
37.12MCF  
GAUGED EVERY  
10 min.

IFP: 91-102#  
FFP: 112-197#  
SIP: 530-534#

A.jpg



**LKC 2957' (-1180) E-LOG 2954' (-1177)** Lm- Cream Tan, FXLN, mod. dev. w/ sctrd reXLN, XLN to sctrd ppt porosity, SUB-SAT LT STN, NSFO, WK ODR

A.jpg

Lm- Cream Tan, VF-FXLN, dense, well cemented, poorly dev. & mostly tight, some sl cherty Ls, barren

Sh- Maroon Gray, gummy argillaceous clumps & arenaceous shale

**F** Lm- Cream Off White, VF-FXLN, fsl & sl oolitic, sctrd dev. & reXLN w/in porosity, sctrd XLN & fn ppt interoolite porosity, SCTRD LT STN, NSFO, MOD ODR

C.jpg

Sh- Gray, dense & waxy, soft & silty

**F** Lm- Off White, VF-FXLN, dense, well cemented, sl oolitic, sctrd dev. w/ micro XLN to rare fn ppt porosity, sctrd reXLN w/in porosity, LT SCTRD STN, FLAKEY, NSFO, NO ODR

D.jpg

**C** Lm- Cream Off White, VF-FXLN, dense, well cemented, chalky in part, poorly dev. w/ sctrd XLN porosity, vry clean & barren

DST #2  
LKC D-G  
15-30-60-90

**P** Lm- Tan-Cream, FXLN, dense, hard, clean & barren, pyrite clusters, fusulinids

**P** Lm- Tan, oolitic w/ dark fossil clasts, FN XLN porosity, sctrd vugs, well cemented, LT SCTRD STN, NSFO, FNT ODR, good streaming wet cut, slightly chalky

1134' TOTAL FLUID  
1827' GIP  
63' SOGCM (10%O, 40%G, 50% M)  
63' GOCM (20%G, 30%O, 50% M)  
1008' GO (40%G, 60%O)

**F** Lm- Cream, oolitic w/ fn Interoolite porosity, moderate hardness, SCTRD LT BRN STN, FNT ODR, NSFO, light streaming wet cut

**F** Lm- Off White-Cream, fossiliferous w/ fn inter XLN porosity, moderate hardness, SCTRD LT GLDN BRN STAIN, SL ODR, NSFO

IFP: 128-151#  
FFP: 186-376#  
SIP: 585-570#

**P** Lm- Bright White-Cream, oomoldic, moderate hardness, SCTRD LT BRN STN, light streaming wet cut, NSFO, chalky

**F** Lm- Bright White, oolitic, dense, poorly developed, mostly clean & barren, no odor, bedded chalk in part

Note:  
Samples very trashy

**P** Lm- Tan-Cream, VFXLN, scattered oolites, dense, very hard, no shows, slightly chalky

Lm- A/A w/ dark brn chert

**F P** Lm- Cream, slightly fossiliferous, dense, hard, pyrite, slight chalk, no shows  
Sh- Black, carbonaceous, fissile, firm

**F** Lm- Lt brn-gray, FXLN, dense, very hard, some fossiliferous poor devo., opaque tan chert

Sh- Dark Gray-Black, fissile, waxy

**F** Lm- Cream, fossiliferous w/ fn ppt & inter XLN porosity, SCTRD LT GLDN BRN STN, SI ODR, good streaming wet cut, NSFO

Sh- Maroon, soft, blocky, some sticky

**F** Lm- Cream, oolitic/ oomoldic with fn inter oolitic porosity, scattered vugs, LT BRN SCTRD STN, SL ODR,

**F** Lm- Cream-Light Brown, oolitic, very well reXLN cement, dense, hard, SCTRD LT BRN STN, FNT ODR, NSFO

Sh- Maroon-Gray, soft, blocky  
Sh- Black Carbonaceous, fissile, soft

**C** Lm- Tan-Light Brn, VF-XLN, dense, very hard, clean & barren, slight chalk in part, couple chips w/ SCTRD STN, FNT ODR, NSFO

Sh- Black, carbonaceous, fissile, soft

**P** Lm- Light Brown, FN-XLN, dense, hard, no shows, pyrite

**BKC E-LOG 3188' (-1411')** Sh- lime green, soft, blocky

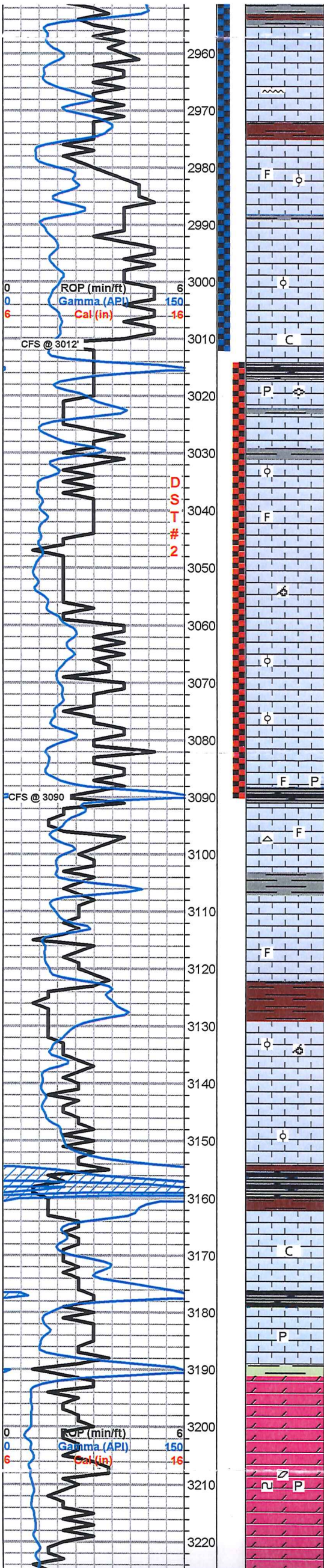
**ARBuckle 3193' (-1416) E-LOG 3191' (-1414')** Dolo- Buff, MED-XLN, w/ fn interxln porosity, SCTRD STN, LT GASSY SHEEN, STRNG ODR, Good Streaming wet cut, NSFO

**D** Dolo- Buff-Off White, FN-MED XLN, SCTRD STN, well cemented, GD ODR, NSFO

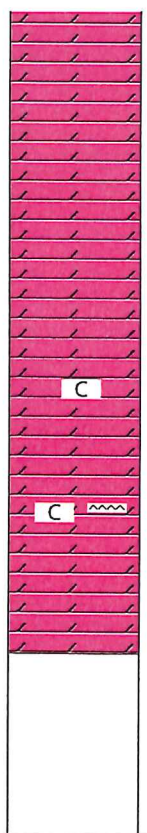
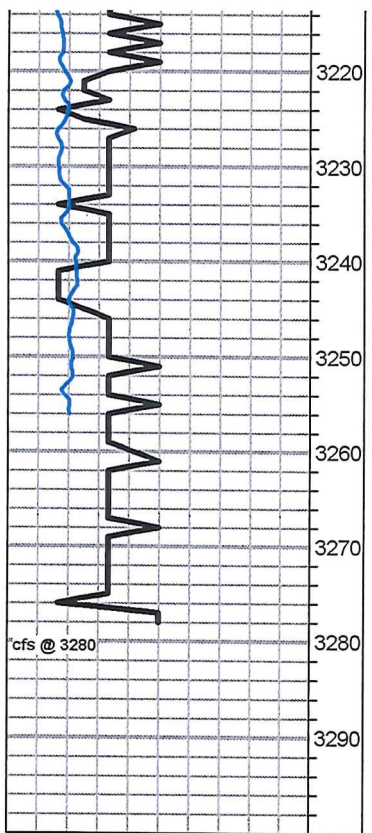
**D** Dolo- Buff-Tan, MED-XLN, well developed rhombic xtais, well cemented, GASSY SHEEN, SAT STN, STRNG ODR, rare SFO upon crush, pyrite, glauconite

**D** Dolo- Off White, FN-MED XLN, STRNG ODR, SCTRD STN, rare SFO upon crush

Dolo- Cream-Tan, FN XLN, FNT ODR, SCTRD STN, NSFO, clear opaque grain







○ Dolo- Off White, FN-MED XLN, STRNG ODR, SCTRDR STN, rare SFO upon crush

Dolo- Cream-Tan, FN XLN, FNT ODR, SCTRDR STN, NSFO, clear opaque grain inclusions

Dolo- Bright White, FN XLN, moderately cemented, clean & barren

Dolo- Off White, FN XLN, loosely cemented, chalky, no Shows

Dolo- White-Cream, FN XLN, brittle, chalky in part, clean & barren

Dolo- Cream, FN XLN, well cemented, brittle, chalky, cherty, no shows

Dolo- Bright White, FN XLN, well cemented, hard, clean & barren, large free clear opaque grains in tray.

RTD 3280' (-1503) E-LOG 3279' (-1502) @ 05:56 8/10/2015

SURVEY @ TD  
1/4 DEGREE