



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1226638
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: _____

1226638

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			
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)*

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: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	Sack Trust "A" 1-24
Doc ID	1226638

All Electric Logs Run

Dual Induction
Neutron-Density
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	Sack Trust "A" 1-24
Doc ID	1226638

Tops

Name	Top	Datum
Anhydrite	1324	723
Base Anhydrite	1367	680
Topeka	3061	-1014
Heebner	3303	-1256
Lansing	3349	-1302
Stark	3541	-1494
BKC	3590	-1543
Arbuckle	3679	-1632

JOB LOG

SWIFT Services, Inc.

DATE 8-14-14 PAGE NO. 1

CUSTOMER COBALT ENERGY WELL NO. 1-24 LEASE SACK TRUST "A" JOB TYPE 5 1/2" 2-STAGE LONGSTROKE TICKET NO. 26684

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0600							ON LOCATION
	0615							START 5 1/2" CASING IN WELL
								TD - 3750 SET = 3739
								TP - 3739 5 1/2" # 15.5
								ST - 42'
								CENTRALIZERS - 1, 5, 6, 7, 8, 9, 10, 15, 16, 57
								CNT BSKS - 55, 56
								DV TOOL - 1358' TOPT # 56
	0800							DROP BALL - CIRCULATE
	0908	6	12		✓	400		PUMP 500 GAL MUD FLUSH
	0910	6	20		✓	400		PUMP 20 BBL KCL - FLUSH
	0915	5 1/2	36		✓	250		MIX CEMENT - 150 SKS EA2 = 15.4 PP6
	0922							WASH OUT PUMP - LINES
	0922							RELEASE 1ST STAGE LATCH DOWN PLUG
	0925	7	0		✓			DISPLACE PLUG
	0938	6	88			1500		PLUG DOWN - PSE LATCH IN PLUG
	0940					OK		RELEASE PSE - HELD
	0945							DROP DV OPENING PLUG
	1000				✓	1200		OPEN DV - CIRCULATE
	1010	6	20		✓	250		PUMP 20 BBL KCL FLUSH
	1015		7-5					PLUG RH (30SKS) MH (20SKS)
	1020	5	83		✓	150		MIX CEMENT - 150 SKS SMD = 11.2 PP6
	1038							WASH OUT PUMP - LINES
	1038							RELEASE DV CLOSING PLUG
	1040	6 1/2	0		✓			DISPLACE PLUG
	1045	5	32.3			1500		PLUG DOWN - PSE UP CLOSE DV TOOL
	1050					OK		RELEASE PSE - HELD
								CIRCULATED 30 SKS CEMENT TO PCT
								WASH TRUCK
	1130							JOB COMPLETE

THANK YOU
WAYNE, DAVID E., JARED

ALLIED OIL & GAS SERVICES, LLC 055392

Federal Tax I.D.# 20-5976804

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

SERVICE POINT:

Russell KS

DATE <i>8-4-14</i>	SEC. <i>24</i>	TWP. <i>13</i>	RANGE <i>19</i>	CALLED OUT	ON LOCATION	JOB START <i>1030PM</i>	JOB FINISH <i>1100PM</i>
LEASE <i>Sack Trust A</i>	WELL# <i>1-24</i>	LOCATION <i>Yocco-mo-Ex-ite 4S 2E 34W</i>			COUNTY <i>Ellis</i>	STATE <i>KY</i>	
OLD OR <u>NEW</u> (Circle one)			<i>Einto</i>				

CONTRACTOR *Southwind 8*
 TYPE OF JOB *surface*
 HOLE SIZE *12 1/4* T.D. *220*
 CASING SIZE *8 3/8 23"* DEPTH *220*
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT *15*
 CEMENT LEFT IN CSG. *15*
 PERFS.
 DISPLACEMENT *13*

OWNER

CEMENT AMOUNT ORDERED *175 can 38 sec 28 gel*

EQUIPMENT
 PUMP TRUCK CEMENTER *Robert Y*
 # *409* HELPER *Nathan D*
 BULK TRUCK
 # *378* DRIVER *Jon P*
 BULK TRUCK
 # DRIVER

COMMON *175* @ *17.90* *3132.50*
 POZMIX @
 GELCC *495* @ *1.10* *544.50*
 CHEORIDE *330* @ *.45* *148.50*
 ASC @

Material @ *3842.50*
Disc @ *1075.76*
 HANDLING *125 sks* @ *2.48* *310.00*
 MILEAGE *41* @ *2.75* *112.75*
 TOTAL *4388.75*

REMARKS:

see log
Cement did circulate to surface
Thank you!!!

SERVICE

DEPTH OF JOB *220*
 PUMP TRUCK CHARGE *1512.25*
 EXTRA FOOTAGE @
 MILEAGE *5.1 UNIT* @ *4.40* *22.00*
 MANIFOLD @
10 UNIT @ *7.70* *77.00*

CHARGE TO: *Cobalt Energy*
 STREET
 CITY STATE ZIP

Disc 604.24

TOTAL *2158.00*
~~TOTAL 1611.25~~

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @

TOTAL

SALES TAX (If Any)

TOTAL CHARGES *6000.00*

DISCOUNT *1680.00* *28%* PAID IN 30 DAYS

PRINTED NAME *Darrell Yett*

SIGNATURE *[Signature]*

net \$ *4320.00*

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.



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.08 @ 16:40:35

End Date: 2014.08.09 @ 00:54:29

Job Ticket #: 58839 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:52:59



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

ATTN: Mike Maune

Job Ticket: 58839

DST#: 1

Test Start: 2014.08.08 @ 16:40:35

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:54:00

Time Test Ended: 00:54:29

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

Interval: 3300.00 ft (KB) To 3344.00 ft (KB) (TVD)

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3344.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8018

Inside

Press@RunDepth: 537.63 psig @ 3308.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.08

End Date:

2014.08.09

Last Calib.:

2014.08.09

Start Time: 16:40:35

End Time:

00:54:29

Time On Btm:

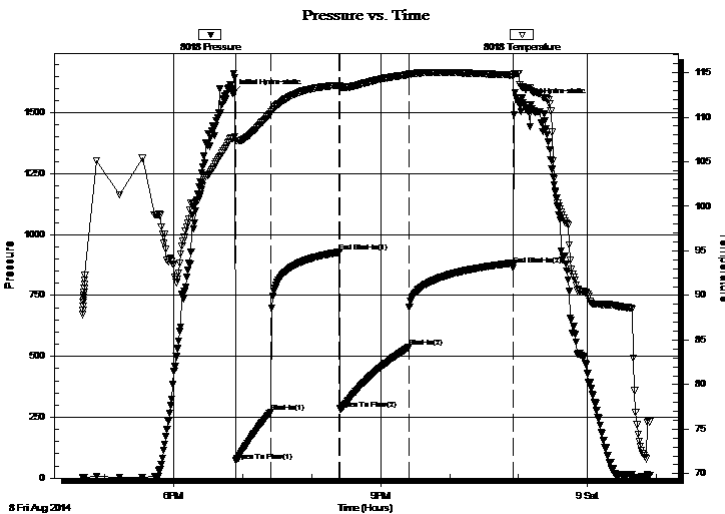
2014.08.08 @ 18:51:30

Time Off Btm:

2014.08.08 @ 22:59:29

TEST COMMENT: 30-IFP-strg bl in 6 min
60-ISIP-no bl
60-FFP-strg bl in 8 min
90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1578.77	107.65	Initial Hydro-static
3	70.89	107.40	Open To Flow (1)
33	270.23	110.38	Shut-In(1)
93	927.78	113.57	End Shut-In(1)
93	284.99	113.36	Open To Flow (2)
153	537.63	114.76	Shut-In(2)
244	877.19	114.72	End Shut-In(2)
248	1542.71	114.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	MW 25%M75%W	2.67
1000.00	Water	14.03

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58839

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Total Depth: 3344.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inchesHole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3308.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.08

End Date:

2014.08.09

Last Calib.:

2014.08.09

Start Time: 16:40:30

End Time:

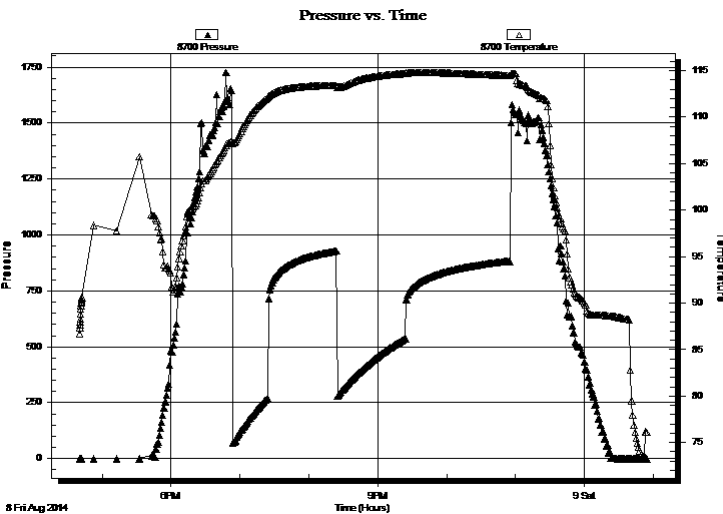
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Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-strg bl in 6 min
60-ISIP-no bl
60-FFP-strg bl in 8 min
90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
190.00	MW 25%M75%W	2.67
1000.00	Water	14.03

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58839

DST#: 1

ATTN: Mike Maune

Test Start: 2014.08.08 @ 16:40:35

Tool Information

Drill Pipe:	Length: 3286.00 ft	Diameter: 3.80 inches	Volume: 46.09 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 46.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3300.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3272.00	
Shut In Tool	5.00			3277.00	
Hydraulic tool	5.00			3282.00	
Jars	5.00			3287.00	
Safety Joint	3.00			3290.00	
Packer	5.00			3295.00	29.00 Bottom Of Top Packer
Packer	5.00			3300.00	
Stubb	1.00			3301.00	
Perforations	7.00			3308.00	
Recorder	0.00	8018	Inside	3308.00	
Recorder	0.00	8700	Outside	3308.00	
Blank Spacing	33.00			3341.00	
Bullnose	3.00			3344.00	44.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58839

DST#: 1

ATTN: Mike Maune

Test Start: 2014.08.08 @ 16:40:35

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 51.00 sec/qt
Water Loss: 8.69 in³
Resistivity: ohm.m
Salinity: 6600.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 63000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	MW 25%M75%W	2.665
1000.00	Water	14.027

Total Length: 1190.00 ft Total Volume: 16.692 bbl

Num Fluid Samples: 0

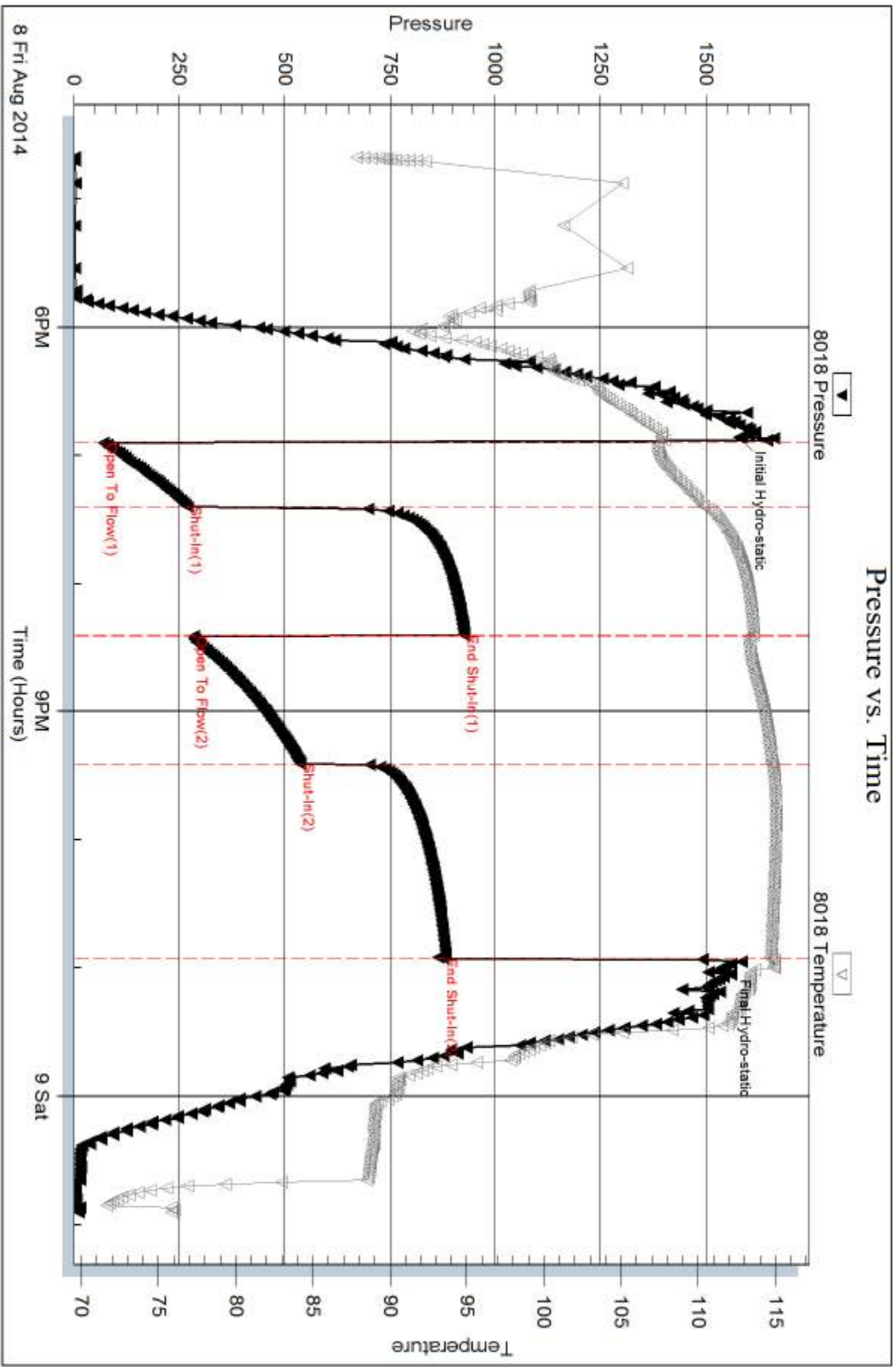
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .12 @ 70F

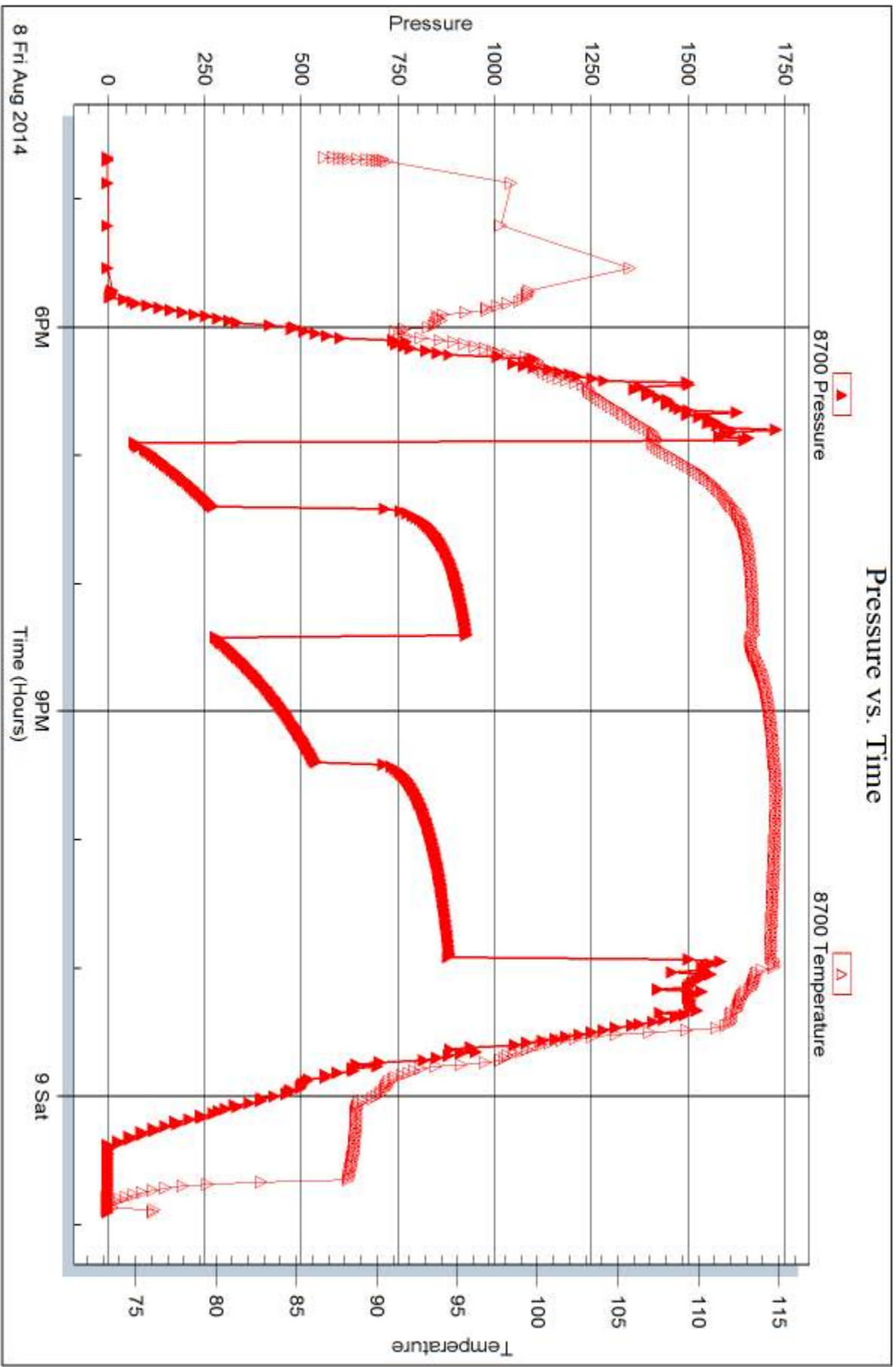


Serial #: 8700

Outside Cobalt Energy LLC

Sack Trust "A" #1-24

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58839

Printed: 2014.08.14 @ 11:53:00



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.09 @ 12:30:32

End Date: 2014.08.09 @ 20:26:56

Job Ticket #: 58840 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:52:39



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58840

DST#: 2

ATTN: Mike Maune

Test Start: 2014.08.09 @ 12:30:32

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:38:57

Time Test Ended: 20:26:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3362.00 ft (KB) To 3410.00 ft (KB) (TVD)

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3410.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8018

Inside

Press@RunDepth: 93.60 psig @ 3364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.09

End Date:

2014.08.09

Last Calib.:

2014.08.09

Start Time:

12:30:32

End Time:

20:26:56

Time On Btm:

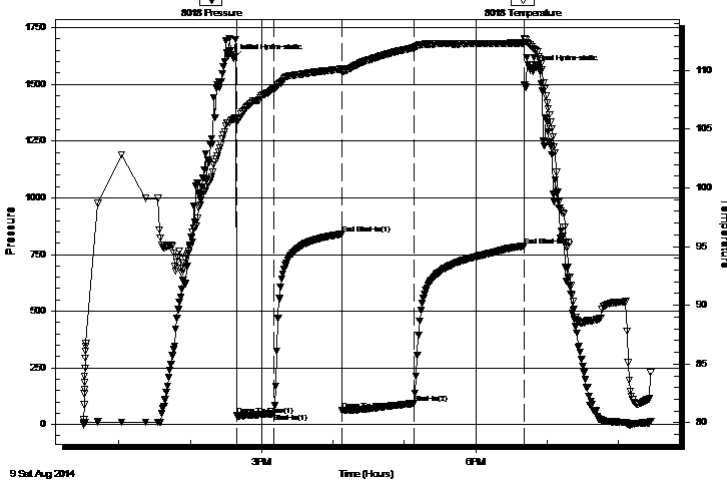
2014.08.09 @ 14:36:27

Time Off Btm:

2014.08.09 @ 18:45:56

TEST COMMENT: 30-IFP-w k to strg in 30 min
60-ISIP-no bl
60-FFP-w k to strg in 28 min
90-FSIP-no bl

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1615.65	105.83	Initial Hydro-static
3	39.33	105.65	Open To Flow (1)
34	48.85	108.42	Shut-In(1)
91	840.47	110.13	End Shut-In(1)
92	63.85	109.86	Open To Flow (2)
152	93.60	111.94	Shut-In(2)
244	787.78	112.35	End Shut-In(2)
250	1563.46	112.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	390' GIP	0.00
25.00	CO	0.35
85.00	MGO 10%G35%M55%O	1.19
62.00	OCMW 10%O25%M65%W	0.87

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC
 PO Box 8037
 Wichita KS 67208
 ATTN: Mike Maune

24-13s-19w Ellis,KS
Sack Trust"A" #1-24
 Job Ticket: 58840 **DST#: 2**
 Test Start: 2014.08.09 @ 12:30:32

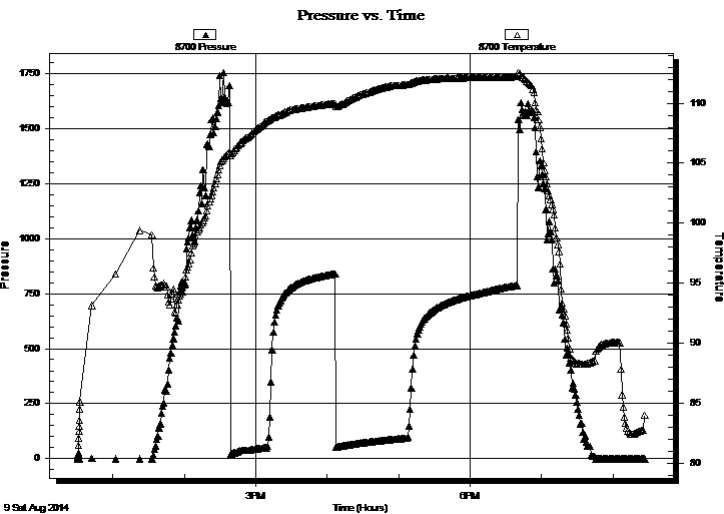
GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 14:38:57 Tester: Ray Schwager
 Time Test Ended: 20:26:56 Unit No: 70
Interval: 3362.00 ft (KB) To 3410.00 ft (KB) (TVD) Reference Elevations: 2047.00 ft (KB)
 Total Depth: 3410.00 ft (KB) (TVD) 2038.00 ft (CF)
 Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3364.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.09 End Date: 2014.08.09 Last Calib.: 2014.08.09
 Start Time: 12:30:17 End Time: 20:26:41 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-w k to strg in 30 min
 60-ISIP-no bl
 60-FFP-w k to strg in 28 min
 90-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
0.00	390' GIP	0.00
25.00	CO	0.35
85.00	MGO 10%G35%M55%O	1.19
62.00	OCMW 10%O25%M65%W	0.87

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58840

DST#: 2

ATTN: Mike Maune

Test Start: 2014.08.09 @ 12:30:32

Tool Information

Drill Pipe:	Length: 3351.00 ft	Diameter: 3.80 inches	Volume: 47.01 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 47.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3362.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3334.00	
Shut In Tool	5.00			3339.00	
Hydraulic tool	5.00			3344.00	
Jars	5.00			3349.00	
Safety Joint	3.00			3352.00	
Packer	5.00			3357.00	29.00 Bottom Of Top Packer
Packer	5.00			3362.00	
Stubb	1.00			3363.00	
Perforations	1.00			3364.00	
Recorder	0.00	8018	Inside	3364.00	
Recorder	0.00	8700	Outside	3364.00	
Blank Spacing	33.00			3397.00	
Perforations	10.00			3407.00	
Bullnose	3.00			3410.00	48.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58840

DST#: 2

ATTN: Mike Maune

Test Start: 2014.08.09 @ 12:30:32

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 11.88 in³
Resistivity: ohm.m
Salinity: 10100.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 35 deg API
Water Salinity: 74000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	390' GIP	0.000
25.00	CO	0.351
85.00	MGO 10%G35%M55%O	1.192
62.00	OCMW 10%O25%M65%W	0.870

Total Length: 172.00 ft Total Volume: 2.413 bbl

Num Fluid Samples: 0

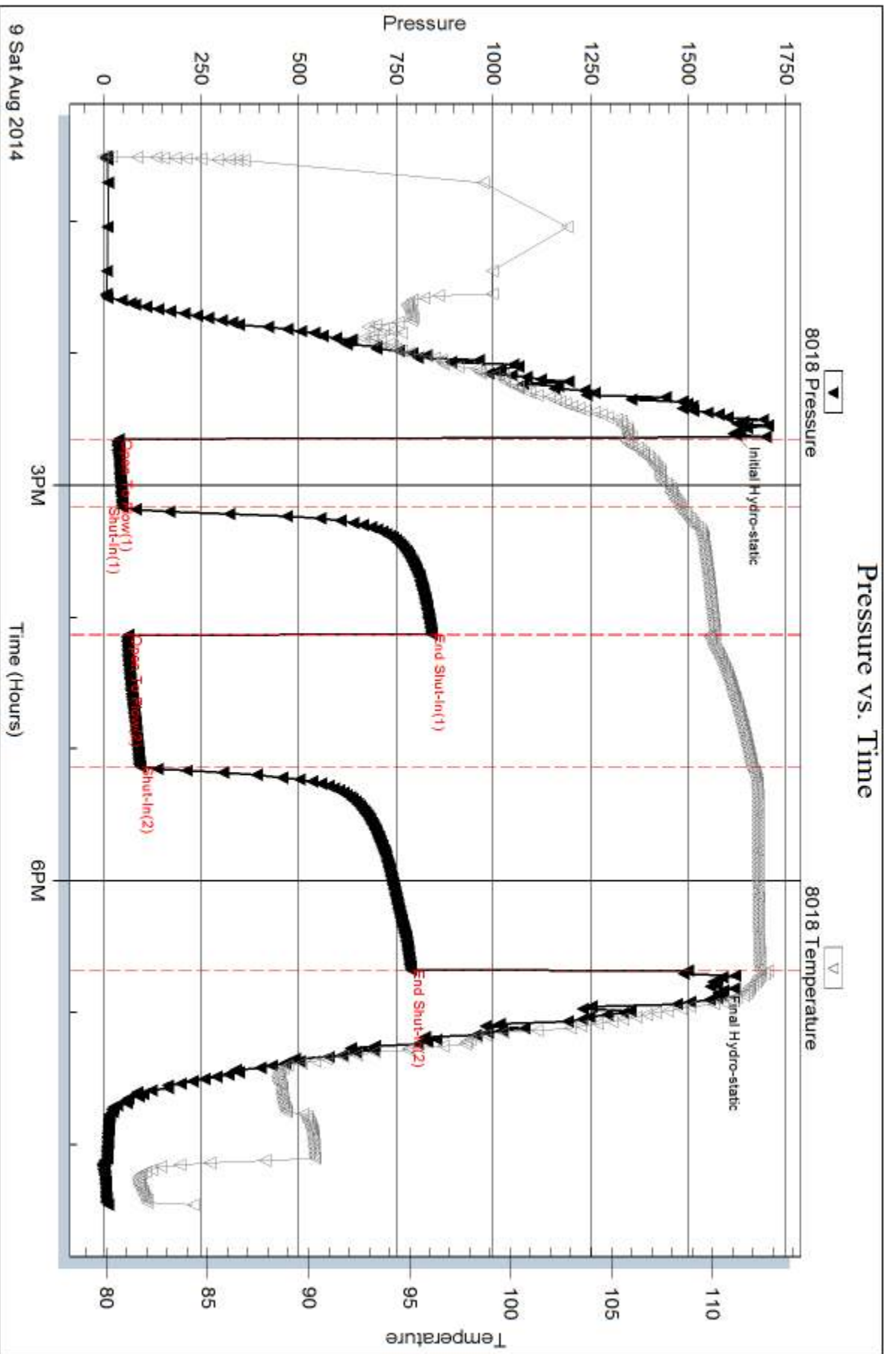
Num Gas Bombs: 0

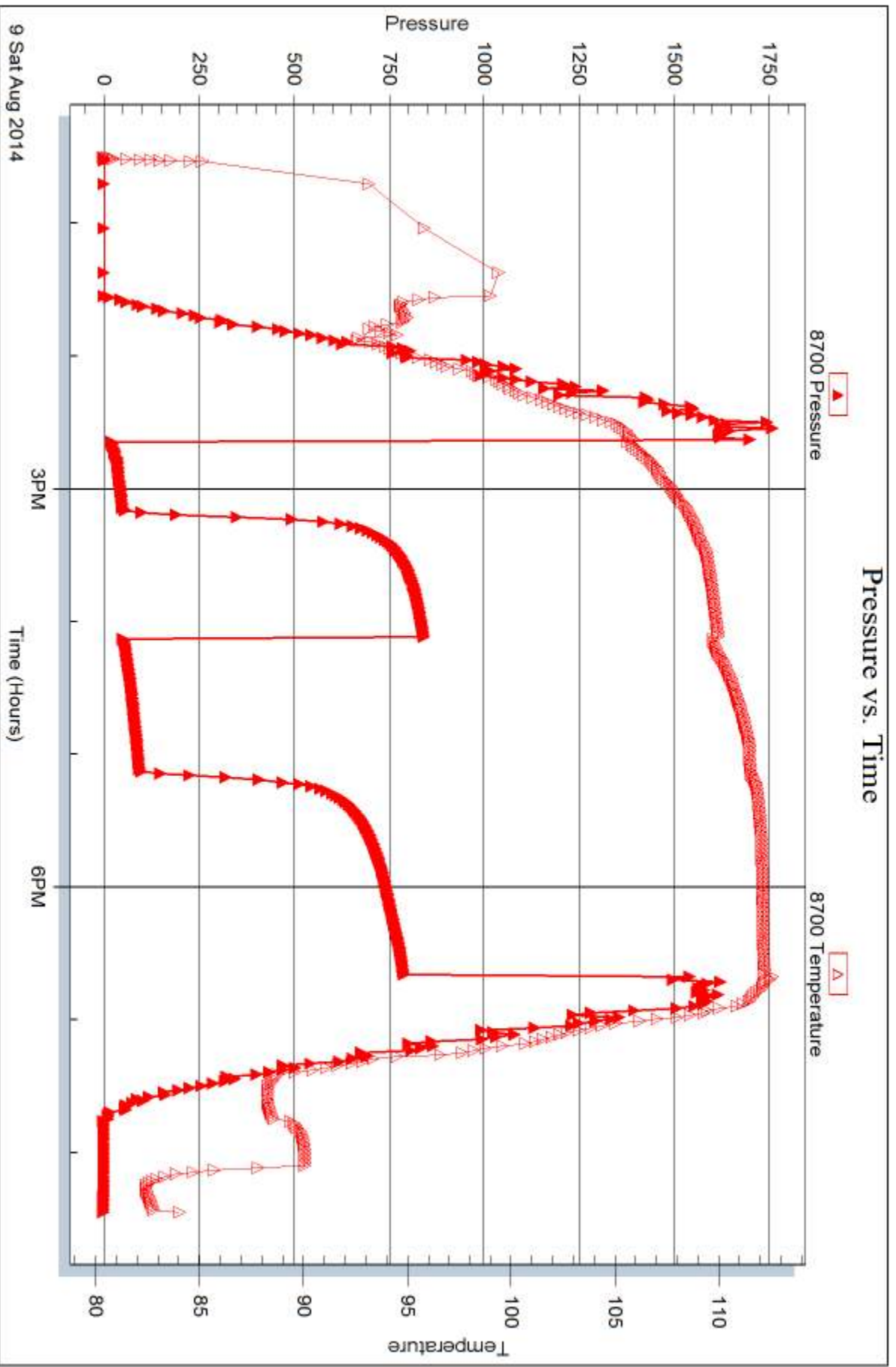
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .11 @ 75F







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.10 @ 03:55:16

End Date: 2014.08.10 @ 11:58:40

Job Ticket #: 58841 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:52:19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58841

DST#: 3

ATTN: Mike Maune

Test Start: 2014.08.10 @ 03:55:16

GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:09:11

Time Test Ended: 11:58:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3408.00 ft (KB) To 3440.00 ft (KB) (TVD)

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8018

Inside

Press@RunDepth: 55.09 psig @ 3409.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.10

End Date:

2014.08.10

Last Calib.:

2014.08.10

Start Time: 03:55:16

End Time:

11:58:40

Time On Btm:

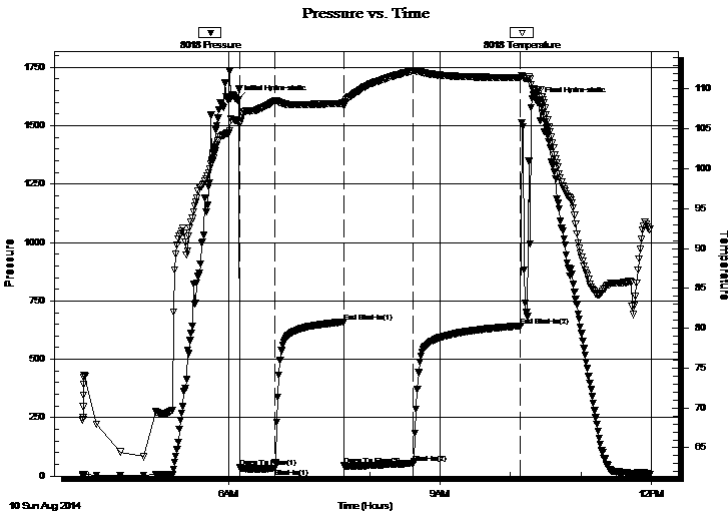
2014.08.10 @ 06:07:11

Time Off Btm:

2014.08.10 @ 10:23:40

TEST COMMENT: 30-IFP-w k bl thru-out , 1/4" to 2" bl
60-ISIP-no bl
60-FFP-w k bl thru-out , surface to 1" bl
90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.14	106.00	Initial Hydro-static
2	37.03	105.61	Open To Flow (1)
32	34.26	108.51	Shut-In(1)
91	659.75	108.23	End Shut-In(1)
91	47.35	107.86	Open To Flow (2)
150	55.09	112.32	Shut-In(2)
242	643.14	111.47	End Shut-In(2)
257	1600.63	109.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.07
70.00	MW 20%M80%W w/show of oil	0.98

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58841

DST#: 3

ATTN: Mike Maune

Test Start: 2014.08.10 @ 03:55:16

Tool Information

Drill Pipe:	Length: 3410.00 ft	Diameter: 3.80 inches	Volume: 47.83 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 47.83 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3408.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	32.00 ft				
Tool Length:	61.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3380.00	
Shut In Tool	5.00			3385.00	
Hydraulic tool	5.00			3390.00	
Jars	5.00			3395.00	
Safety Joint	3.00			3398.00	
Packer	5.00			3403.00	29.00 Bottom Of Top Packer
Packer	5.00			3408.00	
Stubb	1.00			3409.00	
Recorder	0.00	8018	Inside	3409.00	
Recorder	0.00	8700	Outside	3409.00	
Perforations	28.00			3437.00	
Bullnose	3.00			3440.00	32.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58841

DST#: 3

ATTN: Mike Maune

Test Start: 2014.08.10 @ 03:55:16

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 11.93 in³
Resistivity: ohm.m
Salinity: 10100.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 34 deg API
Water Salinity: 53000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	CO	0.070
70.00	MW 20%M80%W w/show of oil	0.982

Total Length: 75.00 ft Total Volume: 1.052 bbl

Num Fluid Samples: 0

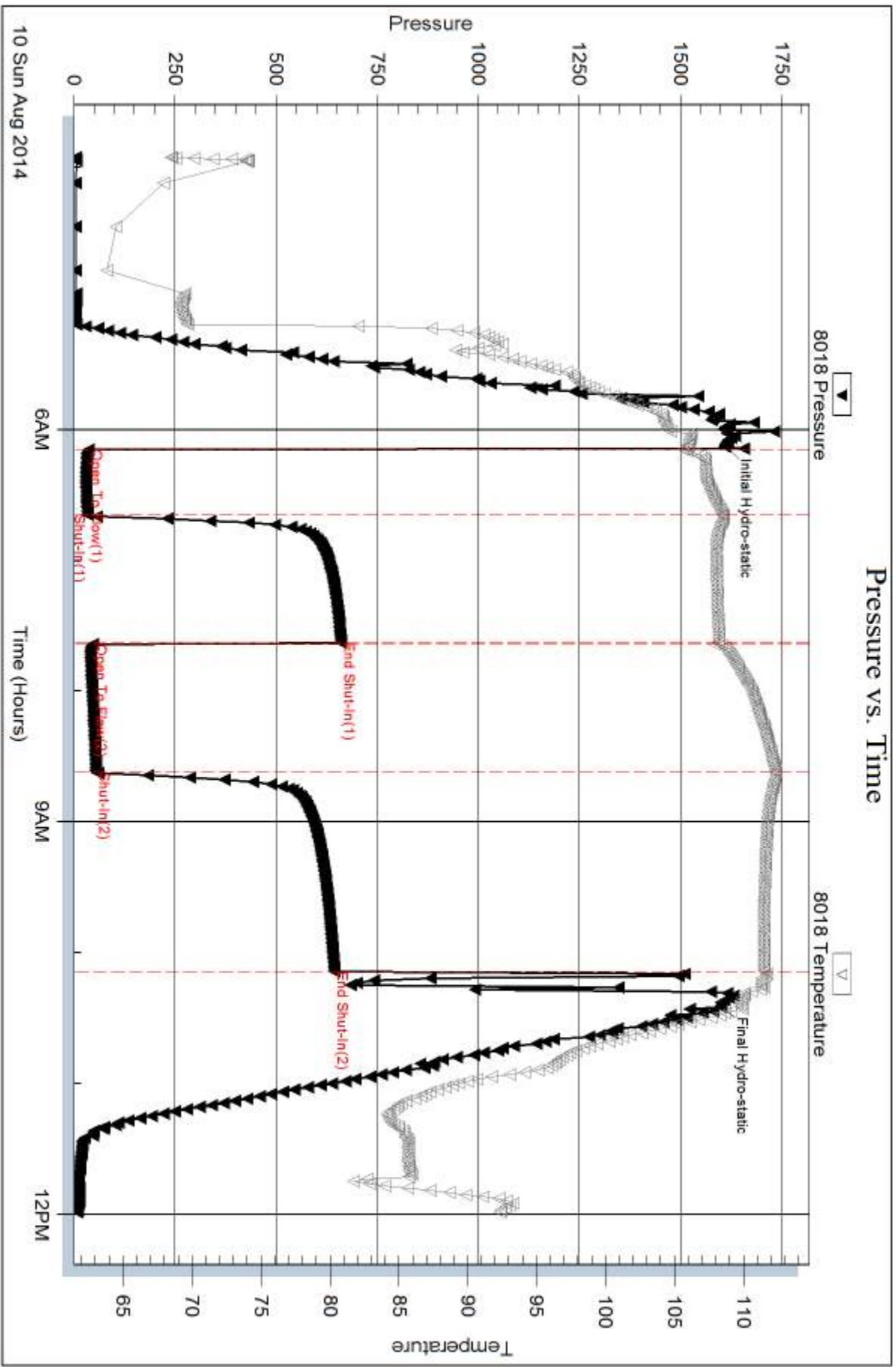
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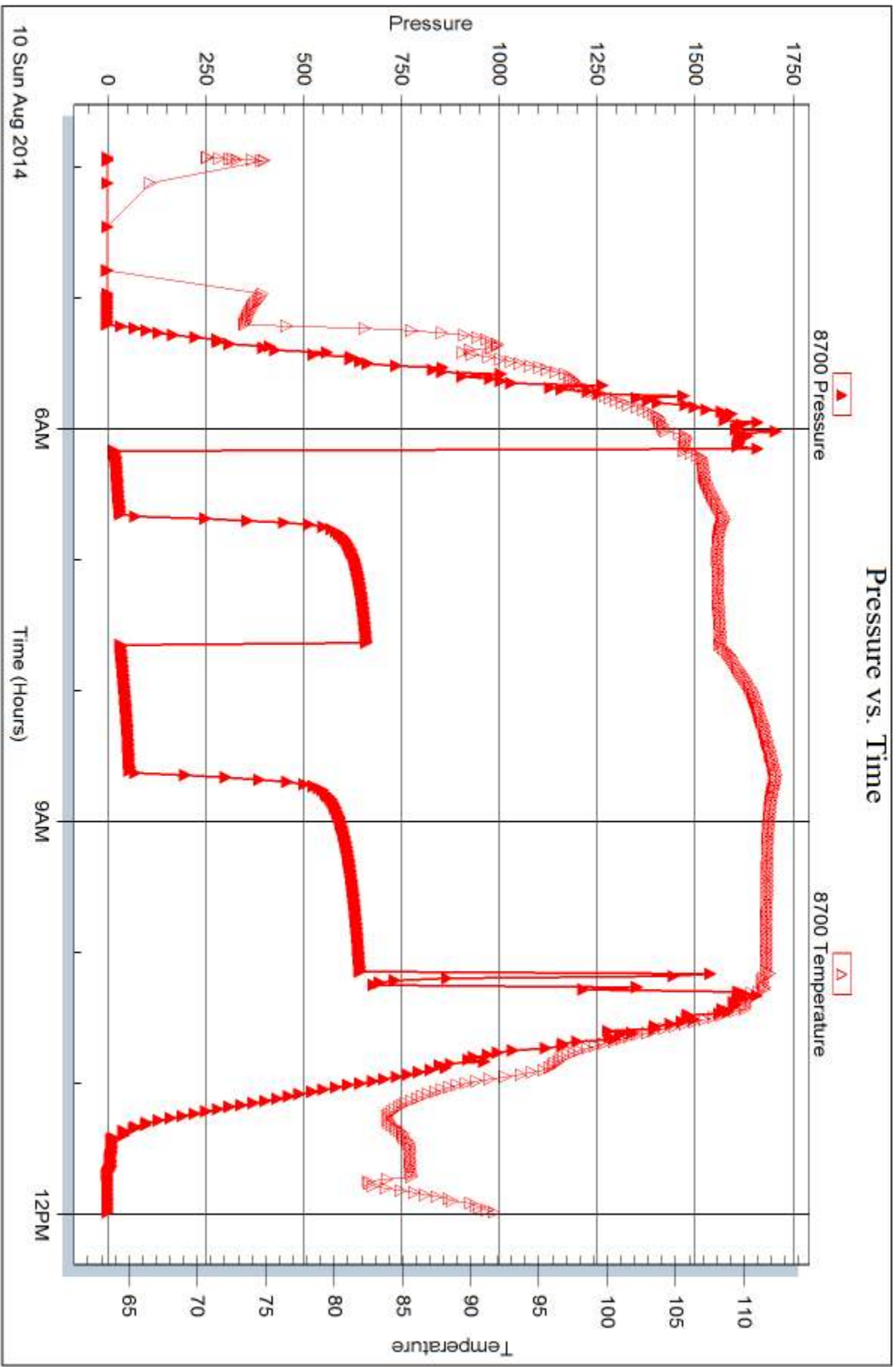
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .15 @ 65F







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.10 @ 18:18:00

End Date: 2014.08.11 @ 02:14:00

Job Ticket #: 58730 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:51:47



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

ATTN: Mike Maune

Job Ticket: 58730

DST#: 4

Test Start: 2014.08.10 @ 18:18:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:08:30
 Time Test Ended: 02:14:00
 Interval: **3436.00 ft (KB) To 3460.00 ft (KB) (TVD)**
 Total Depth: 3460.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Phillip Gage
 Unit No: 70
 Reference Elevations: 2047.00 ft (KB)
 2038.00 ft (CF)
 KB to GR/CF: 9.00 ft

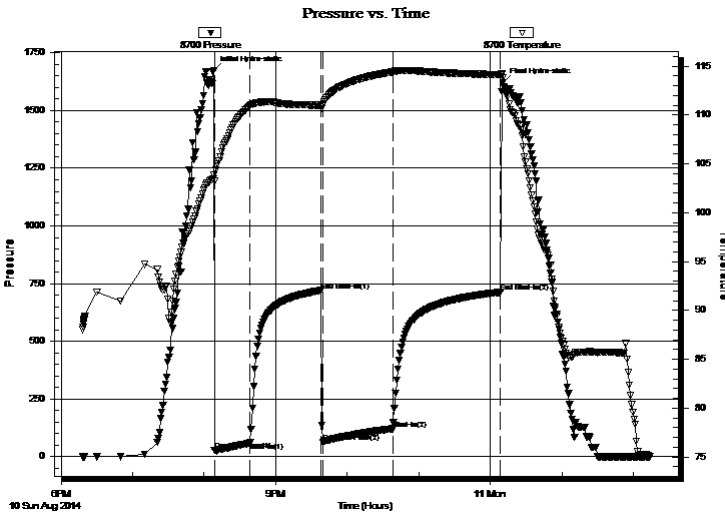
Serial #: 8700

Outside

Press@RunDepth: 120.18 psig @ 3437.00 ft (KB)
 Start Date: 2014.08.10 End Date: 2014.08.11
 Start Time: 18:18:05 End Time: 02:13:59
 Capacity: 8000.00 psig
 Last Calib.: 2014.08.11
 Time On Btm: 2014.08.10 @ 20:08:00
 Time Off Btm: 2014.08.11 @ 00:10:30

TEST COMMENT: 30-IF-BOB in 5 mins
 60-ISI-7" Return
 60-FF-BOB in 6 mins
 90-FSI-8" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1674.30	103.82	Initial Hydro-static
1	27.01	103.23	Open To Flow (1)
31	61.25	110.99	Shut-In(1)
90	720.10	111.02	End Shut-In(1)
92	62.60	111.02	Open To Flow (2)
150	120.18	114.42	Shut-In(2)
241	712.97	114.14	End Shut-In(2)
243	1620.78	113.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	SOGWCM, 10%o, 10%g, 30%w, 50%m	1.77
63.00	SWGMC0, 10%w, 10%g, 30%m, 50%o	0.88
66.00	GCO, 50%o, 50%g	0.93
0.00	1005' GIP, 100%g	0.00

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis, KS

PO Box 8037
Wichita KS 67208

Sack Trust "A" #1-24

ATTN: Mike Maune

Job Ticket: 58730

DST#: 4

Test Start: 2014.08.10 @ 18:18:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:08:30

Time Test Ended: 02:14:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 70

Interval: **3436.00 ft (KB) To 3460.00 ft (KB) (TVD)**

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3460.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8018 Inside

Press@RunDepth: psig @ 3437.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.10 End Date: 2014.08.11

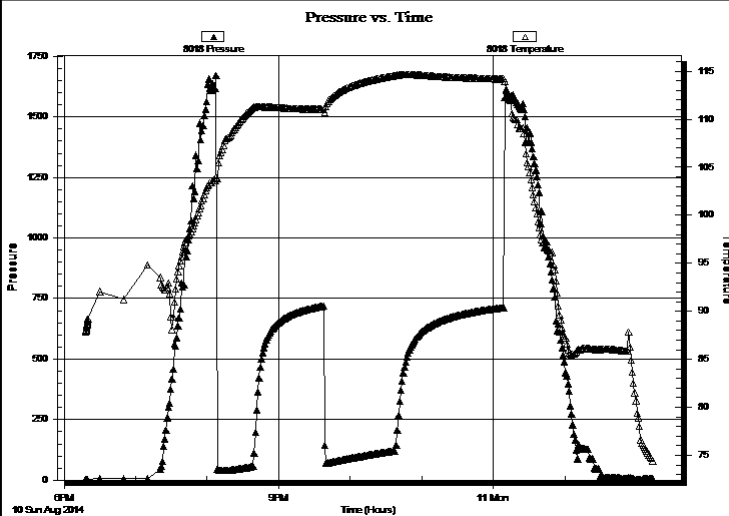
Last Calib.: 2014.08.11

Start Time: 18:18:05 End Time: 02:13:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-BOB in 5 mins
60-ISI-7" Return
60-FF-BOB in 6 mins
90-FSI-8" Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
126.00	SOGWCM, 10%o, 10%g, 30%w, 50%m	1.77
63.00	SWGMC0, 10%w, 10%g, 30%m, 50%o	0.88
66.00	GCO, 50%o, 50%g	0.93
0.00	1005' GIP, 100%g	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58730

DST#: 4

ATTN: Mike Maune

Test Start: 2014.08.10 @ 18:18:00

Tool Information

Drill Pipe:	Length: 3414.00 ft	Diameter: 3.80 inches	Volume: 47.89 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 47.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3436.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3408.00	
Shut In Tool	5.00			3413.00	
Hydraulic tool	5.00			3418.00	
Jars	5.00			3423.00	
Safety Joint	3.00			3426.00	
Packer	5.00			3431.00	29.00 Bottom Of Top Packer
Packer	5.00			3436.00	
Stubb	1.00			3437.00	
Recorder	0.00	8018	Inside	3437.00	
Recorder	0.00	8700	Outside	3437.00	
Blank Spacing	20.00			3457.00	
Bullnose	3.00			3460.00	24.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58730

DST#: 4

ATTN: Mike Maune

Test Start: 2014.08.10 @ 18:18:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 48.00 sec/qt
Water Loss: 10.78 in³
Resistivity: ohm.m
Salinity: 9500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 35 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

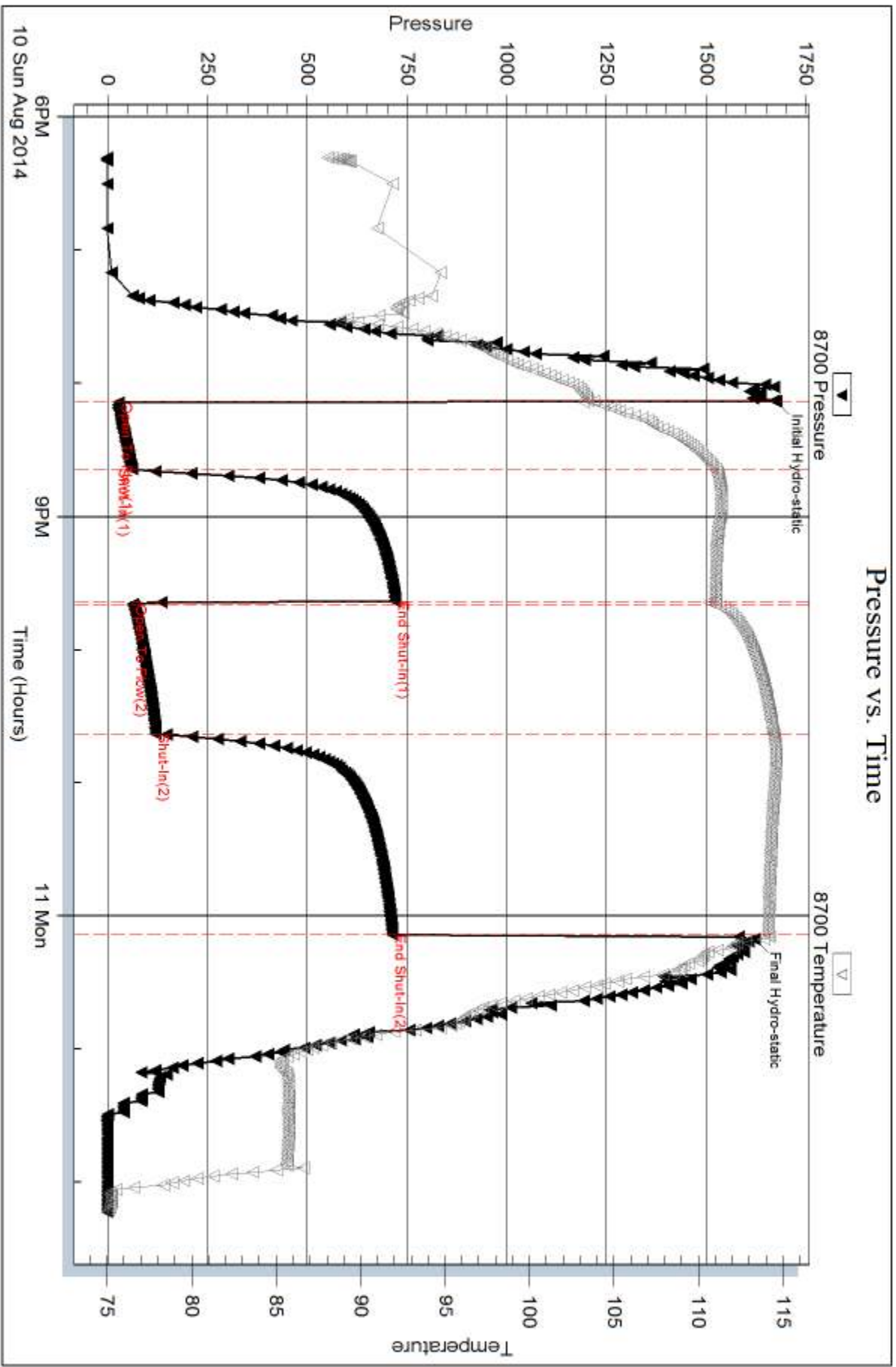
Length ft	Description	Volume bbl
126.00	SOGWCM, 10%o, 10%g, 30%w, 50%m	1.767
63.00	SWGMC0, 10%w, 10%g, 30%m, 50%o	0.884
66.00	GCO, 50%o, 50%g	0.926
0.00	1005' GIP, 100%g	0.000

Total Length: 255.00 ft Total Volume: 3.577 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: .17 @ 64 degrees = 19,000 Salinity



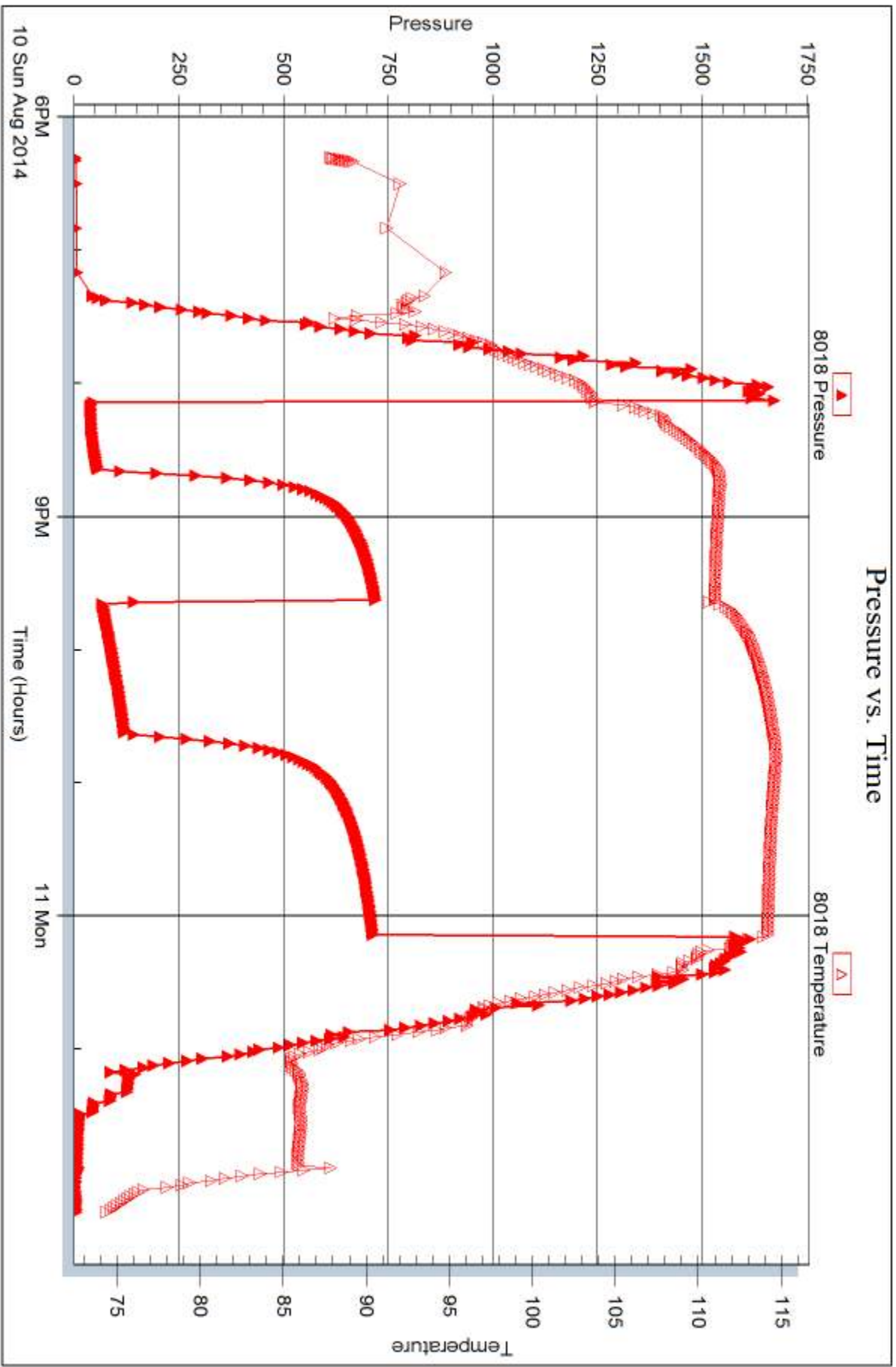
Serial #: 8018

Inside

Cobalt Energy LLC

Sack Trust "A" #1-24

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 58730

Printed: 2014.08.14 @ 11:51:48



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.11 @ 16:07:00

End Date: 2014.08.12 @ 01:29:30

Job Ticket #: 58731 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:51:25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

ATTN: Mike Maune

Job Ticket: 58731

DST#: 5

Test Start: 2014.08.11 @ 16:07:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:10:30

Time Test Ended: 01:29:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 70

Interval: 3470.00 ft (KB) To 3540.00 ft (KB) (TVD)

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8700

Outside

Press@RunDepth: 226.53 psig @ 3505.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.11

End Date:

2014.08.12

Last Calib.:

2014.08.12

Start Time: 16:07:05

End Time:

01:29:30

Time On Btm:

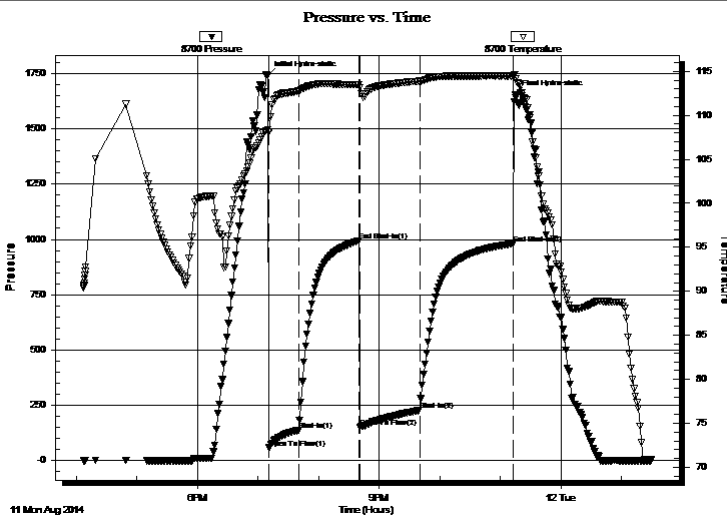
2014.08.11 @ 19:09:30

Time Off Btm:

2014.08.11 @ 23:15:00

TEST COMMENT: 30-IF-BOB in 4 mins
60-ISI-7" Return
60-FF-BOB in 9 mins
90-FSI-BOB Return in 18 mins

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1739.97	108.40	Initial Hydro-static
1	57.22	108.13	Open To Flow (1)
31	137.89	112.81	Shut-In(1)
91	994.90	113.46	End Shut-In(1)
92	151.34	113.12	Open To Flow (2)
151	226.53	113.88	Shut-In(2)
244	981.02	114.48	End Shut-In(2)
246	1656.35	114.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP-693' 100%g	0.00
113.00	GCO, 20%g, 80%o	1.59
96.00	MGO, 20%m, 30%g, 50%o	1.35
315.00	SWGMC0, 10%w, 20%g, 20%m, 50%o	4.42

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58731

DST#: 5

ATTN: Mike Maune

Test Start: 2014.08.11 @ 16:07:00

Tool Information

Drill Pipe:	Length: 3446.00 ft	Diameter: 3.80 inches	Volume: 48.34 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	66000.00 lb
			<u>Total Volume: 48.34 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3470.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	70.00 ft				
Tool Length:	99.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3442.00	
Shut In Tool	5.00			3447.00	
Hydraulic tool	5.00			3452.00	
Jars	5.00			3457.00	
Safety Joint	3.00			3460.00	
Packer	5.00			3465.00	29.00 Bottom Of Top Packer
Packer	5.00			3470.00	
Stubb	1.00			3471.00	
Perforations	33.00			3504.00	
Change Over Sub	1.00			3505.00	
Recorder	0.00	8018	Inside	3505.00	
Recorder	0.00	8700	Outside	3505.00	
Drill Pipe	31.00			3536.00	
Change Over Sub	1.00			3537.00	
Bullnose	3.00			3540.00	70.00 Bottom Packers & Anchor

Total Tool Length: 99.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58731

DST#: 5

ATTN: Mike Maune

Test Start: 2014.08.11 @ 16:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 13.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	GIP-693' 100%g	0.000
113.00	GCO, 20%g, 80%o	1.585
96.00	MGO, 20%m, 30%g, 50%o	1.347
315.00	SWGMC0, 10%w, 20%g, 20%m, 50%o	4.419

Total Length: 524.00 ft

Total Volume: 7.351 bbf

Num Fluid Samples: 0

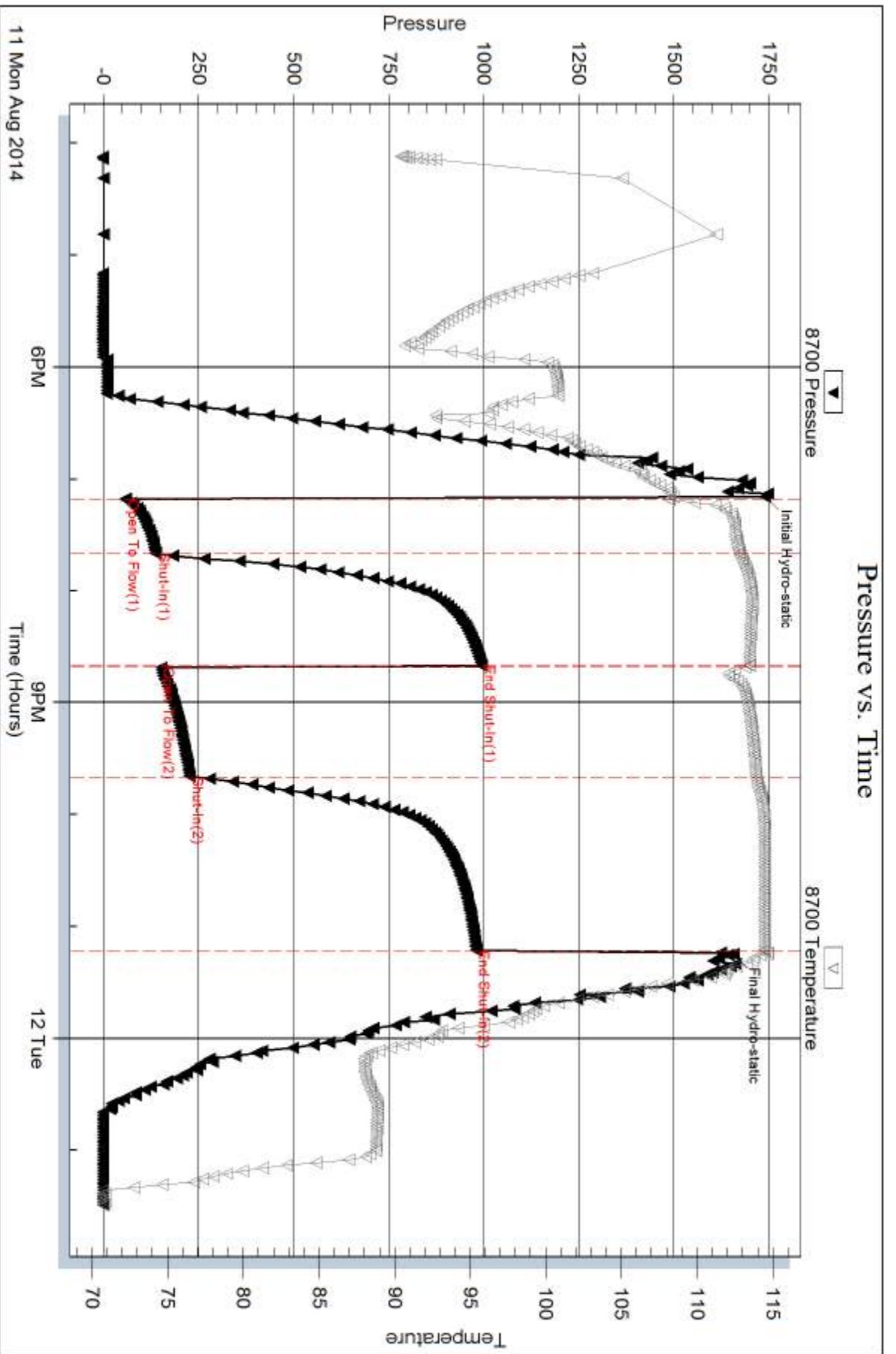
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



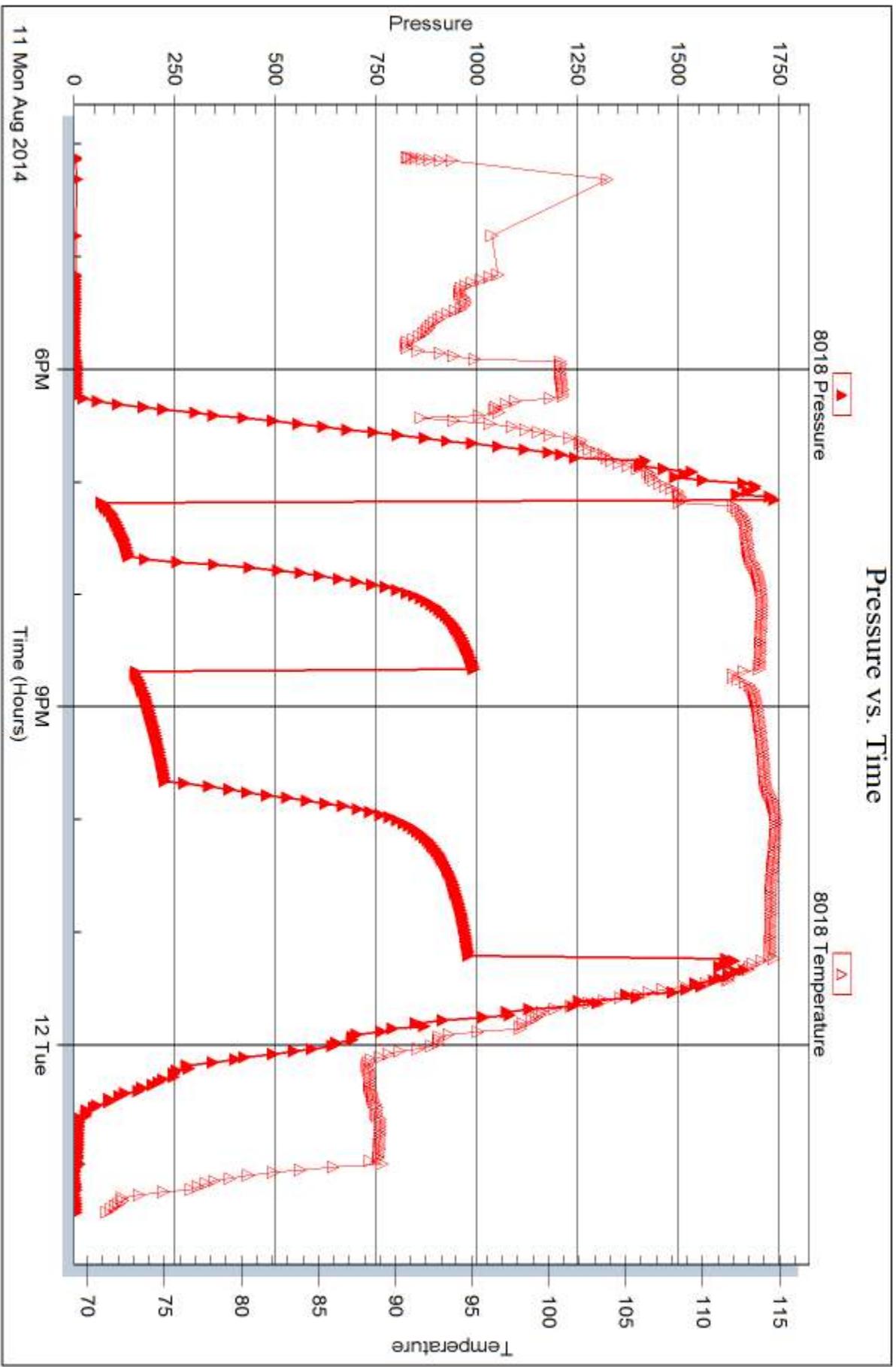
Serial #: 8018

Inside

Cobalt Energy LLC

Sack Trust "A" #1-24

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Sack Trust"A" #1-24

24-13s-19w Ellis,KS

Start Date: 2014.08.12 @ 23:16:00

End Date: 2014.08.13 @ 06:55:30

Job Ticket #: 58732 DST #: 6

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:50:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

ATTN: Mike Maune

Job Ticket: 58732

DST#: 6

Test Start: 2014.08.12 @ 23:16:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:42:00

Time Test Ended: 06:55:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 70

Interval: 3592.00 ft (KB) To 3703.00 ft (KB) (TVD)

Reference Elevations: 2047.00 ft (KB)

Total Depth: 3703.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8700 Outside

Press@RunDepth: 129.45 psig @ 3605.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.12

End Date:

2014.08.13

Last Calib.: 2014.08.13

Start Time: 23:16:05

End Time:

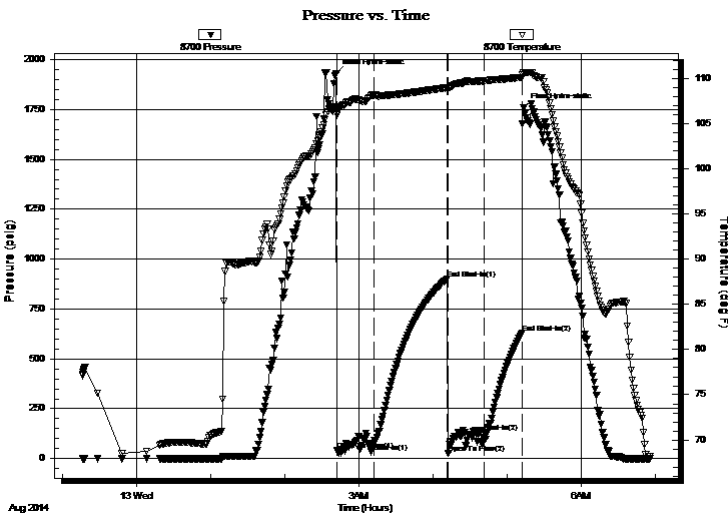
06:55:29

Time On Btm: 2014.08.13 @ 02:41:30

Time Off Btm: 2014.08.13 @ 05:13:30

TEST COMMENT: 30-IF-Built to 1 3/8"
60-ISI-No Return
30-FF-No Blow
30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1929.47	106.50	Initial Hydro-static
1	39.47	105.93	Open To Flow (1)
31	74.43	108.13	Shut-In(1)
90	900.79	108.98	End Shut-In(1)
91	25.50	108.92	Open To Flow (2)
120	129.45	109.74	Shut-In(2)
151	627.95	110.13	End Shut-In(2)
152	1759.18	110.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	M 100% m, w ith oil spots	0.28

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58732

DST#: 6

ATTN: Mike Maune

Test Start: 2014.08.12 @ 23:16:00

Tool Information

Drill Pipe:	Length: 3572.00 ft	Diameter: 3.80 inches	Volume: 50.11 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 50.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3592.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	140.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3564.00	
Shut In Tool	5.00			3569.00	
Hydraulic tool	5.00			3574.00	
Jars	5.00			3579.00	
Safety Joint	3.00			3582.00	
Packer	5.00			3587.00	29.00 Bottom Of Top Packer
Packer	5.00			3592.00	
Stubb	1.00			3593.00	
Perforations	11.00			3604.00	
Change Over Sub	1.00			3605.00	
Recorder	0.00	8018	Inside	3605.00	
Recorder	0.00	8700	Outside	3605.00	
Drill Pipe	94.00			3699.00	
Change Over Sub	1.00			3700.00	
Bullnose	3.00			3703.00	111.00 Bottom Packers & Anchor

Total Tool Length: 140.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

24-13s-19w Ellis,KS

PO Box 8037
Wichita KS 67208

Sack Trust"A" #1-24

Job Ticket: 58732

DST#: 6

ATTN: Mike Maune

Test Start: 2014.08.12 @ 23:16:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	M 100%m, w ith oil spots	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

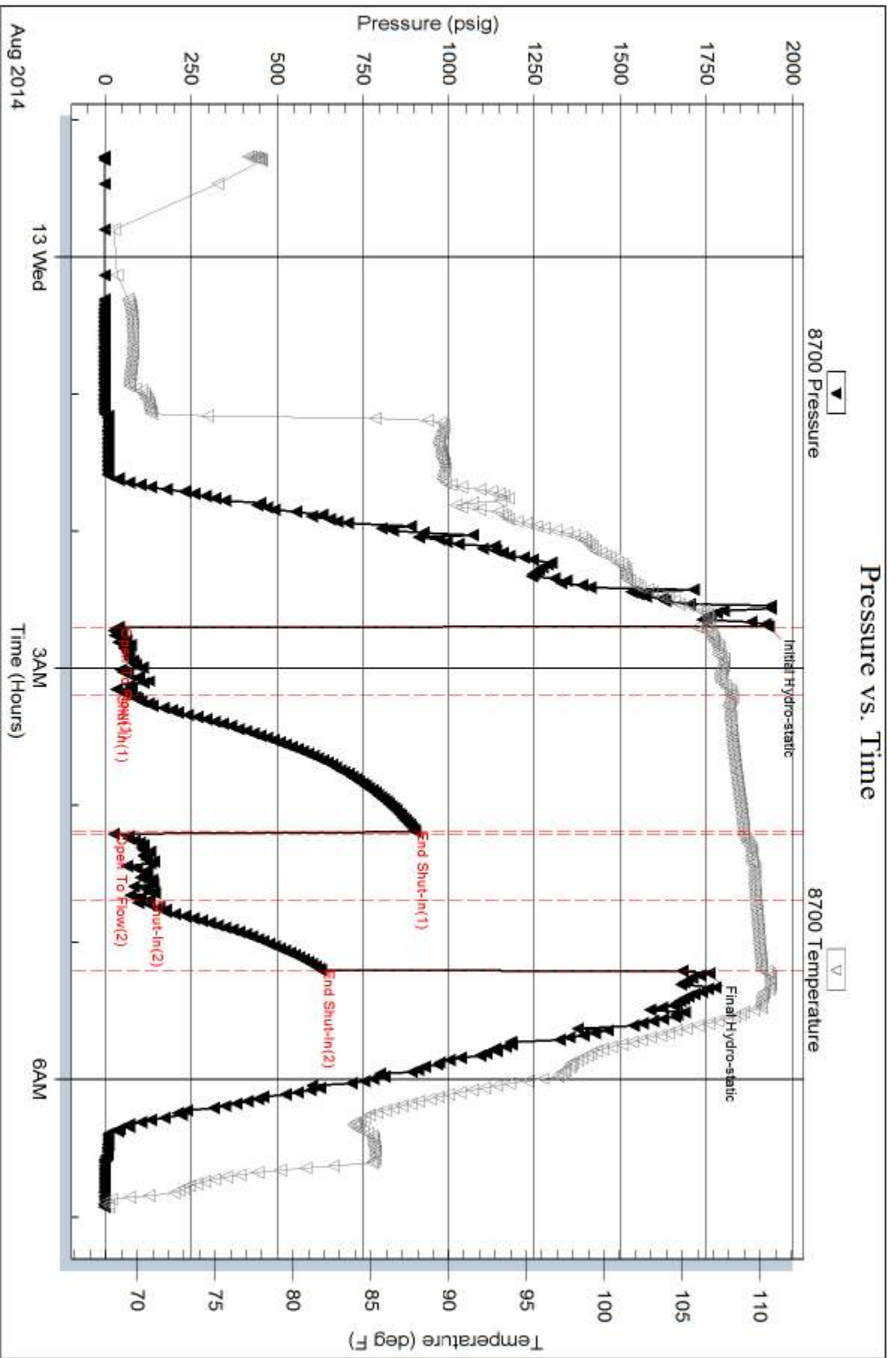
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



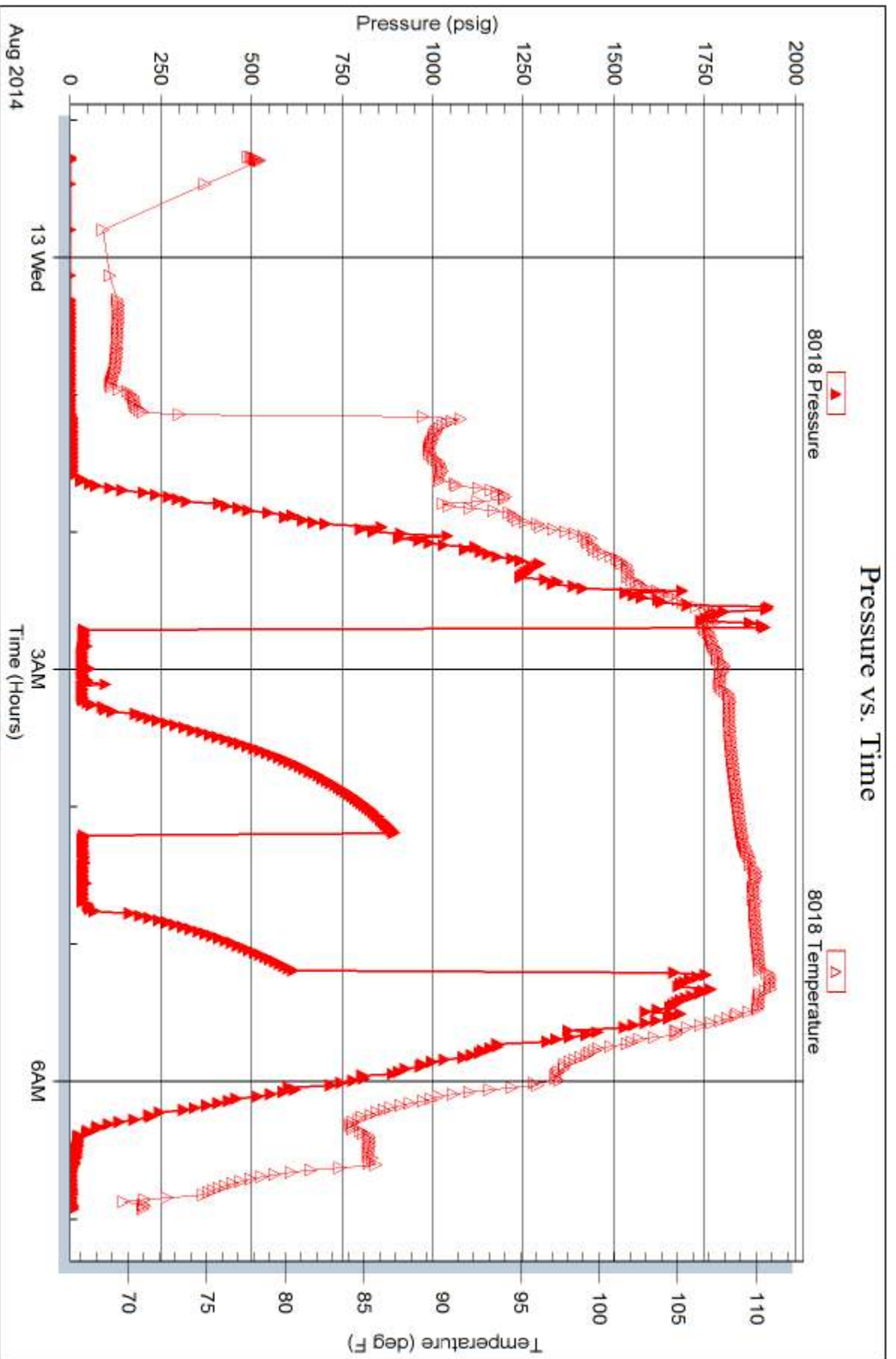
Serial #: 8018

Inside

Cobalt Energy LLC

Sack Trust "A" #1-24

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58839

4/10

Well Name & No. SACK TRUST "A" #1-24 Test No. 1 Date 8-8-14
 Company COBALT Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12 PO Box 8037 WICHITA KS 67208
 Co. Rep / Geo. MIKE MAUNE Rig Southernwind rig 8
 Location: Sec. 24 Twp. 13^s Rge. 19^w Co. ELLIS State Ks

Interval Tested 3300-3344 Zone Tested TORONTO
 Anchor Length 44 Drill Pipe Run 3286 Mud Wt. 9.1
 Top Packer Depth 3295 Drill Collars Run - Vis 51
 Bottom Packer Depth 3300 Wt. Pipe Run - WL 8.8
 Total Depth 3344 Chlorides 6600 ppm System LCM YR.

Blow Description IFP - STRONG BLOW IN 6min
ISIP - NO BLOW
FFP - STRONG BLOW IN 8min
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>MW</u>			<u>75</u>	<u>25</u>
<u>1000</u>	<u>WATER</u>				

Rec Total 1190 BHT 114 Gravity - API RW .12 @ 70 °F Chlorides 63000 ppm
 (A) Initial Hydrostatic 1578 Test 1150 T-On Location 1400
 (B) First Initial Flow 70 Jars 250 T-Started 1640
 (C) First Final Flow 270 Safety Joint 75 T-Open 1850
 (D) Initial Shut-In 927 Circ Sub _____ T-Pulled 2250
 (E) Second Initial Flow 284 Hourly Standby _____ T-Out 0054
 (F) Second Final Flow 537 Mileage 15RT 23.25 Comments _____
 (G) Final Shut-In 877 Sampler _____
 (H) Final Hydrostatic 1542 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1498.25
 Total 1498.25
 MP/DST Disc't _____

Approved By _____ Our Representative RAY SCHWAGER Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58840

Well Name & No. Sack Trust "A" #1-24 Test No. 2 Date 8-9-14
 Company Cobalt Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Mike Maune Rig Southwind 198
 Location: Sec. 24 Twp. 13^s Rge. 19^w Co. Ellis State Ks

Interval Tested 3362-3410 Zone Tested LKC C-0
 Anchor Length 48 Drill Pipe Run 3351 Mud Wt. 9.2
 Top Packer Depth 3357 Drill Collars Run - Vis 50
 Bottom Packer Depth 3362 Wt. Pipe Run - WL 12
 Total Depth 3410 Chlorides 10100 ppm System LCM TR

Blow Description IFP - WEAK TO STRONG IN 30 MIN
ISTIP - NO BLOW
FFP - WEAK TO STRONG IN 28 MIN
FSTIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>390</u>	<u>GIP</u>				
<u>25</u>	<u>CO</u>				
<u>85</u>	<u>MGO</u>	<u>10</u>	<u>55</u>		<u>35</u>
<u>62</u>	<u>OCMW</u>		<u>10</u>	<u>65</u>	<u>25</u>

Rec Total 172 BHT 112 Gravity 35 API RW .11 @ 75 ° F Chlorides 74000 ppm

(A) Initial Hydrostatic 1615 Test 1150 T-On Location 1135
 (B) First Initial Flow 39 Jars 250 T-Started 1230
 (C) First Final Flow 48 Safety Joint 75 T-Open 1440
 (D) Initial Shut-In 840 Circ Sub _____ T-Pulled 1840
 (E) Second Initial Flow 63 Hourly Standby _____ T-Out 2026
 (F) Second Final Flow 93 Mileage 15 RT 23.25 Comments _____
 (G) Final Shut-In 787 Sampler _____
 (H) Final Hydrostatic 1563 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1498.25
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1498.25

Approved By _____ Our Representative RAY SCHWAGER *Thank you*

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58841

Well Name & No. SACK TRUST "A" #1-24 Test No. 3 Date 8-10-14
 Company Cobalt Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. MIKE MAUNE Rig Southernwindrig 8
 Location: Sec. 24 Twp. 13^s Rge. 19^w Co. Ellis State Ks

Interval Tested 3408-3440 Zone Tested LKC E-F
 Anchor Length 32 Drill Pipe Run 3410 Mud Wt. 9
 Top Packer Depth 3403 Drill Collars Run - Vis 50
 Bottom Packer Depth 3408 Wt. Pipe Run - WL 12
 Total Depth 3440 Chlorides 10100 ppm System LCM TR

Blow Description IFP - WEAK BLOW THRU-OUT 1/4" TO 2" BLOW
ISIP - NO BLOW
FFP - WEAK BLOW THRU-OUT, SURFACE TO 1" BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>CO</u>				
<u>70</u>	<u>MW w/show of oil</u>		<u>80</u>	<u>20</u>	

Rec Total 75 BHT 111 Gravity - API RW .15 @ 65 ° F Chlorides 53000 ppm
 (A) Initial Hydrostatic 1610 Test 1150 T-On Location 0340
 (B) First Initial Flow 37 Jars 250 T-Started 0355
 (C) First Final Flow 34 Safety Joint 75 T-Open 0610
 (D) Initial Shut-In 659 Circ Sub _____ T-Pulled 0010
 (E) Second Initial Flow 47 Hourly Standby _____ T-Out 0158
 (F) Second Final Flow 59 Mileage ISRT 23.25 Comments _____
 (G) Final Shut-In 643 Sampler _____
 (H) Final Hydrostatic 1600 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1498.25
 Total 1498.25
 MP/DST Disc't _____

Approved By _____ Our Representative RAY SCHWAGER Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58730

Well Name & No. Sack Trust "A" #1-24 Test No. 4 Date 8-10-14
 Company Cobalt Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12 P.O. Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Mike Maune Rig Southwind Rig 8
 Location: Sec. 24 Twp. 13s Rge. 19w Co. Ellis State KS

Interval Tested 3436-3460 Zone Tested LKL "G"
 Anchor Length 24' Drill Pipe Run 3414 Mud Wt. 9.1
 Top Packer Depth 3431 Drill Collars Run — Vis 48
 Bottom Packer Depth 3436 Wt. Pipe Run — WL 10.8
 Total Depth 3460 Chlorides 9,500 ppm System LCM Tr

Blow Description IF- BOB in 5 mhs
ISI- 7" Return
FF- BOB in 6 mhs
FSI- 8" Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>SOGWCM</u>	<u>10%</u>	<u>10%</u>	<u>30%</u>	<u>50%</u>
<u>63</u>	<u>SWCMCO</u>	<u>10%</u>	<u>50%</u>	<u>10%</u>	<u>30%</u>
<u>66</u>	<u>BCO</u>	<u>50%</u>	<u>50%</u>	<u>—</u>	<u>—</u>
<u>0</u>	<u>GIP 1005'</u>	<u>100%</u>	<u>—</u>	<u>—</u>	<u>—</u>

Rec Total 255 BHT 113 Gravity 35 API RW 117 @ 64 °F Chlorides 19,000 ppm

(A) Initial Hydrostatic 1674 Test 1150 T-On Location 18.17
 (B) First Initial Flow 27 Jars 250 T-Started 18.18
 (C) First Final Flow 61 Safety Joint 75 T-Open 20.09
 (D) Initial Shut-In 720 Circ Sub — T-Pulled 00.09
 (E) Second Initial Flow 62 Hourly Standby — T-Out 02.15
 (F) Second Final Flow 120 Mileage 15 RT 23.25 Comments —
 (G) Final Shut-In 712 Sampler —
 (H) Final Hydrostatic 1620 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder —

Initial Open 30 Sub Total 0
 Initial Shut-In 60 Total 1498.25
 Final Flow 60 MP/DST Disc't —
 Final Shut-In 90 Sub Total 1498.25

Approved By — Our Representative Phil Lopez Thank You

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58731

4/10

Well Name & No. Sack Trust "A" #1-24 Test No. 5 Date 8-11-14
 Company Cobalt Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12 P.O. Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Mike Maune Rig Southwind Rig 8
 Location: Sec. 24 Twp. 13s Rge. 19w Co. Ellis State KS

Interval Tested 3470 - 3540 Zone Tested LKC "H-I-J"
 Anchor Length 70 Drill Pipe Run 3446 Mud Wt. 8.9
 Top Packer Depth 3465 Drill Collars Run — Vis 49
 Bottom Packer Depth 3470 Wt. Pipe Run — WL 13.6
 Total Depth 3540 Chlorides 9,700 ppm System LCM Tr

Blow Description IF- BOB in 4mths
ISI- 7' Return
FF- BOB in 9mths
FST- BOB Return in 18mths

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>GIP-693'</u>	<u>100%</u>			
<u>113'</u>	<u>GCO</u>	<u>20%</u>	<u>80%</u>		
<u>96'</u>	<u>MGO</u>	<u>30%</u>	<u>50%</u>		<u>20%</u>
<u>315'</u>	<u>SWGMCO</u>	<u>20%</u>	<u>50%</u>	<u>10%</u>	<u>20%</u>

Rec Total 524 BHT 114 Gravity 31 API RW @ °F Chlorides — ppm

(A) Initial Hydrostatic 1739 Test 1150 T-On Location 15:13
 (B) First Initial Flow 57 Jars 250 T-Started 16:07
 (C) First Final Flow 137 Safety Joint 75 T-Open 19:11
 (D) Initial Shut-In 994 Circ Sub — T-Pulled 23:11
 (E) Second Initial Flow 151 Hourly Standby — T-Out 01:30
 (F) Second Final Flow 226 Mileage 15 RT 23.25
 (G) Final Shut-In 981 Sampler —
 (H) Final Hydrostatic 1,656 Straddle —
 Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1498.25
 Total 1498.25
 MP/DST Disc't —

Approved By — Our Representative Mike Maune Thank You.

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58732

4/10

Well Name & No. Sack Trust "A" #1-24 Test No. 6 Date 8-12-14
 Company Cobalt Energy LLC Elevation 2047 KB 2038 GL
 Address 115 S. Belmont #12 P.O. Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Mike Maurer Rig Southwind Rig 8
 Location: Sec. 24 Twp. 13s Rge. 19w Co. Ellis State KS

Interval Tested 3592-3703 Zone Tested Arbucke
 Anchor Length 111' Drill Pipe Run 3572 Mud Wt. 9.0
 Top Packer Depth 3587 Drill Collars Run — Vis 55
 Bottom Packer Depth 3592 Wt. Pipe Run — WL 10.0
 Total Depth 3703 Chlorides 8,400 ppm System LCM 1

Blow Description IT - Built to 1 3/8" Blow
ISI - No Return
FF - No Blow
FST - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20'</u>	<u>M, with oil spots</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20' BHT 110 Gravity — API RW — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1,929</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>20:28</u>
(B) First Initial Flow <u>39</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>00:00 23:16</u>
(C) First Final Flow <u>74</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>02:43</u>
(D) Initial Shut-In <u>900</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>05:13</u>
(E) Second Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>06:56</u>
(F) Second Final Flow <u>129</u>	<input checked="" type="checkbox"/> Mileage <u>15 RT x 2</u>	Comments <u>Pulled right, went back to bottom with bit. Loaded tools 8-13-14 @ 16:20</u>
(G) Final Shut-In <u>627</u>	<input type="checkbox"/> Sampler <u>46.50</u>	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1,759</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1521.50</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1521.50</u>	

Approved By _____ Our Representative Phillip Gray Thank You

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DSTs

DST #1 (Toronto) 3300-3344/30-60-60-90. 1st Op: SB BOB/6 min. 2nd Op: SB BOB/8 min. Recover: 1190' Total Fluid. 190' MW (75% Wtr, 25% Mud), 1000' Wtr. Recovery Chl 63,000, System Chl 6,600. IH 1578#, IFP 70-270#, ISIP 927# building, FFP 284-527#, FSIP 877# building, FH 1542#, BHT 114 F.

DST #2 (LKC C & D) 3362-3410/30-60-60-90. 1st Op: WB to SB, BOB/30 min. 2nd Op: WB to SB BOB/28 min. Recover: 390' GIP, 172' Total Fluid, 25' CO (Gravity 35), 85' MGO (10% Gas, 55% Oil, 35% Mud), 62' OCMW (10% Oil, 65% Wtr, 25% Mud), Recovery Chl 74,000, System Chl 10,100. IH 1615#, IFP 39-48#, ISIP 840# building, FFP 63-93#, FSIP 787# building, FH 1563#, BHT 112 F.


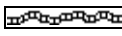
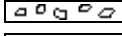
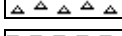




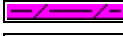


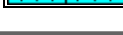

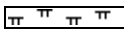



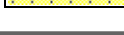


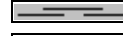
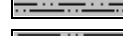

DST #3 (LKC E & F) 3408-3440/30-60-60-90. 1st Op: WB, 1/4" build to 2 inch. 2nd Op: WB, surface build to 1 inch. Recover: 75' Total Fluid. 5' CO, 70' MW w/SO (80% Wtr, 20% Mud), Recovery Chl 53,000, System Chl 10,100. IH 1610#, IFP 37-34#, ISIP 659# building, FFP 47-59#, FSIP 643# building, FH 1600#, BHT 111 F.

DST #4 (LKC G) 3436-3460/30-60-60-90. 1st Op: BOB/5 min. 7 inch Reurn. 2nd Op: BOB/6 min. 8 inch Return. Recover: 1005' GIP. 255' Total Fluid, 66' GCO (50% Gas, 50% Oil), Gravity 35 degrees. 63' SWGMCO (10% Gas, 50% Oil, 10% Wtr, 30% Mud), 126' SOGWCM (10% Gas, 10% Oil, 30% Wtr, 50% Mud). Recovery Chl 19,000, System Chl 9,500. IH 1674#, IFP 27-61#, ISIP 720# building, FFP 62-120#, FSIP 712# building, FH 1620#, BHT 113 F.















































































DST #5 (LKC H, I & J) 3470-3540/30-60-60-90. 1st Op: BOB/4 min. 7 inch Return. 2nd Op: BOB/9 min. BOB Return in 18 min. Recover: 693' GIP. 524' Total Fluid, 113' GCO (20% Gas, 80% Oil), Gravity 31 degrees. 96' MGO (30% Gas, 50% Oil, 20% Mud), 315' SWGMCO (20% Gas, 50% Oil, 10% Wtr, 20% Mud). IH 1739#, IFP 57-137#, ISIP 994# building, FFP 151-226#, FSIP 981# building, FH 1656#, BHT 114 F.

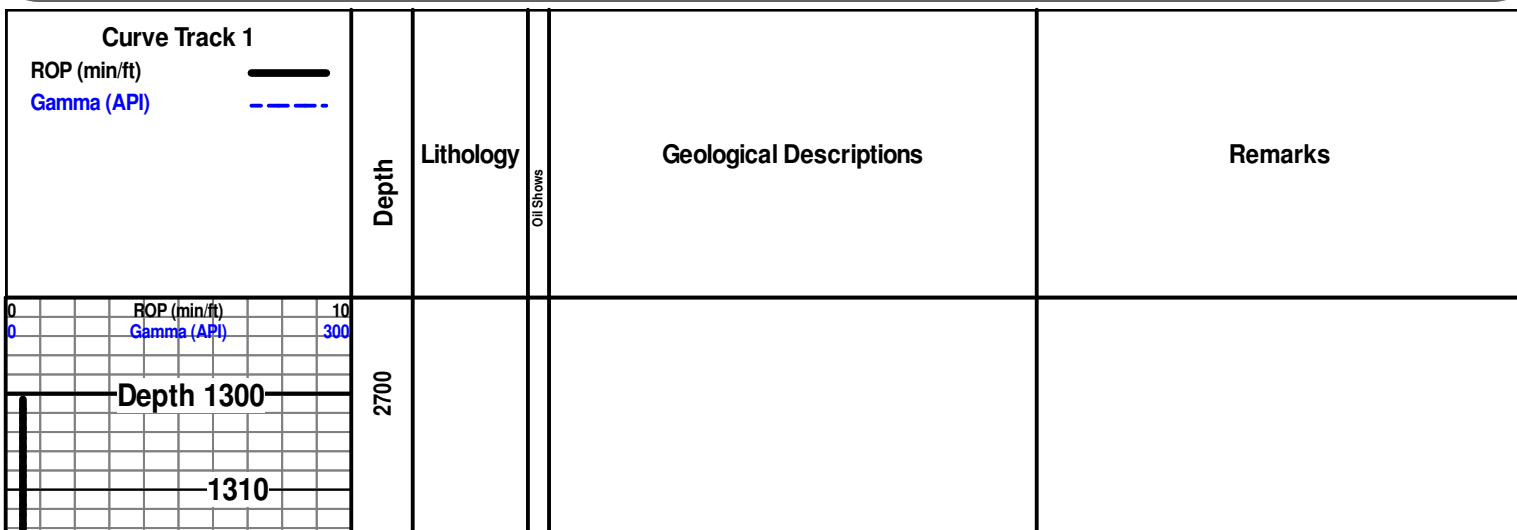
DST #6 (Arbuckle) 3592-3703/30-60-30-30. 1st Op: Build to 1 3/8 inches. 2nd Op: No Blow. Recover: 20' Mud with oil spks. IH 1929#, IFP 39-74#, ISIP 900# building, FFP 25-129#, FSIP 627# building, FH 1759#, BHT 110 F.

ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst  Coal	 Congl  Sdy dolo  Shy dolo  Dol  Gyp  Sdy lmst	 Lmst  Mrlst  Salt  Shale  Sltst  Ss	 Black sh  Gry sh  Shale  Shyslts  Sltys
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ACCESSORIES

MINERAL  Anhy  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Ferrpel  Ferr  Glau  Gyp  Marl  Nodule  Phos  Pyr  Salt  Sandy  Silt	 Chlorite  Dol  Sand  Silty FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite  Ostra	 Pelec  Pelloidal  Pisolite  Plant  Strom  Fuss  Oomoldic STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Sltstrg  Ssstrg  Carbsh  Clystn  Dol	 Grysh  Gryslt  Lms  Sandylms  Sh  Sltstn TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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Anhydrite 1325 (+722)

Base Anhydrite 1372 (+675)

Depth 1380

Depth 2800

Gamma (API)

Conn

Conn

Conn

Conn

Conn

Conn

2750

2800

2850

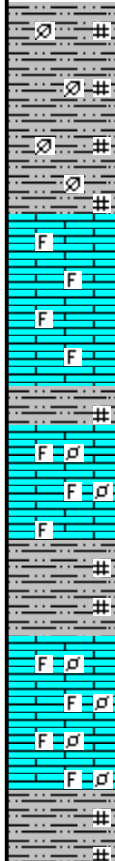
2900

2950

2881 Start Displacement

2896 Finish Displacement

Start 10' Wet & Dry Samples @ 2910'



Sh & Shy Sltstn, gry, dk gry, mica, blk carb spks, micro pyr, soft. Trace Shy Sst. gry, vfn qtz gr, mica, blk cab spks, pyr, arg, soft.

Ls, tan, gry, mdstn, wkestn, foss, hard. Ls, tan, brn, gry, mdstn, wkestn, foss, dns. Ls, crm, tan, wkestn, foss, soft-hard.

Ls, tan, mdstn, wkestn, foss, dns. Ls, brn, gry, mott, mdstn, wkestn, foss, arg. Ls, crm, tan, mdstn, wkestn, foss, soft.

Shy Sltstn, gry, mica, blk spks, pyr.

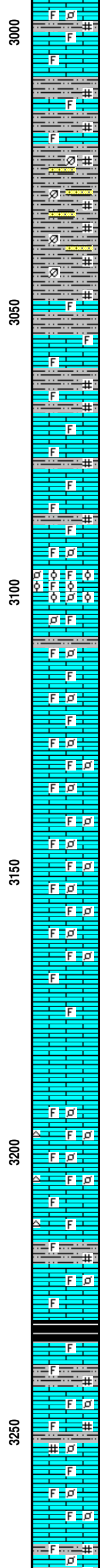
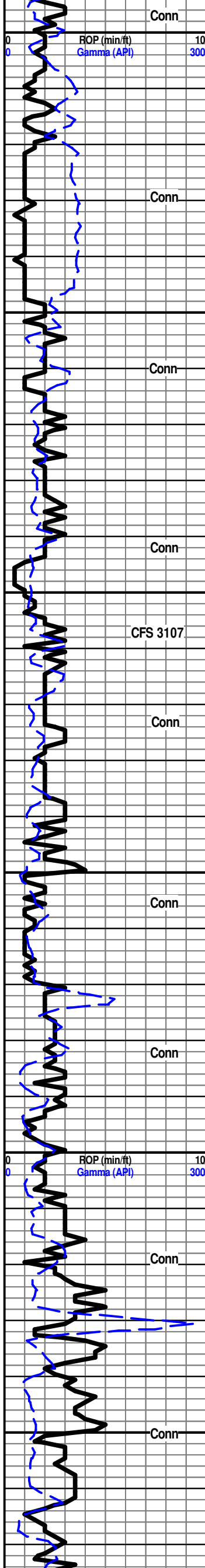
Flood Ls, gry, tan, mott, wkestn, foss, pell, arg in part. Shy Ls, gry, mdstn, sl foss, arg.

Sh & Shy Sltstn, gry, mica, blk carb plant frag, micro pyr. Shy Sltstn, gry, mica, blk carb spks, micro pyr.

Ls, wh, crm, tan, mdstn, sl foss, dns. Ls, wh, crm, tan, wkestn, foss, pell, soft-hard. Ls, wh, mott gry, wkestn, pkstn, foss, pell, PP por.

Flood Ls, gry, mdstn, wkestn, foss, arg. Ls, wh mott lt gry, wkestn, foss. Ls, gry, mdstn, sl foss, dk gry spks, dns.

Sh & Shy Sltstn, gry, dk gry, mica, blk carb spks, micro pyr. Sity Sh, gry, mica, micro pyr.



Shy Ls, crm, tan, mott gry, wkestrn, tan-gry pell & foss frag, arg in part. Ls, gry, mdstn, wkestrn, foss, arg.

Ls, tan, brn, mott gry, mdstn, wkestrn, foss. Ls, tan, gry, mdstn, dns. Shy Ls, crm, tan, mott gry, mdstn, wkestrn, foss, arg.

Shy Ls, gry, lt gry, wkestrn, foss, arg. Shy Sltstn, gry, dk gry, mica, blk spks, micro pyr.

Shy Ls, gry, wkestrn, foss, arg. Shy Sltstn, gry, dk gry, mica, blk carb spks, micro pyr.

Sh & Shy Sltstn, gry, dk gry, mica, blk carb spks, micro pyr. Trace Shy Sst, gry, vfn qtz gr, mica, blk spks, micro pyr.

Sh & Shy Sltstn, gry, dk gry gr, mica, blk carb spks, micro pyr. Shy Sltstn, gry, dk gry, mica, trace blk spks, soft.

Shy Ls, gry, tan, wkestrn, foss, arg. Ls, tan, wkestrn, foss. Ls, tan, gry, mdstn, sl foss, dns.

Shy Ls, gry, tan, wkestrn, foss, arg. Ls, tan, lt gry, mdstn, sl foss, pyr. Ls, tan, crm, wkestrn, pkstn, PPpor, 2nd calcite, soft-hard. Ls, tan, gry, mdstn, sl foss, dns.

Ls, lt gry, wh, mott, mdstn, spt chky text. Ls, tan, brn, gry, mdstn, sl foss, tr blk spks, dns. Ls, gry, brn, mott, mdstn, soft-hard. Ls, wh, mott lt gry, mdstn, wkestrn, foss. Shy Ls, tan, gry, mdstn, wkestrn, foss, arg.

3094-3107 Ls, tan, wkestrn, pkstn, fn ool, pell & foss frag, PP por, spt oom por, trace vug por, spt oil stn, trace dk brn oil stn in isolated oom por, SS dk brn FO on break, mostly barren. Dry Sample, fn oom por with trace spt brn stn. Ls, wh, tan, pkstn, fn ool, pell & tr foss frag, 2nd calcite, PP por, spt oom por, mostly barren, No Shows. Ls, crm, tan, mdstn, wkestrn, foss, pell, dns.

Ls, brn, gry, mdstn, dns. Ls, gry-brn, wkestrn, foss, pell, 2nd calcite, Ls, tan, mott gry, mdstn, wkestrn, foss.

Ls, tan, mott gry, mdstn, sl foss, soft-hard. Ls, crm, tan, mott brn, mdstn, dns. Ls, tan, brn, gry, mdstn, sl foss, dns.

Ls, crm, mott tan, wkestrn, pkstn, foss, pell, 2nd calcite. Ls, tan, brn, gry, mdstn, dns. Ls, tan, brn, dk brn spks, wkestrn, foss, 2nd calcite.

Ls, tan, brn, mdstn, dns. Ls, wh, mott tn, wkestrn, pell, foss, 2nd calcite, soft-hard. Ls, wh, tan, mott wkestrn, pkstn, foss, pell, spt chky text.

Ls, tan, brn, dk brn flaky spks, wkestrn, pkstn, foss, pell, 2nd calcite filled por. Ls, wh, mott lt gry, mdstn, wkestrn, foss, spt chky text.

Ls, wh, crm, mott tan, wkestrn, pkstn, pell, foss, 2nd calcite, trace dk brn flaky spks. Ls, tan, gry, mott, wkestrn, foss, pell, arg in part, micro pyr.

Ls, tan, brn, dk brn flaky spks, wkestrn, pkstn, pell, foss, spt chky text.

Ls, tan, brn, mdstn, wkestrn, foss, dns.

New Flood Ls, wh, mdstn, dns. Ls, wh, mdstn, soft-hard.

Ls, wh, mdstn, dns. Ls, wh, mdstn, soft-hard. Ls, wh, crm, tan, mdstn, soft-hard.

Ls, crm, tan, wkestrn, pkstn, fn ool, pell, foss, PP por, spt oom por, trace foss moldic & vug por, spt inter xln por. Ls, wh, crm, tan, mdstn, soft-hard. Trace Cht, tan, brn, lt gry, transl, ang.

Ls, crm, tan, lt gry, mdstn, dns. Ls, crm, tan, mdstn, wkestrn, foss, 2nd calcite. Shy Ls, lt gry, gry, mdstn, sl foss, arg. Cht, tan, brn, gry, milky, transl, foss, ang.

Sh & Shy Sltstn, gry, dk gry, pyr. Shy Ls, lt gry, mdstn, sl foss, arg. Ls, wh, crm, tan, mdstn, soft-hard. Ls, crm, tan, mdstn, dns. Ls, crm, tan, wkestrn, pkstn, pell, foss, 2nd calcite.

Sh, dk gry-blk, carb, pyr.

Ls, tan, brn, gry, mott, mdstn, wkestrn, foss, dns.

Shy Ls, gry, wkestrn, foss, arg. Shy Sltstn, gry, dk gry, micro pyr.

Ls, crm, tan, wkestrn, pkstn, foss, pell, 2nd calcite, trace PP por, spt interxln por. Ls, wh, crm, mdstn, wkestrn, foss, trace pyr. Shy Ls, gry, wkestrn, foss, arg, trace pyr.

Trace Ls, crm, tan, wkestrn, pkstn, foss, pell, PPpor, spt inter xln, por. Ls, tan, tan, crm, lt gry, mdstn, wkestrn, foss. Ls, wh, crm, tan, mdstn, dns. Shy Ls, gry, mdstn, wkestrn, foss, arg.

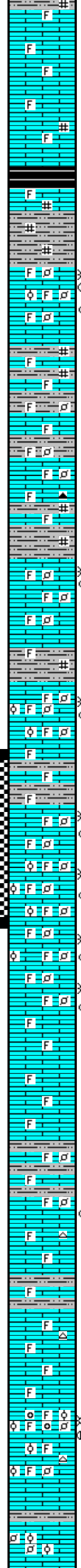
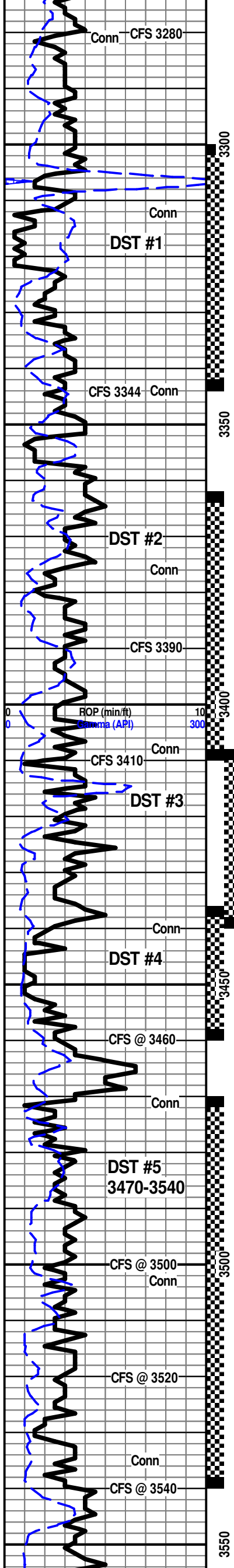
Ls, tan, mott gry, pkstn, foss, pell, 2nd calcite, PP por, spt inter xln por. Ls, crm, tan, wkestrn, foss, trace brn flaky spks. Ls, crm, tan, brn, lt gry, mdstn, dns.

Ls, wh, crm, tan, gry, mdstn, sl foss. Shy Ls, gry, wkestrn, foss, arg, pyr. Ls, tan, brn, wkestrn, pkstn, foss, pell, clear 2nd

Mud-CO/Service Mud
8/07/2014 1:25 pm
Drlg @ 3006'
Vis 50, Wt 8.6, WL 6.0
Ph 11.5, LCM 2#, Chl 4,200

Topeka 3064 (-1017)

DST #1 (Toronto)
3300-3344/30-60-60-90
1st Op: SB BOB/6 min.
2nd Op: SB BOB/8 min.
Recover: 1190' Total Fluid.
190' MW (75% Wtr, 25% Mud),
1000' Wtr. Recovery Chl 63,000,
System Chl 6,600.
IH 1578#, IFP 70-270#, ISIP 927#,
FFP 284-527#, FSIP 877#, FH 1542#.
BHT 114 F.



arg, pyr. Ls, tan, brn, wke, pkstn, foss, pel, clear 2nd calcite, dns. Sh & Shy Sltstn, gry, dk gry, pyr. Ls, gry, mdstn, sl foss, arg, dns.

Ls, wh, tan, mott, dk brn flky spks, mdstn, foss, soft-hard. Ls, wh, crm, mott tan, few dk brn flaky spks, mdstn, dns.

Ls, tan, crm, mott, brn flaky spks & stringers, mdstn, wke, foss, soft-hard. Ls, tan, dk brn flaky spks, trace pyr, mdstn, dns.

Sh, blk, carb, pyr.

Ls, tan, brn, dk brn stringers, pyr, mdstn, wke, foss, Ls, tan, brn, mdstn, wke, foss, 2nd calcite, dns. Shy Ls, gry, brn, mott wke, foss, arg, pyr.

Shy Sltstn, gry, mica, micro pyr, soft. Sh & Shy Sltstn, gry, dk gry, micro pyr.

Ls, tan, pkstn, trace grainstn, pell, foss, fn ool in part, PP por, spt inter xln por, spt oom & foss moldic por, trace vug por, FS it brn FO & SSG. Ls, tan, pkstn, pell, foss, inter xln & PP por, trace, foss moldic & vug por with brn stn & GSFO. Larger frag bleeding brn oil & gas. Ls, tan, wke, foss, scattered foss moldic & vug por, dk brn stn & FSFO. Ls, crm, tan, mdstn, wke, soft-hard. Trace Cht, milky, wh, transl, ang.

Flood Ls, lt gry, mdstn, sl foss, dns. Shy Ls, gry, mdstn, dns. Sh & Shy Sltstn, gry, dk gry, micro pyr.

Sh & Shy Sltstn, gry, dk gry, foss, pell.

Ls, wh, crm, tan, mdstn, sl foss, dns.

Sh & Shy Sltstn, gry, dk gry, foss, soft. Shy Ls, gry, dk gry, wke, pell, foss, arg.

Ls, gry, mdstn, wke, foss, dns. Shy Ls, gry, dk gry, wke, trace pkstn, pell, foss, arg. Trace Cht, dk gry, wh pell & foss frag, sub op, ang. Shy Sltstn, gry, dk gry, pell, foss, calc. Shy Sltstn, gry, dk gry, micro pyr.

Slight odor. Ls, wh, crm, tan, mdstn, dns. Ls, wh, tan, mott, mdstn, wke, pell, foss, 2nd calcite filled por, dns, no show. Poor spotted porosity, with spt oil stn & SFO. Porosity description at right.

Ls, wh, crm, tan, mdstn, sl foss, dns. Ls, wh, crm, tan, mdstn, wke, pell, foss, 2nd filled por, dns.

Sh & Shy Sltstn, gry, dk gry, foss, micro pyr.

Slight odor. Ls, wh, crm, tan, mdstn, wke, pell, foss, 2nd calcite filled por, dns. Ls, crm, tan, wke, trace pkstn, pell, foss, PP por, spt inter particle por, foss moldic & vug por, spt brn-blk oil stn & SFO in porosity. Few larger fragments bleeding oil & gas. Brn spt stn & sat in dry sample.

Ls, tan, gry, mdstn, dns. Shy Ls, gry, wke, foss, pell, arg, dns.

Ls, tan, gry, mott, wke, foss. Shy Ls, gry, mdstn, wke, foss, arg. Sh & Shy Sltstn, gry, foss.

Slight odor. Ls, wh, crm, tan, wke, pkstn, pell, foss, spt inter particle por, scattered foss moldic & poor vug por, spt tan, brn oil stn, SS brn FO & Gas. Ls, wh, crm, mdstn, wke, pell, foss, 2nd calcite filled por, no show.

Slight odor. Ls, wh, crm, tan, wke, pkstn, fn-med ool, pell, foss, spt inter particle por, poor vug por, trace foss moldic por, spt tan, brn stn & FS brn FO & SS Gas. Ls, wh, crm, mdstn, wke, ool, pell, foss, 2nd calcite filled por, dns, no show.

3460 CFS 20" Slight odor. Ls, wh, crm, mdstn, soft chky text. Ls, wh, crm, tan, mdstn, wke, pell, foss, dns. 5% Ls, wh, tan, pkstn, grstn, pell, ool, foss frag, spt inter particle por, trace oom, foss moldic & vug por, spt tan oil stn, SS brn FO trace gas bubbles.

3460 CFS 40" Slight odor. Ls, wh, tan, mdstn, wke, pell, foss, spt chky text in part. 5% Ls, wh, tan, pkstn, grstn, pell, ool, foss frag, spt inter particle por, scattered foss moldic & vug por, spt tan, brn stn, SSFO and trace Gas.

Ls, wh, mdstn, soft-hard. Ls, wh, crm, tan, mdstn, sl foss, dns. Ls, wh, crm, tan, wke, foss, 2nd calcite, dns.

Ls, wh, tan, mdstn, spt chky text. Ls, wh, crm, tan, mdstn, wke, foss, 2nd calcite filled por, dns.

Sh & Shy Sltstn, gry, dk gry, mica, foss, micro pyr. Shy Ls, gry, dk gry, wke, foss, arg. Ls, tan, gry, mott, wke, foss, pell, arg in part. Ls, wh, tan, mott gry, wke, wdk gry pell & foss frag.

Ls, tan, gry, mott, wke, pkstn, tan-gry pell & foss frag, few frag with trace PP & spt interparticle por, spt dk stn, VSS dk brn FO. Flood Ls, wh, crm, tan, mdstn, dns. Ls, wh, crm, tan, mdstn, wke, foss, 2nd calcite filled por, dns. Trace Cht, tan, gry, milky, transl, ang.

Ls, wh, tan, lt gry, wke, foss, dns. Ls, tan, brn, gry, mdstn, wke, foss, w/Shy Sltstn, gry. Ls, wh, tan, mdstn, sl foss, dns.

Flood Ls, wh, tan, mdstn, wke, foss, 2nd calcite filled por, dns. Ls, wh, mdstn, sl foss, dns. Trace Cht, wh, milky, tan, semi transl, ang.

Ls, wh, crm, tan, mdstn, dns. Ls, wh, crm, wke, foss, pell, 2nd calcite filled por, dns. Ls, brn, gry, mdstn, wke, foss, arg in part.

Ls, wh, crm, mdstn, sl foss, dns. Ls, wh, crm, tan, mdstn, wke, foss, 2nd calcite filled por, dns.

Ls, tan, wke, pkstn, ool, pell, foss frag, PP por, spt inter particle por, oom & foss moldic por, brn spt stn in por, SSFO, trace gas. Ls, wh, tan, pkstn, oom & foss moldic por, spt stn, VSSFO, spt barren por.

Ls, wh, crm, tan, wke, pkstn, ool, pell, foss, 2nd calcite filled por, dns. Ls, wh, tan, mdstn, dns. Tr Cht, tan, milky, transl, ang.

Ls, wh, tan, mdstn, 2nd calcite filled por, dns. Ls, wh, mdstn, dns. Sh & Shy Sltstn, gry, dk gry, pyr. Sh dk gry-blk, pyr.

Ls, wh, mdstn, spt chky text. Ls, wh, crm, tan, mdstn, dns. Ls, wh, crm, tan, pkstn, fn ool, pell, 2nd calcite filled por, dns.

CFS 50" @ 3560 Ls, wh, crm, tan, mdstn, dns, Ls, wh, mdstn.

DST #2 (LKC C&D)
3362-3410/30-60-60-90
1st Op: WB to SB, BOB/30 min.
2nd Op: WB to SB BOB/28 min.
Recover: 390' GIP, 172' Total Fluid.
25' CO (Gravity 35), 85' MGO
(10% Gas, 55% Oil, 35% Mud),
62' OCMW (10% Oil, 65% Wtr, 25% Mud),
Recovery Chl 74,000, System Chl 10,100.
IH 1615#, IFP 39-48#, ISIP 840# building,
FFP 63-93#, FSIP 787# building, FH 1563#.
BHT 112 F.

Heebner 3305 (-1258)

Toronto 3322 (-1275)

Mud-C0/Service Mud
8/08/2014 8:45 am
CFS @ 3344
Vis 51, Wt 9.1, WL 8.8
Ph 10.5, LCM Trace, Chl 6,600

Lansing 3348 (-1301)

DST #3 (LKC E & F)
3408-3440/30-60-60-90
1st Op: WB, 1/4" build to 2 inch.
2nd Op: WB, surface build to 1 inch.
Recover: 75' Total Fluid. 5' CO,
70' MW w/SO (80% Wtr, 20% Mud),
Recovery Chl 53,000, System Chl 10,100.
IH 1610#, IFP 37-34#, ISIP 659# building,
FFP 47-59#, FSIP 643# building, FH 1600#.
BHT 111 F.

'C' 3374 (-1326)

3376-3381 Ls, wh, tan, mott, wke, pkstn, pell, foss, PP por, poor spt inter particle por, spt vug & foss moldic por, dk brn to blk FO in porosity. SSG. Brn spt stn in dry sample.

'D' 3396 (-1349)

Mud-C0/Service Mud
8/10/2014 9:45 am
DST #3 @ 3440
Vis 48, Wt 9.1, WL 10.8
Ph 10.5, LCM Trace, Chl 9,500

CFS 3460 60" Slight odor. 10% Ls, wh, tan, wke, pkstn, trace grstn, spt interparticle por, scattered foss moldic & vug porosity, trace oom por, spt tan stn, SFO & SSG. Ls, wh, tan, mdstn, wke, tan, mdstn, sl foss, spt chky text, soft-hard.
Ls, wh, tan, mdstn, sl foss, dns.

DST #4 (LKC G)
3436-3460/30-60-60-90
1st Op: BOB/5 min. 7 inch Return.
2nd Op: BOB/6 min. 8 inch Return.
Recover: 1005 GIP, 255' Total Fluid,
66' GCO (50% Gas, 50% Oil), Gravity 35 degrees.
63' SWGMCO
(10% Gas, 50% Oil, 10% Wtr, 30% Mud),
126' SOGWCM
(10% Gas, 10% Oil, 30% Wtr, 50% Mud).
Recovery Chl 19,000, System Chl 9,500.
IH 1674#, IFP 27-61#, ISIP 720# building,
FFP 62-120#, FSIP 712# building, FH 1620#.
BHT 113 F.

'H' 3487 (-1440)

Mud-C0/Service Mud
8/11/2014 9:45 am
Drig @ 3503
Vis 49, Wt 8.9, WL 13.6
Ph 10.0, LCM Trace, Chl 9,700

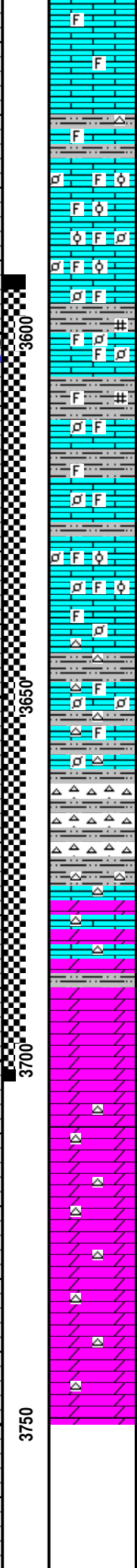
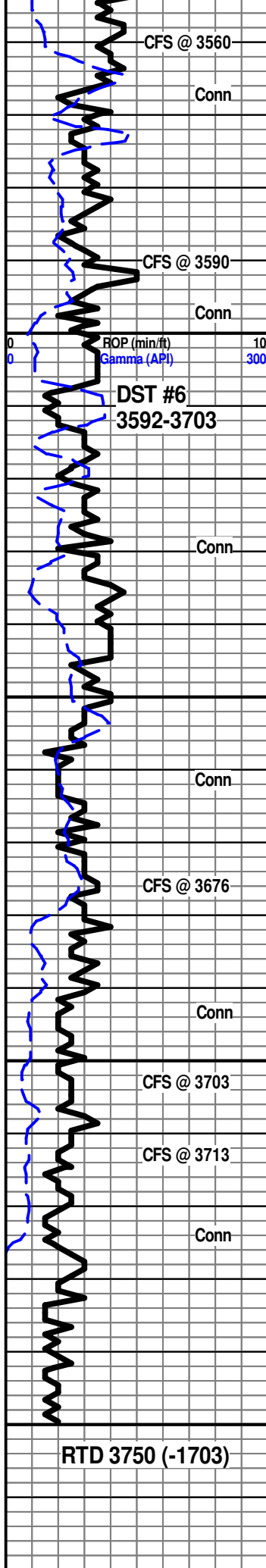
'I' 3509 (-1462)

'J' 3527 (-1480)

Mud-C0/Service Mud
8/12/2014 6:20 am
CTCH after DST #5 @ 3540
Vis 55, Wt 9.0, WL 10.0
Ph 10.5, LCM 1#, Chl 8,900

K 3547 (-1500)

DST #5 (LKC H 1 & 2)



crypto xln, dns. Ls, wh, tan, mdstn, sl foss, 2nd xln filled por, dns.

Ls, wh, mdstn, spt chky text. Ls, wh, crm, tan, mdstn, dns. Ls, wh, crm, wkestrn, foss, 2nd calcite, dns.

Ls, crm, tan, wkestrn, foss, 2nd calcite, dns. Ls, wh, mott gry, wkestrn, tan-gry foss frag, arg in part, tr pyr.

CFS25" @ 3590 Ls, wh, crm, mdstn. Ls, crm, tan, mdstn, sl foss, dns. Ls, crm, tan, wkestrn, pkstn, fn ool in part, pell, foss, 2nd calcite filled por, dns.

CFS50" @ 3590 Ls, wh, mdstn, soft to hard. Ls, wh, crm, tan, mdstn, dns. Ls, tan, brn, wkestrn, pkstn, foss, pell, 2nd calcite filled por, dns. Ls, tan, brn, pkstn, fn ool in part, pell, 2nd calcite, dns.

Ls, tan, wkestrn, pkstn, fn ool, pell, foss, 2nd calcite, filled por, dns. Ls, wh, tan, wkestrn, pell, foss, 2nd calcite, dns. Ls, wh, tan, mdstn, dns.

Sh & Shy Sltstn, gry, foss, pyr. Shy Ls, gry, wkestrn, foss, arg.

Flood Ls, wh, pkstn, pell, foss, 2nd calcite, dns. Ls, wh, mott yell, org, pkstn, pell, foss, 2nd calcite, dns.

Sh & Shy Sltstn, gry, dk gry, foss, pyr. Ls, wh, tan, wrd-brn Sh stringers, wkestrn, pkstn, pell, foss, 2nd calcite.

Sh & Shy Sltstn, rd-brn, gry. Shy Ls, wh, tan, rd-brn Sh stringers, wkestrn, foss, pell, 2nd calcite. Ls, rd-brn, wkestrn, dns.

Ls, tan, crm, mott yell, org, pkstn, fn ool in part, pell, foss, 2nd calcite filled por. Ls, wh, lt gry, pkstn, fn ool, pell, 2nd calcite filled por. Trace Cht, org, yell, gry, foss, transl, ang.

Ls, wh, tan, mdstn, dns. Ls, wh, crm, pkstn, pell, foss, 2nd calcite. Trace Cht, yell, org, transl, ang. Cht, gry, tan, transl, ang. Shy Sltstn, rd-brn, soft.

Shy Sltstn, rd-brn, soft. Ls, wh, tan, mdstn, wkestrn, dns. Ls, wh, pkstn, pell, foss, 2nd calcite, dns. Trace Cht, yell, org, milky, gry, tan, transl, ang.

Shy Sltstn, rd-brn, soft gummy. Ls, tan, mott yell, org, pkstn, foss, chty. Cht, yell, org, milky, tan, transl, ang.

Shy Sltstn, rd-brn, soft, gummy. Flood Cht, wh, milky, tan, yell, org, fresh, tr foss, transl, few frag w/ edge por & blk dead oil stn.

Flood Shy Sltstn, rd-brn, gry, soft, with Cht, wh, milky, tan, yell, org, fresh, tr foss, transl.

Shy Sltstn, rd-brn. Dolo Ls, wh, gry, foss, spt suc por, spt blk stn. Dolo, pink gry, vfn-med suc, PP por & spt vug por, pyr, poor spt suc por with blk flaky stn, SSFO in spt suc por & vug por. Dolo, tan, vfn xln, dns. Cht, wh, yell, org, fresh, transl, trace edge por w/blk stn.

Slight Odor. Flood Dolo, wh, tan, vfn-fn xln, poor spt suc por, spt blk flky stn, mostly barren. Ls, wh, tan, pink, fn-med xln, poor to fair spt suc por, spt blk flaky stn, trace dk blk FO, mostly barren. Ls, wh, tan, pink, fn-med xln, fair suc por & vug por, blk spt flaky oil stn & spt blk oil stn with FSFO. Few larger fragments bleeding blk Oil, trace Gas.

3703-3708 Faint Odor Dolo wh, crm, tan, vfn-med xln, poor spt suc & vug por, trace blk spt stn, trace blk heavy oil, mostly barren. Dolo, crm, tan, vfn-med xln, poor suc por, trace vug por. Dolo, crm, tan, vfn-fn xln, dns. Trace Dolo, pink AA.

3708-3714 Dolo, wh, crm, tan, vfn-med xln, poor spt suc por, trave vug por, trace blk flaky stn. Dolo, wh, tan, vfn-med xln, spt suc & vug por, barren. Chty Dolo, crm, tan, vfn-med xln, with Cht, yell, transl.

3714-3730 Dolo, wh, crm, tan, vfn-fn xln, spt suc por, vug por, trace flaky dead oil stn. Dolo, wh, crm, tan, vfn xln, dns. Dolo, wh, tan, fn-med xln, spt suc por, vug por, 2nd xln growth in vug por. Cht, milky, wh, tan, transl, ang.

3730-3750 Dolo, wh, crm, tan, vfn xln, dns. Dolo, tan, vfn-fn xln, spt suc por & vug por, 2nd xln growth in vug por. Dolo, tan, brn, fn-med xln, spt suc por & trace vug por. Dolo, tan, med xln, dns. Dolo, tan, vfn xln, ool, pell ghosts, dns. Dolo, tan, vfn xln sl suc, clear sub rdd qtz gr. Cht, milky, wh, tan, transl, ang.

DST #5 (LRC H, 1&J)
3470-3540/30-60-60-90
1st Op: BOB/4 min. 7 inch Return.
2nd Op: BOB/9 min. BOB Return in 18 min.
Recover: 693' GIP. 524' Total Fluid,
113' GCO (20% Gas, 80% Oil), Gravity 31 degrees.
96' MGO (30% Gas, 50% Oil, 20% Mud),
315' SWGMCO (20% Gas, 50% Oil, 10% Wtr,
20% Mud).
IH 1739#, IFP 57-137#, ISIP 994# building,
FFP 151-226#, FSIP 981# building, FH 1656#.
BHT 114 F.

BKC 3590 (-1543)

DST #6 (Arbuckle)
3592-3703/30-60-30-30
1st Op: Build to 1 3/8 inches.
2nd Op: No Blow.
Recover: 20' Mud with oil spks.
IH 1929#, IFP 39-74#, ISIP 900# building,
FFP 25-129#, FSIP 627# building, FH 1759#.
BHT 110 F.

Conglomerate 3680 (-1633)

Arbuckle 3691 (-1644)
CFS 50" @ 3703 Slight Odor. Dolo, wh, pink, tan, vfn-med xln, poor spt suc por in part and scatt vug por. 10% with spt blk flaky stn & SS blk FO in spt por, mostly barren. CFS 75" Dolo AA, 10% with spt stn, SS FO, mostly barren.
Mud-CO/Service Mud
8/13/2014 6:00 am
TOH w/DST #6 @ 3703'
Vis 48, Wt 9.1, WL 10.0
Ph 10.0, LCM 1#, Chl 10,000