



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1115369
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: _____



1115369

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

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

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



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

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

February 12, 2013

Nicholas D. Hess
Cobalt Energy LLC
115 S. BELMONT #12
PO BOX 8037
WICHITA, KS 67208

Re: ACO1
API 15-065-23888-00-00
Critchfield 'A' 1-32
SE/4 Sec.32-09S-24W
Graham County, Kansas

Dear Production Department:

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

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

Respectfully,
Nicholas D. Hess

ALLIED OIL & GAS SERVICES, LLC 058840

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley KS

DATE <u>1/28/13</u>	SEC <u>22</u>	TWP <u>9</u>	RANGE <u>24</u>	CALLED OUT	ON LOCATION	JOB START <u>10:00 AM</u>	JOB FINISH <u>11:00 AM</u>
LEASE <u>Critchfield</u>	WELL # <u>1-22</u>	LOCATION <u>ST Peter 31V 4E 1/2 SW into</u>			COUNTY <u>Graham</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Murfin 8

TYPE OF JOB PTA - Rotary

HOLE SIZE 7 7/8 T.D.

CASING SIZE 8 1/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

RES. MAX MINIMUM

WEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER Same

CEMENT AMOUNT ORDERED 220 SK, 60/40 450 gal
14 Fl Seal

COMMON	<u>132</u>	@ <u>17.90</u>	<u>2362.80</u>
POZMIX	<u>88</u>	@ <u>9.35</u>	<u>822.80</u>
GEL	<u>8</u>	@ <u>23.40</u>	<u>187.52</u>
CHLORIDE		@	
ASC		@	
Fl Seal	<u>55 lb</u>	@ <u>2.92</u>	<u>160.76</u>

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan 1

HELPER Wayne McGibby 2

BULK TRUCK DRIVER Brandon Wilkinson 3

BULK TRUCK DRIVER

HANDLING 236 ²⁶⁶ CF @ 2.48 585.94

MILEAGE 2.60 mi/mile 9.866 700 1539.10

TOTAL 5661.19

REMARKS:

1225 - 25 SK

325 - 100 SK

275 - 40 SK

40 - 10 SK

RT - 30 SK

MH - 15 SK

591.96

SERVICE

DEPTH OF JOB	<u>2225</u>	
PUMP TRUCK CHARGE	<u>2483.52</u>	
EXTRA FOOTAGE	@	
MILEAGE <u>60</u>	@ <u>7.70</u>	<u>462.00</u>
MANIFOLD	@	
<u>Life Vehicle</u> <u>60</u>	@ <u>4.40</u>	<u>264.00</u>

CHARGE TO: Cobalt

TREET

CITY STATE ZIP

TOTAL 3209.59

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 Rodney Farr

SIGNATURE Rodney Farr

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	

TOTAL

SALES TAX (If Any) 669.74

TOTAL CHARGES 8,870.78

DISCOUNT 2483.81 IF PAID IN 30 DAYS

6386.97

2070



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC.**

PO Box 8037
Wichita KS 67208

ATTN: Rocky Milford

Critchfield A #1-32

32-9s-24w Graham,KS

Start Date: 2013.01.25 @ 16:27:05

End Date: 2013.01.25 @ 23:50:20

Job Ticket #: 51459 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.02.05 @ 11:21:27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51459

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.01.25 @ 16:27:05

GENERAL INFORMATION:

Formation: **Lans. "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:55:50

Time Test Ended: 23:50:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Andy Carreira

Unit No: 39

Interval: 3895.00 ft (KB) To 3935.00 ft (KB) (TVD)

Reference Elevations: 2531.00 ft (KB)

Total Depth: 3935.00 ft (KB) (TVD)

2526.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press @ RunDepth: 34.93 psig @ 3899.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.25 End Date: 2013.01.25

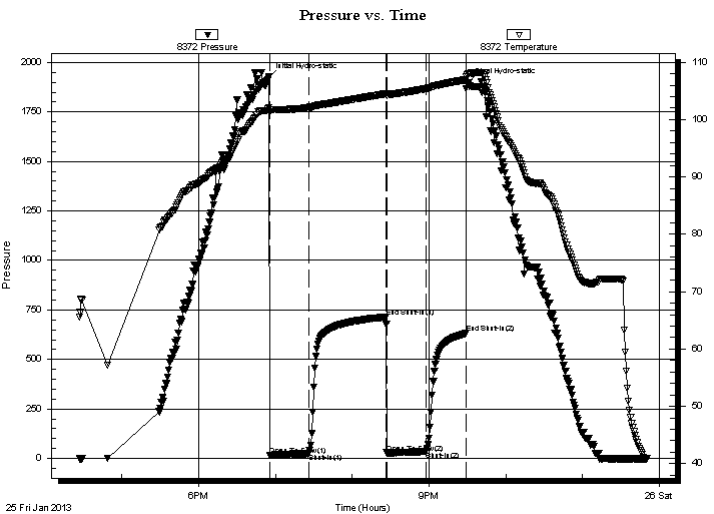
Last Calib.: 2013.01.25

Start Time: 16:27:05 End Time: 23:50:20

Time On Btm: 2013.01.25 @ 18:54:50

Time Off Btm: 2013.01.25 @ 21:30:50

TEST COMMENT: IF:(30min) Very Weak surface blow
IS:(60min) No Return
FF:(30min) No Blow
FS:(30min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1924.82	102.07	Initial Hydro-static
1	14.97	101.18	Open To Flow (1)
32	24.77	102.08	Shut-In(1)
92	714.22	104.51	End Shut-In(1)
92	27.42	104.22	Open To Flow (2)
123	34.93	105.38	Shut-In(2)
154	631.61	106.94	End Shut-In(2)
156	1897.30	108.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51459

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.01.25 @ 16:27:05

Tool Information

Drill Pipe:	Length: 3694.00 ft	Diameter: 3.80 inches	Volume: 51.82 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 186.13 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 52.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.13 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3895.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3873.00	
Shut In Tool	5.00			3878.00	
Hydraulic tool	5.00			3883.00	
Safety Joint	3.00			3886.00	
Packer	5.00			3891.00	23.00 Bottom Of Top Packer
Packer	4.00			3895.00	
Stubb	1.00			3896.00	
Perforations	2.00			3898.00	
Change Over Sub	1.00			3899.00	
Recorder	0.00	8844	Inside	3899.00	
Recorder	0.00	8372	Outside	3899.00	
Blank Spacing	32.00			3931.00	
Change Over Sub	1.00			3932.00	
Bullnose	3.00			3935.00	40.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51459

DST#: 1

ATTN: Rocky Milford

Test Start: 2013.01.25 @ 16:27:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

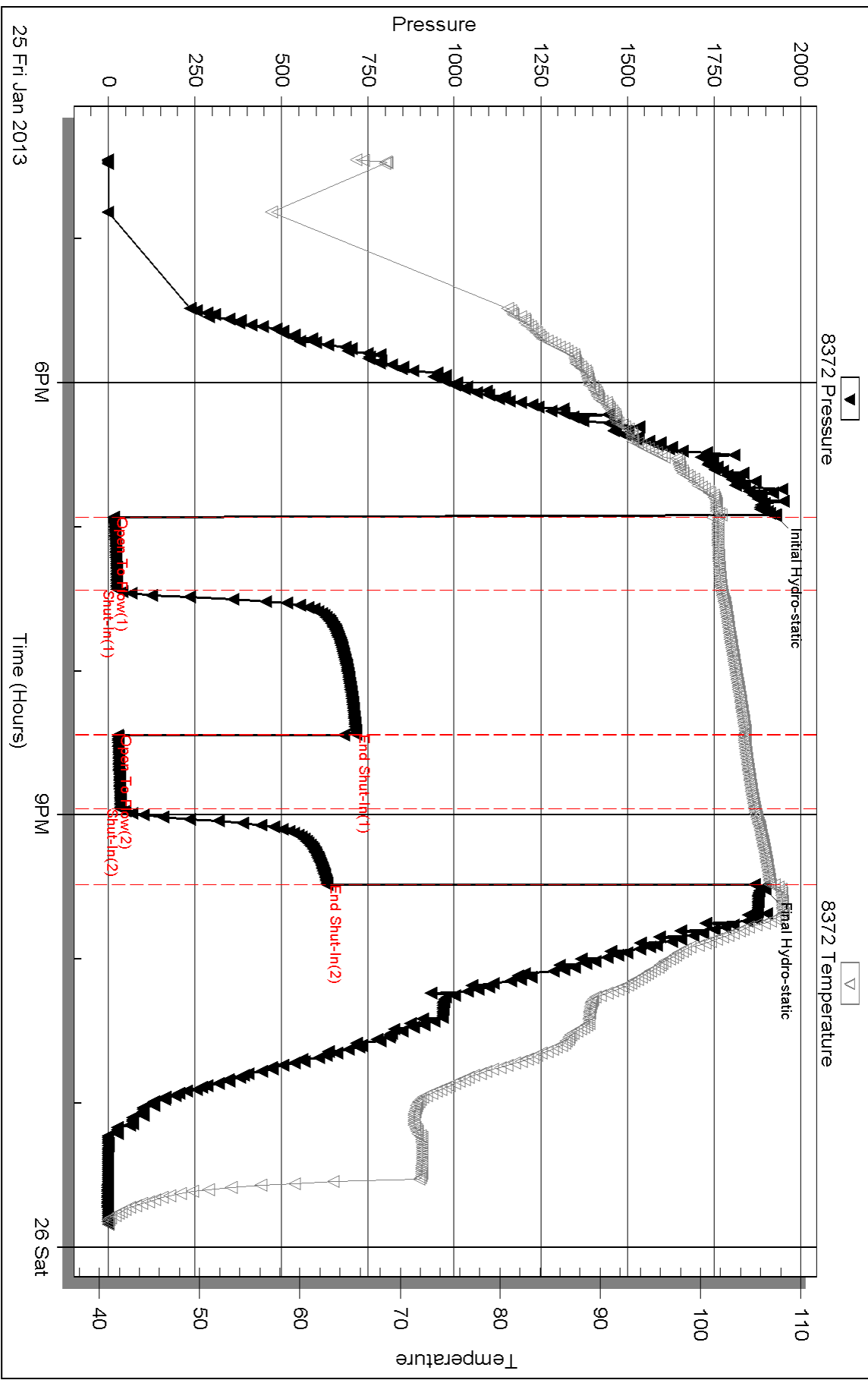
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



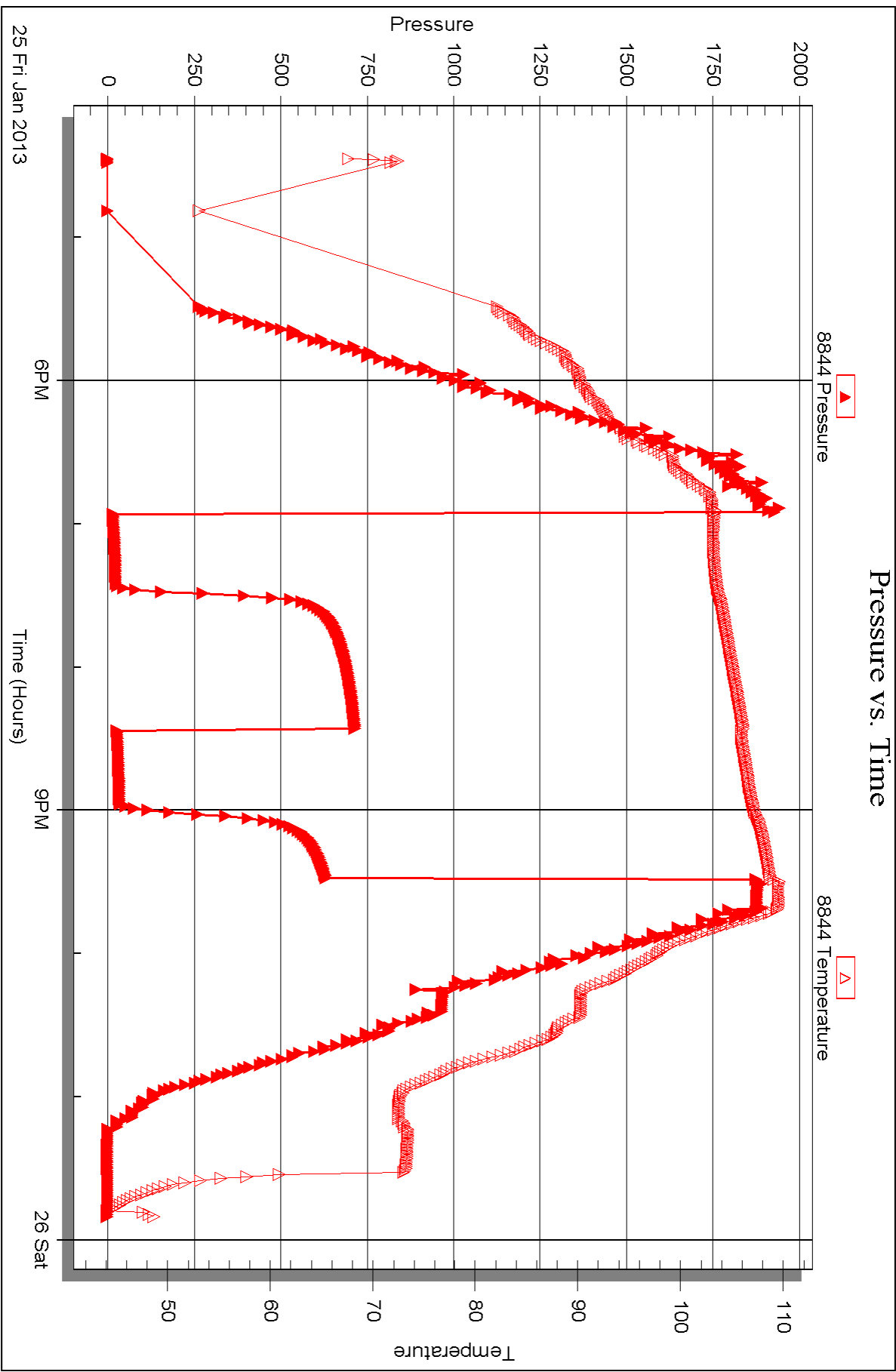
Serial #: 8844

Inside

Cobalt Energy LLC

Critchfield A #1-32

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC.**

PO Box 8037
Wichita KS 67208

ATTN: Rocky Milford

Critchfield A #1-32

32-9s-24w Graham,KS

Start Date: 2013.01.26 @ 11:26:05

End Date: 2013.01.26 @ 17:33:39

Job Ticket #: 51460 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.02.05 @ 11:20:53

Cobalt Energy LLC. 32-9s-24w Graham,KS Critchfield A #1-32 DST # 2 Lans. "H" 2013.01.26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51460

DST#: 2

ATTN: Rocky Milford

Test Start: 2013.01.26 @ 11:26:05

GENERAL INFORMATION:

Formation: **Lans. "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:22:50

Time Test Ended: 17:33:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Andy Carreira

Unit No: 39

Interval: 3995.00 ft (KB) To 4030.00 ft (KB) (TVD)

Total Depth: 4030.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2531.00 ft (KB)

2526.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press @ RunDepth: 15.36 psig @ 3996.00 ft (KB)

Start Date: 2013.01.26

End Date: 2013.01.26

Start Time: 11:26:05

End Time: 17:33:40

Capacity: 8000.00 psig

Last Calib.: 2013.01.26

Time On Btm: 2013.01.26 @ 13:22:30

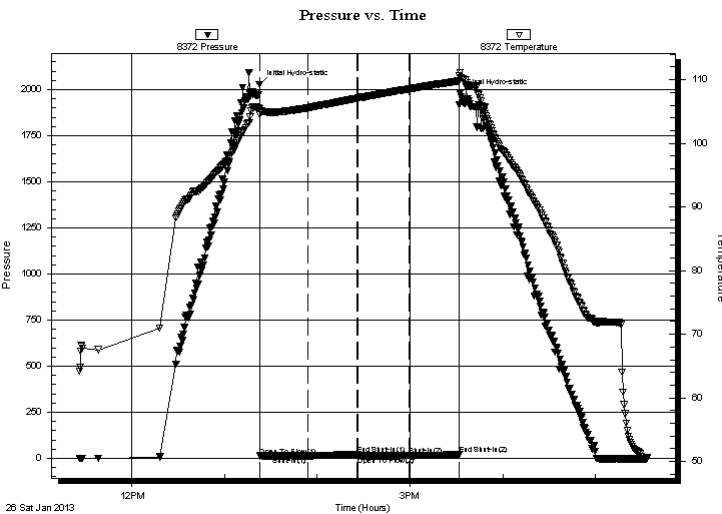
Time Off Btm: 2013.01.26 @ 15:32:30

TEST COMMENT: IF:(30min) Blow died in 9 min.

IS:(30min) No Return

FF:(30min) No Blow

FS:(30min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2028.49	105.51	Initial Hydro-static
1	14.04	104.48	Open To Flow (1)
31	14.04	105.58	Shut-In(1)
64	21.91	107.09	End Shut-In(1)
64	13.06	107.10	Open To Flow (2)
97	15.36	108.55	Shut-In(2)
129	20.47	109.81	End Shut-In(2)
130	1978.32	111.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w / oil spcks in tool	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.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51460

DST#: 2

ATTN: Rocky Milford

Test Start: 2013.01.26 @ 11:26:05

Tool Information

Drill Pipe:	Length: 3815.00 ft	Diameter: 3.80 inches	Volume: 53.51 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 186.13 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 54.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.13 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3995.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	58.00 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			3973.00	
Shut In Tool	5.00			3978.00	
Hydraulic tool	5.00			3983.00	
Safety Joint	3.00			3986.00	
Packer	5.00			3991.00	23.00 Bottom Of Top Packer
Packer	4.00			3995.00	
Stubb	1.00			3996.00	
Recorder	0.00	8844	Inside	3996.00	
Recorder	0.00	8372	Outside	3996.00	
Perforations	31.00			4027.00	
Bullnose	3.00			4030.00	35.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51460

DST#: 2

ATTN: Rocky Milford

Test Start: 2013.01.26 @ 11:26:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud w / oil spcks in tool	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

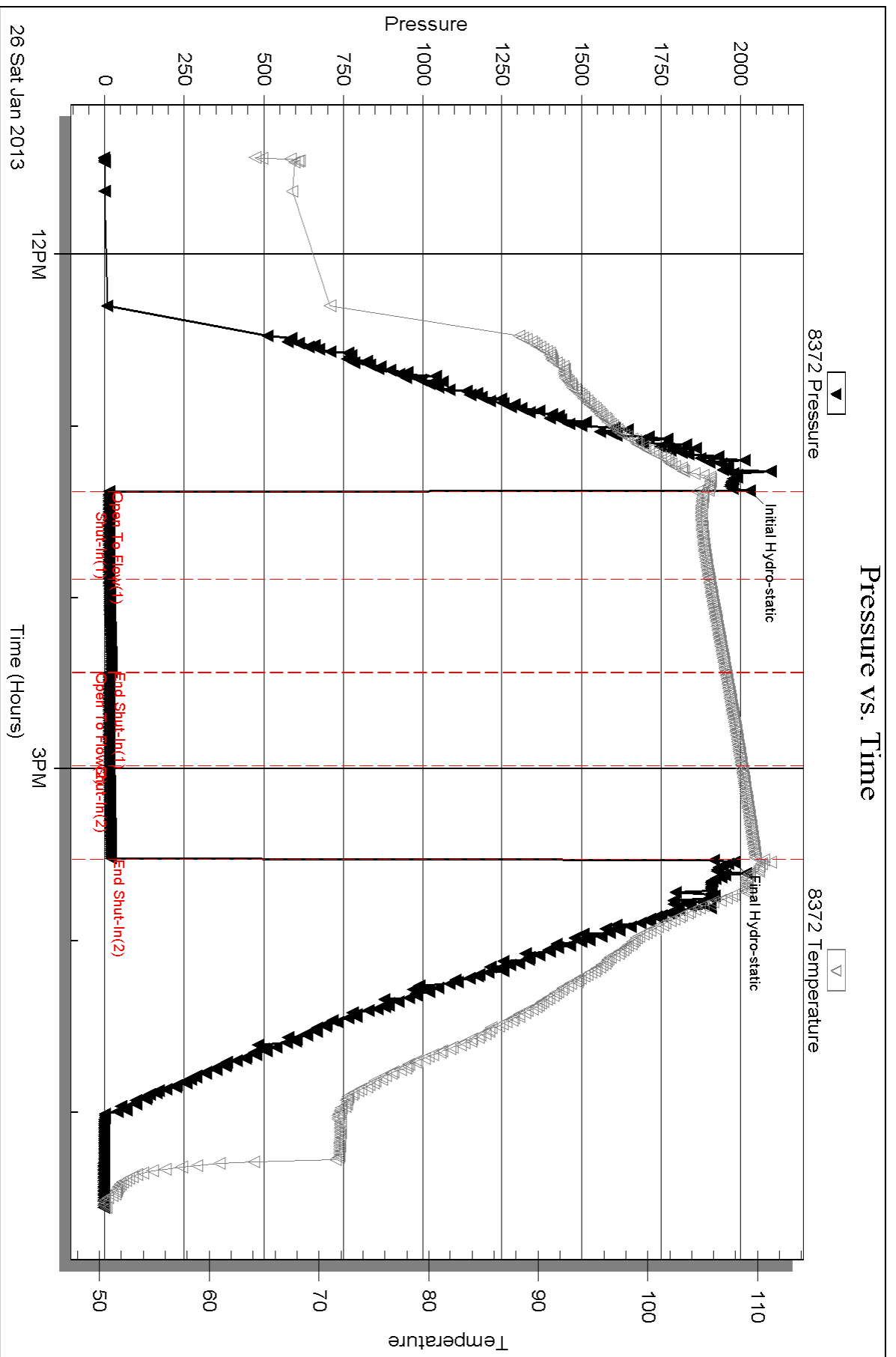
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



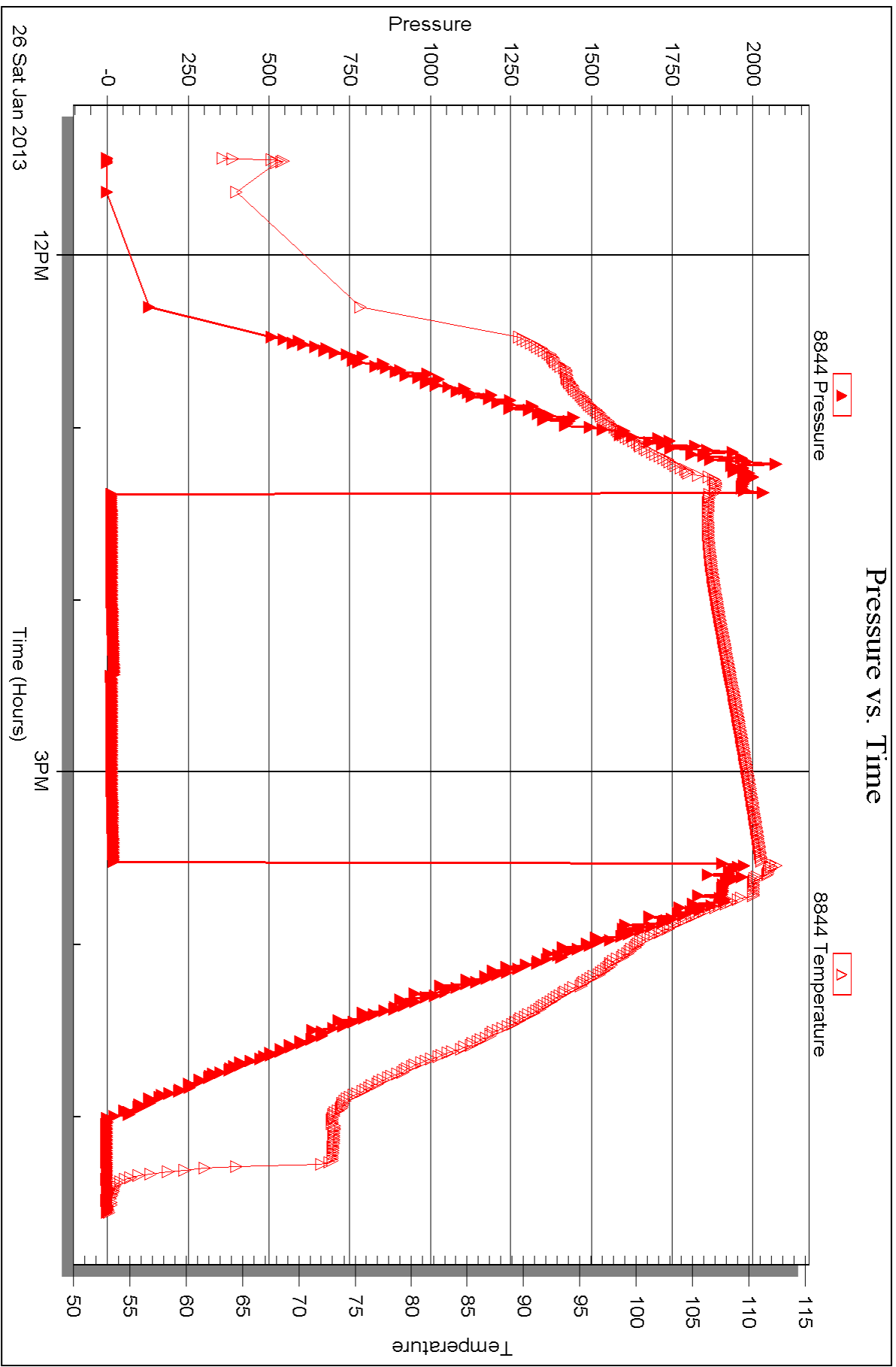
Serial #: 8844

Inside

Cobalt Energy LLC

Critchfield A #1-32

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 51460

Printed: 2013.02.05 @ 11:20:56



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC.**

PO Box 8037
Wichita KS 67208

ATTN: Rocky Milford

Critchfield A #1-32

32-9s-24w Graham,KS

Start Date: 2013.01.27 @ 02:33:05

End Date: 2013.01.27 @ 08:54:20

Job Ticket #: 51461 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.02.05 @ 11:20:11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51461

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.01.27 @ 02:33:05

GENERAL INFORMATION:

Formation: **Lans. "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:38:40

Time Test Ended: 08:54:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Andy Carreira

Unit No: 39

Interval: 4023.00 ft (KB) To 4067.00 ft (KB) (TVD)

Reference Elevations: 2531.00 ft (KB)

Total Depth: 4067.00 ft (KB) (TVD)

2526.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press @RunDepth: 24.21 psig @ 4029.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.27

End Date:

2013.01.27

Last Calib.:

2013.01.27

Start Time: 02:33:05

End Time:

08:54:20

Time On Btm:

2013.01.27 @ 04:37:50

Time Off Btm:

2013.01.27 @ 06:40:50

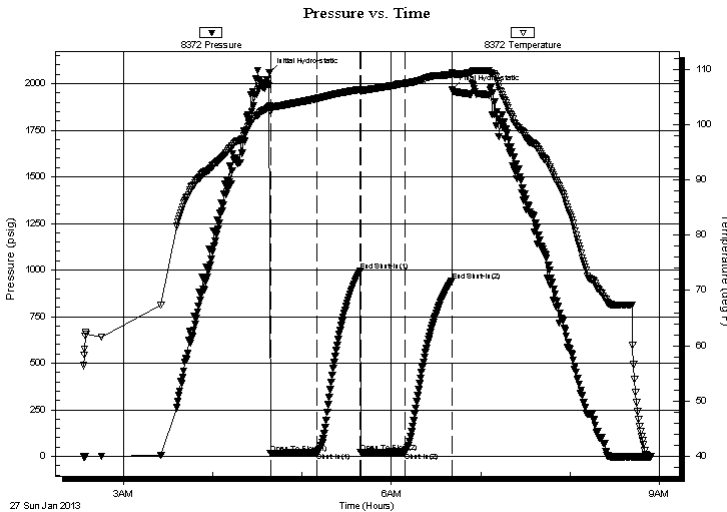
TEST COMMENT: IF:(30min) Blow died in 12 min.

IS:(30min) No Return

FF:(30min) No Blow

FS:(30min) No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.14	103.26	Initial Hydro-static
1	15.23	102.36	Open To Flow (1)
32	20.50	104.73	Shut-In(1)
61	992.84	106.40	End Shut-In(1)
62	21.92	106.03	Open To Flow (2)
92	24.21	107.49	Shut-In(2)
123	942.61	109.09	End Shut-In(2)
123	1966.07	109.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

* 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.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51461

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.01.27 @ 02:33:05

Tool Information

Drill Pipe:	Length: 3819.00 ft	Diameter: 3.80 inches	Volume: 53.57 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 186.13 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 54.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.13 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4023.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	67.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4001.00	
Shut In Tool	5.00			4006.00	
Hydraulic tool	5.00			4011.00	
Safety Joint	3.00			4014.00	
Packer	5.00			4019.00	23.00 Bottom Of Top Packer
Packer	4.00			4023.00	
Stubb	1.00			4024.00	
Perforations	4.00			4028.00	
Change Over Sub	1.00			4029.00	
Recorder	0.00	8844	Inside	4029.00	
Recorder	0.00	8372	Outside	4029.00	
Blank Spacing	32.00			4061.00	
Change Over Sub	1.00			4062.00	
Perforations	2.00			4064.00	
Bullnose	3.00			4067.00	44.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC.

32-9s-24w Graham,KS

PO Box 8037
Wichita KS 67208

Critchfield A #1-32

Job Ticket: 51461

DST#: 3

ATTN: Rocky Milford

Test Start: 2013.01.27 @ 02:33:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

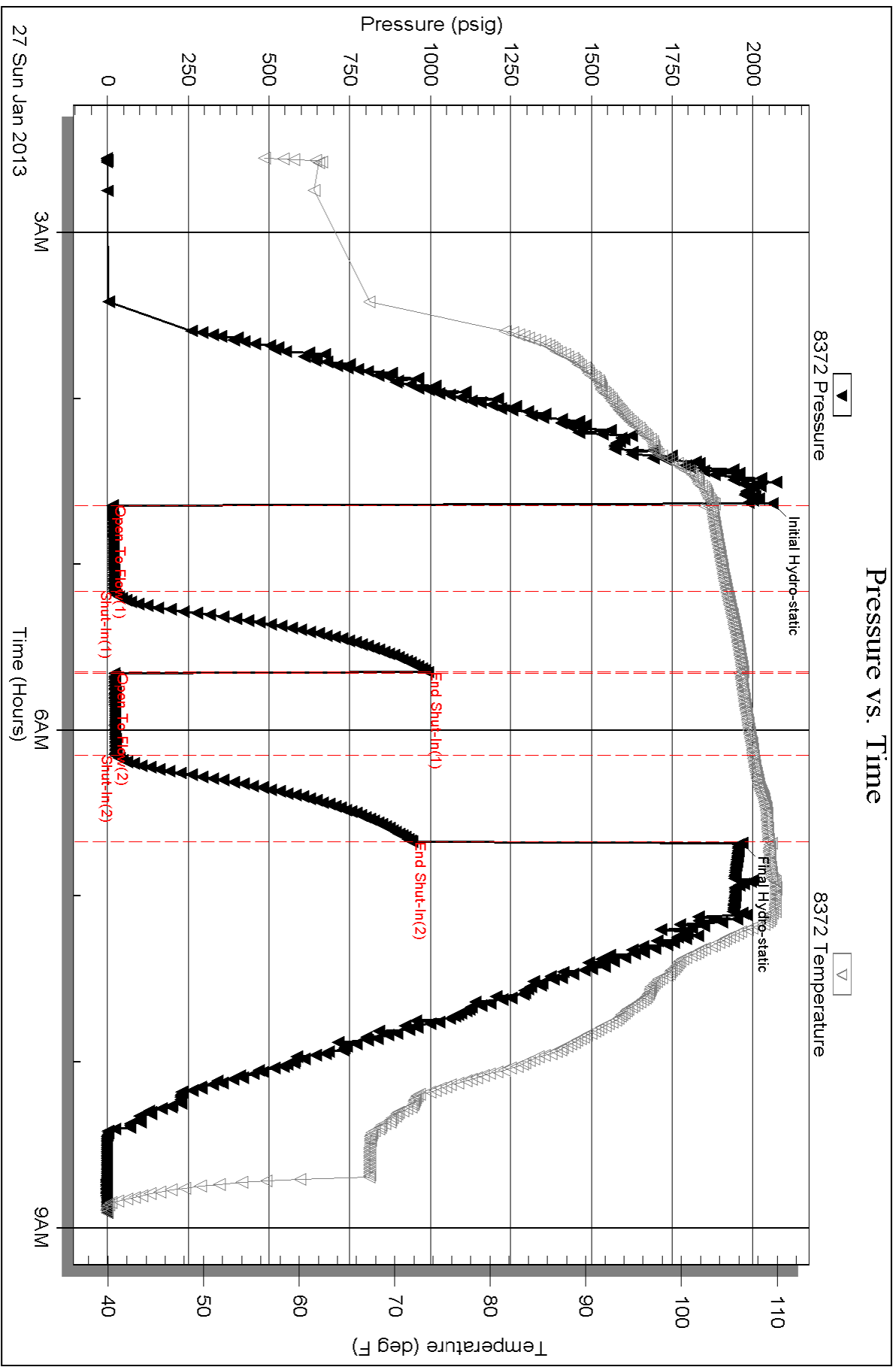
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



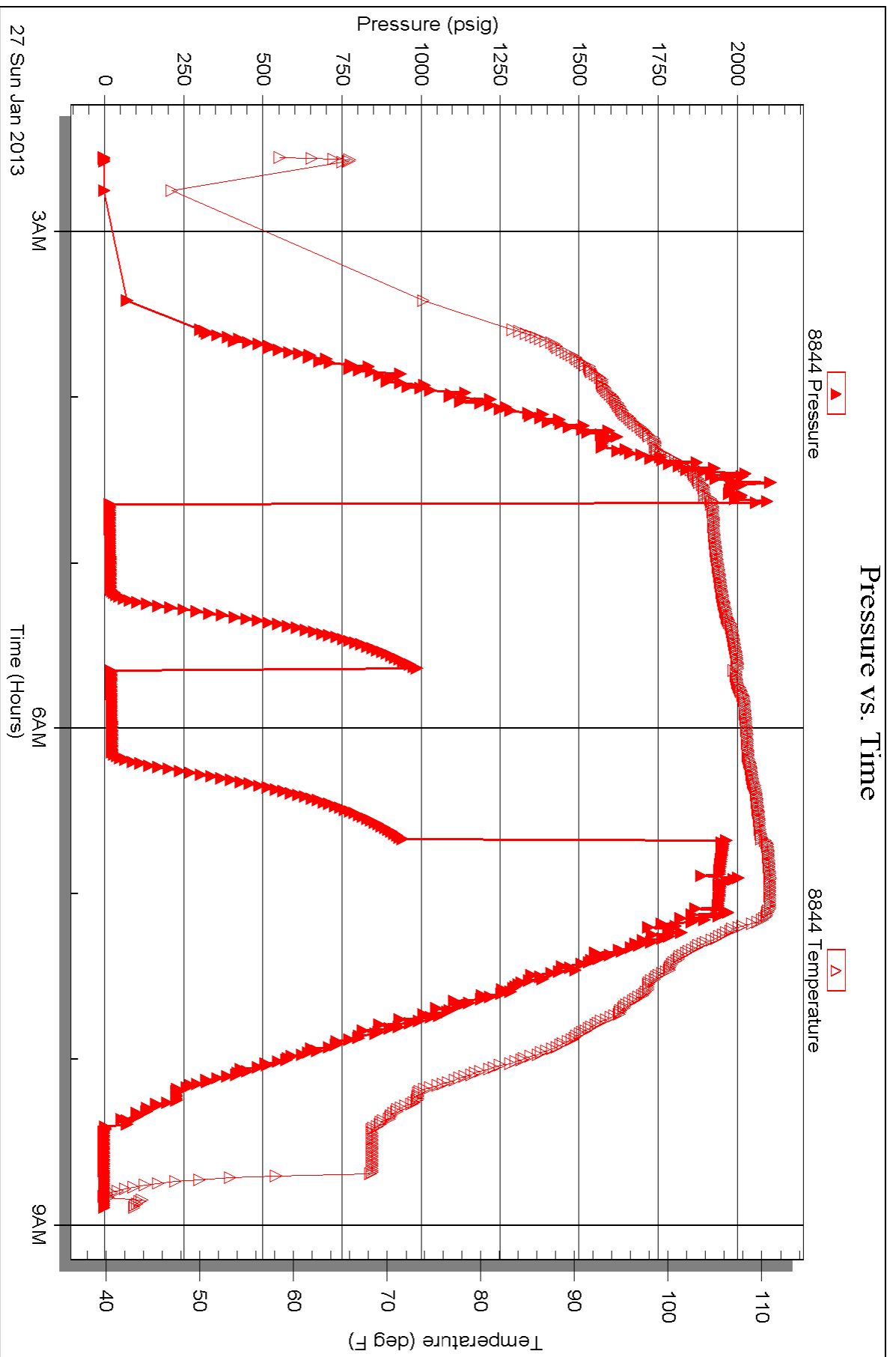
Serial #: 8844

Inside

Cobalt Energy LLC

Critchfield A #1-32

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51459

Well Name & No. Critchfield A 1-32 Test No. 1 Date 1-25-13
 Company Colbalt Energy LLC Elevation 2531 KB 2526 GL
 Address Po Box 8037 Wichita Ks 67208
 Co. Rep / Geo. Rocky Milford Rig Muelin #8
 Location: Sec. 32 Twp. 9s Rge. 24w Co. Graham State Ks

Interval Tested 3895-3935 Zone Tested LANS. "C-D"
 Anchor Length 40' Drill Pipe Run 3694 Mud Wt. 9.3
 Top Packer Depth 3890 Drill Collars Run 186.13 Vis 52
 Bottom Packer Depth 3895 Wt. Pipe Run 0 WL 7.4
 Total Depth 3935 Chlorides 2700 ppm System LCM H

Blow Description FF: Very weak surface blow
FSI: NO RETURN
FP: NO BLOW
FSI: NO RETURN

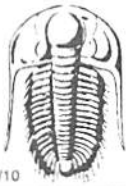
Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10' BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1924</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>14:52</u>
(B) First Initial Flow <u>14</u>	<input type="checkbox"/> Jars _____	T-Started <u>16:27</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>18:56</u>
(D) Initial Shut-In <u>714</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>21:26</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>23:50</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>123AT</u> 190.65	Comments _____
(G) Final Shut-In <u>631</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1897</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1415.65</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1415.65</u>	

Approved By _____ Our Representative Rocky Milford

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. 51460

Well Name & No. Critchfield A 1-32 Test No. 2 Date 1-26-13
 Company Cobalt Energy LLC Elevation 2531 KB 2526 GL
 Address Po Box 80371 Wichita Ks. 67208
 Co. Rep / Geo. Rocky Milford Rig MURFIN #8
 Location: Sec. 32 Twp. 9S Rge. 24W Co. Graham State Ks

Interval Tested 3995-4030 Zone Tested LANS. "H"
 Anchor Length 35' Drill Pipe Run 3815 Mud Wt. 9.2
 Top Packer Depth 3990 Drill Collars Run 186.13 Vis 54
 Bottom Packer Depth 3995 Wt. Pipe Run A WL 7.8
 Total Depth 4030 Chlorides 3000 ppm System LCM 2

Blow Description IF: Blow died in 9 min.
ISI: NO RETURN
FF: NO BLOW
FSI: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud w/oil spks in Tool</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 1 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2028 Test 1250 T-On Location 10:15
 (B) First Initial Flow 14 Jars T-Started 11:26
 (C) First Final Flow 14 Safety Joint 75 T-Open 13:24
 (D) Initial Shut-In 21 Circ Sub T-Pulled 15:24
 (E) Second Initial Flow 13 Hourly Standby T-Out 17:36
 (F) Second Final Flow 15 Mileage 123RT 190.65 Comments _____
 (G) Final Shut-In 20 Sampler _____
 (H) Final Hydrostatic 1978 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby _____
 Accessibility _____
 Sub Total 1515.65 MP/DST Disc't _____

Approved By _____ Our Representative Rocky Con

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. 51461

Well Name & No. Critchfield A 1-32 Test No. 3 Date 1-27-13
 Company Cobalt Energy LLC. Elevation 2531 KB 2526 GL
 Address PO BOX 8037 Wichita, Ks. 67208
 Co. Rep / Geo. Rocky Milford Rig MURFIN #8
 Location: Sec. 32 Twp. 9S Rge. 24W Co. Graham State Ks.

Interval Tested 4023-4067 Zone Tested LANS. "I-J"
 Anchor Length 44' Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 4018 Drill Collars Run 186.13 Vis 54
 Bottom Packer Depth 4023 Wt. Pipe Run 5 WL 7.8
 Total Depth 4067 Chlorides 3000 ppm System LCM 2

Blow Description IF: Blow Since in 12min
IST: NO RETURN
FF: NO BLOW
FSL: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</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

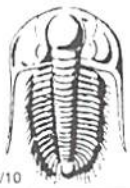
Rec Total 5 BHT 109° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2061 Test 1250 T-On Location 01:27
 (B) First Initial Flow 15 Jars _____ T-Started 02:33
 (C) First Final Flow 20 Safety Joint 75 T-Open 04:39
 (D) Initial Shut-In 992 Circ Sub _____ T-Pulled 06:39
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 08:42
 (F) Second Final Flow 24 Mileage 123RT 190.65 Comments _____
 (G) Final Shut-In 942 Sampler _____
 (H) Final Hydrostatic 1966 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1515.65
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1515.65

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

Approved By _____ Our Representative Andy Carr

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. 51466

Well Name & No. Critchfield A-1-32 Test No. - Date 1-27-13
 Company Cobalt Energy LLC. Elevation 2531 KB 2526 GL
 Address PO Box 8037 Wichita Ks. 67208
 Co. Rep / Geo. Rocky Milford Rig Murfin 8
 Location: Sec. 32 Twp. 9s Rge. 24w Co. Garhan State KS

Interval Tested _____ Zone Tested _____
 Anchor Length _____ Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth _____ Drill Collars Run _____ Vis _____
 Bottom Packer Depth _____ Wt. Pipe Run _____ WL _____
 Total Depth _____ Chlorides _____ ppm System LCM _____
 Blow Description _____

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	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test _____ T-On Location 18:00
 (B) First Initial Flow _____ Jars _____ T-Started _____
 (C) First Final Flow _____ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____
 (F) Second Final Flow _____ Mileage 123 RT 190.65 Comments Pick up Tools!
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open _____ Extra Recorder _____ Sub Total 0
 Initial Shut-In _____ Day Standby _____ Total 190.65
 Final Flow _____ Accessibility _____ MP/DST Disc't
 Final Shut-In _____ Sub Total 190.65

Approved By _____ Our Representative Rocky C

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.

Robert L. Milford

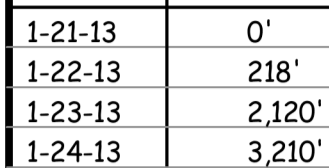
PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR	Cobalt Energy, LLC	ELEVATIONS	KB 2,531'
LEASE	Critchfield 'A' #1-32	GL	2,526'
LOC. SPOT	5'W of C E2 NE SE	MEASUREMENTS FROM KB	
LOC. FOOTAGE	1,980' FSL 335' FEL	CASING RECORD	
SEC.	32 TWPSE 9S R1NG 24W	CONDUCTOR	
COUNTY	Graham STATE Kansas	APPROXIMATE SURFACE	Surface 8.5/8" @ 218' w/ 175 sacks cement Production none
API	15-065-23888-00-00	CONTRACTOR	Murfin Drilling Co., Inc. RIG NO. 8
DRILLING STARTED	1-21-2013	COMPLETED	1-28-2013
MUD DISPLACED	3,292'	MUD TYPE	Chemical
DRILLING TIME KEPT FROM	3,550'	TO RTD	
SAMPLES SAVED FROM	3,550'	TO RTD	
SAMPLES EXAMINED FROM	3,550'	TO RTD	
GEOLOGICAL SUPERVISION FROM	3,521'	TO RTD	

FORMATION NAME	LOG TOP DATUM	SAMPLE TOP DATUM
Stone Corral	2,196'	2,193'
Base Stone Corral	2,231'	2,228'
Topeka	3,622'	3,623'
Heebner	3,840'	3,840'
Toronto	3,863'	3,863'
Lansing	3,877'	3,877'
Muncie Creek	4,003'	4,003'
Stark	4,068'	4,068'
B/KC	4,107'	4,107'
Total Depth	4,135'	4,135'



DATE	7:00 AM DEPTH	REMARKS
1-21-13	0'	Spud @ 5:45 pm. Plug down @ 10:30 pm. Dev.: 0.5° @ 218'
1-22-13	218'	Cut 218' in last 24 hrs. Started drilling out plug @ 8:00 am
1-23-13	2,120'	Cut 1,902' in last 24 hrs; 22 hrs drlg.
1-24-13	3,210'	Cut 1,090' in last 24 hrs; 22 hrs drlg.
1-25-13	3,890'	Cut 680' in last 24 hrs; 22.75 hrs drlg. DST #1 @ 3935'
1-26-13	4,000'	Cut 110' in last 24 hrs; 5.5 hrs drlg. DST #2 @ 4030', DST #3 @ 4067'
1-27-13	4,067'	Cut 67' in last 24 hrs; 3.25 hrs drlg. RTD 4135' @ 4: 26 pm
1-28-13	4,135'	Cut 68' in last 24 hrs; 3.75 hrs drlg. P&A

Remarks

The electric log measurements correlate from 1' higher to 3' lower to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

Robert L. Milford



LITH.	0	DRILL TIME (MIN/FT)	10	DEPTH	SAMPLE DESCRIPTIONS	REMARKS
				2150		Stone Corral 2196' (+335) EL
				2200		B/Stone Corral 2231' (+300) EL
				2250		

				3550	Sh: gry LS: crm-gry, fxln, fos-ool (small) in prt, some shly, sub chky-prtly dns w/ some chky-vry chky, pr-fr intrprt por, NS	
				3600	Sh: gry, some silty & mic, some grn, small amnt red-brn LS: crm-gry, fxln, fos in prt, shly in prt, sub chky-prtly dns w/ some chky, pr fos por, NS Sh: gry LS: crm-brn, fxln, fos in prt, some shly, sub chky-prtly dns, pr por, NS Sh: gry, some silty, tr grn Sh: A.A. LS: brn, fxln, fos, prtly dns, pr por, NS	Topeka 3622' (-1091) EL No drill time @ 3621': kicked geologist out
				3650	LS: crm-gry, fxln, fos in prt, some shly, sub chky-prtly dns w/ some chky, pr-fr w/ tr gd fos por, NS LS: crm-gry, fxln, fos in prt, some shly, sub chky-prtly dns, pr-fr fos por, NS LS: A.A.	
				3700	Sh: gry LS: wh-gry, fxln, fos, some shly, sub chky-prtly dns w/ some chky-vry chky, pr-fr fos por, NS LS: A.A. LS: wh-gry, fxln, fos in prt, some shly, vry chky-prtly dns, pr w/ some fr fos por, NS LS: A.A.	
				3750	Sh: Black Carb & drk gry LS: tan-brn, fxln, sli fos, prtly dns, pr por, NS Sh: gry-grn Sh: gry, grn LS: wh-lt brn, fxln, fos in prt, sli chty (wh), chky-prtly dns w/ some vry chky, pr fos por, NS	
				3800	Sh: gry, some red-brn LS: crm-lt brn, fxln, fos in prt, sli chty (crm), chky-prtly dns w/ some vry chky, pr fos por, NS Sh: Blk Carb & drk gry LS: wh-lt brn, fxln, ool (small)-fos in prt, sub chky-prtly dns w/ some chky-vry chky, fr-gd ooc por, NS LS: crm-tan, fxln, ool (small)-fos in prt, sli chty (wh-tan), sub chky-prtly dns, pr por, NS LS: wh-tan, fxln, fos in prt, sli chty (crm), vry chky-prtly dns, pr w/ some fr fos por, NS	
				3850	LS: wh-tan, fxln, fos in prt, sli chty (wh-tan), sub chky-prtly dns w/ some chky, pr w/ some fr intrprt por, NS Sh: gry, red-brn, some grn LS: wh-tan, fxln, ool-fos in prt, chty (wh-tan), sub chky-prtly dns w/ some chky-vry chky, pr intrprt w/ tr pr-fr dlop ooc por, NS LS: A.A., pr por, NS	Heebner 3840' (-1309) EL Toronto 3863' (-1332) EL Lansing 3877' (-1346) EL
				3900	Sh: red-brn, gry, some grn LS: crm, fxln, ool, sub chk-prt dns, pr w/ some fr intrpt-sub sat stn, SSFO (mstly p-p beads), no odor LS: wh-crm, fxln, ool in prt, sli chty, vry chky-prtly dns, pr w/ tr fr intrpt por, vry scat brn-blk sptd-sub sat stn, VSSFO (p-p beads), no odor LS: wh-crm, fxln, sli chty, vry chky-prtly dns, pr por, NS LS: wh-lt gry, fxln, chky-prtly dns w/ some vry chky, pr por, NS	Mud Co/Service Mud check @ 3905': 52 Vis, 9.3 Wt, 7.4 WL, Chl 2,700 ppm, 1# LCM DST #1 3895'-3935' LKC 'C'-'D' zns IF: weak surface blow FF: no blow Rec: 10' Mud IFP: 14-24#/30" ISIP: 714#/60" FFP: 27-34#/30" FSIP: 631#/30"
				3950	Sh: gry, grn LS: gry-brn, fxln, sli fos, mstly prtly dns, pr por, NS Sh: gry, grn, some red-brn LS: wh-lt gry, fxln, sli fos, chty (wh-crm), vry chky-prtly dns, mstly pr w/ tr vug por, NS	Ran 30 stand short trip prior to DST #1 Pipe Strap @ 3935': Strap short 1.05' Straight Hole Survey @ 3935': 0.25' Dev.
				4000	LS: wh-crm, fxln, sli ool (small)-fos, sli chty (wh-crm), vry chky-prtly dns, mstly pr w/ some prly dlop ooc por, NS LS: wh-crm, fxln, sli ool-fos, sli chty (wh-crm), vry chky-prtly dns pr por, NS Sh: Black Carb LS: gry-brn, fxln, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry LS: wh-gry, fxln, sli ool (small)-fos, some calcite, sli chty (crm), sub chky-prtly dns w/ some chky-vry chky, fr intrpt-vug por, vry scat lt-drk brn sptd-sat stn, NSFO, sli odor LS: crm-tan, fxln, fos (fusl), prtly dns pr por, NS Sh: red-brn, gry, grn LS: wh-tan, fxln, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, vry scat blk deas sptd-patchy stn, NSFO, no odor Sh: grn, gry, red-brn	Mud Co/Service Mud check @ 4004': 54 Vis, 9.2 Wt, 7.8 WL, Chl 3,000 ppm, 2# LCM DST #2 3995'-4030' LKC 'H'-'J' zns IF: surface blow died in 9" FF: no blow Rec: 1' Mud w/ oil specks in tool IFP: 15-20#/30" ISIP: 21#/30" FFP: 13-15#/30" FSIP: 20#/30"
				4050	LS: wh-crm, fxln, fos in prt, some shly (red-brn, mottled), sli chty (crm), sub chky-prtly dns w/ some chky, pr-fr w/ some gd fos por, scat lt-med brn sub sat w/ tr sat stn, FSFO, vry fnt odor Sh: red-brn, gry, grn LS: wh-crm, fxln, fos in prt, sub chk-prt dns w/ some chky-vry chky, pr w/ tr fr fos por, vry scat lt brn sptd-sat stn, small amnt w/ SSFO, no odor Sh: red-brn, gry, grn LS: wh-tan, fxln, ool in prt, sub chky-prtly dns w/ some chky, pr por, NS LS: tan, fxln, dns, pr por, NS Sh: red-brn, gry, grn	DST #3 4023'-4067' LK 'I'-'J' zns IF: surface blow died in 12" FF: no blow Rec: 5' Mud IFP: 15-20#/30" ISIP: 992#/30" FFP: 21-24#/30" FSIP: 942#/30"
				4100	Sh: red-brn, gry, some gry, w/ some Sdy Sh: red-brn, vry fnt sd LS: crm-tan, fxln, sub chky-prtly dns, pr por, NS	Mud Co/Service Mud check @ 4067': 58 Vis, 9.2 Wt, 8.0 WL, Chl 2,800 ppm, 2# LCM Stark 4068' (-1537) EL B/KC 4107' (-1576) EL
				4150		L.T.D. 4135' (-1604) R.T.D. 4135' (-1604)