



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1232783
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: _____

1232783

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	Boyd "A" 1-16
Doc ID	1232783

Tops

Name	Top	Datum
Anhydrite	2664	536
Base Anhydrite	2689	511
Heebner	4063	-863
Lansing	4108	-908
Muncie Creek	4253	-1053
Stark	4338	-1138
BKC	4414	-1214
Cherokee	4578	-1378
Johnson	4658	-1458
Mississippian	4734	-1534

ALLIED OIL & GAS SERVICES, LLC 064293

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley KS
10-21-14

DATE <u>10-20-14</u>	SEC <u>10</u>	TWP <u>11</u>	RANGE <u>34</u>	CALLED OUT	ON LOCATION <u>11:00 pm</u>	JOB START <u>12:00 a.m.</u>	JOB FINISH <u>1:00 a.m.</u>
LEASE <u>30' x 1/4"</u>		WELL # <u>1-16</u>	LOCATION <u>Oakley W to Rd 310</u>		COUNTY <u>Logan</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>			<u>1 S 1/2 W Ninto</u>				

CONTRACTOR Murkin 22

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 4000'

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH 2675'

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 5 bbl water, 25.93 bbl mud

EQUIPMENT _____

OWNER Sane

CEMENT AMOUNT ORDERED 255 sks 60/40
4% gel 1/4# Flo-Seal

COMMON	@	_____
POZMIX	@	_____
GEL	@	_____
CHLORIDE	@	_____
ASC	@	_____
Lite	@	<u>255 sks @ 18.92 4834.60</u>
Material total	@	<u>4824.00</u>
(1447.38 / 30%)	@	_____
HANDLING	@	<u>2.48 679.20</u>
MILEAGE	@	<u>1644 base 15 mix 2.75 471.90</u>
TOTAL		_____

PUMP TRUCK # 120 CEMENTER Paul Beaver
HELPER Tyler Flipse / Juan

BULK TRUCK # 890/241 DRIVER Wayne Messalle

BULK TRUCK # _____ DRIVER _____

REMARKS:

mix 50 sks @ 2675' Displace w/ mud
mix 100 sks @ 1675' Displace w/ water
mix 50 sks @ 1275'
mix 10 sks @ 40' w/ plug
mix 30 sks in 2 ft.
mix 15 sks in 2 ft.

Thank you!
Paul + crew

CHARGE TO: Colbalt Energy

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB	<u>2675'</u>
PUMP TRUCK CHARGE	<u>2483.59</u>
EXTRA FOOTAGE	@ _____
MILEAGE <u>1140</u>	<u>15 @ 7.70 115.50</u>
MANIFOLD	@ _____
<u>1120</u>	<u>15 @ 4.40 66.00</u>
(1144.85 / 30%)	_____
TOTAL	<u>3816.19</u>

PLUG & FLOAT EQUIPMENT

<u>8 5/8 Industrial rubber</u>	@ _____
<u>8 5/8 wooden plug</u>	@ <u>110.00</u>
_____	@ _____
_____	@ _____
_____	@ _____
_____	@ _____
TOTAL	<u>110.00</u>

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

PRINTED NAME _____

SIGNATURE [Signature]

SALES TAX (if Any) _____

TOTAL CHARGES 8,750.79

DISCOUNT 2,592.23 / 30% IF PAID IN 30 DAYS
6,158.55 Net

ALLIED OIL & GAS SERVICES, LLC 064425

Federal Tax I.D. # 20-8651475

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

SERVICE POINT
Oakley, KS

DATE <u>10-19-14</u>	SEC. <u>16</u>	TWP. <u>11</u>	RANGE <u>34</u>	CALLED OUT	ON LOCATION <u>11:30pm</u>	JOB START <u>8:00pm</u>	JOB FINISH <u>8:30pm</u>
LEASE <u>Boyer A</u>	WELL# <u>1-16</u>	LOCATION <u>Monument W, 15,</u>			COUNTY <u>Logan</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)			<u>W & Dirfs</u>				

CONTRACTOR Marfin 22
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 TD. 225
 CASING SIZE 8 3/8 DEPTH 224.88
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT 13.43

OWNER same
 CEMENT AMOUNT ORDERED 180 SK com 3% CC
 COMMON 180 SK @ 17.90 3222.00
 POZMIX @
 GEL @
 CHLORIDE 500# @ 1.10 558.00
 ASC @

EQUIPMENT

PUMP TRUCK CEMENTER Loraine E. Wentz
 # 422 HELPER Wayne McElroy
 BULK TRUCK # 323/308 DRIVER Marco Cadarrellia (GWS)
 BULK TRUCK # DRIVER Riko Mascorro (GWS)

Material Total @ 3780.00
 (1131.24/306) @
 @
 @
 @
 @
 HANDLING 187.573 @ 2.98 468.77
 MILEAGE 222.70 x 13 @ 2.75 359.70

REMARKS:

Mix 180 SK cement
Displace with water
Cement did circulate

TOTAL _____

SERVICE

DEPTH OF JOB 224.88'
 PUMP TRUCK CHARGE 1712.23
 EXTRA FOOTAGE @
 MILEAGE MTH 15 @ 7.90 115.50
 MANIFOLD Sealage @ 225.00
MTH 15 @ 4.40 66.00

(839.15/306) TOTAL 2797.17

CHARGE TO: Cobalt Energy
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

@ _____
 @ _____
 @ _____
 @ _____
 @ _____

TOTAL _____

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 Jenny Lopez
 SIGNATURE _____

SALES TAX (If Any) _____
 TOTAL CHARGES 6,577.97
 DISCOUNT 1,973.39 (30%) IF PAID IN 30 DAYS
4,604.57 Net



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS. 67208

ATTN: Paul Gunzelman

Boyd " A" #1-16

16-11s-34w Logan,KS

Start Date: 2014.10.17 @ 23:32:00

End Date: 2014.10.18 @ 06:02:54

Job Ticket #: 57743 DST #: 1

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

Printed: 2014.10.22 @ 08:43:45



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

16-11s-34w Logan,KS

PO Box 8037
Wichita KS. 67208

Boyd " A " #1-16

Job Ticket: 57743

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2014.10.17 @ 23:32:00

GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:55

Time Test Ended: 06:02:54

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 71

Interval: 4337.00 ft (KB) To 4370.00 ft (KB) (TVD)

Reference Elevations: 3200.00 ft (KB)

Total Depth: 4370.00 ft (KB) (TVD)

3189.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8674 Inside

Press@RunDepth: 22.42 psig @ 4340.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.17

End Date:

2014.10.18

Last Calib.: 2014.10.18

Start Time: 23:32:00

End Time:

06:02:54

Time On Btm: 2014.10.18 @ 01:55:40

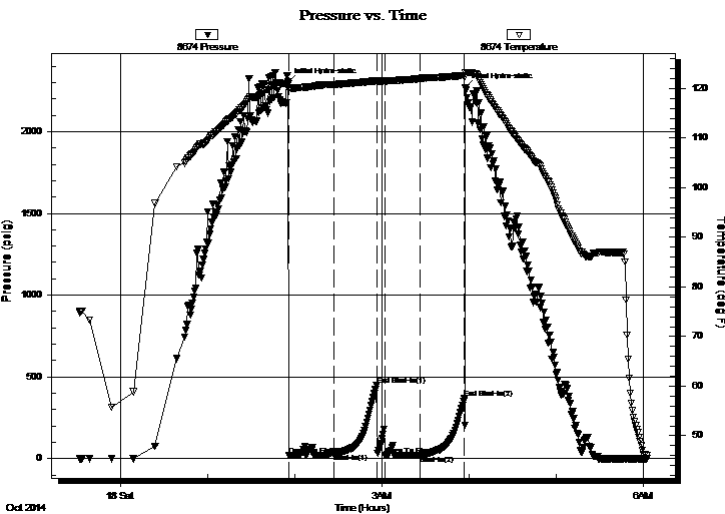
Time Off Btm: 2014.10.18 @ 03:57:39

TEST COMMENT: IF- Weak Surface Blow Died in 14 min

IS- No Blow

FF- No Blow

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2302.65	120.92	Initial Hydro-static
1	19.33	119.83	Open To Flow (1)
32	29.95	120.79	Shut-In(1)
61	447.67	121.55	End Shut-In(1)
67	21.80	121.46	Open To Flow (2)
91	22.42	121.99	Shut-In(2)
122	367.75	122.64	End Shut-In(2)
122	2271.06	123.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% mud with Oil Spots	0.02

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

16-11s-34w Logan,KS

PO Box 8037
Wichita KS. 67208

Boyd " A " #1-16

Job Ticket: 57743 **DST#: 1**

ATTN: Paul Gunzelman

Test Start: 2014.10.17 @ 23:32:00

GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:55

Time Test Ended: 06:02:54

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 71

Interval: 4337.00 ft (KB) To 4370.00 ft (KB) (TVD)

Reference Elevations: 3200.00 ft (KB)

Total Depth: 4370.00 ft (KB) (TVD)

3189.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8355 Outside

Press@RunDepth: psig @ 4340.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.10.17

End Date: 2014.10.18

Last Calib.: 2014.10.18

Start Time: 23:32:05

End Time: 06:04:14

Time On Btm:

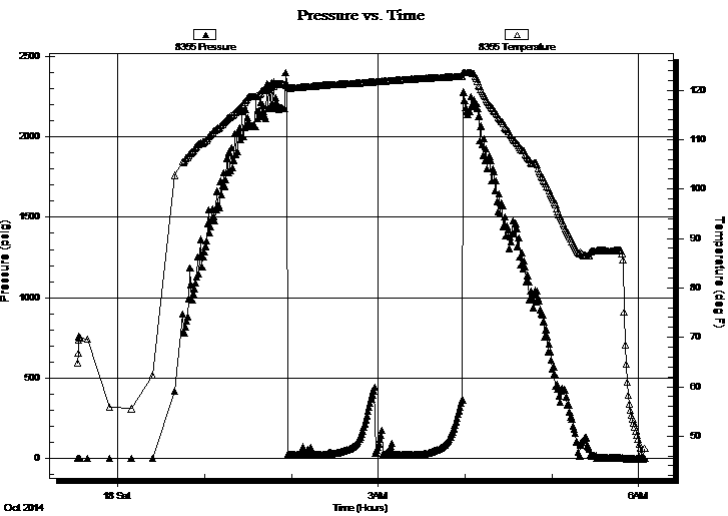
Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow Died in 14 min

IS- No Blow

FF- No Blow

FS- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% mud w with Oil Spots	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

16-11s-34w Logan,KS

PO Box 8037
Wichita KS. 67208

Boyd "A" #1-16

Job Ticket: 57743

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2014.10.17 @ 23:32:00

Tool Information

Drill Pipe:	Length: 4103.00 ft	Diameter: 3.80 inches	Volume: 57.55 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 235.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 12000.00 lb
			<u>Total Volume: 58.71 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4337.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	60.00 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			4311.00	
Shut In Tool	5.00			4316.00	
Hydraulic tool	5.00			4321.00	
Jars	5.00			4326.00	
Safety Joint	2.00			4328.00	
Packer	5.00			4333.00	27.00 Bottom Of Top Packer
Packer	4.00			4337.00	
Stubb	1.00			4338.00	
Perforations	2.00			4340.00	
Recorder	0.00	8355	Outside	4340.00	
Recorder	0.00	8674	Inside	4340.00	
Perforations	25.00			4365.00	
Bullnose	5.00			4370.00	33.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

16-11s-34w Logan,KS

PO Box 8037
Wichita KS. 67208

Boyd " A " #1-16

Job Ticket: 57743

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2014.10.17 @ 23:32:00

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: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% mud with Oil Spots	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:

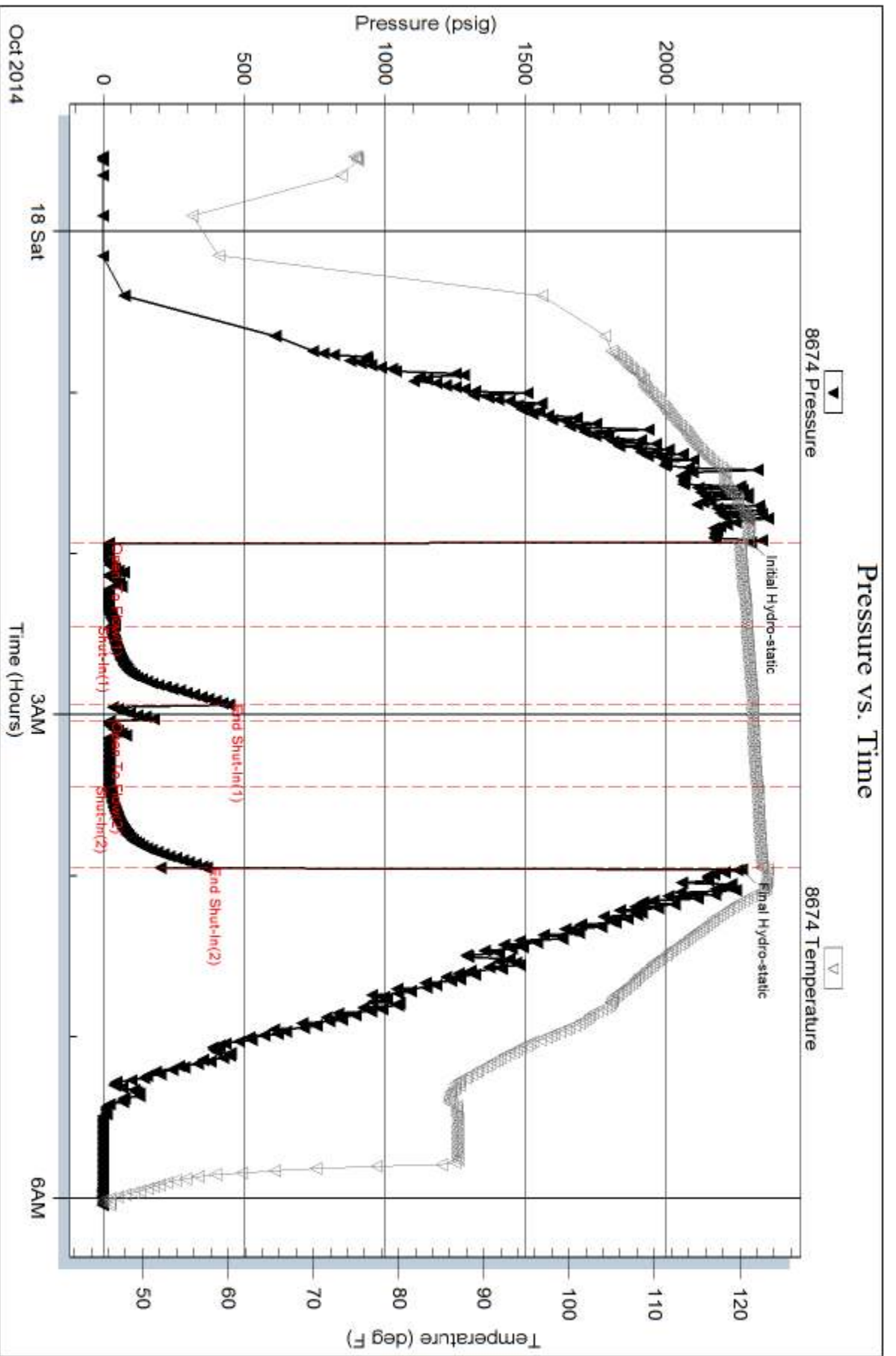
Serial #: 8674

Inside

Cobalt Energy LLC

Boyd "A" #1-16

DST Test Number: 1

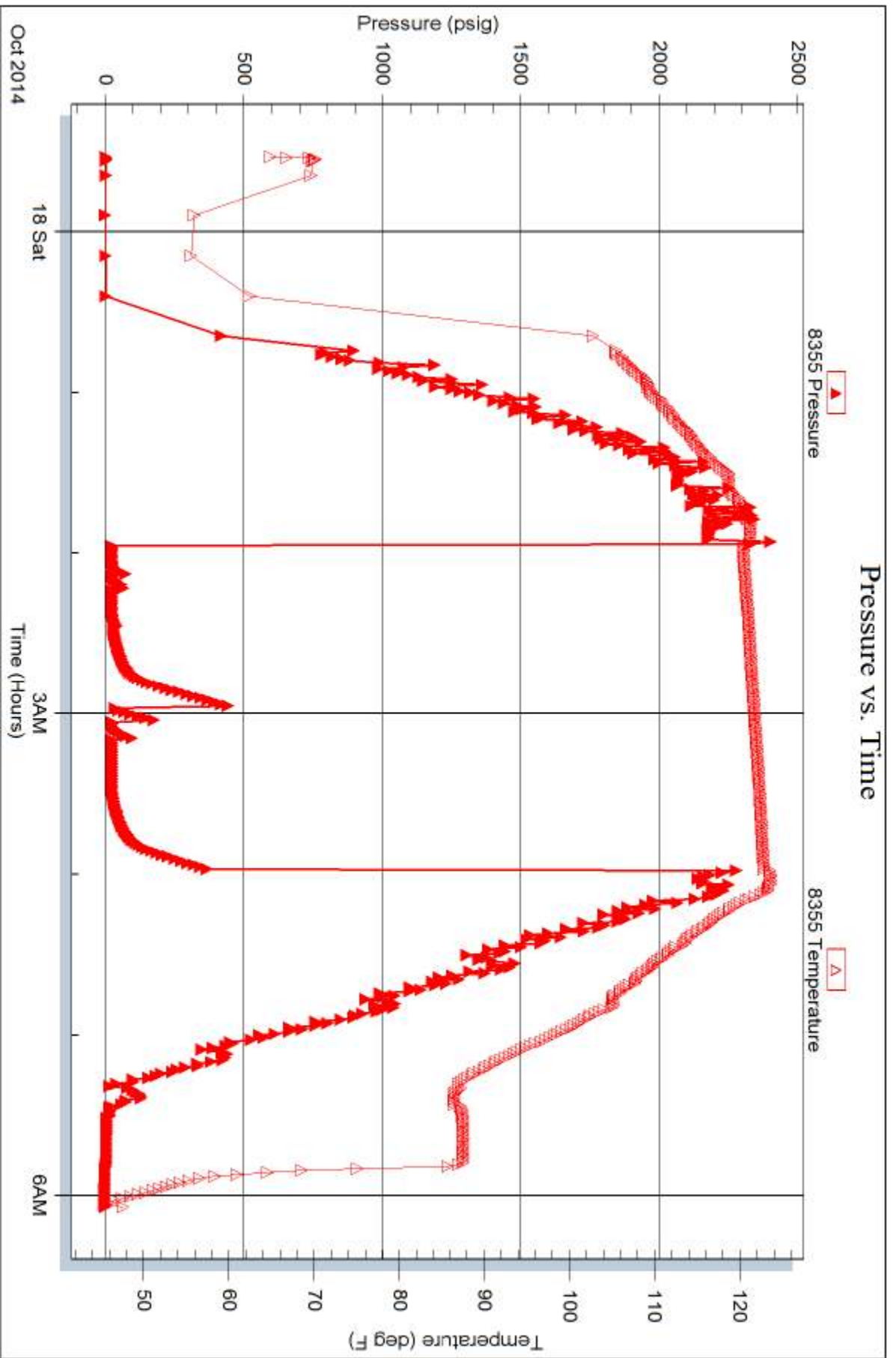


Serial #: 8355

Outside Cobalt Energy LLC

Boyd "A" #1-16

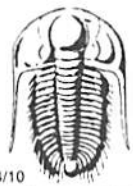
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 57743

Printed: 2014, 10, 22 @ 08:43:46



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57743

Well Name & No. Boyd "A" #1-16 Test No. DST #1 Date 10-17-14
 Company Cobalt Energy LLC Elevation 3200 KB 3189 GL
 Address P.O. Box 8037 Wichita KS 67208
 Co. Rep / Geo. Paul Gunzelman Rig Martin 22
 Location: Sec. 16 Twp. 11S Rge. 34W Co. Logan State KS

Interval Tested 4337-4370 Zone Tested LRC "K"
 Anchor Length 33 Drill Pipe Run 4103 Mud Wt. 9.2
 Top Packer Depth 4333 Drill Collars Run 235 Vis 55
 Bottom Packer Depth 4337 Wt. Pipe Run 0 WL 6.4
 Total Depth 4370 Chlorides 2800 ppm System LCM 515

Blow Description IF-Weak Surface Blow Died in 14min
ISI- No Blow
FF- No Blow
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud 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 5 BHT 123 Gravity 1250 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2302 Test 1250 T-On Location 21:46
 (B) First Initial Flow 19 Jars 250 T-Started 23:32
 (C) First Final Flow 29 Safety Joint 75 T-Open 1:55
 (D) Initial Shut-In 447 Circ Sub _____ T-Pulled 3:57
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 6:02
 (F) Second Final Flow 22 Mileage 122 RIT x 2 Comments _____
 (G) Final Shut-In 367 Sampler 189.10+189.10 He called at 7:40 AM
 (H) Final Hydrostatic 2271 Straddle _____ 10-19-14 to load tools
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1953.20 MP/DST Disc't _____

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

Approved By Paul Gunzelman

Our Representative Wim Ma

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.



GEOLOGISTS REPORT

OPERATOR **COBALT ENERGY, LLC**

LEASE **BOYD 'A' # 1-16**

LOCATION **406 FSL & 1669 FEL**

SEC. **16** TWPSP **11S** RGE **34W**

COUNTY **LOGAN** STATE **KANSAS**

FIELD **WILD CAT**

CONTRACTOR **Martin Drilling Company** RIG NO. **22**

COMMENCED **15 Oct 2014** COMPLETED **20 Oct 2014**

MUD DISPLACED **3500** MUD TYPE **Chemical**

DRILLING TIME KEPT FROM **3900** TO **4815**

SAMPLES SAVED FROM **3900** TO **4815**

SAMPLES EXAMINED FROM **3900** TO **4815**

GEOLOGICAL SUPERVISION FROM **3900** TO **4815**

GEOLOGIST ON WELL **Paul Gunzelman**

FORMATION NAME

LOG TOP DATUM

SAMPLE TOP DATUM

STONE CORRAL

Base/Anhydrite

Heebner Shale

Lansing

Stark Shale

Base/Kansas City

Marathon

Cherokee

Mississippian

Total Depth

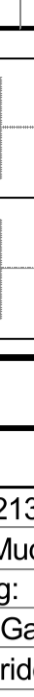
ELEVATIONS
KB **3200 Ft.**

CL **3189 Ft.**

ALL MEASUREMENTS FROM K/B

CASING RECORD
Conductor None
Surface **8 5/8" @ 225'**
Production None

ELECTRICAL SURVEYS
Pioneer Energy Services
Comp. Neutron Density
Dual Induction
Micro-resistivity



FORMATION NAME	LOG TOP	DATUM	SAMPLE TOP	DATUM
STONE CORRAL	2664	+537	2662	+538
Base/Anhydrite	2690	+510	2689	+511
Heebner Shale	4064	-864	4065	-865
Lansing	4108	-908	4107	-907
Stark Shale	4338	-1138	4338	-1138
Base/Kansas City	4414	-1214	4414	-1214
Marathon	4429	-1229	4428	-1228
Cherokee	4615	-1415	4614	-1414
Mississippian	4732	-1532	4734	-1534
Total Depth	4817	-1617	4815	-1615

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
			API 15-109-21351-00-00
			Drilling Fluids: Mud-Co/Service Mud, Inc. (Reid Atkins, engineer)
			Drill Stem Testing: Trilobite Testing, Inc. (Will MacLean, tester)
			Gas Trailer: No Gas Trailer
			Reserve Pit Chlorides: 11,000 PPM

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	2650		STONE CORRAL 2662 (+538)
	2700		BASE/ANHYDRITE 2689 (+511)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	3900		8:47 pm, 16 October 2014

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4000		HEEBNER SHALE 4065 (-865)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4100		LANSING 4107 (-907)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4200		Mud-Co mud check @ 4191' Vis: 55, Wt: 9.2, WL: 6.4 Chlor: 2,800 ppm, LCM: 5#

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4300		DST #1 4337-4370 30"-30"-30"-30" IF: Weak surface blow, died in 14 min. FF: No blow RECOVERY: 5 Ft. Mud, with Oil spots IHP: 2302 psi. FHP: 2271 psi. IFP: 19-29 psi. ISIP: 447 psi. FFP: 21-22 psi. FSIP: 367 psi. BHT: 123 deg. F.

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4350		STARK SHALE 4338 (-1138)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4400		Mud-Co mud check @ 4370. Vis: 54, Wt: 9.4, WL: 7.2 Chlor: 3,400 ppm, LCM: 3 #

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4450		BASE/KANSAS CITY 4414 (-1214)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4500		CHEROKEE 4614 (-1414)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4550		JOHNSON ZONE 4658 (-1458)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4600		MISSISSIPPIAN 4734 (-1534)

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4650		Samples very shaley to 4800'

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4700		Mud-Co mud check @ 4785' Vis: 55, Wt: 9.5, WL: 7.2 Chlor: 3,500 ppm, LCM: 3#

DRILL TIME (MIN/FT)	DEPTH	LITHOLOGY	REMARKS
	4750		TOTAL DEPTH 4815 (-1615)
	4800		9:18 AM, 19 October 2014

Operator:	COBALT ENERGY, LLC
Lease:	BOYD 'A' # 1-16
Location:	406 FSL & 1669 FEL SEC. 16 TWSP 11S RGE 34W
County:	LOGAN State: KANSAS