

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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CHARGE TO: Cobalt Energy Llc
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

TICKET 30843

PAGE 1 OF 2

SERVICE LOCATIONS 1. <u>Hays, KS</u>	WELL/PROJECT NO. <u>1-18</u>	LEASE <u>Virginia 'A'</u>	COUNTY/PARISH <u>Graham</u>	STATE <u>KS</u>	CITY	DATE <u>01/15/18</u>	OWNER
2. <u>Ness City, KS</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Murfin Drilling</u>	RIG NAME/NO. <u>#116</u>	SHIPPED VIA <u>CT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <u>Oil</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>Cement Long String</u>	WELL PERMIT NO.	WELL LOCATION		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE #113	75	mi			5.00	375.00
579		1			Pump Charge - Top to Bottom Long String	1	EA			1700.00	1700.00
290		1			D-Air	7	gal			42.00	294.00
281		1			Mud Flush	500	gal			1.25	625.00
221		1			Liquid KCl	2	gal			25.00	50.00
403		1			Cement Basket	4	EA	5 1/2"		250.00	1000.00
406		1			Latch Down Plug & Baffle	1	EA			225.00	225.00
407		1			Insert float shoe w/ Auto fill	1	EA			300.00	300.00
409		1			Turbolizer	8	EA			75.00	600.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X [Signature]
 DATE SIGNED _____ TIME SIGNED _____
 A.M.
 P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	5169.00
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?					9,940.00
WE UNDERSTOOD AND MET YOUR NEEDS?					15,109.00
OUR SERVICE WAS PERFORMED WITHOUT DELAY?					
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?					
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				TOTAL	15940.49

Graham TAX 7.5/10



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 30843

CUSTOMER: Cobalt Energy Llc
WELL: Virginia 'A' 1-18
DATE: 01/15/18
PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		U/M		UNIT PRICE	AMOUNT
		LOG	ACCT	DF			QTY	U/M	QTY	U/M		
330		2				Swift Multi Density Standard	300	SKS			15.25	4725.00
325		2				Standard Cement	150	SKS			12.25	1837.50
284		2				Calseal	14	SKS	700	lbs	30.00	420.00
283		2				Salt	800	lbs			0.20	160.00
292		2				Halad 322	70	lbs			8.00	560.00
276		2				Flocele	125	lbs			2.25	281.25
581		2				SERVICE CHARGE Cement					1.50	675.00
583		2				MILEAGE CHARGE					0.75	1281.21

SERVICE CHARGE
MILEAGE CHARGE
TOTAL WEIGHT
45,579

LOADED MILES
75

CUBIC FEET
450 SKS
TON MILES
1709.21

CONTINUATION TOTAL
9,940.66

JOB LOG

SWIFT Services, Inc.

DATE 01/15/18 PAGE NO. 1

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Cobalt Energy		1-18		Virginia A'		Cmt Long String		30843	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
	2030								On Location w/ Float Equipment.
									5 1/2" x 17# RTD 3900'
									Total Pipe 3895.43', 96 Jts Shoe Jt 36.90'
									Insert @ 3858.53
									Cmt/Turbolizers - 10, 3, 4, 5, 10, 7, 1, 8 Basket on thread end of 13, 42, 63, 71
	2045								Start Running Casing/ Float Equip.
	2310								Break Circulation on Bottom. Hook up to Swift.
	0030		8						Plug Rathole - 30 SKS Plug Mousehole - 15 SKS
	0045	5	12				300		Pump Mud Flush
		5	20				300		Pump K/L Spacer
	0100	3	141						Start Cmt 255 SKS SMD Fin SMD Cmt Start EA-2
	0200		36				Vac		Fin Cmt
	0205		3						Drop Plug, Washout Pump & Lines.
	0215	4	0				Vac		Start Displacement
			55				500		Catch Cmt
	0230	3	89 1/2				1000/1600		Fin Displacement Lift 1000 psi Land 1600 psi
	0240								Circulated 30 SKS top it. Release back, Dry. Wash up truck. Pack up
	0300								Job Complete
									Thanks Jon, Austin, Kirby, Isaac



GEOLOGIST'S REPORT
DRILL TIME &
SAMPLE LOG

COMPANY **COBALT ENERGY, LLC**
LEASE **Virginia 'A' #1-18**
FIELD **Wildcat**

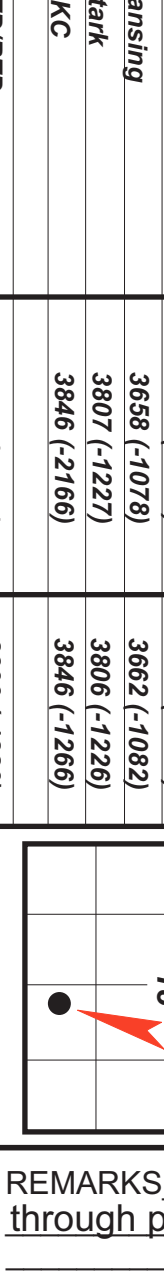
LOCATION **572' FSL & 2129' FEL**
SEC **18** TWP **6S** RGE **25W**
COUNTY **Graham** STATE **KS**
CONTRACTOR **Murfin Drilling Co., Rig #16**

SPUD **01/09/18** COMP **01/15/18**
RTD **3900'** LTD **3901'**
MUD UP **3100'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3400' to RTD**
DRILLING TIME KEPT FROM **3400'** TO **RTD**
SAMPLES EXAMINED FROM **3400'** TO **RTD**

GEOLOGICAL SUPERVISION FROM **3580' to RTD**
GEOLOGIST ON WELL **Corey N. Baker**
Pioneer Energy Services

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Anhydrite	2180 (+430)	2149 (+431)
Base of Anhydrite	2183 (+397)	2183 (+397)
Topeka	3414 (-834)	3418 (-838)
Heebner	3618 (-1038)	3620 (-1040)
Lansing	3658 (-1078)	3662 (-1082)
Stark	3807 (-1227)	3806 (-1226)
BKC	3846 (-1266)	3846 (-1266)
LTD/RTD	3901 (-1321)	3900 (-1320)



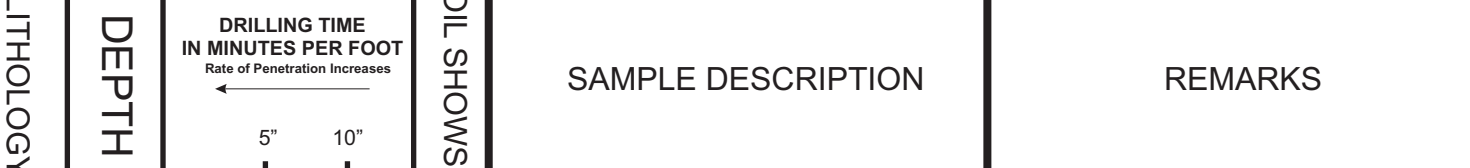
ELEVATIONS
KB **2580'**
DF _____
GL **2575'**
Measurements Are All From **KB**

REMARKS Based on DST results, 5.5" production casing was run to test the well through perforations.

Respectfully Submitted,
Corey Baker
Vice President - Exploration
Cobalt Energy, LLC

API #15-065-24145-00-00

LEGEND



DEPTH	LITHOLOGY	SAMPLE DESCRIPTION	REMARKS
2100-2150	Anhydrite		Anhydrite 2149 (+431)
2150-2200	Anhydrite		Base of Anhydrite 2183 (+397)
Skip drilling time from 2200-3400', start sample descriptions @ 3400'			
3400-3450	Topeka	LS: crm-lt gry, fn xtl, chly, foss, no vis por, ns SH: vari-color, arg	Topeka 3414 (-834)
3450-3500	Topeka	LS: crm-lt gry, vf-f xtl, scatt foss, chrt, some chly, no vis por, ns SH: vari-color, arg	
3500-3550	Topeka	LS: AA, w/abnd loose chlk LS: crm-lt gry, fn-scatt md xtl, foss (fuss), abnd loose chlk, chrt, no vis por, ns LS: AA, abnd loose chlk	
3550-3600	Topeka	LS: crm-lt gry, fn xtl, chrt, foss in prt, 2nd calc, no vis por, ns LS: crm-lt gry, vf-f xtl, chly in prt, foss in prt, some pieces chrt, no vis por, ns SH: blk-gry LS: AA, 2nd calc, abnd loose chlk LS: lt gry, vf-f xtl, chrt, foss in prt, blk, dense	
3600-3650	Topeka	LS: AA, abnd loose chlk LS: AA, abnd loose chlk	
3650-3700	Heebner	SH: Flood, blk, carb LS: gry, vf xtl, chrt, blk, dense SH: vari-color, arg	Heebner 3618 (-1038)
3700-3750	Lansing	LS: crm-lt gry, fn xtl, scatt foss, sil chly & chrt, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense SH: vari-color, arg LS: wht-lt gry, fn-scatt md xtl, scatt foss ool, chrt in prt, pr-fr intra ool & pp porosity w/tr-pr scatt vug porosity, pr-fr sfo, pr cut, brn-dk brn semi-sat to sat ptchy str, gd odor SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense LS: wht-lt gry, vf-f xtl, chly, oolletal, snf, ns, f, 8 pieces chrt, blk, few foss ool, tr-pr show oil in between edge ool, drk brn, ptchy edge str, fnt odor SH: vari-color, arg LS: AA, few pieces w/chrt, blk, drk brn str in ptchy pp & small vug porosity, fnt odor SH: vari-color, arg LS: wht-lt gry, micro-fn xtl, chrt, blk, dense. Several pieces crm-lt brn(stn), vf-f xtl, chrt, semi-granular, tr-pr intrxtln, pp & occ pr vug por, pr-fr sfo on brk, drk brn sat str, gd strng cut, occ qb, gd odor LS: wht-lt gry, vf-f xtl, chrt, blk, dense, no vis por, ns. LS: wht-lt gry, vf-f xtl, chly, few pieces w/foss ool, porosity devel in ptchy intrxtln, pp & scatt vugs. lt-hzn ptchy str, fr odor LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: crm-wht, vf xtl, chly, no vis por, ns CFS @ 3750'	
3750-3800	Lansing	SH: blk, carb SH: vari-color, soft, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns LS: lt gry-gry, matt, f xtl, foss in prt, chrt, chly in prt, no vis por, ns SH: vari-color, arg	
3800-3850	Stark	LS: crm-lt gry, f xtl, scatt foss ool, chrt, chly in prt, mostly dense, 10-15 cuttings w/tr-pr intra ool, pp & occ vug por, sec calc, tr sfo on brk, pr cut w/occ qb, drk brn sat str to semi-sat str, few pieces of drk brn/blk detrital dead oil LS: wht-lt gry, f xtl, foss ool in lite calc cem, chrt, chly in prt, mostly dense, few pieces tr-pr intrxtln & scatt vug porosity, 2-3 pieces with pr pp beads of oil on brk, ptchy lt drk brn str, vry slow cut, occ qb, vry fnt odor LS: wht-lt gry, vf-f xtl, chrt, blk, sil chly, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: cutting foss, bioclastic skeletal grmstr, w/gd intra-ool & fossil cast porosity, pr-fr sfo, ptchy to sat lt brn str, fr odor (caving?) LS: AA, some pieces chly in prt, no cuttings w/show	
3850-3900	BKC	LS: AA, SH: vari-color, arg SH: vari-color, gummy, soft SH: AA, LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces crm-lt brn(stn) in prt. 1 cutting of the fossil grmstr from above w/dec in porosity & show (from above?) SH: AA, 1 cutting of the fossil grmstr from above w/more blk, chrt, scatt tr-pr fossil cast & vug porosity & ptchy brn str (from above?) LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces chly in prt, no vis porosity, ns	

Mud-Co Check
Vis: 52
Weight: 9.0
LCM: 4#

DST #1 (3666'-3699') Lansing 'C'
Open 30" Shut-in 45" Open 60" Shut-in 90"
1st Open: Fair blow, built to B.O.B in 20"
ISI: No return blow.
2nd Open: Fair blow, built to B.O.B in 26"
FSI: No return blow.
Rec: 15' Clean Oil
127' VSWCM (10% o, 10% w, 80% m)
61' SOCMW (5% o, 55% w, 40% m)
203' Total Recovery
IFP: 27-66#
FFP: 70-114#
SIP: 1100-1101#

DST #2 (3704'-50') Lansing 'D-G'
Open 30" Shut-in 45" Open 60" Shut-in 90"
1st Open: Good blow, built to B.O.B in 6"
ISI: Blowback built to 2"
2nd Open: Good blow, built to B.O.B in 6"
FSI: Blowback built to 4"
333' GIP
Rec: 48' Clean Oil
127' VSWCM (70% o, 5% w, 25% m)
190' VSWOCM (20% o, 5% w, 75% m)
317' OCMW (10% o, 80% w, 10% m)
682' Total Recovery
IFP: 30-140#
FFP: 145-312#
SIP: 994-991#

DST #3 (3776'-3810') Kansas City 'J'
Open 30" Shut-in 45" Open 60" Shut-in 30"
1st Open: Weak surface blow, built to 1/4"
ISI: No return blow
2nd Open: Weak surface blow throughout
FSI: No return blow
Rec: 60' Oil Specked Mud
IFP: 52-54#
FFP: 55-56#
SIP: 470-270#

DST #4 (3806'-1226) Stark
Mud-Co check
Vis: 54
Weight: 9.0
LCM: 1#

DST #3 (3704'-50') Lansing 'D-G'
Rec: 15' Clean Oil
127' VSWCM (70% o, 5% w, 25% m)
190' VSWOCM (20% o, 5% w, 75% m)
317' OCMW (10% o, 80% w, 10% m)
682' Total Recovery
IFP: 24-36#
FFP: 34-42#
SIP: 895-918#

RTD
3900 (-1320)
LTD
3901 (-1321)

Chart for DST #1 (Lansing 'C & D')

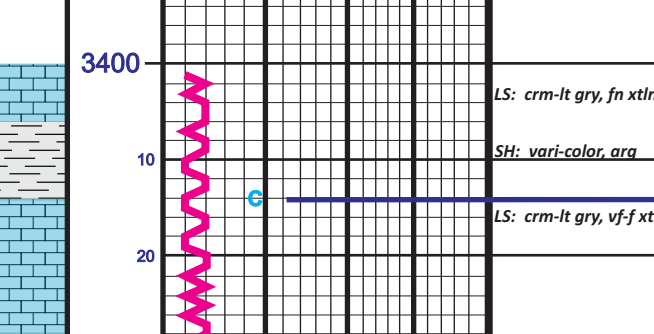


Chart for DST #1 (Lansing 'C & D')

Chart for DST #2 (Lansing 'D-G')

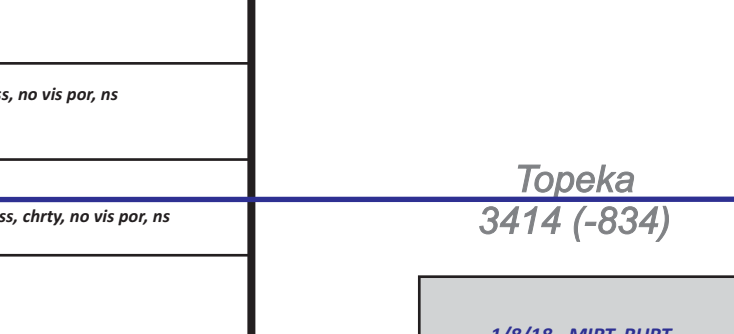


Chart for DST #2 (Lansing 'D-G')

Chart for DST #3 (Kansas City 'J')

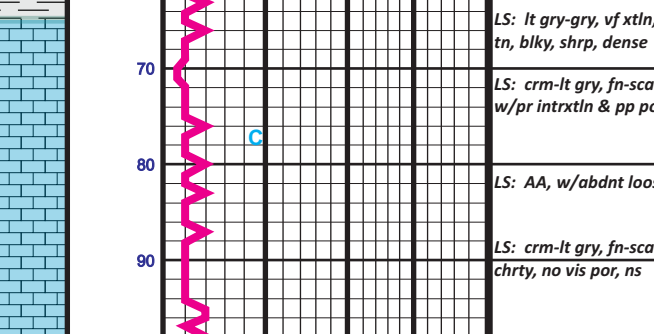


Chart for DST #3 (Kansas City 'J')

Chart for DST #4 (Kansas City 'K')

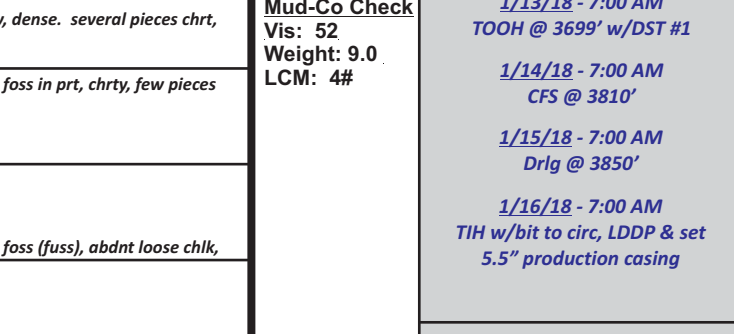


Chart for DST #4 (Kansas City 'K')

DEPTH	LITHOLOGY	SAMPLE DESCRIPTION	REMARKS
2100-2150	Anhydrite		Anhydrite 2149 (+431)
2150-2200	Anhydrite		Base of Anhydrite 2183 (+397)
Skip drilling time from 2200-3400', start sample descriptions @ 3400'			
3400-3450	Topeka	LS: crm-lt gry, fn xtl, chly, foss, no vis por, ns SH: vari-color, arg	Topeka 3414 (-834)
3450-3500	Topeka	LS: crm-lt gry, vf-f xtl, scatt foss, chrt, some chly, no vis por, ns SH: vari-color, arg	
3500-3550	Topeka	LS: AA, w/abnd loose chlk LS: crm-lt gry, fn-scatt md xtl, foss (fuss), abnd loose chlk, chrt, no vis por, ns LS: AA, abnd loose chlk	
3550-3600	Topeka	LS: crm-lt gry, fn xtl, chrt, foss in prt, 2nd calc, no vis por, ns LS: crm-lt gry, vf-f xtl, chly in prt, foss in prt, some pieces chrt, no vis por, ns SH: blk-gry LS: AA, 2nd calc, abnd loose chlk LS: lt gry, vf-f xtl, chrt, foss in prt, blk, dense	
3600-3650	Topeka	LS: AA, abnd loose chlk LS: AA, abnd loose chlk	
3650-3700	Heebner	SH: Flood, blk, carb LS: gry, vf xtl, chrt, blk, dense SH: vari-color, arg	Heebner 3618 (-1038)
3700-3750	Lansing	LS: crm-lt gry, fn xtl, scatt foss, sil chly & chrt, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense SH: vari-color, arg LS: wht-lt gry, fn-scatt md xtl, scatt foss ool, chrt in prt, pr-fr intra ool & pp porosity w/tr-pr scatt vug porosity, pr-fr sfo, pr cut, brn-dk brn semi-sat to sat ptchy str, gd odor SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense LS: wht-lt gry, vf-f xtl, chly, oolletal, snf, ns, f, 8 pieces chrt, blk, few foss ool, tr-pr show oil in between edge ool, drk brn, ptchy edge str, fnt odor SH: vari-color, arg LS: AA, few pieces w/chrt, blk, drk brn str in ptchy pp & small vug porosity, fnt odor SH: vari-color, arg LS: wht-lt gry, micro-fn xtl, chrt, blk, dense. Several pieces crm-lt brn(stn), vf-f xtl, chrt, semi-granular, tr-pr intrxtln, pp & occ pr vug por, pr-fr sfo on brk, drk brn sat str, gd strng cut, occ qb, gd odor LS: wht-lt gry, vf-f xtl, chrt, blk, dense, no vis por, ns. LS: wht-lt gry, vf-f xtl, chly, few pieces w/foss ool, porosity devel in ptchy intrxtln, pp & scatt vugs. lt-hzn ptchy str, fr odor LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: crm-wht, vf xtl, chly, no vis por, ns CFS @ 3750'	
3750-3800	Lansing	SH: blk, carb SH: vari-color, soft, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns LS: lt gry-gry, matt, f xtl, foss in prt, chrt, chly in prt, no vis por, ns SH: vari-color, arg	
3800-3850	Stark	LS: crm-lt gry, f xtl, scatt foss ool, chrt, chly in prt, mostly dense, 10-15 cuttings w/tr-pr intra ool, pp & occ vug por, sec calc, tr sfo on brk, pr cut w/occ qb, drk brn sat str to semi-sat str, few pieces of drk brn/blk detrital dead oil LS: wht-lt gry, f xtl, foss ool in lite calc cem, chrt, chly in prt, mostly dense, few pieces tr-pr intrxtln & scatt vug porosity, 2-3 pieces with pr pp beads of oil on brk, ptchy lt drk brn str, vry slow cut, occ qb, vry fnt odor LS: wht-lt gry, vf-f xtl, chrt, blk, sil chly, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: cutting foss, bioclastic skeletal grmstr, w/gd intra-ool & fossil cast porosity, pr-fr sfo, ptchy to sat lt brn str, fr odor (caving?) LS: AA, some pieces chly in prt, no cuttings w/show	
3850-3900	BKC	LS: AA, SH: vari-color, arg SH: vari-color, gummy, soft SH: AA, LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces crm-lt brn(stn) in prt. 1 cutting of the fossil grmstr from above w/dec in porosity & show (from above?) SH: AA, 1 cutting of the fossil grmstr from above w/more blk, chrt, scatt tr-pr fossil cast & vug porosity & ptchy brn str (from above?) LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces chly in prt, no vis porosity, ns	

DST #1 (3666'-3699') Lansing 'C'
Open 30" Shut-in 45" Open 60" Shut-in 90"
1st Open: Fair blow, built to B.O.B in 20"
ISI: No return blow.
2nd Open: Fair blow, built to B.O.B in 26"
FSI: No return blow.
Rec: 15' Clean Oil
127' VSWCM (10% o, 10% w, 80% m)
61' SOCMW (5% o, 55% w, 40% m)
203' Total Recovery
IFP: 27-66#
FFP: 70-114#
SIP: 1100-1101#

DST #2 (3704'-50') Lansing 'D-G'
Open 30" Shut-in 45" Open 60" Shut-in 90"
1st Open: Good blow, built to B.O.B in 6"
ISI: Blowback built to 2"
2nd Open: Good blow, built to B.O.B in 6"
FSI: Blowback built to 4"
333' GIP
Rec: 48' Clean Oil
127' VSWCM (70% o, 5% w, 25% m)
190' VSWOCM (20% o, 5% w, 75% m)
317' OCMW (10% o, 80% w, 10% m)
682' Total Recovery
IFP: 30-140#
FFP: 145-312#
SIP: 994-991#

DST #3 (3776'-3810') Kansas City 'J'
Open 30" Shut-in 45" Open 60" Shut-in 30"
1st Open: Weak surface blow, built to 1/4"
ISI: No return blow
2nd Open: Weak surface blow throughout
FSI: No return blow
Rec: 60' Oil Specked Mud
IFP: 52-54#
FFP: 55-56#
SIP: 470-270#

DST #4 (3806'-1226) Stark
Mud-Co check
Vis: 54
Weight: 9.0
LCM: 1#

DST #3 (3704'-50') Lansing 'D-G'
Rec: 15' Clean Oil
127' VSWCM (70% o, 5% w, 25% m)
190' VSWOCM (20% o, 5% w, 75% m)
317' OCMW (10% o, 80% w, 10% m)
682' Total Recovery
IFP: 24-36#
FFP: 34-42#
SIP: 895-918#

RTD
3900 (-1320)
LTD
3901 (-1321)

DEPTH	LITHOLOGY	SAMPLE DESCRIPTION	REMARKS
2100-2150	Anhydrite		Anhydrite 2149 (+431)
2150-2200	Anhydrite		Base of Anhydrite 2183 (+397)
Skip drilling time from 2200-3400', start sample descriptions @ 3400'			
3400-3450	Topeka	LS: crm-lt gry, fn xtl, chly, foss, no vis por, ns SH: vari-color, arg	Topeka 3414 (-834)
3450-3500	Topeka	LS: crm-lt gry, vf-f xtl, scatt foss, chrt, some chly, no vis por, ns SH: vari-color, arg	
3500-3550	Topeka	LS: AA, w/abnd loose chlk LS: crm-lt gry, fn-scatt md xtl, foss (fuss), abnd loose chlk, chrt, no vis por, ns LS: AA, abnd loose chlk	
3550-3600	Topeka	LS: crm-lt gry, fn xtl, chrt, foss in prt, 2nd calc, no vis por, ns LS: crm-lt gry, vf-f xtl, chly in prt, foss in prt, some pieces chrt, no vis por, ns SH: blk-gry LS: AA, 2nd calc, abnd loose chlk LS: lt gry, vf-f xtl, chrt, foss in prt, blk, dense	
3600-3650	Topeka	LS: AA, abnd loose chlk LS: AA, abnd loose chlk	
3650-3700	Heebner	SH: Flood, blk, carb LS: gry, vf xtl, chrt, blk, dense SH: vari-color, arg	Heebner 3618 (-1038)
3700-3750	Lansing	LS: crm-lt gry, fn xtl, scatt foss, sil chly & chrt, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense SH: vari-color, arg LS: wht-lt gry, fn-scatt md xtl, scatt foss ool, chrt in prt, pr-fr intra ool & pp porosity w/tr-pr scatt vug porosity, pr-fr sfo, pr cut, brn-dk brn semi-sat to sat ptchy str, gd odor SH: vari-color, arg LS: wht-lt gry, vf-f xtl, chrt, blk, dense LS: wht-lt gry, vf-f xtl, chly, oolletal, snf, ns, f, 8 pieces chrt, blk, few foss ool, tr-pr show oil in between edge ool, drk brn, ptchy edge str, fnt odor SH: vari-color, arg LS: AA, few pieces w/chrt, blk, drk brn str in ptchy pp & small vug porosity, fnt odor SH: vari-color, arg LS: wht-lt gry, micro-fn xtl, chrt, blk, dense. Several pieces crm-lt brn(stn), vf-f xtl, chrt, semi-granular, tr-pr intrxtln, pp & occ pr vug por, pr-fr sfo on brk, drk brn sat str, gd strng cut, occ qb, gd odor LS: wht-lt gry, vf-f xtl, chrt, blk, dense, no vis por, ns. LS: wht-lt gry, vf-f xtl, chly, few pieces w/foss ool, porosity devel in ptchy intrxtln, pp & scatt vugs. lt-hzn ptchy str, fr odor LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: crm-wht, vf xtl, chly, no vis por, ns CFS @ 3750'	
3750-3800	Lansing	SH: blk, carb SH: vari-color, soft, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns LS: lt gry-gry, matt, f xtl, foss in prt, chrt, chly in prt, no vis por, ns SH: vari-color, arg	
3800-3850	Stark	LS: crm-lt gry, f xtl, scatt foss ool, chrt, chly in prt, mostly dense, 10-15 cuttings w/tr-pr intra ool, pp & occ vug por, sec calc, tr sfo on brk, pr cut w/occ qb, drk brn sat str to semi-sat str, few pieces of drk brn/blk detrital dead oil LS: wht-lt gry, f xtl, foss ool in lite calc cem, chrt, chly in prt, mostly dense, few pieces tr-pr intrxtln & scatt vug porosity, 2-3 pieces with pr pp beads of oil on brk, ptchy lt drk brn str, vry slow cut, occ qb, vry fnt odor LS: wht-lt gry, vf-f xtl, chrt, blk, sil chly, no vis por, ns SH: vari-color, arg LS: wht-lt gry, vf xtl, chrt, blk, dense, no vis por, ns. LS: cutting foss, bioclastic skeletal grmstr, w/gd intra-ool & fossil cast porosity, pr-fr sfo, ptchy to sat lt brn str, fr odor (caving?) LS: AA, some pieces chly in prt, no cuttings w/show	
3850-3900	BKC	LS: AA, SH: vari-color, arg SH: vari-color, gummy, soft SH: AA, LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces crm-lt brn(stn) in prt. 1 cutting of the fossil grmstr from above w/dec in porosity & show (from above?) SH: AA, 1 cutting of the fossil grmstr from above w/more blk, chrt, scatt tr-pr fossil cast & vug porosity & ptchy brn str (from above?) LS: wht-lt gry, vf xtl, chrt, blk, dense, few pieces chly in prt, no vis porosity, ns	

Company **COBALT ENERGY, LLC** Elevation **2580' KB**
Lease **Virginia 'A' #1-18**
Location **572' FSL & 2129' FEL** SEC. **18** TWP **6S** RGE **25W**
County **Graham** State **Kansas**



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Virginia "A" #1-18

18-6S-25W Graham,KS

Start Date: 2018.01.12 @ 23:41:25

End Date: 2018.01.13 @ 09:57:00

Job Ticket #: 63343 DST #: 1

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

Printed: 2018.01.15 @ 14:02:25



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63343

DST#: 1

ATTN: Corey Baker

Test Start: 2018.01.12 @ 23:41:25

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:04:46

Time Test Ended: 09:57:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3666.00 ft (KB) To 3699.00 ft (KB) (TVD)

Reference Elevations: 2580.00 ft (KB)

Total Depth: 3699.00 ft (KB) (TVD)

2575.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 114.33 psig @ 3696.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.01.12

End Date:

2018.01.13

Last Calib.:

2018.01.13

Start Time: 23:41:26

End Time:

09:57:00

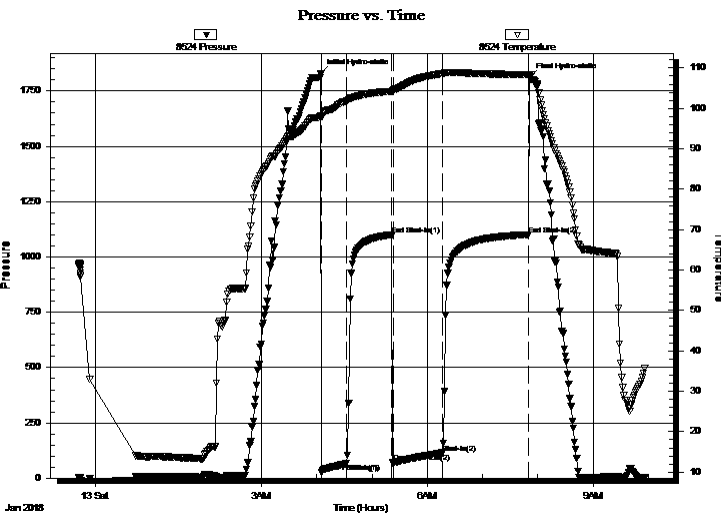
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2018.01.13 @ 04:04:16

Time Off Btm:

2018.01.13 @ 07:50:31

TEST COMMENT: 30- IF- BOB 20 mins
45- IS- No blow
60- FF- BOB 26 mins
90- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1829.82	98.22	Initial Hydro-static
1	26.57	97.88	Open To Flow (1)
29	66.33	101.87	Shut-In(1)
77	1099.91	104.21	End Shut-In(1)
79	70.31	104.34	Open To Flow (2)
132	114.33	108.63	Shut-In(2)
226	1101.05	108.36	End Shut-In(2)
227	1809.09	108.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	SOCMW, 5%O 40%M 55%W	0.60
127.00	WOCM, 10%O 10%W 80%M	1.80
15.00	CO	0.21

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

18-6S-25W Graham, KS

Virginia "A" #1-18

Job Ticket: 63343

DST#: 1

Test Start: 2018.01.12 @ 23:41:25

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:04:46

Time Test Ended: 09:57:00

Interval: 3666.00 ft (KB) To 3699.00 ft (KB) (TVD)

Total Depth: 3699.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Reference Elevations: 2580.00 ft (KB)

2575.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3696.00 ft (KB)

Start Date: 2018.01.12

End Date:

2018.01.13

Start Time: 23:41:20

End Time:

09:56:54

Capacity: 8000.00 psig

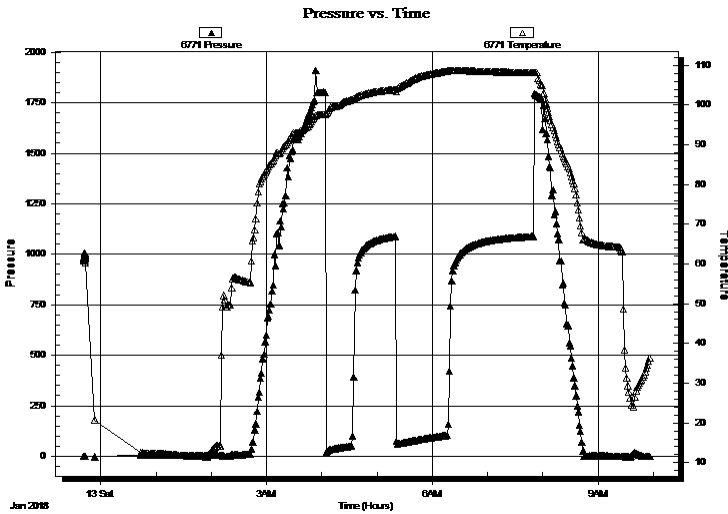
Last Calib.: 2018.01.13

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- IF- BOB 20 mins
45- IS- No blow
60- FF- BOB 26 mins
90- FS- No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
61.00	SOCMW, 5%O 40%M 55%W	0.60
127.00	WOCM, 10%O 10%W 80%M	1.80
15.00	CO	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63343

DST#: 1

ATTN: Corey Baker

Test Start: 2018.01.12 @ 23:41:25

Tool Information

Drill Pipe:	Length: 3643.00 ft	Diameter: 3.82 inches	Volume: 51.64 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	46000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3666.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.00 ft				
Tool Length:	56.00 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			3644.00	
Shut In Tool	5.00			3649.00	
Hydraulic tool	5.00			3654.00	
Safety Joint	3.00			3657.00	
Packer	5.00			3662.00	23.00 Bottom Of Top Packer
Packer	4.00			3666.00	
Stubb	1.00			3667.00	
Perforations	29.00			3696.00	
Recorder	0.00	6771	Inside	3696.00	
Recorder	0.00	8524	Outside	3696.00	
Bullnose	3.00			3699.00	33.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63343

DST#: 1

ATTN: Corey Baker

Test Start: 2018.01.12 @ 23:41:25

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

93000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
61.00	SOCMW, 5%O 40%M 55%W	0.596
127.00	WOCM, 10%O 10%W 80%M	1.800
15.00	CO	0.213

Total Length: 203.00 ft Total Volume: 2.609 bbl

Num Fluid Samples: 0

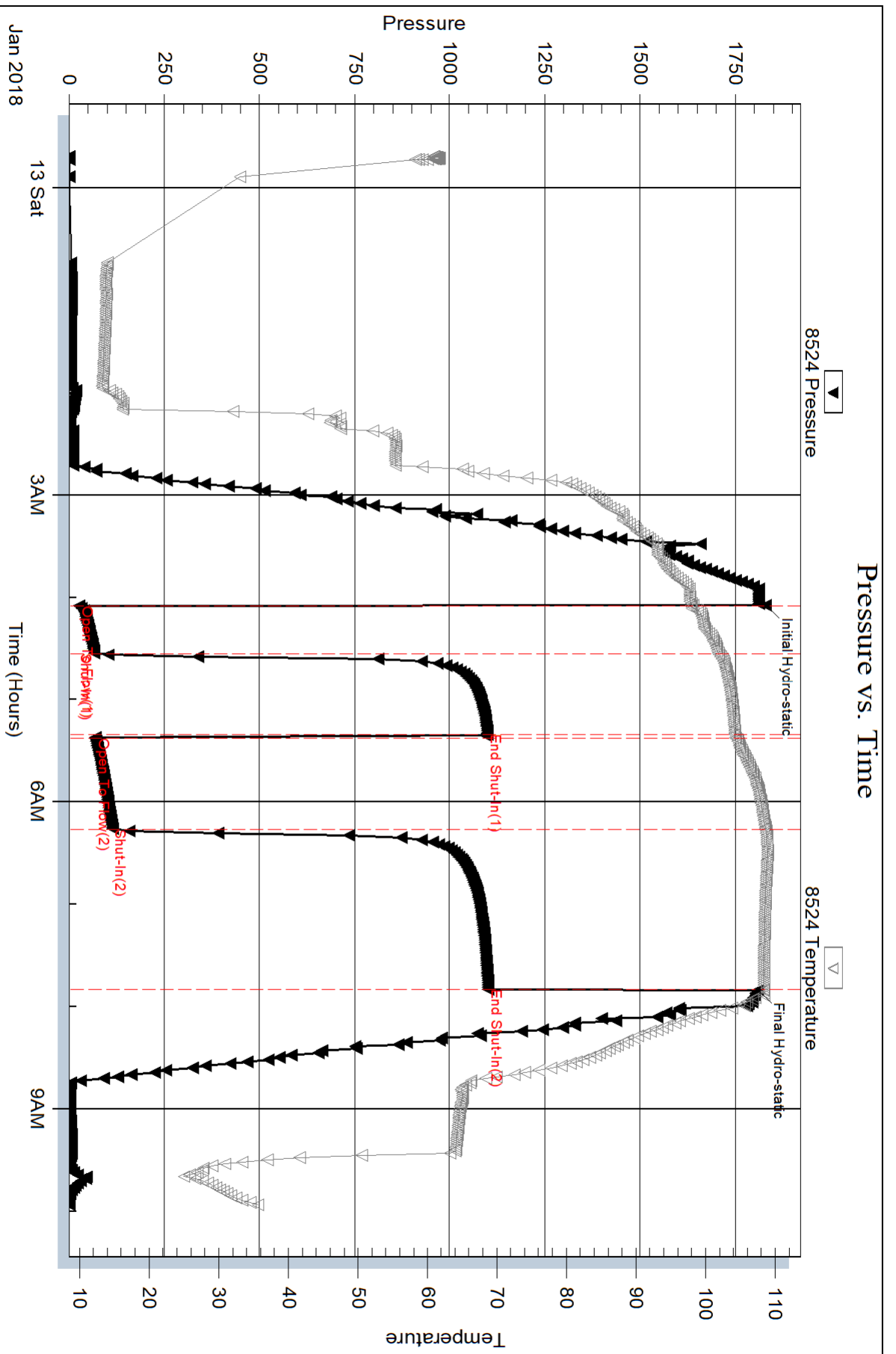
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .10@50deg



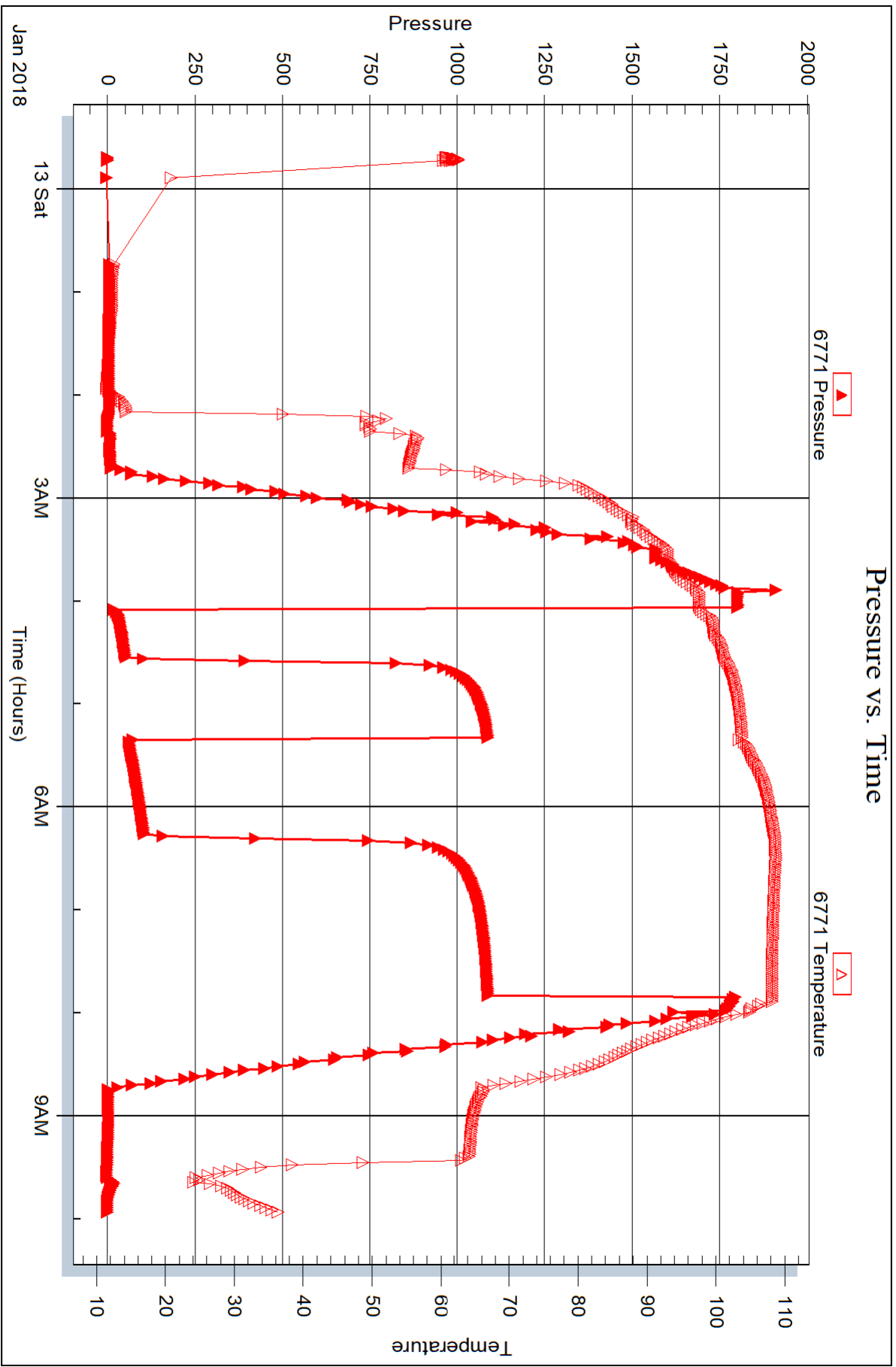
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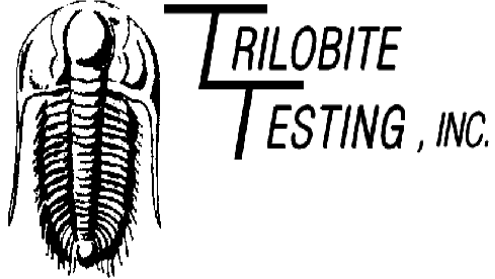
Inside

Cobalt Energy, LLC

Virginia "A" #1-18

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Virginia "A" #1-18

18-6S-25W Graham,KS

Start Date: 2018.01.13 @ 17:03:57

End Date: 2018.01.14 @ 01:10:33

Job Ticket #: 63344 DST #: 2

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

Printed: 2018.01.15 @ 14:01:57

Cobalt Energy, LLC
18-6S-25W Graham,KS
Virginia "A" #1-18
DST # 2
LKC "D-G"
2018.01.13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

ATTN: Corey Baker

Job Ticket: 63344

DST#: 2

Test Start: 2018.01.13 @ 17:03:57

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:52:18

Time Test Ended: 01:10:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3704.00 ft (KB) To 3750.00 ft (KB) (TVD)

Reference Elevations: 2580.00 ft (KB)

Total Depth: 3750.00 ft (KB) (TVD)

2575.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: 312.34 psig @ 3713.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.01.13

End Date:

2018.01.14

Last Calib.:

2018.01.14

Start Time: 17:03:58

End Time:

01:10:33

Time On Btm:

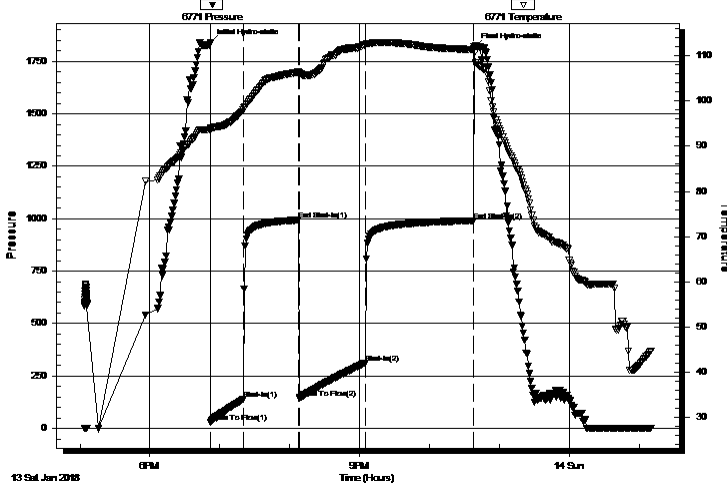
2018.01.13 @ 18:52:03

Time Off Btm:

2018.01.13 @ 22:38:18

TEST COMMENT: 30- IF- BOB 6 mins
45- IS- Slow ly built to 2"
60- FF- BOB 6 mins
90- FSI- Slow ly built to 4"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.34	94.10	Initial Hydro-static
1	30.26	93.62	Open To Flow (1)
28	139.71	98.03	Shut-In(1)
76	993.55	106.39	End Shut-In(1)
77	144.63	106.19	Open To Flow (2)
133	312.34	112.49	Shut-In(2)
226	990.50	111.34	End Shut-In(2)
227	1817.76	111.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
317.00	OCMW, 10%O 80%W 10%M	4.23
190.00	WOCM, 20%O 5%W 75%M	2.69
127.00	WMCO, 70%O 5%W 25%M	1.80
48.00	CO	0.68
0.00	333' GIP	0.00

* 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

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63344

DST#: 2

ATTN: Corey Baker

Test Start: 2018.01.13 @ 17:03:57

Tool Information

Drill Pipe:	Length: 3676.00 ft	Diameter: 3.82 inches	Volume: 52.11 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 53000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3704.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	69.00 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			3682.00	
Shut In Tool	5.00			3687.00	
Hydraulic tool	5.00			3692.00	
Safety Joint	3.00			3695.00	
Packer	5.00			3700.00	23.00 Bottom Of Top Packer
Packer	4.00			3704.00	
Stubb	1.00			3705.00	
Perforations	8.00			3713.00	
Recorder	0.00	6771	Inside	3713.00	
Recorder	0.00	8524	Outside	3713.00	
Change Over Sub	1.00			3714.00	
Drill Pipe	32.00			3746.00	
Change Over Sub	1.00			3747.00	
Bullnose	3.00			3750.00	46.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63344

DST#: 2

ATTN: Corey Baker

Test Start: 2018.01.13 @ 17:03:57

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

62000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
317.00	OCMW, 10%O 80%W 10%M	4.225
190.00	WOCM, 20%O 5%W 75%M	2.693
127.00	WMCO, 70%O 5%W 25%M	1.800
48.00	CO	0.680
0.00	333' GIP	0.000

Total Length: 682.00 ft Total Volume: 9.398 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

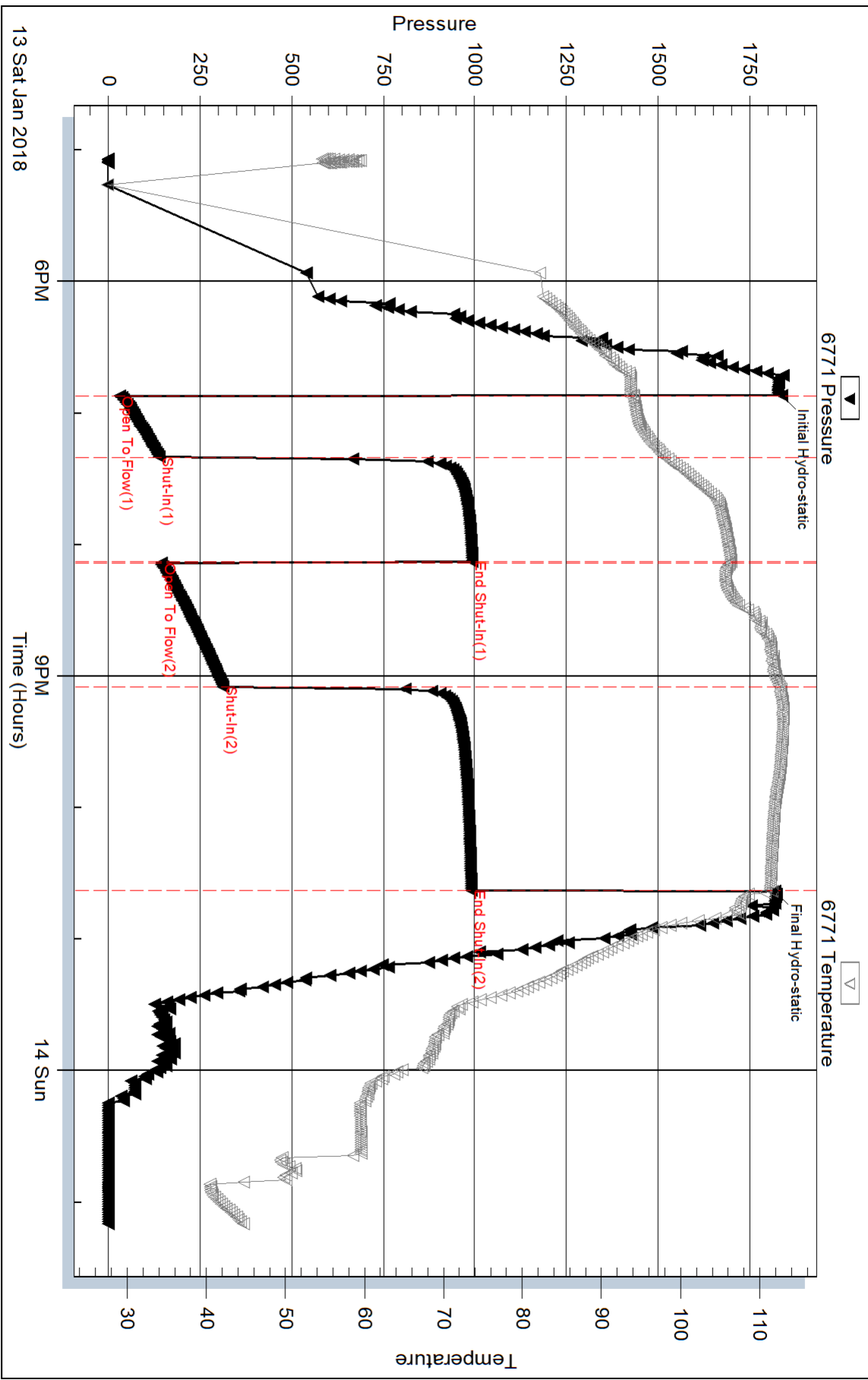
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .17@45deg

Pressure vs. Time

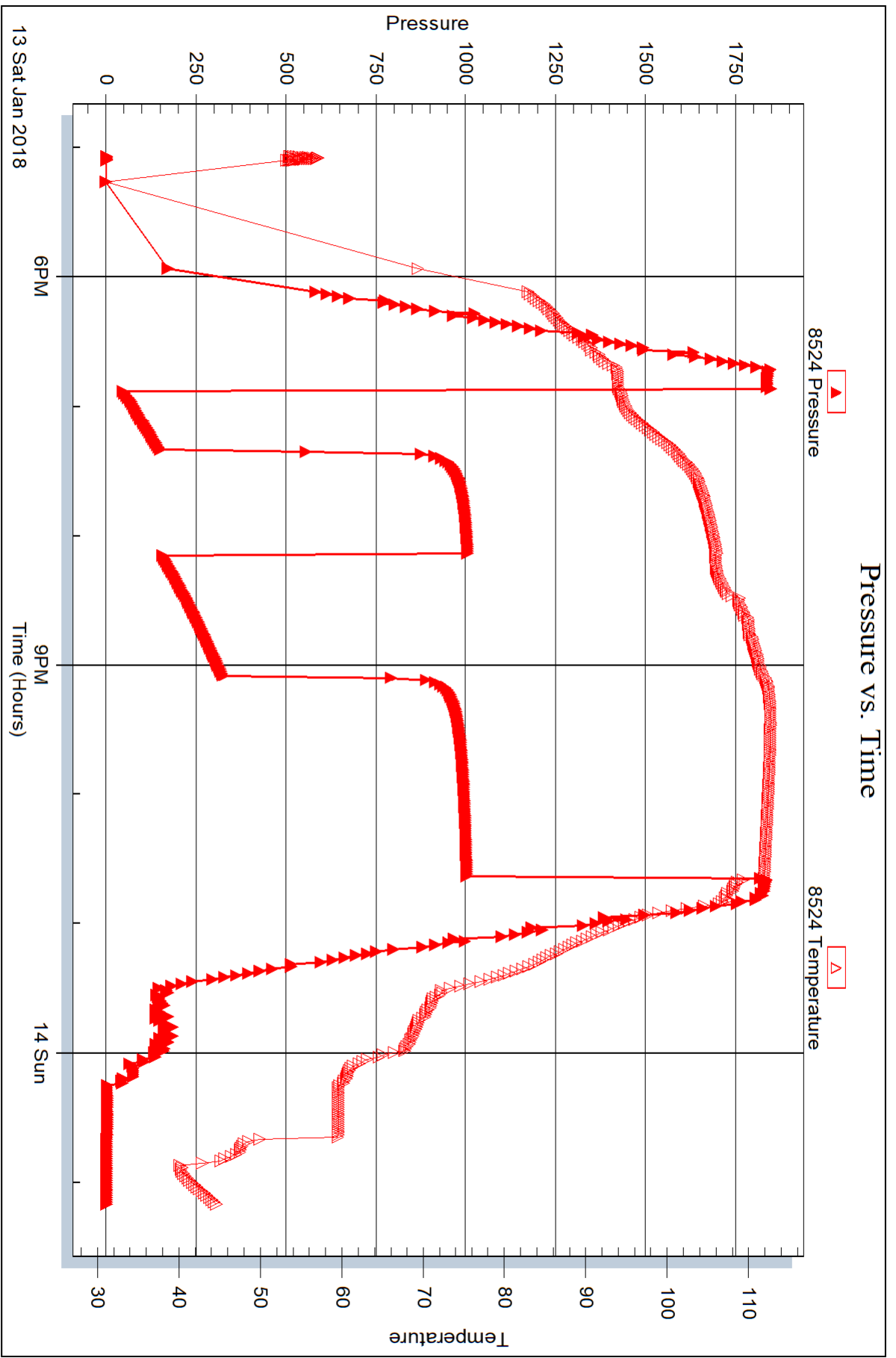


Serial #: 8524

Outside Cobalt Energy, LLC

Virginia "A" #1-18

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63344

Printed: 2018.01.15 @ 14:01:58



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Virginia "A" #1-18

18-6S-25W Graham,KS

Start Date: 2018.01.14 @ 08:43:01

End Date: 2018.01.14 @ 14:08:22

Job Ticket #: 63345 DST #: 3

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

Printed: 2018.01.15 @ 14:01:30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63345

DST#: 3

ATTN: Corey Baker

Test Start: 2018.01.14 @ 08:43:01

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:39:37

Time Test Ended: 14:08:22

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3776.00 ft (KB) To 3810.00 ft (KB) (TVD)

Reference Elevations: 2580.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD)

2575.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 55.96 psig @ 3807.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.01.14

End Date:

2018.01.14

Last Calib.:

2018.01.14

Start Time: 08:43:02

End Time:

14:08:22

Time On Btm:

2018.01.14 @ 10:39:22

Time Off Btm:

2018.01.14 @ 12:39:52

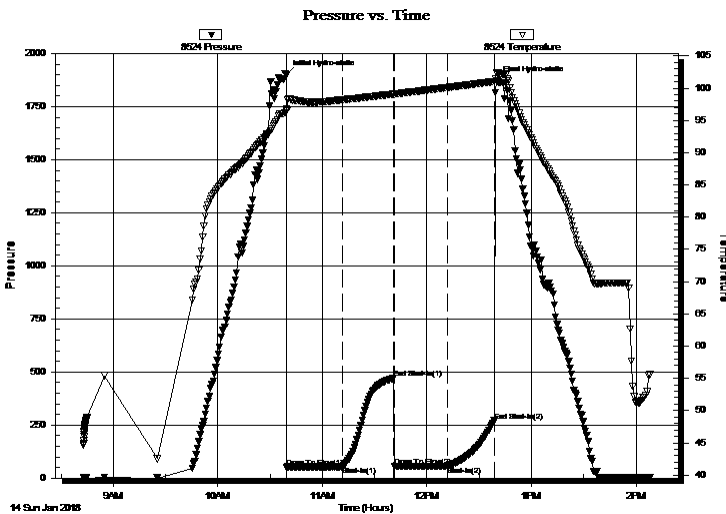
TEST COMMENT: 30- IF- Slowly built to 1/4"

30- IS- No blow

30- FF- Surface blow

30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1898.71	96.74	Initial Hydro-static
1	52.30	96.52	Open To Flow (1)
32	54.12	98.23	Shut-In(1)
62	469.51	99.10	End Shut-In(1)
63	55.23	99.05	Open To Flow (2)
93	55.96	100.11	Shut-In(2)
120	270.16	101.04	End Shut-In(2)
121	1871.73	102.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSM	0.58

* 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

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63345

DST#: 3

ATTN: Corey Baker

Test Start: 2018.01.14 @ 08:43:01

Tool Information

Drill Pipe:	Length: 3739.00 ft	Diameter: 3.82 inches	Volume: 53.00 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 6.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3776.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	57.00 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			3754.00	
Shut In Tool	5.00			3759.00	
Hydraulic tool	5.00			3764.00	
Safety Joint	3.00			3767.00	
Packer	5.00			3772.00	23.00 Bottom Of Top Packer
Packer	4.00			3776.00	
Stubb	1.00			3777.00	
Perforations	30.00			3807.00	
Recorder	0.00	6771	Inside	3807.00	
Recorder	0.00	8524	Outside	3807.00	
Bullnose	3.00			3810.00	34.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63345

DST#: 3

ATTN: Corey Baker

Test Start: 2018.01.14 @ 08:43:01

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OSM	0.582

Total Length: 60.00 ft Total Volume: 0.582 bbl

Num Fluid Samples: 0

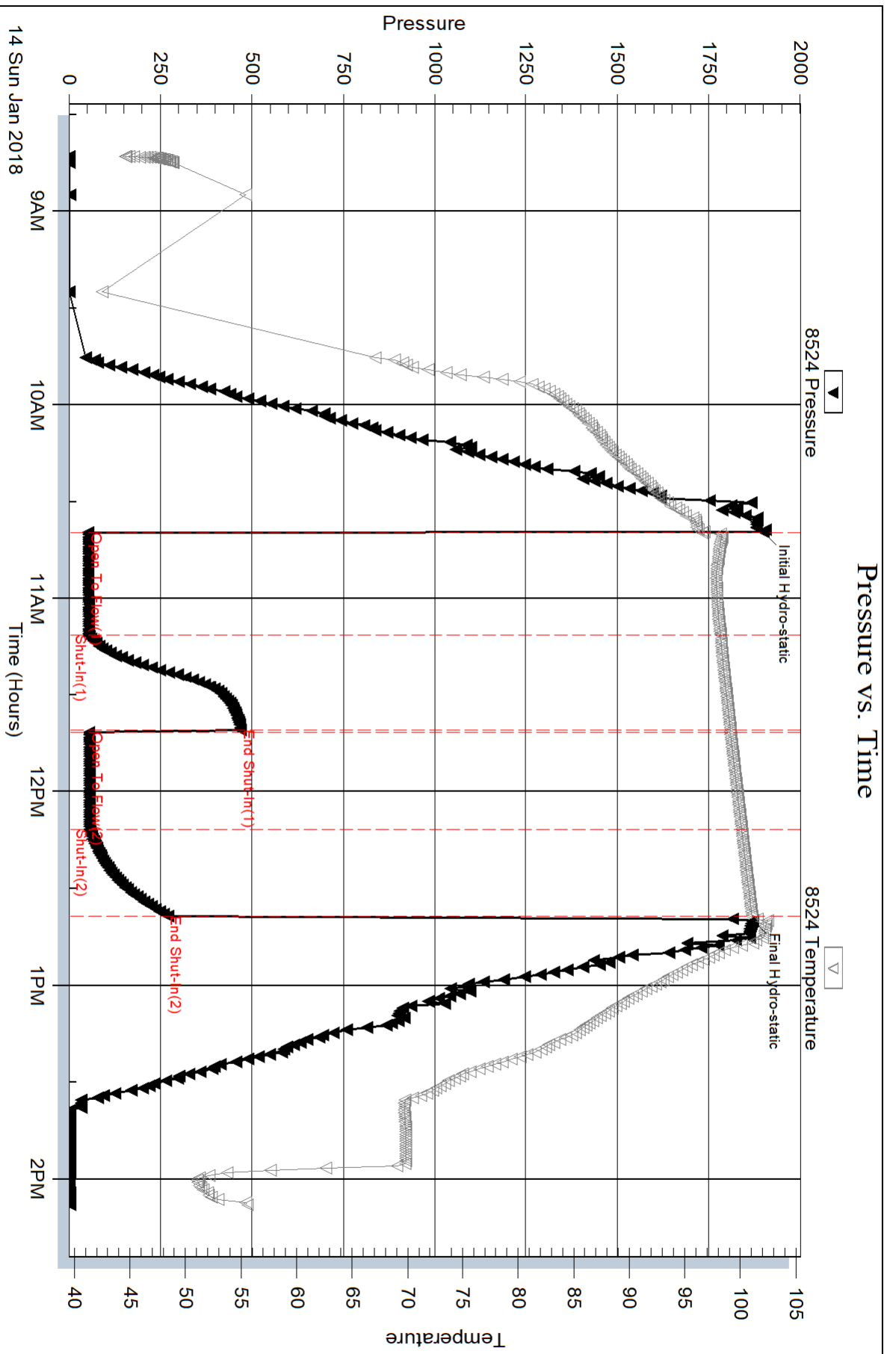
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



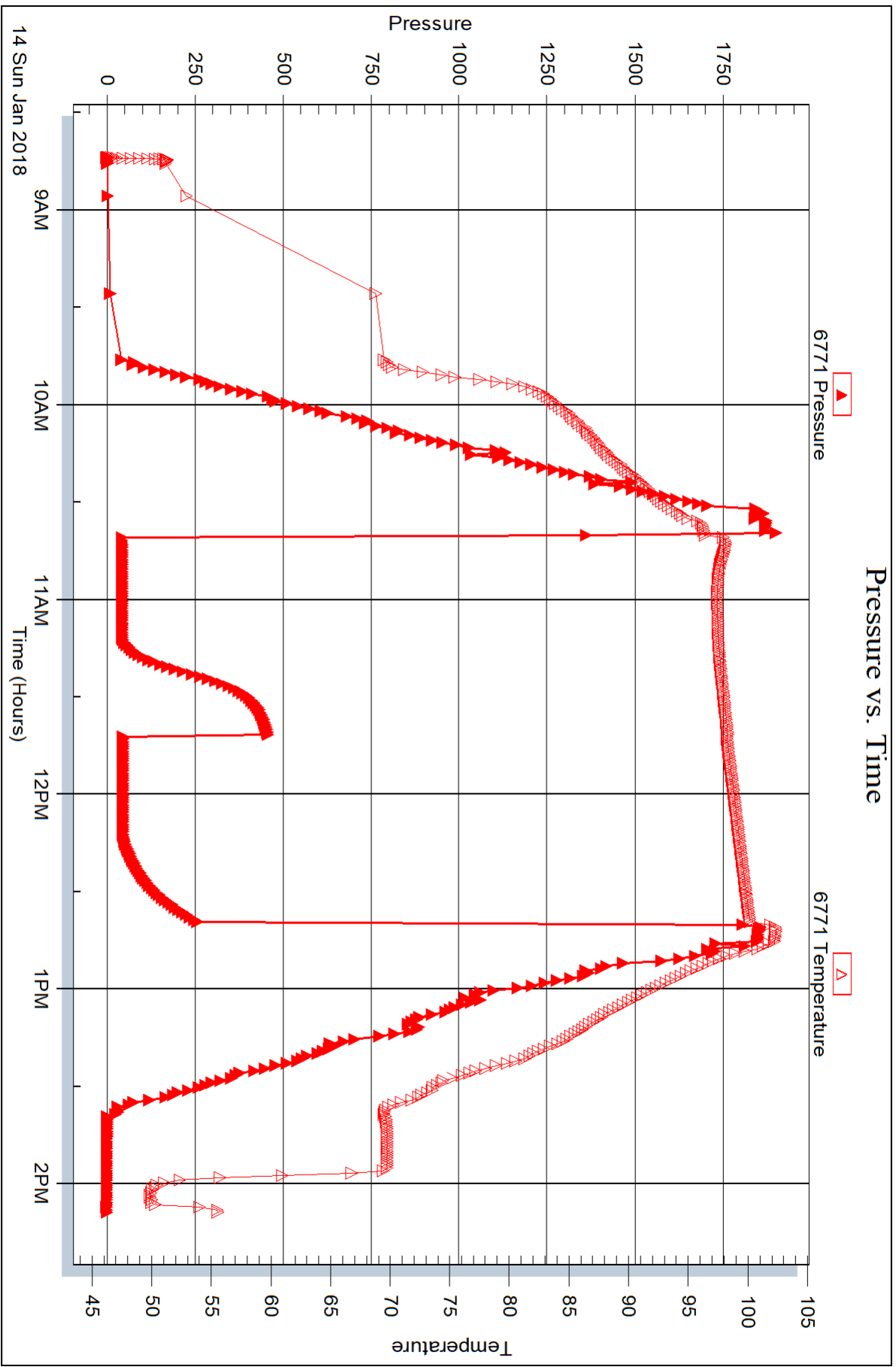
Serial #: 6771

Inside

Cobalt Energy, LLC

Virginia "A" #1-18

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Virginia "A" #1-18

18-6S-25W Graham,KS

Start Date: 2018.01.14 @ 19:55:11

End Date: 2018.01.15 @ 03:13:32

Job Ticket #: 63346 DST #: 4

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

Printed: 2018.01.15 @ 14:01:06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

18-6S-25W Graham, KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63346

DST#: 4

ATTN: Corey Baker

Test Start: 2018.01.14 @ 19:55:11

GENERAL INFORMATION:

Formation: **LKC "K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:42:32
 Time Test Ended: 03:13:32
 Interval: **3806.00 ft (KB) To 3825.00 ft (KB) (TVD)**
 Total Depth: 3825.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2580.00 ft (KB)
 2575.00 ft (CF)
 KB to GR/CF: 5.00 ft

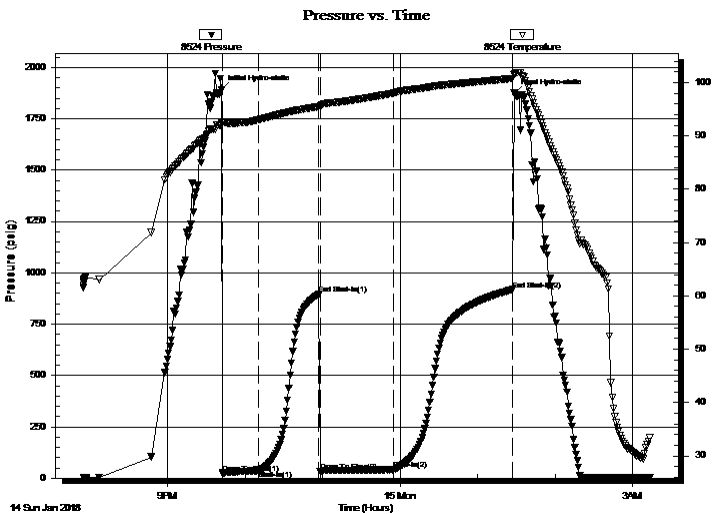
Serial #: 8524

Outside

Press@RunDepth: 41.69 psig @ 3822.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.01.14 End Date: 2018.01.15 Last Calib.: 2018.01.15
 Start Time: 19:55:12 End Time: 03:13:32 Time On Btm: 2018.01.14 @ 21:42:02
 Time Off Btm: 2018.01.15 @ 01:28:17

TEST COMMENT: 30- IF- Slow ly built to 2 1/2"
 45- IS- No blow
 60- FF- Slow ly built to 5"
 90- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1889.37	92.38	Initial Hydro-static
1	24.25	92.48	Open To Flow (1)
29	35.83	93.02	Shut-In(1)
75	894.85	95.48	End Shut-In(1)
77	34.12	95.65	Open To Flow (2)
133	41.69	98.04	Shut-In(2)
225	917.79	100.75	End Shut-In(2)
227	1873.46	101.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM, 30%O 70%M	0.16
15.00	CO	0.21
0.00	15' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

18-6S-25W Graham, KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

ATTN: Corey Baker

Job Ticket: 63346

DST#: 4

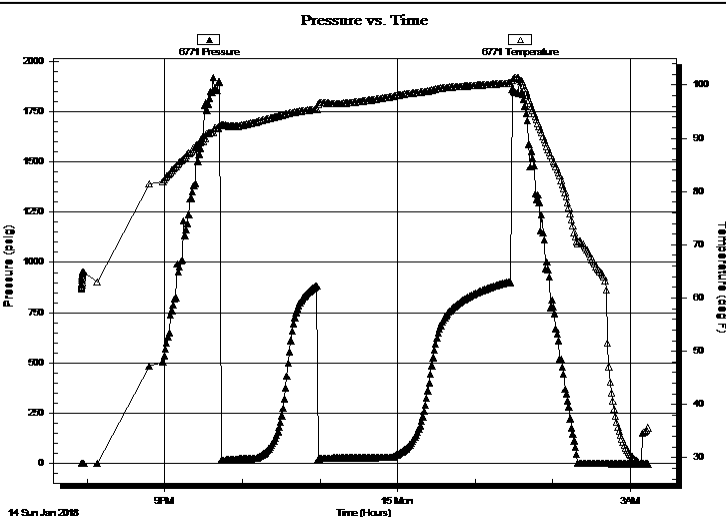
Test Start: 2018.01.14 @ 19:55:11

GENERAL INFORMATION:

Formation: **LKC "K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:42:32
 Time Test Ended: 03:13:32
Interval: 3806.00 ft (KB) To 3825.00 ft (KB) (TVD)
 Total Depth: 3825.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2580.00 ft (KB)
 2575.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**
 Press@RunDepth: psig @ 3822.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.01.14 End Date: 2018.01.15 Last Calib.: 2018.01.15
 Start Time: 19:55:42 End Time: 03:13:47 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30- IF- Slow ly built to 2 1/2"
 45- IS- No blow
 60- FF- Slow ly built to 5"
 90- FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM, 30%O 70%M	0.16
15.00	CO	0.21
0.00	15' GIP	0.00

* 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

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63346

DST#: 4

ATTN: Corey Baker

Test Start: 2018.01.14 @ 19:55:11

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.82 inches	Volume: 53.44 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3806.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	42.00 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			3784.00	
Shut In Tool	5.00			3789.00	
Hydraulic tool	5.00			3794.00	
Safety Joint	3.00			3797.00	
Packer	5.00			3802.00	23.00 Bottom Of Top Packer
Packer	4.00			3806.00	
Stubb	1.00			3807.00	
Perforations	15.00			3822.00	
Recorder	0.00	6771	Inside	3822.00	
Recorder	0.00	8524	Outside	3822.00	
Bullnose	3.00			3825.00	19.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

18-6S-25W Graham,KS

PO Box 8037
Wichita, KS 67208

Virginia "A" #1-18

Job Ticket: 63346

DST#: 4

ATTN: Corey Baker

Test Start: 2018.01.14 @ 19:55:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	OCM, 30%O 70%M	0.157
15.00	CO	0.213
0.00	15' GIP	0.000

Total Length: 45.00 ft Total Volume: 0.370 bbl

Num Fluid Samples: 0

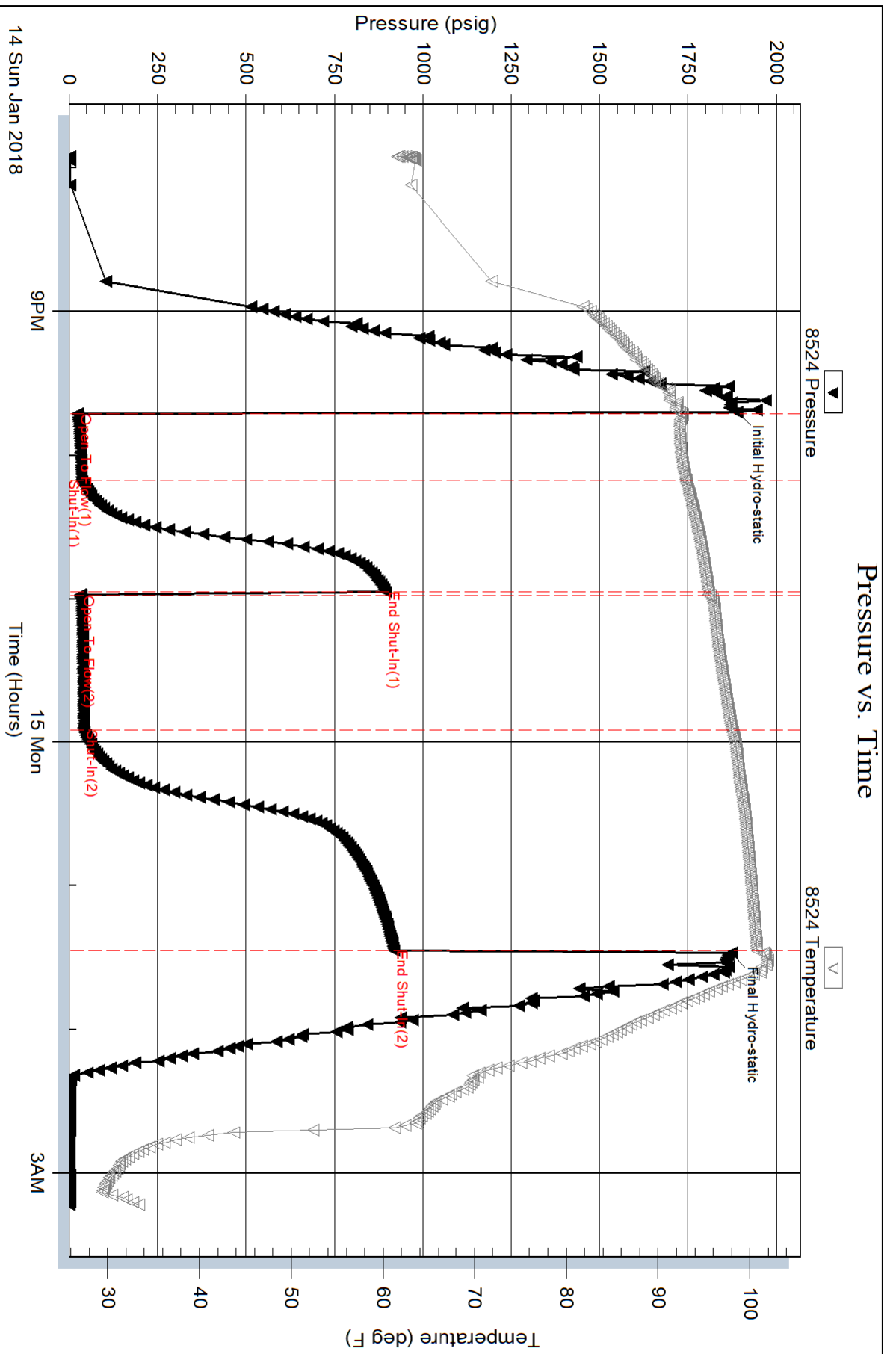
Num Gas Bombs: 0

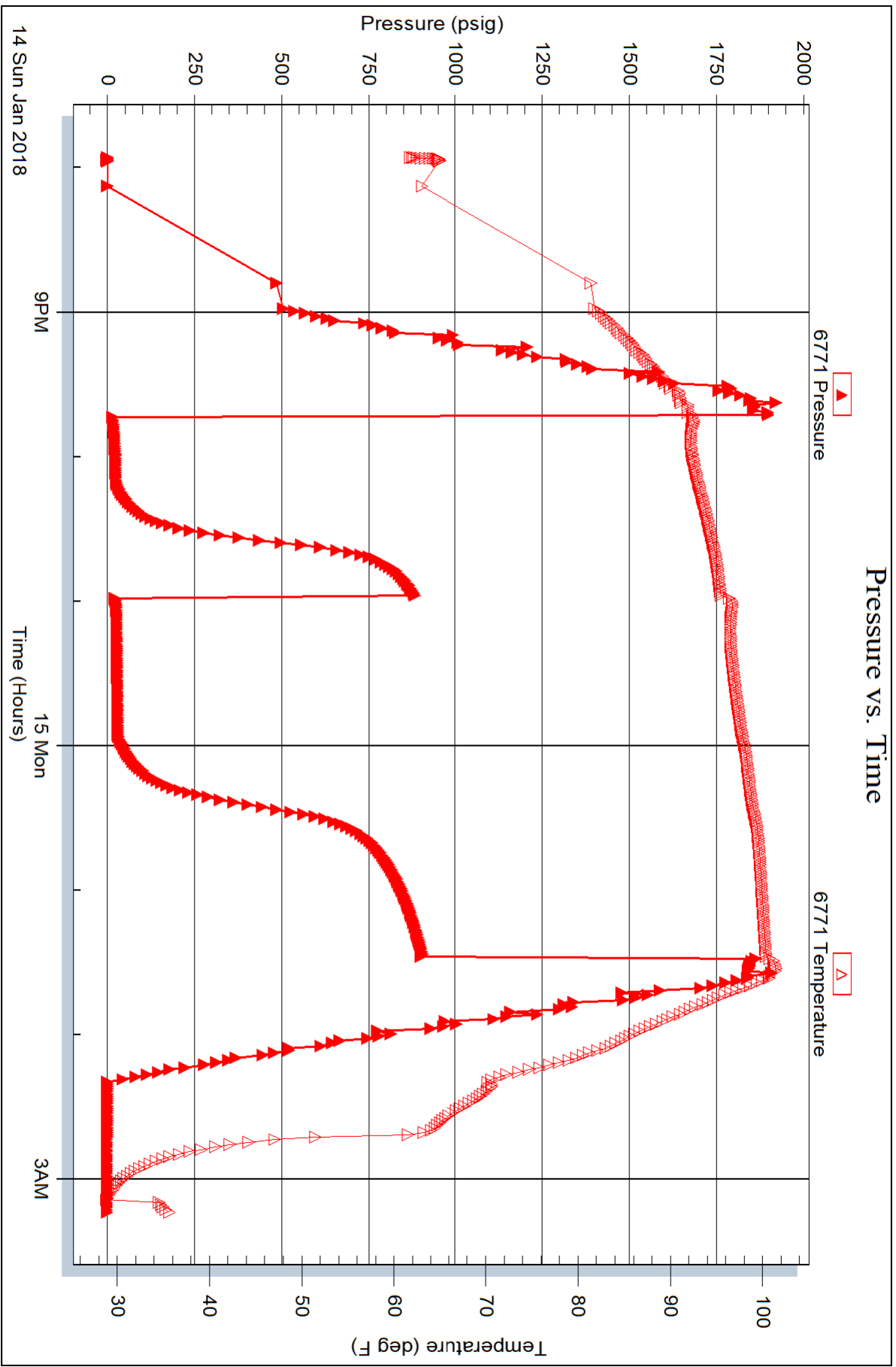
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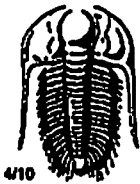
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63343

Well Name & No. Virginia "A" #1-18 Test No. 1 Date 1/13/18
 Company Cobalt Energy, LLC Elevation 2580 KB 2575 GL
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murfin #16
 Location: Sec. 18 Twp 6 S Rge. 25 W Co. Graham State KS

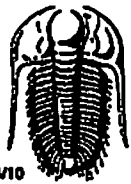
Interval Tested 3666-3699 Zone Tested Lansing "C"
 Anchor Length 33' Drill Pipe Run 3643 Mud Wt. 8.5
 Top Packer Depth 3661 Drill Collars Run 29 Vis 63
 Bottom Packer Depth 3666 Wt. Pipe Run _____ WL 7.2
 Total Depth 3699 Chlorides 1800 ppm System LCM _____
 Blow Description IF- BOB 20mins
ISF- No blow
FF- BOB 26mins
FSF- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>61</u>	<u>SO CMW</u>	<u>5</u>	<u>55</u>	<u>40</u>	<u>40</u>
<u>127</u>	<u>SOSWM</u>	<u>10</u>	<u>10</u>	<u>80</u>	<u>80</u>
<u>15</u>	<u>CO</u>				

Rec Total 203 BHT 108° Gravity 34 API RW .10 @ 50° F Chlorides 9300 ppm
 (A) Initial Hydrostatic 1830 Test 1050 T-On Location 1/12 2257
 (B) First Initial Flow 27 Jars _____ T-Started 2341
 (C) First Final Flow 66 Safety Joint 75 T-Open 0404
 (D) Initial Shut-In 1100 Circ Sub _____ T-Pulled 0749
 (E) Second Initial Flow 70 Hourly Standby 2h 160 T-Out 0956
 (F) Second Final Flow 114 Mileage 178 RT 124rt 93
 (G) Final Shut-In 1101 Sampler _____
 (H) Final Hydrostatic 1809 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 45 Extra Recorder _____
 Final Flow 60 Day Standby _____
 Final Shut-In 90 Accessibility _____
 Sub Total 1378 MP/DST Disc't _____

Approved By _____ Our Representative Brennan Lonsdale

TriLOBITE Testing Inc. shall not be liable for damaged or 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. 63344

Well Name & No. Virginia "A" #1-18 Test No. 2 Date 1/13/18
 Company Cobalt Energy, LLC Elevation 2580 KB 2575 GL
 Address 115 S. Belmont #12 PO Box #037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Martin #16
 Location: Sec. 18 Twp 6 S Rge. 25 W Co. Graham State KS

Interval Tested 3704-3750 Zone Tested Lansing "D-G"
 Anchor Length 46' Drill Pipe Run 3676 Mud Wt. 8.9
 Top Packer Depth 3699 Drill Collars Run 29 Vis 58
 Bottom Packer Depth 3704 Wt. Pipe Run — WL 6.8
 Total Depth 3750 Chlorides 2,600 ppm System LCM 2nd

Blow Description IF- BOB 6 mins
ISF- Slushy built to 2"
FF- BOB 6 mins
FSF- Slushy built to 4"

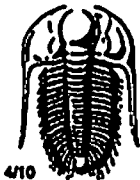
Rec	Feet of	%gas	%oil	%water	%mud
<u>317</u>	<u>SCMW</u>	<u>10</u>	<u>50</u>	<u>10</u>	<u>30</u>
<u>190</u>	<u>WOCM</u>	<u>20</u>	<u>5</u>	<u>75</u>	<u>0</u>
<u>127</u>	<u>WMCO</u>	<u>70</u>	<u>5</u>	<u>25</u>	<u>0</u>
<u>48</u>	<u>CO</u>				
	<u>333 GTP</u>				

Rec Total 682' BHT 23 Gravity 33 API RW 17 @ 45° F Chlorides 6300 ppm

(A) Initial Hydrostatic 1837 Test 1050 T-On Location 1702
 (B) First Initial Flow 30 Jars _____ T-Started 1704
 (C) First Final Flow 140 Safety Joint 75 T-Open 1853
 (D) Initial Shut-In 994 Circ Sub _____ T-Pulled 2238
 (E) Second Initial Flow 145 Hourly Standby _____ T-Out 7/14 0111
 (F) Second Final Flow 312 Mileage 93 Comments _____
 (G) Final Shut-In 991 Sampler _____
 (H) Final Hydrostatic 1818 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1218
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1218

Approved By _____ Our Representative Branner Lonsdale

TriLOBITE TESTING INC. shall not be liable for damaged or 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. 63345

Well Name & No. Virginia "A" #1-18 Test No. 3 Date 1/14/18
 Company Cobalt Energy, LLC Elevation 2580 KB 2575 GL
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murfin #16
 Location: Sec. 18 Twp 6 S Rgs. 25 W Co. Graham State KS

Interval Tested 3776-3810 Zone Tested LKC "J"
 Anchor Length 34' Drill Pipe Run 3739 Mud Wt. 8.9
 Top Packer Depth 3771 Drill Collars Run 29 Vis 58
 Bottom Packer Depth 3776 Wt. Pipe Run _____ WL 6.8
 Total Depth 3810 Chlorides 2,000 ppm System LCM 2#

Blow Description IF - slowly built to 1/4"
252 - No flow
PF - Surface flow
FST - No flow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>OSM</u>				
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 60' BHT 101° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 1899 Test 1050 T-On Location 0839
 (B) First Initial Flow 52 Jars _____ T-Started 0843
 (C) First Final Flow 54 Safety Joint 75 T-Open 1040
 (D) Initial Shut-In 470 Circ Sub _____ T-Pulled 1240
 (E) Second Initial Flow 55 Hourly Standby _____ T-Out 1408
 (F) Second Final Flow 56 Mileage 178 RT 93 Comments _____
 (G) Final Shut-In 270 Sampler _____
 (H) Final Hydrostatic 1872 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1218
 Total 1218
 MP/DST Disc't _____

Approved By _____ Our Representative Brennan Lonsdale

Triobite 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. 63346

Well Name & No. Virginia "A" #1-18 Test No. 4 Date 1/14/18
 Company Cabult Energy, LLC Elevation 2580 KB 2575 GL
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Cory Baker Rig Murfin #16
 Location: Sec. 10 Twp 6 S Rge 25 W Co. Graham State KS

Interval Tested 3806-3825 Zone Tested LCC "K"
 Anchor Length 19' Drill Pipe Run 3770 Mud Wt. 9.0
 Top Packer Depth 3801 Drill Collars Run 29 Vis 54
 Bottom Packer Depth 3806 Wt. Pipe Run --- WL 6.8
 Total Depth 3825 Chlorides 2,000 ppm System LCM 1#

Blow Description IF - Slowly built to 2 1/2"
ISF - No blow
FF - Slowly built to 5"
FSF - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OCM</u>	<u>80</u>		<u>70</u>	
<u>15</u>	<u>CO</u>				
	<u>15' WIP</u>				

Rec Total 45' BHT 101° Gravity 32 API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1889 Test 1050 T-On Location 1952
 (B) First Initial Flow 24 Jars --- T-Started 1955
 (C) First Final Flow 36 Safety Joint 75 T-Open 2142
 (D) Initial Shut-In 895 Circ Sub --- T-Pulled 1/15 0127
 (E) Second Initial Flow 34 Hourly Standby --- T-Out 0314
 (F) Second Final Flow 42 Mileage 170 RT 93 Comments ---
 (G) Final Shut-In 918 Sampler ---
 (H) Final Hydrostatic 1873 Straddle --- Ruined Shale Packer ---
 Shale Packer --- Ruined Packer ---
 Extra Packer --- Extra Copies ---
 Extra Recorder ---

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90
 Sub Total 1218
 Total 1218
 MP/DST Disc't ---

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