

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)</i> <i>(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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	CMX, Inc.
Well Name	BLACK KETTLE 1-18
Doc ID	1417046

All Electric Logs Run

Neutron Porosity
Induction
Micro
Sonic

Form	ACO1 - Well Completion
Operator	CMX, Inc.
Well Name	BLACK KETTLE 1-18
Doc ID	1417046

Tops

Name	Top	Datum
Anhydrite	2332	605
B/Anhydrite	2356	581
Heebner	3915	-978
Lansing	3954	-1017
B/KC	4302	-1365
Pawnee	5546	-1499
Cherokee Sh	4507	-1570
Johnson Zone	4550	-1613
Mississippian	4602	-1665



PAGE 1 of 1	CUST NO 1000793	YARD # 1718	INVOICE DATE 07/13/2018
INVOICE NUMBER 92755925			

Pratt (620) 672-1201
 B CMX INC
 I 1700 N WATERFRONT PKWY BLDG 300 STE B
 L WICHITA
 L KS US 67206
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Black Kettle 1-18
 O LOCATION
 B COUNTY Scott
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41119574	19842		Net - 30 days	08/12/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 07/12/2018 to 07/12/2018				
0041119574				
171815724L Cement-New Well Casing/Pi 07/12/2018 Cement/Surface Casing				
60/40 POZ	210.00	EA	6.84	1,436.40 T
Calcium Chloride	543.00	EA	0.60	325.80 T
Celloflake	53.00	EA	2.11	111.83 T
Heavy Equipment Mileage	200.00	MI	4.28	856.00
Blending & Mixing Service Charge	210.00	BAG	0.80	168.00
Proppant & Bulk Del. Chgs., per ton mil	905.00	EA	1.43	1,294.15
Depth Charge; 0-500'	1.00	EA	570.00	570.00
"Unit Mileage Chg (PU, cars one way)"	100.00	MI	2.57	257.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	99.75	99.75
Cement Data Acquisition Monitor	1.00	EA	313.50	313.50

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	5,432.43
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	159.29
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	5,591.72
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



1700 S. Country Estates Road
 Liberal, KS 67801
 PH (620)-624-2277 FAX (620) 624-2280

TT: 35

SERVICE ORDER - 1718 15724 L

Date: 7/12/2018

Well Name:
 Black Kettle 1-18

Location:
 18,16,31

County - State:
 Scott, KS

RRC #:

19842.2

Type Of Service:
 Z42 - Cement Surface Casing

Customer's Order #:

1000793

Customer: CMX

Address: 1700 N. Waterfront Pkwy Bldg 30
 Wichita KS 67206

As a consideration, the above named Customer agrees to pay Basic Energy Services in accord with the rates and terms stated in Basic Energy Services current price lists. Invoices are payable NET 30 (SEE 10.2) after date of invoice. Upon Customer's default in payment of Customer's account by such date, Customer agrees to pay interest thereon after default at 18% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all the collection costs and attorney fees. These terms and conditions shall be governed by the laws of the state where services are performed or equipment or materials are furnished.

Basic Energy Services, warrants only title to the products, supplies and materials and that the same are free from defects in workmanship. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Basic Energy Services, liability and Customer's exclusive remedy in any case of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies, or materials upon their return to Basic Energy Services, is expressly limited to the replacement of such products, supplies or materials or, at Basic Energy Services, option, to the allowance to the Customer of credit for the cost of such items. In no event shall Basic Energy Services be liable for special, indirect, punitive or consequential damages.

CODE	QTY	UOM	DESCRIPTION	PRICE	TOTAL
CL103	210	Sk	80/40 POZ	12.00	2520.00
CC109	543	Lb	Calcium Chloride	1.05	570.15
CC102	53	Lb	Celloflake	3.70	196.10
E101	200	Mi	Heavy Equipment Mileage	7.50	1500.00
CE240	210	Sk	Blending & Mbdng Service Charge	1.40	294.00
E113	905	Tn/Mi	Proppant and Bulk Delivery Charges, per ton mile	2.50	2262.50
CE200	1	4 Hrs	Depth Charge; 0-500'	1000.00	1000.00
E100	100	Mi	Unit Mileage Charge-Pickups, Small Vans & Cars (one way)	4.50	450.00
S003	1	Ea	Service Supervisor, first 8 hrs on loc.	175.00	175.00
T105	1	Ea	Cement Data Acquisition Monitor / Strip Chart Recorder	550.00	550.00
				Book Total:	\$9,517.75
				Taxes:	
				Disc. Price:	\$5,432.43

PUMP TRUCK NUMBER: 38750-19842

DRIVER: *Regalio*

THIS JOB WAS SATISFACTORILY COMPLETED
 OPERATION OF EQUIPMENT WAS SATISFACTORY
 PERFORMANCE OF PERSONNEL WAS SATISFACTORY

YES NO

BASIC ENERGY SERVICES

Deon Vasquez

CUSTOMER OR HIS AGENT

TO

Customer Comments or Concerns:



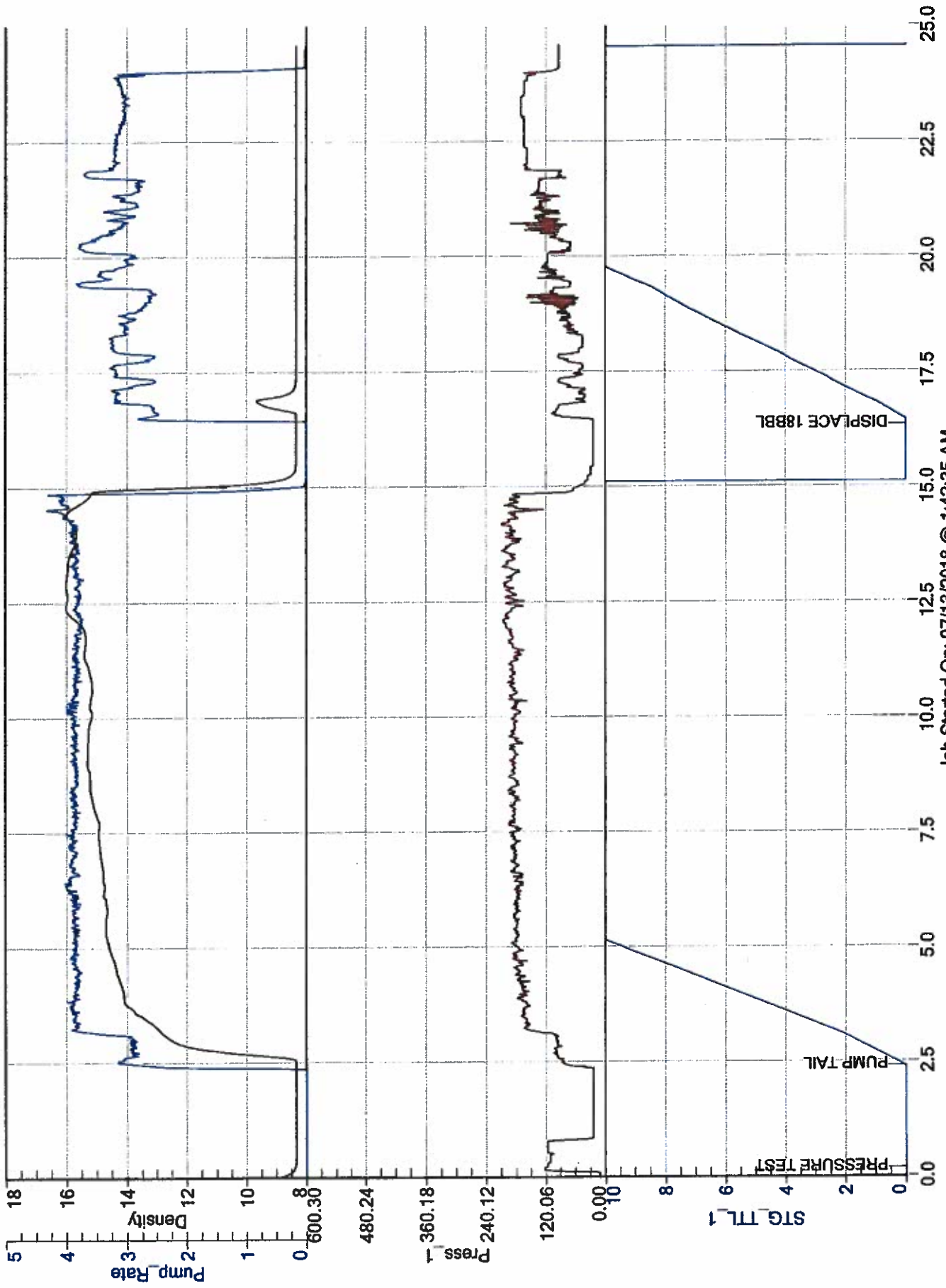
Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

Job Log

Customer:	CMX		Cement Pump No.:	38750-19842 Hrs 2		Operator TRK No.:	34726		
Address:			Ticket #:	1718 15724 L		Bulk TRK No.:	30464 Jesse		
City, State, Zip:			Job Type:	Z42 - Cement Surface Casing					
Service District:	1718 - Liberal, Ks		Well Type:	OIL					
Well Name and No.:	Black Kettle 1-18		Well Location:	18,16,31	County:	Scott	State:	KS	
Type of Cmt	Sacks	Additives			Truck Loaded On				
60/40 POZ	210	3% CC, 2% GEL, 1/4# Cellofacke			30464 Jesse		Front	Back	
							Front	Back	
							Front	Back	
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements		Cu. Ft.	Man Hours / Personnel			
Lead:	14.8	1.21	5.18		254.1	Man Hours:	35		
Tail:						# of Men on Job:	3		
Time (am/pm)	(BPM)	Volume (BBLs)	Pumps		Pressure (PSI)		Description of Operation and Materials		
			T	C	Tubing	Casing			
21:00							ON LOCATION		
21:30							SAFETY MEETING		
1:43 AM							PRESSURE TEST 1500PSI		
1:45 AM	4	45.25				160	PUMP TAIL @ 14.8#		
1:58 AM	3.1	18				190	DIPLACEMENT		
2:07							SHUT IN SWG / CSG		
		3					CEMENT TO SURFACE		
							JOB COMPLETED		
							swedge and one inch valve left on location duke 4		
Size Hole	12 1/4"	Depth					TYPE	SWG	
Size & Wt. Csg.	8 5/8 24#	Depth	305		New / Used		Packer	Depth	
tbq.		Depth					Retainer	Depth	
Top Plugs		Type					Perfs	CIBP	
Customer Signature: <i>Dim Vasquez</i>						Basic Representative:		Angel Echevarria	
						Basic Signature:			
						Date of Service:		7/12/2018	

BLACK KETTLE #1-18

WELL_NAME



Job Started On: 07/13/2018 @ 1:42:35 AM



PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1000793	1718	07/25/2018
INVOICE NUMBER			
92763944			

Pratt (620) 672-1201
 B CMX INC
 I 1700 N WATERFRONT PKWY BLDG 300 STE B
 L WICHITA
 L KS US 67206
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Black Kettle 1-18
 O LOCATION
 B COUNTY Scott
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41121914	19570		Net - 30 days	08/24/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 07/24/2018 to 07/24/2018				
0041121914				
171815856L Cement-New Well Casing/Pi 07/24/2018 Cement/PTA				
60/40 POZ	290.00	EA	7.20	2,088.00 T
Cement Gel	500.00	EA	0.15	75.00 T
Celloflake	73.00	EA	2.22	162.06 T
Heavy Equipment Mileage	200.00	MI	4.50	900.00
Blending & Mixing Service Charge	290.00	BAG	0.84	243.60
Proppant & Bulk Del. Chgs., per ton mil	1,250.00	EA	1.50	1,875.00
Depth Charge; 2001'-3000'	1.00	EA	1,080.00	1,080.00
"Unit Mileage Chg (PU, cars one way)"	100.00	MI	2.70	270.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	105.00	105.00
Cement Data Acquisition Monitor	1.00	EA	330.00	330.00

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	7,128.66
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	197.63
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	7,326.29
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



1700 S. Country Estates Road
 Liberal, KS 67901
 PH (620)-624-2277 FAX (620) 624-2280

TTM H = 32

SERVICE ORDER - 1718-16866 L

Date: 7/24/2018

Well Name: Black Kettle 1-18
 County - State: Scott, KS
 Type Of Service: Z42 - Cement Plug to Abandon
 Customer: CMX
 Location: 18,16,31
 RRC #: 19570-6
 Customer's Order #: 1000793

Address: 1700 N. Water front PKwy #L d930
 Wichita KS 67206

As a consideration, the above named Customer agrees to pay Basic Energy Services in accord with the rates and terms stated in Basic Energy Services current price lists. Invoices are payable NET 30 (SEE 10.2) after date of invoice. Upon Customer's default in payment of Customer's account by such date, Customer agrees to pay interest thereon after default at 18% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all the collection costs and attorney fees. These terms and conditions shall be governed by the laws of the state where services are performed or equipment or materials are furnished.

Basic Energy Services, warrants only title to the products, supplies and materials and that the same are free from defects in workmanship. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Basic Energy Services, liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies, or materials upon their return to Basic Energy Services, is expressly limited to the replacement of such products, supplies or materials or, at Basic Energy Services, option, to the allowance to the Customer of credit for the cost of such items. In no event shall Basic Energy Services be liable for special, indirect, punitive or consequential damages.

CODE	QTY	UOM	DESCRIPTION	PRICE	TOTAL
CL103	290	Sk	60/40 POZ	12.00	3480.00
CC200	500	Lb	Cement Gel	0.25	125.00
CC102	73	Lb	Celoflake	3.70	270.10
E101	200	Mi	Heavy Equipment Mileage	7.50	1500.00
CE240	290	Sk	Blending & Mbdng Service Charge	1.40	408.00
E113	1250	Tn/Mi	Proppant and Bulk Delivery Charges, per ton mile	2.50	3125.00
CE203	1	4 Hrs	Depth Charge; 2001'-3000'	1800.00	1800.00
E100	100	Mi	Unit Mileage Charge-Pickups, Small Vans & Cars (one way)	4.50	450.00
S003	1	Ea	Service Supervisor, first 8 hrs on loc.	175.00	175.00
T105	1	Ea	Cement Data Acquisition Monitor / Strip Chart Recorder	550.00	550.00
				Book Total:	\$11,881.10
				Taxes:	
				Disc. Price:	\$7,128.66

PUMP TRUCK NUMBER: 38118-19570
 DRIVER: *Marc*
 BASIC ENERGY SERVICES

THIS JOB WAS SATISFACTORILY COMPLETED YES NO
 OPERATION OF EQUIPMENT WAS SATISFACTORY YES NO
 PERFORMANCE OF PERSONEL WAS SATISFACTORY YES NO
X Dion Varguez
 CUSTOMER OR HIS AGENT

Customer Comments or Concerns:



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING

Job Log

Customer:	CMX	Cement Pump No.:	38119-19570 6 HRS	Operator TRK No.:	98815
Address:		Ticket #:	1718-15856 L	Bulk TRK No.:	27808-4250
City, State, Zip:		Job Type:	Z42 - Cement Plug to Abandon		
Service District:		Well Type:	OIL		
Well Name and No.:	Black Kettle 1-18	Well Location:	18,16,31	County:	Scott
				State:	KS

Type of Cmt	Sacks	Additives	Truck Loaded On		
60/40 POZ	290	4 % GEL	27808-	Front	Back
				Front	Back
				Front	Back

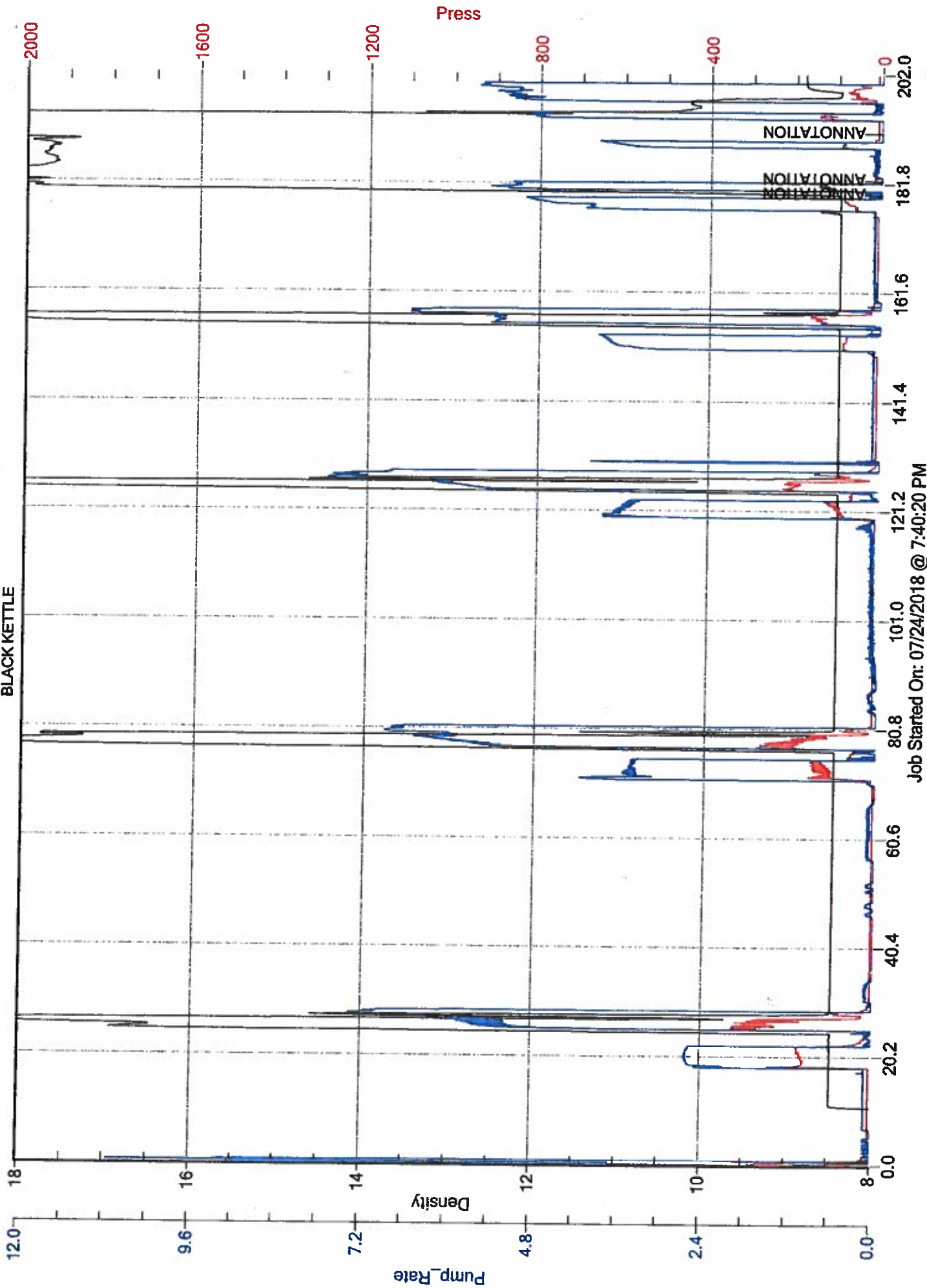
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Lead:	14.8	1.2	5.23	348	Man Hours:	32
Tail:					# of Men on Job:	3

Time (am/pm)	(BPM)	Volume (BBLS)	Pumps		Pressure(PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
17:00							ON LOC, SAFTEY MTG, R.U.
19:58	2.5	10			170		H2O SPACER
8:04 PM	5	10.7			290		MIX 50 SX @ 2340'
8:07 PM	5	3			80		H2O SPACER
8:10 PM	8	26			250		MUD
20:51	3.3	10			150		H2O SPACER
20:56	5.3	17			200		MIX 80 SX @ 1650'
8:59 PM	5.3	3			40		H2O SPACER
21:04	8	15			150		MUD
21:40	3.8	10			90		H2O SPACER
21:44	5.7	8.5			190		MIX 40SX @ 800'
21:46	5.7	7			140		DISPLACE
22:37	5	4.3					PLUG @ 60'
22:49							PLUG RAT & MOUSE
							WASHUP
							JOB COMPLETE
							THANK YOU FOR YOUR BUSINESS!!!

Size Hole	Depth			TYPE	
Size & Wt. Csg.	Depth		New / Used	Packer	Depth
tbg.	Depth			Retainer	Depth
Top Plugs	Type			Perfs	CIBP

Customer Signature: <i>Dim Vasquez</i>	Basic Representative:	CHAD HINZ
	Basic Signature:	<i>[Signature]</i>
	Date of Service:	7/24/2018

CMX BLACK KETTLE





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.18 @ 23:04:16

End Date: 2018.07.19 @ 04:47:16

Job Ticket #: 63894 DST #: 1

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

Printed: 2018.07.24 @ 10:02:26

CMX Inc
18-16-31w Scott,KS
Black Kettle #1-18
DST # 1
LKC C
2018.07.18



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63894 **DST#: 1**
Test Start: 2018.07.18 @ 23:04:16

GENERAL INFORMATION:

Formation: **LKC C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:52:46
Time Test Ended: 04:47:16
Interval: **3982.00 ft (KB) To 4004.00 ft (KB) (TVD)**
Total Depth: 4004.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79
Reference Elevations: 2937.00 ft (KB)
2931.00 ft (CF)
KB to GR/CF: 6.00 ft

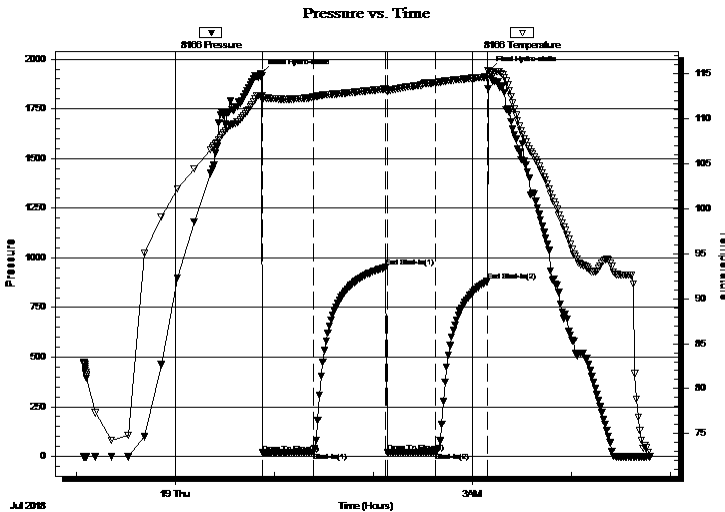
Serial #: 8166

Outside

Press@RunDepth: 23.02 psig @ 3983.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.07.18 End Date: 2018.07.19 Last Calib.: 2018.07.19
Start Time: 23:04:21 End Time: 04:47:15 Time On Btm: 2018.07.19 @ 00:51:46
Time Off Btm: 2018.07.19 @ 03:10:16

TEST COMMENT: IF: 1/2" blow built to 1"
IS: No return.
FF: No blow . Flushed tool No blow .
FS: No return.

PRESSURE SUMMARY



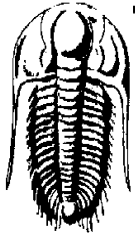
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1928.39	112.59	Initial Hydro-static
1	18.62	112.14	Open To Flow (1)
32	20.60	112.38	Shut-In(1)
76	951.98	113.29	End Shut-In(1)
77	20.24	113.03	Open To Flow (2)
106	23.02	114.00	Shut-In(2)
137	882.49	114.64	End Shut-In(2)
139	1943.57	114.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%m	0.14

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

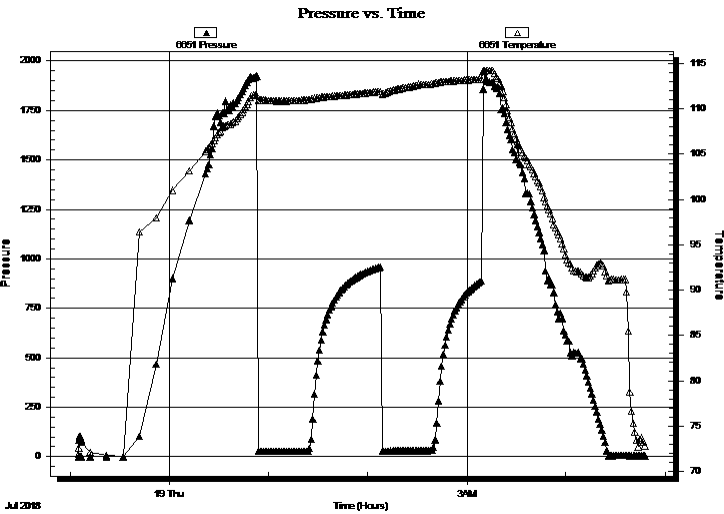
18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63894 **DST#: 1**
Test Start: 2018.07.18 @ 23:04:16

GENERAL INFORMATION:

Formation: **LKC C**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 00:52:46 Tester: Brandon Turley
Time Test Ended: 04:47:16 Unit No: 79
Interval: 3982.00 ft (KB) To 4004.00 ft (KB) (TVD) Reference Elevations: 2937.00 ft (KB)
Total Depth: 4004.00 ft (KB) (TVD) 2931.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 6.00 ft

Serial #: 6651 Inside
Press@RunDepth: psig @ 3983.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2018.07.18 End Date: 2018.07.19 Last Calib.: 2018.07.19
Start Time: 23:04:46 End Time: 04:47:40 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/2" blow built to 1"
IS: No return.
FF: No blow . Flushed tool No blow .
FS: No return.



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

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	mud 100%m	0.14

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63894 **DST#: 1**
Test Start: 2018.07.18 @ 23:04:16

Tool Information

Drill Pipe:	Length: 3981.00 ft	Diameter: 3.80 inches	Volume: 55.84 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 55.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3982.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			3956.00	
Shut In Tool	5.00			3961.00	
Hydraulic tool	5.00			3966.00	
Jars	5.00			3971.00	
Safety Joint	2.00			3973.00	
Packer	5.00			3978.00	27.00 Bottom Of Top Packer
Packer	4.00			3982.00	
Stubb	1.00			3983.00	
Recorder	0.00	6651	Inside	3983.00	
Recorder	0.00	8166	Outside	3983.00	
Perforations	16.00			3999.00	
Bullnose	5.00			4004.00	22.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63894 **DST#: 1**
Test Start: 2018.07.18 @ 23:04:16

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.59 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

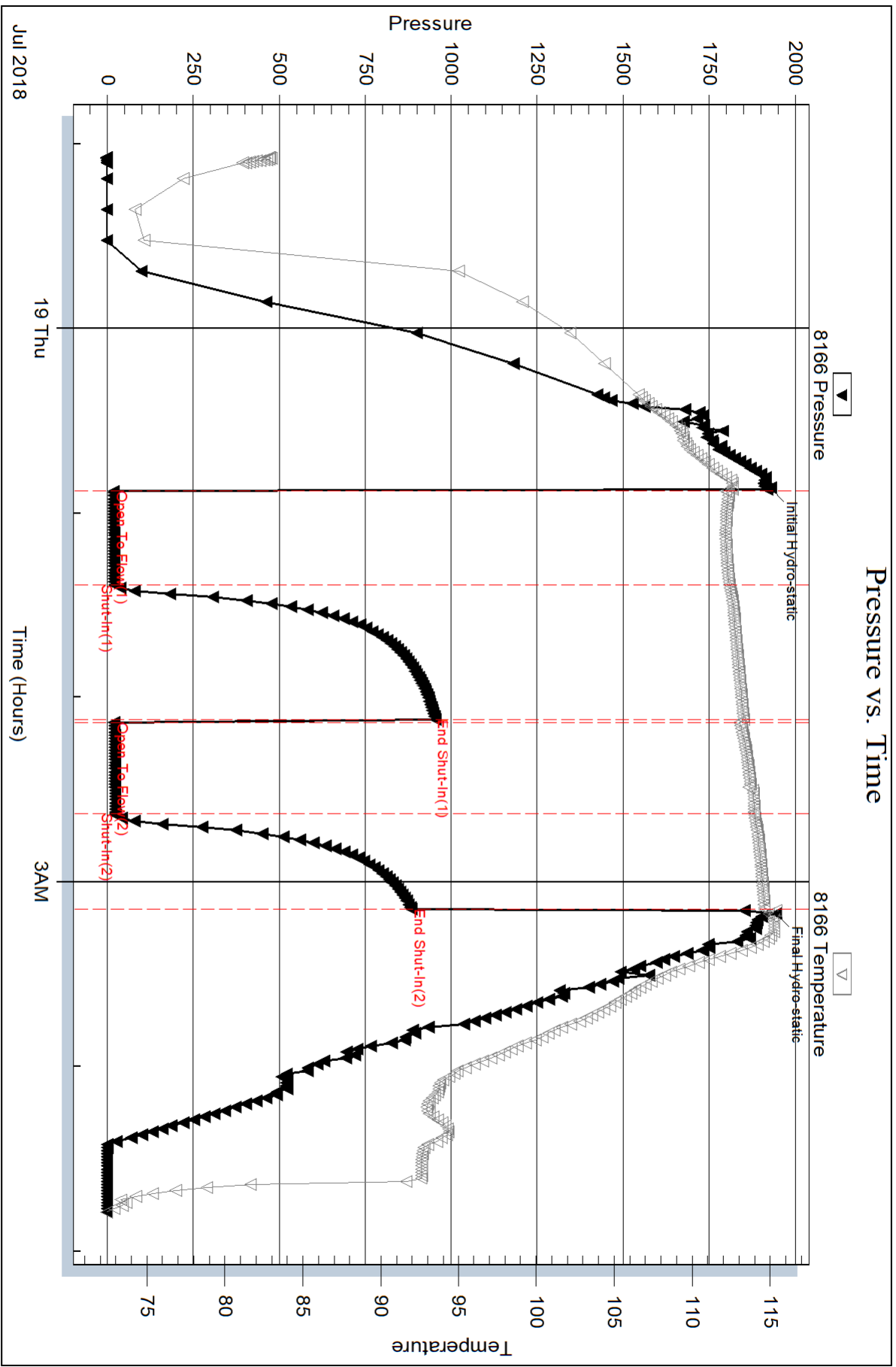
Length ft	Description	Volume bbl
10.00	mud 100%m	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



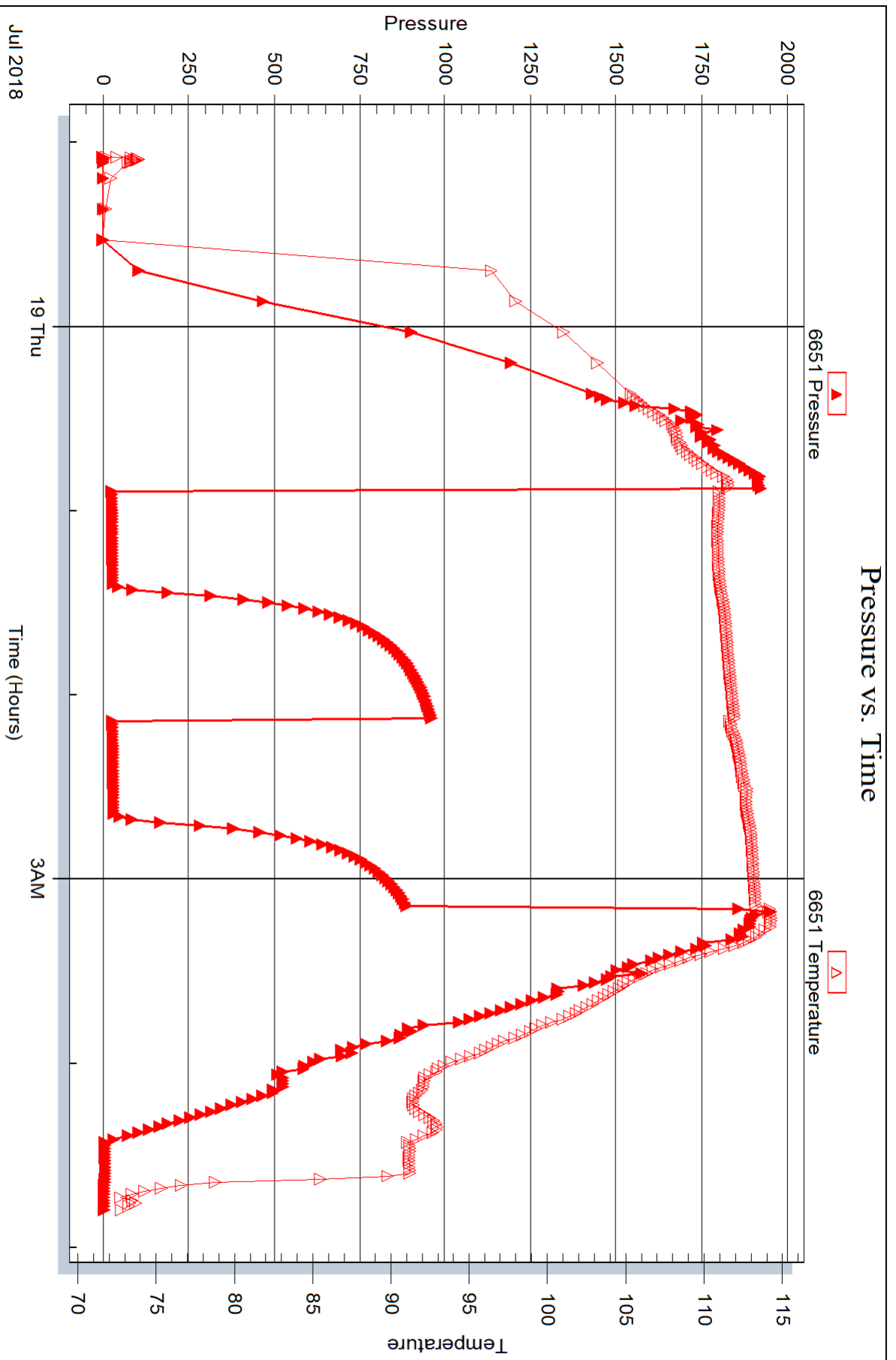
Serial #: 6651

Inside

CMX Inc

Black Kettle #1-18

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.19 @ 12:16:39

End Date: 2018.07.19 @ 18:52:09

Job Ticket #: 63895 DST #: 2

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

Printed: 2018.07.24 @ 10:02:01

CMX Inc
18-16-31w Scott,KS
Black Kettle #1-18
DST # 2
LKC D
2018.07.19



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS

Black Kettle #1-18

Job Ticket: 63895

DST#: 2

Test Start: 2018.07.19 @ 12:16:39

GENERAL INFORMATION:

Formation: **LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:59:39

Time Test Ended: 18:52:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4006.00 ft (KB) To 4022.00 ft (KB) (TVD)

Total Depth: 4022.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2937.00 ft (KB)

2931.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: 8166 Outside

Press@RunDepth: 132.38 psig @ 4007.00 ft (KB)

Start Date: 2018.07.19

End Date:

2018.07.19

Start Time: 12:16:44

End Time:

18:52:08

Capacity: 8000.00 psig

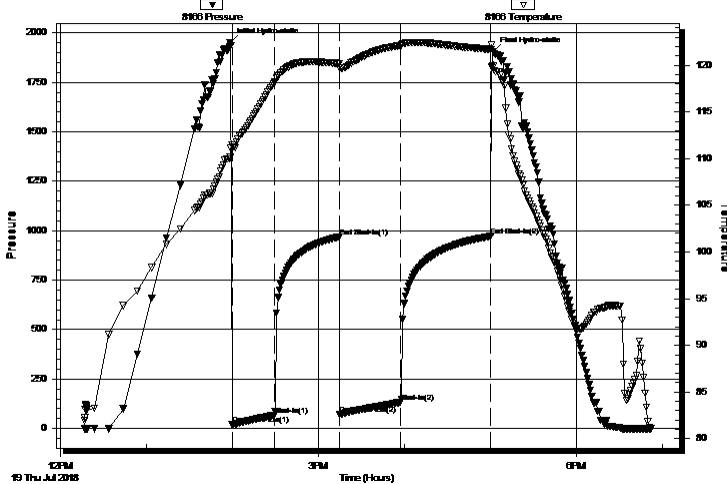
Last Calib.: 2018.07.19

Time On Btm: 2018.07.19 @ 13:58:09

Time Off Btm: 2018.07.19 @ 17:01:39

TEST COMMENT: IF: 1/2" blow built to 8"
IS: No return.
FF: BOB in 37 mins. 12"
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.89	110.15	Initial Hydro-static
2	19.12	111.44	Open To Flow (1)
31	67.05	118.16	Shut-In(1)
76	968.72	120.19	End Shut-In(1)
77	70.30	119.78	Open To Flow (2)
119	132.38	122.13	Shut-In(2)
182	971.83	121.69	End Shut-In(2)
184	1906.74	119.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
262.00	mcw 90%w 10%m	3.68

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63895 **DST#: 2**
Test Start: 2018.07.19 @ 12:16:39

Tool Information

Drill Pipe:	Length: 3986.00 ft	Diameter: 3.80 inches	Volume: 55.91 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4006.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			3980.00	
Shut In Tool	5.00			3985.00	
Hydraulic tool	5.00			3990.00	
Jars	5.00			3995.00	
Safety Joint	2.00			3997.00	
Packer	5.00			4002.00	27.00 Bottom Of Top Packer
Packer	4.00			4006.00	
Stubb	1.00			4007.00	
Recorder	0.00	6651	Inside	4007.00	
Recorder	0.00	8166	Outside	4007.00	
Perforations	10.00			4017.00	
Bullnose	5.00			4022.00	16.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63895 **DST#: 2**
Test Start: 2018.07.19 @ 12:16:39

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	50000 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	6.39 in ³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

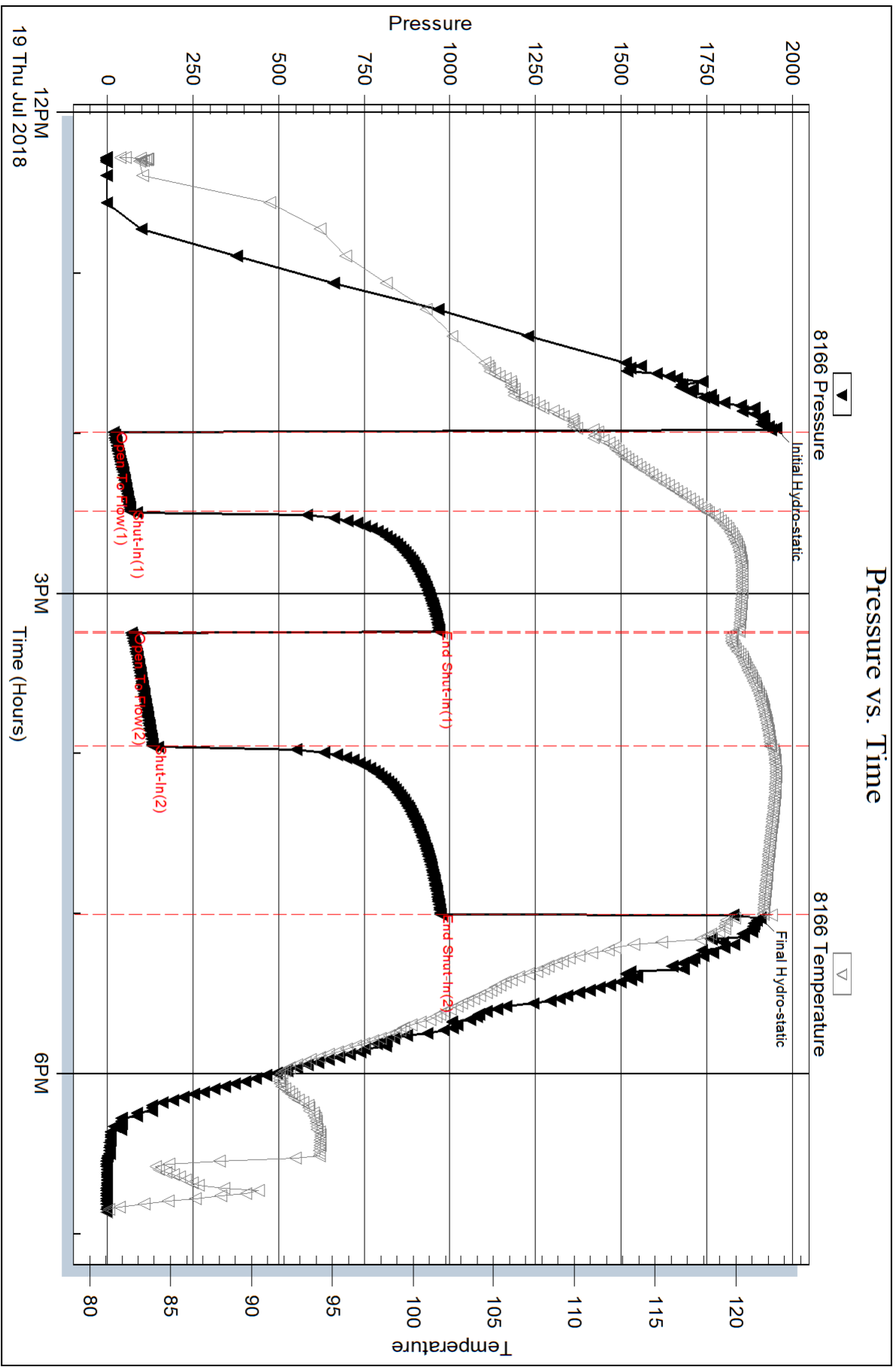
Length ft	Description	Volume bbbl
262.00	mcw 90%w 10%m	3.675

Total Length: 262.00 ft Total Volume: 3.675 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: .10@101=50000



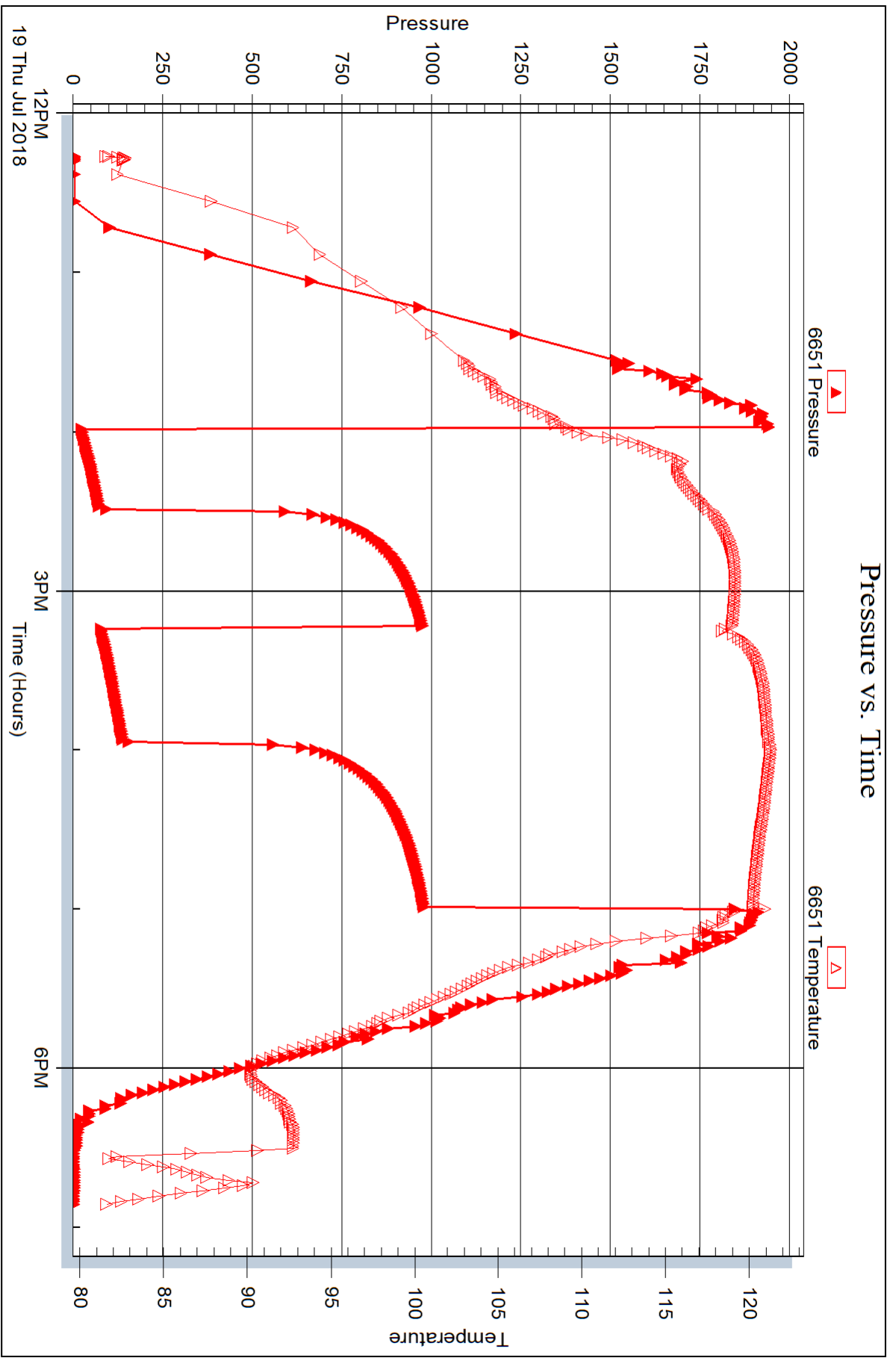
Serial #: 6651

Inside

CMX Inc

Black Kettle #1-18

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.20 @ 02:17:09

End Date: 2018.07.20 @ 08:59:39

Job Ticket #: 63896 DST #: 3

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

Printed: 2018.07.24 @ 10:00:30

CMX Inc
18-16-31w Scott,KS
Black Kettle #1-18
DST # 3
LKC E-F
2018.07.20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkw y
 Bldg 300 B
 Wichita, KS 67206
 ATTN: Mike Englebrecht

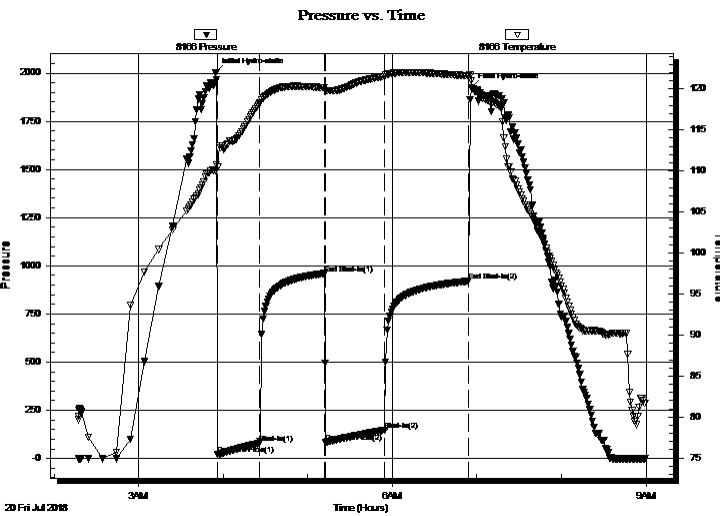
18-16-31w Scott,KS
Black Kettle #1-18
 Job Ticket: 63896 **DST#: 3**
 Test Start: 2018.07.20 @ 02:17:09

GENERAL INFORMATION:

Formation: **LKC E-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:56:09
 Time Test Ended: 08:59:39
 Interval: **4036.00 ft (KB) To 4060.00 ft (KB) (TVD)**
 Total Depth: 4060.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2937.00 ft (KB)
 2931.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8166 Outside
 Press@RunDepth: 146.31 psig @ 4037.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.20 End Date: 2018.07.20 Last Calib.: 2018.07.20
 Start Time: 02:17:14 End Time: 08:59:38 Time On Btm: 2018.07.20 @ 03:54:39
 Time Off Btm: 2018.07.20 @ 06:56:09

TEST COMMENT: IF: BOB in 24 min. 12"
 IS: No return.
 FF: BOB in 35 min. 12"
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2003.35	110.05	Initial Hydro-static
2	20.38	110.47	Open To Flow (1)
31	79.51	118.18	Shut-In(1)
77	959.86	120.14	End Shut-In(1)
78	83.11	119.82	Open To Flow (2)
120	146.31	121.54	Shut-In(2)
180	920.34	121.59	End Shut-In(2)
182	1925.65	121.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 90%w 10%m	1.77
146.00	mcw 80%w 20%m	2.05
1.00	free oil 100%o	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63896 **DST#: 3**
Test Start: 2018.07.20 @ 02:17:09

Tool Information

Drill Pipe:	Length: 4019.00 ft	Diameter: 3.80 inches	Volume: 56.38 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4036.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Stubb	1.00			4010.00	
Shut In Tool	5.00			4015.00	
Hydraulic tool	5.00			4020.00	
Jars	5.00			4025.00	
Safety Joint	2.00			4027.00	
Packer	5.00			4032.00	27.00 Bottom Of Top Packer
Packer	4.00			4036.00	
Stubb	1.00			4037.00	
Recorder	0.00	6651	Inside	4037.00	
Recorder	0.00	8166	Outside	4037.00	
Perforations	18.00			4055.00	
Bullnose	5.00			4060.00	24.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63896 **DST#: 3**
Test Start: 2018.07.20 @ 02:17:09

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 21000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.39 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1800.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

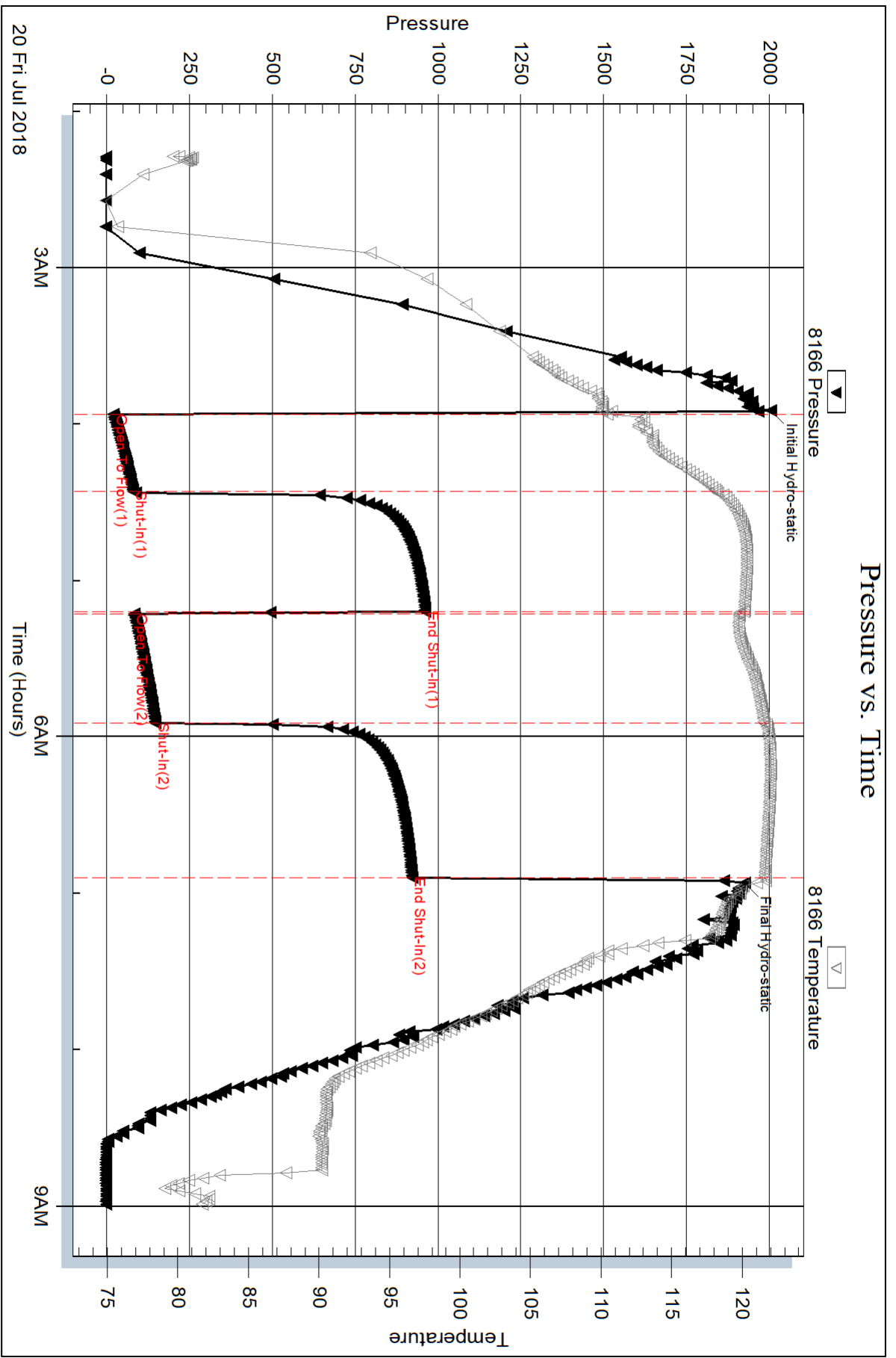
Length ft	Description	Volume bbl
126.00	mcw 90%w 10%m	1.767
146.00	mcw 80%w 20%m	2.048
1.00	free oil 100%o	0.014

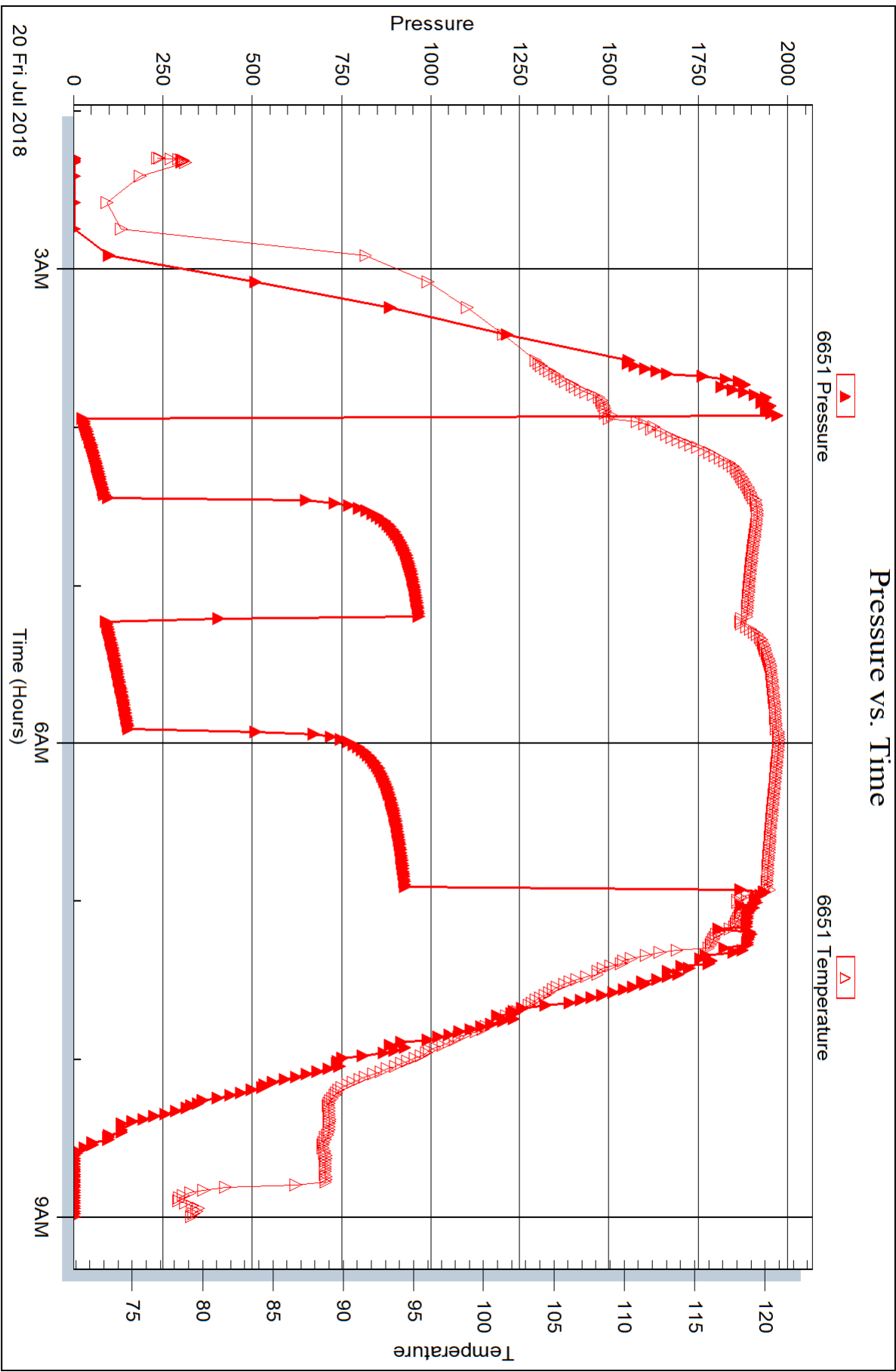
Total Length: 273.00 ft Total Volume: 3.829 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: .30@74=21000







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.20 @ 23:32:44

End Date: 2018.07.21 @ 06:27:44

Job Ticket #: 63897 DST #: 4

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

Printed: 2018.07.24 @ 10:00:02

CMX Inc
18-16-31w Scott,KS
Black Kettle #1-18
DST # 4
LKC H - I
2018.07.20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkw y
 Bldg 300 B
 Wichita, KS 67206
 ATTN: Mike Englebrecht

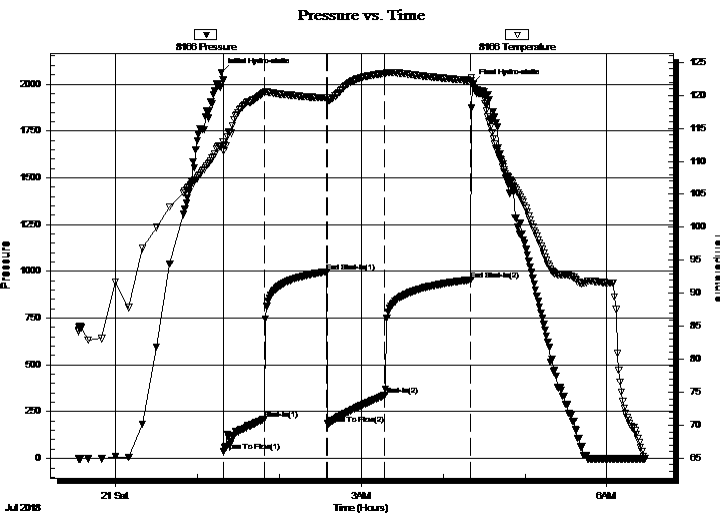
18-16-31w Scott,KS
Black Kettle #1-18
 Job Ticket: 63897 **DST#: 4**
 Test Start: 2018.07.20 @ 23:32:44

GENERAL INFORMATION:

Formation: **LKC H-1**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:19:14
 Time Test Ended: 06:27:44
 Interval: **4128.00 ft (KB) To 4190.00 ft (KB) (TVD)**
 Total Depth: 4190.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2937.00 ft (KB)
 2931.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8166 Outside
 Press@RunDepth: 337.54 psig @ 4129.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.20 End Date: 2018.07.21 Last Calib.: 2018.07.21
 Start Time: 23:32:49 End Time: 06:27:43 Time On Btm: 2018.07.21 @ 01:17:44
 Time Off Btm: 2018.07.21 @ 04:21:44

TEST COMMENT: IF:BOB in 8 min. 31"
 IS: No return.
 FF: BOB in 12 min. 34"
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.45	112.26	Initial Hydro-static
2	39.40	111.62	Open To Flow (1)
31	210.24	120.44	Shut-In(1)
77	998.33	119.60	End Shut-In(1)
78	185.01	119.27	Open To Flow (2)
120	337.54	123.32	Shut-In(2)
183	954.77	122.26	End Shut-In(2)
184	2002.31	121.55	Final Hydro-static

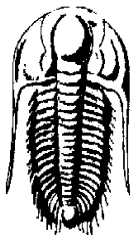
Recovery

Length (ft)	Description	Volume (bbl)
315.00	mcw 90%w 10%m	4.42
252.00	mcw 80%w 20%m	3.53
166.00	w cm 10%w 90%m	2.33

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63897 **DST#: 4**
Test Start: 2018.07.20 @ 23:32:44

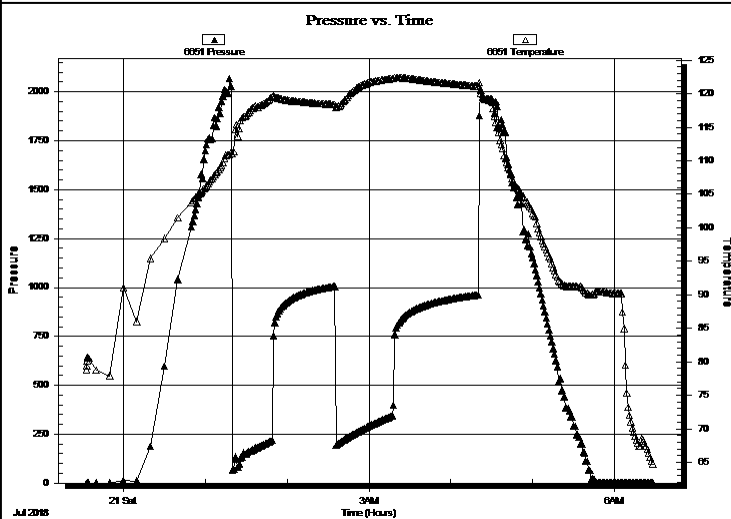
GENERAL INFORMATION:

Formation: **LKC H-I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:19:14
Time Test Ended: 06:27:44
Interval: **4128.00 ft (KB) To 4190.00 ft (KB) (TVD)**
Total Depth: 4190.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches
Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79
Reference Elevations: 2937.00 ft (KB)
2931.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 6651 Inside

Press@RunDepth: psig @ 4129.00 ft (KB)
Start Date: 2018.07.20 End Date: 2018.07.21
Start Time: 23:33:04 End Time: 06:27:58
Capacity: 8000.00 psig
Last Calib.: 2018.07.21
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 8 min. 31"
IS: No return.
FF: BOB in 12 min. 34"
FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
315.00	mcw 90%w 10%m	4.42
252.00	mcw 80%w 20%m	3.53
166.00	w cm 10%w 90%m	2.33

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63897 **DST#: 4**
Test Start: 2018.07.20 @ 23:32:44

Tool Information

Drill Pipe:	Length: 4113.00 ft	Diameter: 3.80 inches	Volume: 57.69 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 57.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4128.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	89.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4102.00	
Shut In Tool	5.00			4107.00	
Hydraulic tool	5.00			4112.00	
Jars	5.00			4117.00	
Safety Joint	2.00			4119.00	
Packer	5.00			4124.00	27.00 Bottom Of Top Packer
Packer	4.00			4128.00	
Stubb	1.00			4129.00	
Recorder	0.00	6651	Inside	4129.00	
Recorder	0.00	8166	Outside	4129.00	
Perforations	22.00			4151.00	
Change Over Sub	1.00			4152.00	
Drill Pipe	32.00			4184.00	
Change Over Sub	1.00			4185.00	
Bullnose	5.00			4190.00	62.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63897 **DST#: 4**
Test Start: 2018.07.20 @ 23:32:44

Mud and Cushion Information

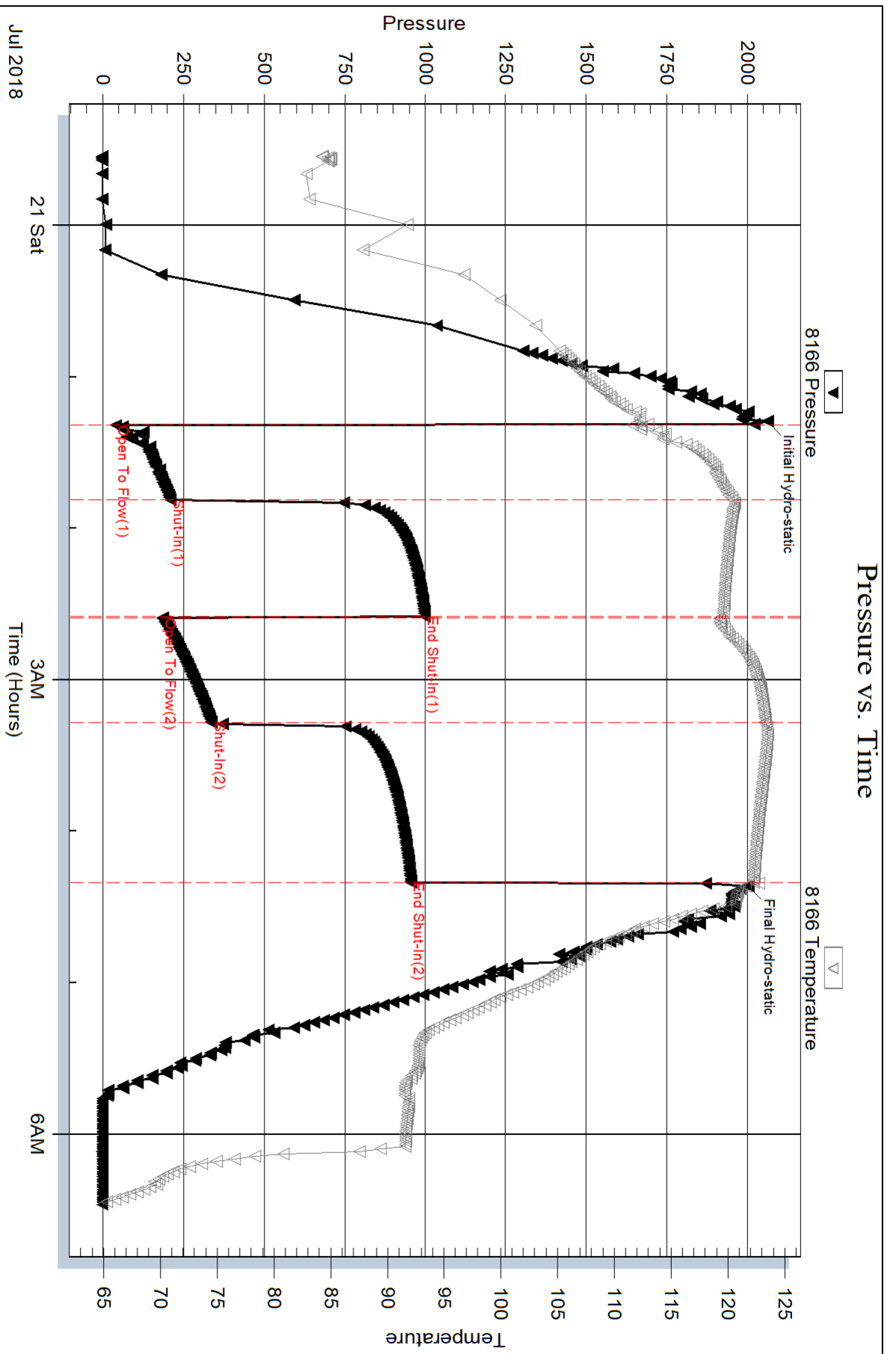
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 44000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.59 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 1.00 inches		

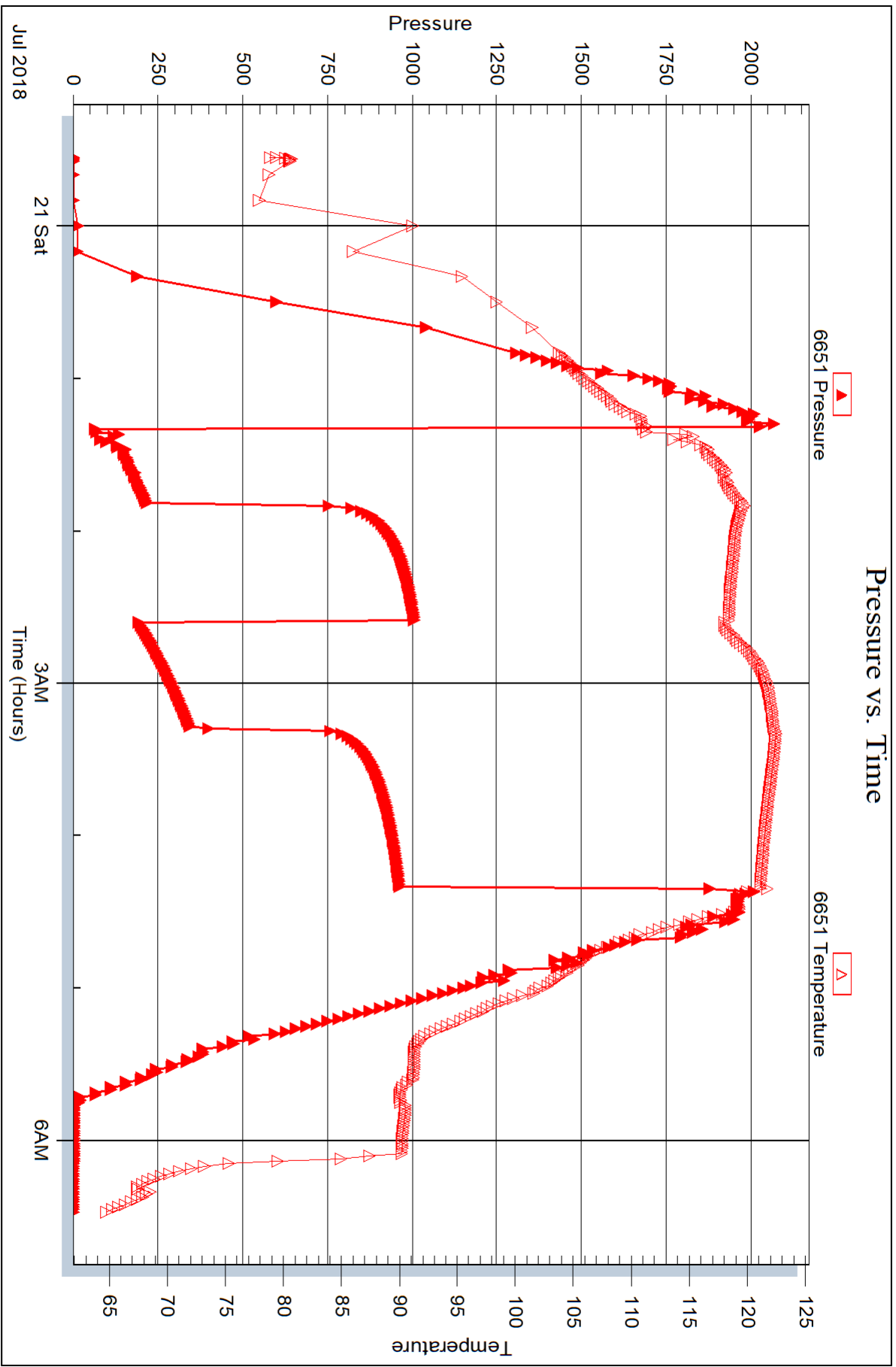
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
315.00	mcw 90%w 10%m	4.419
252.00	mcw 80%w 20%m	3.535
166.00	w cm 10%w 90%m	2.329

Total Length: 733.00 ft Total Volume: 10.283 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .16@70=44000







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.21 @ 13:24:39

End Date: 2018.07.21 @ 20:36:09

Job Ticket #: 63898 DST #: 5

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

Printed: 2018.07.24 @ 09:59:31

CMX Inc
18-16-31w Scott,KS
Black Kettle #1-18
DST # 5
LKC J
2018.07.21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkw y
 Bldg 300 B
 Wichita, KS 67206
 ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
 Job Ticket: 63898 **DST#: 5**
 Test Start: 2018.07.21 @ 13:24:39

GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:13:09
 Time Test Ended: 20:36:09
 Interval: **4296.00 ft (KB) To 4217.00 ft (KB) (TVD)**
 Total Depth: 4217.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2937.00 ft (KB)
 2931.00 ft (CF)
 KB to GR/CF: 6.00 ft

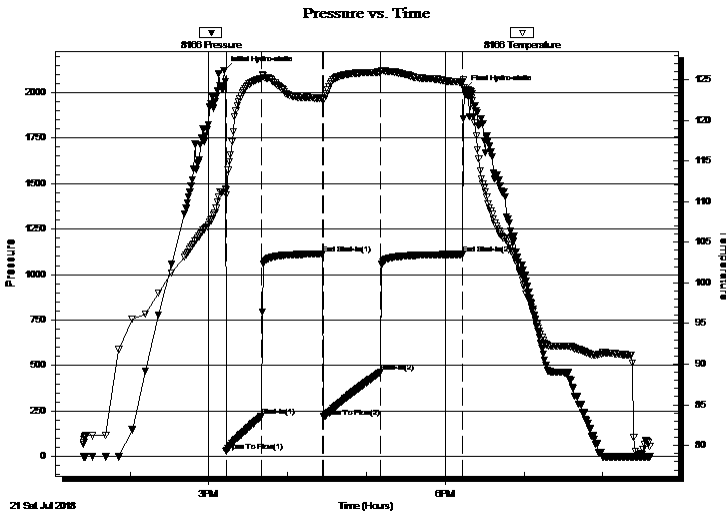
Serial #: 8166

Outside

Press@RunDepth: 462.15 psig @ 4197.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.21 End Date: 2018.07.21 Last Calib.: 2018.07.21
 Start Time: 13:24:44 End Time: 20:36:08 Time On Btm: 2018.07.21 @ 15:11:39
 Time Off Btm: 2018.07.21 @ 18:14:39

TEST COMMENT: IF: BOB in 7 min. 40"
 IS: No return.
 FF: BOB in 7 min. 57 3/4"
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2121.65	111.16	Initial Hydro-static
2	28.67	110.81	Open To Flow (1)
29	221.27	125.12	Shut-In(1)
75	1113.77	122.68	End Shut-In(1)
76	217.87	122.51	Open To Flow (2)
119	462.15	125.91	Shut-In(2)
182	1111.35	124.67	End Shut-In(2)
183	2015.19	124.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
819.00	mcw 95%w 5%m	11.49
166.00	w cm 40%w 60%m	2.33

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkw y
 Bldg 300 B
 Wichita, KS 67206
 ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
 Job Ticket: 63898 **DST#: 5**
 Test Start: 2018.07.21 @ 13:24:39

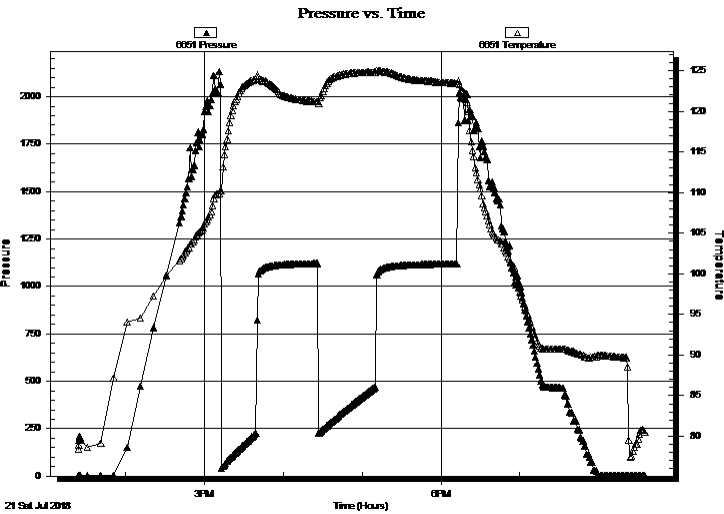
GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 15:13:09 Tester: Brandon Turley
 Time Test Ended: 20:36:09 Unit No: 79
 Interval: **4296.00 ft (KB) To 4217.00 ft (KB) (TVD)** Reference Elevations: 2937.00 ft (KB)
 Total Depth: 4217.00 ft (KB) (TVD) 2931.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 6.00 ft

Serial #: 6651 Inside

Press@RunDepth: psig @ 4197.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.21 End Date: 2018.07.21 Last Calib.: 2018.07.21
 Start Time: 13:24:06 End Time: 20:35:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: BOB in 7 min. 40"
 IS: No return.
 FF: BOB in 7 min. 57 3/4"
 FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
819.00	mcw 95%w 5%m	11.49
166.00	w cm 40%w 60%m	2.33

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63898 **DST#: 5**
Test Start: 2018.07.21 @ 13:24:39

Tool Information

Drill Pipe:	Length: 4176.00 ft	Diameter: 3.80 inches	Volume: 58.58 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 58.58 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4196.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	50.00 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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Stubb	1.00			4170.00	
Shut In Tool	5.00			4175.00	
Hydraulic tool	5.00			4180.00	
Jars	5.00			4185.00	
Safety Joint	2.00			4187.00	
Packer	5.00			4192.00	27.00 Bottom Of Top Packer
Packer	4.00			4196.00	
Stubb	1.00			4197.00	
Recorder	0.00	6651	Inside	4197.00	
Recorder	0.00	8166	Outside	4197.00	
Perforations	17.00			4214.00	
Bullnose	5.00			4219.00	23.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63898 **DST#: 5**
Test Start: 2018.07.21 @ 13:24:39

Mud and Cushion Information

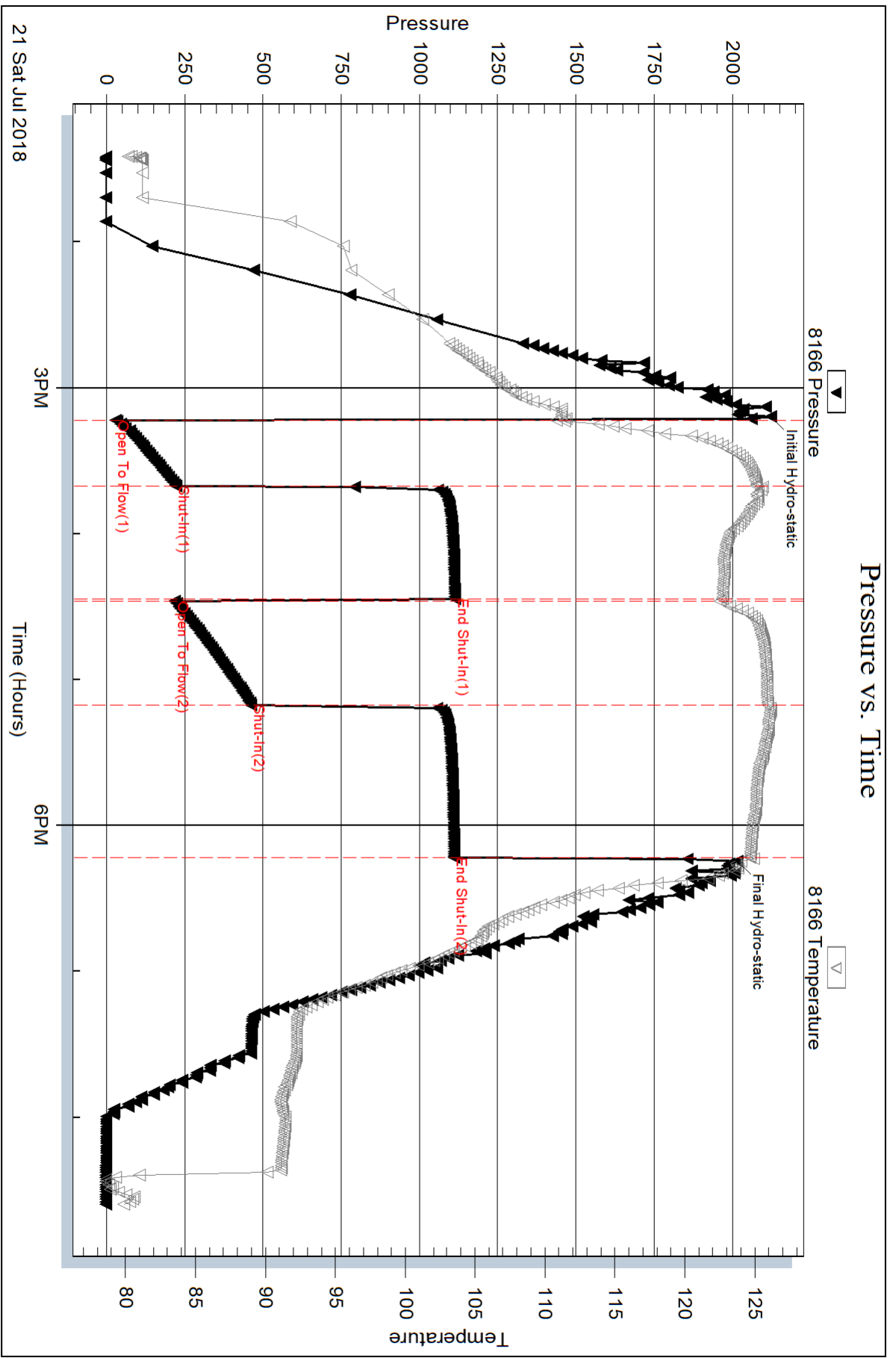
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 48000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.39 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2600.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
819.00	mcw 95%w 5%m	11.488
166.00	w cm 40%w 60%m	2.329

Total Length: 985.00 ft Total Volume: 13.817 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .12@92=48000



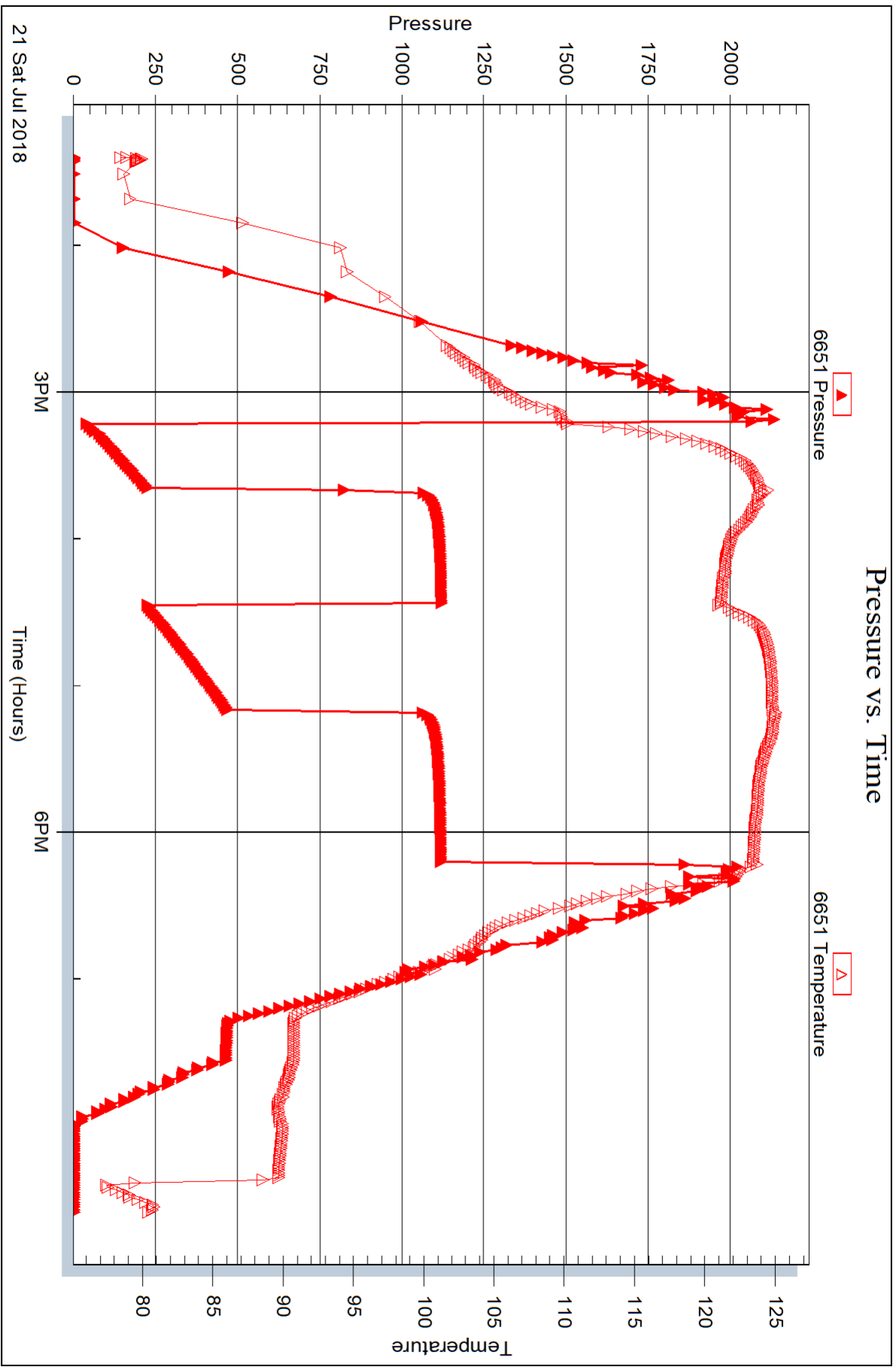
Serial #: 6651

Inside

CMX Inc

Black Kettle #1-18

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206

ATTN: Mike Englebrecht

Black Kettle #1-18

18-16-31w Scott,KS

Start Date: 2018.07.23 @ 09:24:30

End Date: 2018.07.23 @ 15:36:30

Job Ticket #: 63899 DST #: 6

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

Printed: 2018.07.24 @ 09:59:07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkw y
 Bldg 300 B
 Wichita, KS 67206
 ATTN: Mike Englebrecht

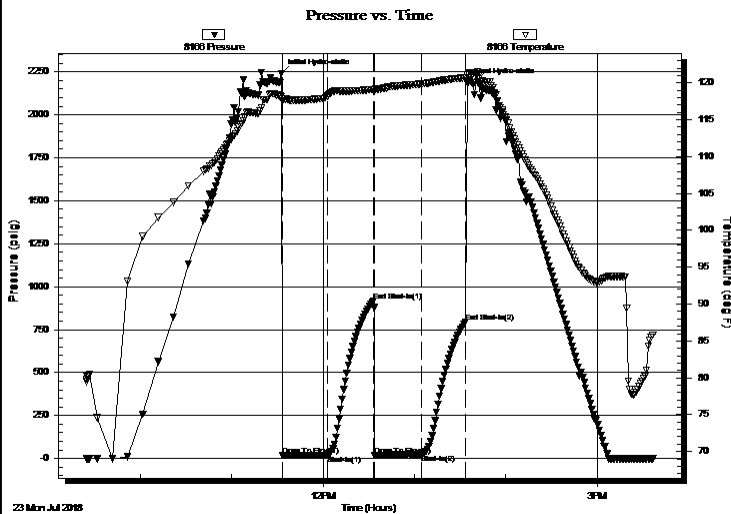
18-16-31w Scott,KS
Black Kettle #1-18
 Job Ticket: 63899 **DST#: 6**
 Test Start: 2018.07.23 @ 09:24:30

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:33:30
 Time Test Ended: 15:36:30
 Interval: **4512.00 ft (KB) To 4574.00 ft (KB) (TVD)**
 Total Depth: 4575.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 2937.00 ft (KB)
 2931.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 8166 Outside
 Press@RunDepth: 22.05 psig @ 4513.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.23 End Date: 2018.07.23 Last Calib.: 2018.07.23
 Start Time: 09:24:35 End Time: 15:36:29 Time On Btm: 2018.07.23 @ 11:32:30
 Time Off Btm: 2018.07.23 @ 13:34:30

TEST COMMENT: IF: 1/4" blow died in 17 min.
 IS: No return.
 FF: No blow . Flushed tool no blow .
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2239.47	118.16	Initial Hydro-static
1	18.10	117.59	Open To Flow (1)
31	18.88	118.21	Shut-In(1)
61	917.98	119.13	End Shut-In(1)
62	19.81	119.08	Open To Flow (2)
92	22.05	119.87	Shut-In(2)
121	794.30	120.72	End Shut-In(2)
122	2187.55	121.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud oil spots 100% m	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63899 **DST#: 6**
Test Start: 2018.07.23 @ 09:24:30

Tool Information

Drill Pipe:	Length: 4510.00 ft	Diameter: 3.80 inches	Volume: 63.26 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 63.26 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4512.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	90.00 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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Stubb	1.00			4486.00	
Shut In Tool	5.00			4491.00	
Hydraulic tool	5.00			4496.00	
Jars	5.00			4501.00	
Safety Joint	2.00			4503.00	
Packer	5.00			4508.00	27.00 Bottom Of Top Packer
Packer	4.00			4512.00	
Stubb	1.00			4513.00	
Recorder	0.00	6651	Inside	4513.00	
Recorder	0.00	8166	Outside	4513.00	
Perforations	23.00			4536.00	
Change Over Sub	1.00			4537.00	
Drill Pipe	32.00			4569.00	
Change Over Sub	1.00			4570.00	
Bullnose	5.00			4575.00	63.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkw y
Bldg 300 B
Wichita, KS 67206
ATTN: Mike Englebrecht

18-16-31w Scott,KS
Black Kettle #1-18
Job Ticket: 63899 **DST#: 6**
Test Start: 2018.07.23 @ 09:24:30

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.19 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud oil spots 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

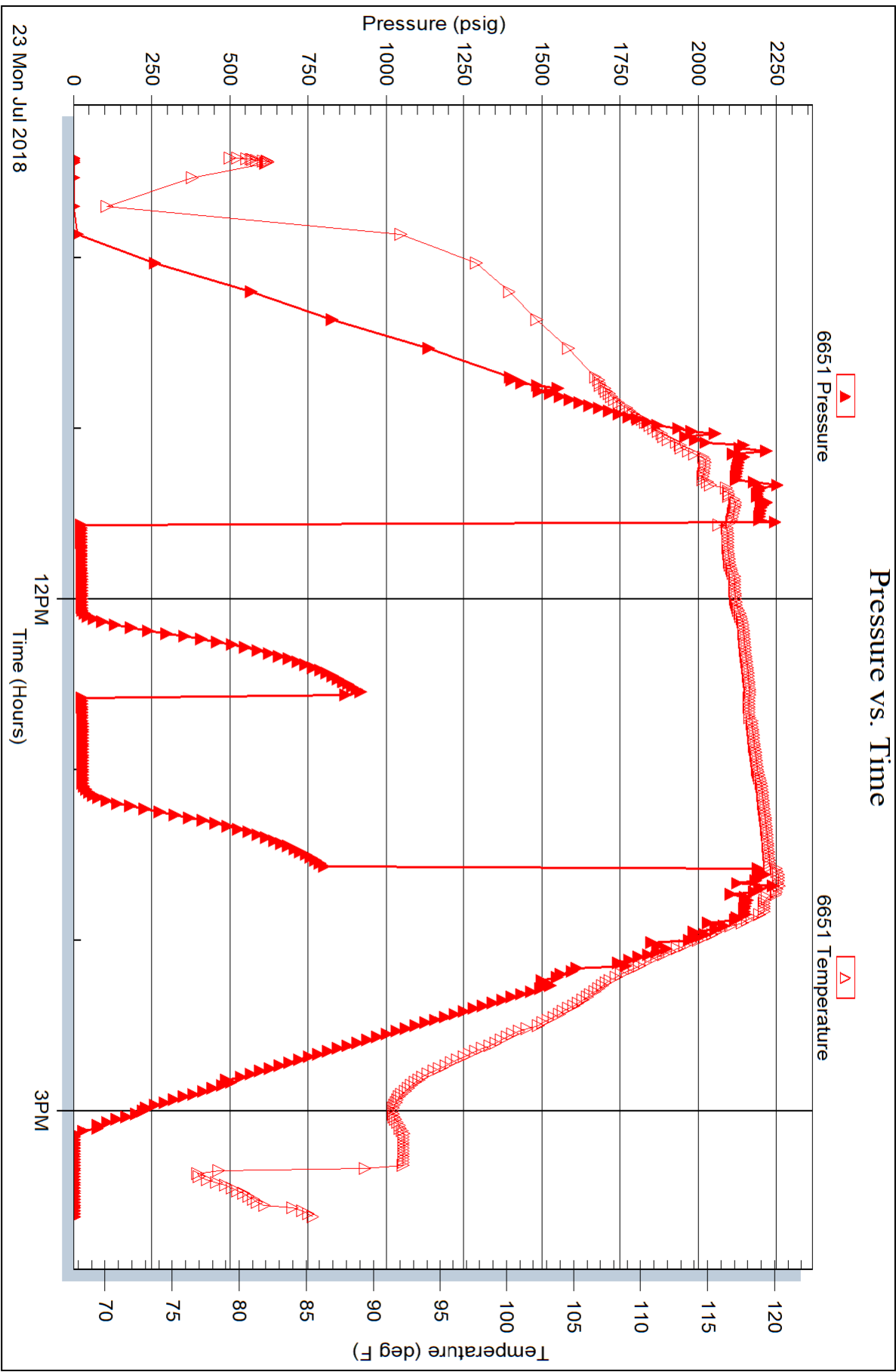
Serial #: 6651

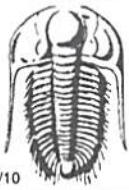
Inside

CMX Inc

Black Kettle #1-18

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63894**

Well Name & No. Black Kettle 1-18 Test No. 1 Date 7-18-18
 Company CMX Inc Elevation 2937 KB 2931 GL
 Address 1700 N Waterfront Pkwy BLDG 300B Wichita, KS 67206
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 31W Co. Scott State KS

Interval Tested 3982 4004 Zone Tested C
 Anchor Length 22 Drill Pipe Run 3981 Mud Wt. 8.7
 Top Packer Depth 3977 Drill Collars Run — Vis 51
 Bottom Packer Depth 3982 Wt. Pipe Run — WL 516
 Total Depth 4004 Chlorides 1500 ppm System LCM 1

Blow Description IF: 1/2 blow built to 1.
IS: No return.
FF: No blow. Flushed tool no blow.
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</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 Total 10 BHT 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1928</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>22:15</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:04</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>00:53</u>
(D) Initial Shut-In <u>951</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>3:08</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>4:50</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>54-</u> <u>54</u>	Comments
(G) Final Shut-In <u>882</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1943</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	Total <u>1529</u>

Approved By Mike Engelbrecht Sub Total 1529
 Our Representative [Signature]

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. **63895**

Well Name & No. Black Kettle 1-18 Test No. 2 Date 7-18-18
 Company CMX INC Elevation 2937 KB 2931 GL _____
 Address _____
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 31W Co. Scott State KS

Interval Tested 4006 4022 Zone Tested D
 Anchor Length _____ 16 Drill Pipe Run 3986 Mud Wt. 9.0
 Top Packer Depth _____ 4001 Drill Collars Run - Vis 56
 Bottom Packer Depth _____ 4006 Wt. Pipe Run _____ WL 6.4
 Total Depth _____ 4022 Chlorides 1800 ppm System LCM 1
 Blow Description IF: 1/2 blow built to 8.
IS: No return.
FF: BoB in 37 min. 12"
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>262</u>	<u>MLW</u>		<u>90</u>	<u>10</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Rec Total 262 BHT 121 Gravity ~~_____~~ API RW .10 @ 101 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic <u>1951</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:15</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:16</u>
(C) First Final Flow <u>67</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:59</u>
(D) Initial Shut-In <u>968</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>16:59</u>
(E) Second Initial Flow <u>70</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>18:53</u>
(F) Second Final Flow <u>132</u>	<input checked="" type="checkbox"/> Mileage <u>54- 54</u>	Comments _____
(G) Final Shut-In <u>971</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1906</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1529</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1529</u>	

Approved By Mike Engelbrecht Our Representative [Signature]
 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. **63896**

Well Name & No. Black Kettle 1-18 Test No. 3 Date 7-20-18
 Company CMX IOL Elevation 2937 KB 2931 GL
 Address _____
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 31W Co. Scott State KS

Interval Tested 4036 4060 Zone Tested E/F
 Anchor Length _____ 24 Drill Pipe Run 4019 Mud Wt. 9.0
 Top Packer Depth _____ 4031 Drill Collars Run _____ Vis 56
 Bottom Packer Depth _____ 4036 Wt. Pipe Run _____ WL 6.4
 Total Depth _____ 4060 Chlorides 1800 ppm System LCM 1
 Blow Description IF! 1/4 blow BOB in 24 min. 12"
IS! No return.
FK! BOB in 35 min. 12"
FS! No return.

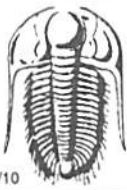
Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free oil</u>	<u>100</u>			
<u>146</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>126</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 273 BHT 121 Gravity _____ API RW -30 @ 74 ° F Chlorides 21,000 ppm

(A) Initial Hydrostatic <u>2003</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:45</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2:17</u>
(C) First Final Flow <u>79</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>3:55</u>
(D) Initial Shut-In <u>959</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>6:55</u>
(E) Second Initial Flow <u>83</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:01</u>
(F) Second Final Flow <u>146</u>	<input checked="" type="checkbox"/> Mileage <u>54</u> 54	Comments _____
(G) Final Shut-In <u>920</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1925</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>1529</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	

Sub Total 1529

Approved By Mike Engelbrecht Our Representative [Signature]
 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. **63897**

Well Name & No. Black Kettle 1-18 Test No. 4 Date 7-20-18
 Company CMX FAC Elevation 2937 KB 2931 GL
 Address _____
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 31W Co. Scott State KS

Interval Tested 4128 4190 Zone Tested H-I
 Anchor Length 62 Drill Pipe Run 4113 Mud Wt. 9.1
 Top Packer Depth 4123 Drill Collars Run — Vis 55
 Bottom Packer Depth 4128 Wt. Pipe Run — WL 5.6
 Total Depth 4190 Chlorides 2300 ppm System LCM 1
 Blow Description IF: BoB in 8 min. 31"
IS: No return,
FF: BoB in 12 min. 34"
FS: No return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>166</u>	<u>wcm</u>		<u>10</u>	<u>90</u>	
<u>252</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>315</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 733 BHT 122 Gravity — API RW 16 @ 70 °F Chlorides 44,000 ppm

(A) Initial Hydrostatic 2062 Test 1150
 (B) First Initial Flow 39 Jars 250
 (C) First Final Flow 210 Safety Joint 75
 (D) Initial Shut-In 998 Circ Sub NIL
 (E) Second Initial Flow 185 Hourly Standby _____
 (F) Second Final Flow 337 Mileage 54- 54
 (G) Final Shut-In 954 Sampler _____
 (H) Final Hydrostatic 2002 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

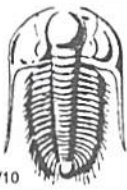
T-On Location 22:00
 T-Started 23:32
 T-Open 1:19
 T-Pulled 4:19
 T-Out 6:30

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1529
 MP/DST Disc't _____

Approved By Mike Engelbrecht Sub Total 1529 Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63898**

Well Name & No. Black Kettle 1-18 Test No. 5 Date 7-21-18
 Company CMX Inc Elevation 2937 KB 2931 GL
 Address _____
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 3/W Co. Scott State KS

Interval Tested 4196 4217 Zone Tested J
 Anchor Length 23 Drill Pipe Run 4176 Mud Wt. 9.2
 Top Packer Depth 4191 Drill Collars Run _____ Vis 58
 Bottom Packer Depth 4196 Wt. Pipe Run _____ WL 6.4
 Total Depth 4217 Chlorides 2600 ppm System LCM 1

Blow Description FF: BoB in 7 min. 40"
FS: No return.
FF: BoB in 7 min. 57 3/4.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>166</u>	<u>wcm</u>		<u>40</u>	<u>60</u>	
<u>819</u>	<u>mcw</u>		<u>95</u>	<u>5</u>	
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

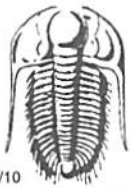
Rec Total 985 BHT 124 Gravity _____ API RW .12 @ 92 ° F Chlorides 48,000 ppm

(A) Initial Hydrostatic 2121 Test 1150 T-On Location 12:30
 (B) First Initial Flow 28 Jars 250 T-Started 13:24
 (C) First Final Flow 221 Safety Joint 75 T-Open 15:15
 (D) Initial Shut-In 1113 Circ Sub NIL T-Pulled 18:12
 (E) Second Initial Flow 217 Hourly Standby _____ T-Out 20:37
 (F) Second Final Flow 462 Mileage 54- 54 Comments _____
 (G) Final Shut-In 1111 Sampler _____
 (H) Final Hydrostatic 2015 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1529

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Approved By Mike Engelbrecht Our Representative _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63899**

Well Name & No. Black Kettle 1-18 Test No. 6 Date 7-23-18
 Company CMX INC Elevation 2937 KB 2931 GL
 Address _____
 Co. Rep / Geo. Mike Engelbrecht Rig Duke 2
 Location: Sec. 18 Twp. 16 Rge. 31W Co. Scott State KS

Interval Tested 4512 4575 Zone Tested Johnson
 Anchor Length 63 Drill Pipe Run 4510 Mud Wt. 9.0
 Top Packer Depth 4507 Drill Collars Run — Vis 67
 Bottom Packer Depth 4212 Wt. Pipe Run — WL 6.2
 Total Depth 4575 Chlorides 3400 ppm System LCM 2

Blow Description IF: 1/4 blow died in 17 min.
IS: No return,
FF No blow Flushed tool no blow.
FS: No return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud 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 Total 5 BHT 120 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2239 Test 1150
 (B) First Initial Flow 18 Jars 250
 (C) First Final Flow 18 Safety Joint 75
 (D) Initial Shut-In 917 Circ Sub NIC
 (E) Second Initial Flow 19 Hourly Standby _____
 (F) Second Final Flow 22 Mileage 54-X 2 108
 (G) Final Shut-In 794 Sampler _____
 (H) Final Hydrostatic 2187 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1583

T-On Location 8:30
 T-Started 9:24
 T-Open 11:33
 T-Pulled 13:33
 T-Out 15:37
 Comments loaded tools 7/24 4:45
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1583
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Approved By Mike Engelbrecht Our Representative [Signature]

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