

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 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:	
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FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 1060
 LOCATION Hoxie
 FOREMAN Tom Williams

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-5-23	5610	G0141 #1	5	6	21	Graham

CUSTOMER Bruce Oil
 MAILING ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____

TRUCK #	DRIVER	TRUCK #	DRIVER
103	Tom W		
201	Jack T		

JOB TYPE Surface HOLE SIZE 12 7/4" HOLE DEPTH 220' CASING SIZE & WEIGHT 8 1/8" 23#
 CASING DEPTH 220' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Setup meeting + set up on Discovery #4 - Circulate mud.
Mix 200s# 80/20 842. Displace 12.5 Bbl + shut in 7:30 am
Cement Circulated

Thanks Tom & Jack

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
72002	1	PUMP CHARGE <u>Surface</u>	\$1150.00	\$1150.00
72001	55	MILEAGE	\$6.30	\$357.50
72002	9.65 tons	Ton Mileage Delivery	\$798.60	\$798.60
72009	200 s#	80/20 3% cc. 2% gel	\$20.95	\$4190.00
			sub total	\$6,496.10
			less 5% disc.	\$324.80
			sub total	\$6,171.30
			SALES TAX	298.54
			ESTIMATED TOTAL	6469.84

AUTHORIZATION Pgr Sachl TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 1067
 LOCATION Hoxie
 FOREMAN Tom Williams

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-12-23	5610	G0141 #1	5	6	21	Curry

CUSTOMER Brace O:1
 MAILING ADDRESS _____
 CITY _____ STATE _____ ZIP CODE _____

TRUCK #	DRIVER	TRUCK #	DRIVER
103	Tom W		
203	Chris K		

JOB TYPE RTA HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE 4 1/2" TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT-LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & set up on Discovery #4 Plug as ordered

- 1) 3996 50sy
- 2) 1900 50sy
- 3) 1200 100sy
- 4) 275 50sy
- 5) 40' 10sy w/ plug
- RH- 30 MH 15

305 ETC1

Thanks Tom & Chris

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
P005	1	PUMP CHARGE PTA	\$1500.00	\$1500.00
M001	\$5	MILEAGE	\$1.50	\$357.50
M002	13.57 EAS	Tan mileage Delivery	\$1,119.52	\$1,119.52
CB000	30551	G0141 490-gal 4 1/2" Plug	\$17.35	\$5291.75
FR055	1	8 1/4" wooden plug	\$165.00	\$165.00
			sub total	\$8433.77
			less 5% disc.	\$421.48
			sub total	\$8012.09
			SALES TAX	388.79
			ESTIMATED TOTAL	8400.89

AUTHORIZATION Ryan Jacob TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company Inc**

1704 Limestone Rd
McPherson KS 67460+6500

ATTN: Mike Engelbrecht

Golti #1

5-6s-21w Graham KS

Start Date: 2023.09.08 @ 21:16:00

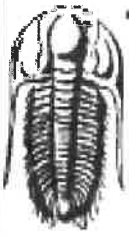
End Date: 2023.09.09 @ 04:41:07

Job Ticket #: 71135 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.09.13 @ 17:06:53

Bruce Oil Company Inc 5-6s-21w Graham KS Golti #1 DST # 1 Topoka 2023.09.08



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
 1704 Limestone Rd
 McPherson KS 67460+6500
 ATTN: Mike Engelbrecht

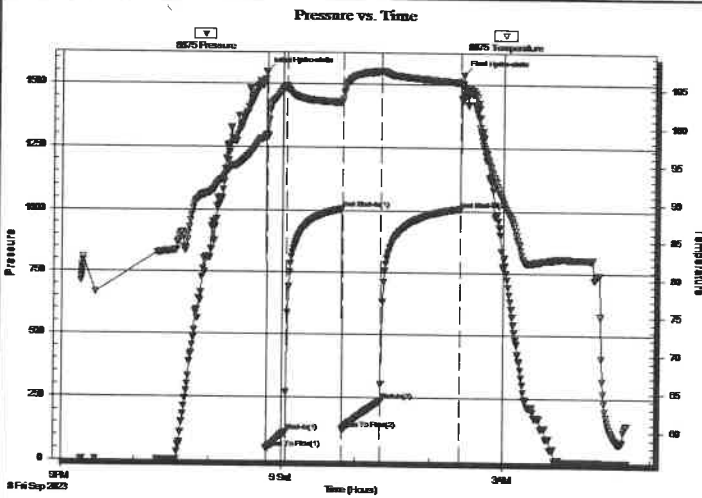
5-6s-21w Graham KS
Goltl #1
 Job Ticket: 71135 DST#: 1
 Test Start: 2023.09.08 @ 21:16:00

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 23:47:02 Tester: Spencer J Staab
 Time Test Ended: 04:41:07 Unit No: 84
 Interval: **3254.00 ft (KB) To 3284.00 ft (KB) (TVD)** Reference Elevations: 2260.00 ft (KB)
 Total Depth: 3284.00 ft (KB) (TVD) 2252.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 8.00 ft

Serial #: 8875 Outside
 Press@RunDepth: 239.23 psig @ 3255.00 ft (KB) Capacity: psig
 Start Date: 2023.09.08 End Date: 2023.09.09 Last Calib.: 2023.09.09
 Start Time: 21:16:01 End Time: 04:41:07 Time On Btm: 2023.09.08 @ 23:46:42
 Time Off Btm: 2023.09.09 @ 02:26:42

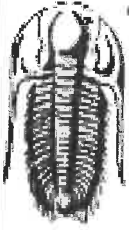
TEST COMMENT: 15-IF-BOB 6.5 mins Built to 23.25"
 45-ISI-Very Weak Surface Died @ 5 mins
 30-FF-BOB 7 mins Built to 35.25"
 60-FSI-No Return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1544.54	99.00	Initial Hydro-static
1	49.74	98.80	Open To Flow (1)
17	113.85	105.33	Shut-In(1)
62	1005.46	103.30	End Shut-In(1)
63	126.39	103.67	Open To Flow (2)
94	239.23	107.29	Shut-In(2)
158	1008.12	105.92	End Shut-In(2)
160	1536.90	105.26	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
260.00	Water 100%W	3.41
120.00	SOCMW 5%O 30%M 65%W	1.70
90.00	OCWM 10%O 15%W 75%M	1.28
30.00	Heavy Oil 100%O Gravity < 19	0.43
0.00	RW=.081@65F=110,000	0.00

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

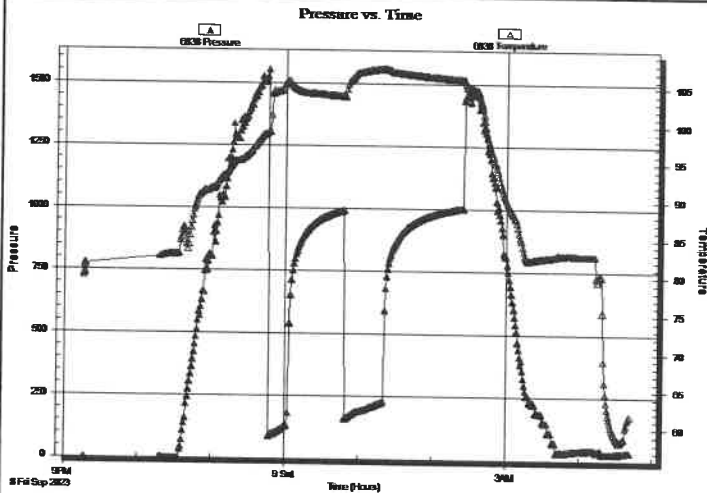
5-6s-21w Graham KS
Golft #1
Job Ticket: 71135 DST#: 1
Test Start: 2023.09.08 @ 21:16:00

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:47:02
Time Test Ended: 04:41:07
Interval: **3254.00 ft (KB) To 3284.00 ft (KB) (TVD)**
Total Depth: 3284.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2260.00 ft (KB)
2252.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6838 Inside
Press@RunDepth: psig @ 3255.00 ft (KB)
Start Date: 2023.09.08 End Date: 2023.09.09 Capacity:
Start Time: 21:16:01 End Time: 04:41:07 Last Calib.: 2023.09.09
Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF-BOB 6.5 mins Built to 23.25"
45-ISI-Very Weak Surface Died @ 5 mins
30-FF-BOB 7 mins Built to 35.25"
60-FSI-No Return



PRESSURE SUMMARY

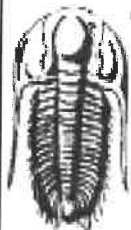
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
260.00	Water 100%W	3.41
120.00	SOCMW 5%O 30%M 65%W	1.70
90.00	OCWM 10%O 15%W 75%M	1.28
30.00	Heavy Oil 100%O Gravity < 19	0.43
0.00	RW=.081@65F=110,000	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Golt #1
Job Ticket: 71135 **DST#: 1**
Test Start: 2023.09.08 @ 21:16:00

Tool Information

Drill Pipe:	Length: 3197.00 ft	Diameter: 3.82 inches	Volume: 45.32 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	62000.00 daN
			<u>Total Volume:</u> - bbl	Tool Chased	ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	51000.00 daN
Depth to Top Packer:	3254.00 ft			Final	53000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	62.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

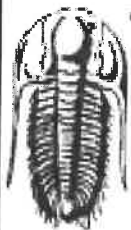
Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3223.00	
Shut In Tool	5.00			3228.00	
Hydraulic tool	5.00			3233.00	
Jars	5.00			3238.00	
Gap Sub	4.00			3242.00	
Safety Joint	3.00			3245.00	
Packer	5.00			3250.00	32.00 Bottom Of Top Packer
Packer	4.00			3254.00	
Stubb	1.00			3255.00	
Recorder	0.00	6838	Inside	3255.00	
Recorder	0.00	8875	Outside	3255.00	
Perforations	26.00			3281.00	
Bullnose	3.00			3284.00	30.00 Bottom Packers & Anchor

Total Tool Length: 62.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bruce Oil Company Inc

5-6s-21w Graham KS

1704 Limestone Rd
McPherson KS 67460+6500

Golt #1

Job Ticket: 71135 **DST#: 1**

ATTN: Mike Engelbrecht

Test Start: 2023.09.08 @ 21:16:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 110000 ppm	
Viscosity: 69.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	Water 100%W	3.408
120.00	SOCMW 5%O 30%M 65%W	1.701
90.00	OCWM 10%O 15%W 75%M	1.276
30.00	Heavy Oil 100%O Gravity < 19	0.425
0.00	RW=.081@65F=110,000	0.000

Total Length: 500.00 ft Total Volume: 6.810 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 2#LCM
RW=.081@65F

Serial #: 8875

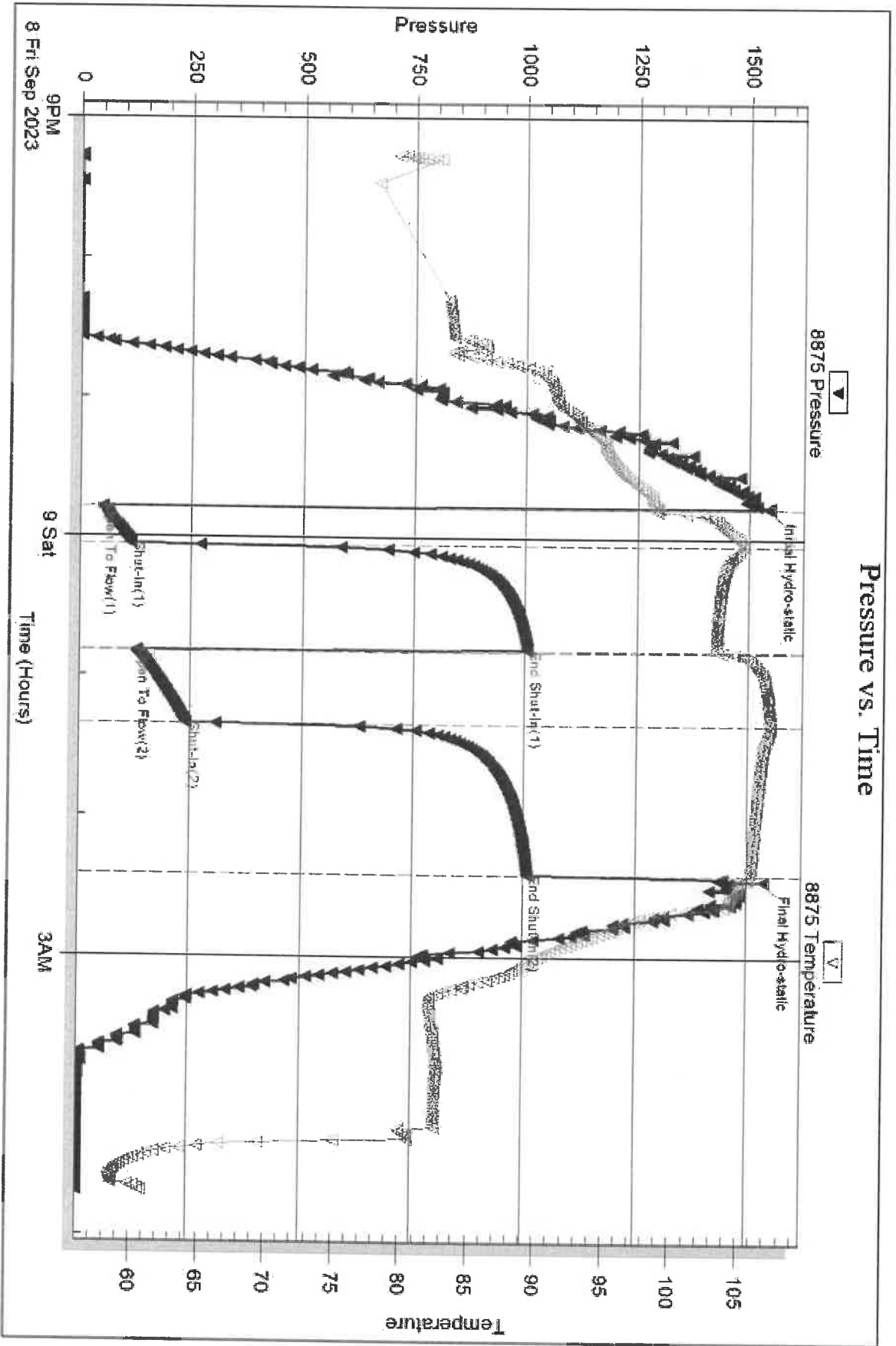
Outside

Bruce Oil Company Inc

Gain #1

CST Test Number: 1

Pressure vs. Time



Triadrite Testing, Inc

Ref. No: 71135

Printed: 2023.09.13 @ 17:06:53

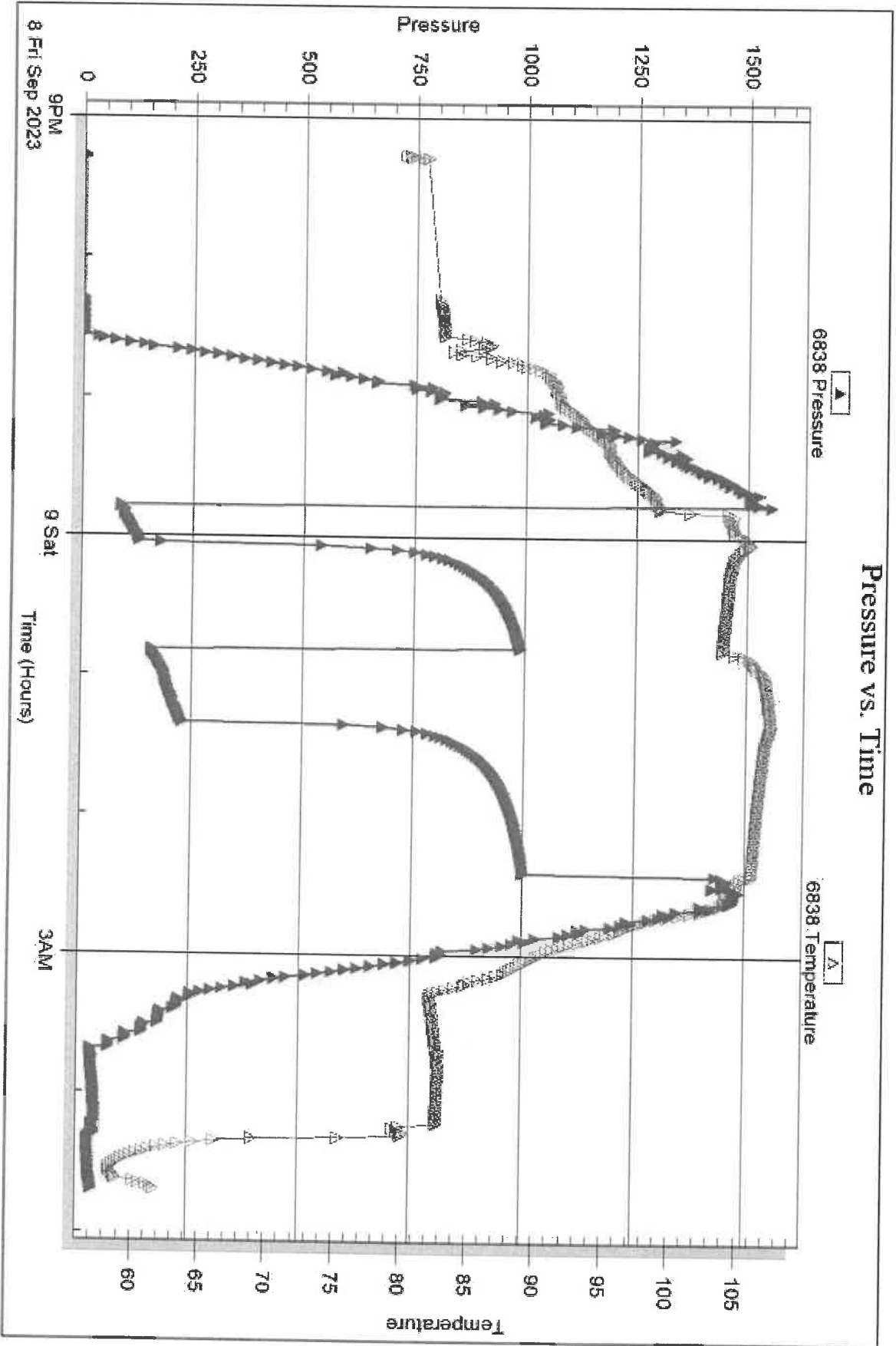
Serial #: 6838

Inside

Bruce Oil Company Inc

Cell #1

DST Test Number: 1



Triadite Testing, Inc

Ref. No: 71135

Printed: 2023 09 13 @ 17:06:54



DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company Inc**

1704 Limestone Rd
McPherson KS 67460+6500

ATTN: Mike Engelbrecht

Goltl #1

5-6s-21w Graham KS

Start Date: 2023.09.09 @ 22:16:00

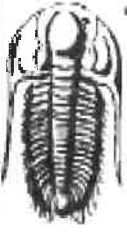
End Date: 2023.09.10 @ 04:55:07

Job Ticket #: 71136 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.09.13 @ 17:06:24

Bruce Oil Company Inc
5-6s-21w Graham KS
Goltl #1
DST # 2
Top-LKC A
2023.09.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Goltl #1
Job Ticket: 71136 **DST#: 2**
Test Start: 2023.09.09 @ 22:16:00

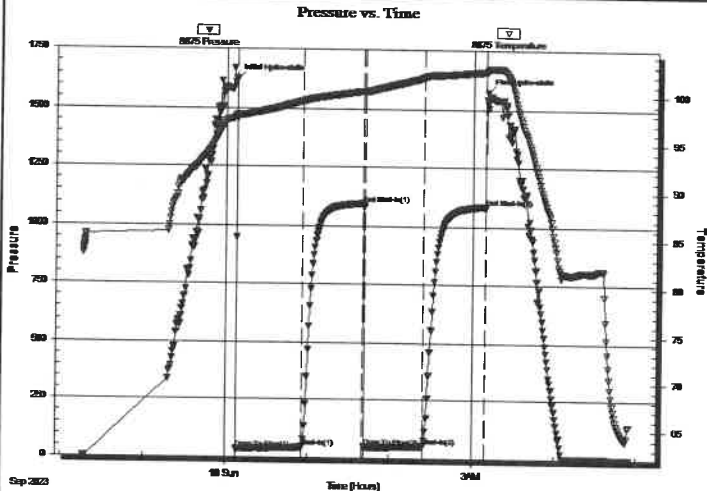
GENERAL INFORMATION:

Formation: Tor-LKC A	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Spencer J Staab
Time Tool Opened: 00:08:02	Unit No: 84
Time Test Ended: 04:55:07	Reference Elevations: 2260.00 ft (KB)
Interval: 3405.00 ft (KB) To 3466.00 ft (KB) (TVD)	2252.00 ft (CF)
Total Depth: 3466.00 ft (KB) (TVD)	KB to GR/CF: 8.00 ft
Hole Diameter: 7.88 inches	Hole Condition:

Serial #: 8875 Inside

Press@RunDepth: 51.77 psig @ 3408.00 ft (KB)	Capacity:	psig
Start Date: 2023.09.09	End Date: 2023.09.10	Last Calib.: 2023.09.10
Start Time: 22:16:01	End Time: 04:55:07	Time On Btm: 2023.09.10 @ 00:07:42
		Time Off Btm: 2023.09.10 @ 03:10:37

TEST COMMENT: 45-IF-Slid 5' Bled off 2.25" Blow Surface to 1.5"
45-IS-No Return
45-FF-Surface to 1.25"
45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1622.48	97.99	Initial Hydro-static
1	36.73	97.54	Open To Flow (1)
48	42.72	99.41	Shut-In(1)
93	1095.49	100.44	End Shut-In(1)
94	47.75	100.33	Open To Flow (2)
137	51.77	101.94	Shut-In(2)
182	1087.10	102.53	End Shut-In(2)
183	1573.78	102.63	Final Hydro-static

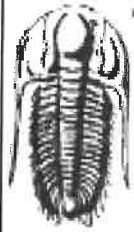
Recovery

Length (ft)	Description	Volume (bbl)
70.00	Mud w/oil spots 100%M	0.71

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

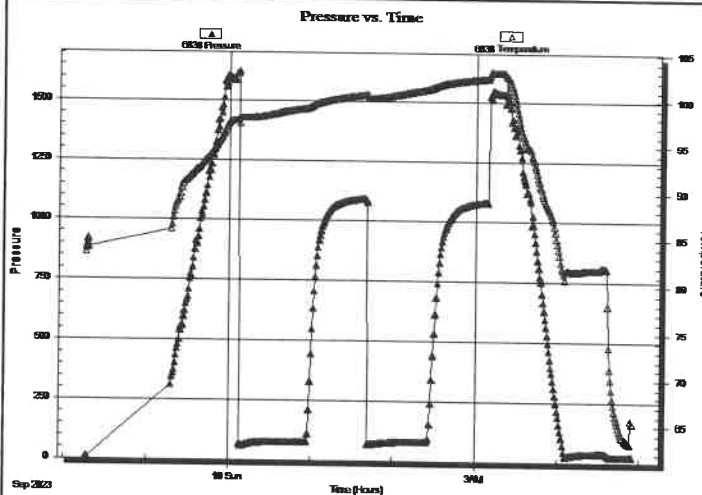
5-6s-21w Graham KS
Goltl #1
Job Ticket: 71136 **DST#: 2**
Test Start: 2023.09.09 @ 22:16:00

GENERAL INFORMATION:

Formation: **Tor-LKC A**
Deviated: **No** Whipstock: _____ ft (KB)
Time Tool Opened: 00:08:02 Test Type: Conventional Bottom Hole (Reset)
Time Test Ended: 04:55:07 Tester: Spencer J Staab
Unit No: 84
Interval: **3405.00 ft (KB) To 3466.00 ft (KB) (TVD)** Reference Elevations: 2260.00 ft (KB)
Total Depth: 3466.00 ft (KB) (TVD) 2252.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 8.00 ft

Serial #: 6838 Inside
Press@RunDepth: _____ psig @ 3408.00 ft (KB) Capacity: _____ psig
Start Date: 2023.09.09 End Date: 2023.09.10 Last Calib.: 2023.09.10
Start Time: 22:16:01 End Time: 04:55:07 Time On Btm: _____
Time Off Btm: _____

TEST COMMENT: 45-IF-Slid 5' Bled off 2.25" Blow Surface to 1.5"
45-ISI-No Return
45-FF-Surface to 1.25"
45-FSI-No Return



PRESSURE SUMMARY

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

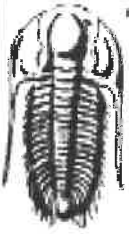
Recovery

Length (ft)	Description	Volume (bbl)
70.00	Mud w/oil spots 100%M	0.71

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

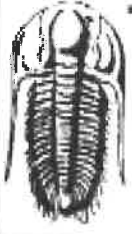
5-6s-21w Graham KS
Goltl #1
Job Ticket: 71136 **DST#: 2**
Test Start: 2023.09.09 @ 22:16:00

Tool Information

Drill Pipe:	Length: 3351.00 ft	Diameter: 3.82 inches	Volume: 47.50 bbl	Tool Weight: 2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 daN
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 daN
		Total Volume: - bbl		Tool Chased 5.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 51000.00 daN
Depth to Top Packer:	3405.00 ft			Final 51000.00 daN
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3374.00	
Shut In Tool	5.00			3379.00	
Hydraulic tool	5.00			3384.00	
Jars	5.00			3389.00	
Gap Sub	4.00			3393.00	
Safety Joint	3.00			3396.00	
Packer	5.00			3401.00	32.00 Bottom Of Top Packer
Packer	4.00			3405.00	
Stubb	1.00			3406.00	
Perforations	1.00			3407.00	
Change Over Sub	1.00			3408.00	
Recorder	0.00	6838	Inside	3408.00	
Recorder	0.00	8875	Inside	3408.00	
Drill Pipe	32.00			3440.00	
Change Over Sub	1.00			3441.00	
Perforations	22.00			3463.00	
Bullnose	3.00			3466.00	61.00 Bottom Packers & Anchor
Total Tool Length:	93.00				



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Bruce Oil Company Inc
 1704 Limestone Rd
 McPherson KS 67460+6500
 ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Golt #1
 Job Ticket: 71136 **DST#: 2**
 Test Start: 2023.09.09 @ 22:16:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	Mud w/oil spots 100%M	0.715

Total Length: 70.00 ft Total Volume: 0.715 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 2#LCM

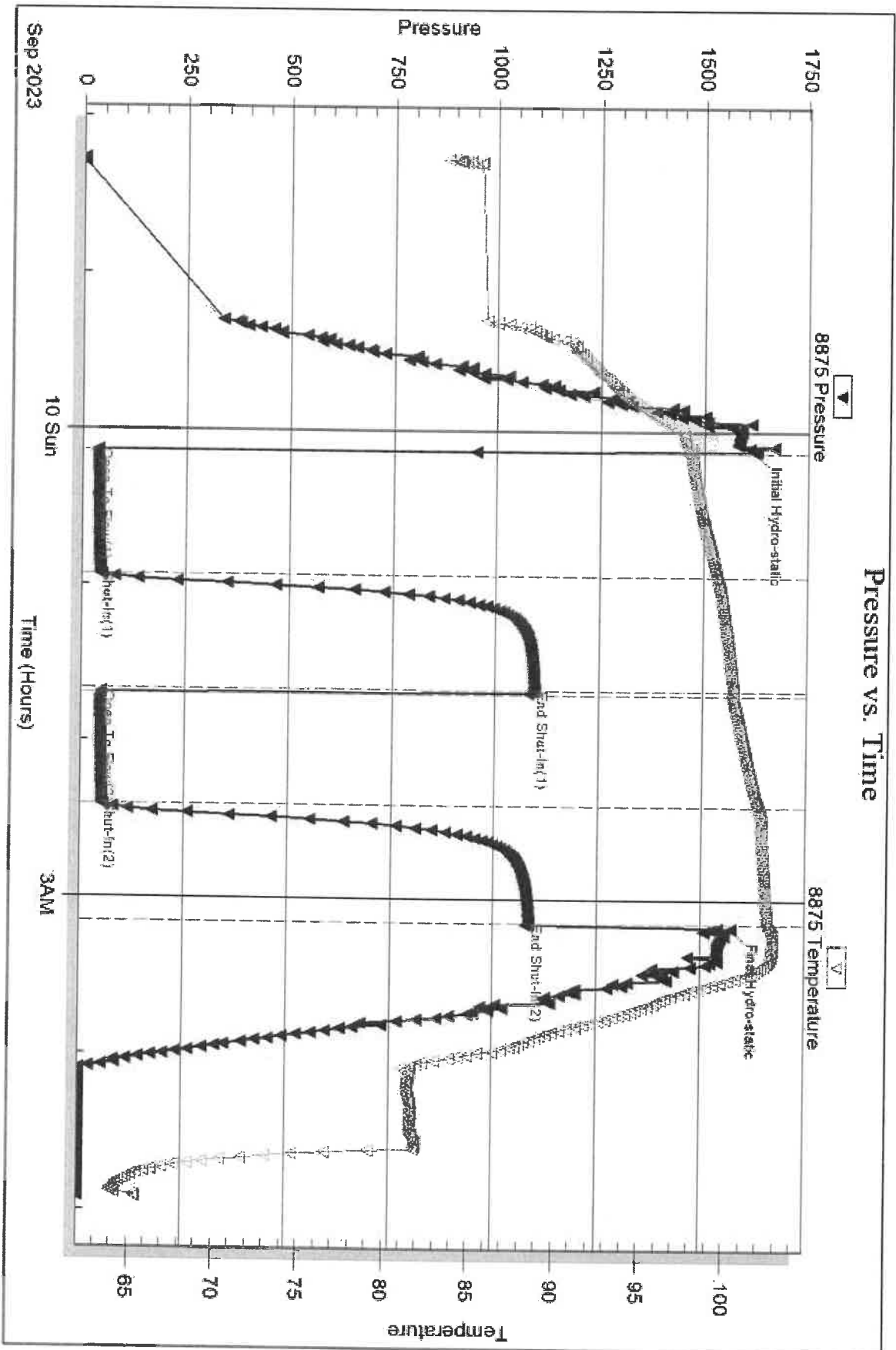
Serial #: 8875

Inside

Bruce Oil Company Inc

Well #1

DST Test Number: 2



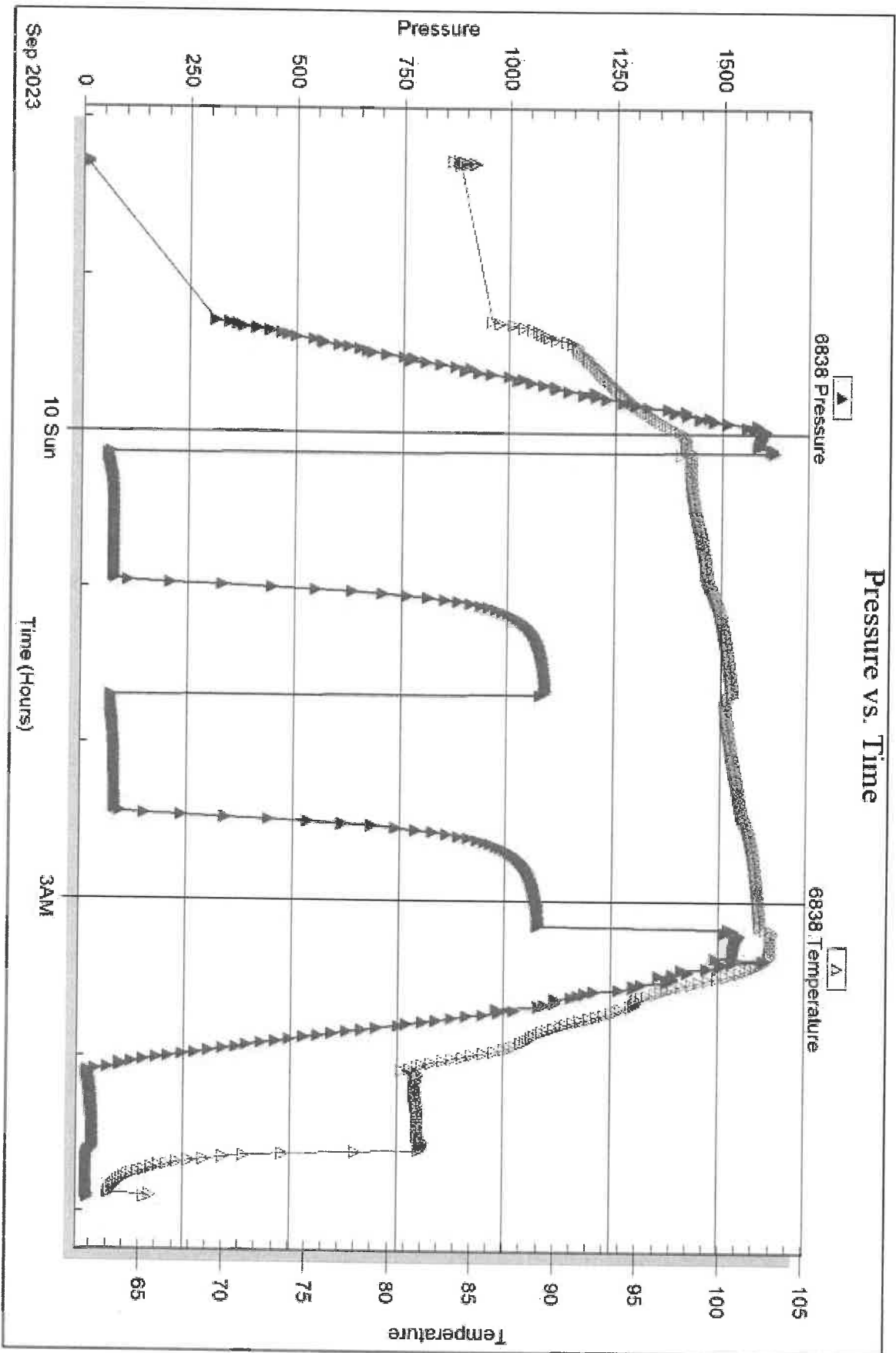
Serial #: 6838

Inside

Bruce Oil Company Inc

Cell #1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 71136

Printed: 2023.09.13 @ 17:06:25



DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company Inc**

1704 Limestone Rd
McPherson KS 67460+6500

ATTN: Mike Engelbrecht

Goltl #1

5-6s-21w Graham KS

Start Date: 2023.09.10 @ 11:59:00

End Date: 2023.09.10 @ 18:04:52

Job Ticket #: 71137 DST #: 3

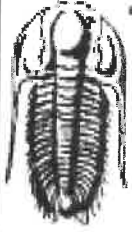
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2023.09.13 @ 16:35:39

Bruce Oil Company Inc
5-6s-21w Graham KS
Goltl #1
DST # 3
LKC C
2023.09.10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

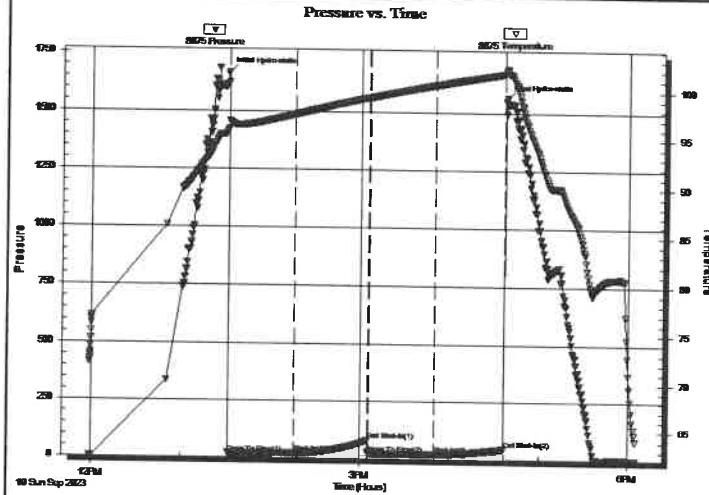
5-6s-21w Graham KS
Golt #1
Job Ticket: 71137 **DST#: 3**
Test Start: 2023.09.10 @ 11:59:00

GENERAL INFORMATION:

Formation: **LKC C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:31:57
Time Test Ended: 18:04:52
Interval: **3475.00 ft (KB) To 3500.00 ft (KB) (TVD)**
Total Depth: 3500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2260.00 ft (KB)
2252.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875 **Outside**
Press@RunDepth: 19.98 psig @ 3476.00 ft (KB)
Start Date: 2023.09.10 End Date: 2023.09.10 Capacity: psig
Start Time: 11:59:01 End Time: 18:04:52 Last Calib.: 2023.09.10
Time On Btm: 2023.09.10 @ 13:31:52
Time Off Btm: 2023.09.10 @ 16:37:56

TEST COMMENT: 45-IF-Surface to 0.5" Died back to 0.25"
45-ISI-No Return
45-FF-Weak Surface Died @ 20 mins
45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.53	96.77	Initial Hydro-static
1	17.73	96.00	Open To Flow (1)
45	19.01	97.50	Shut-In(1)
94	78.03	99.25	End Shut-In(1)
94	19.09	99.26	Open To Flow (2)
139	19.98	100.57	Shut-In(2)
185	43.21	101.79	End Shut-In(2)
187	1564.40	102.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%M	0.02

* Recovery from multiple tests

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (MMcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

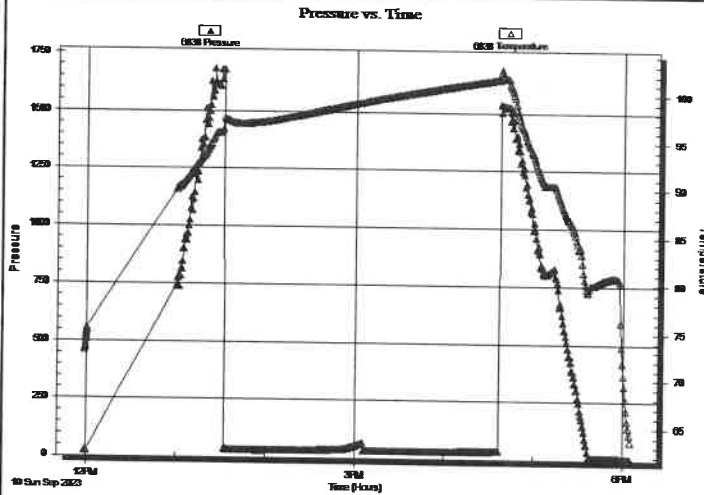
5-6s-21w Graham KS
Gold #1
Job Ticket: 71137 **DST#: 3**
Test Start: 2023.09.10 @ 11:59:00

GENERAL INFORMATION:

Formation: **LKC C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:31:57
Time Test Ended: 18:04:52
Interval: **3475.00 ft (KB) To 3500.00 ft (KB) (TVD)**
Total Depth: 3500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2260.00 ft (KB)
2252.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6838 **Inside**
Press@RunDepth: psig @ 3476.00 ft (KB) Capacity: psig
Start Date: 2023.09.10 End Date: 2023.09.10 Last Calib.: 2023.09.10
Start Time: 11:59:01 End Time: 18:04:52 Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IF-Surface to 0.5" Died back to 0.25"
45-ISI-No Return
45-FF-Weak Surface Died @ 20 mins
45-FSI-No Return



PRESSURE SUMMARY

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

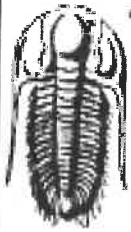
Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Golft #1
Job Ticket: 71137 **DST#: 3**
Test Start: 2023.09.10 @ 11:59:00

Tool Information

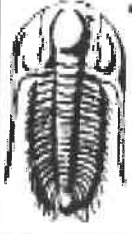
Drill Pipe:	Length: 3417.00 ft	Diameter: 3.82 inches	Volume: 48.44 bbl	Tool Weight: 2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 daN
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 71000.00 daN
		<u>Total Volume: - bbl</u>		Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 52000.00 daN
Depth to Top Packer:	3475.00 ft			Final 52000.00 daN
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 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			3444.00	
Shut In Tool	5.00			3449.00	
Hydraulic tool	5.00			3454.00	
Jars	5.00			3459.00	
Gap Sub	4.00			3463.00	
Safety Joint	3.00			3466.00	
Packer	5.00			3471.00	32.00 Bottom Of Top Packer
Packer	4.00			3475.00	
Stubb	1.00			3476.00	
Recorder	0.00	6838	Inside	3476.00	
Recorder	0.00	8875	Outside	3476.00	
Perforations	21.00			3497.00	
Bullnose	3.00			3500.00	25.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Goltl #1
Job Ticket: 71137 **DST#: 3**
Test Start: 2023.09.10 @ 11:59:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 70.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

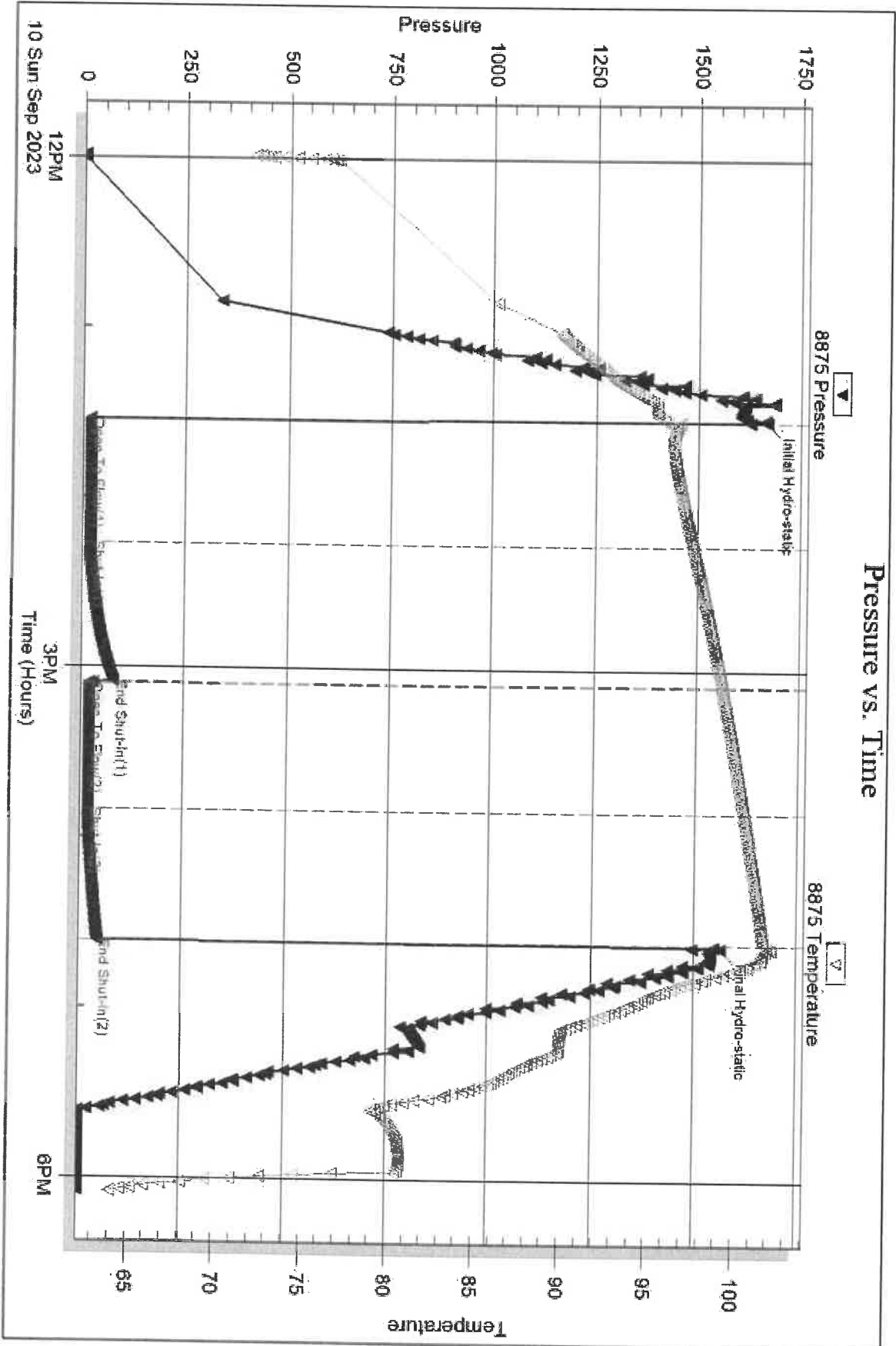
Recovery Comments: 5#LCM

Serial #: 8875

Outside Bruce Oil Company Inc

Gold #1

DST Test Number: 3



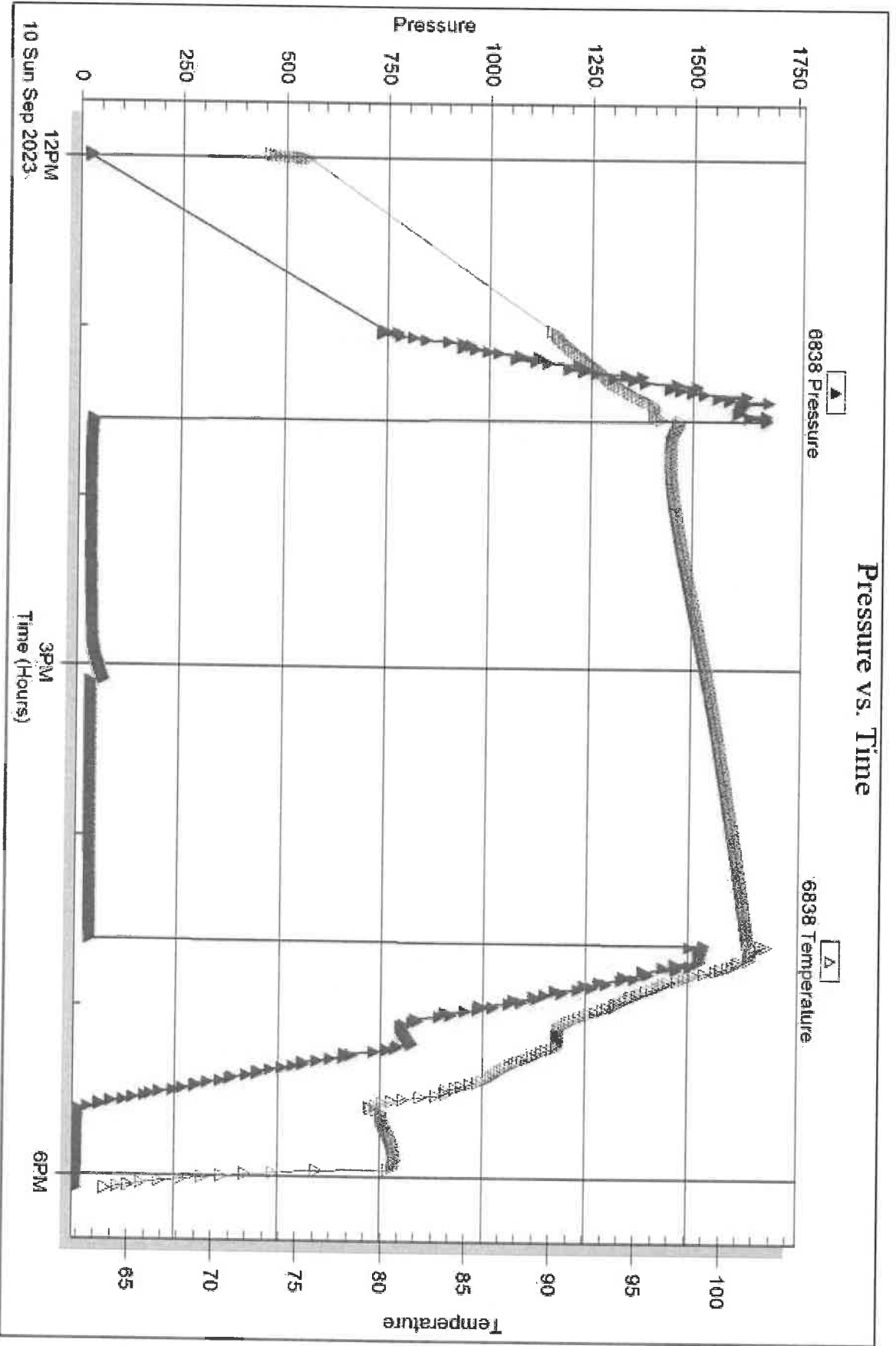
Serial #: 6838

Inside

Bruce Oil Company Inc

GDH #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 71137

Printed: 2023/09/15 @ 16:55:40



DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company Inc**

1704 Limestone Rd
McPherson KS 67460+6500

ATTN: Mike Engelbrecht

Goltl #1

5-6s-21w Graham KS

Start Date: 2023.09.11 @ 02:19:00

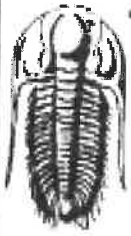
End Date: 2023.09.11 @ 08:38:52

Job Ticket #: 71138 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.09.13 @ 12:35:54

Bruce Oil Company Inc
5-6s-21w Graham KS
Goltl #1
DST # 4
LKC D-F
2023.09.11



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Gold #1
Job Ticket: 71138 **DST#: 4**
Test Start: 2023.09.11 @ 02:19:00

GENERAL INFORMATION:

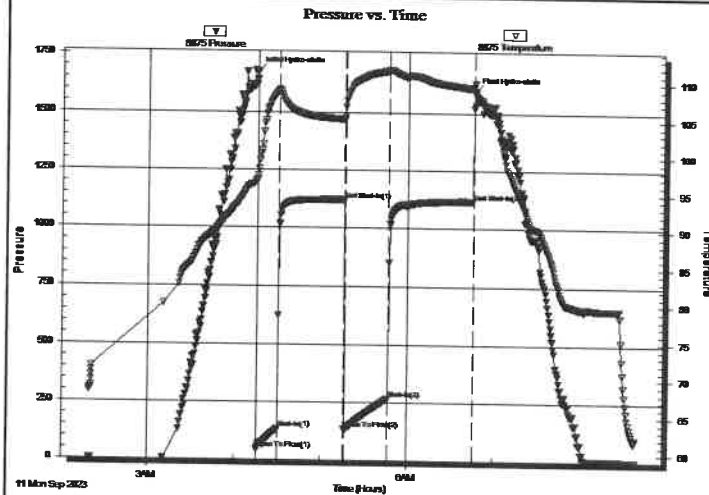
Formation: **LKC D-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:15:37
Time Test Ended: 08:38:52
Interval: **3498.00 ft (KB) To 3530.00 ft (KB) (TVD)**
Total Depth: 3530.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2260.00 ft (KB)
2252.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8875

Outside

Press@RunDepth: 267.15 psig @ 3499.00 ft (KB)
Start Date: 2023.09.11 End Date: 2023.09.11 Capacity: psig
Start Time: 02:19:01 End Time: 08:38:52 Last Calib.: 2023.09.11
Time On Btm: 2023.09.11 @ 04:15:22
Time Off Btm: 2023.09.11 @ 06:46:17

TEST COMMENT: 15-IF-BOB 7 mins Built to 24"
45-ISI-Weak Surface to 0.25"
30-FF-BOB 8 mins Built to 39"
60-FSI-Surface to 0.25"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.80	96.94	Initial Hydro-static
1	43.90	96.85	Open To Flow (1)
15	132.19	108.94	Shut-In(1)
61	1124.35	105.12	End Shut-In(1)
61	130.47	105.59	Open To Flow (2)
92	267.15	111.65	Shut-In(2)
151	1119.46	109.36	End Shut-In(2)
151	1594.94	109.91	Final Hydro-static

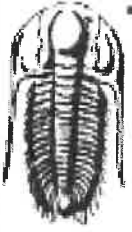
Recovery

Length (ft)	Description	Volume (bbl)
300.00	Water 100%W	3.97
240.00	MCW 15%M 85%W	3.40
0.00	RW=.151@62F=59,000	0.00

* Recovery from multiple tests

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (MMcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Goltl #1
Job Ticket: 71138 **DST#: 4**
Test Start: 2023.09.11 @ 02:19:00

GENERAL INFORMATION:

Formation: **LKC D-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:15:37
Time Test Ended: 08:38:52

Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84

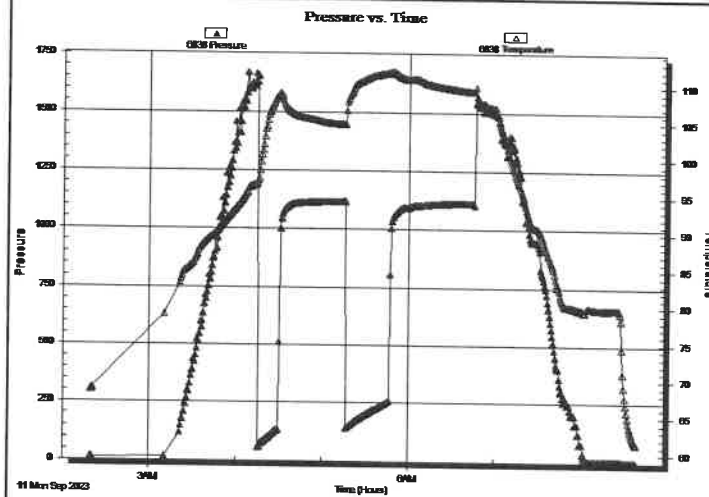
Interval: **3498.00 ft (KB) To 3530.00 ft (KB) (TVD)**
Total Depth: 3530.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2260.00 ft (KB)
2252.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6838 Inside

Press@RunDepth: psig @ 3499.00 ft (KB)	Capacity: psig
Start Date: 2023.09.11 End Date: 2023.09.11	Last Calib.: 2023.09.11
Start Time: 02:19:01 End Time: 08:38:52	Time On Btm:
	Time Off Btm:

TEST COMMENT: 15-IF-BOB 7 mins Built to 24"
45-ISI-Weak Surface to 0.25"
30-FF-BOB 8 mins Built to 39"
60-FSI-Surface to 0.25"



PRESSURE SUMMARY

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

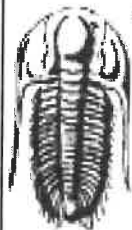
Recovery

Length (ft)	Description	Volume (bbl)
300.00	Water 100%W	3.97
240.00	MCW 15%M 85%W	3.40
0.00	RW=.151@62F=59,000	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company Inc

5-6s-21w Graham KS

1704 Limestone Rd
McPherson KS 67460+6500

Golt #1

Job Ticket: 71138

DST#: 4

ATTN: Mike Engelbrecht

Test Start: 2023.09.11 @ 02:19:00

Tool Information

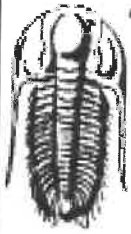
Drill Pipe:	Length: 3448.00 ft	Diameter: 3.82 inches	Volume: 48.88 bbl	Tool Weight: 2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 daN
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 daN
		Total Volume: - bbl		Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 52000.00 daN
Depth to Top Packer:	3498.00 ft			Final 54000.00 daN
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	64.00 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			3467.00	
Shut In Tool	5.00			3472.00	
Hydraulic tool	5.00			3477.00	
Jars	5.00			3482.00	
Gap Sub	4.00			3486.00	
Safety Joint	3.00			3489.00	
Packer	5.00			3494.00	32.00 Bottom Of Top Packer
Packer	4.00			3498.00	
Stubb	1.00			3499.00	
Recorder	0.00	6838	Inside	3499.00	
Recorder	0.00	8875	Outside	3499.00	
Perforations	28.00			3527.00	
Bullnose	3.00			3530.00	32.00 Bottom Packers & Anchor

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Goltl #1
Job Ticket: 71138 **DST#: 4**
Test Start: 2023.09.11 @ 02:19:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	59000 ppm
Viscosity: 70.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	Water 100%W	3.975
240.00	MCW 15%M 85%W	3.402
0.00	RW=.151@62F=59,000	0.000

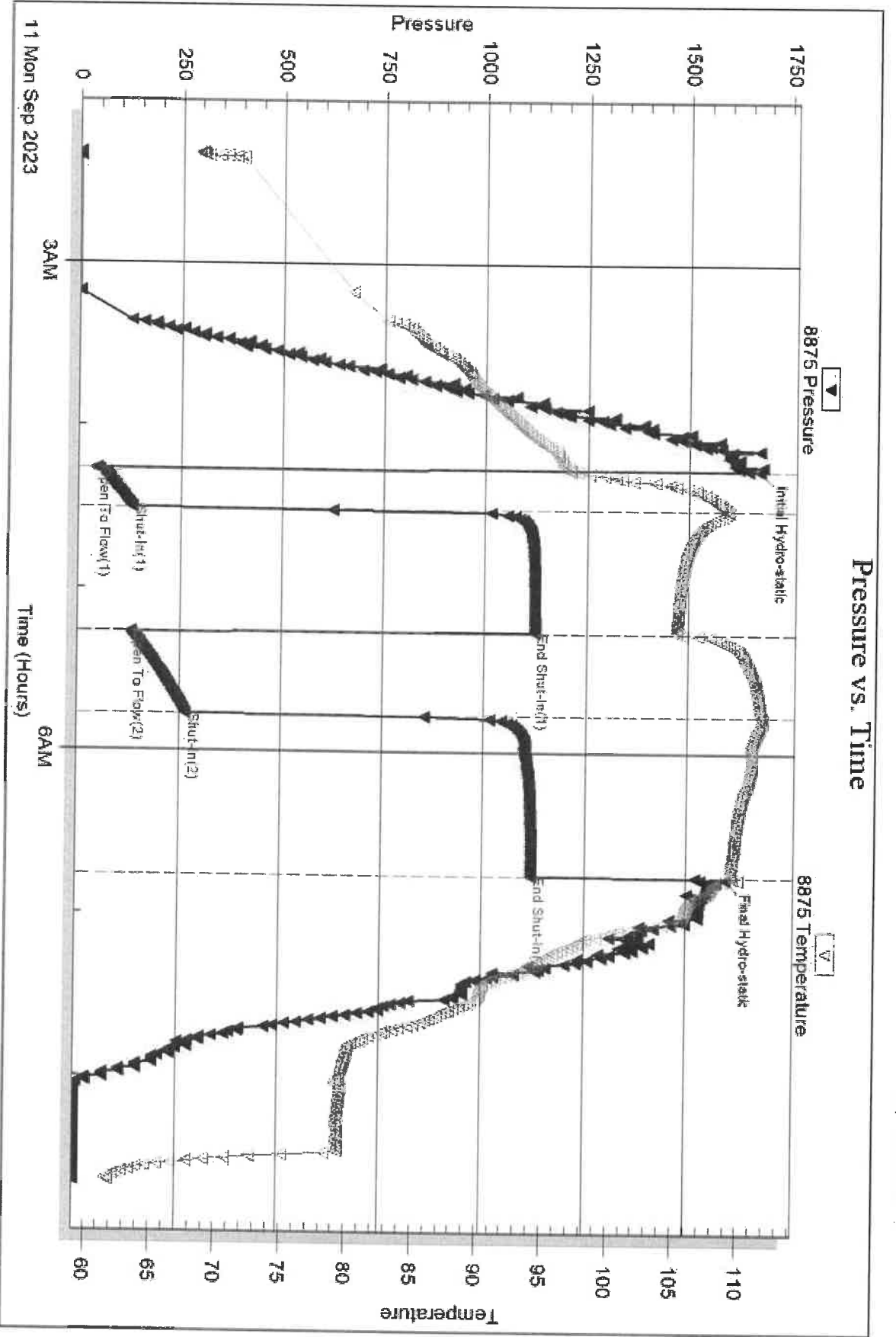
Total Length: 540.00 ft Total Volume: 7.377 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 5#LCM
 RW=.151@62F

Serial #: 8875

Outside Bruce Oil Company Inc

Cell# 1

DST Test Number: 4



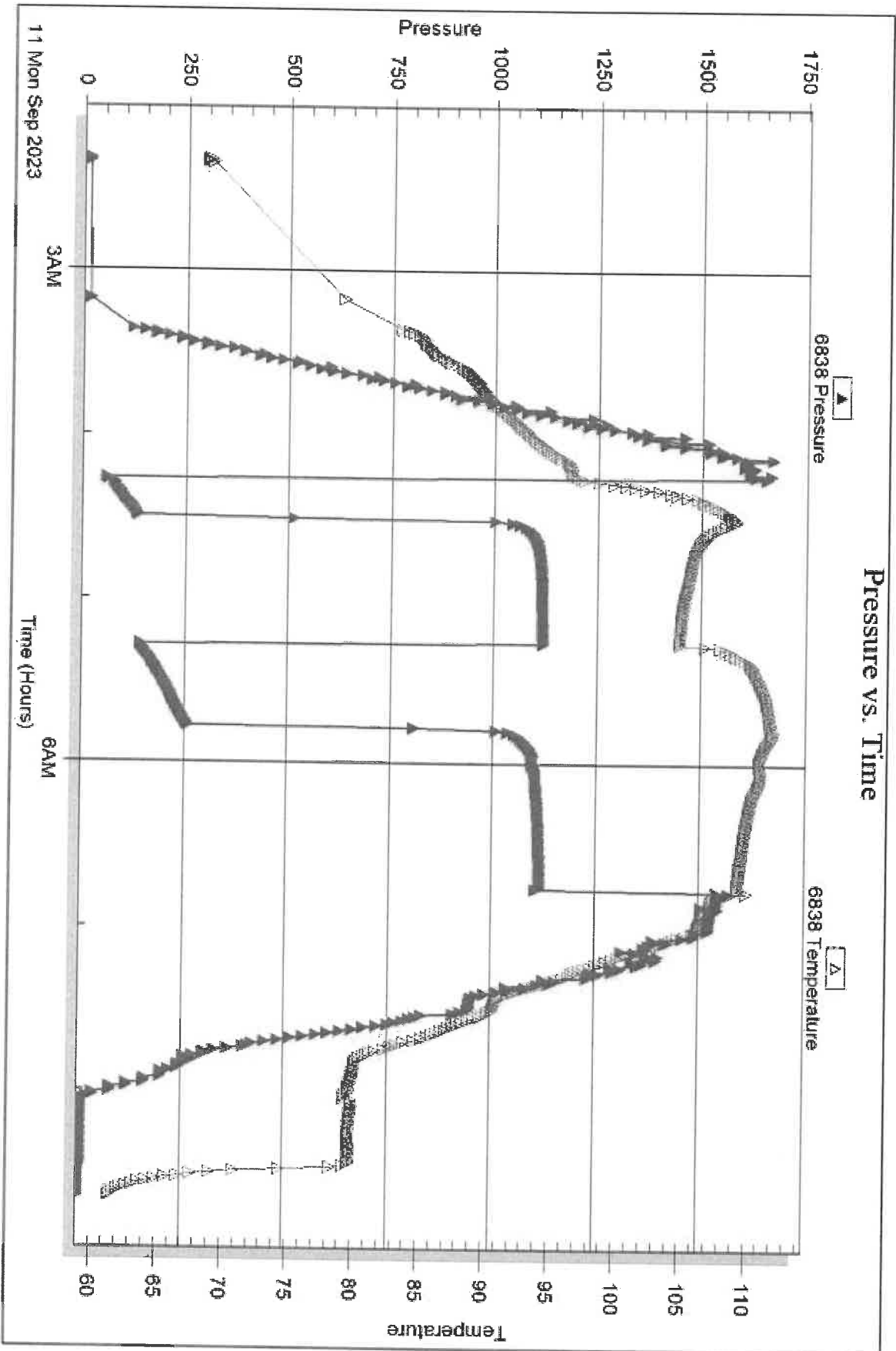
Serial #: 6838

Inside

Bruce Oil Company Inc

GDH #1

DST Test Number: 4



Tribble Testing, Inc

Ref. No: 71138

Printed: 2023.09.13 @ 12:55:55



DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company Inc**

1704 Limestone Rd
McPherson KS 67460+6500

ATTN: Mike Engelbrecht

Goltl #1

5-6s-21w Graham KS

Start Date: 2023.09.11 @ 21:21:00

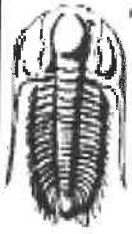
End Date: 2023.09.12 @ 04:19:27

Job Ticket #: 71139 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2023.09.13 @ 12:31:20

Bruce Oil Company Inc
5-6s-21w Graham KS
Goltl #1
DST # 5
LKC H-J
2023.09.11



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
 1704 Limestone Rd
 McPherson KS 67460+6500
 ATTN: Mike Engelbrecht

5-6s-21w Graham KS

Golti #1

Job Ticket: 71139

DST#: 5

Test Start: 2023.09.11 @ 21:21:00

GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:52

Time Test Ended: 04:19:27

Interval: **3560.00 ft (KB) To 3623.00 ft (KB) (TVD)**

Total Depth: 3623.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Reference Elevations: 2260.00 ft (KB)

2252.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8875

Outside

Press@RunDepth: 35.93 psig @ 3563.00 ft (KB)

Capacity: psig

Start Date: 2023.09.11

End Date: 2023.09.12

Last Calib.: 2023.09.12

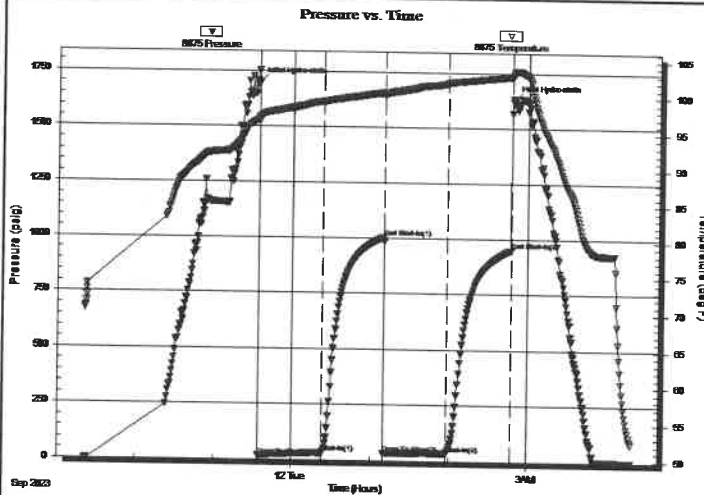
Start Time: 21:21:01

End Time: 04:19:26

Time On Btm: 2023.09.11 @ 23:33:47

Time Off Btm: 2023.09.12 @ 02:48:22

TEST COMMENT: 45-IF-Surface to 2"
 45-IS-No Return
 45-FF-Surface to 1"
 45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.22	97.21	Initial Hydro-static
1	18.20	96.47	Open To Flow (1)
49	32.00	99.28	Shut-In(1)
96	1003.54	100.56	End Shut-In(1)
97	32.45	100.14	Open To Flow (2)
145	35.93	101.93	Shut-In(2)
194	948.57	102.87	End Shut-In(2)
195	1634.26	103.22	Final Hydro-static

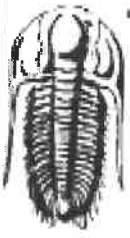
Recovery

Length (ft)	Description	Volume (bbl)
40.00	Mud 100%M	0.29

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bruce Oil Company Inc
 1704 Limestone Rd
 McPherson KS 67460+6500
 ATTN: Mike Engelbrecht

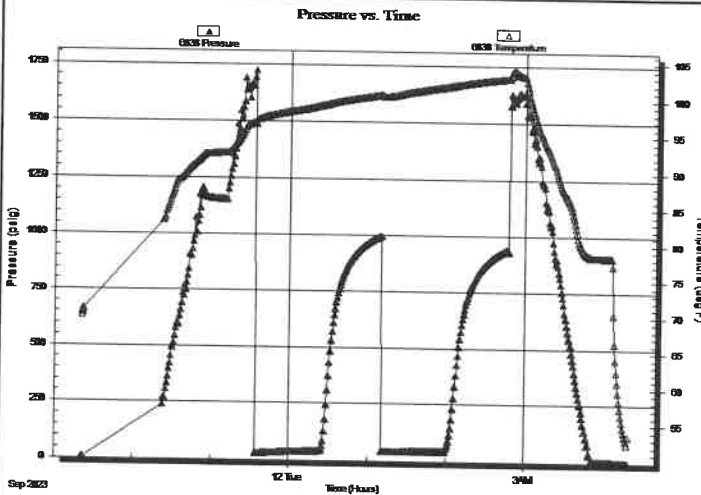
5-6s-21w Graham KS
Goltl #1
 Job Ticket: 71139 **DST#: 5**
 Test Start: 2023.09.11 @ 21:21:00

GENERAL INFORMATION:

Formation: **LKC H-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:33:52 Test Type: Conventional Bottom Hole (Reset)
 Time Test Ended: 04:19:27 Tester: Spencer J Staab
 Unit No: 84
Interval: 3560.00 ft (KB) To 3623.00 ft (KB) (TVD) Reference Elevations: 2260.00 ft (KB)
 Total Depth: 3623.00 ft (KB) (TVD) 2252.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 8.00 ft

Serial #: 6838 Inside
 Press@RunDepth: psig @ 3563.00 ft (KB) Capacity:
 Start Date: 2023.09.11 End Date: 2023.09.12 Last Calib.: 2023.09.12 psig
 Start Time: 21:21:01 End Time: 04:19:26 Time On Btm:
 Time Off Btm:

TEST COMMENT: 45-IF-Surface to 2"
 45-ISI-No Return
 45-FF-Surface to 1"
 45-FSI-No Return



PRESSURE SUMMARY

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

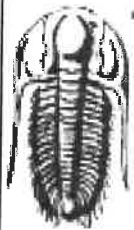
Recovery

Length (ft)	Description	Volume (bbl)
40.00	Mud 100%M	0.29

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Golti #1
Job Ticket: 71139 **DST#: 5**
Test Start: 2023.09.11 @ 21:21:00

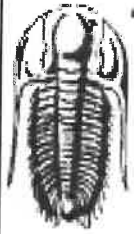
Tool Information

Drill Pipe:	Length: 3514.00 ft	Diameter: 3.82 inches	Volume: 49.81 bbl	Tool Weight: 2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 daN
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 58000.00 daN
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 53000.00 daN
Depth to Top Packer:	3560.00 ft			Final 53000.00 daN
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	95.00 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			3529.00	
Shut In Tool	5.00			3534.00	
Hydraulic tool	5.00			3539.00	
Jars	5.00			3544.00	
Gap Sub	4.00			3548.00	
Safety Joint	3.00			3551.00	
Packer	5.00			3556.00	32.00 Bottom Of Top Packer
Packer	4.00			3560.00	
Stubb	1.00			3561.00	
Perforations	1.00			3562.00	
Change Over Sub	1.00			3563.00	
Recorder	0.00	6838	Inside	3563.00	
Recorder	0.00	8875	Outside	3563.00	
Drill Pipe	32.00			3595.00	
Change Over Sub	1.00			3596.00	
Perforations	24.00			3620.00	
Bullnose	3.00			3623.00	63.00 Bottom Packers & Anchor
Total Tool Length:	95.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bruce Oil Company Inc
1704 Limestone Rd
McPherson KS 67460+6500
ATTN: Mike Engelbrecht

5-6s-21w Graham KS
Goltl #1
Job Ticket: 71139 **DST#: 5**
Test Start: 2023.09.11 @ 21:21:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1300.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Mud 100%M	0.289

Total Length: 40.00 ft Total Volume: 0.289 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 6#LCM

Serial #: 8875

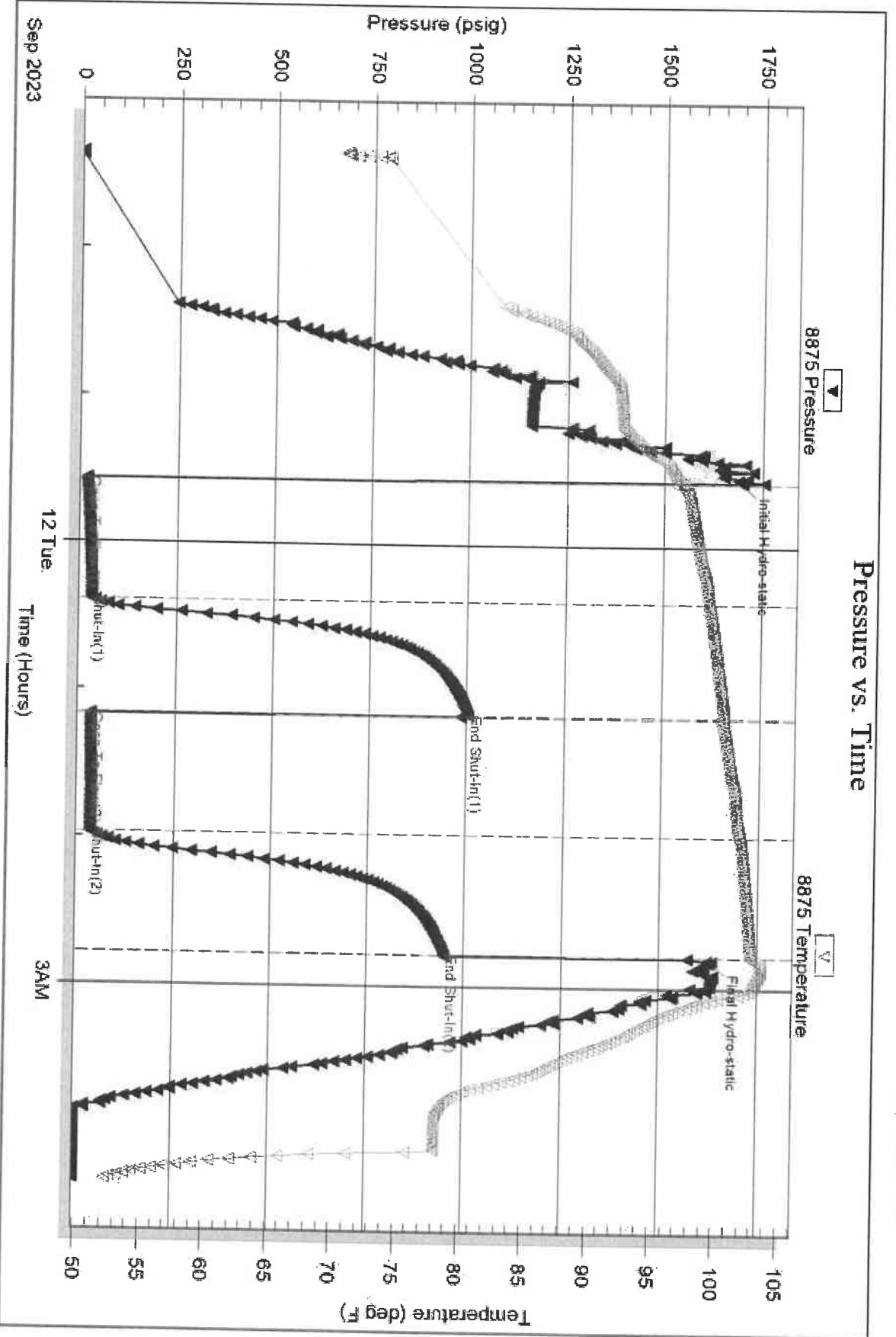
Outside

Bruce Oil Company Inc

GDH #1

DST Test Number: 5

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 71139

Printed: 2023 09 13 @ 12:31:20

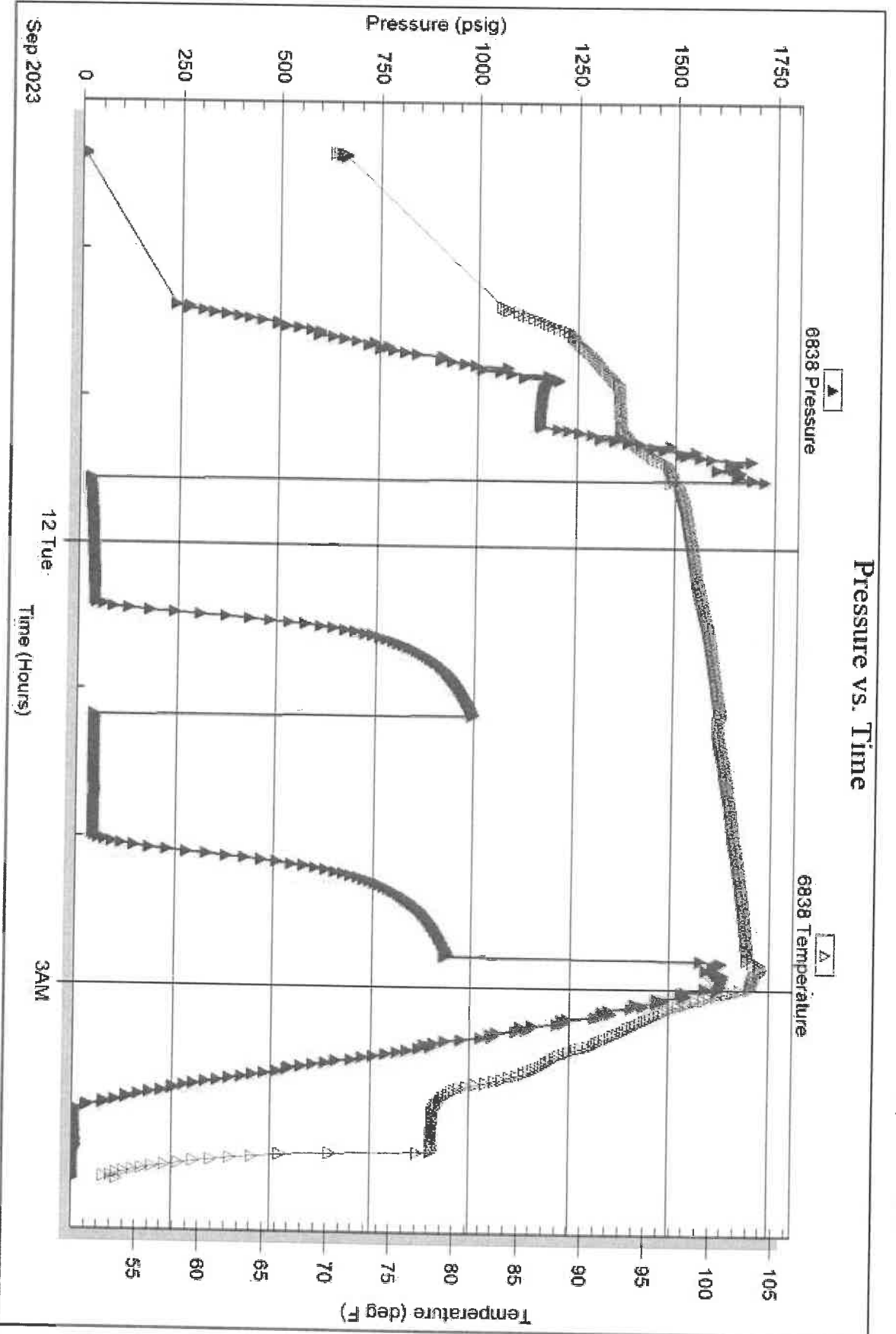
Serial #: 6838

Inside

Bruce Oil Company Inc

Gain #1

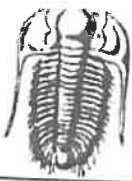
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 71139

Printed: 2023.09.13 @ 12:31:21



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71135

Well Name & No. North #1 Test No. 1 Date 09/08/2023
 Company Bruce Oil Company LLC Elevation 2260 KB 2252 GL
 Address 1704 Limestone Rd Matheron KS 67460+6500
 Co. Rep / Geo Mike Engelbrecht Rig Discovery #4
 Location: Sec. 5 Twp 6s Rge. 2W Co. Graham State KS

Interval Tested 3254' - 3284' Zone Tested Topeka
 Anchor Length 30' Drill Pipe Run 3197' Mud Wt. 8.7
 Top Packer Depth 3249' Drill Collars Run 30' Vis 69
 Bottom Packer Depth 3254' Wt. Pipe Run - WL 6.8
 Total Depth 3284' Chlorides 800 ppm System LCM 2#

Blow Description 77-13973 6 1/2 mins; Built to 23.25"
78-13973 7 mins; Built to 35.25"
75- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>260'</u>	<u>Water</u>		<u>100</u>		
<u>120'</u>	<u>SOCMW</u>	<u>5</u>	<u>65</u>	<u>30</u>	
<u>90'</u>	<u>OCWM</u>	<u>10</u>	<u>15</u>	<u>75</u>	
<u>30'</u>	<u>Heavy Oil</u>	<u>100</u>			

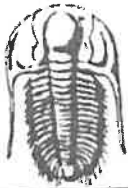
Rec Total 500' BHT 105° Gravity < 19° API RW .081 @ 65 °F Chlorides 110,000 ppm
 Initial Hydrostatic 1544 Test 1800 Ruined Shale Packer
 Initial Flow 49 to 113 Jars 300 Ruined Packer
 Initial Shut-In 1005 Circ Sub Hotel
 Final Flow 126 to 239 Hourly Standby EM Tool Successful
 Final Shut-In 1008 Mileage 138 RT 69mi 120.75 Accessibility
 Final Hydrostatic 1536 Sampler 23mi 40.25 Gas Sample

T- On Location 19:23 Straddle Oversized Hole
 Initial Flow 15 T-Started 21:16 Shale Packer Sub Total 0
 Initial Shut-In 45 T-Open 23:47 Extra Packer Total 2261
 Final Flow 30 T-Pulled 02:17 09/09/2023 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out 04:41 Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative JJ Staal Thanks!

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71136

Well Name & No. Holt #1 Test No. 2 Date 09/09/2023
 Company Bruce Oil Company LLC Elevation 2260' KB 2252' GL
 Address 1704 Limestone Rd McPherson KS 67460 + 6500
 Co. Rep / Geo Mike Engelbrecht Rig Discovery #4
 Location: Sec. 5 Twp 6s Rge. 21w Co. Graham State KS

Interval Tested 3405' - 3466' Zone Tested Toronto & LAC a
 Anchor Length 61' Drill Pipe Run 3351' Mud Wt. 8.9
 Top Packer Depth 3400 Drill Collars Run 30' Vis 59
 Bottom Packer Depth 3405' Wt. Pipe Run - WL 6.8
 Total Depth 3466' Chlorides 1000 ppm System LCM 2#

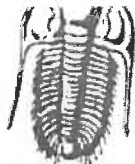
Blow Description J7- Slid 5'; Bled off 2.25" blow; Surface to 1.5"
JSD- No Return
J7- Surface to 1.25"
JSD- No Return

Rec	Feet of	%gas	%oil	%water	%mud
70'	Mud w/ oil spots			100%	

Rec Total 70' BHT 102° Gravity - API RW - @ - °F Chlorides - ppm
 Initial Hydrostatic 1622 Test 1800 Ruined Shale Packer
 Initial Flow 36 to 42 Jars 300 Ruined Packer
 Initial Shut-In 1095 Circ Sub Hotel
 Final Flow 47 to 51 Hourly Standby EM Tool Successful -175
 Final Shut-In 1087 Mileage 46.27 80.50 Accessibility
 Final Hydrostatic 1573 Sampler Gas Sample
 T-On Location 21:31 Straddle Oversized Hole
 Initial Flow 45 T-Started 22:16 Shale Packer Sub Total -175
 Initial Shut-In 45 T-Open 00:08 Extra Packer Total 2005.50
 Final Flow 45 T-Pulled 03:08 Extra Recorder Tool Loaded @
 Final Shut-In 45 T-Out Day Standby MP/DST Disc't
 Comments mileage from HC house

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71137

Well Name & No. Tolte #1 Test No. 3 Date 09/10/2023
 Company Bruce Oil Company LLC Elevation 2260 KB 2252 GL
 Address 1704 Limestone Rd S McPherson KS 67460-6500
 Co. Rep / Geo Mike Engelbrecht Rig Discovery #4
 Location: Sec. 5 Twp 6s Rge. 21w Co. Graham State Ks

Interval Tested 3475' - 3500' Zone Tested LKC C
 Anchor Length 25' Drill Pipe Run 3417' Mud Wt. 8.9
 Top Packer Depth 3470' Drill Collars Run 30' Vis 70
 Bottom Packer Depth 3475' Wt. Pipe Run - WL 6.4
 Total Depth 3500' Chlorides 1000 ppm System LCM 5#

Blow Description 17- Surface to 0.5"; Died back to 0.25"
DSD- No Return
77- Weak Surface; Died @ 20 mins
75- No Return

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

Rec Total 5' BHT 101° Gravity - API RW - @ - °F Chlorides - ppm
 Initial Hydrostatic 1666 Test 1800 Ruined Shale Packer
 Initial Flow 17 to 19 Jars 300 Ruined Packer
 Initial Shut-In 78 Circ Sub Hotel
 Final Flow 19 to 19 Hourly Standby EM Tool Successful -175
 Final Shut-In 43 Mileage 4627 80.50 Accessibility
 Final Hydrostatic 1564 Sampler Gas Sample
 T- On Location 11:46 Straddle Oversized Hole
 Initial Flow 45 T-Started 11:59 Shale Packer Sub Total -175
 Initial Shut-In 45 T-Open 13:31 Extra Packer Total 2005.50
 Final Flow 45 T-Pulled 16:31 Extra Recorder Tool Loaded @
 Final Shut-In 45 T-Out Day Standby MP/DST Disc't

Comments _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71138

Well Name & No. Golth #1 Test No. 4 Date 09/11/2023
 Company Bruce Oil Company LLC Elevation 2260 KB 2252 GL
 Address 1704 Limestone Rd McPherson KS 67460 + 6500
 Co. Rep / Geo Mike Engelbrecht Rig Discovery #4
 Location: Sec. 5 Twp 6S Rge. 21W Co. Graham State Ks

Interval Tested 3498' - 3530' Zone Tested LHC D-7
 Anchor Length 32' Drill Pipe Run 3448' Mud Wt. 8.9
 Top Packer Depth 3493' Drill Collars Run 30' Vis 70
 Bottom Packer Depth 3498' Wt. Pipe Run - WL 6.4
 Total Depth 3530' Chlorides 1000 ppm System LCM 5#

Blow Description 77-7073 7 mins; Built to 24"
77-7073 8 mins; Built to 39"
75- Surface to 0.25"

Rec	Feet of	%gas	%oil	%water	%mud
<u>300'</u>	<u>Water</u>		<u>100</u>		
<u>240'</u>	<u>M.C.W</u>		<u>85</u>	<u>15</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 540' BHT 109° Gravity - API RW .151 @ 62 °F Chlorides 59,000 ppm
 Initial Hydrostatic 1673 Test 1800 Ruined Shale Packer
 Initial Flow 43 to 132 Jars 300 Ruined Packer
 Initial Shut-In 1124 Circ Sub Hotel
 Final Flow 130 to 267 Hourly Standby EM Tool Successful
 Final Shut-In 1119 Mileage 4627 80.50 Accessibility
 Final Hydrostatic 1594 Sampler Gas Sample

T- On Location 22243 0143 Straddle Oversized Hole
 Initial Flow 15 T-Started 02:19 Shale Packer Sub Total 0
 Initial Shut-In 45 T-Open 04:15 Extra Packer Total 2180.50
 Final Flow 30 T-Pulled 06:45 Extra Recorder Tool Loaded @
 Final Shut-In 60 T-Out Day Standby MP/DST Disc't

Comments mileage from HC House

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 71139

Well Name & No. Dottle #1 Test No. 5 Date 09/11/2023
 Company Bruce Oil Company LLC Elevation 2260 KB 2252 GL
 Address 1704 Limestone Rd McPherson KS 67460+6500
 Co. Rep / Geo Mike Engelbrecht Rig Discovery #4
 Location: Sec. 5 Twp 6S Rge. 2W Co. Franklin State KS

Interval Tested 3560' - 3623' Zone Tested H-J
 Anchor Length 63' Drill Pipe Run 3514' Mud Wt. 8.9
 Top Packer Depth 3555' Drill Collars Run 30' Vis 58
 Bottom Packer Depth 3560' Wt. Pipe Run - WL 6.8
 Total Depth 3623' Chlorides 1300 ppm System LCM 6#

Blow Description 17-Surface to 2"
JSJ- No Return
77-Surface to 1"
7st- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</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	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 40' BHT 102° Gravity - API RW - @ - °F Chlorides - ppm

Initial Hydrostatic 1700 Test 1800 Ruined Shale Packer
 Initial Flow 18 to 32 Jars 300 Ruined Packer
 Initial Shut-In 1003 Circ Sub Hotel
 Final Flow 32 to 35 Hourly Standby EM Tool Successful -175
 Final Shut-In 948 Mileage 4627.2 80.50 Accessibility
 Final Hydrostatic 1634 Sampler 120.75 + 40.25 Gas Sample
 T- On Location 20:38 Straddle Oversized Hole
 Initial Flow 45 T-Started 21:21 Shale Packer Sub Total -175
 Initial Shut-In 45 T-Open 23:34 Extra Packer Total 2166.50
 Final Flow 45 T-Pulled 02:34 Extra Recorder Tool Loaded 09/12 @ 20:00
 Final Shut-In 45 T-Out Day Standby MP/DST Disc't

Comments mileage from HC House

Approved By _____ Our Representative [Signature]

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