

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
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

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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Form	ACO1 - Well Completion
Operator	Culbreath Oil & Gas Company, Inc.
Well Name	RIEDEL 2-5
Doc ID	1358326

Tops

Name	Top	Datum
Anhydrite	2260	+384
Base Anhy	2297	+346
Topeka	3622	-979
Heebner	3835	-1192
Lansing	3875	-1232
Muncie Creek	3995	-1352
Stark Shale	4060	-1417
BKC	4104	-1461
Marmaton	4136	-1493

Form	ACO1 - Well Completion
Operator	Culbreath Oil & Gas Company, Inc.
Well Name	RIEDEL 2-5
Doc ID	1358326

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4069-4073	250 gal MA, 1000 gal 15% NE	4073
4	4012-4014	250 gal MA, 1000 gal 15% NE	4014

Summary of Changes

Lease Name and Number: RIEDEL 2-5

API/Permit #: 15-179-21425-00-00

Doc ID: 1358326

Correction Number: 1

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved Date	01/18/2017	06/26/2017
Completion Or Recompletion Date	11/17/2016	1/10/2017
Save Link	../..kcc/detail/operatorEditDetail.cfm?docID=1327844	../..kcc/detail/operatorEditDetail.cfm?docID=1358326



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1327844
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



00-10s-26w-999
CRD NO.

00-10s-26w
DMT NO.

PRO-STAKE

Construction Site Staking

LLC

13198
INVOICE NO.



Culbreath Oil & Gas Company, Inc.
OPERATOR

Sheridan County, KS
COUNTY

5 10s 26w
Sec. Twp. Rng.

Riedel #2-5
LEASE NAME

2297' FSL - 1240' FEL
LOCATION SPOT

2633.5'
GR. ELEVATION

SCALE: 1" = 1000'
DATE STAKED: Nov. 4th, 2016
MEASURED BY: Burt W.
DRAWN BY: Luke R.
AUTHORIZED BY: Kevin H.
DATE REVISED:



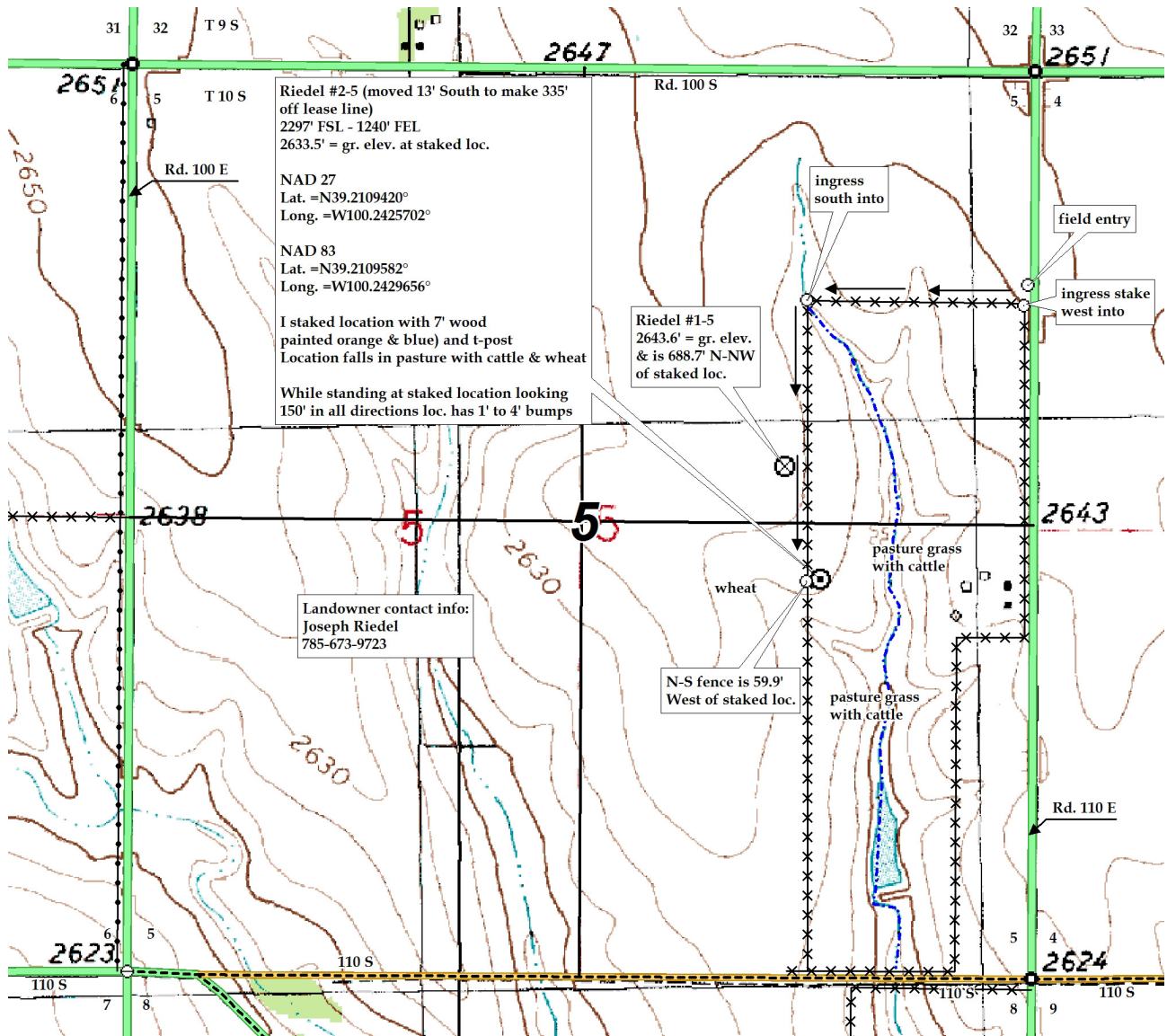
LEGEND

- irr. well
- water hydrant
- tank battery
- staked loc.
- prod. well/aband. well
- house
- building
- gas line
- water line
- transmission powerline
- 3 phase powerline
- single phase powerline
- fence
- gravel/sand rd.
- gravel trail/lease rd.
- dirt rd.
- dirt trail/lease rd.
- Hwy/blacktop rd.

DIRECTIONS: From NW side of Quinter, KS at the intersection of Old Hwy 40 & Castle Rock Rd. – Now go 4 miles North on Castle Rock Rd. – Now go 5 miles North on Rd. 100 E to the SE corner of section 5-10s-26w – Now go 0.8 mile North on Rd. 100 E to ingress stake West into – Now go approx. 1300' / 0.2 mile West through corn stubble – Now go approx. 1640' South through terraced dryland planted wheat – Now go 60' East through pasture with cattle into staked location.

Final ingress must be verified with landowner or operator.

*This drawing does not constitute a monumented survey or a land survey plat.
This drawing is for construction purposes only.*





DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil and Gas Co. Inc.**

3501 S Yale Ave
Tulsa Ok, 74135+8014

ATTN: Steve Murphy/ Kevin

Riedel #2-5

S5-10s-26w Sheridan,KS

Start Date: 2016.11.14 @ 01:08:30

End Date: 2016.11.14 @ 07:20:00

Job Ticket #: 63498 DST #: 1

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

Printed: 2016.11.17 @ 09:06:52

Culbreath Oil and Gas Co. Inc.
S5-10s-26w Sheridan,KS
Riedel #2-5
DST # 1
LKC 'B'
2016.11.14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63498

DST#: 1

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 01:08:30

GENERAL INFORMATION:

Formation: **LKC 'B'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:15:45

Time Test Ended: 07:20:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3890.00 ft (KB) To 3914.00 ft (KB) (TVD)

Reference Elevations: 2643.00 ft (KB)

Total Depth: 3914.00 ft (KB) (TVD)

2633.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8353

Inside

Press@RunDepth: 36.59 psig @ 3891.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.14

End Date:

2016.11.14

Last Calib.: 2016.11.14

Start Time: 01:08:45

End Time:

07:20:00

Time On Btm: 2016.11.14 @ 03:15:15

Time Off Btm: 2016.11.14 @ 05:44:30

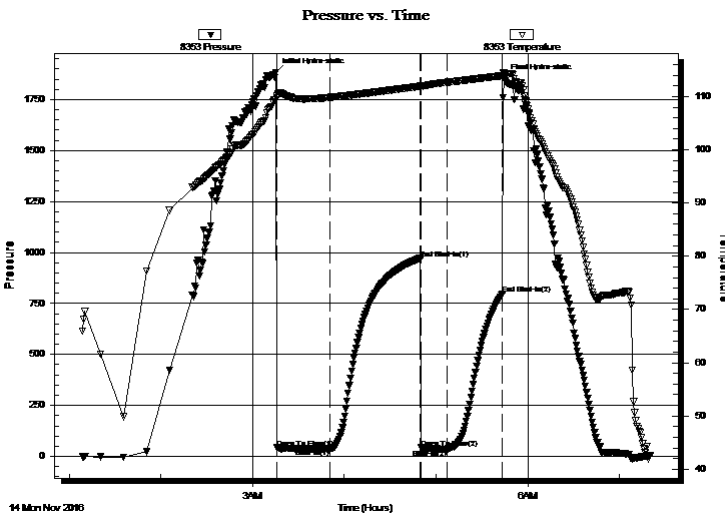
TEST COMMENT: 30-ISI-Weak Blow ; Built to 1 1/4"

60-ISI-No Blow Back

15-FF-No Blow

30-FSI-No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.69	109.33	Initial Hydro-static
1	42.57	109.68	Open To Flow (1)
35	38.36	109.81	Shut-In(1)
95	967.77	111.92	End Shut-In(1)
95	42.22	111.78	Open To Flow (2)
112	36.59	112.66	Shut-In(2)
149	795.52	113.89	End Shut-In(2)
150	1853.65	114.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM 5% O 95%M	0.35

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63498

DST#: 1

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 01:08:30

Tool Information

Drill Pipe:	Length: 3876.00 ft	Diameter: 3.80 inches	Volume: 54.37 bbl	Tool Weight:	2500.00 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:	47000.00 lb
			<u>Total Volume: 54.37 bbl</u>	Tool Chased	8.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	3890.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	52.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3863.00	
Shut In Tool	5.00			3868.00	
Hydraulic tool	5.00			3873.00	
Jars	5.00			3878.00	
Safety Joint	3.00			3881.00	
Packer	5.00			3886.00	28.00 Bottom Of Top Packer
Packer	4.00			3890.00	
Stubb	1.00			3891.00	
Recorder	0.00	9120	Outside	3891.00	
Recorder	0.00	8353	Inside	3891.00	
Perforations	19.00			3910.00	
Bullnose	4.00			3914.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63498

DST#: 1

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 01:08:30

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

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
25.00	OCM 5% O 95%M	0.351

Total Length: 25.00 ft Total Volume: 0.351 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8353

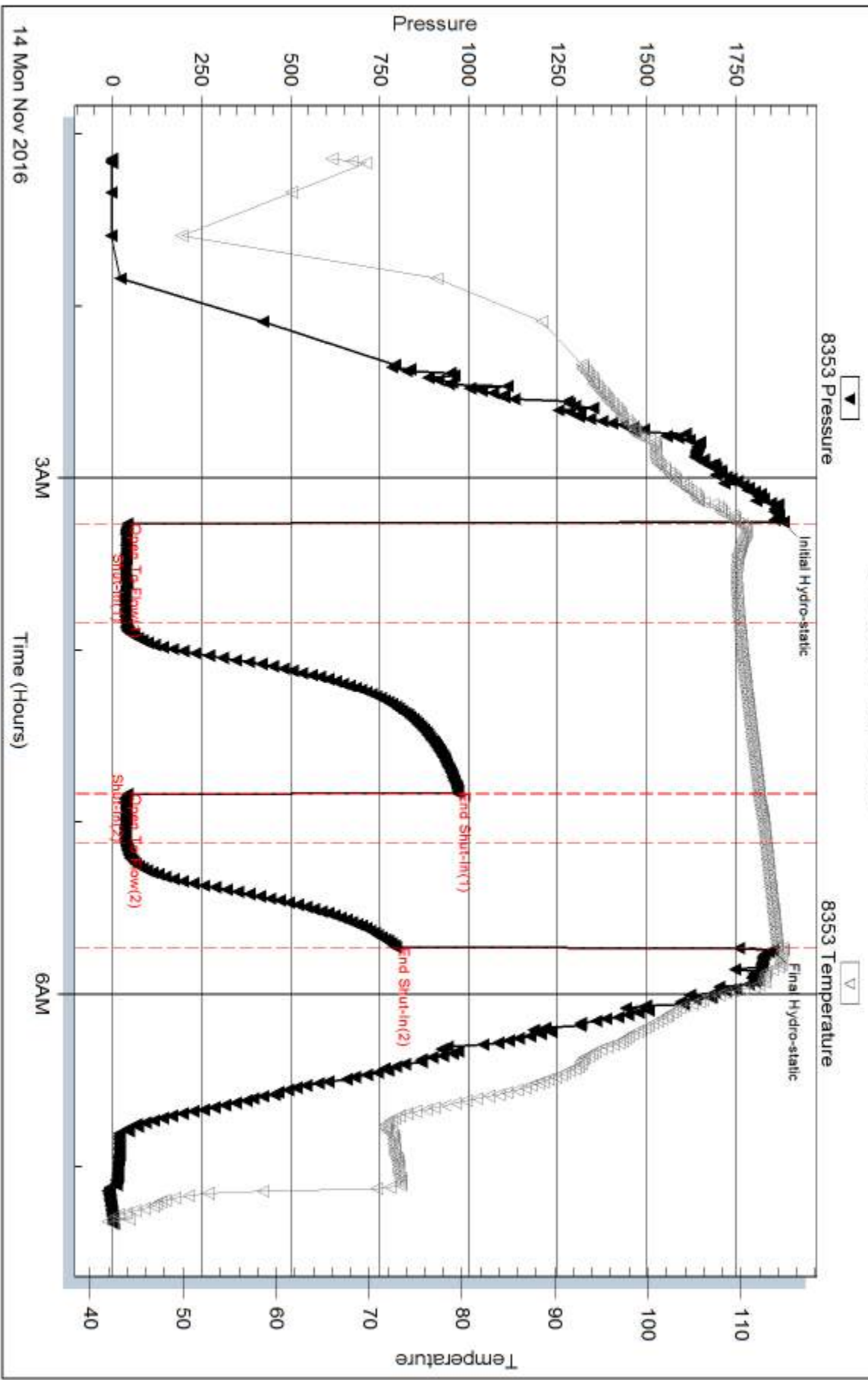
Inside

Culbreath Oil and Gas Co. Inc.

Riedel #2-5

DST Test Number: 1

Pressure vs. Time

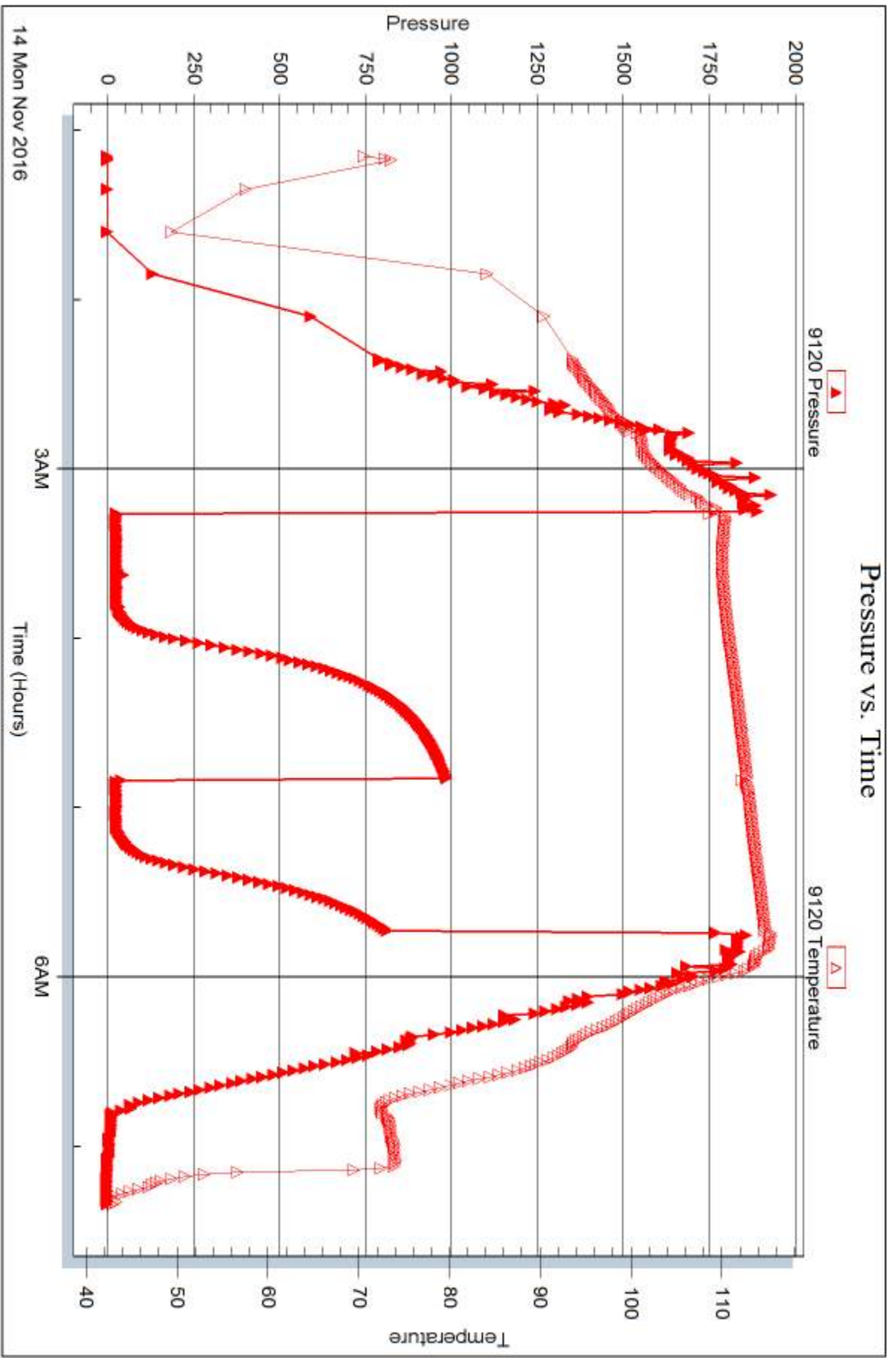


Serial #: 9120

Outside Culbreath Oil and Gas Co. Inc.

Riedel #2-5

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 63498

Printed: 2016.11.17 @ 09:06:54



DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil and Gas Co. Inc.**

3501 S Yale Ave
Tulsa Ok, 74135+8014

ATTN: Steve Murphy/ Kevin

Riedel #2-5

S5-10s-26w Sheridan,KS

Start Date: 2016.11.14 @ 13:46:00

End Date: 2016.11.14 @ 20:55:45

Job Ticket #: 63499 DST #: 2

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

Printed: 2016.11.17 @ 09:06:30

Culbreath Oil and Gas Co. Inc.
S5-10s-26w Sheridan,KS
Riedel #2-5
DST # 2
LKC'D
2016.11.14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63499

DST#: 2

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 13:46:00

GENERAL INFORMATION:

Formation: **LKC 'D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:34:15

Time Test Ended: 20:55:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3910.00 ft (KB) To 3934.00 ft (KB) (TVD)

Reference Elevations: 2643.00 ft (KB)

Total Depth: 3934.00 ft (KB) (TVD)

2633.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8353

Inside

Press@RunDepth: 39.13 psig @ 3911.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.14

End Date:

2016.11.14

Last Calib.:

2016.11.14

Start Time: 13:46:15

End Time:

20:55:45

Time On Btm:

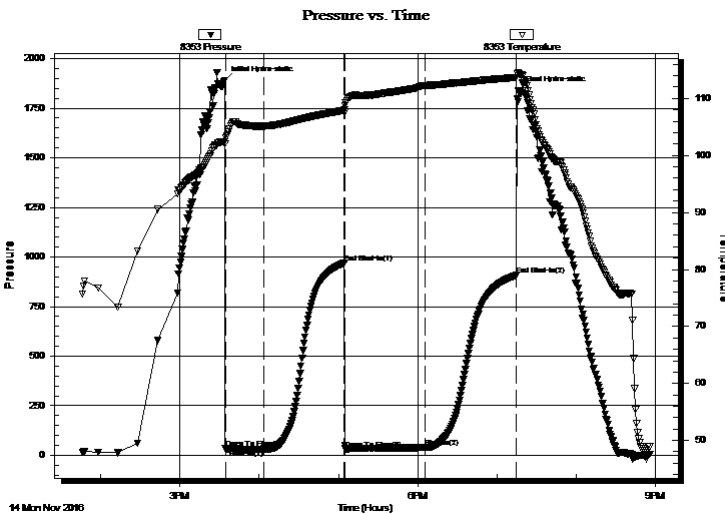
2016.11.14 @ 15:34:00

Time Off Btm:

2016.11.14 @ 19:16:15

TEST COMMENT: 30-IF-Fair Blow ; Built to 4"
60-ISI-Very weak surface blow
60-FF-Fair Blow ; Built to 6"; died back to 5"
60-FSI-Very weak surface blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1888.41	102.35	Initial Hydro-static
1	33.97	102.05	Open To Flow (1)
30	32.47	105.15	Shut-In(1)
91	969.48	107.93	End Shut-In(1)
91	32.84	108.69	Open To Flow (2)
152	39.13	112.24	Shut-In(2)
221	908.12	113.71	End Shut-In(2)
223	1840.33	114.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Clean Oil 100% O	0.07
35.00	OCM 30% O 70% M	0.49

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63499

DST#: 2

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 13:46:00

Tool Information

Drill Pipe:	Length: 3911.00 ft	Diameter: 3.80 inches	Volume: 54.86 bbl	Tool Weight:	2500.00 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:	54000.00 lb
			<u>Total Volume: 54.86 bbl</u>	Tool Chased	5.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3910.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	44.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3891.00	
Shut In Tool	5.00			3896.00	
Hydraulic tool	5.00			3901.00	
Packer	5.00			3906.00	20.00 Bottom Of Top Packer
Packer	4.00			3910.00	
Stubb	1.00			3911.00	
Recorder	0.00	9120	Outside	3911.00	
Recorder	0.00	8353	Inside	3911.00	
Perforations	19.00			3930.00	
Bullnose	4.00			3934.00	24.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63499

DST#: 2

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.14 @ 13:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	Clean Oil 100% O	0.070
35.00	OCM 30% O 70% M	0.491

Total Length: 40.00 ft Total Volume: 0.561 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

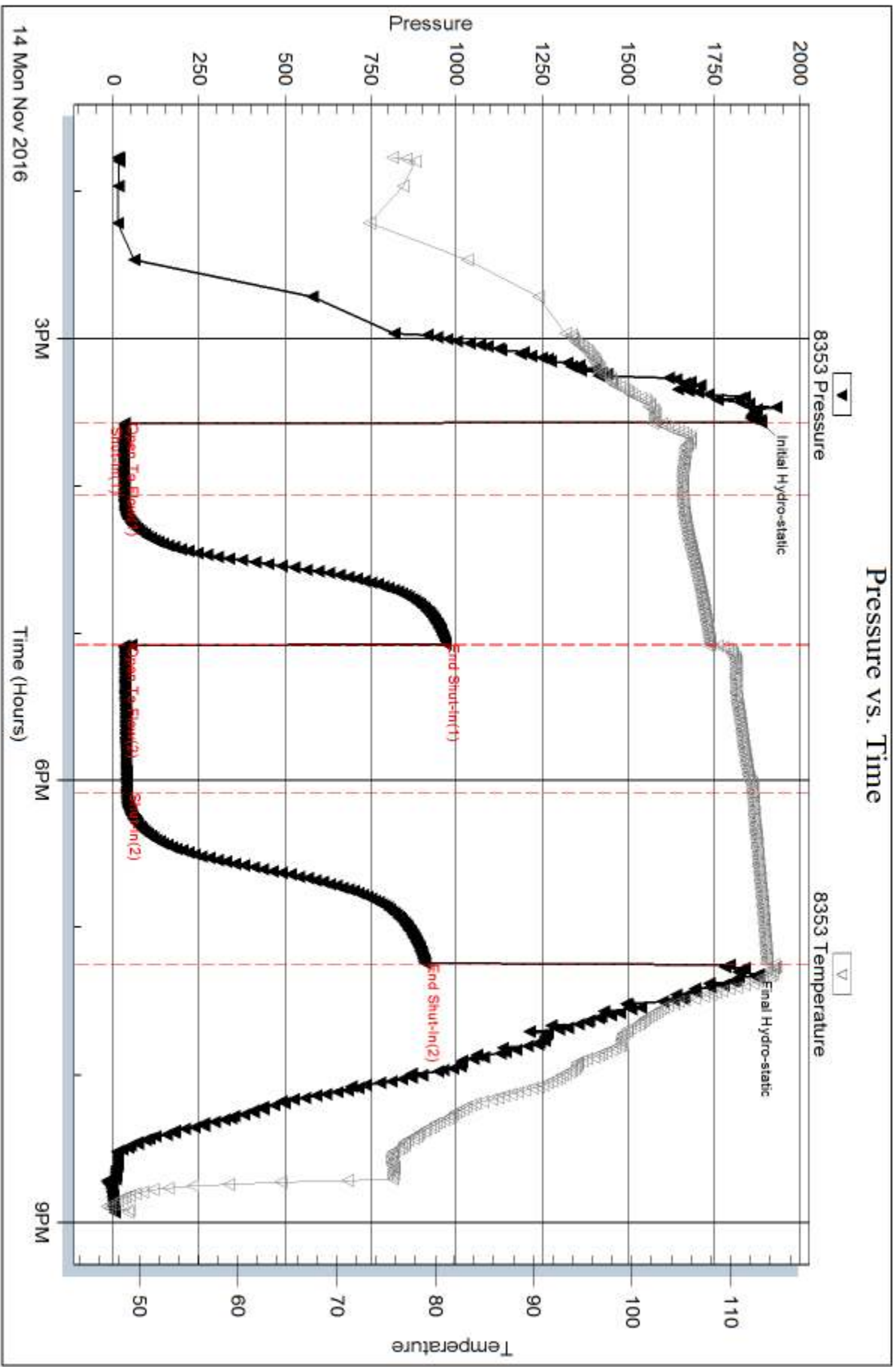
Serial #: 8353

Inside

Culbreath Oil and Gas Co., Inc.

Riedel #2-5

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 63499

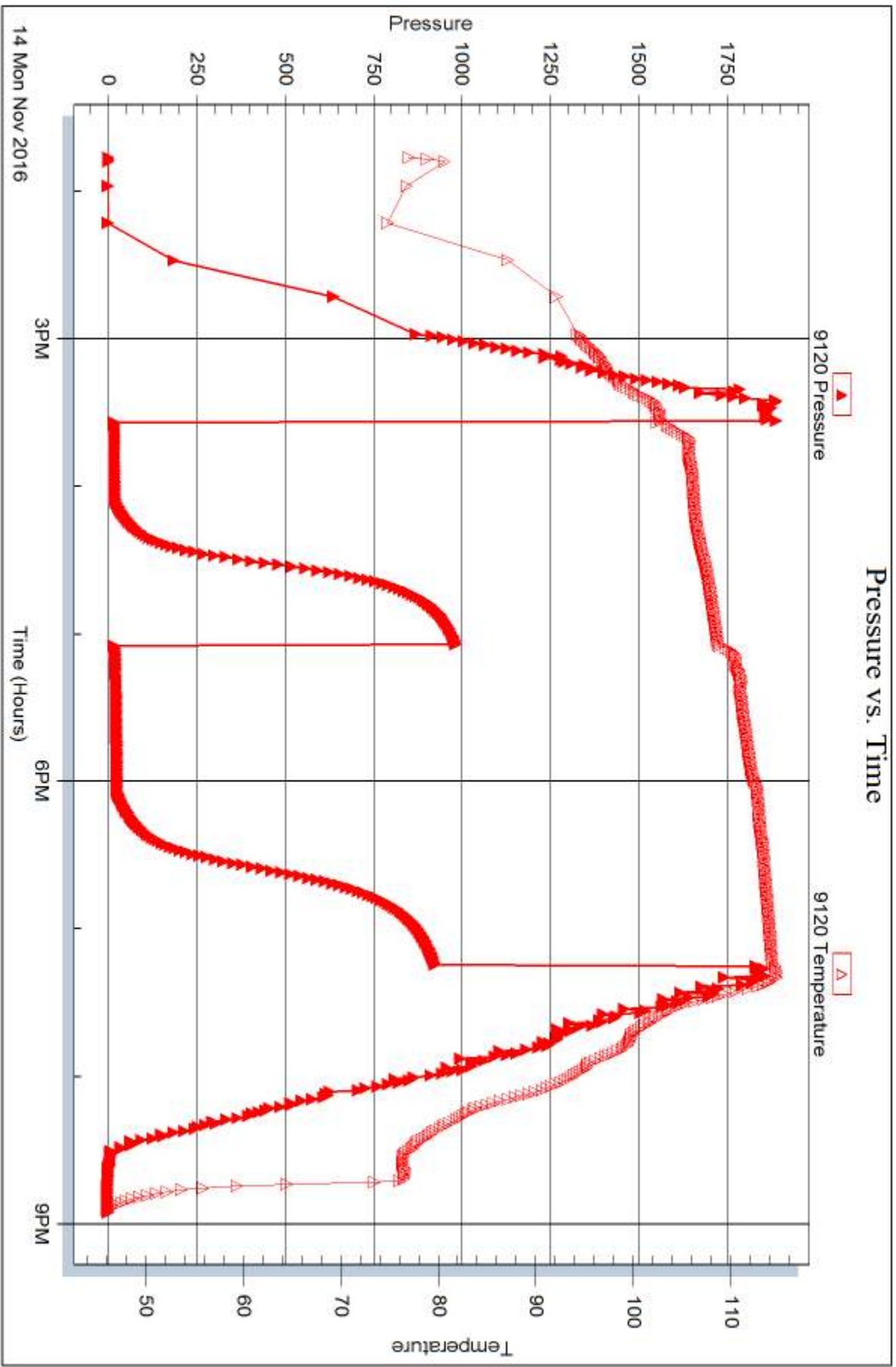
Printed: 2016.11.17 @ 09:06:31

Serial #: 9120

Outside Culbreath Oil and Gas Co. Inc.

Riedel #2-5

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63499

Printed: 2016.11.17 @ 09:06:31



DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil and Gas Co. Inc.**

3501 S Yale Ave
Tulsa Ok, 74135+8014

ATTN: Steve Murphy/ Kevin

Riedel #2-5

S5-10s-26w Sheridan,KS

Start Date: 2016.11.15 @ 09:24:00

End Date: 2016.11.15 @ 16:43:30

Job Ticket #: 63500 DST #: 3

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

Printed: 2016.11.17 @ 09:06:07

Culbreath Oil and Gas Co. Inc.
S5-10s-26w Sheridan,KS
Riedel #2-5
DST # 3
LKC 'H'
2016.11.15



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63500

DST#: 3

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.15 @ 09:24:00

GENERAL INFORMATION:

Formation: **LKC 'H'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:24:45

Time Test Ended: 16:43:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 3992.00 ft (KB) To 4016.00 ft (KB) (TVD)

Reference Elevations: 2643.00 ft (KB)

Total Depth: 3914.00 ft (KB) (TVD)

2633.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8353

Inside

Press@RunDepth: 77.58 psig @ 3993.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.15

End Date:

2016.11.15

Last Calib.:

2016.11.15

Start Time: 09:24:15

End Time:

16:43:30

Time On Btm:

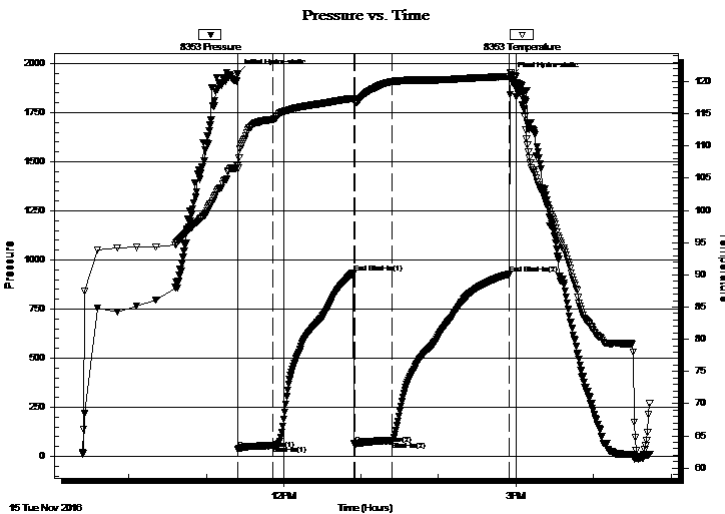
2016.11.15 @ 11:24:30

Time Off Btm:

2016.11.15 @ 14:56:00

TEST COMMENT: 30-IF-BOB in 7 minutes
60-ISI-1/4" Blow Back
30-FF-BOB in 8 minutes
90-FSI-1/4" Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1949.62	107.11	Initial Hydro-static
1	37.21	106.57	Open To Flow (1)
27	55.43	114.11	Shut-In(1)
90	934.69	117.39	End Shut-In(1)
91	62.26	116.72	Open To Flow (2)
120	77.58	120.00	Shut-In(2)
211	926.78	120.79	End Shut-In(2)
212	1931.04	121.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Gassy Clean Oil	0.91
75.00	GMCO 10% G 40%M 50% O	1.05
0.00	1640' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63500

DST#: 3

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.15 @ 09:24:00

Tool Information

Drill Pipe:	Length: 3994.00 ft	Diameter: 3.80 inches	Volume: 56.03 bbl	Tool Weight:	2500.00 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:	54000.00 lb
			<u>Total Volume: 56.03 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3992.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	44.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3973.00	
Shut In Tool	5.00			3978.00	
Hydraulic tool	5.00			3983.00	
Packer	5.00			3988.00	20.00 Bottom Of Top Packer
Packer	4.00			3992.00	
Stubb	1.00			3993.00	
Recorder	0.00	9120	Outside	3993.00	
Recorder	0.00	8353	Inside	3993.00	
Perforations	19.00			4012.00	
Bullnose	4.00			4016.00	24.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 63500

DST#: 3

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.15 @ 09:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Gassy Clean Oil	0.912
75.00	GMCO 10% G 40%M 50% O	1.052
0.00	1640' GIP	0.000

Total Length: 140.00 ft Total Volume: 1.964 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

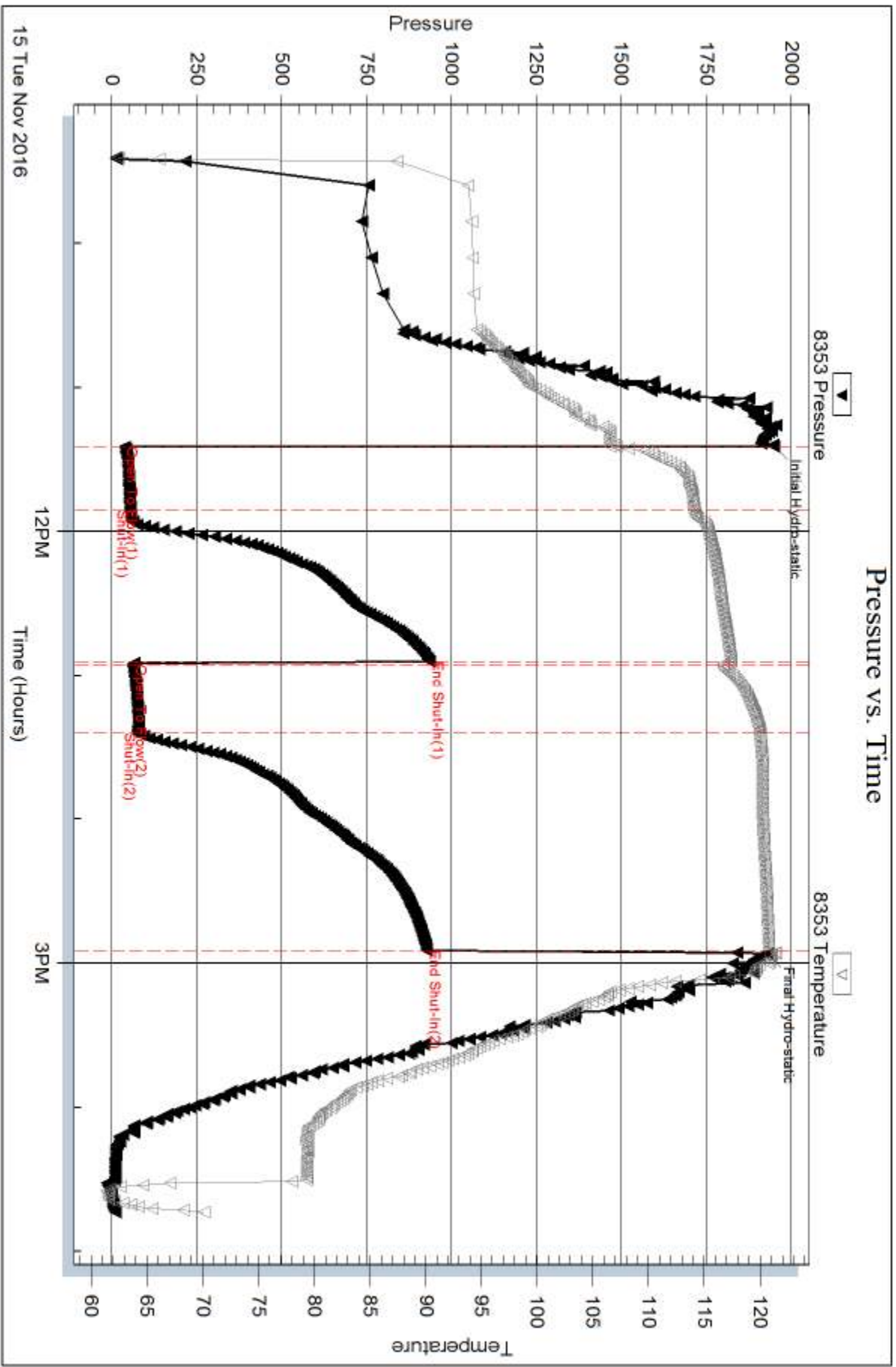
Serial #: 8353

Inside

Culbreath Oil and Gas Co. Inc.

Riedel #2-5

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63500

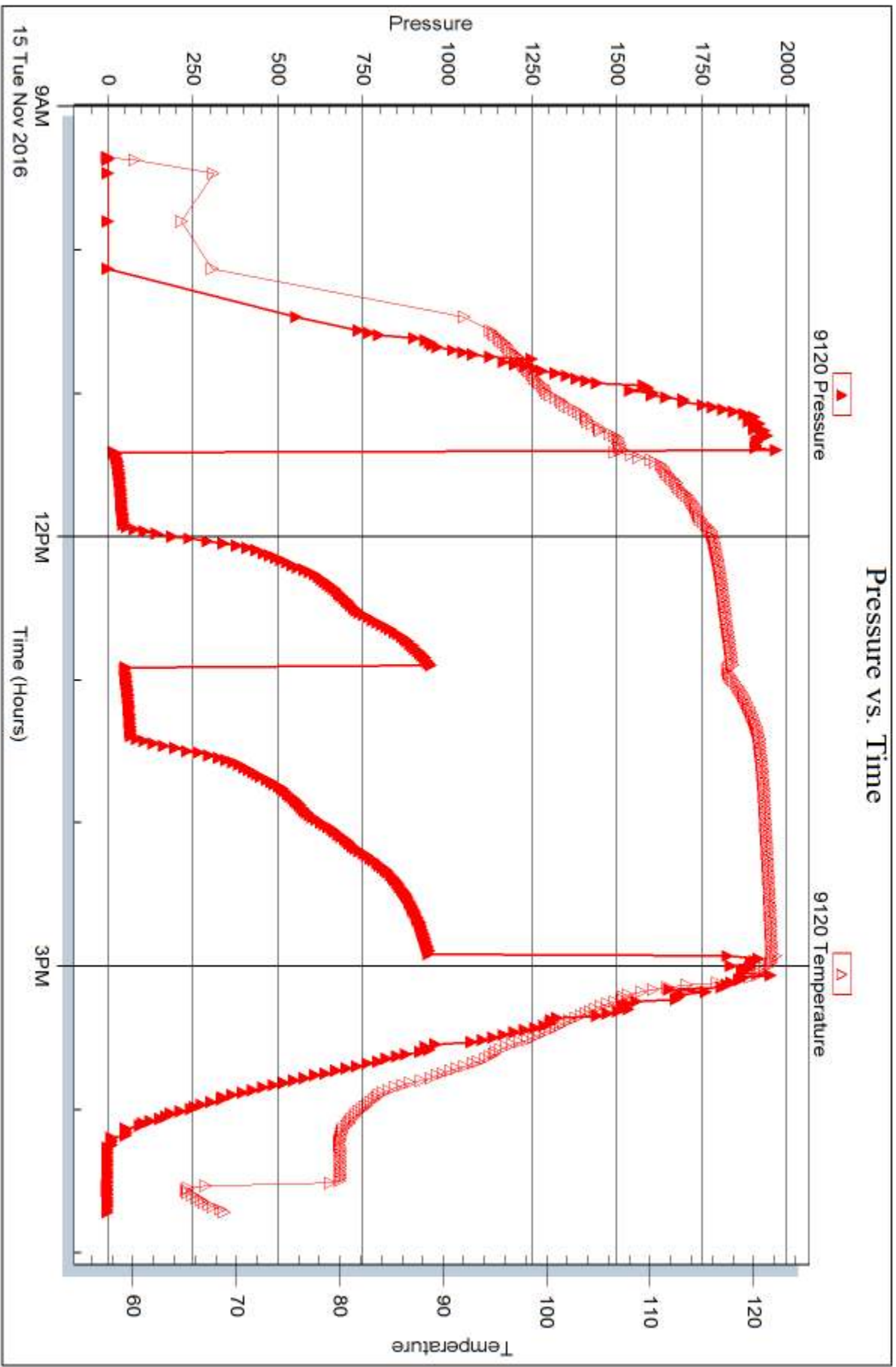
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Serial #: 9120

Outside Culbreath Oil and Gas Co. Inc.

Riedel #2-5

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63500

Printed: 2016.11.17 @ 09:06:08



DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil and Gas Co. Inc.**

3501 S Yale Ave
Tulsa Ok, 74135+8014

ATTN: Steve Murphy/ Kevin

Riedel #2-5

S5-10s-26w Sheridan,KS

Start Date: 2016.11.16 @ 05:48:00

End Date: 2016.11.16 @ 13:15:00

Job Ticket #: 61860 DST #: 4

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

Printed: 2016.11.17 @ 09:05:15

Culbreath Oil and Gas Co. Inc.
S5-10s-26w Sheridan,KS
Riedel #2-5
DST # 4
LKC 'K'
2016.11.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 61860

DST#: 4

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.16 @ 05:48:00

GENERAL INFORMATION:

Formation: **LKC 'K'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:37:45

Time Test Ended: 13:15:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 4062.00 ft (KB) To 4084.00 ft (KB) (TVD)

Reference Elevations: 2643.00 ft (KB)

Total Depth: 4084.00 ft (KB) (TVD)

2633.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8353

Inside

Press@RunDepth: 86.91 psig @ 4063.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.11.16

End Date:

2016.11.16

Last Calib.:

2016.11.16

Start Time: 05:48:15

End Time:

13:15:00

Time On Btm:

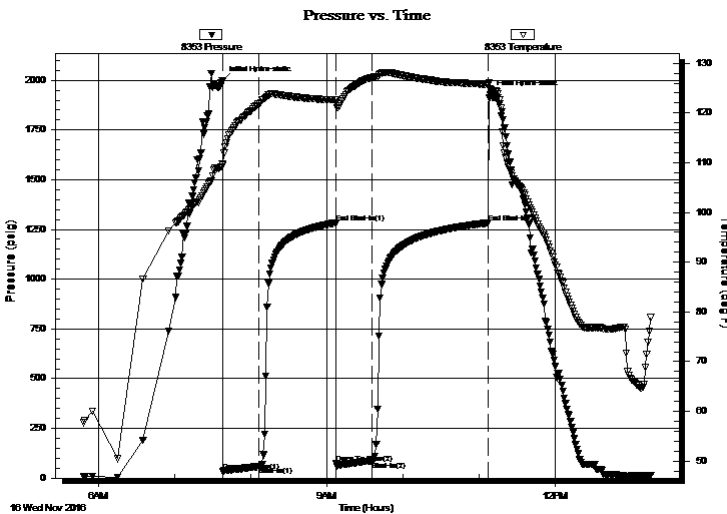
2016.11.16 @ 07:37:30

Time Off Btm:

2016.11.16 @ 11:08:30

TEST COMMENT: 30-IF-Strong Blow ; BOB in 10 minutes
60-ISI-Fair Blow ; Built to 3 3/4"
30-FF-Strong Blow ; BOB in 5 minutes
90-FSI-Fair Blow ; Built to 3"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.70	109.84	Initial Hydro-static
1	34.75	109.47	Open To Flow (1)
29	58.37	121.77	Shut-In(1)
90	1281.35	122.60	End Shut-In(1)
90	71.94	122.11	Open To Flow (2)
118	86.91	127.11	Shut-In(2)
210	1283.36	125.75	End Shut-In(2)
211	1928.62	124.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Gassy Clean Oil 10% G 90% O	0.42
140.00	MCGO 20%M 30%G 50%O	1.96
0.00	713 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 61860

DST#: 4

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.16 @ 05:48:00

Tool Information

Drill Pipe:	Length: 4060.00 ft	Diameter: 3.80 inches	Volume: 56.95 bbl	Tool Weight: 2500.00 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: 64000.00 lb
			<u>Total Volume: 56.95 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4062.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4043.00	
Shut In Tool	5.00			4048.00	
Hydraulic tool	5.00			4053.00	
Packer	5.00			4058.00	20.00 Bottom Of Top Packer
Packer	4.00			4062.00	
Stubb	1.00			4063.00	
Recorder	0.00	9120	Outside	4063.00	
Recorder	0.00	8353	Inside	4063.00	
Perforations	17.00			4080.00	
Bullnose	4.00			4084.00	22.00 Bottom Packers & Anchor
Total Tool Length:	42.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil and Gas Co. Inc.

S5-10s-26w Sheridan,KS

3501 S Yale Ave
Tulsa Ok, 74135+8014

Riedel #2-5

Job Ticket: 61860

DST#: 4

ATTN: Steve Murphy/ Kevin

Test Start: 2016.11.16 @ 05:48:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Gassy Clean Oil 10% G 90% O	0.421
140.00	MCGO 20%M 30%G 50%O	1.964
0.00	713 GIP	0.000

Total Length: 170.00 ft

Total Volume: 2.385 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

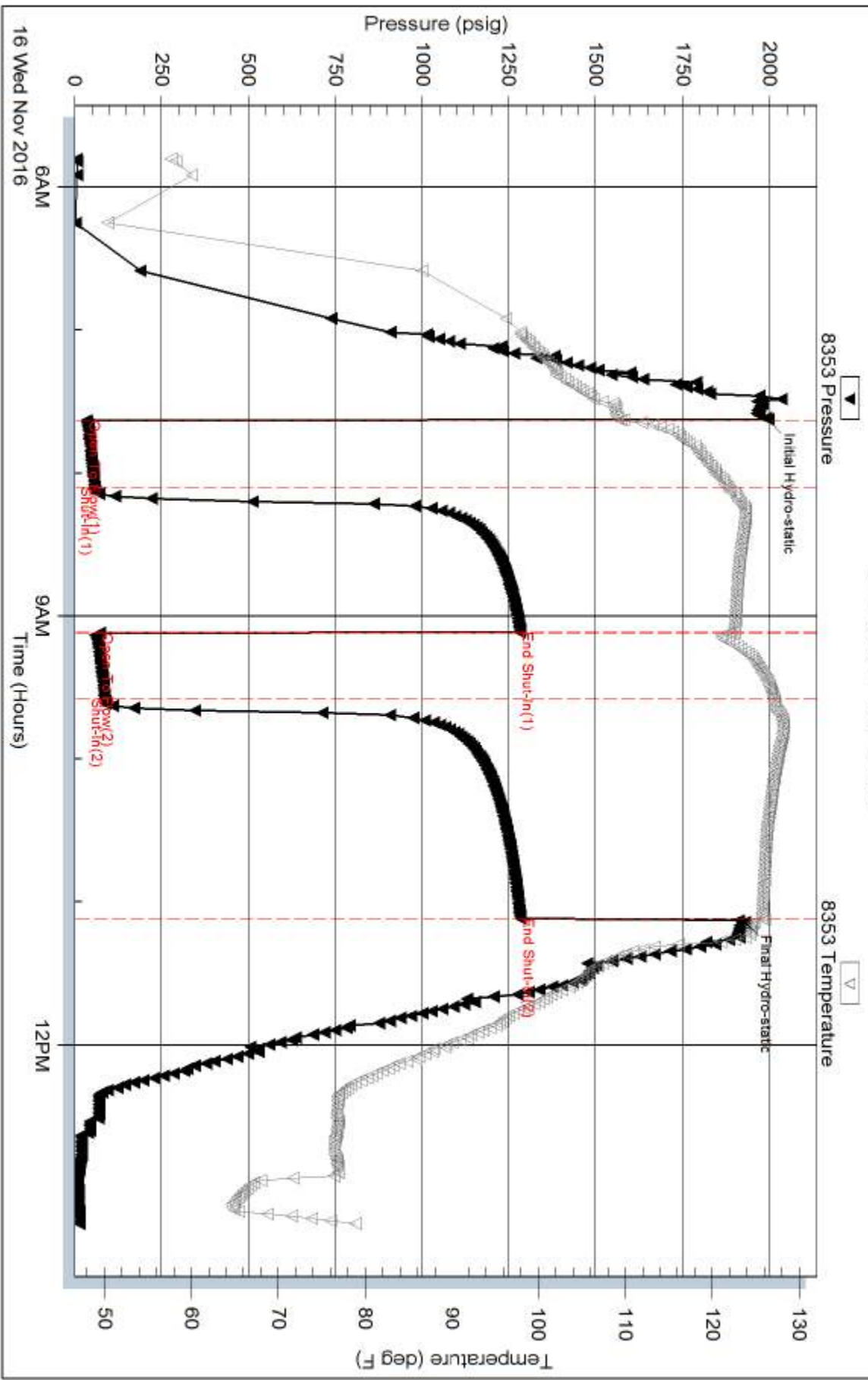
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

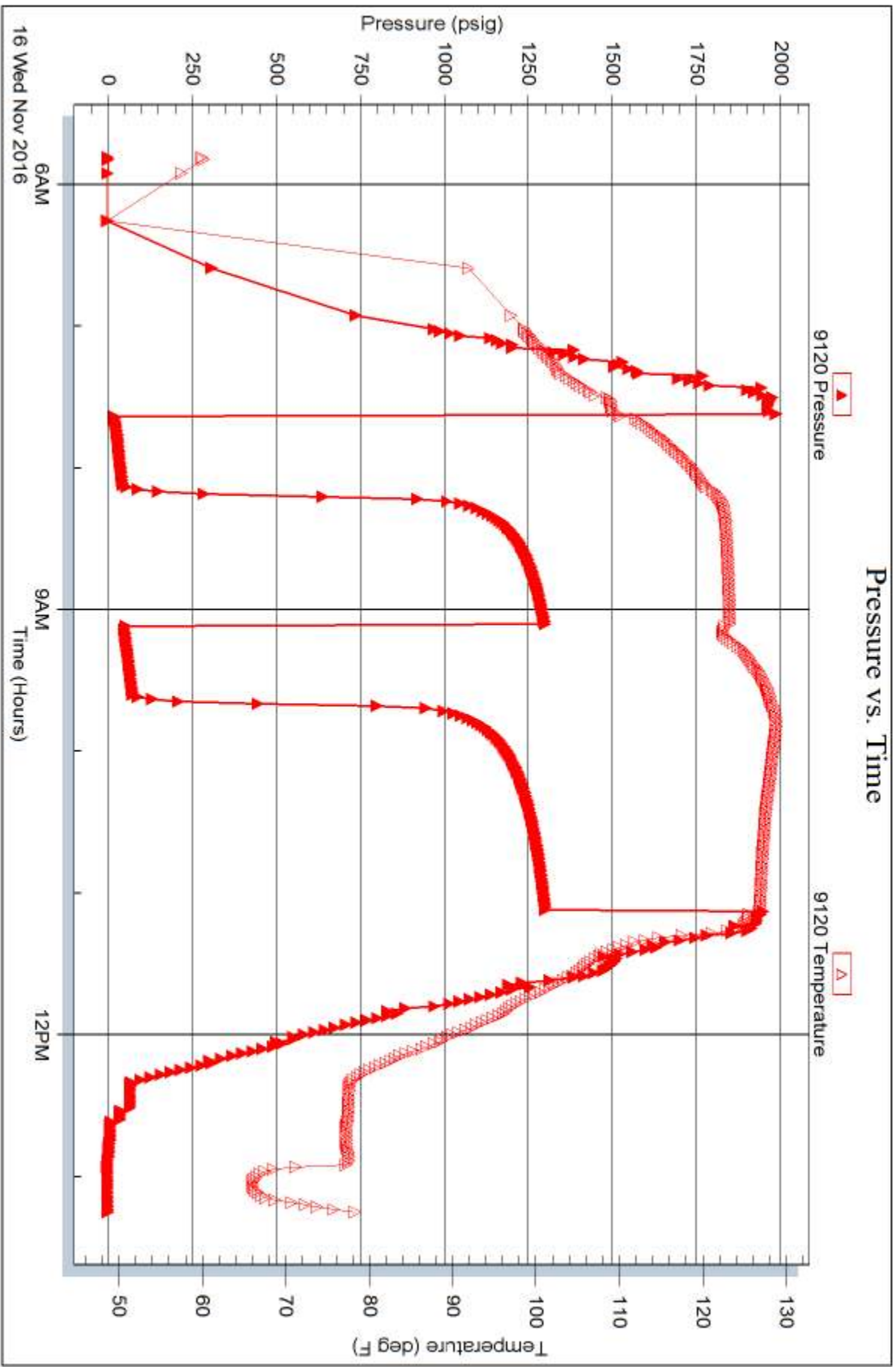


Serial #: 9120

Outside Culbreath Oil and Gas Co. Inc.

Riedel #2-5

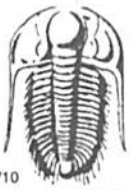
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 61860

Printed: 2016.11.17 @ 09:05:17



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63498

4/10

Well Name & No. Culbreath Oil & Gas Co. Inc. Redel #2-5 Test No. 1 Date 11/13/2016
 Company Culbreath Oil & Gas Co. Inc. Elevation 2643 KB 2633 GL
 Address 3501 S Yale Ave Tulsa OK 74135-8014
 Co. Rep / Geo. Steve Murphy / Kevin Howard Rig Southwind
 Location: Sec. 5 Twp. 10S Rge. 26W Co. Sheridan State KS

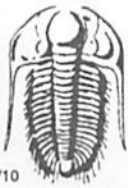
Interval Tested 3890-3914 Zone Tested LKC 'B'
 Anchor Length 24' Drill Pipe Run _____ Mud Wt. 8.6
 Top Packer Depth 3885 Drill Collars Run - Vis 65
 Bottom Packer Depth 3890 Wt. Pipe Run - WL 7.2
 Total Depth 3914 Chlorides 1000 ppm System LCM 3/4 #
 Blow Description D7 - Weak Blow; Built to 1 1/4 inch
DSD - No Blow Back
77 - No Blow
7SD - No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>OCM</u>	<u>5</u>		<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 25 BHT 114° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1882</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>23:50</u>
(B) First Initial Flow <u>42</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>01:09 11/14/2016</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>03:15</u>
(D) Initial Shut-In <u>967</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>05:50</u>
(E) Second Initial Flow <u>42</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>07:20</u>
(F) Second Final Flow <u>36</u>	<input checked="" type="checkbox"/> Mileage <u>136 RT 118rt 88.50</u>	Comments <u>tool slid 8 ft to bottom</u>
(G) Final Shut-In <u>795</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1853</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>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1463.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1463.50</u>	

Approved By _____ Our Representative Spencer J. Staal
 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.
Thank-you!!



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63499

Well Name & No. Riedel # 2-5 Test No. 2 Date 11/14/2016
 Company Culbreath Oil and Gas Co. Inc. Elevation 2643 KB 2633 GL
 Address 3501 S Yale Ave Tulsa OK 74135 + 8014
 Co. Rep / Geo. Steve Murphy / Kevin Howard Rig Southwind #8
 Location: Sec. 5 Twp. 10S Rge. 26W Co. Sheridan State KS

Interval Tested 3910 - 3934 Zone Tested LKC 'D'
 Anchor Length 24' Drill Pipe Run 3911 Mud Wt. 8.9
 Top Packer Depth 3905 Drill Collars Run - Vis 52
 Bottom Packer Depth 3910 Wt. Pipe Run - WL 7.6
 Total Depth 3934 Chlorides 1500 ppm System LCM 1 1/2#

Blow Description D7 - Fair Blow; Built to 4 inches
DSD - Very weak surface blow back
F7 - Fair Blow; Built to 5 3/4 inches; died back to 5 inches
FSD - Very weak surface blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Clear Oil</u>	<u>100</u>			
<u>35</u>	<u>OCM</u>	<u>30</u>		<u>70</u>	

Rec Total 40 BHT 114° Gravity 35 API RW - @ - °F Chlorides - ppm

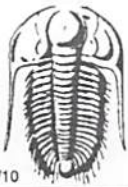
(A) Initial Hydrostatic 1888 Test 1050 T-On Location 13:03
 (B) First Initial Flow 33 Jars - T-Started 13:46
 (C) First Final Flow 32 Safety Joint - T-Open 15:35
 (D) Initial Shut-In 969 Circ Sub - T-Pulled 19:17
 (E) Second Initial Flow 32 Hourly Standby - T-Out 20:56
 (F) Second Final Flow 39 Mileage 136 RT 88.50 Comments tool slid 5 feet
 (G) Final Shut-In 908 Sampler -
 (H) Final Hydrostatic 1840 Straddle - Ruined Shale Packer -

Initial Open 30 Shale Packer - Ruined Packer -
 Initial Shut-In 60 Extra Packer - Extra Copies -
 Final Flow 60 Extra Recorder - Sub Total 0
 Final Shut-In 60 Day Standby - Total 1138.50
 Accessibility - MP/DST Disc't -
 Sub Total 1138.50

Approved By _____ Our Representative Spencer J. Staub

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.

Thankyou!!



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63500**

4/10

Well Name & No. Riedel #2-5 Test No. 3 Date 11/15/2016
 Company Culbreath Oil and Gas Co. Inc. Elevation 2643 KB 2633 GL
 Address 3501 S Yale Ave Tulsa OK 74135 + 8014
 Co. Rep / Geo. Steve Murphy / Kevin Howard Rig Southwind #8
 Location: Sec. 5 Twp. 10s Rge. 26w Co. Sheridan State Ks

Interval Tested 3992-4016 Zone Tested LKC 'H'
 Anchor Length 24' Drill Pipe Run 3994 Mud Wt. 9.0
 Top Packer Depth 3987 Drill Collars Run - Vis 58
 Bottom Packer Depth 3992 Wt. Pipe Run - WL 7.6
 Total Depth 4016 Chlorides 2000 ppm System LCM 1 1/2#
 Blow Description 87 - BOB in 7 minutes
DSO - No blow back 1/4 inch Blow Back
77 - BOB in 8 minutes
7SD - 1/4 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
65	Gas Clean Oil	10	90		
75	GMCO	10	50		40
	1640' GIP				

Rec Total 140' BHT 121° Gravity 40 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1949</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>08:35</u>
(B) First Initial Flow <u>37</u>	<input type="checkbox"/> Jars	T-Started <u>09:24</u>
(C) First Final Flow <u>55</u>	<input type="checkbox"/> Safety Joint	T-Open <u>11:27</u>
(D) Initial Shut-In <u>934</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>14:57</u>
(E) Second Initial Flow <u>62</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:46</u>
(F) Second Final Flow <u>77</u>	<input checked="" type="checkbox"/> Mileage <u>136 R7</u> 88.50	Comments
(G) Final Shut-In <u>926</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1931</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>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1238.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1238.50</u>	

Approved By _____ Our Representative Spencer J. Staal
 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.
 Thank-you!!



4/10

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61860

Well Name & No. Riedel #2-5 Test No. 4 Date 11/15/2016
 Company Culbreath Oil and Gas Co. Inc Elevation 2643 KB 2633 GL
 Address 3501 S Yale Ave Tulsa OK 74135 + 8014
 Co. Rep / Geo. Steve Murphy / Kevin Howard Rig Southwind #8
 Location: Sec. 5 Twp. 10s Rge. 26w Co. Sheridan State Ks

Interval Tested 4062-4084 Zone Tested LRC 'K'
 Anchor Length 22' Drill Pipe Run 4060 Mud Wt. 9
 Top Packer Depth 4057 Drill Collars Run - Vis 58
 Bottom Packer Depth 4062 Wt. Pipe Run - WL 7.6
 Total Depth 4084 Chlorides 2000 ppm System LCM 1 1/2#

Blow Description D7 - Strong Blow; BOB in 10 minutes
D50 - Fair Blow; Built to 3 3/4 inches
77 - Strong Blow; BOB in 5 minutes
7SD - Fair Blow;

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Grassy Clean Oil</u>	<u>10</u>	<u>90</u>		
<u>140</u>	<u>MCGO</u>	<u>30</u>	<u>50</u>	<u>20</u>	
	<u>713 GTP</u>	<u>100</u>			

Rec Total 170 BHT 122 Gravity 32 API RW - @ - °F Chlorides - ppm

- (A) Initial Hydrostatic 1995
- (B) First Initial Flow 34
- (C) First Final Flow 58
- (D) Initial Shut-In 1281
- (E) Second Initial Flow 71
- (F) Second Final Flow 86
- (G) Final Shut-In 1283
- (H) Final Hydrostatic 1928

- Test 1150
- Jars
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 136R7 88.50
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility

- T-On Location 04:13
- T-Started 05:48
- T-Open 07:36
- T-Pulled 11:10
- T-Out 13:14

Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 90

- Comments
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total 0
- Total 1238.50
- MP/DST Disc't

Approved By _____ Our Representative Spencer J. Swab

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.

Thankyou!!



CONSOLIDATED
Oil Well Services, LLC

7262
7161

TICKET NUMBER 51684

LOCATION Ochleau, KS

FOREMAN Miles Sharp
Walt Dinkel

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 809279

KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-19-16	2777	Riedel 2-5	5	10S	26W	Sherridan

TRUCK #	DRIVER	TRUCK #	DRIVER
731	Cory D		
772/T-10	Stevie		
566	Walt D		

CUSTOMER Cullbreath Qu. in 8" w into

MAILING ADDRESS 3501 South Yale Avenue

CITY Tulsa STATE OK ZIP CODE 74135

JOB TYPE 2-Stage HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT 5 1/2" 15.5"

CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER _____

SLURRY WEIGHT 11.5/14.5 SLURRY VOL 2.3/1.39 WATER gal/sk _____ CEMENT LEFT in CASING _____

DISPLACEMENT 55 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting and rig up on well mix 40.50# gel followed in with 375 SX 60/40 8# gel 1/4" flow seat to bottom with 50 SX Class A cement. Shut down clear Pump & lines displace 55 bbls 500 psi lit 1700 psi land out plug

Cement did circulate lost circulation lost 5 bbls

Thanks Miles & Crew

12/19/16
10:12

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0451		PUMP CHARGE	1900. ⁰⁰	1900. ⁰⁰
CE0002	25	MILEAGE	7.15	178.75
CE0710	18.66 tons	Ton Mileage delivery	1.75	816.38
CC580A	50 SX	Class A Cement	20. ⁰⁰	1000. ⁰⁰
CC5831	375 SX	White Weight blend VII 60/40 8#	17.50	6562.50
CC6075	94 #	Chaloclori Fluorcal	3. ⁰⁰	282. ⁰⁰
CC5965	40.50 #	Bentonite gel	.30	1215. ⁰⁰
			Subtotal	11954.63
			less 45% discount	5379.58
			Subtotal	6575.05
			SALES TAX	423.53
			ESTIMATED TOTAL	6998.58

Ravin 3737

AUTHORIZATION [Signature]

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.



CONSOLIDATED
Oil Well Services, LLC

7137
7042

TICKET NUMBER 51673
LOCATION Oakley, Ks
FOREMAN Walt Dunkel ✓

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 89138

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-17-16	2777	Riedel 2-5	5	10S	26 W	Shannon
CUSTOMER Culbreth Oil + Gas, Co 3501 South Yale Avenue Tulsa OK 74135			Quintex 8N W15			
TRUCK #	DRIVER	TRUCK #	DRIVER			
753	Cory Davis	566	Herold			
772-7729	Steven Adel	1 miles Shaw				

JOB TYPE Prod HOLE SIZE 7 7/8 HOLE DEPTH 4200' CASING SIZE & WEIGHT 5 1/2 - 15.5 #
CASING DEPTH 4191' DRILL PIPE _____ TUBING _____ OTHER Shoe 41.77'
SLURRY WEIGHT 14.7 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 41.77
DISPLACEMENT 99.314 DISPLACEMENT PSI 1000 MIX PSI _____ RATE 6 BPM

REMARKS: Safety Meeting, Rieup on Southern #8, Hook to casing, circ.
1-Hr, Pump 500 gal mud flush + 20 BBL KCL, clear Pump + Lines, release
Plug + Displace 40 BBL H₂O + 59 3/4 mud @ 1000#, landed log @ 1500#
waited 20 min after dropping opening tool, would not open, shut down

Thank You
Walt + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0452 ✓	1	PUMP CHARGE adjust Price From Surface	2,300.00	2,300.00
CE0002 ✓	25	MILEAGE	7.15	178.75
CE0711 ✓	8.23	Ten Mileage Delivery	1.25	660.00
CE5862 ✓	175 SKS	1kya blend III didn't use	26.00	4550.00
CE5871 ✓	10109 SKS	Lite weight Blend VII didn't use	19.50	#10
CE6075 ✓	*10110 #	Flu-Sol Did not use	3.00	#10
CC6125 ✓	500 gal	Mud Flush	.654	325.00
CC5300 ✓	2 gal	KCL	39.00	78.00
CP8485 ✓	1	5 1/2 APU FlatShoe	585.00	585.00
CP8254 ✓	1	5 1/2 Latchdown Plug	400.00	400.00
CP8554 ✓	7	5 1/2 Centralizers	81.00	567.00
CP8629 ✓	2	5 1/2 Basket	385	770.00
			75.00	2,025.00
CP8676 ✓	27	5 1/2 Scratchers	↓	↓
CP8801 ✓	1	DV TOOL	↓	↓
				12,438.75
				less 45% Tax - 5,597.74
				6,841.01
			SALES TAX	447.57
			ESTIMATED TOTAL	7288.88

AUTHORIZATION [Signature] 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.



REMIT TO
 Consolidated Oil Well Services, LLC
 Dept:970
 P.O.Box 4346
 Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884
 Chanute,KS 66720
 620/431-9210,1-800/467-8676
 Fax 620/431-0012

Invoice

Invoice# 808991

Invoice Date: 11/10/16

Terms: Net 30

Page 1

CULBREATH OIL & GAS CO.INC

3501 South Yale Aveune
 TULSA OK 74135
 USA
 9187493508

Redel #2-5

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,500.0000	45.000	825.00
CE0002	Equipment Mileage Charge - Heavy Equipment	30.000	7.1500	45.000	117.98
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	45.000	363.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	190.000	23.0000	45.000	2,403.50

Subtotal 6,744.50

Discounted Amount 3,035.03

SubTotal After Discount 3,709.47

Amount Due 7,115.95 If paid after 12/10/16

Tax: 204.30

Total: 3,913.78

