

Form	ACO1 - Well Completion
Operator	Thomas Garner, Inc.
Well Name	DIAMOND H 1
Doc ID	1532480

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	349	60/40 Poz	350	2% Gel 3%CC

Custom Service, LLC

766 NW 30th St.
St. John, KS 67576

Invoice

Date	Invoice #
8/8/2020	1201

Bill To
Tom Garner 305 E 7th Ave St. John, KS 67576

P.O. No.	Terms	Project
DIAMOND H #1	Due on receipt	

Item	Quantity	Description	Rate	Amount
Water Truck	240	07/31/2020: HAULED 3 80 BBLs LOADS FROM RESERVE PIT TO GOBIN SWD	1.30	312.00
Water Truck	300	08/03/2020: HAULED 3 80 BBLs LOADS AND 1 60 BBLs LOAD FROM RESERVE PIT TO GOBIN SWD	1.30	390.00
Water Truck	320	08/03/2020: HAULED 4 80 BBLs LOADS FROM RESERVE PIT TO GOBIN SWD	1.30	416.00
Water Truck	80	08/04/2020: HAULED 80 BBLs FROM RESERVE PIT TO RESERVE SWD GOBIN	1.30	104.00
Water Truck	320	08/06/2020: HAULED 4 80 BBLs LOADS FROM RESERVE PIT TO GOBIN SWD	1.30	416.00
Water Truck	240	08/06/2020: HAULED 3 80 BBLs LOADS FROM RESERVE PIT TO GOBIN SWD	1.30	312.00

McGarner

Thank you for your business. For any questions and concerns please contact Aric at (620)546-4205

Total

\$1,950.00



DRILL STEM TEST REPORT

Prepared For: **Thomas Garner Inc**

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

Diamond H #1

23-25s-13w Stafford,KS

Start Date: 2020.08.01 @ 17:35:00

End Date: 2020.08.02 @ 02:07:21

Job Ticket #: 66397 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.08.05 @ 10:15:04



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66397

DST#: 1

Test Start: 2020.08.01 @ 17:35:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:29:37

Time Test Ended: 02:07:21

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: 3990.00 ft (KB) To 4018.00 ft (KB) (TVD)

Reference Elevations: 1934.00 ft (KB)

Total Depth: 4018.00 ft (KB) (TVD)

1923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6838 Inside

Press@RunDepth: 36.01 psig @ 3991.00 ft (KB)

Capacity: psig

Start Date: 2020.08.01

End Date:

2020.08.02

Last Calib.: 2020.08.02

Start Time: 17:35:01

End Time:

02:07:21

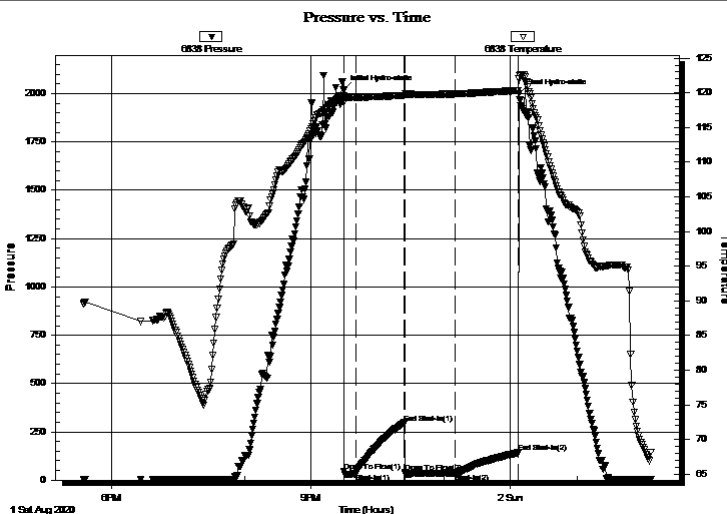
Time On Btm: 2020.08.01 @ 21:29:32

Time Off Btm: 2020.08.02 @ 00:07:27

TEST COMMENT: 10-IF-BOB 4 mins; Built to 19"
45-ISI-No Return
45-FF-BOB Instantaneously; Built to 15"
60-FSI-No Return

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2020.85	119.59	Initial Hydro-static
1	45.75	118.57	Open To Flow (1)
12	33.85	119.40	Shut-In(1)
55	296.19	119.63	End Shut-In(1)
56	40.41	119.62	Open To Flow (2)
101	36.01	119.84	Shut-In(2)
158	141.76	120.35	End Shut-In(2)
158	2000.91	121.98	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
30.00	GSOCM 2%G 3%O 95%M	0.15
0.00	700' GIP 100%G	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66397

DST#: 1

Test Start: 2020.08.01 @ 17:35:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:29:37

Time Test Ended: 02:07:21

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: 3990.00 ft (KB) To 4018.00 ft (KB) (TVD)

Reference Elevations: 1934.00 ft (KB)

Total Depth: 4018.00 ft (KB) (TVD)

1923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8875 Outside

Press@RunDepth: psig @ 3991.00 ft (KB)

Capacity: psig

Start Date: 2020.08.01

End Date:

2020.08.02

Last Calib.:

2020.08.02

Start Time: 17:35:01

End Time:

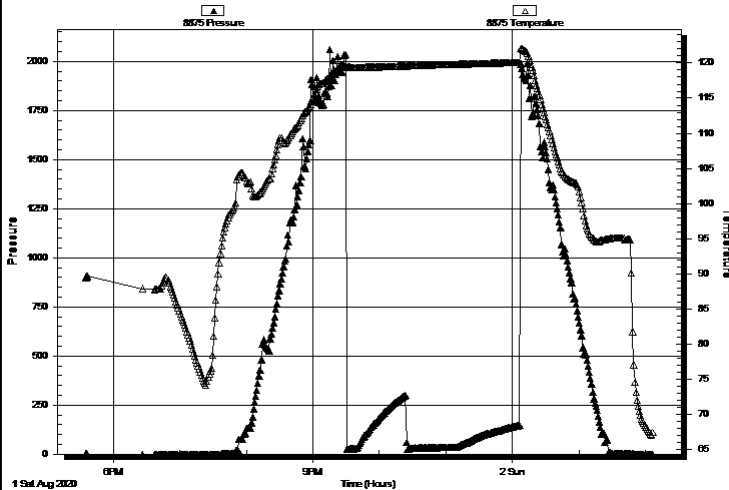
02:07:21

Time On Btm:

Time Off Btm:

TEST COMMENT: 10-IF-BOB 4 mins; Built to 19"
45-ISI-No Return
45-FF-BOB Instantaneously; Built to 15"
60-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
30.00	GSOCM 2%G 3%O 95%M	0.15
0.00	700' GIP 100%G	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66397

DST#: 1

ATTN: Keith Reavis

Test Start: 2020.08.01 @ 17:35:00

Tool Information

Drill Pipe:	Length:	3758.00 ft	Diameter:	3.82 inches	Volume:	53.27 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.75 inches	Volume:	- bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	218.00 ft	Diameter:	2.25 inches	Volume:	1.07 bbl	Weight to Pull Loose:	80000.00 lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	71000.00 lb
Depth to Top Packer:		3990.00 ft					Final	71000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		28.00 ft						
Tool Length:		62.00 ft						
Number of Packers:		1	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3957.00	
Change Over Sub	1.00			3958.00	
Shut In Tool	5.00			3963.00	
Hydraulic tool	5.00		Fluid	3968.00	
Gap Sub	5.00			3973.00	
Jars	5.00			3978.00	
Safety Joint	3.00			3981.00	
Packer	5.00			3986.00	34.00 Bottom Of Top Packer
Packer	4.00			3990.00	
Stubb	1.00			3991.00	
Recorder	0.00	6838	Inside	3991.00	
Recorder	0.00	8875	Outside	3991.00	
Perforations	24.00			4015.00	
Bullnose	3.00			4018.00	28.00 Bottom Packers & Anchor

Total Tool Length: 62.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66397

DST#: 1

ATTN: Keith Reavis

Test Start: 2020.08.01 @ 17:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 9.58 in³

Resistivity: ohm.m

Salinity: 5050.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GSOCM 2%G 3%O 95%M	0.148
0.00	700' GIP 100%G	0.000

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

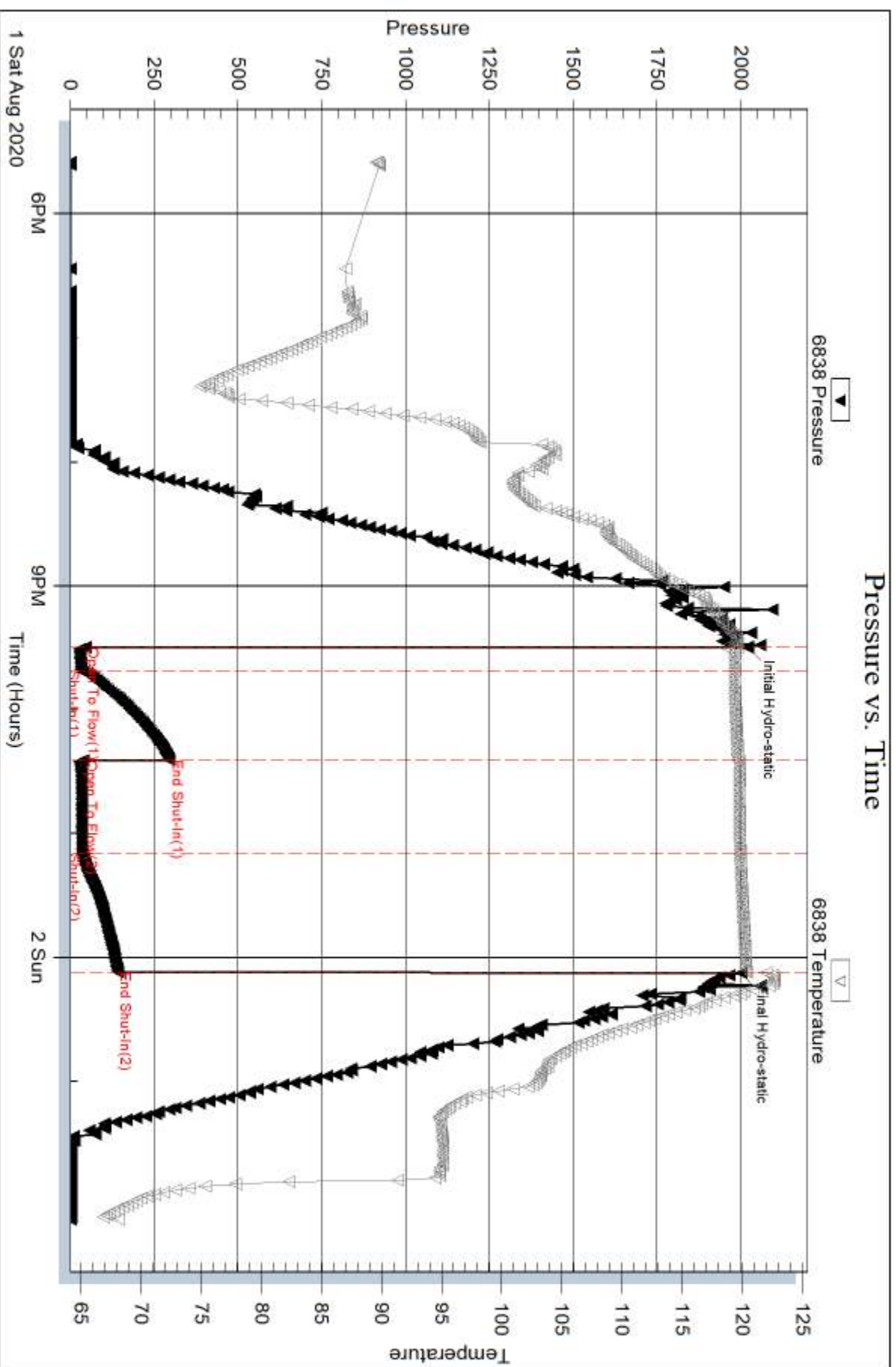
Serial #: 6838

Inside

Thomas Garner Inc

Diamond H #1

DST Test Number: 1

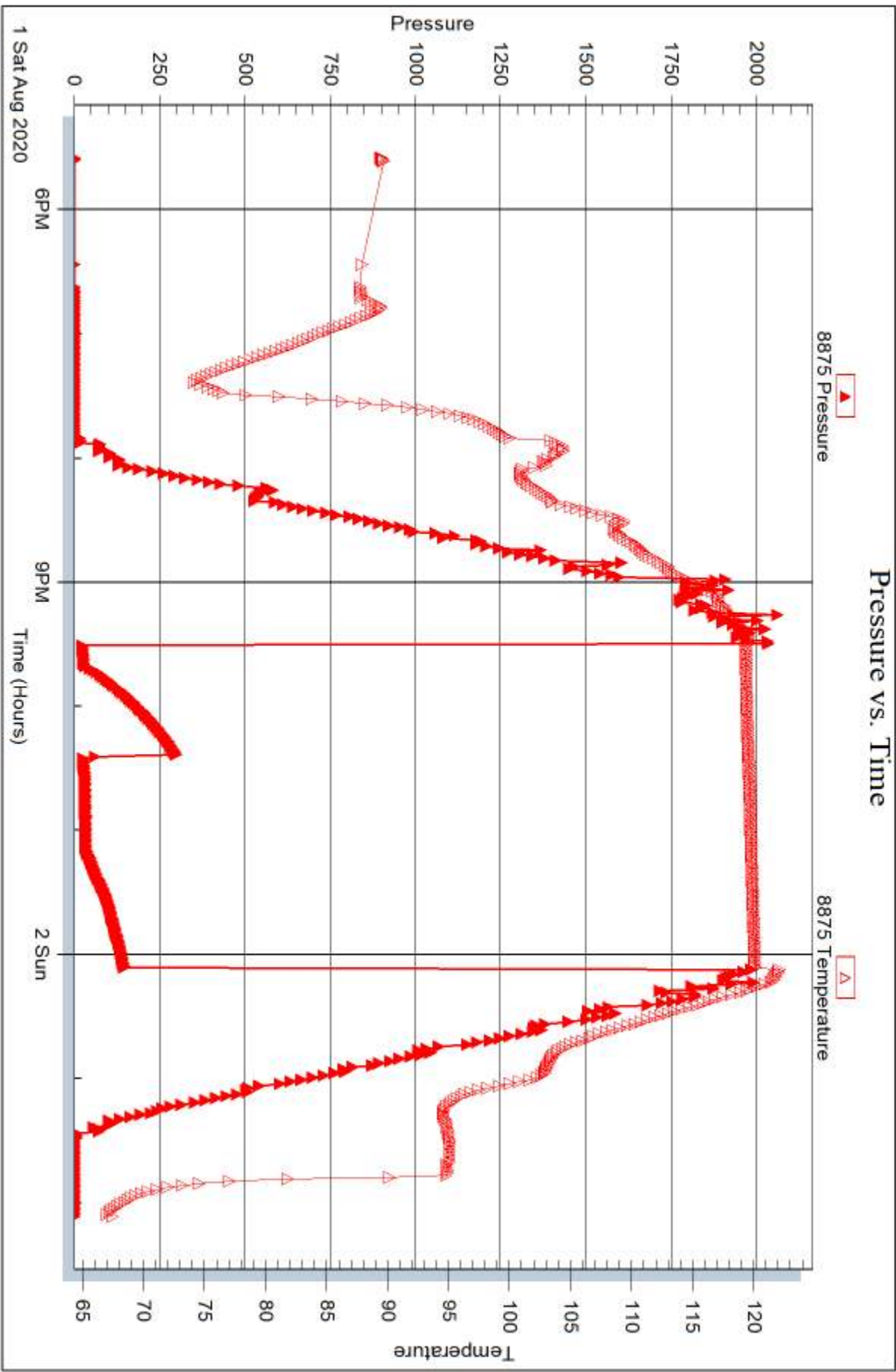


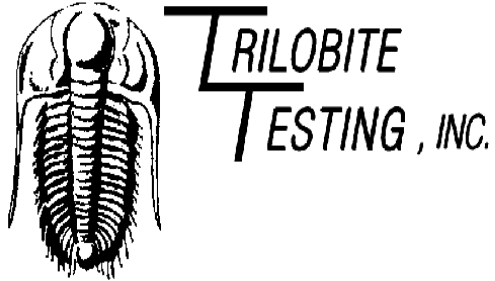
Serial #: 8875

Outside Thomas Garner Inc

Diamond H #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Thomas Garner Inc**

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

Diamond H #1

23-25s-13w Stafford,KS

Start Date: 2020.08.02 @ 11:55:00

End Date: 2020.08.02 @ 18:52:07

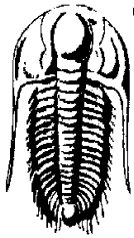
Job Ticket #: 66398 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.08.05 @ 10:14:19



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66398

DST#: 2

Test Start: 2020.08.02 @ 11:55:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:37

Time Test Ended: 18:52:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4024.00 ft (KB) To 4092.00 ft (KB) (TVD)

Total Depth: 4092.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6838 Inside

Press@RunDepth: 94.23 psig @ 4059.00 ft (KB)

Start Date: 2020.08.02

End Date:

2020.08.02

Start Time: 11:55:01

End Time:

18:52:07

Capacity: psig

Last Calib.: 2020.08.02

Time On Btm: 2020.08.02 @ 14:13:32

Time Off Btm: 2020.08.02 @ 16:57:52

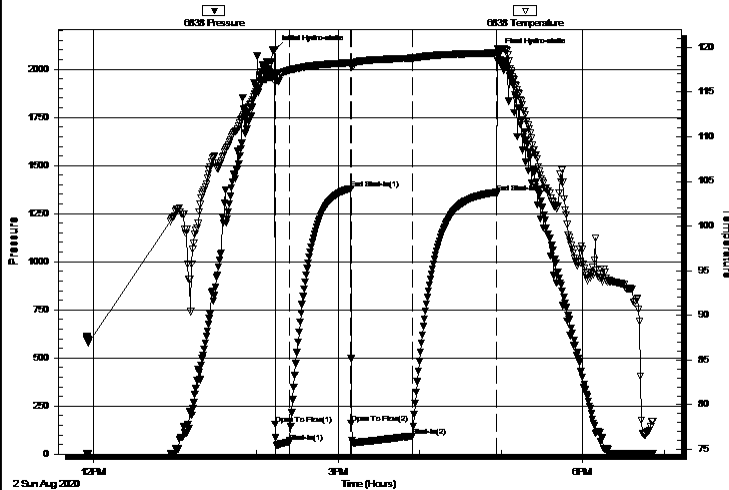
TEST COMMENT: 10-IF-BOB 40secs; Built to 140"

45-ISI-No Return

45-FF-BOB Instantaneously; Built to 40psi; GTS @ 40 mins

60-FSI-No Return; 19 mins to bleed off

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2103.50	116.98	Initial Hydro-static
1	153.85	116.04	Open To Flow (1)
11	63.71	117.43	Shut-In (1)
56	1379.22	118.23	End Shut-In (1)
56	161.91	117.81	Open To Flow (2)
102	94.23	118.78	Shut-In (2)
163	1360.54	119.39	End Shut-In (2)
165	2086.80	119.84	Final Hydro-static

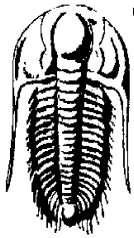
Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%M	0.30
0.00	GTS 3929'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66398

DST#: 2

Test Start: 2020.08.02 @ 11:55:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:37

Time Test Ended: 18:52:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4024.00 ft (KB) To 4092.00 ft (KB) (TVD)

Total Depth: 4092.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8875 Outside

Press@RunDepth: psig @ 4059.00 ft (KB)

Start Date: 2020.08.02

End Date:

2020.08.02

Start Time: 11:55:01

End Time:

18:52:07

Capacity: psig

Last Calib.:

2020.08.02

Time On Btm:

Time Off Btm:

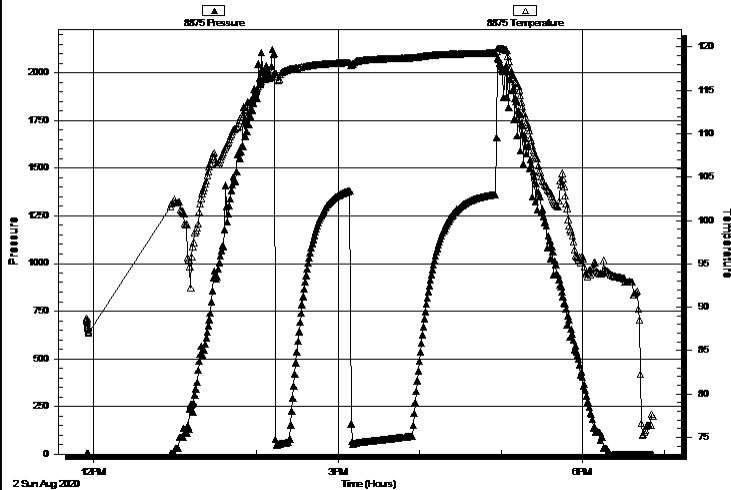
TEST COMMENT: 10-IF-BOB 40secs; Built to 140"

45-ISI-No Return

45-FF-BOB Instantaneously; Built to 40psi; GTS @ 40 mins

60-FSI-No Return; 19 mins to bleed off

Pressure vs. Time



PRESSURE SUMMARY

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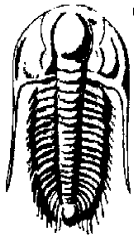
Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%M	0.30
0.00	GTS 3929'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66398

DST#: 2

ATTN: Keith Reavis

Test Start: 2020.08.02 @ 11:55:00

Tool Information

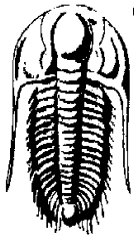
Drill Pipe:	Length:	3789.00 ft	Diameter:	3.82 inches	Volume:	53.71 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.75 inches	Volume:	- bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	218.00 ft	Diameter:	2.25 inches	Volume:	1.07 bbl	Weight to Pull Loose:	76000.00 lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:		17.00 ft					String Weight: Initial	72000.00 lb
Depth to Top Packer:		4024.00 ft					Final	73000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		68.00 ft						
Tool Length:		102.00 ft						
Number of Packers:		1	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

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

Change Over Sub	1.00			3991.00	
Change Over Sub	1.00			3992.00	
Shut In Tool	5.00			3997.00	
Hydraulic tool	5.00		Fluid	4002.00	
Gap Sub	5.00			4007.00	
Jars	5.00			4012.00	
Safety Joint	3.00			4015.00	
Packer	5.00			4020.00	34.00 Bottom Of Top Packer
Packer	4.00			4024.00	
Stubb	1.00			4025.00	
Perforations	1.00			4026.00	
Change Over Sub	1.00			4027.00	
Drill Pipe	32.00			4059.00	
Recorder	0.00	6838	Inside	4059.00	
Recorder	0.00	8875	Outside	4059.00	
Change Over Sub	1.00			4060.00	
Perforations	29.00			4089.00	
Bullnose	3.00			4092.00	68.00 Bottom Packers & Anchor

Total Tool Length: 102.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66398

DST#: 2

ATTN: Keith Reavis

Test Start: 2020.08.02 @ 11:55:00

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: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Mud 100%M	0.295
0.00	GTS 3929'	0.000

Total Length: 60.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1&1/2#LCM

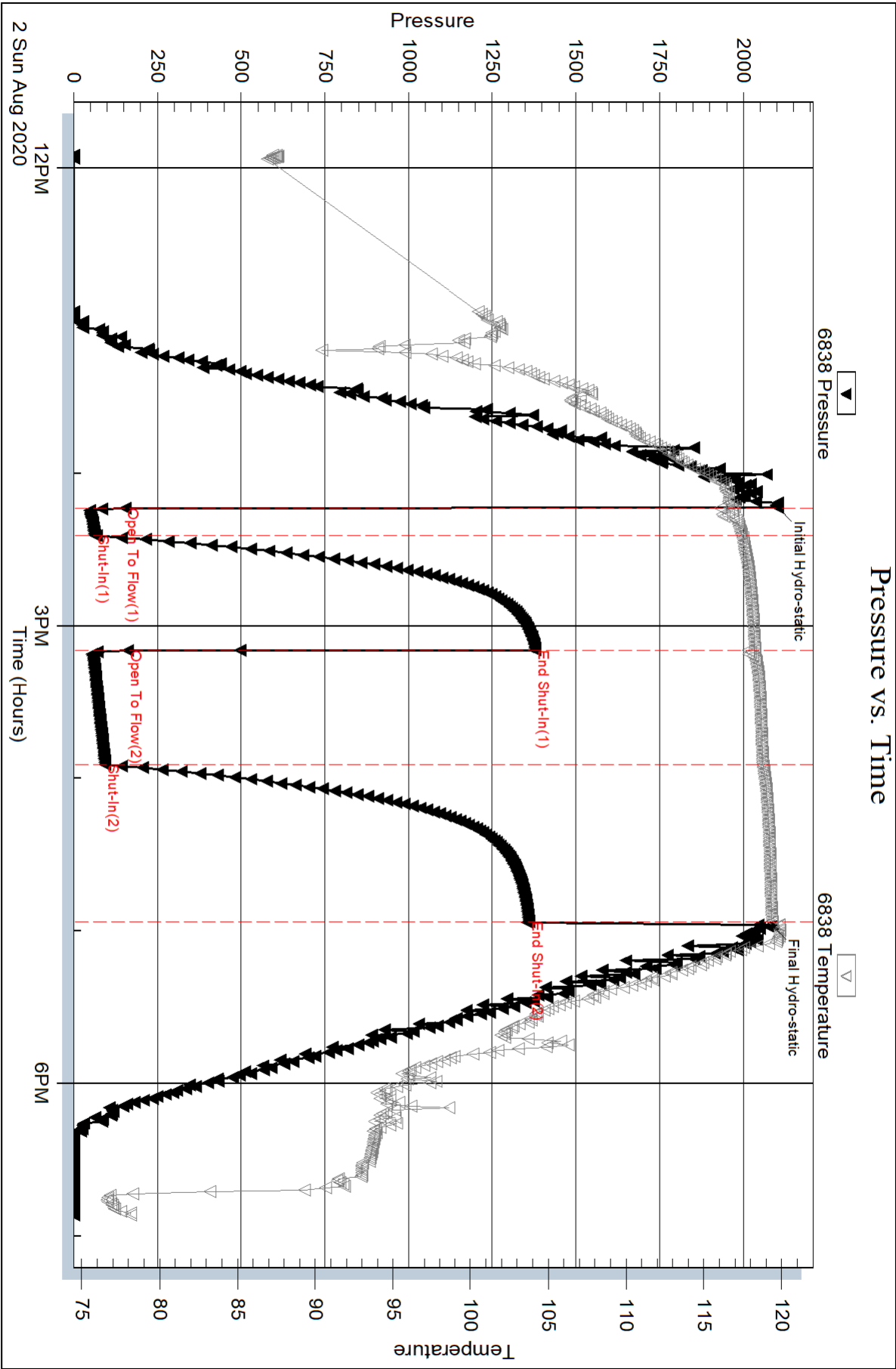
Serial #: 6838

Inside

Thomas Garner Inc

Diamond H #1

DST Test Number: 2

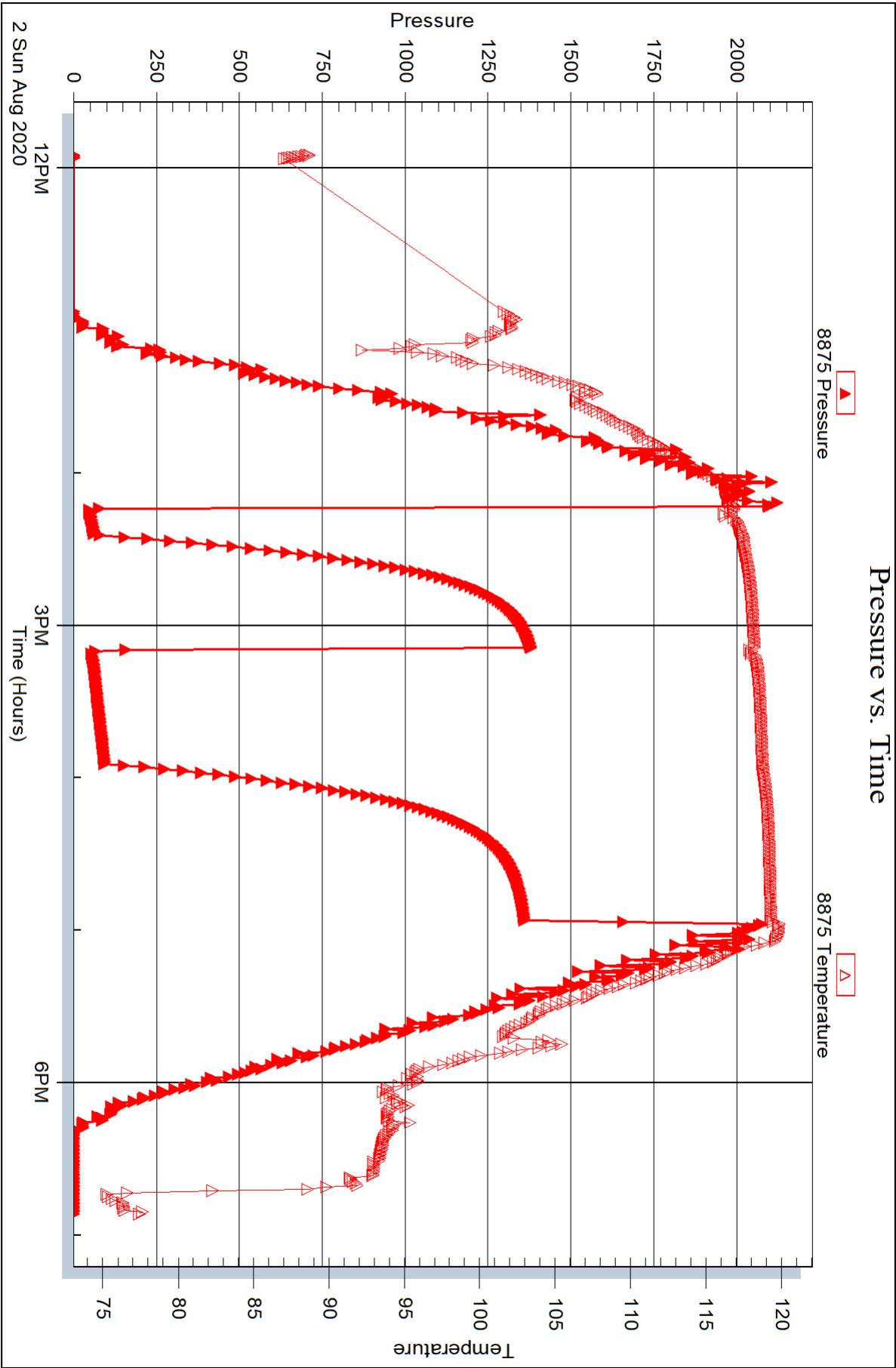


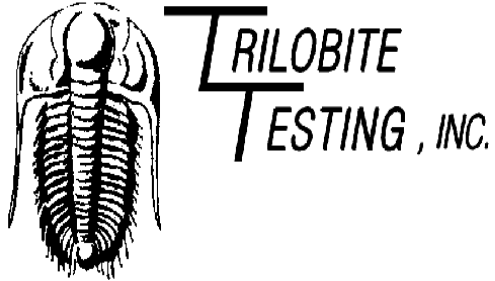
Serial #: 8875

Outside Thomas Garner Inc

Diamond H #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Thomas Garner Inc**

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

Diamond H #1

23-25s-13w Stafford,KS

Start Date: 2020.08.03 @ 05:05:00

End Date: 2020.08.03 @ 11:54:07

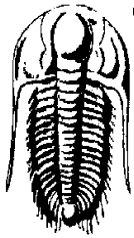
Job Ticket #: 66399 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2020.08.05 @ 10:13:40



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66399

DST#: 3

Test Start: 2020.08.03 @ 05:05:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:31:22

Time Test Ended: 11:54:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4104.00 ft (KB) To 4153.00 ft (KB) (TVD)

Total Depth: 4153.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6838 Inside

Press@RunDepth: 25.31 psig @ 4107.00 ft (KB)

Start Date: 2020.08.03

End Date:

2020.08.03

Start Time: 05:05:01

End Time:

11:54:07

Capacity: psig

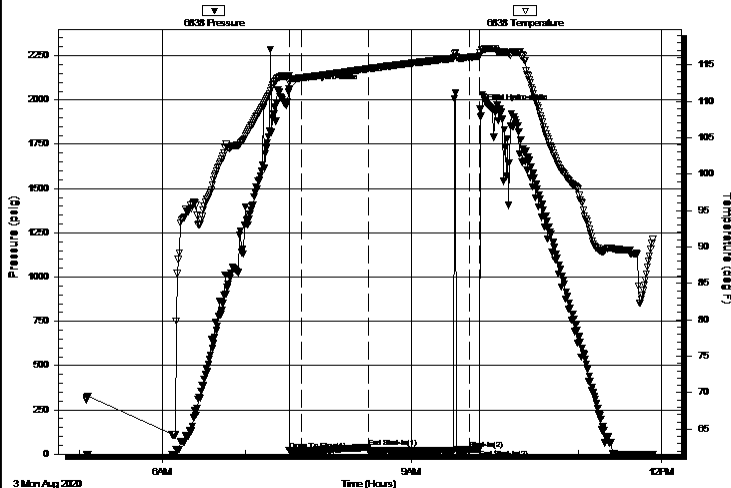
Last Calib.: 2020.08.03

Time On Btm: 2020.08.03 @ 07:31:17

Time Off Btm: 2020.08.03 @ 09:49:17

TEST COMMENT: 10-IF-Weak; Built to 1/4"
45-ISI-No Return
70-FF-No Blow ; Wait on Welder to Flush tool; No Help
10-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.24	113.47	Initial Hydro-static
1	20.32	112.61	Open To Flow (1)
9	19.99	113.20	Shut-In(1)
58	37.61	114.45	End Shut-In(1)
58	19.34	114.45	Open To Flow (2)
131	25.31	116.02	Shut-In(2)
138	26.97	116.22	End Shut-In(2)
138	1948.35	116.71	Final Hydro-static

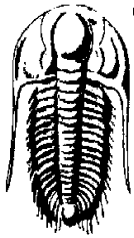
Recovery

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

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John, KS 67576+1652

ATTN: Keith Reavis

23-25s-13w Stafford,KS

Diamond H #1

Job Ticket: 66399

DST#: 3

Test Start: 2020.08.03 @ 05:05:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:31:22

Time Test Ended: 11:54:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4104.00 ft (KB) To 4153.00 ft (KB) (TVD)

Total Depth: 4153.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8875 Inside

Press@RunDepth: psig @ 4107.00 ft (KB)

Start Date: 2020.08.03

End Date:

2020.08.03

Start Time: 05:05:01

End Time:

11:54:07

Capacity: psig

Last Calib.:

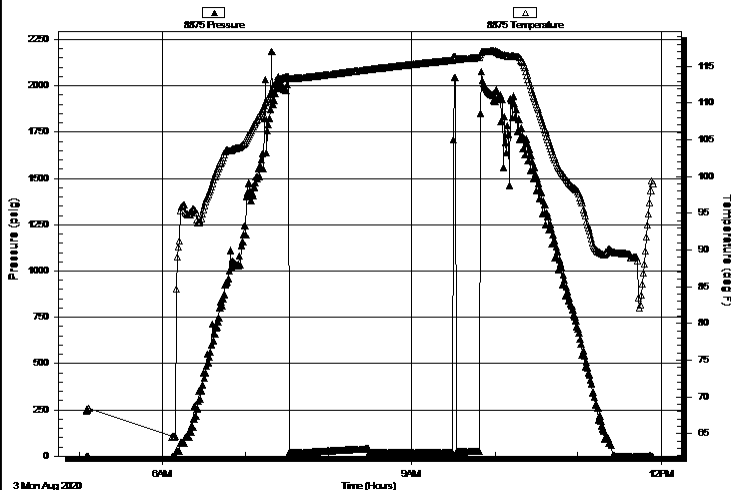
2020.08.03

Time On Btm:

Time Off Btm:

TEST COMMENT: 10-IF-Weak; Built to 1/4"
45-ISI-No Return
70-FF-No Blow ; Wait on Welder to Flush tool; No Help
10-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

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

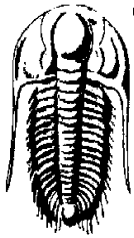
Recovery

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

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66399

DST#: 3

ATTN: Keith Reavis

Test Start: 2020.08.03 @ 05:05:00

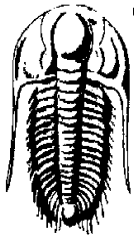
Tool Information

Drill Pipe:	Length: 3884.00 ft	Diameter: 3.82 inches	Volume: 55.06 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	2500.00 lb
Drill Collar:	Length: 218.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	100000.0 lb
		Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4104.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	49.00 ft				
Tool Length:	83.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

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

Change Over Sub	1.00			4071.00	
Change Over Sub	1.00			4072.00	
Shut In Tool	5.00			4077.00	
Hydraulic tool	5.00		Fluid	4082.00	
Gap Sub	5.00			4087.00	
Jars	5.00			4092.00	
Safety Joint	3.00			4095.00	
Packer	5.00			4100.00	34.00 Bottom Of Top Packer
Packer	4.00			4104.00	
Stubb	1.00			4105.00	
Perforations	1.00			4106.00	
Change Over Sub	1.00			4107.00	
Recorder	0.00	6838	Inside	4107.00	
Recorder	0.00	8875	Inside	4107.00	
Drill Pipe	32.00			4139.00	
Change Over Sub	1.00			4140.00	
Perforations	10.00			4150.00	
Bullnose	3.00			4153.00	49.00 Bottom Packers & Anchor

Total Tool Length: 83.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner Inc

23-25s-13w Stafford,KS

305 E 7th Ave
St John, KS 67576+1652

Diamond H #1

Job Ticket: 66399

DST#: 3

ATTN: Keith Reavis

Test Start: 2020.08.03 @ 05:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 12.79 in³

Resistivity: ohm.m

Salinity: 10400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

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: 1#LCM

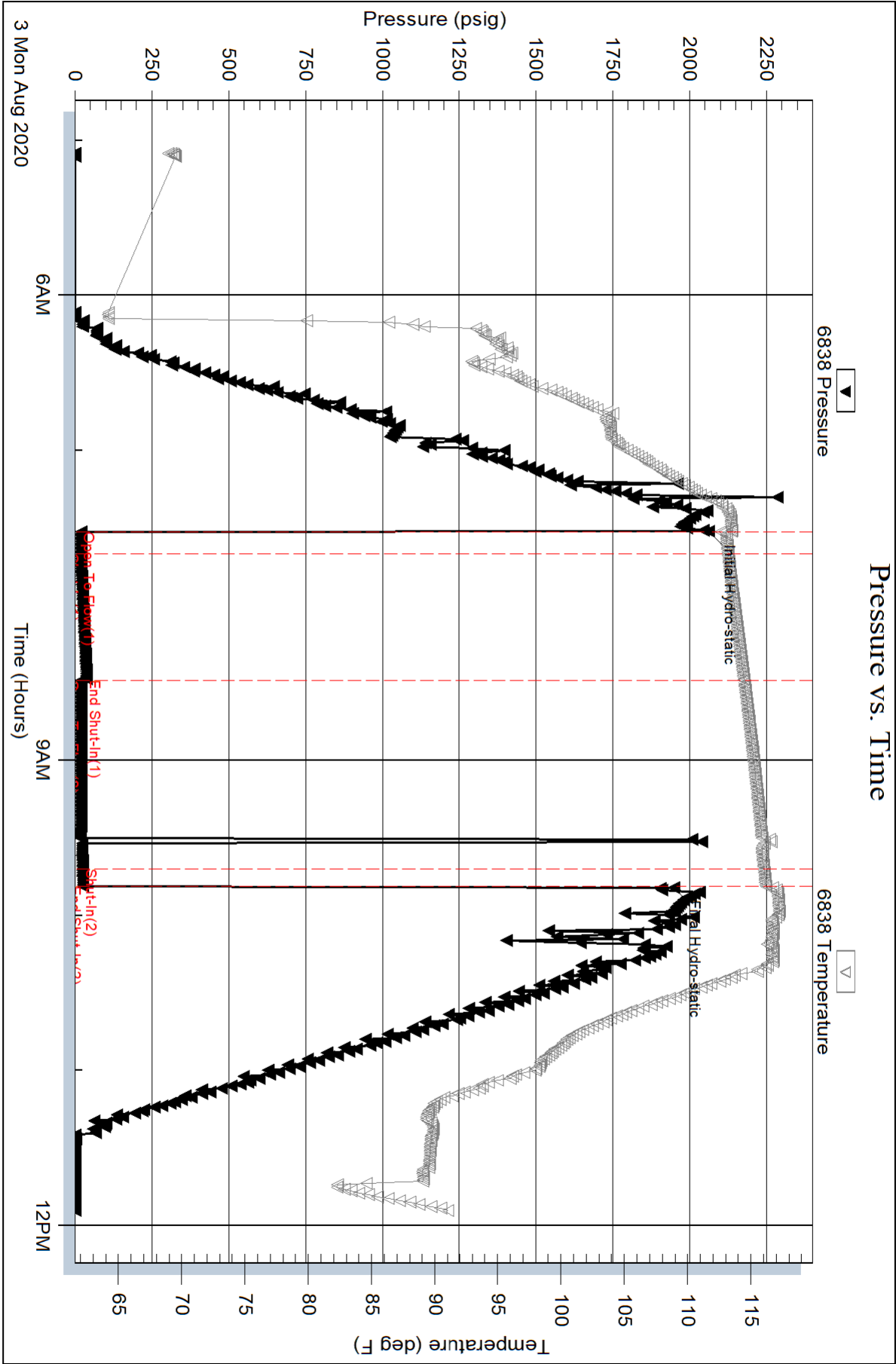
Serial #: 6838

Inside

Thomas Garner Inc

Diamond H #1

DST Test Number: 3



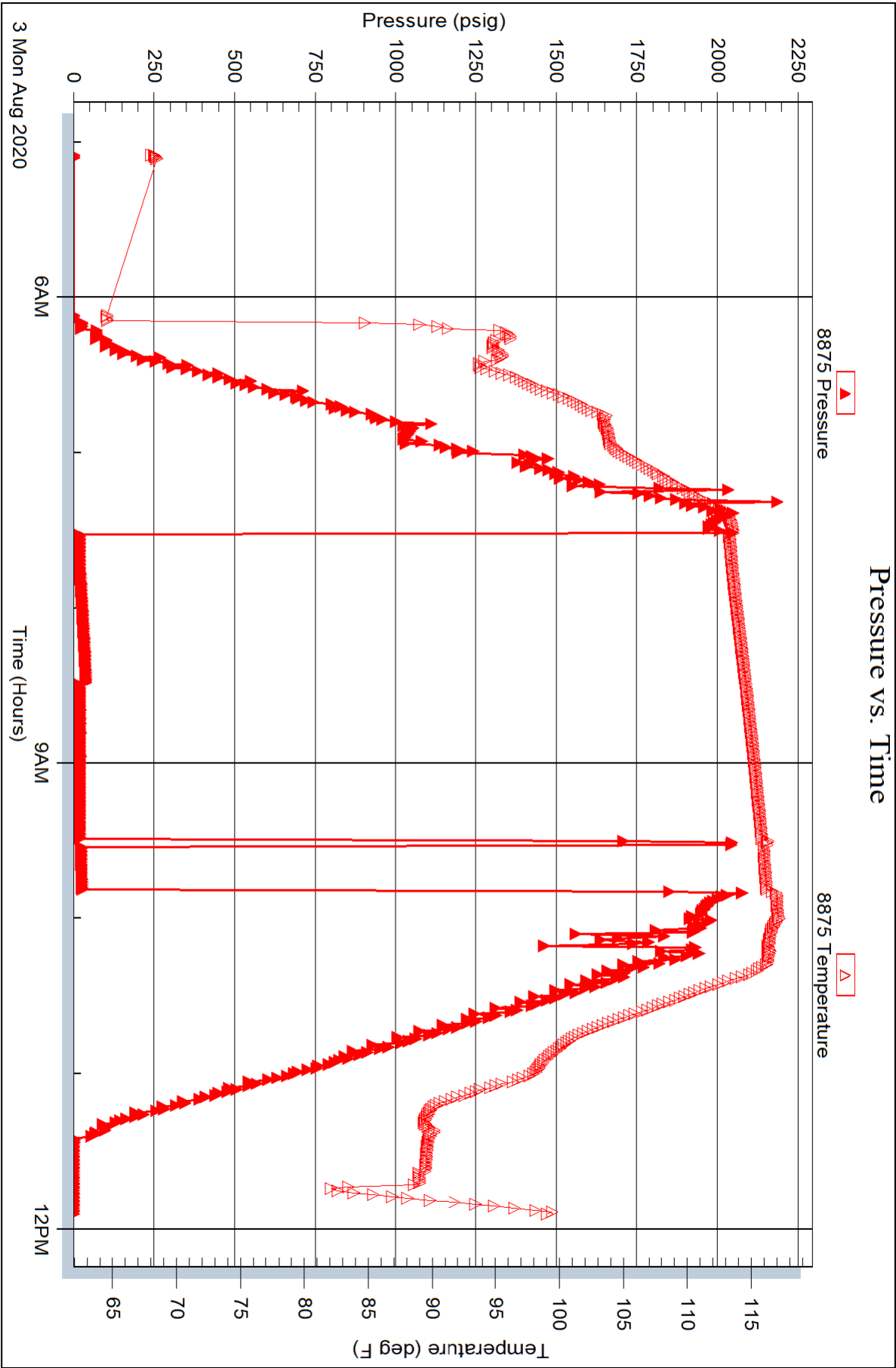
Serial #: 8875

Inside

Thomas Garner Inc

Diamond H #1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66397

NO.

Well Name & No. Diamond #4 Test No. 1 Date 08/01/2020
 Company Thomas Garner, Inc Elevation 1934 KB 1923 GL
 Address 305 E 7th Ave St John KS 67576 +1652
 Co. Rep / Geo. Keith Reeves Rig Sterling #4
 Location: Sec. 23 Twp 25s Rge. 13W Co. Stafford State KS

Interval Tested 3990 - 4018' Zone Tested Mississippi
 Anchor Length 28' Drill Pipe Run 3758' Mud Wt. 9.4
 Top Packer Depth 3985' Drill Collars Run 218' Vis 48
 Bottom Packer Depth 3990' Wt. Pipe Run — WL 9.6
 Total Depth 4018' Chlorides 5050 ppm System LCM 1#

Blow Description 17-BOB 4 min; Build to 19"

150- No Return

77-BOB Instantaneously; Build to 15"

750- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30'</u>	<u>GSCCM</u>	<u>2</u>	<u>3</u>	<u>85</u>	
<u>—</u>	<u>700' GIP</u>	<u>100</u>			
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

Rec Total 30' BHT 120° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2020
 (B) First Initial Flow 45
 (C) First Final Flow 33
 (D) Initial Shut-In 296
 (E) Second Initial Flow 40
 (F) Second Final Flow 36
 (G) Final Shut-In 141
 (H) Final Hydrostatic 2000

Initial Open 10
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

☒ Test 1300
☒ Jars 250
☒ Safety Joint 75
☐ Circ Sub —
☒ Hourly Standby 1hr 100
☒ Mileage 196R7 196
☐ Sampler —
☐ Straddle —
☐ Shale Packer —
☐ Extra Packer —
☐ Extra Recorder —
☐ Day Standby —
☐ Accessibility —
 Sub Total 1921

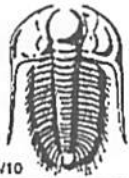
T-On Location 15:56
 T-Started 17:35
 T-Open 21:26
 T-Pulled 00:06 08/02/2020
 T-Out 02:05
 Comments —
☒ EM Tool 350
☐ Ruined Shale Packer —
☐ Ruined Packer —
☐ Extra Copies —
 Sub Total 0
 Total 1921

Approved By —

Our Representative Spencer J. Hoat

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.

785-259-0056



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66398

NO.

Well Name & No. Diamond #4 Test No. 2 Date 08/02/2020
 Company Thomas Farmer Inc Elevation 1934 KB 1923 GL
 Address 305 E 7th Ave St John 8/1 67576+1652
 Co. Rep / Geo. Keith Reiers Rig Starling #4
 Location: Sec. 23 Twp 25 Rge. 13 Co. W State MO

Interval Tested 4024-4092 Zone Tested Viola
 Anchor Length 68' Drill Pipe Run 3789' Mud Wt. 9.2
 Top Packer Depth 4019' Drill Collars Run 218' Vis 56
 Bottom Packer Depth 4024' Wt. Pipe Run - WL 10
 Total Depth 4092 Chlorides 7400 ppm System LCM 1 1/2#

Blow Description 77-BOB 40 sec; Build to 140"
1st-90s Return

77-BOB Instantaneously; Build to 40 psi (1080"); GTS @ 40 min
75d-No Return; 19 min to bleed off

Rec <u>60'</u>	Feet of <u>Mud</u>	%gas	%oil	%water	100%	%mud
Rec	Feet of <u>GTS (3929')</u>	100%	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud	%mud
Rec	Feet of	%gas	%oil	%water	%mud	%mud
Rec	Feet of	%gas	%oil	%water	%mud	%mud

Rec Total 60' BHT 119° Gravity - API RW - @ - °F Chlorides - ppm

- (A) Initial Hydrostatic 2103
 (B) First Initial Flow 153
 (C) First Final Flow 63
 (D) Initial Shut-In 1379
 (E) Second Initial Flow 161
 (F) Second Final Flow 94
 (G) Final Shut-In 1360
 (H) Final Hydrostatic 2686

Initial Open 10
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

- ☒ Test 1300
☒ Jars 250
☒ Safety Joint 75
☐ Circ Sub
☒ Hourly Standby 2200
☒ Mileage 19687 196
☐ Sampler
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1821

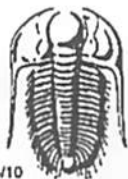
- T-On Location 11:43
 T-Started 11:55
 T-Open 14:10
 T-Pulled 16:50
 T-Out 18:49
 Comments
☒ EM Tool 350
☐ Ruined Shale Packer
☒ Ruined Packer 320
☐ Extra Copies 320
 Sub Total 2141
 Total 2141

Approved By _____

Our Representative _____

Tribolite 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.

785-259-0056



**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 66399

NO.

Well Name & No. Diamond # Test No. 3 Date 08/03/2020
 Company Thomas Garner Inc Elevation 1934 KB 1923 GL
 Address 305 E 7th Ave St John Mo 67576+1652
 Co. Rep / Geo. Keith Reeves Rig Spooling #4
 Location: Sec. 23 Twp 25s Rge. 13w Co. Stafford State Mo

Interval Tested 4104' - 4153' Zone Tested Viola
 Anchor Length 49' Drill Pipe Run 3884' Mud Wt. 9.35
 Top Packer Depth 4099 Drill Collars Run 818' Vis 56
 Bottom Packer Depth 4104' Wt. Pipe Run - WL 12.8
 Total Depth 4153' Chlorides 10,400 ppm System LCM 1#

Blow Description 77- Wash; Built to 1/4"
78- No Return
77- No Blow; Wait on welder to flush tool; No help
78- 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 Total 5 BHT 116° Gravity 1300 API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 2062 ☒ Test 1300 T-On Location 04:40
 (B) First Initial Flow 20 ☒ Jars 250 T-Started 05:05
 (C) First Final Flow 19 ☒ Safety Joint 75 T-Open 07:30
 (D) Initial Shut-In 37 ☐ Circ Sub - T-Pulled 09:45
 (E) Second Initial Flow 19 ☐ Hourly Standby - T-Out 11:52
 (F) Second Final Flow 25 ☒ Mileage 19627x2 196+196 Comments Loaded @ 10:00
 (G) Final Shut-In 26 ☐ Sampler - 08/04/2020
 (H) Final Hydrostatic 1948 ☐ Straddle - ☒ EM Tool 350

Initial Open 10 ☐ Shale Packer - ☐ Ruined Shale Packer -
 Initial Shut-In 45 ☐ Extra Packer - ☐ Ruined Packer -
 Final Flow 70 ☐ Extra Recorder - ☐ Extra Copies -
 Final Shut-In 10 ☐ Day Standby - Sub Total 0
 Sub Total 2017 ☐ Accessibility - Total 2017
 Sub Total 2017 MP/DST Disc't -

Approved By - Our Representative JJ Stahl Thanks!
 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.
785-259-0056

Quality Well Service, Inc.

PO Box 468

Pratt, KS 67124

Invoice

Date	Invoice #
8/11/2020	C-2395

Bill To
Thomas Garner 305 E. 7th St. John, KS 67578-1652

P.O. No.		Terms	Lease Name	
			Diamond H-1	
Description		Qty	Rate	Amount
8 5/8 Wooden Plug		1	120.00	120.00T
Head & Manifold		1	250.00	250.00T
Common		210	15.50	3,255.00
Poz		140	9.50	1,330.00
Gel		602	0.22	132.44
Calcium		903	1.20	1,083.60
Flo-Seal		175	3.70	647.50
SFC 0-500'		1	600.00	600.00
Handling		374	2.10	785.40
.08 * sacks * miles		5,610	0.08	448.80
Service Supervisor		1	150.00	150.00
LMV		15	3.75	56.25
Heavy Equipment Mileage		30	8.00	240.00
Customer Discount			-4,549.00	-4,549.00
Discount Expires after 30 days from the date of the invoice			0.00	0.00
Diamond H-1 Stafford Co				
Thank You for your business!		Subtotal		
		\$4,549.99		
		Sales Tax (7.5%)		
		\$13.88		
		Total		
		\$4,563.87		

QUALITY WELL SERVICE, INC.

7455

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410

Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	7-27-20	Sec.	23	Twp.	25S	Range	13W	County	STAFFORD	State	Ks	On Location		Finish			
Lease	Diamond		Well No.		H-1		Location									PRATT, STAFFORD Co line 21 to 60" Rd	
Contractor	STEELING DELG RIG '4							Owner								IE 42 S E into	
Type Job	SURFACE							To Quality Well Service, Inc.								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Hole Size	12 1/4		T.D.		352'		Charge To									THOMAS GARNER	
Csg.	85/3 24"		Depth		349		Street										
Tbg. Size			Depth				City									State	
Tool			Depth														
Cement Left in Csg.	25		Shoe Joint		25		The above was done to satisfaction and supervision of owner agent or contractor.										
Meas Line			Displace		20.6 Bbl		Cement Amount Ordered									350 & 6040	
EQUIPMENT																	
Pumptrk	3	No.					Common									210	
Bulktrk	12	No.					Poz. Mix									140	
Bulktrk		No.					Gel.									602	
Pickup		No.					Calcium									903	
JOB SERVICES & REMARKS																	
Rat Hole							Salt										
Mouse Hole							Flowseal								175		
Centralizers							Kol-Seal										
Baskets							Mud CLR 48										
D/V or Port Collar							CFL-117 or CD110 CAF 38										
Run 3 1/2" 85/3 24" CSG SET							Sand										
START CSG CSG ON Bottom							Handling								374		
Hook up to CSG & BREAK CIRCL W/ RIG							Mileage								15 / 5610		
START Pumping H2O							FLOAT EQUIPMENT										
START MIX Pump 350 & 6040 2 1/2" CEL 3 1/2" CL 1 1/2" PS							Guide Shoe								8 5/8" wooden plug		
SHUT DOWN B5/B WOODEN							Centralizer								H2M		
RELEASE B5/B WOODEN Plug							Baskets										
START DDP							AFU Inserts										
20 & 3 1/2" out							Float Shoe										
CLOSE VALVE ON CSG							Latch Down										
GOOD CIRC THIS JOB							SERVICE Sup - IEA										
CIRCL CMT TO DIT							LMV 15										
							Pumptrk Charge								SURFACE		
							Mileage								30		
THANK YOU PLEASE CALL AGAIN							Tax										
X Signature							Discount										
Total Charge							Total Charge										

QUALITY WELL SERVICE, INC.

7455

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410

Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	7-27-20	Sec.	23	Twp.	25S	Range	13W	County	STAFFORD	State	Ks	On Location		Finish		
Lease	Diamond		Well No.		H-1		Location								PRATT, STAFFORD Co line 21 to 60" PL	
Contractor	STEELING D&G RIG '4							Owner							I E 1/2 S E into	
Type Job	SURFACE							To Quality Well Service, Inc.								
Hole Size	12 1/4							T.D.							352'	
Csg.	85/3 24"							Depth							349	
Tbg. Size								Depth								
Tool								Depth								
Cement Left in Csg.	25							Shoe Joint							25	
Meas Line								Displace							20.6 bbl	
EQUIPMENT										2 1/2" CEL 3 1/2" CL 1 1/2" PS						
Pumptrk	3							No.								
Bulktrk	12							No.								
Bulktrk								No.								
Pickup								No.								
JOB SERVICES & REMARKS										Hulls						
Rat Hole										Salt						
Mouse Hole										Flowseal					175	
Centralizers										Kol-Seal						
Baskets										Mud CLR 48						
D/V or Port Collar										CFL-117 or CD110 CAF 38						
Run 3 1/2" 85/3 24" csg set										Sand						
START CSG CSG ON BOTTOM										Handling					374	
Hook up to csg & Break circ w/rig										Mileage					15 / 5610	
START Pumping H2O										FLOAT EQUIPMENT						
START MIX Pump 350 sc										Guide Shoe						
6040 2 1/2" CEL 3 1/2" CL 1 1/2" PS										Centralizer						
SHUT DOWN 85/3 24" csg										Baskets						
RELEASE 85/3 WOODEN Plug										AFU Inserts						
START DDP										Float Shoe						
20 x 3 1/2" out										Latch Down						
CLOSE VALVE ON CSG										SERVICE Sup					1 EA	
GOOD CIRC THIS JOB										LMV					15'	
CCL CMT TO RIT										Pumptrk Charge					Surface	
										Mileage					30	
THANK YOU															Tax	
PLEASE CALL KANAS															Discount	
X Signature															Total Charge	



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:

THOMAS GARNER INC
305 E 7TH AVE
SAINT JOHN, KS 67576-1652

Invoice Date: 8/5/2020
Invoice #: 0348657
Lease Name: Diamond H
Well #: 1
County: Stafford, Ks
Job Number: ICT3910
District: Medicine Lodge

Date/Description	HRS/QTY	Rate	Total
PTA	0.000	0.000	0.00
H-Plug	220.000	9.100	2,002.00
Light Eq Mileage	20.000	1.400	28.00
Heavy Eq Mileage	20.000	2.800	56.00
Ton Mileage Minimum	1.000	210.000	210.00
Cement Pump Service	1.000	770.000	770.00

pf 8-20-20

Net Invoice	3,066.00
Sales Tax:	153.37
Total	3,219.37

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!



ftv: 3-2020/07/17
mplv: 6-2020/07/16

OPERATOR

Company: Thomas Garner, Inc.
Address: 305 E. 7th Avenue
St. John, KS 67576

Contact Geologist:
Contact Phone Nbr: 620-793-0766
Well Name: Diamond H #1
Location: Sec. 23 - T25S - R13W
API: 15-185-24071-0000
Pool:
State: Kansas

Field: unknown
Country: USA

Scale 1:240 Imperial

Well Name: Diamond H #1
Surface Location: Sec. 23 - T25S - R13W
Bottom Location:
API: 15-185-24071-0000
License Number: 33406
Spud Date: 7/27/2020 Time: 9:30 AM
Region: Stafford County
Drilling Completed: 8/4/2020 Time: 9:55 AM
Surface Coordinates: 2310' FSL & 810' FWL
Bottom Hole Coordinates:
Ground Elevation: 1923.00ft
K.B. Elevation: 1934.00ft
Logged Interval: 3250.00ft To: 4300.00ft
Total Depth: 4300.00ft
Formation: Arbuckle
Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -98.72595
Latitude: 37.86039
N/S Co-ord: 2310' FSL
E/W Co-ord: 810' FWL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc./Younger Energy Company
Address: 3420 22nd Street
Great Bend, KS 67530

Phone Nbr: 620-617-4091
Logged By: KLG #136

Name: Keith Reavis

CONTRACTOR

Contractor: Sterling Drilling Company
Rig #: 4
Rig Type: mud rotary
Spud Date: 7/27/2020
TD Date: 8/4/2020
Rig Release:

Time: 9:30 AM
Time: 9:55 AM
Time:

ELEVATIONS

K.B. Elevation: 1934.00ft Ground Elevation: 1923.00ft
K.B. to Ground: 11.00ft

NOTES

Due to negative drill stem tests and electrical log analysis, it was determined that the Diamond H #1 would be non-commercial and was therefore plugged by the operator as a dry test.

A Tooke Daq gas detection system operated by Sterling Drilling was employed during the drilling of the well. ROP and gas data were imported from the Tooke Daq into this geological log.

Samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully submitted,
Keith Reavis

daily drilling report

DATE	7:00 AM DEPTH	REMARKS
07/30/2020		Geologist Keith Reavis on location @2300 hrs, 3115 ft, drilling ahead Topeka
07/31/2020	3328	drilling ahead, Topeka, Heebner, Toronto, Douglas, Brown Lime, Lansing
08/01/2020	3907	drilling ahead, Lansing, Base KC, Marmaton, Conglomerate, show and gas kick in cherts warrant test, short trip, ctoh, conduct DST #1
08/02/2020	4050	Complete DST #1, successful test, back in w/tools, resume drilling, Miss Chert, show and kick in Miss Chert warrants test. Conduct DST #2. Complete DST #2, successful test, drill ahead to Viola.
08/03/2020	4153	Show in Viola warrants test, conduct and complete DST #3, successful test, TTH w/bit, resume drilling, Viola, Simpson, Arbuckle
08/04/2020	4272	Drilling Arbuckle, had to trip bit. Back in hole with bit, TD 4300' @ 0955 hrs, ctoh, TOH w/bit, conduct open hole logging operations, geologist off Location 1700 hrs

well comparison sheet

DRILLING WELL					COMPARISON WELL			
Diamond H #1					Clinton - H. Reissig #1V			
2310' FSL & 810' FWL					SW NW NE			
Sec 23-T25S-R13W					Sec 15-T25S-R13W			
1934 KB					1924 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Howard	3041	-1107	3040	-1106		1924		
Topeka	3134	-1200	3133	-1199	3126	-1202	2	3
Heebner	3478	-1544	3476	-1542	3472	-1548	4	6
Toronto	3497	-1563	3495	-1561	3489	-1565	2	4
Douglas	3518	-1584	3518	-1584	3512	-1588	4	4
Brown Lime	3627	-1693	3626	-1692	3622	-1698	5	6
Lansing	3658	-1724	3656	-1722	3651	-1727	3	5
Lansing H	3800	-1866	3798	-1864	3788	-1864	-2	0
Lansing K	3910	-1976	3909	-1975	3904	-1980	4	5
Base KC	3947	-2013	3944	-2010	3935	-2011	-2	1
Miss Chert	4058	-2124	4056	-2122	4025	-2101	-23	-21
Viola	4118	-2184	4116	-2182	4084	-2160	-24	-22
Simpson Sand	4210	-2276	4203	-2269	4190	-2266	-10	-3
Arbuckle	4237	-2303	4237	-2303	4240	-2316	13	13
Total Depth	4300	-2366	4300	-2366	4259	-2335	-31	-31



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner Inc

305 E 7th Ave
St John KS
67576-1652

ATTN: Keith Reavis

23-25s-13w Stafford KS

Diamond H

Job Ticket: 66397

DST#:1

Test Start: 2020.08.01 @ 17:35:00

GENERAL INFORMATION:Formation: ~~Mississippi~~ Mamaton

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:29:37

Time Test Ended: 02:07:21

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J Staab

Unit No: 84

Interval: 3990.00 ft (KB) To 4018.00 ft (KB) (TVD)

Total Depth: 4018.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches -hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6838 Inside

Press@RunDepth: 36.01 psig @ 3991.00 ft (KB)

Start Date: 2020.08.01

End Date:

2020.08.02

Capacity: psig

Last Calib.: 2020.08.02

Start Time: 17:35:01

End Time:

02:07:21

Time On Btm: 2020.08.01 @ 21:29:32

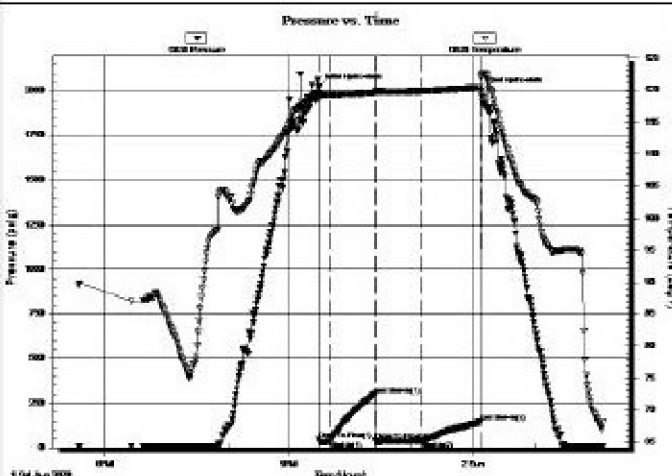
Time Off Btm: 2020.08.02 @ 00:07:27

TEST COMMENT: 10-IF-BOB 4 mins; Built to 19'

45-ISI-No Return

45-FF-BOB Instantaneously; Built to 15'

60-FSI-No Return

**PRESSURE SUMMARY**

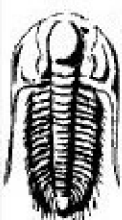
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2020.85	119.59	Initial Hydro-static
1	45.75	118.57	Open To Flow (1)
12	33.85	119.40	Shut-In (1)
55	296.19	119.63	End Shut-In (1)
56	40.41	119.62	Open To Flow (2)
101	36.01	119.84	Shut-In (2)
158	141.76	120.35	End Shut-In (2)
158	2000.91	121.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GSOCM 2%G 3%O 85%M	0.15
0.00	700 GP 100%G	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEMTEST REPORT

Thomas Garner Inc

305 E 7th Ave

St John KS

67576+1652

ATTN: Keith Reeves

23-25s-13w Stafford KS

Diamond H

Job Ticket: 66398

DST#: 2

Test Start: 2020.08.02 @ 11:55:00

GENERAL INFORMATION:Formation: ~~Viola~~ Mississippian

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:37

Time Test Ended: 18:52:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4024.00 ft (KB) To 4092.00 ft (KB) (TVD)

Total Depth: 4092.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches -hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

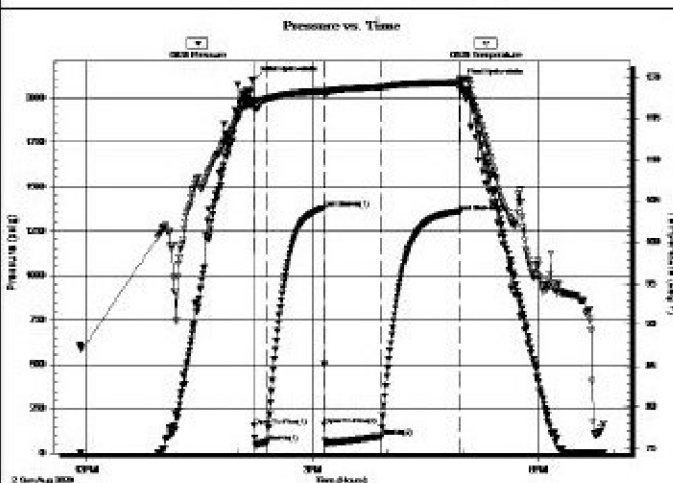
Serial #: 6838 Inside

Press@RunDepth: 94.23 psig @ 4059.00 ft (KB)

Capacity: psig

Start Date: 2020.08.02 End Date: 2020.08.02 Last Calib.: 2020.08.02
 Start Time: 11:55:01 End Time: 18:52:07 Time On Btm: 2020.08.02 @ 14:13:32
 Time Off Btm: 2020.08.02 @ 16:57:52

TEST COMMENT: 10-IF-BOB 40secs; Built to 140"
 45-ISI-No Return
 45-FF-BOB Instantaneously; Built to 40psi; GTS @40 mins
 60-FSI-No Return; 19 mins to bleed off



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2103.50	116.98	Initial Hydro-static
1	153.85	116.04	Open To Flow (1)
11	63.71	117.43	Shut-In(1)
56	1379.22	118.23	End Shut-In(1)
56	161.91	117.81	Open To Flow(2)
102	94.23	118.78	Shut-In(2)
163	1360.54	119.39	End Shut-In(2)
165	2086.80	119.84	Final Hydro-static

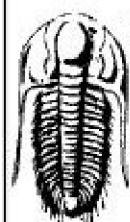
Recovery

Length (ft)	Description	Volume (bb)
60.00	Mud 100%M	0.30
0.00	GTS 3929'	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	40.00	86.30
Last Gas Rate	0.25	44.60	93.60

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEMTEST REPORT

Thomas Garner Inc

23-25s-13w Stafford KS

305 E 7th Ave

St John KS

67576+1652

ATTN: Keith Reavis

Diamond H

Job Ticket: 66399

DST#: 3

Test Start: 2020.08.03 @ 05:05:00

GENERAL INFORMATION:

Formation: Viola

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:31:22

Time Test Ended: 11:54:07

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J Staab

Unit No: 84

Interval: 4104.00 ft (KB) To 4153.00 ft (KB) (TVD)

Total Depth: 4153.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches -hole Condition: Fair

Reference Elevations: 1934.00 ft (KB)

1923.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6838

Inside

Press@RunDepth: 25.31 psig @ 4107.00 ft (KB)

Start Date: 2020.08.03

End Date:

2020.08.03

Start Time: 05:05:01

End Time:

11:54:07

Capacity: psig

Last Calib.: 2020.08.03

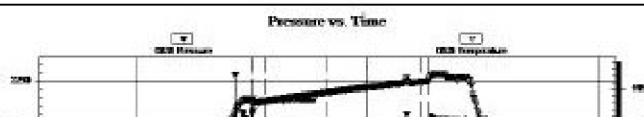
Time On Btm: 2020.08.03 @ 07:31:17

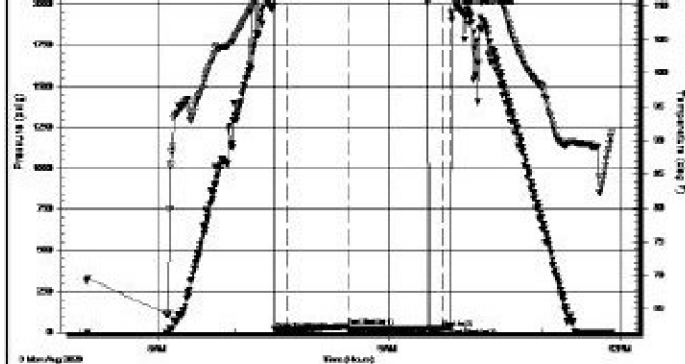
Time Off Btm: 2020.08.03 @ 09:49:17

TEST COMMENT: 10-IF-Weak; Built to 1/4"
 45-ISI-No Return
 70-FF-No Blow; Wait on Welder to Flush tool; No Help
 10-FSI-No Return

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.24	113.47	Initial Hydro-static





1	20.32	112.61	Open To Flow (1)
9	19.99	113.20	Shut-In(1)
58	37.61	114.45	End Shut-In(1)
58	19.34	114.45	Open To Flow (2)
131	25.31	116.02	Shut-In(2)
138	26.97	116.22	End Shut-In(2)
138	1948.35	116.71	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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

	Cht		sdymst		shale, grn		shale, red
	Cht vari		Lmst fw<7		shale, gry		Ss
	Dolprim		Lmst fw7>		Carbon Sh		

ACCESSORIES

MINERAL

⊥ Calcareous
▲ Chert, dark
P Pyrite
.. Silty
△ Chert White
Mc Mica

FOSSIL

∩ Bioclastic or Fragmental
F Fossils < 20%
⊕ Oolite
⌘ Pellets
⊕ Oomoldic

STRINGER

■ Limestone
■ Sandstone
■ Siltstone
■ Shale
■ green shale
■ carb shale

TEXTURE

C Chalky
CX Cryptocrystalline
FX Finexln
L Lithogr

OTHER SYMBOLS

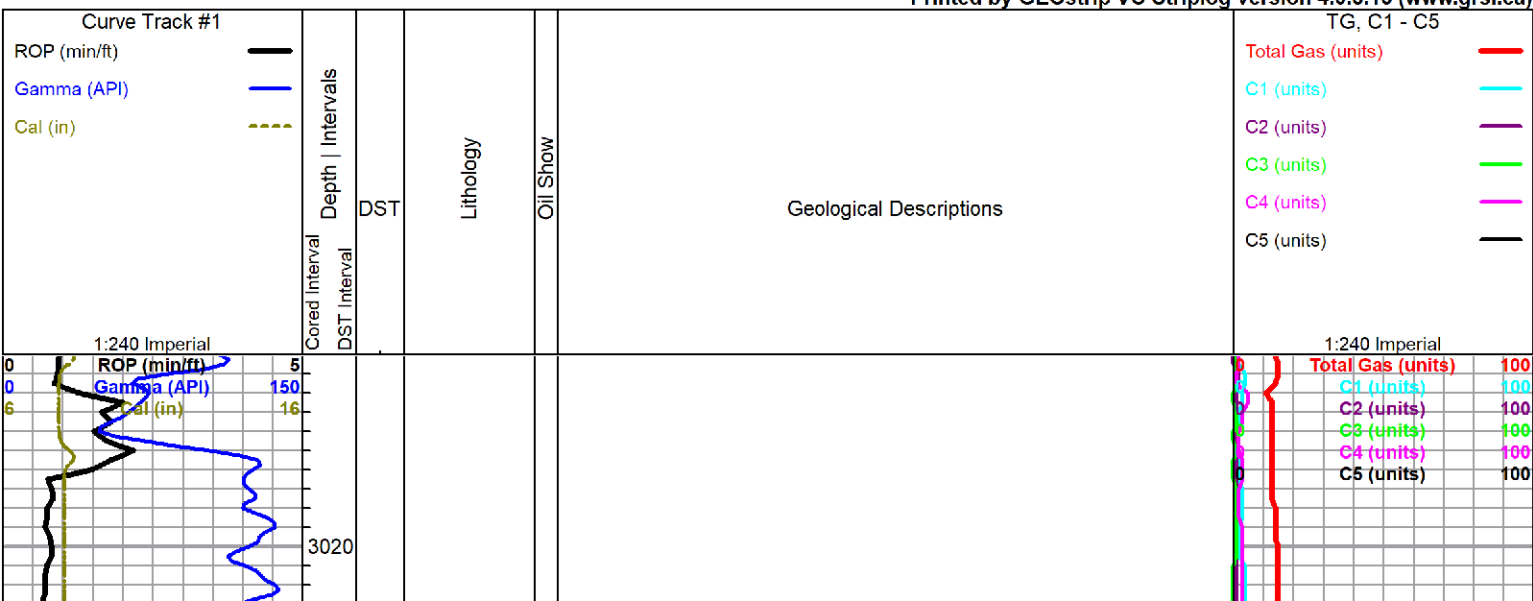
Oil Show

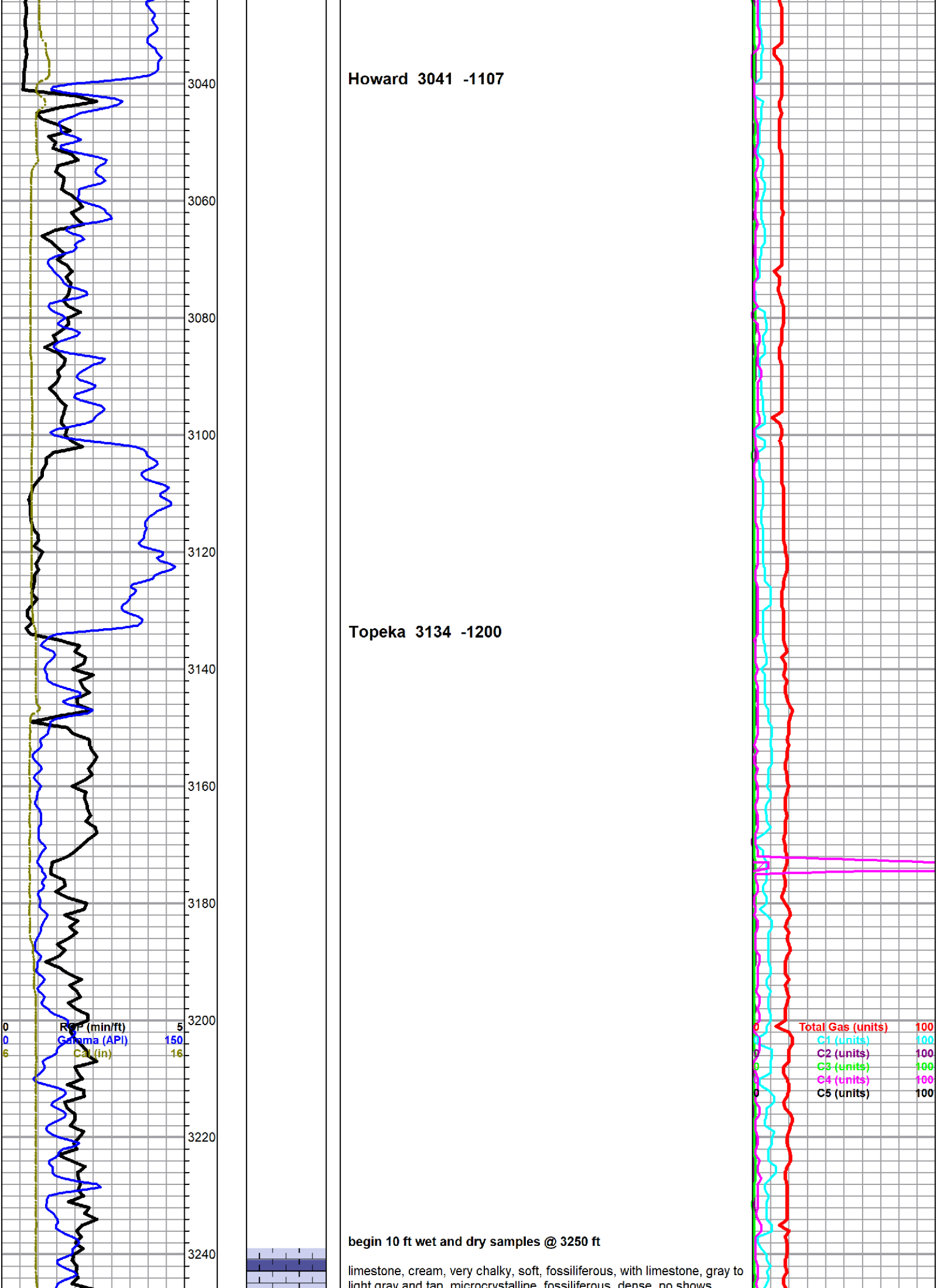
● Good Show
● Fair Show
● Poor Show
○ Spotted or Trace
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence
✱ Gas

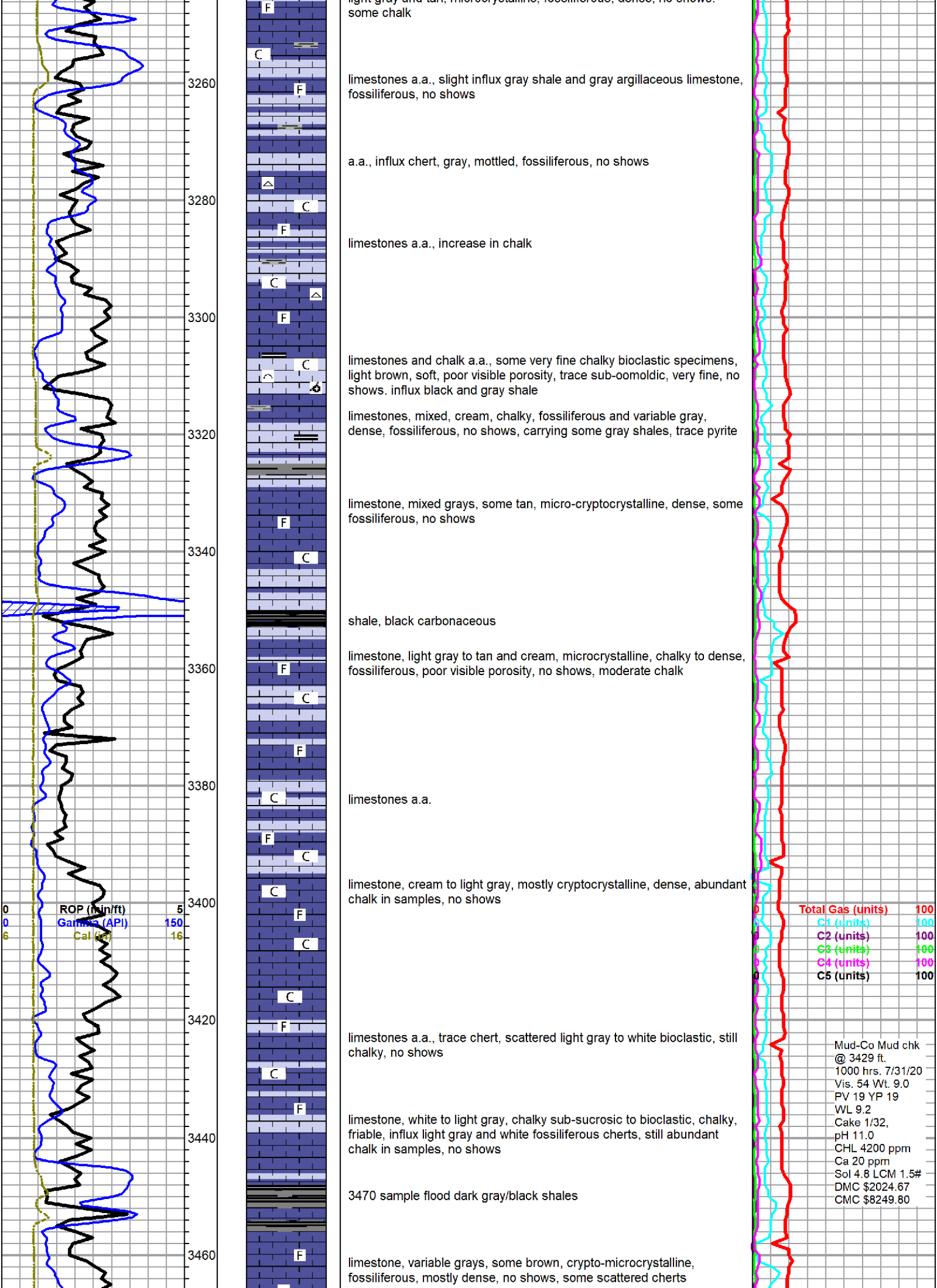
DST

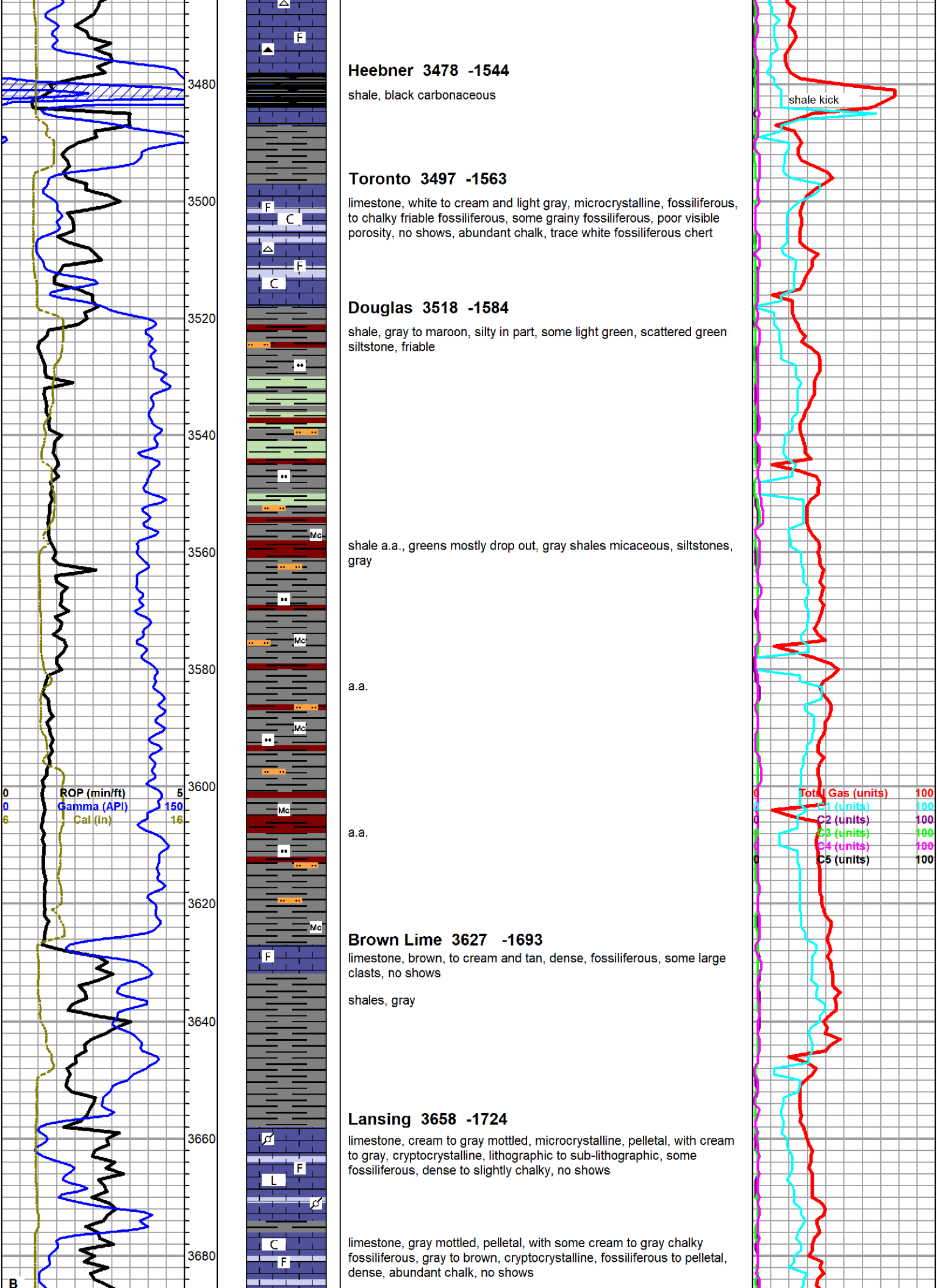
■ DST Int
■ DST alt
■ Core
■ tail pipe

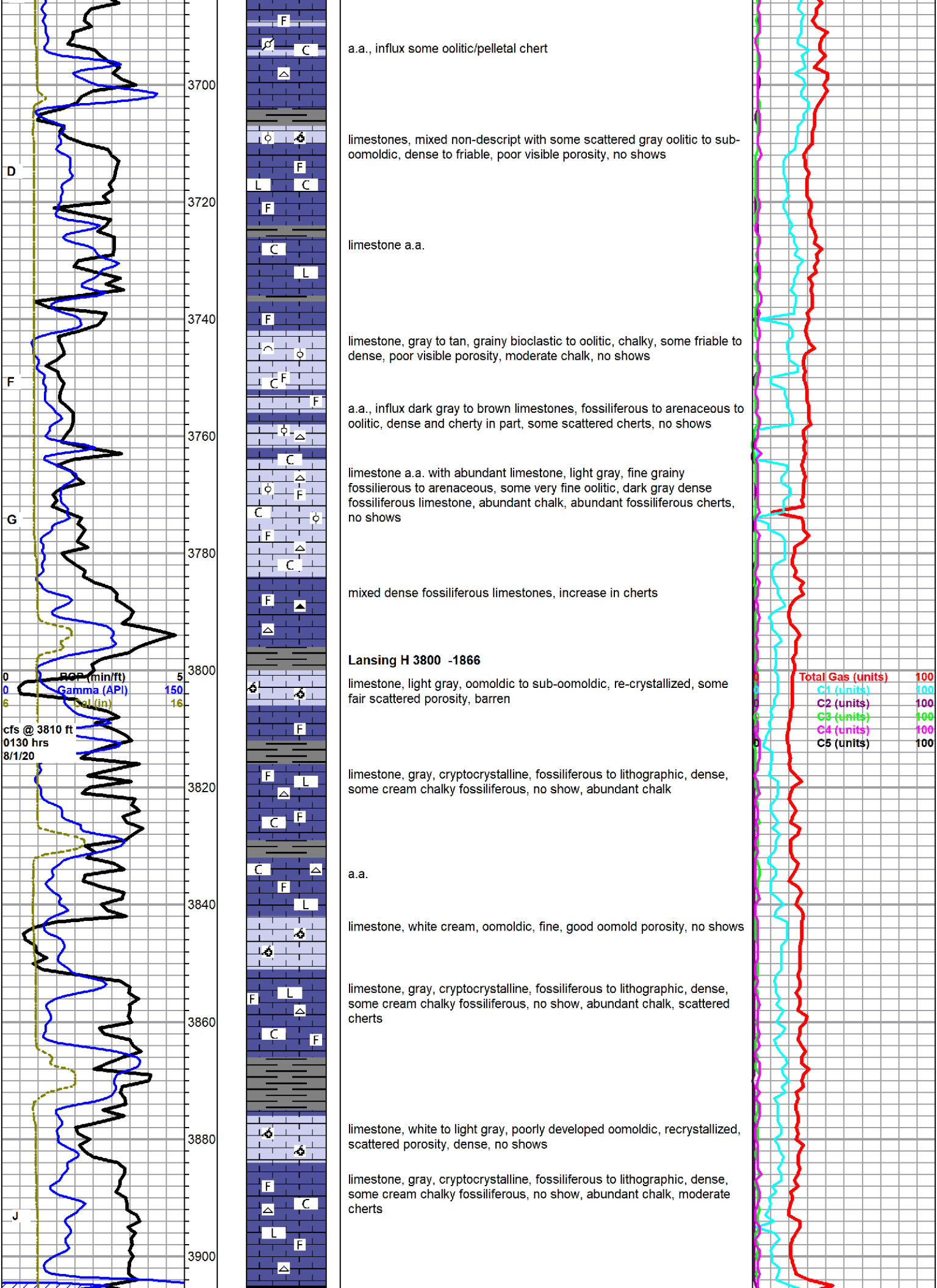
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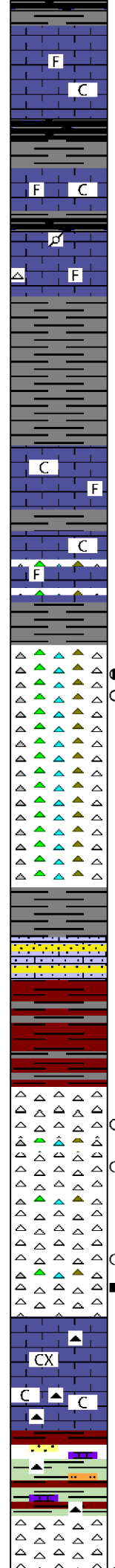
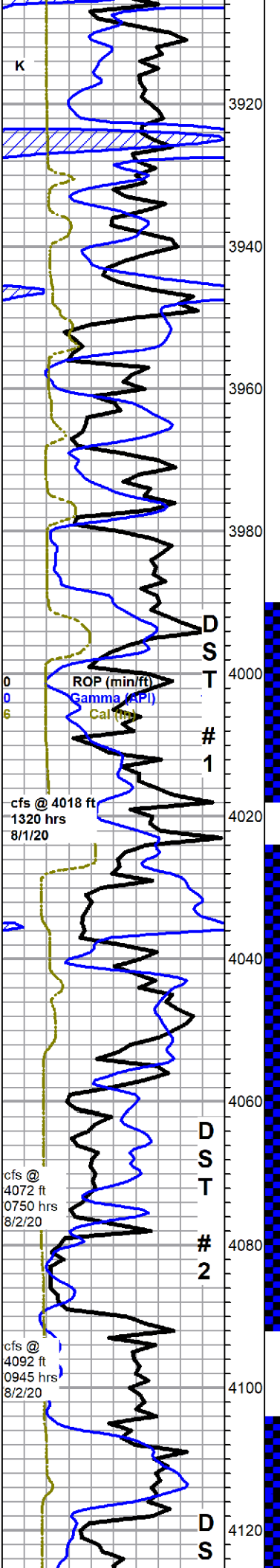












limestone, variable gray, crypto-microcrystalline, fossiliferous to sub-lithographic, dense, with: cream, chalky, fossiliferous, poor visible porosity, no shows

a.a. with some blue/gray arenaceous and gray, very fine pelletal, no shows, scattered cherts

a.a.

Base Kansas City 3947 -2013

limestone, cream to gray, micro-cryptocrystalline, fossiliferous to sub-lithographic, chalky in part, mostly dense, some scattered gray cherts with chalk, no shows

limestone a.a., with chert, orange, black and clear translucent, mostly fresh with few pieces weathered with trace questionable edge stain

chert, mostly cream, with light gray, some orange and black, trace lavender, much fossiliferous, abundant weathering with some rotten and brittle, some slightly tripolitic, good black to brown edge staining to saturated staining, faint odor, slight show free oil droplets, faint odor, poor fluorescence - with: limestone a.a. and minor red, lavender and light green shale

limestone, white, weathered to near chalk, sandy, flakey and friable, with: sandstone, white-green, vfine-fine grain, poor sorting, sub-angular to sub-rounded, chalk - calcite filled, friable-well cemented, both have black asphaltic stain, trace oil on break, no odor in cup, spotty fluorescence, no cut

grades to shale, brick red, lavender and gray, heavy red wash

Miss Chert 4058 -2124

chert, mostly white, some pale tan and pale green, mostly fresh, sharp, fractured, black edge stain and in fractures, some weathered with sub-tripolitic edges, heavy black stain in weathered surfaces, no show oil, fleeting odor, scattered white fluorescence, no cut but has halo

chert, mostly translucent light gray, with cherts as above, less staining than above, but with some small specimens of fine tripolitic, light brown stain, bleeds small droplets light oil, faint odor, fair even fluorescence, slow milky cut on tripolitic a few tripolitic specimens

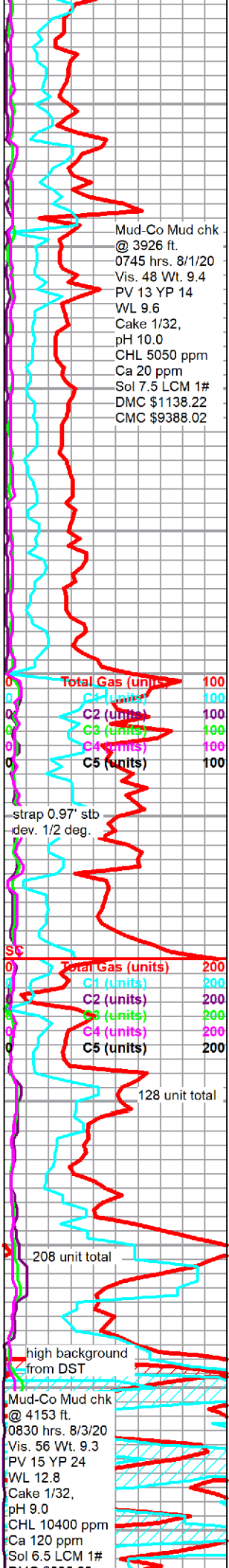
limestones, gray-gray/green, cryptocrystalline, dense, with: white to cream, crypto-microcrystalline, chalky, sucrosic in part, no shows

a.a., influx cherts, light gray-gray/green, sharp, fresh, marked increase in chalk

a.a. with flood shale, lavender and gray, some pale green (some sandy) trace green chert, sharp, fresh, scattered sandstone to siltstone, white to green, very fine grain, well cemented, trace black stain, soft red mushy clay and chalk

Viola 4118 -2184

4140 sample - fine samples, mixed shale, limestone and chert



Mud-Co Mud chk @ 3926 ft.
0745 hrs. 8/1/20
Vis. 48 Wt. 9.4
PV 13 YP 14
WL 9.6
Cake 1/32,
pH 10.0
CHL 5050 ppm
Ca 20 ppm
Sol 7.5 LCM 1#
DMC \$1138.22
CMC \$9388.02

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100
C5 (units) 100

strap 0.97' sbt dev. 1/2 deg.

Total Gas (units) 200
C1 (units) 200
C2 (units) 200
C3 (units) 200
C4 (units) 200
C5 (units) 200

128 unit total

208 unit total

high background from DST

Mud-Co Mud chk @ 4153 ft.
0830 hrs. 8/3/20
Vis. 56 Wt. 9.3
PV 15 YP 24
WL 12.8
Cake 1/32,
pH 9.0
CHL 10400 ppm
Ca 120 ppm
Sol 6.5 LCM 1#

