



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1199507
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 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: _____

1199507

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Pioneer Energy Services

Dual Induction Log

API No.	15-193-20918-00-00		
Company	Prater Oil & Gas Operations, Inc.		
Well	Maurath #1		
Field	Triangle Northwest		
County	Thomas	State	Kansas
Location	660' FEL & 2310' FSL		
Sec: 15	Twp: 10S	Rge: 31W	Other Services CNL/CDL
Permanent Datum	Ground Level	Elevation 2985	Elevation K.B. 2993
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum	D.F. 2985
Drilling Measured From	Kelly Bushing		G.L. 2985

Date	4/21/2014
Run Number	One
Depth Driller	4660
Depth Logger	4660
Bottom Logged Interval	4659
Top Log Interval	250
Casing Driller	8.625 @ 261
Casing Logger	263
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	2500
Density / Viscosity	9.4 47
pH / Fluid Loss	10.0 8.8
Source of Sample	Flowline
Rm @ Meas. Temp	1.40 @ 68
Rmf @ Meas. Temp	1.05 @ 68
Rmc @ Meas. Temp	1.89 @ 68
Source of Rmf / Rmc	Charts
Rm @ BHT	0.76 @ 125
Operating Rig Time	3 Hours
Max Rec. Temp. F	125
Equipment Number	91
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Scott Alberg

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Log-Tech, Inc.
 (785) 625-3858
 I-70 & Campus Exit,
 4 1/2 North, 3/4 West, 1/2 North,
 West into

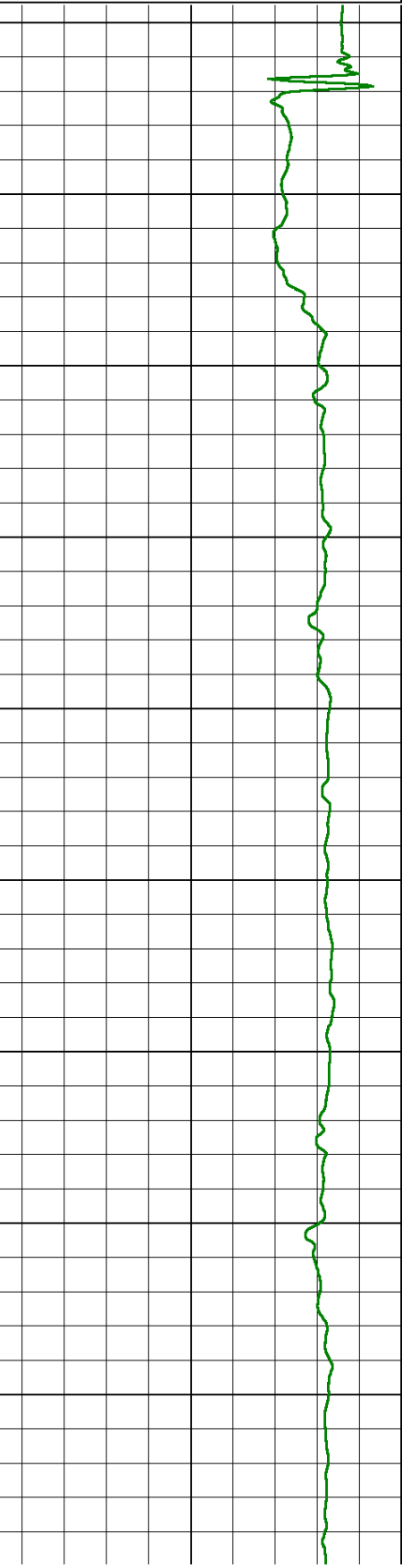
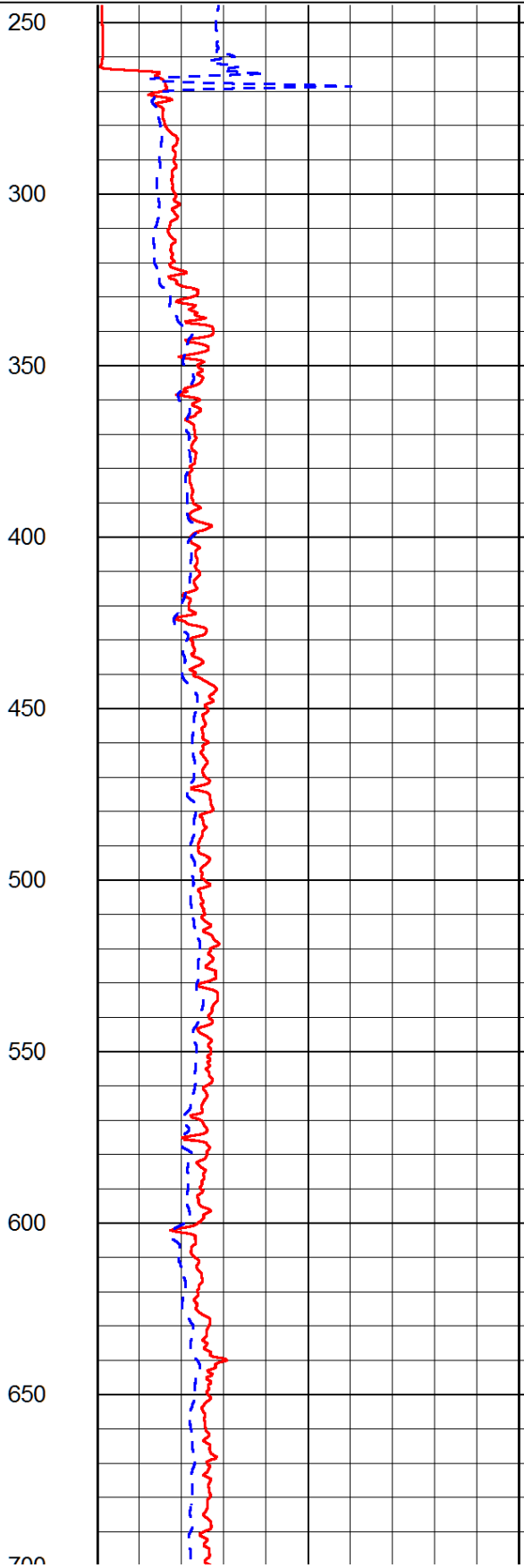
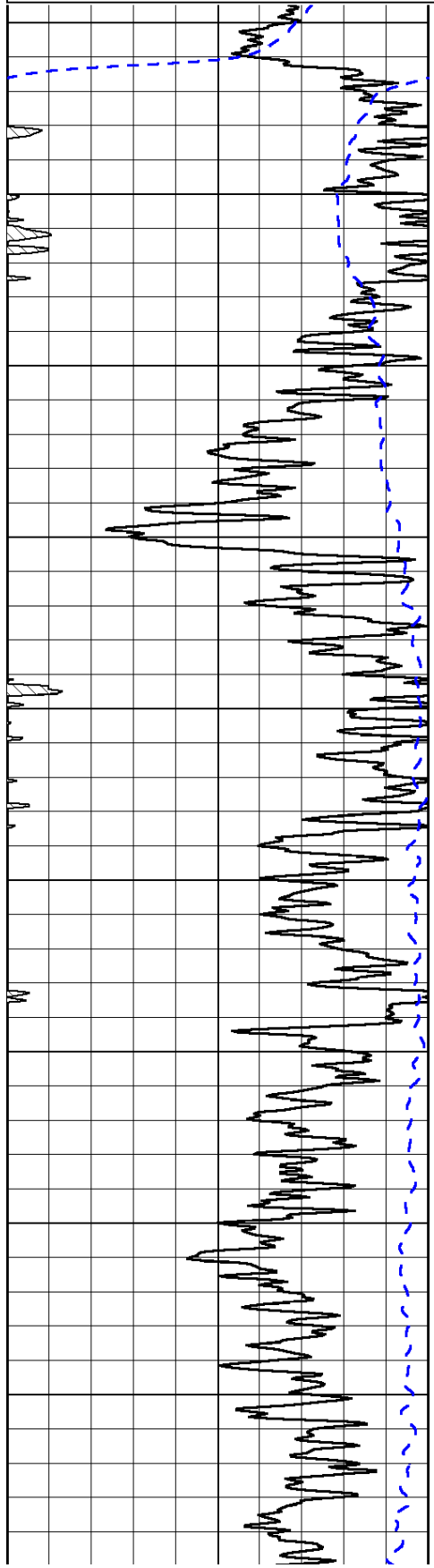
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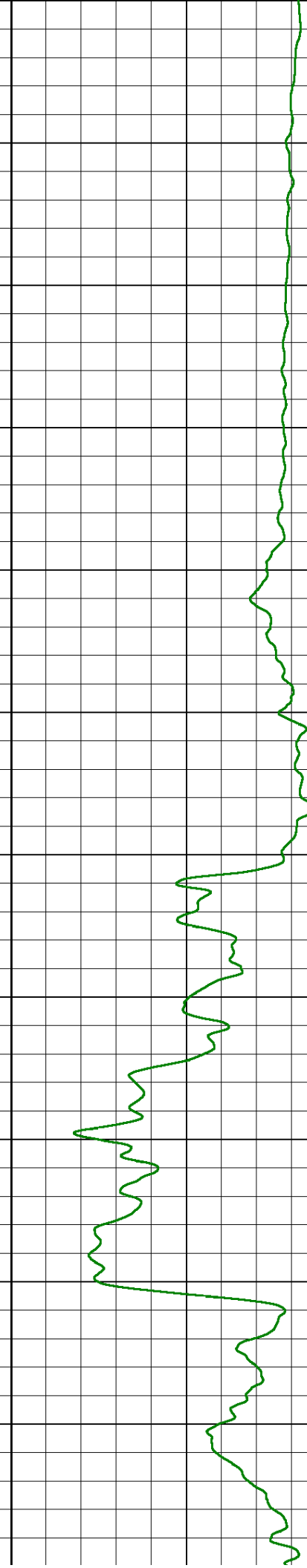
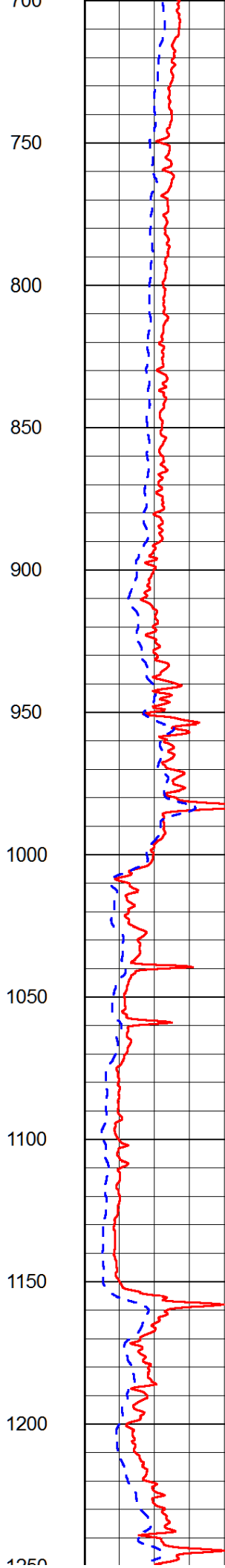
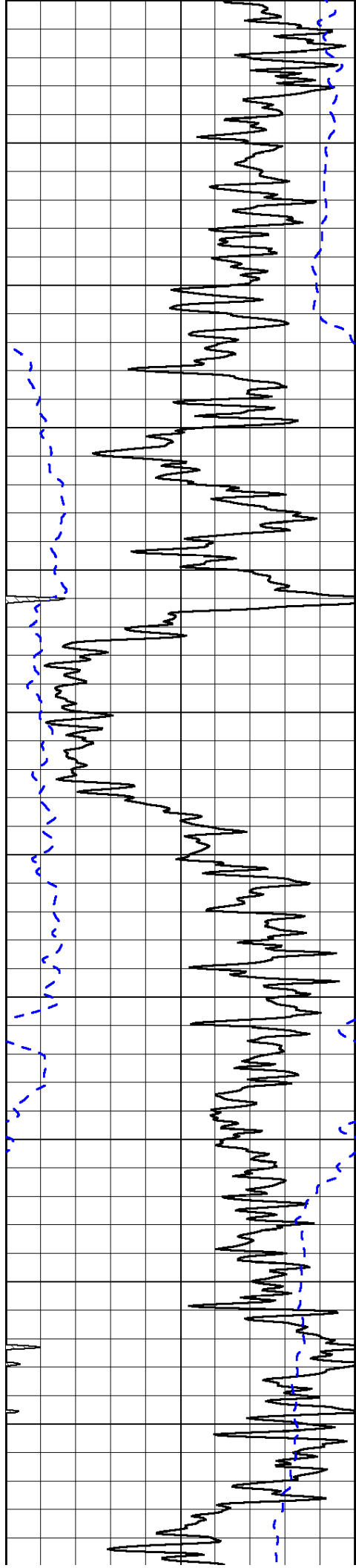
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-200	SP (mV)	0

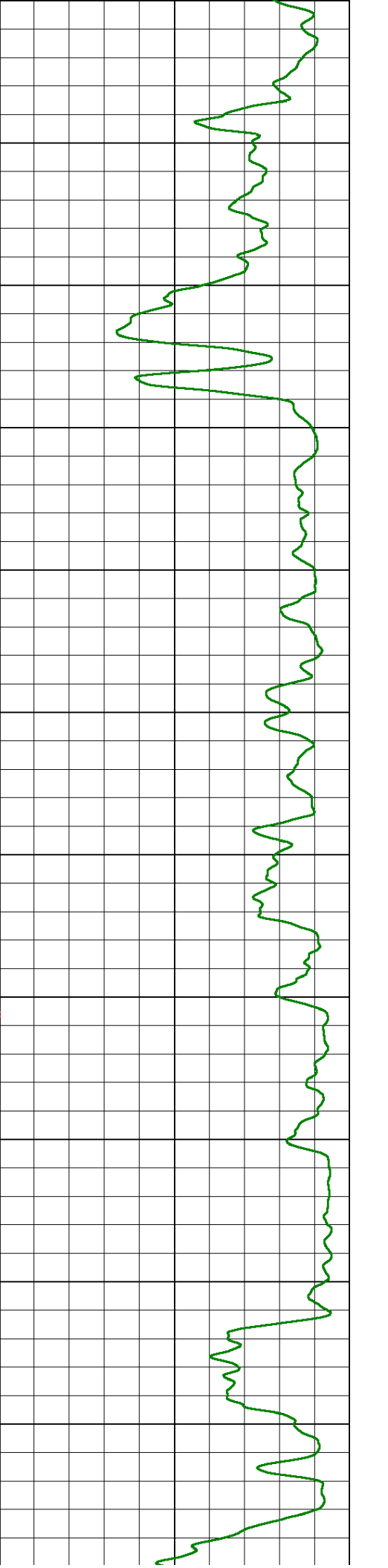
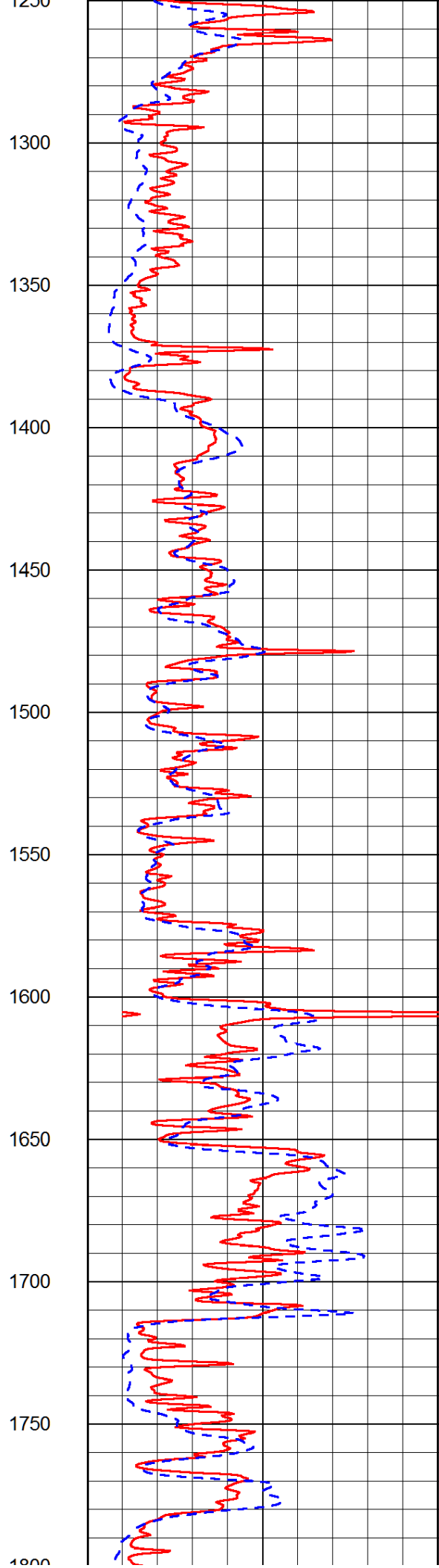
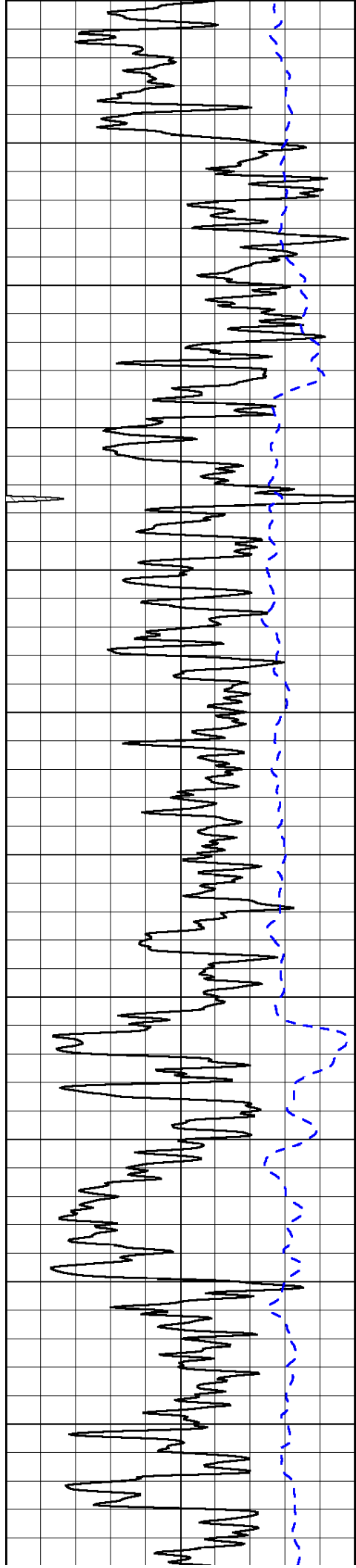
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0	Deep Resistivity (Ohm-m)	50

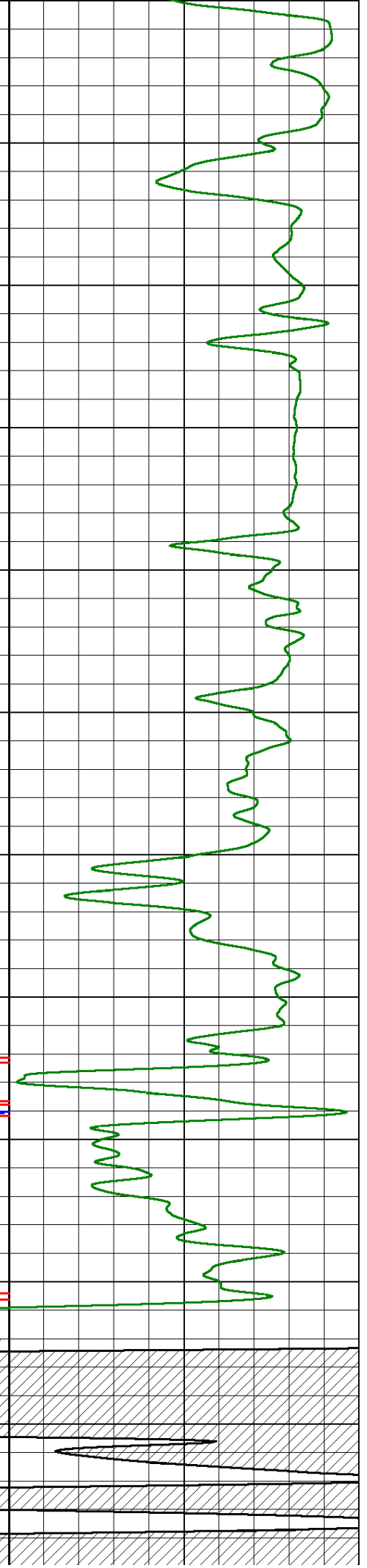
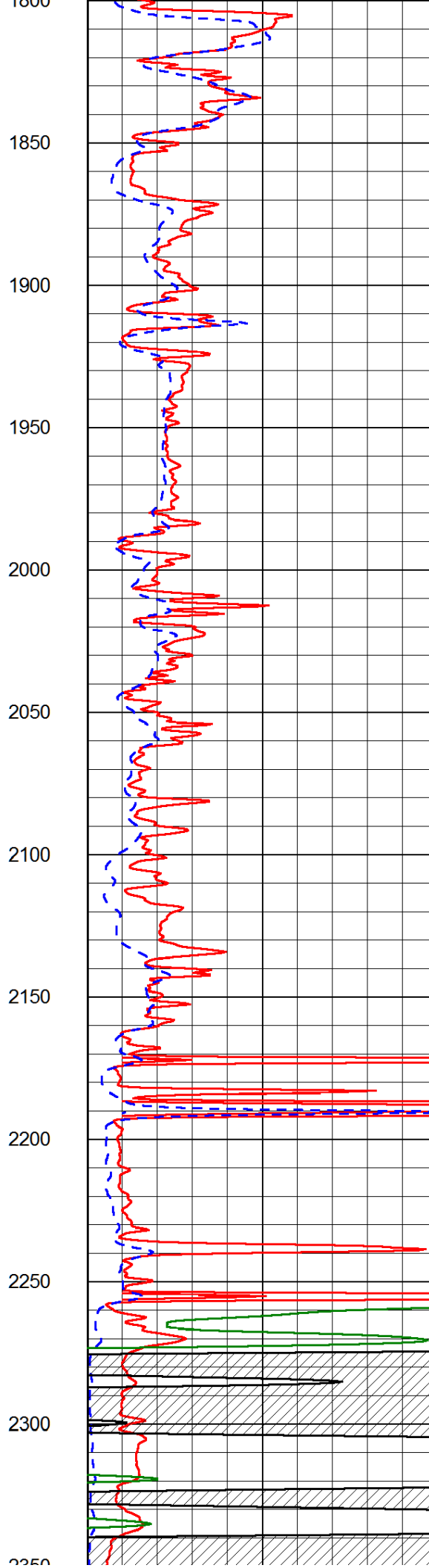
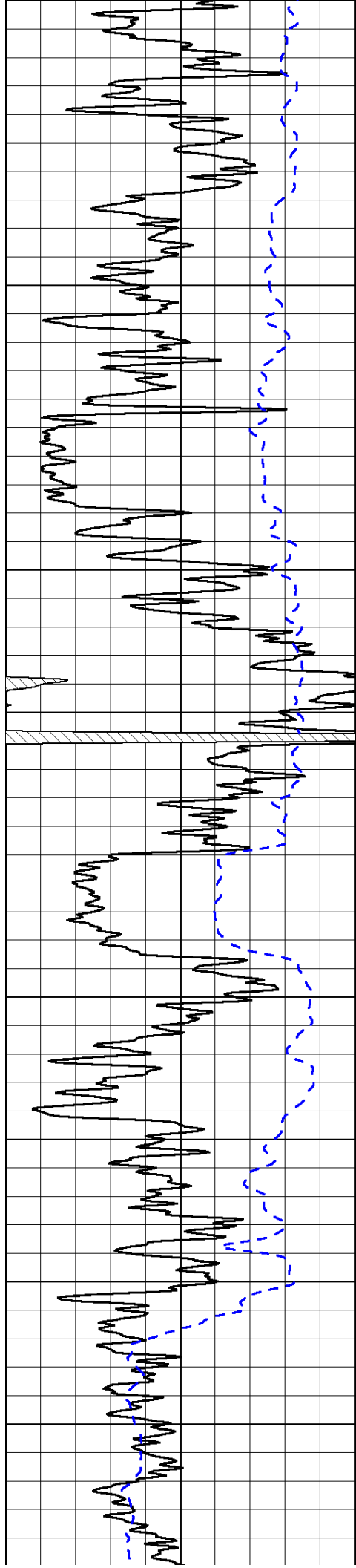
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0

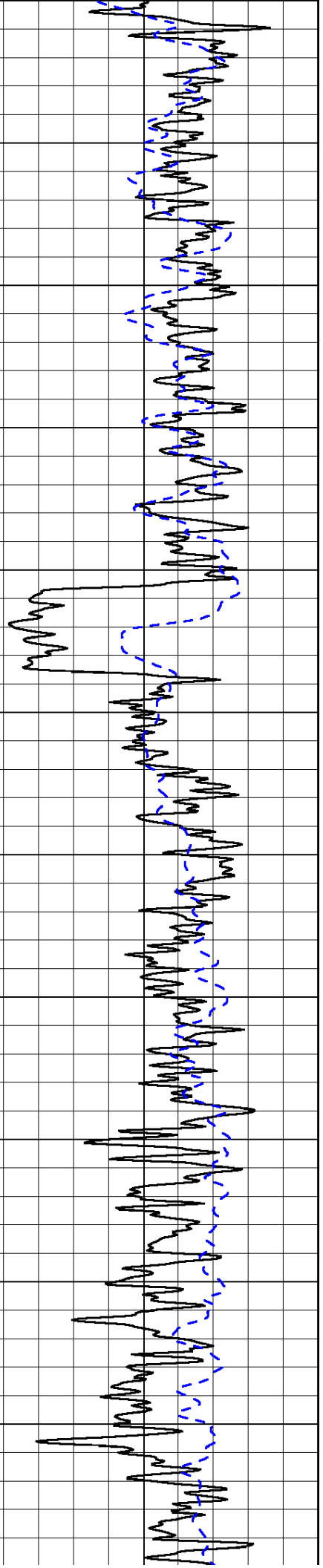
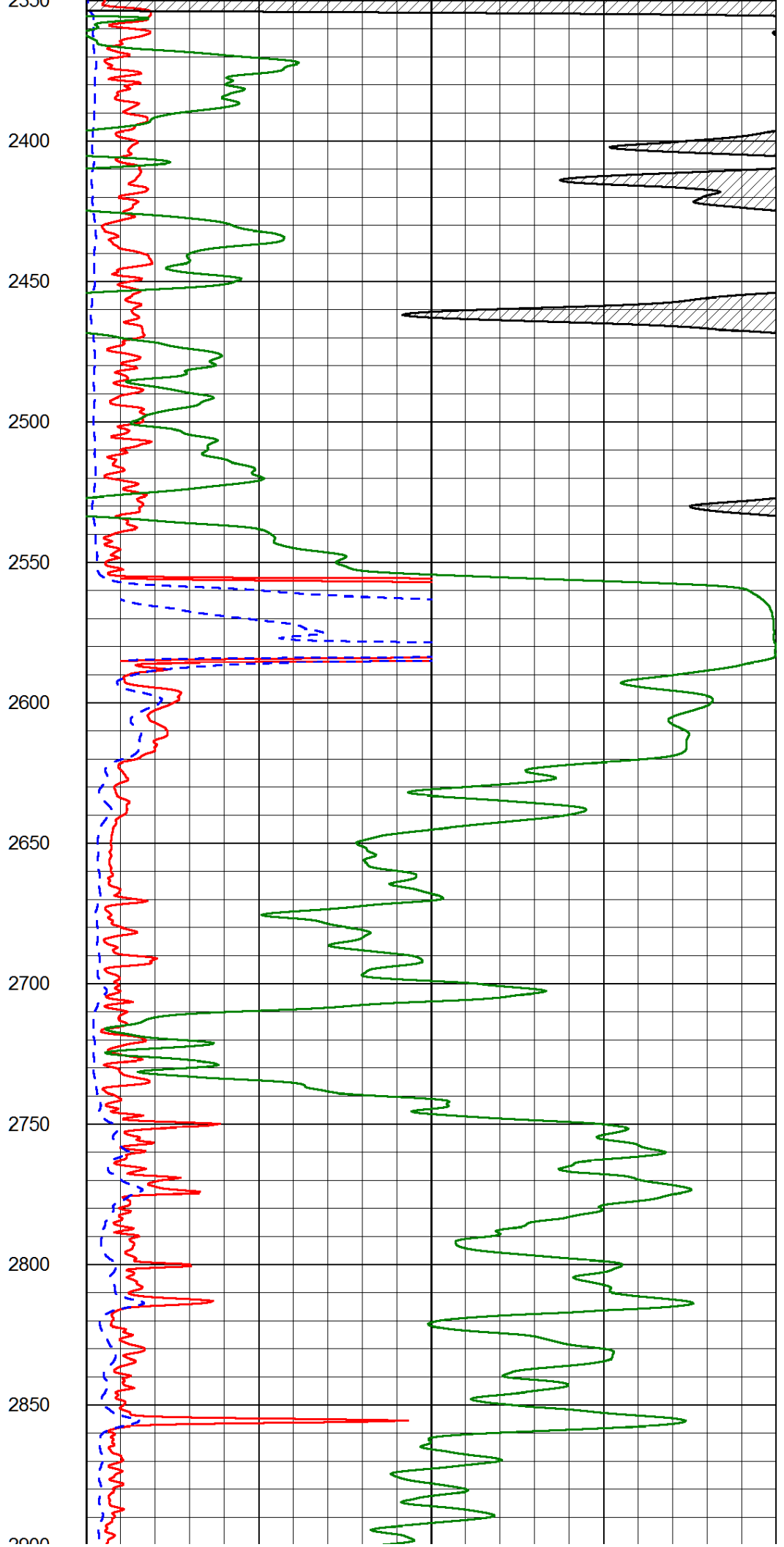
Shallow Resistivity		
50	(Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

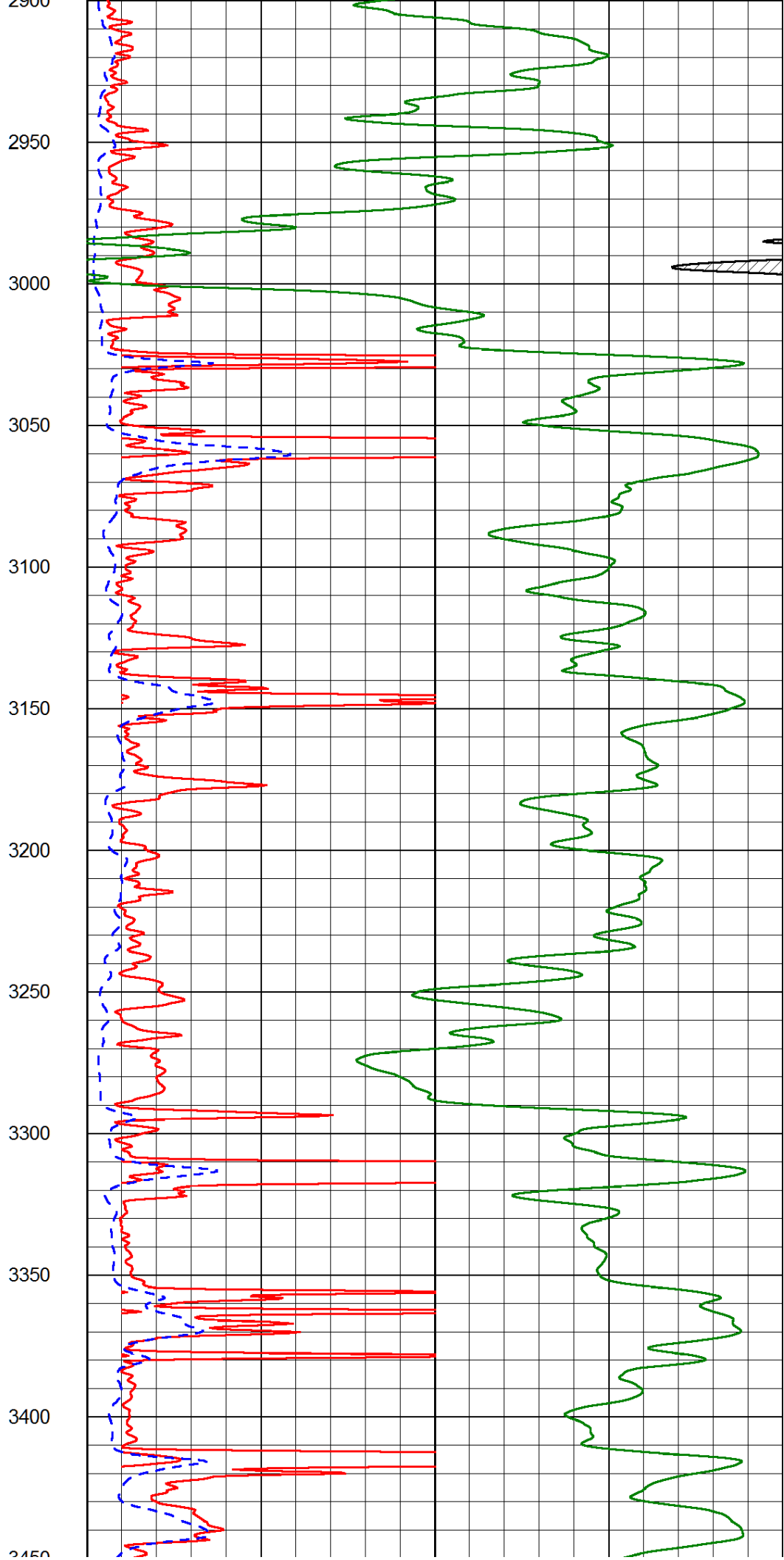
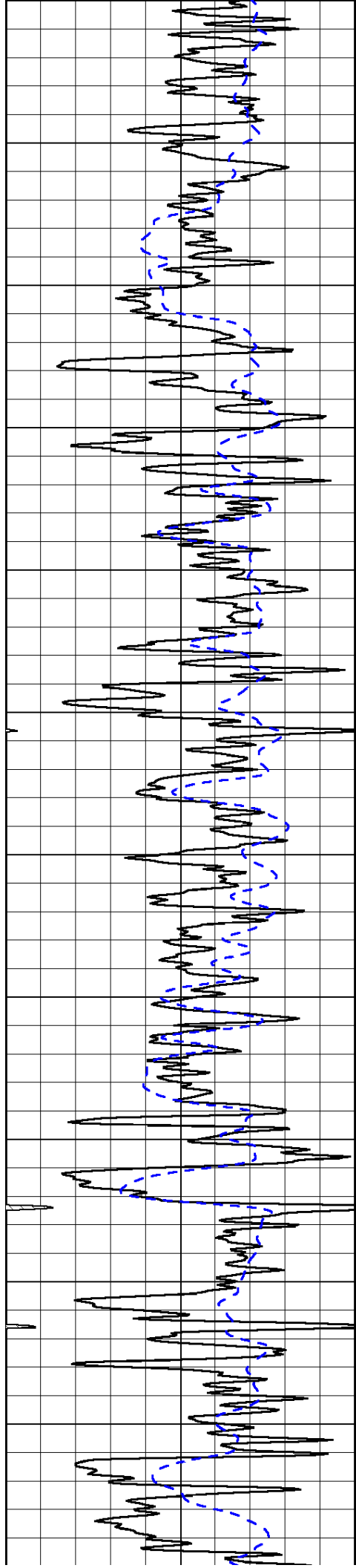


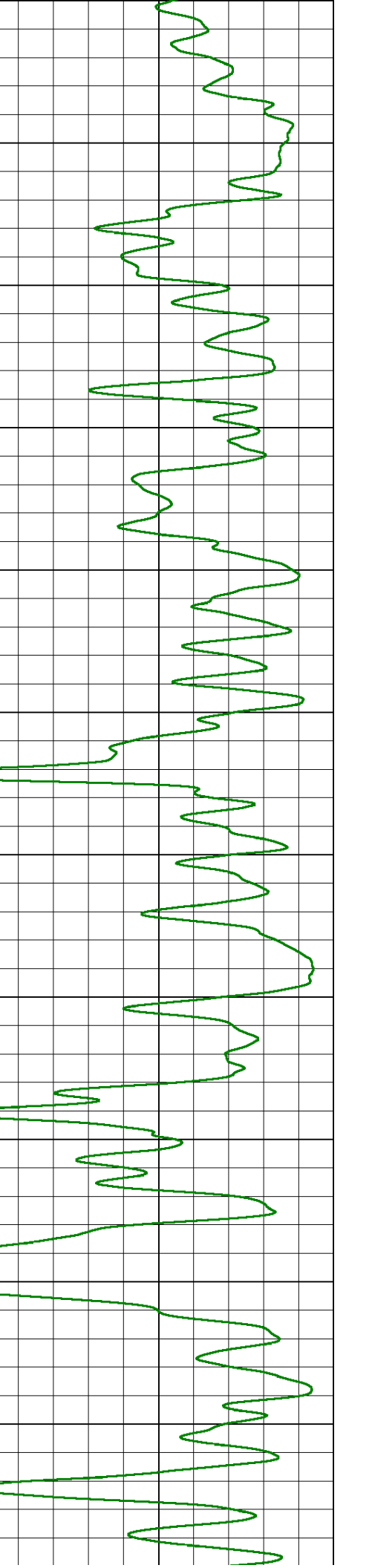
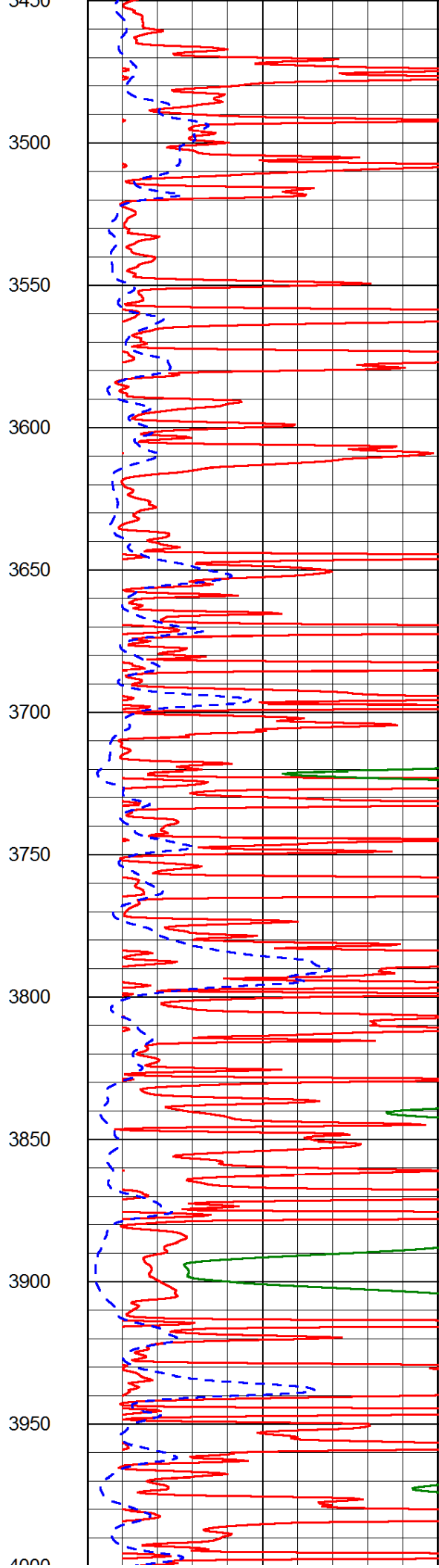
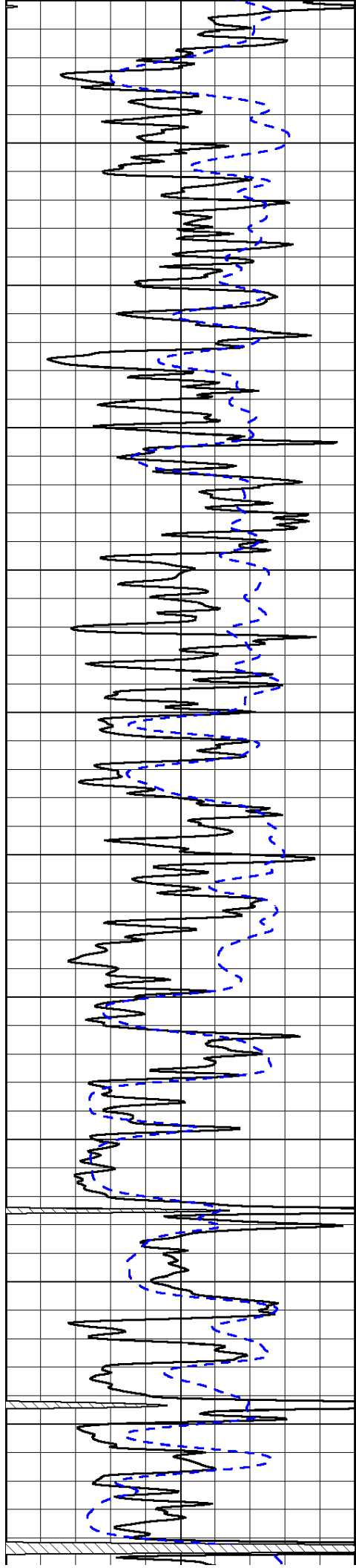


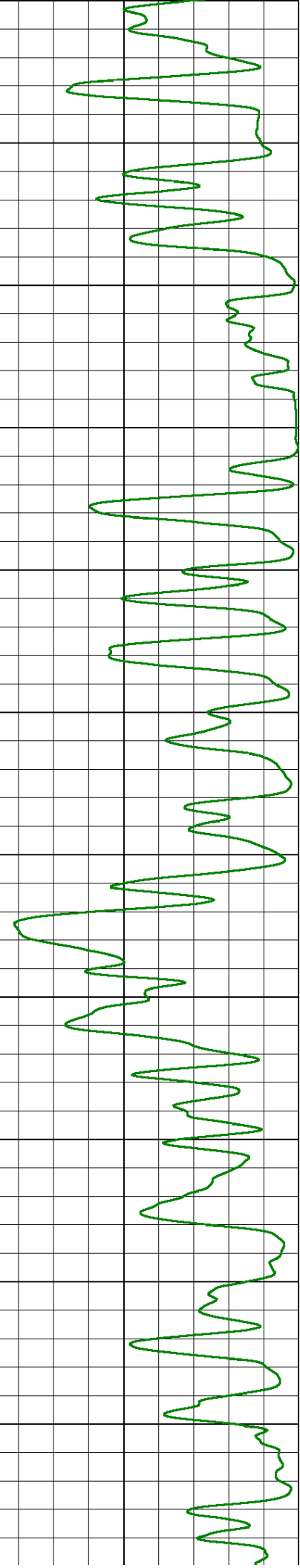
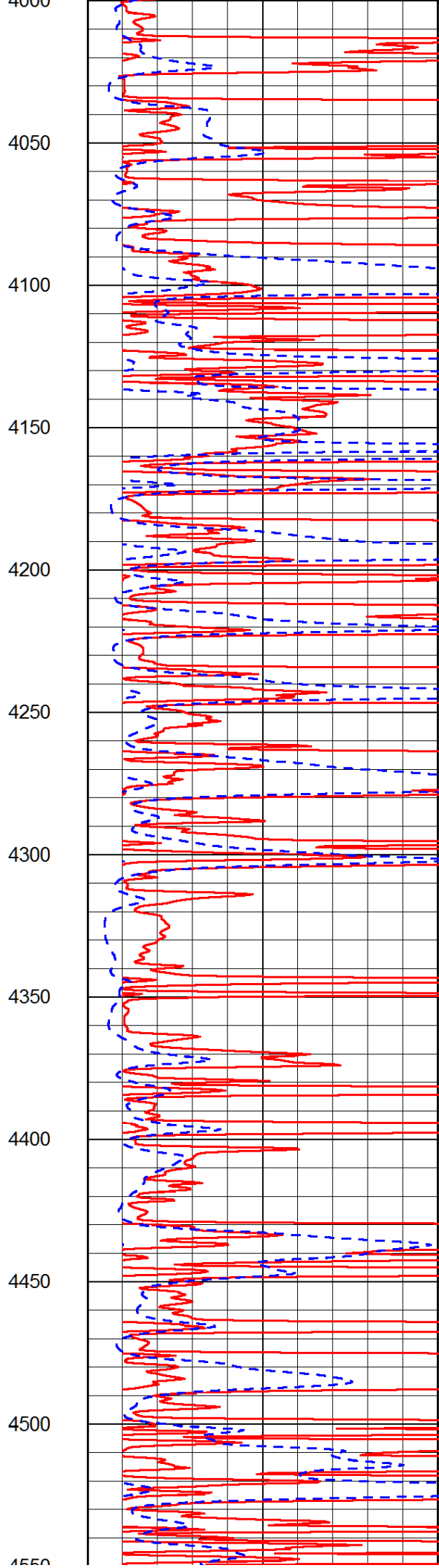
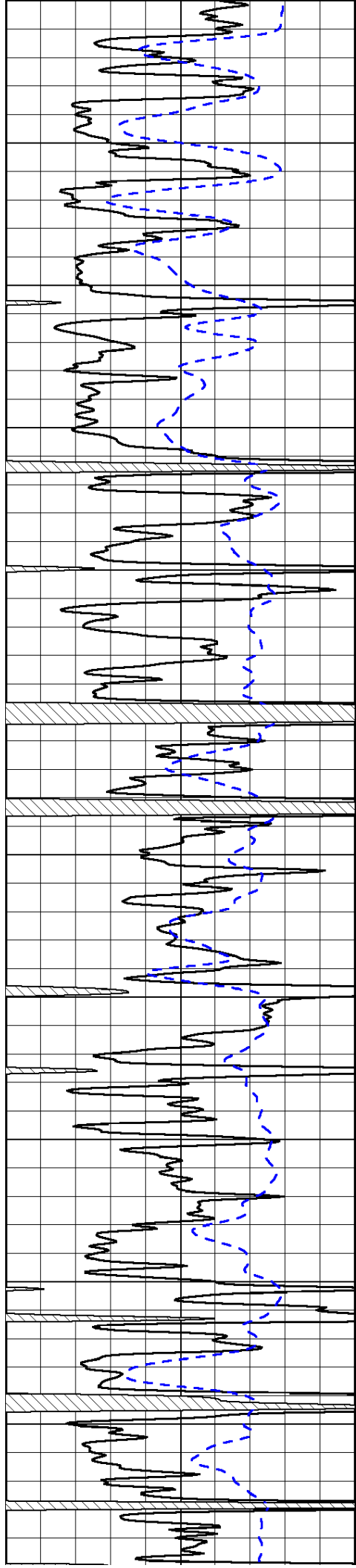


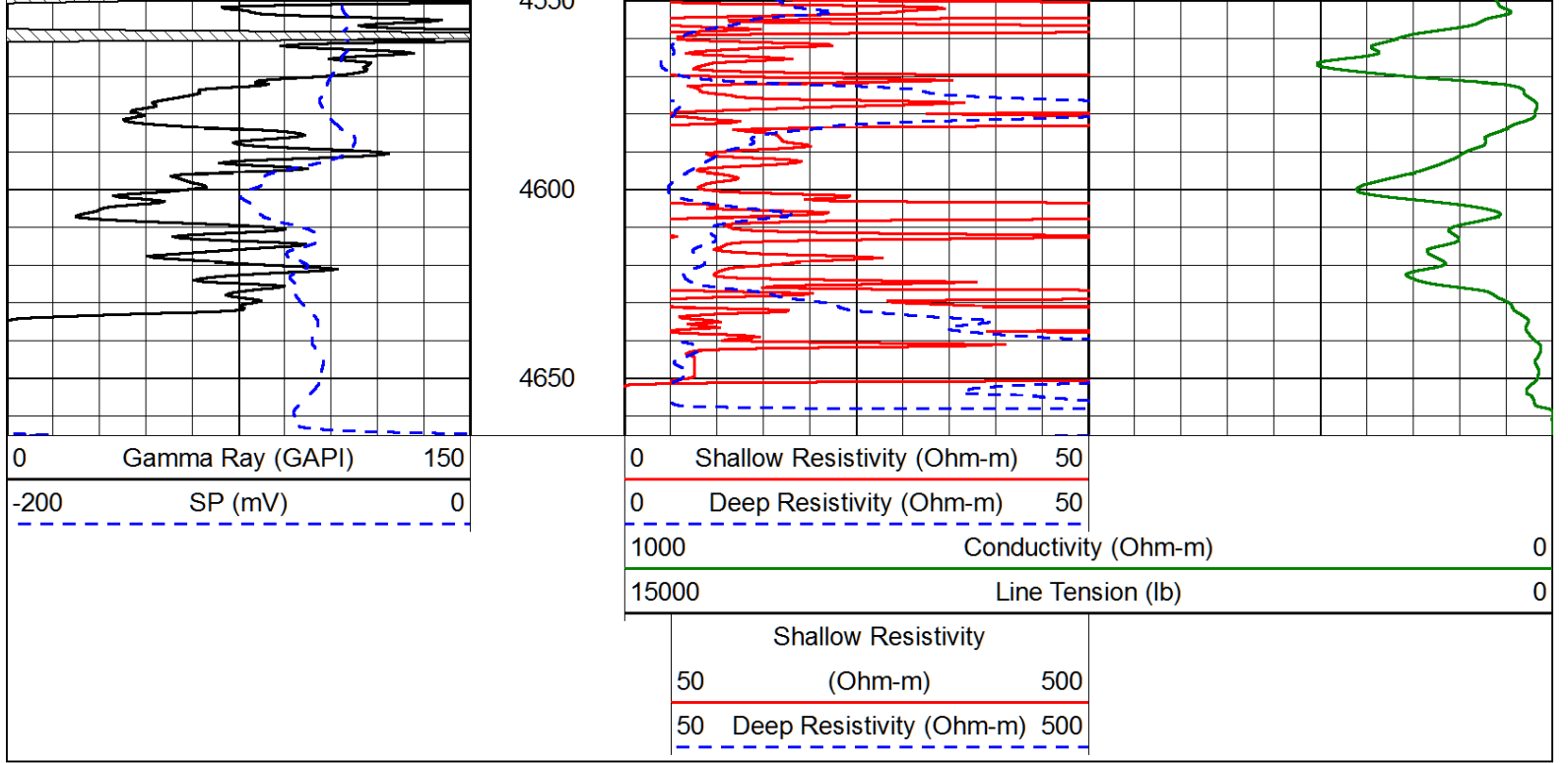




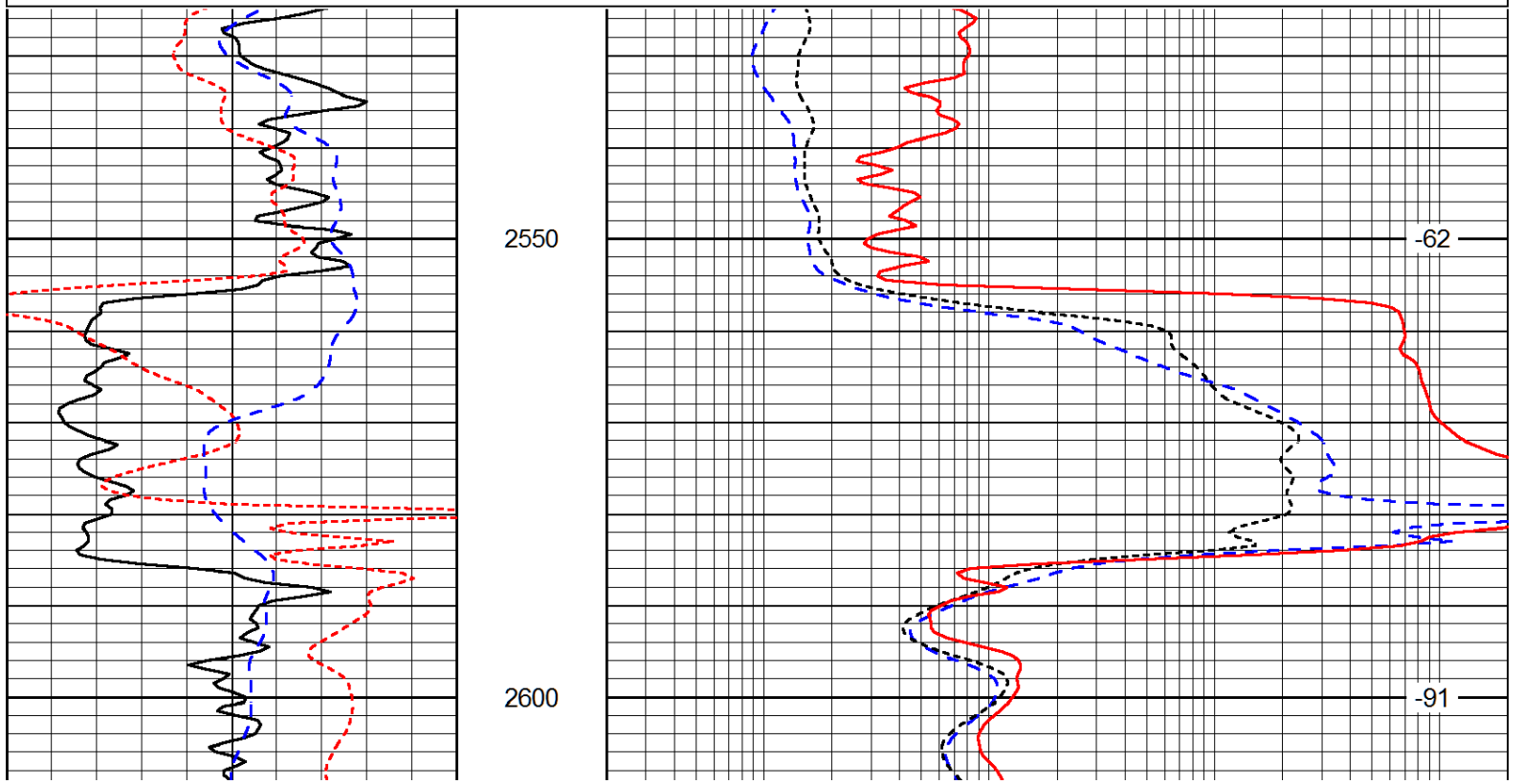
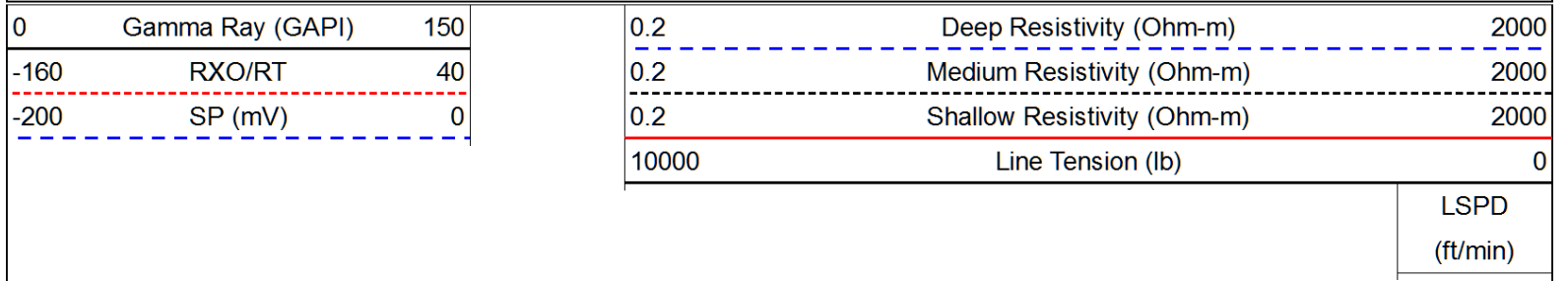


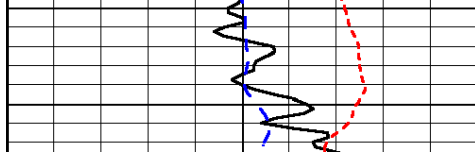




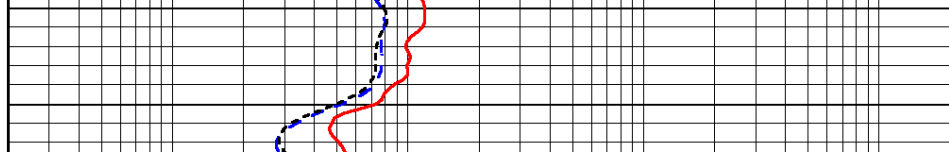


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 Presentation Format: dil
 Dataset Creation: Mon Apr 21 15:49:30 2014
 Charted by: Depth in Feet scaled 1:240





0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

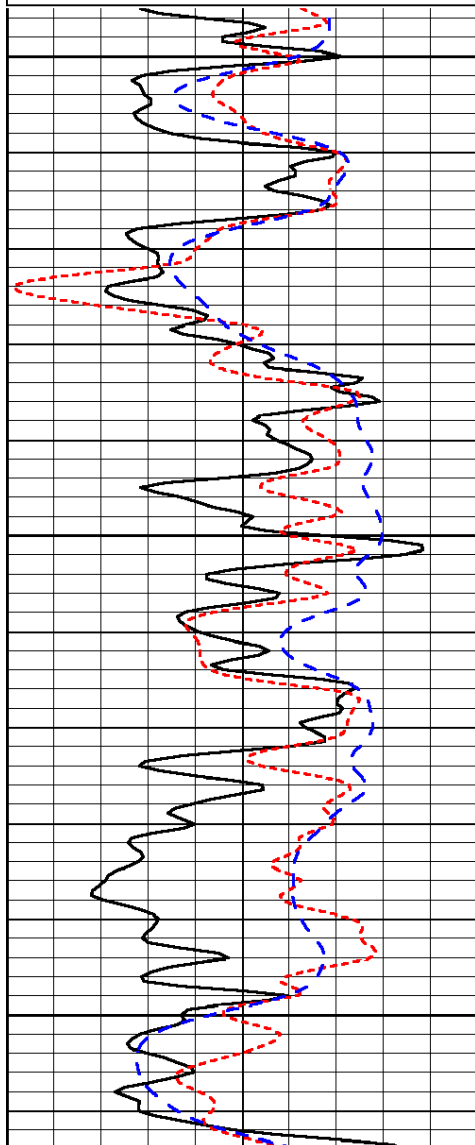
LSPD
(ft/min)

Database File: prater_042114hd.db
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0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

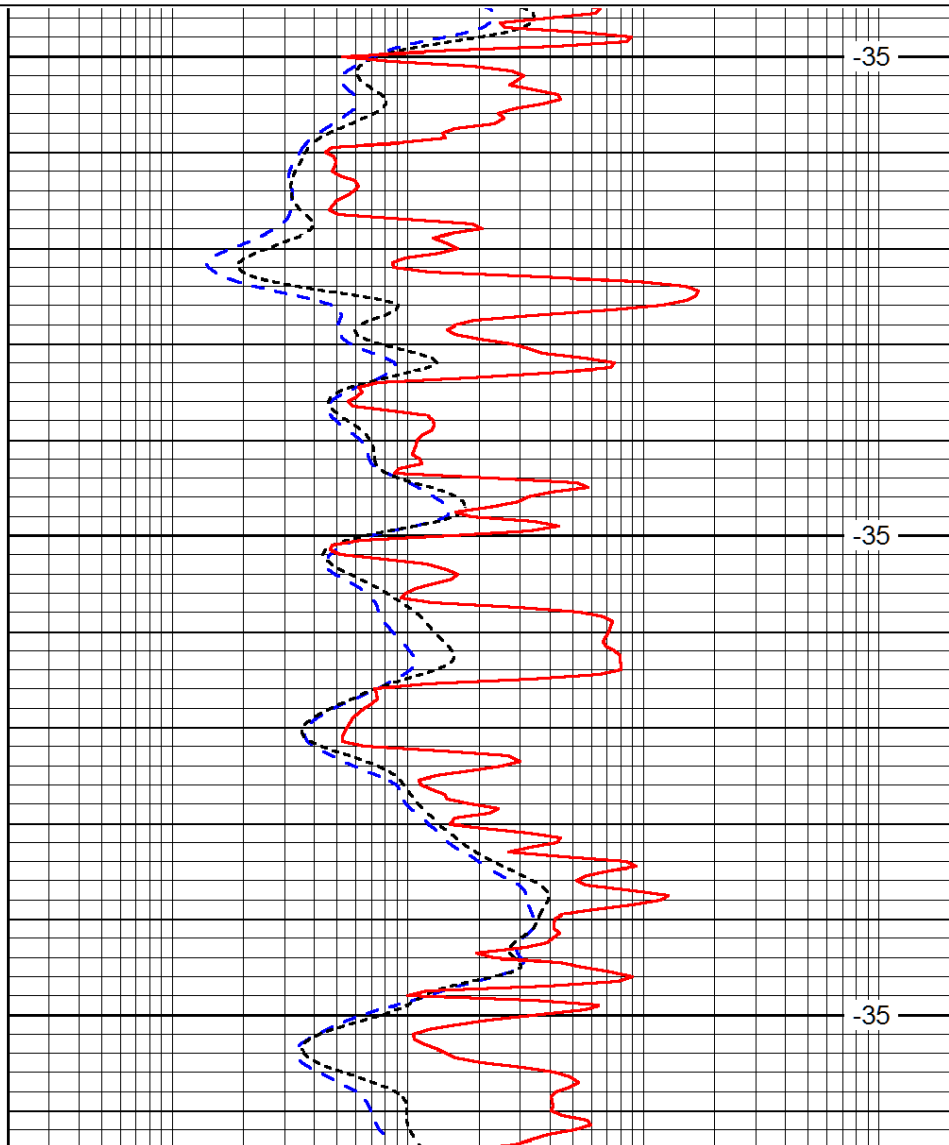
LSPD
(ft/min)



3700

3750

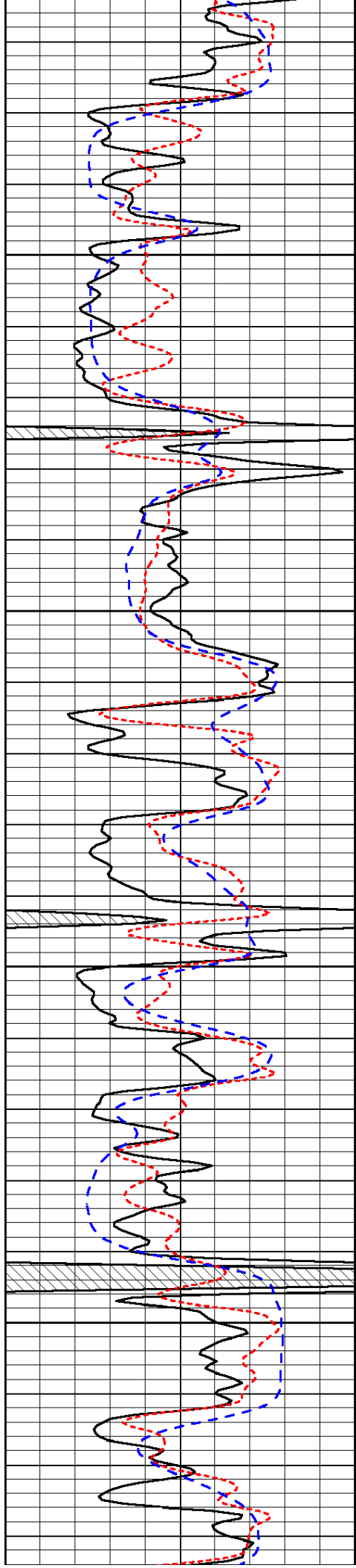
3800



-35

-35

-35

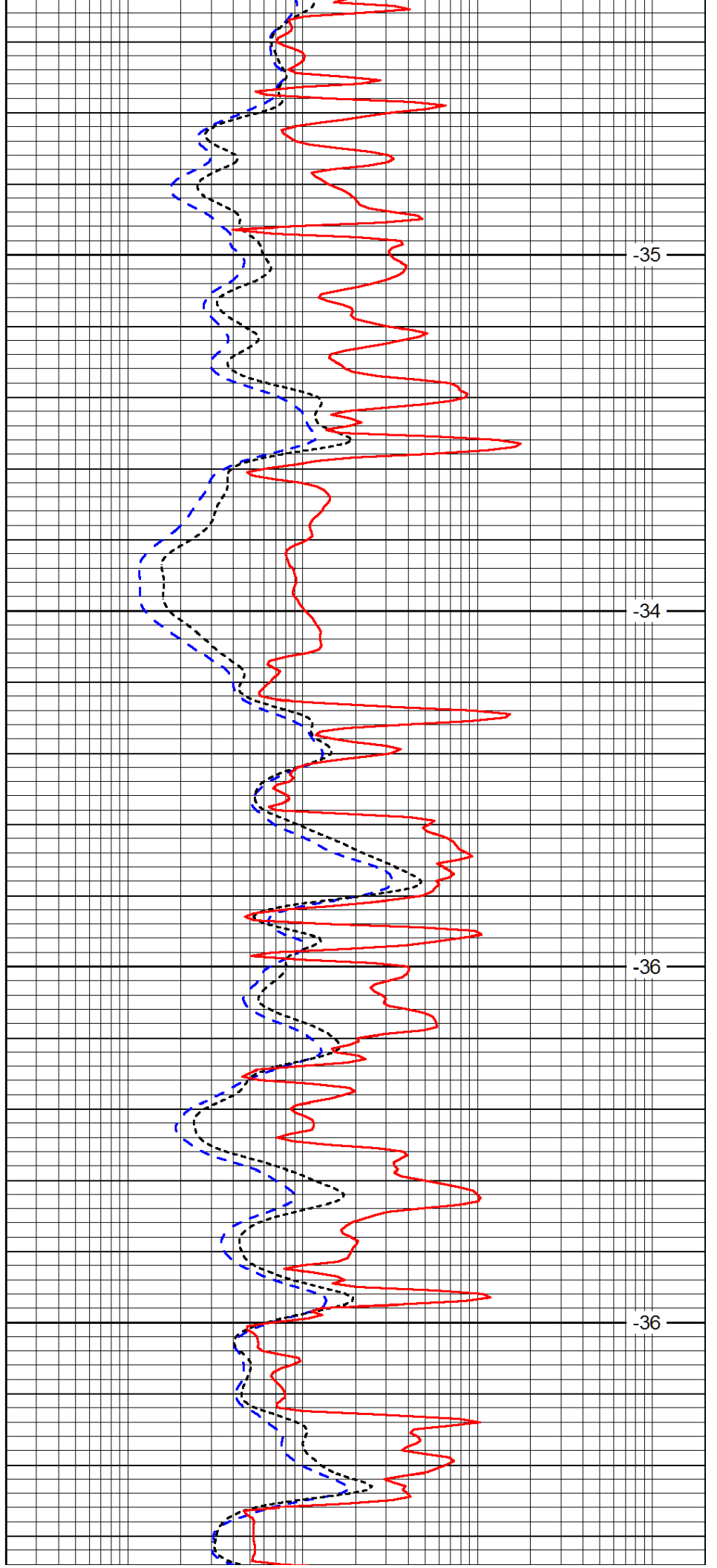


3850

3900

3950

4000

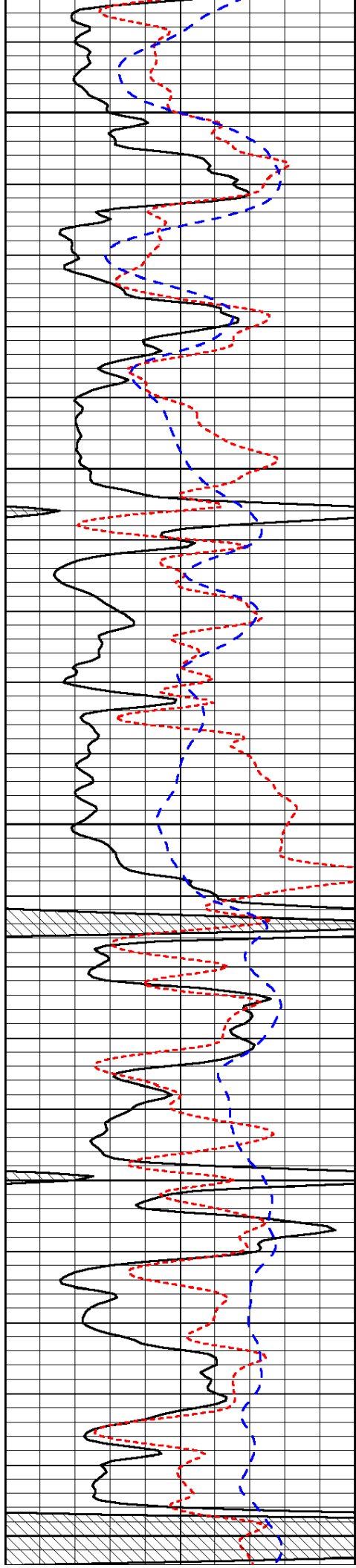


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-34

-36

-36



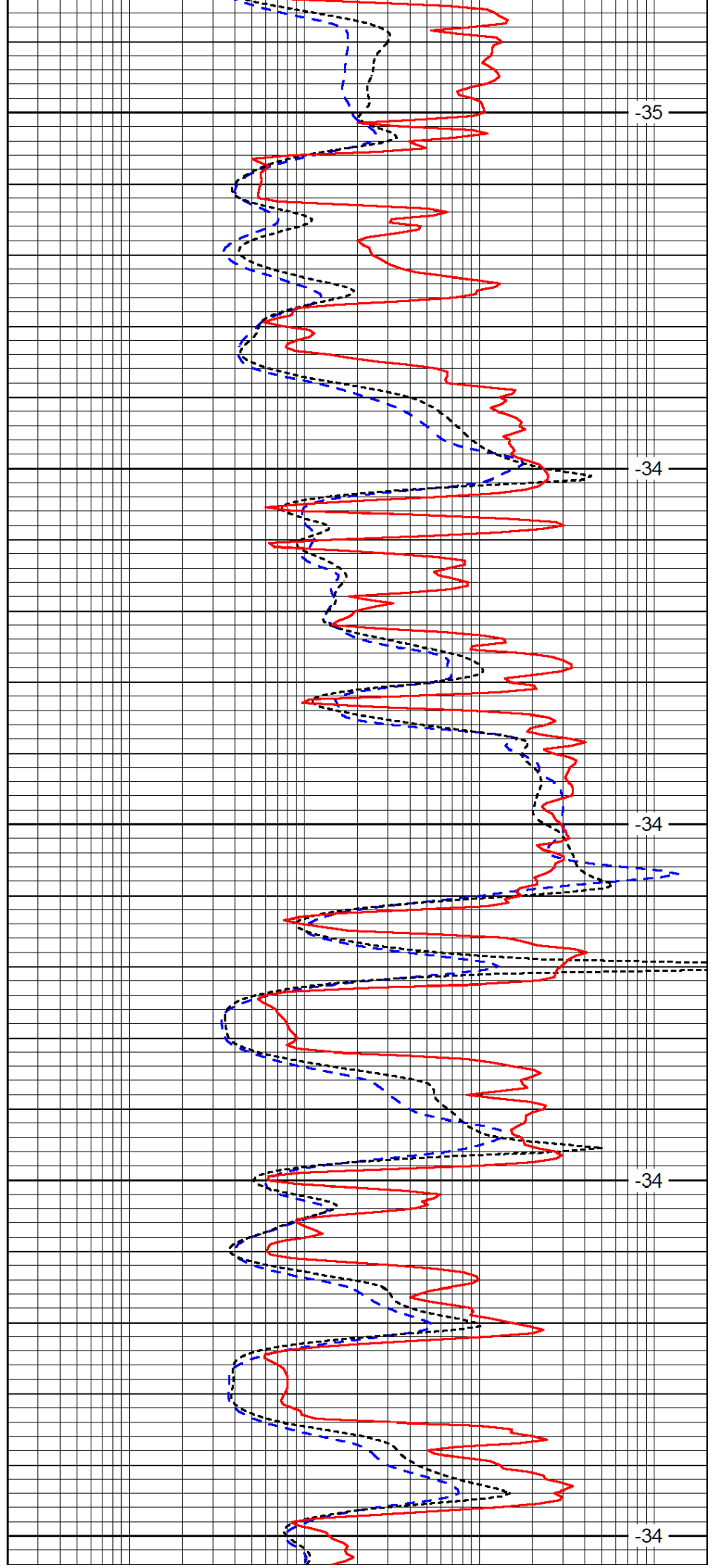
4050

4100

4150

4200

4250



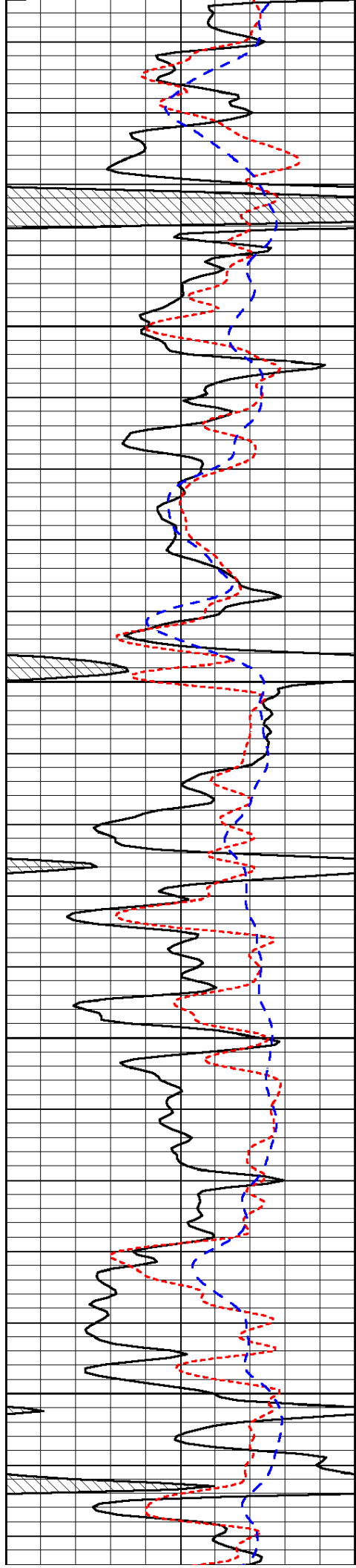
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-34

-34

-34

-34

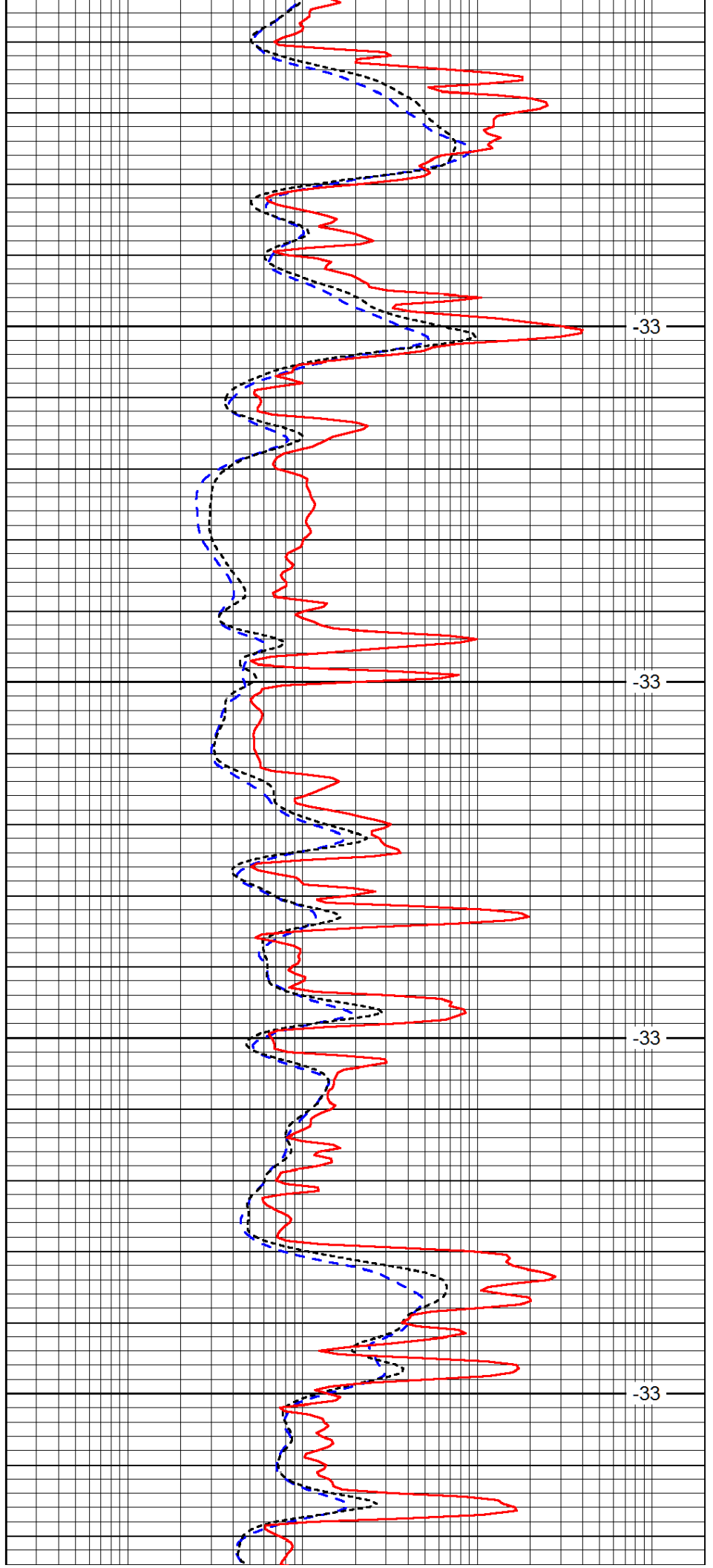


4300

4350

4400

4450

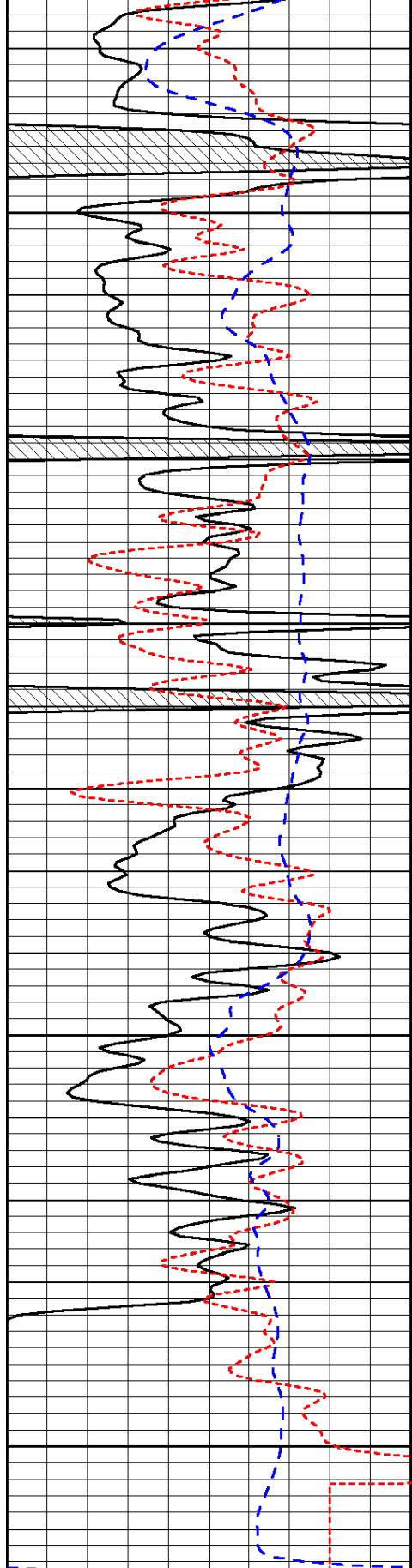


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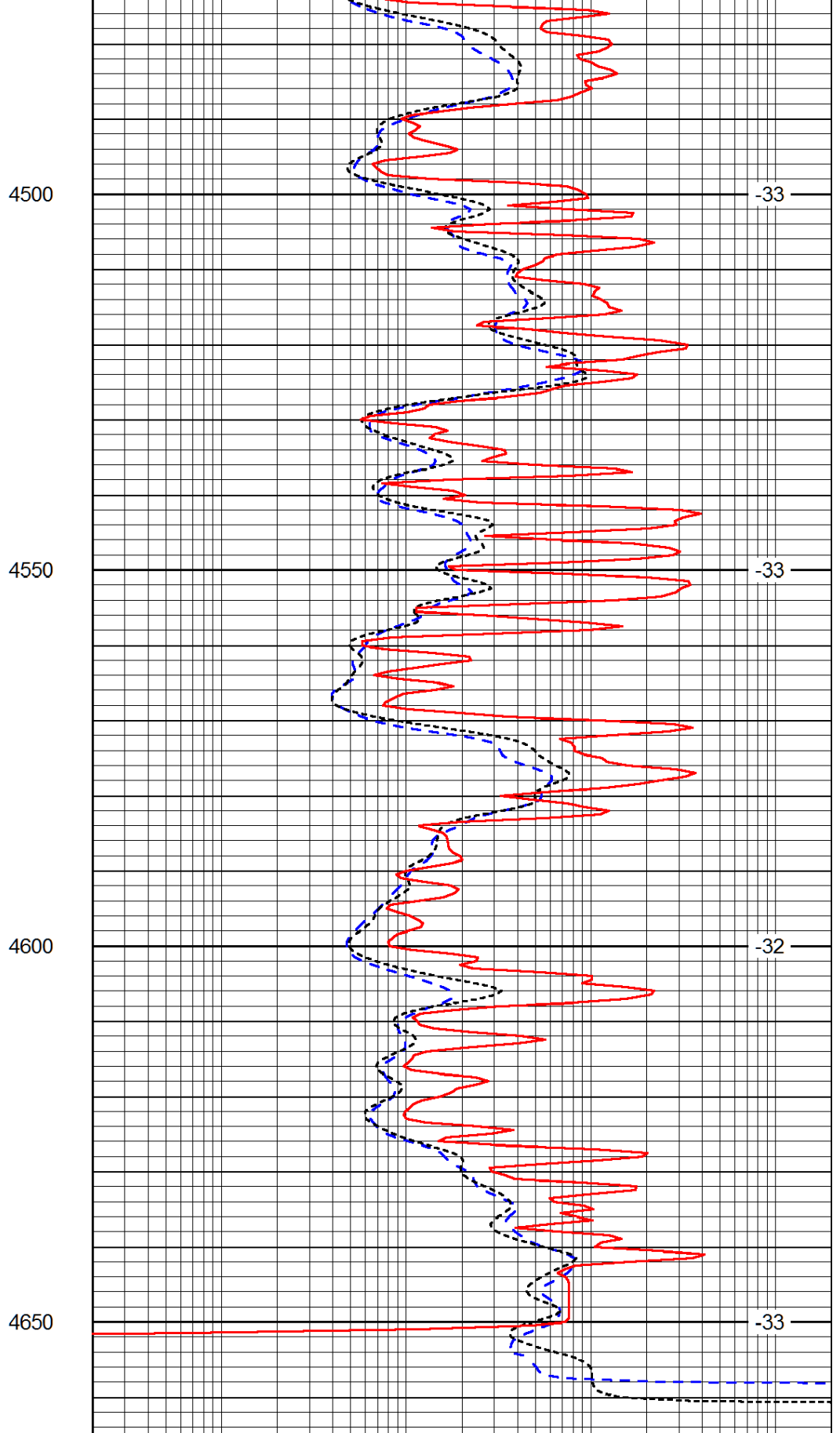
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-33

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0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)





Pioneer Energy Services

Dual Compensated Porosity Log

API No.	15-193-20918-00-00		
Company	Prater Oil & Gas Operations, Inc.		
Well	Maurath #1		
Field	Triangle Northwest		
County	Thomas		
State	Kansas		
Location	660' FEL & 2310' FSL		
Sec: 15	Twp: 10S	Rge: 31W	Other Services
			DIL

Permanent Datum	Ground Level	Elevation 2985
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	4/21/2014	

Run Number	One
Type Log	CNL / CDL
Depth Driller	4660
Depth Logger	4660
Bottom Logged Interval	4639
Top Logged Interval	3700
Type Fluid In Hole	Chemical
Salinity, PPM CL	2500
Density	9.4
Level	Full
Max. Rec. Temp. F	125
Operating Rig Time	3 Hours
Equipment -- Location	91 Hays
Recorded By	D. Schmidt
Witnessed By	Scott Alberg

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	261	8.625	23#	00	261
Two	7.875	261	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

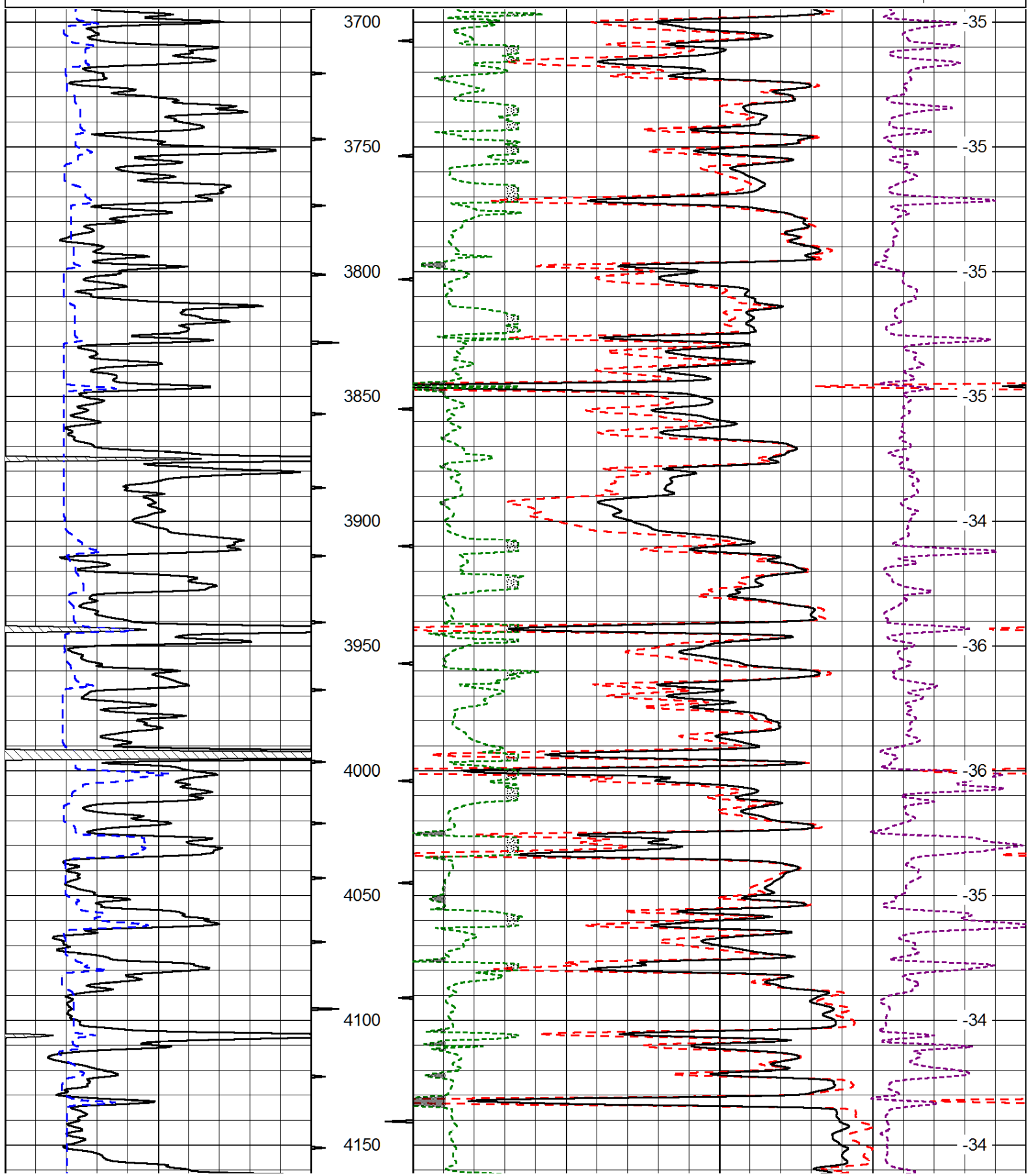
Thank you for using Log-Tech, Inc.
(785) 625-3858

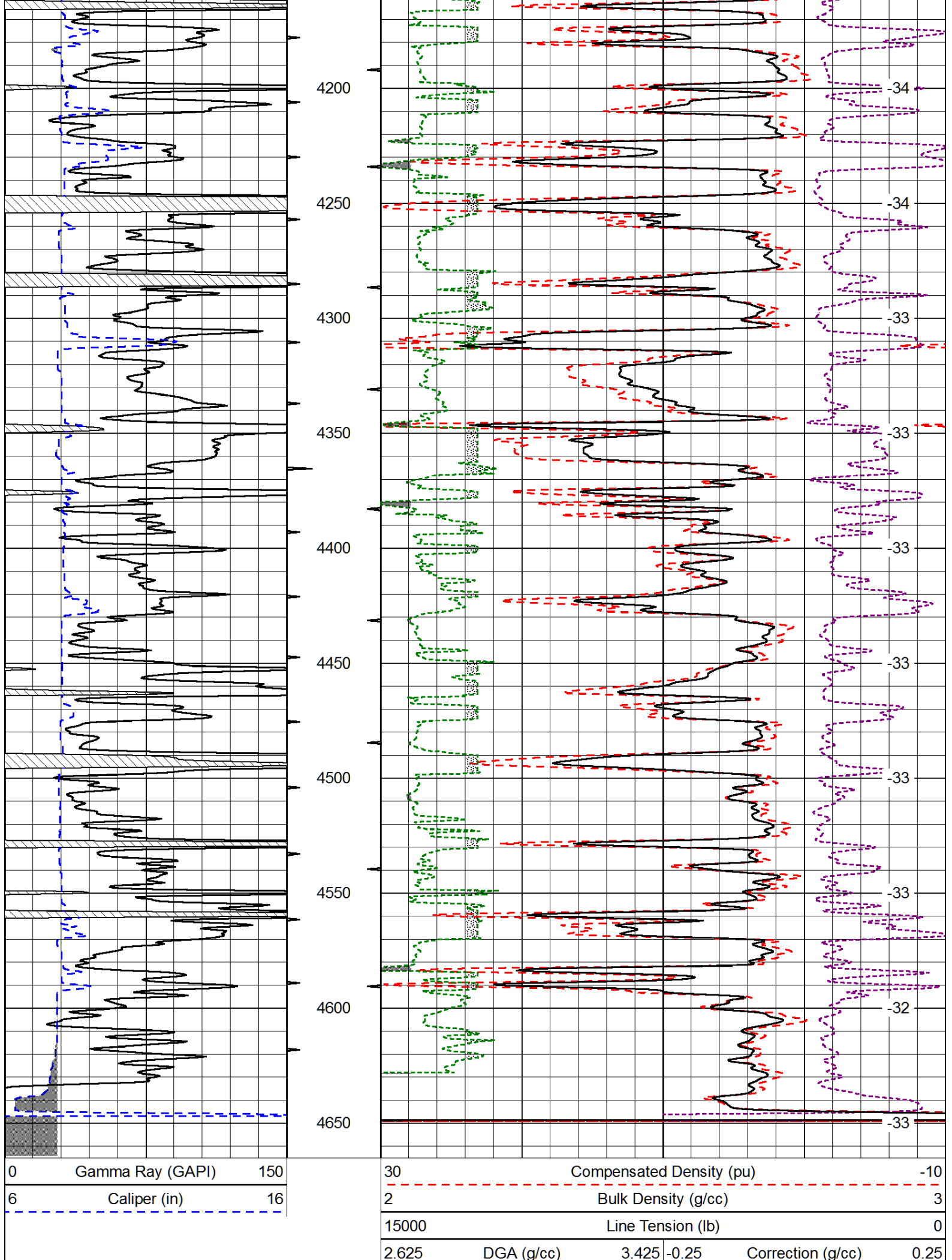
I-70 & Campus Exit,
4 1/2 North, 3/4 West, 1/2 North,
West into

Database File: prater_042114hd.db
 Dataset Pathname: dil/prstack
 Presentation Format: cdl
 Dataset Creation: Mon Apr 21 15:49:30 2014
 Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	Compensated Density (pu)			-10	
2	Bulk Density (g/cc)			3	
15000	Line Tension (lb)			0	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
LSPD (ft/min)					





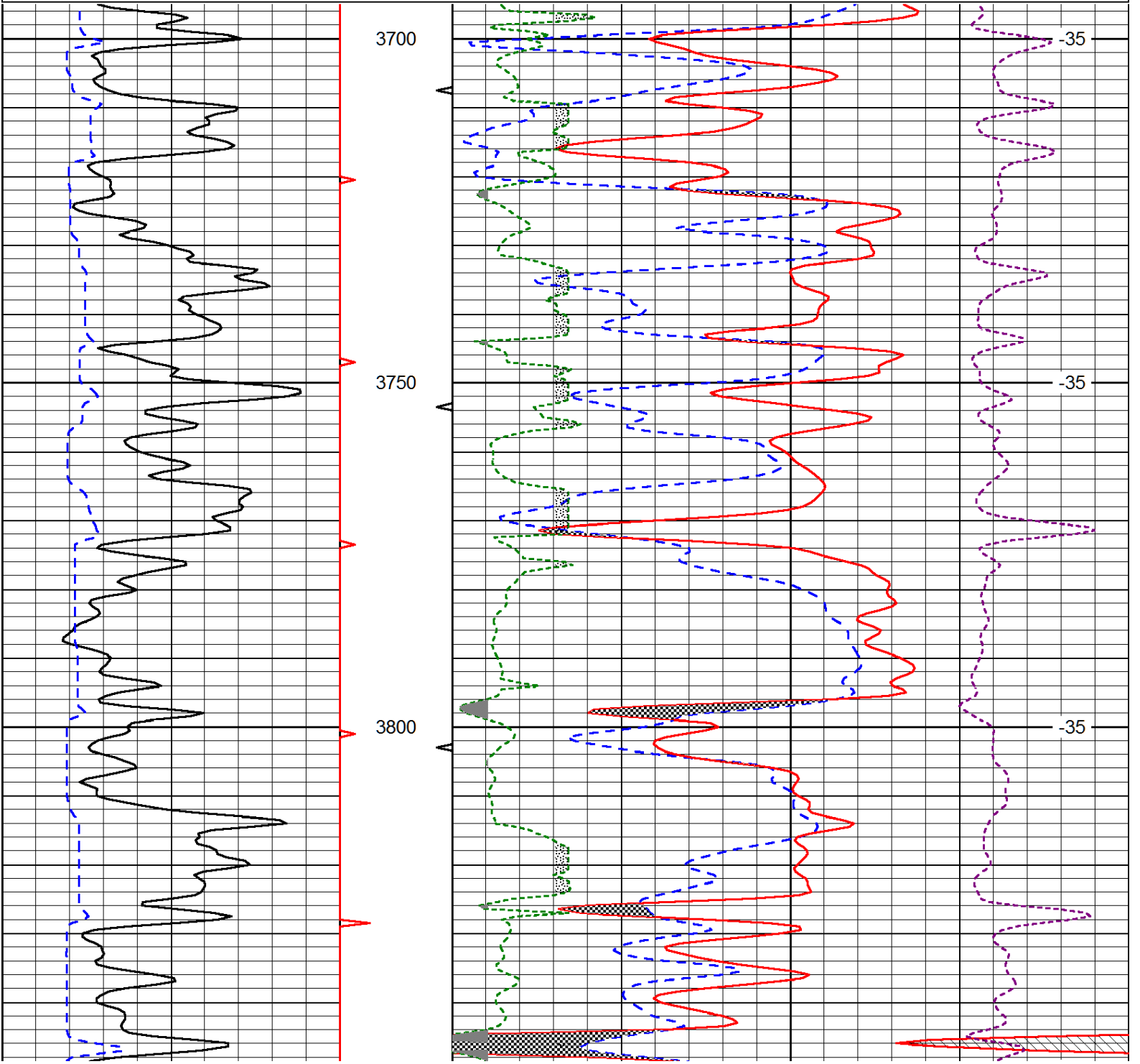
LSPD
(ft/min)

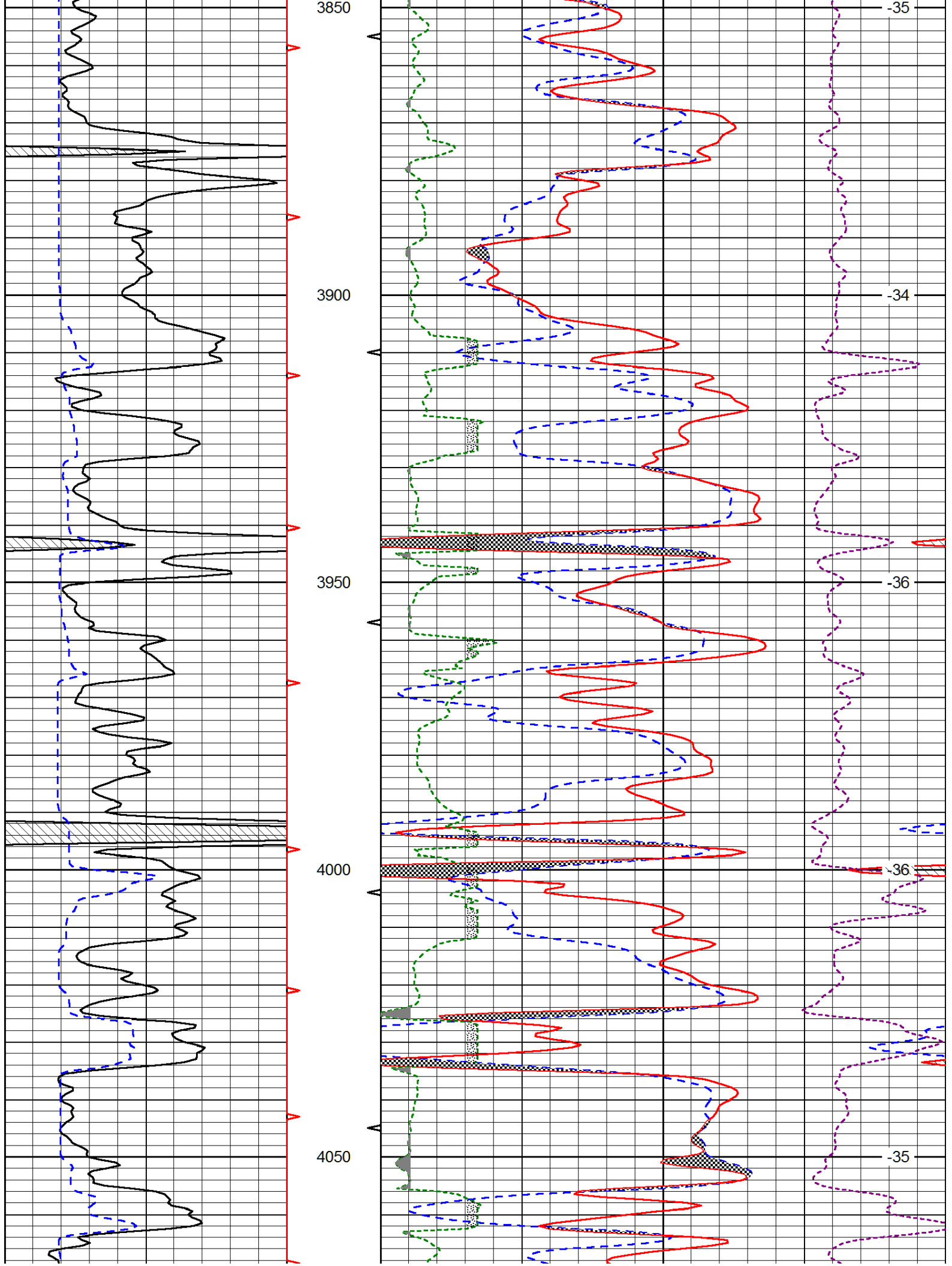
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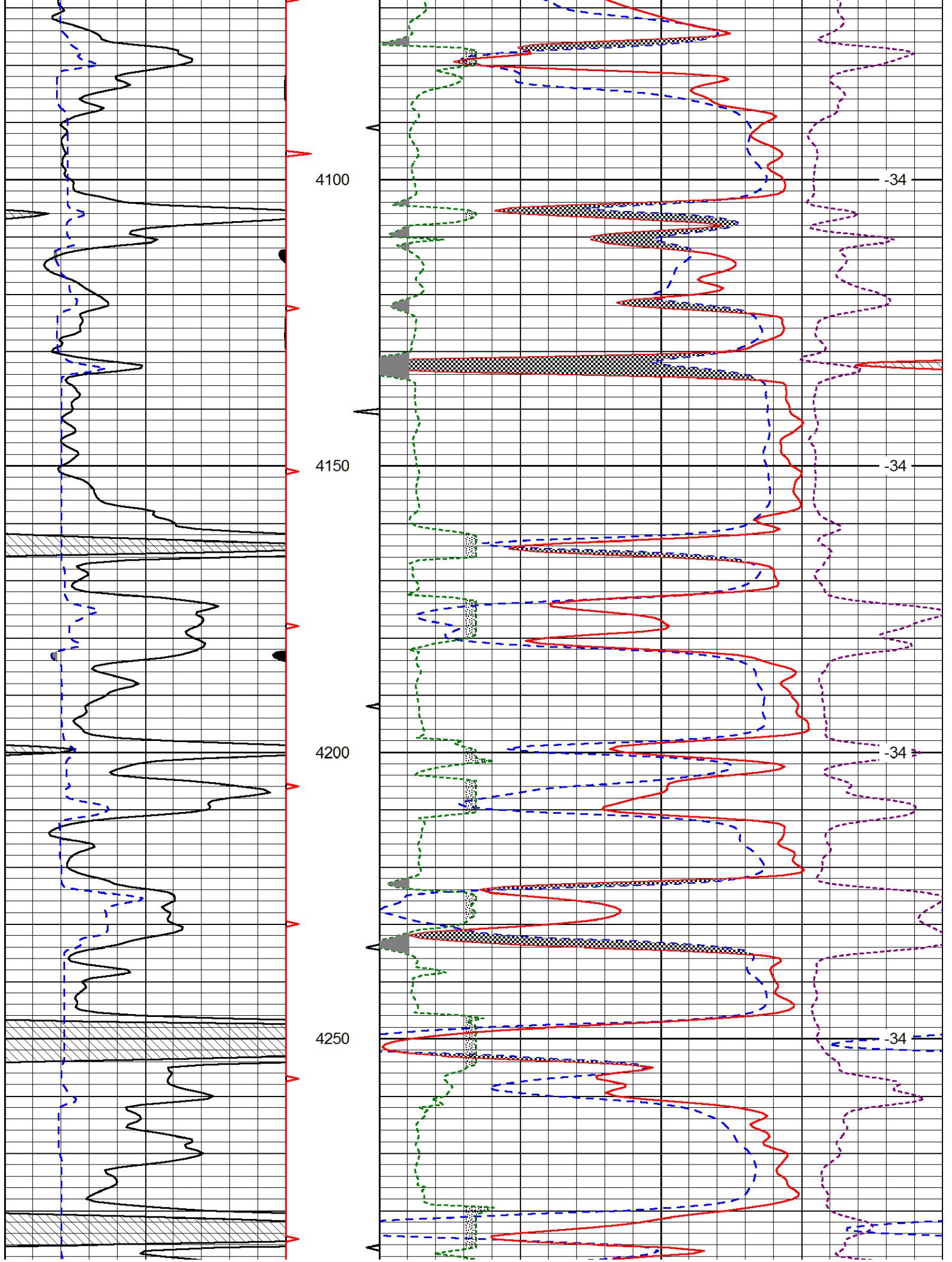
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

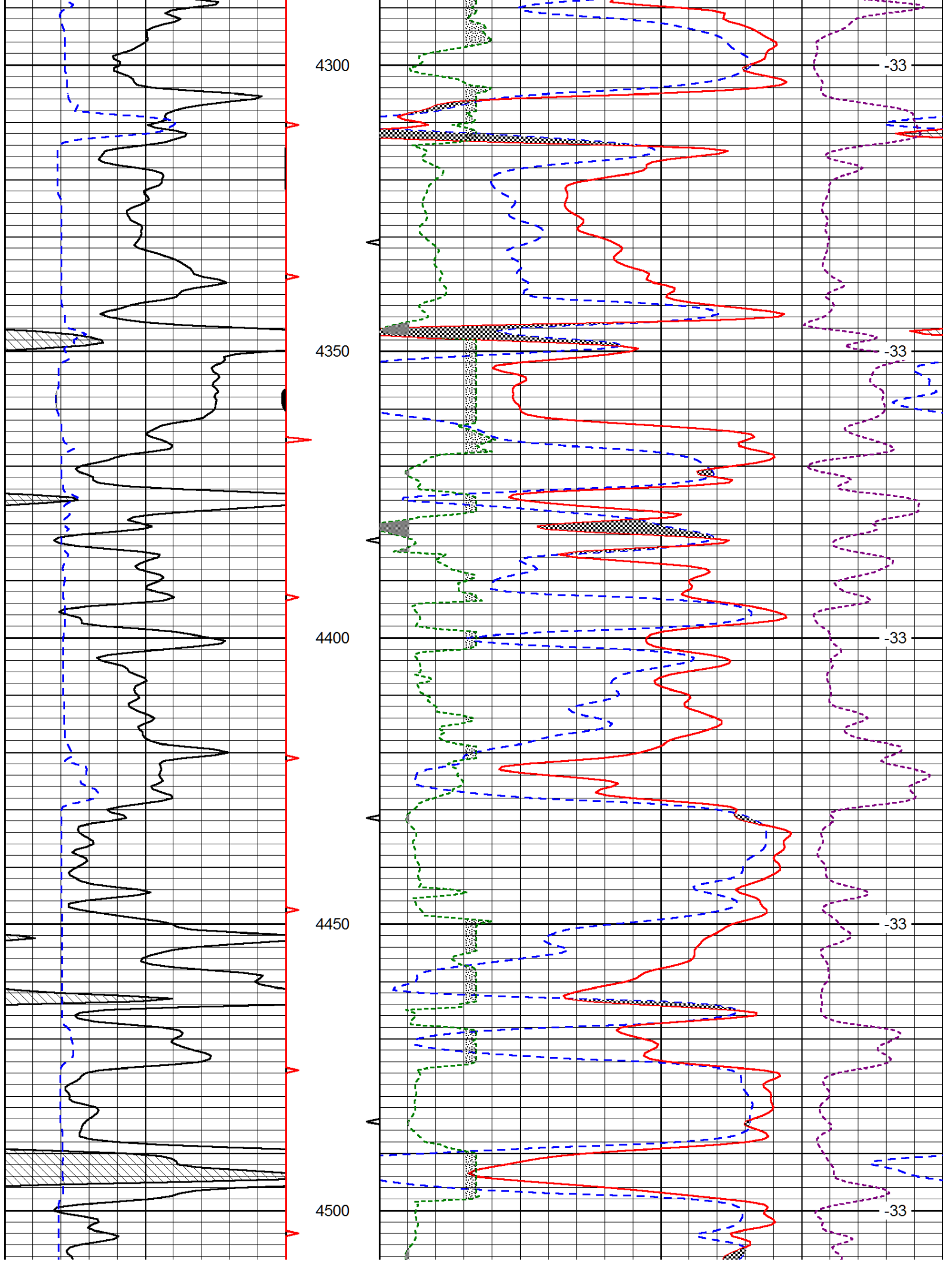
30	CNPOR (pu)			-10	
30	Compensated Density (2.71 ma) (pu)			-10	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)			0	

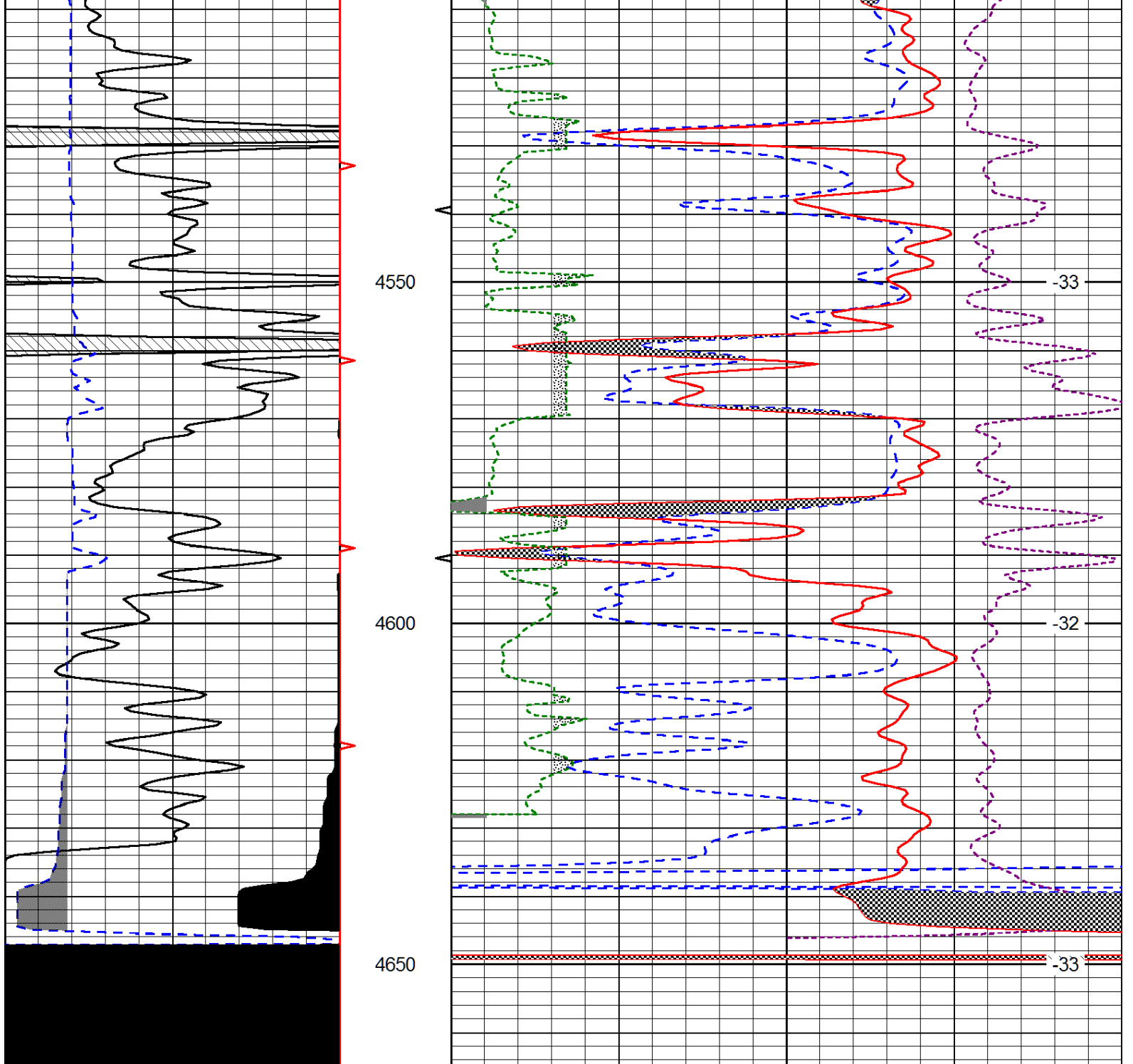
LSPD
(ft/min)











0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	CNPOR (pu)			-10	
30	Compensated Density (2.71 ma) (pu)			-10	
2.625	DGA (g/cc)	3.425	-0.25	Correction (g/cc)	0.25
10000	Line Tension (lb)			0	

LSPD
(ft/min)



Pioneer Energy Services

Computer Processed Interpretation

API No. 15-193-20918-00-00

Company **Prater Oil & Gas Operations, Inc.**
 Well **Maurath #1**
 Field **Triangle Northwest**
 County **Thomas** State **Kansas**

Location

660' FEL & 2310' FSL

Other Services
DIL/CNL/CDL

Sec: 15 Twp: 10S Rge: 31W

Elevation

Permanent Datum Ground Level Elevation 2985
 Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

K.B. 2993
 D.F. 2985
 G.L. 2985

Date Recorded 4/21/2014

Depth Logger 4660

Curve Definitions

SW Water Saturation

SXO Water Saturation In The Flushed Zone

VCL Volume Of Clay

PHIE Density - Neutron Crossplot Shale Corrected

BWV Bulk Volume Water

BWMSXO Bulk Volume Water In Flushed Zone

DCAL Caliper

SPC SP Corrected For Baseline

DGA Apparent Grain Density

Payflag If PHIE > 2 %, VCL < 40 %, SPC > -10 , SW < 50 % & DCAL < 11

Recorded By D. Schmidt

Witnessed By Scott Alberg

Analysis By T. Martin

<<< Fold Here >>>

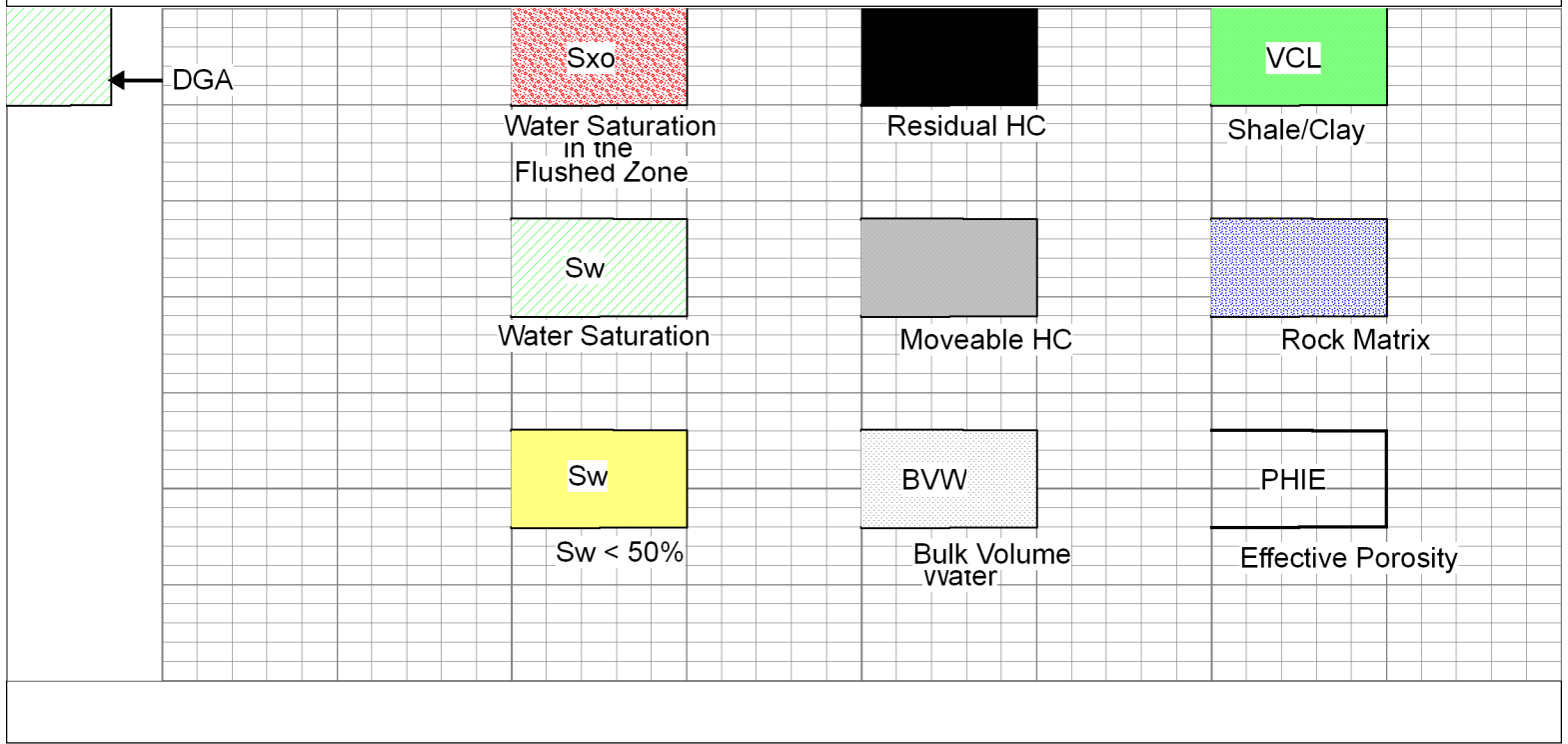
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

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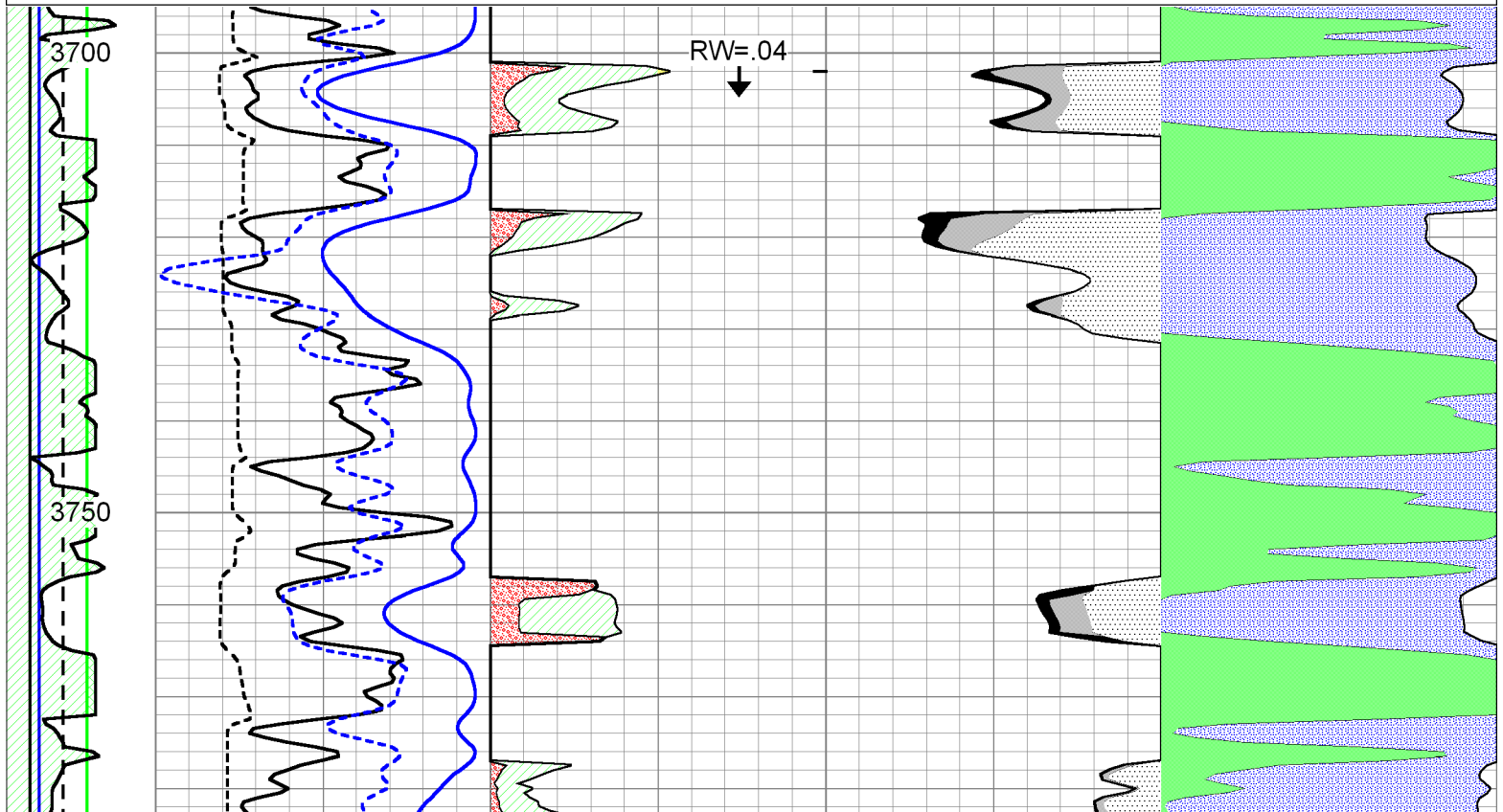
I-70 & Campus Exit,
 4 1/2 North, 3/4 West, 1/2 North,
 West into

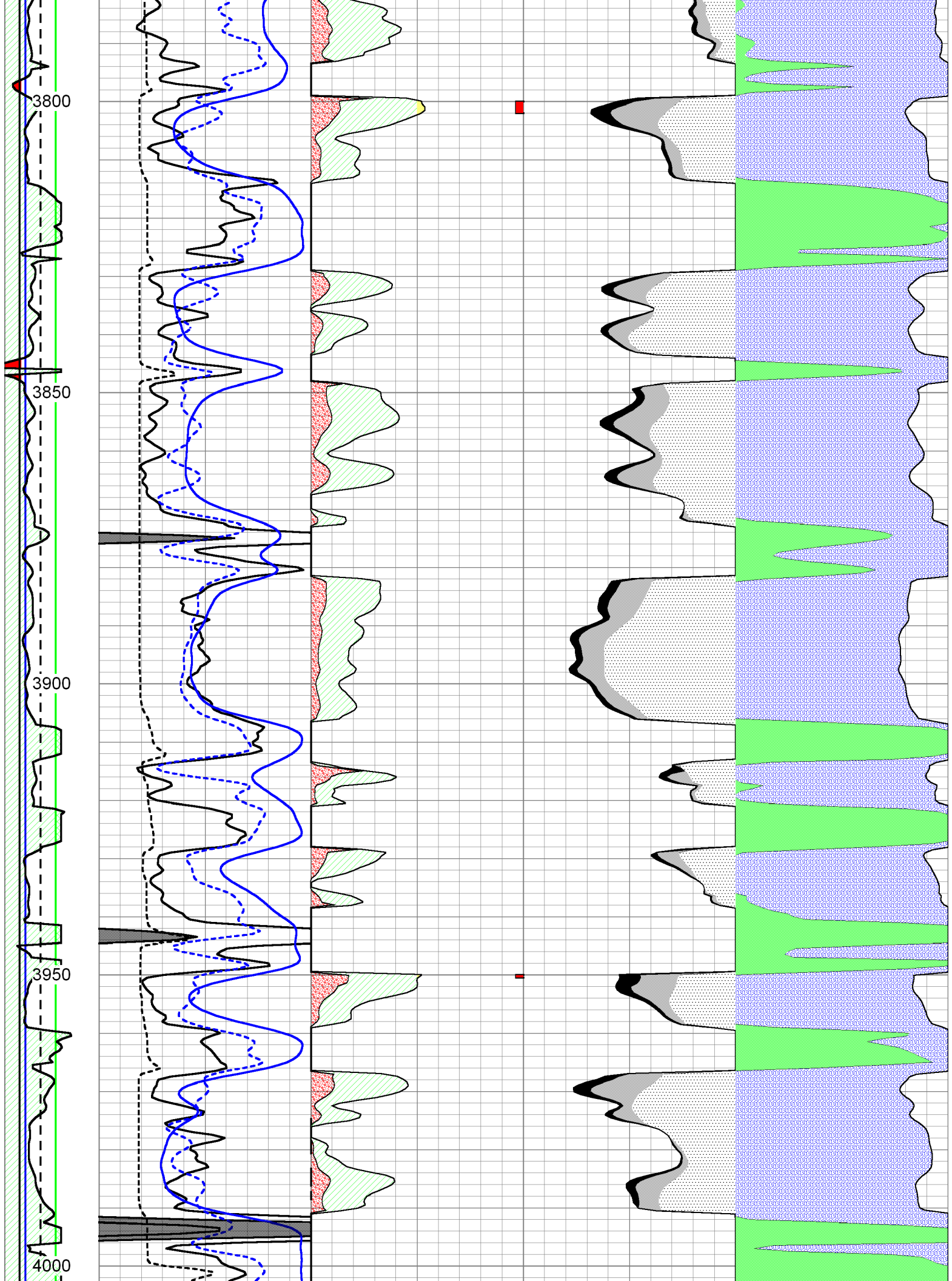
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 Dataset Pathname: litho
 Presentation Format: 2wxplt
 Dataset Creation: Thu Apr 24 14:32:02 1997
 Charted by: Depth in Feet scaled 1:240

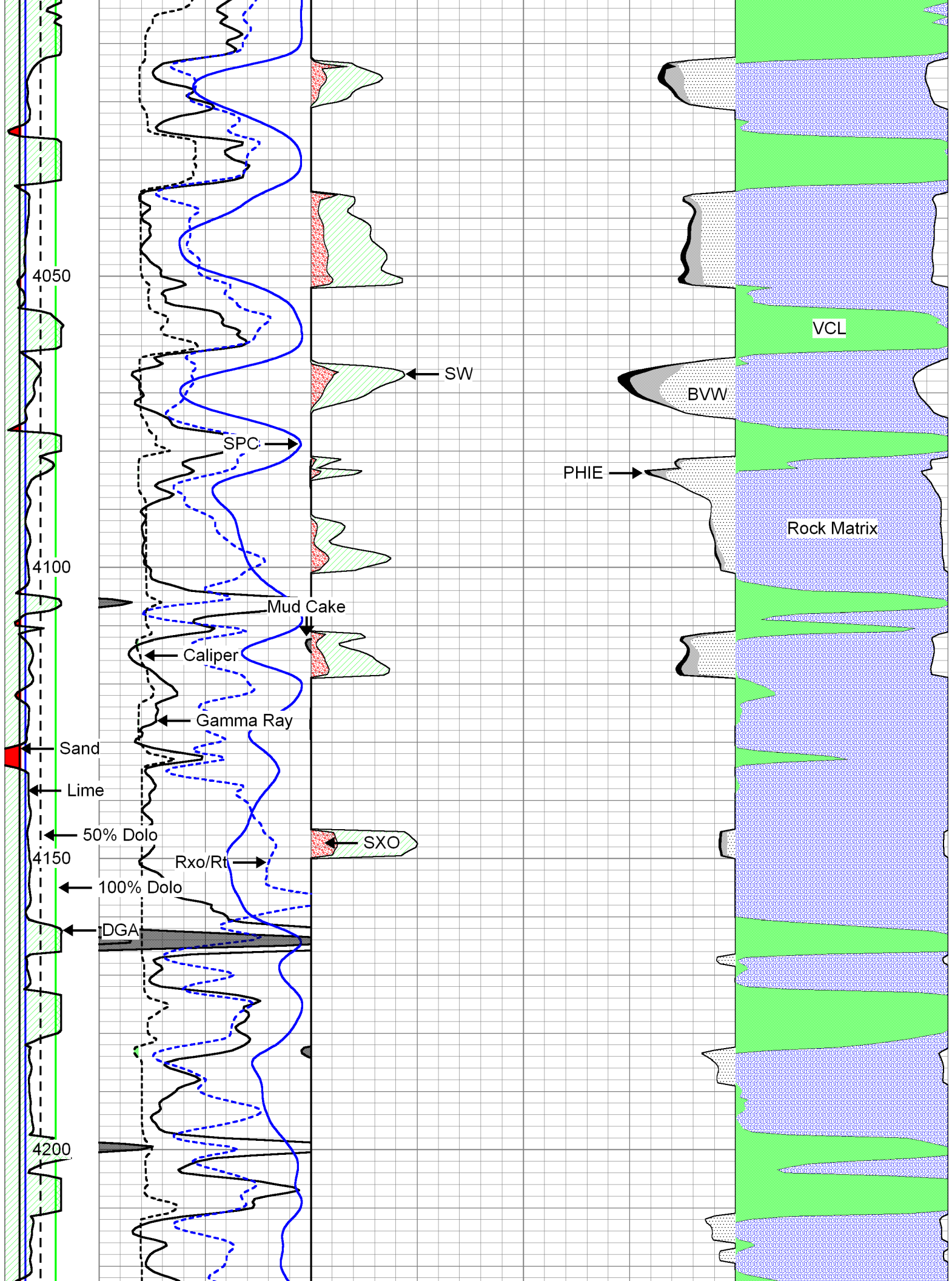


Database File: prater_042114hd.db
 Dataset Pathname: dil/prcpi
 Presentation Format: calc
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 Charted by: Depth in Feet scaled 1:240

DGA	Gamma Ray	1	SW	0	0.3	PHIE	0	0	VCL	1
(g/cc)	(GAPI)	150	PAYFLAG	0	0.3	BVW	0	1	PHIE	0
2.6 3.1	DCAL (in)	16	1	SXO	0	0.3	BVWSXO	0		
	-150 SPC (mV)	0								







4050

4100

4150

4200

SPC

SW

Caliper

Gamma Ray

Rxo/Rt

DGA

SXO

Sand

Lime

50% Dolo

100% Dolo

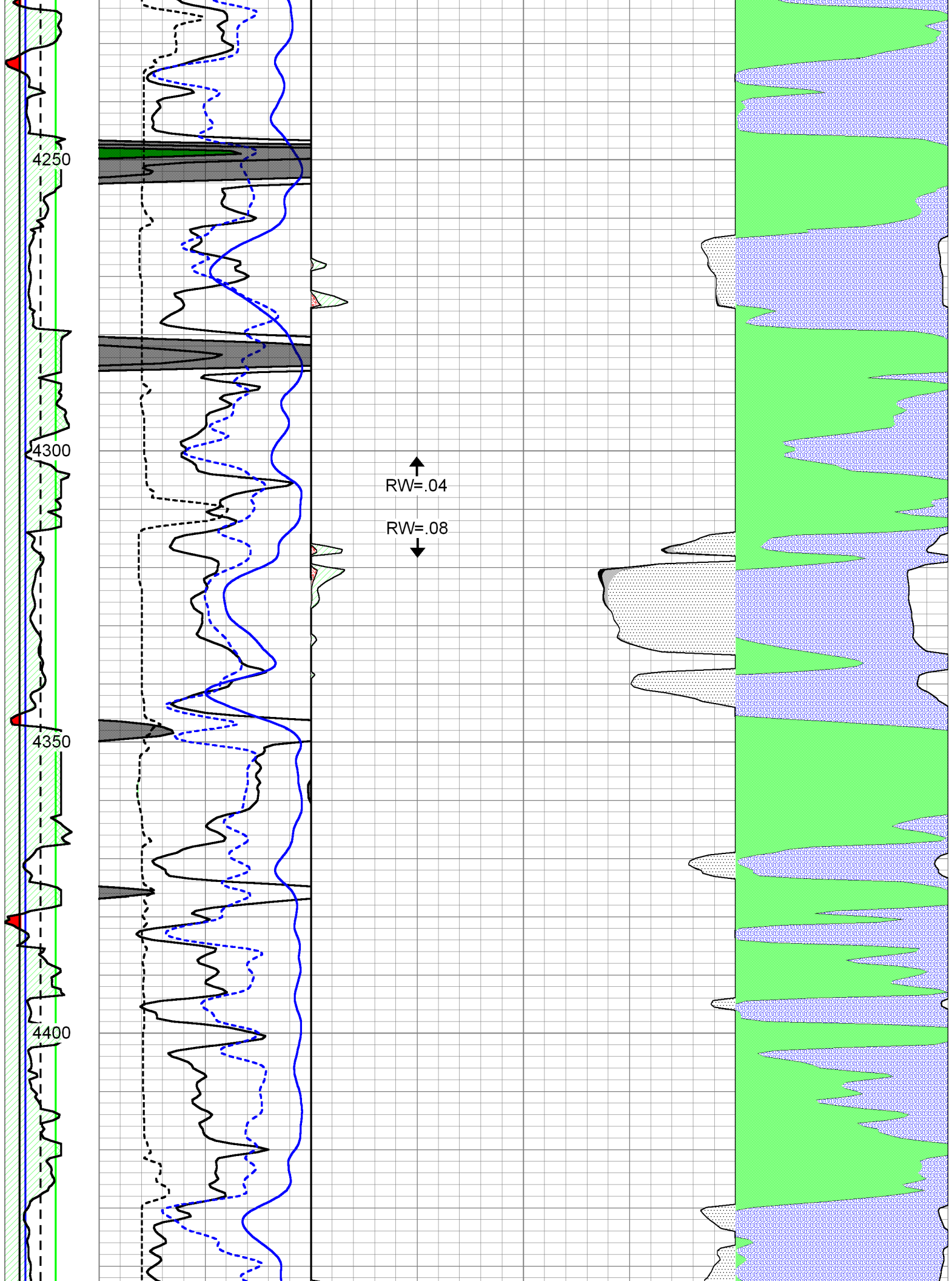
Mud Cake

VCL

BVW

PHIE

Rock Matrix



4250

4300

4350

4400

RW=.04

RW=.08



DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.16 @ 09:59:00

End Date: 2014.04.16 @ 17:22:30

Job Ticket #: 56270 DST #: 1

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

Printed: 2014.04.24 @ 14:19:18



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56270

DST#: 1

ATTN: Scott Alberg

Test Start: 2014.04.16 @ 09:59:00

GENERAL INFORMATION:

Formation: **Toronto - LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:18

Time Test Ended: 17:22:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 62

Interval: 3990.00 ft (KB) To 4075.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4075.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8357

Inside

Press@RunDepth: 582.27 psig @ 3992.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.16

End Date:

2014.04.16

Last Calib.:

2014.04.16

Start Time: 09:59:05

End Time:

17:22:29

Time On Btm:

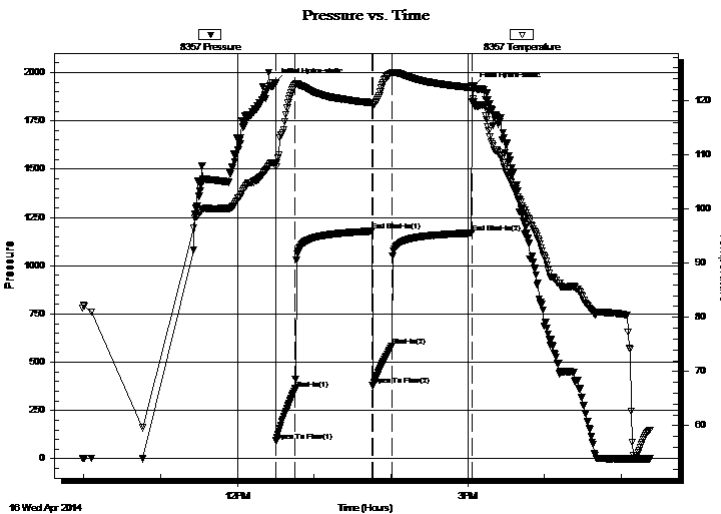
2014.04.16 @ 12:28:54

Time Off Btm:

2014.04.16 @ 15:04:12

TEST COMMENT: 15- B.O.B. @ 2 min.
60- No return.
15- B.O.B. @ 3 min.
60- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1946.27	108.55	Initial Hydro-static
2	92.93	107.78	Open To Flow (1)
17	362.99	122.87	Shut-In(1)
77	1179.07	119.58	End Shut-In(1)
77	378.95	119.26	Open To Flow (2)
92	582.27	125.03	Shut-In(2)
155	1169.26	122.38	End Shut-In(2)
156	1928.54	120.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
245.00	MW 5m 95w Oil spots in tool.	2.62
496.00	MW 15m 85w	6.96
439.00	WM 25w 75m	6.16

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56270

DST#: 1

ATTN: Scott Alberg

Test Start: 2014.04.16 @ 09:59:00

GENERAL INFORMATION:

Formation: **Toronto - LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:18

Time Test Ended: 17:22:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 62

Interval: **3990.00 ft (KB) To 4075.00 ft (KB) (TVD)**

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4075.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8645 Outside

Press@RunDepth: psig @ 3992.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.16

End Date:

2014.04.16

Last Calib.:

1899.12.30

Start Time: 09:59:35

End Time:

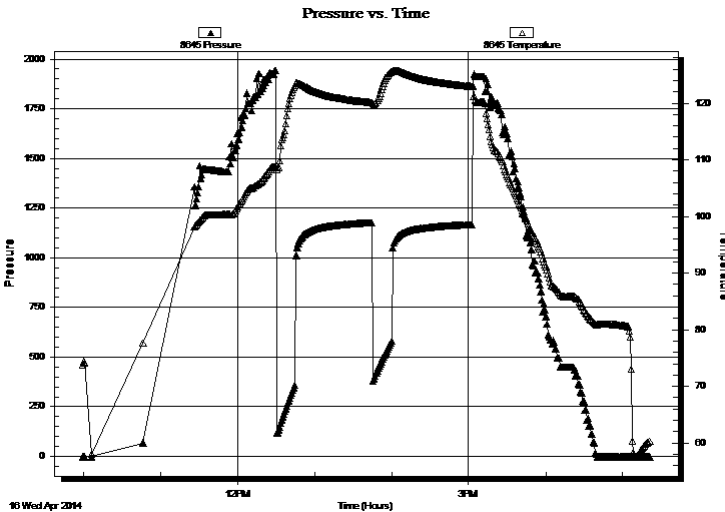
17:21:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 15- B.O.B. @ 2 min.
60- No return.
15- B.O.B. @ 3 min.
60- No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
245.00	MW 5m 95w Oil spots in tool.	2.62
496.00	MW 15m 85w	6.96
439.00	WM 25w 75m	6.16

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56270

DST#: 1

ATTN: Scott Alberg

Test Start: 2014.04.16 @ 09:59:00

Tool Information

Drill Pipe:	Length: 3885.00 ft	Diameter: 3.80 inches	Volume: 54.50 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 54.94 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.50 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3990.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	85.00 ft				
Tool Length:	112.50 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3963.50	
Shut In Tool	5.00			3968.50	
Hydraulic tool	5.00			3973.50	
Jars	5.00			3978.50	
Safety Joint	2.50			3981.00	
Packer	5.00			3986.00	27.50 Bottom Of Top Packer
Packer	4.00			3990.00	
Stubb	1.00			3991.00	
Perforations	1.00			3992.00	
Recorder	0.00	8357	Inside	3992.00	
Recorder	0.00	8645	Outside	3992.00	
Perforations	16.00			4008.00	
Change Over Sub	1.00			4009.00	
Drill Pipe	62.00			4071.00	
Change Over Sub	1.00			4072.00	
Bullnose	3.00			4075.00	85.00 Bottom Packers & Anchor
Total Tool Length:	112.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56270

DST#: 1

ATTN: Scott Alberg

Test Start: 2014.04.16 @ 09:59:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
245.00	MW 5m 95w Oil spots in tool.	2.617
496.00	MW 15m 85w	6.958
439.00	WM 25w 75m	6.158

Total Length: 1180.00 ft Total Volume: 15.733 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

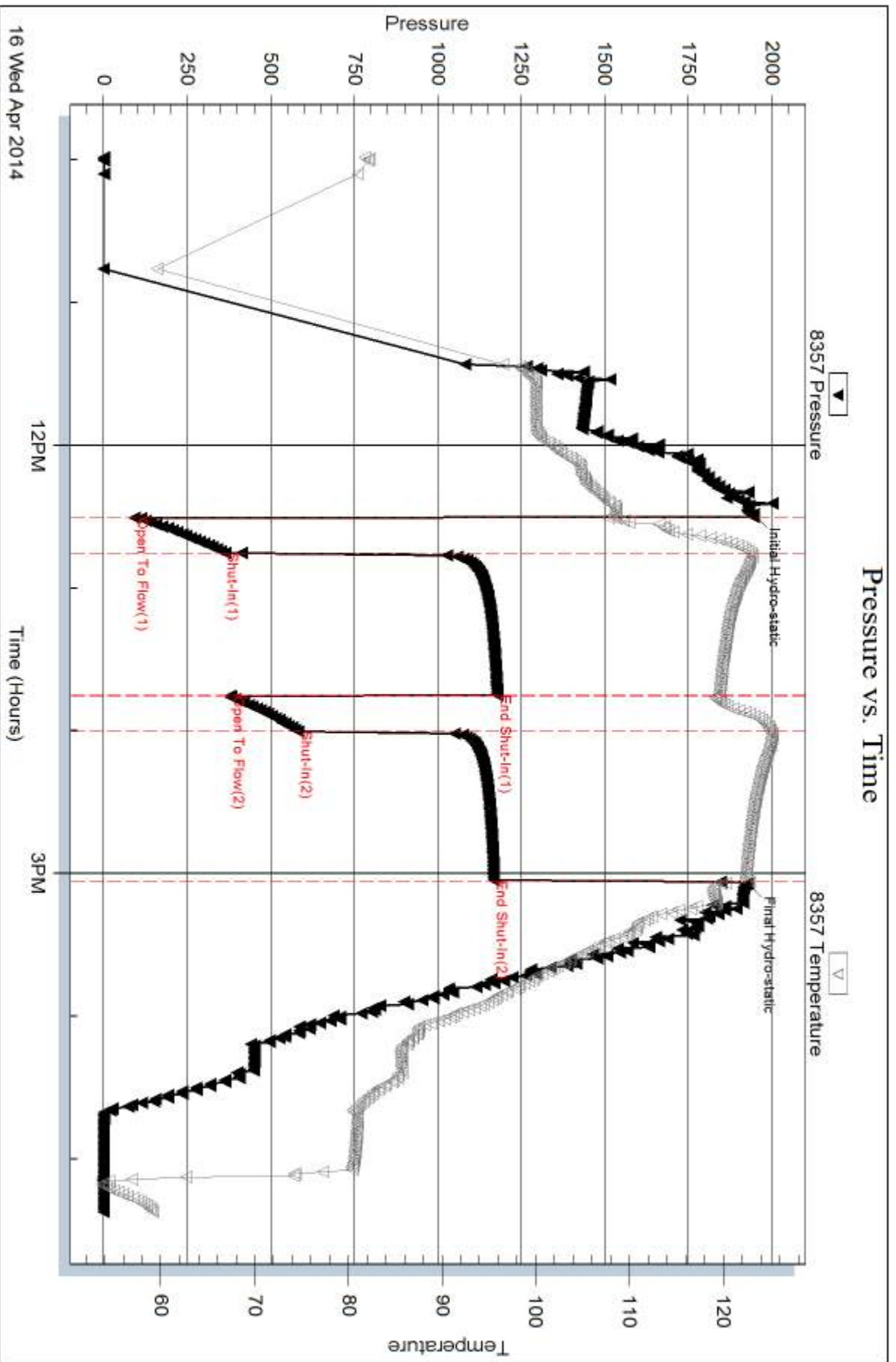
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .133 @ 59 Degrees F = 70000 PPM

Pressure vs. Time

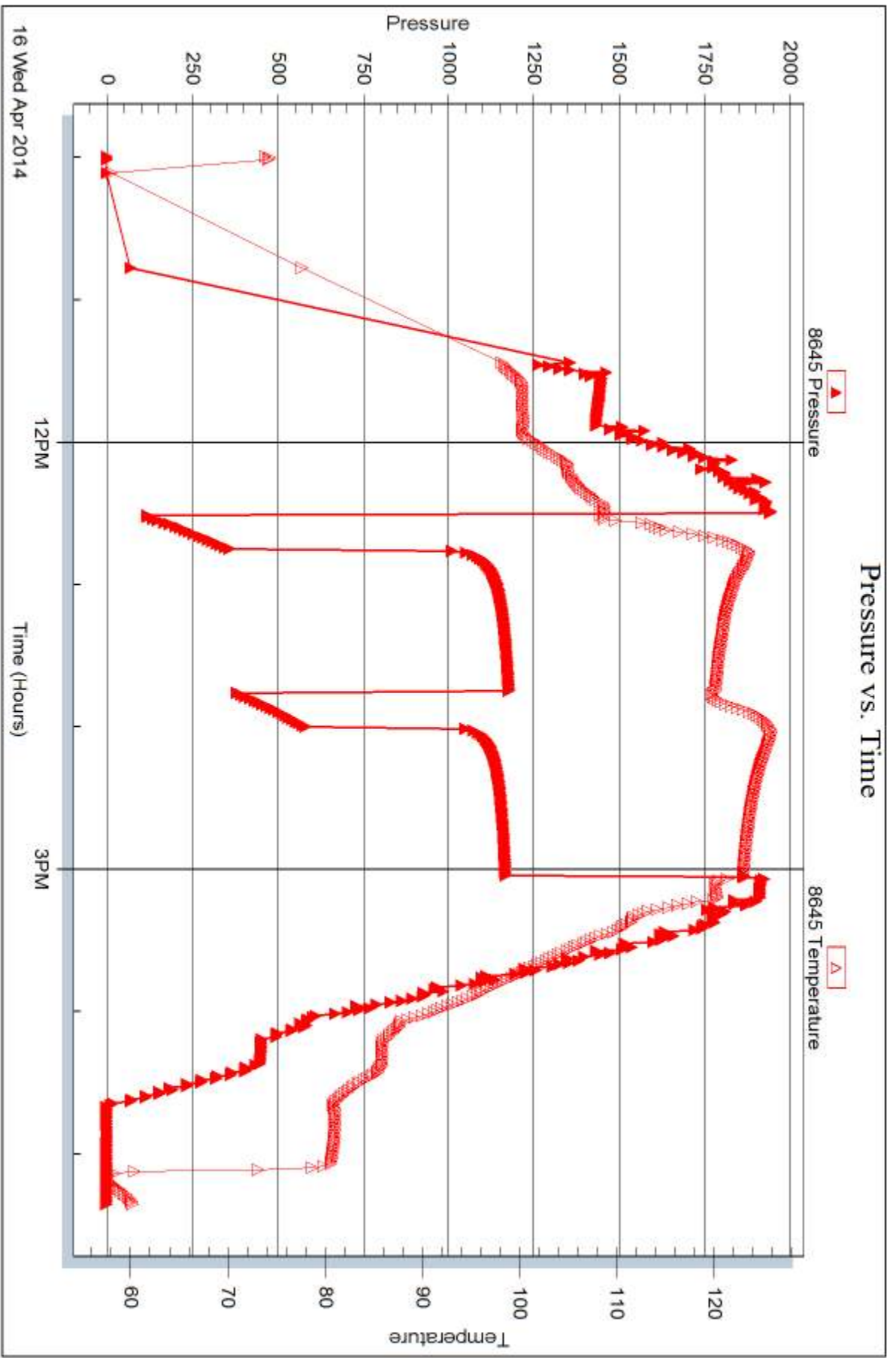


Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56270

Printed: 2014.04.24 @ 14:19:19



DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.17 @ 01:53:00

End Date: 2014.04.17 @ 09:22:17

Job Ticket #: 56271 DST #: 2

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

Printed: 2014.04.24 @ 14:18:48



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56271

DST#: 2

ATTN: Scott Alberg

Test Start: 2014.04.17 @ 01:53:00

GENERAL INFORMATION:

Formation: **LKC 'E-F'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:55:36

Time Test Ended: 09:22:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4099.00 ft (KB) To 4123.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4123.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8357

Inside

Press@RunDepth: 44.20 psig @ 4101.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.17

End Date:

2014.04.17

Last Calib.:

2014.04.17

Start Time: 01:53:05

End Time:

09:22:18

Time On Btm:

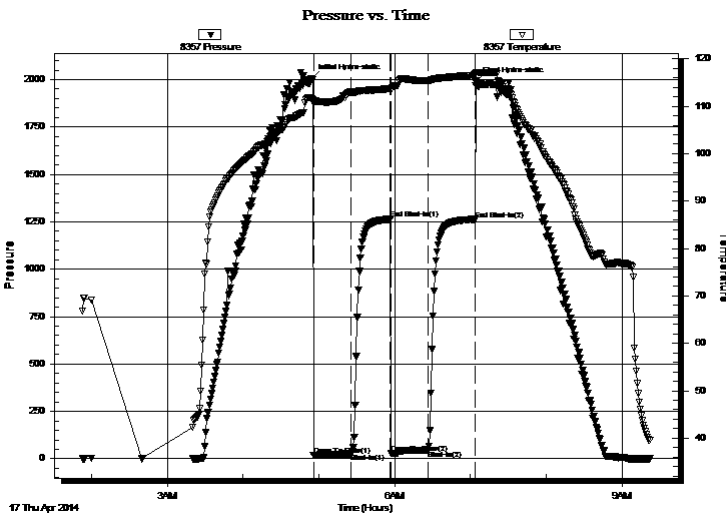
2014.04.17 @ 04:54:06

Time Off Btm:

2014.04.17 @ 07:04:36

TEST COMMENT: 30- 1/4" Blow died @ 7 min.
30- No return.
30- No blow , flushed tool, surge died.
30- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2004.70	111.64	Initial Hydro-static
2	18.04	110.63	Open To Flow (1)
32	26.62	112.97	Shut-In(1)
63	1264.37	113.73	End Shut-In(1)
63	27.60	113.35	Open To Flow (2)
93	44.20	115.42	Shut-In(2)
130	1263.14	116.53	End Shut-In(2)
131	1992.15	117.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	OSM 100m	0.43

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prater Oil & Gas Operations
 1303 N. Main
 Pratt, KS 67124
 ATTN: Scott Alberg

S15-10s-31w Thomas,KS
Maurath #1
 Job Ticket: 56271 **DST#: 2**
 Test Start: 2014.04.17 @ 01:53:00

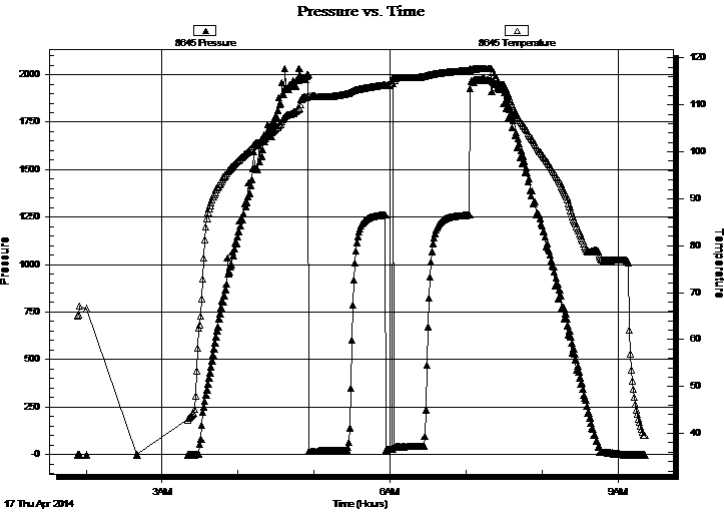
GENERAL INFORMATION:

Formation: **LKC 'E-F'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:55:36
 Time Test Ended: 09:22:17
Interval: 4099.00 ft (KB) To 4123.00 ft (KB) (TVD)
 Total Depth: 4123.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 62
 Reference Elevations: 2993.00 ft (KB)
 2985.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8645 Outside

Press@RunDepth: psig @ 4101.00 ft (KB)
 Start Date: 2014.04.17 End Date: 2014.04.17
 Start Time: 01:53:15 End Time: 09:21:28
 Capacity: 8000.00 psig
 Last Calib.: 2014.04.17
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30- 1/4" Blow died @ 7 min.
 30- No return.
 30- No blow , flushed tool, surge died.
 30- No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
50.00	OSM 100m	0.43

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56271

DST#: 2

ATTN: Scott Alberg

Test Start: 2014.04.17 @ 01:53:00

Tool Information

Drill Pipe:	Length: 4071.00 ft	Diameter: 3.80 inches	Volume: 57.11 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 57.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.50 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4099.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	51.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4072.50	
Shut In Tool	5.00			4077.50	
Hydraulic tool	5.00			4082.50	
Jars	5.00			4087.50	
Safety Joint	2.50			4090.00	
Packer	5.00			4095.00	27.50 Bottom Of Top Packer
Packer	4.00			4099.00	
Stubb	1.00			4100.00	
Perforations	1.00			4101.00	
Recorder	0.00	8357	Inside	4101.00	
Recorder	0.00	8645	Outside	4101.00	
Perforations	19.00			4120.00	
Bullnose	3.00			4123.00	24.00 Bottom Packers & Anchor

Total Tool Length: 51.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56271

DST#: 2

ATTN: Scott Alberg

Test Start: 2014.04.17 @ 01:53:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 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
50.00	OSM 100m	0.428

Total Length: 50.00 ft Total Volume: 0.428 bbl

Num Fluid Samples: 0

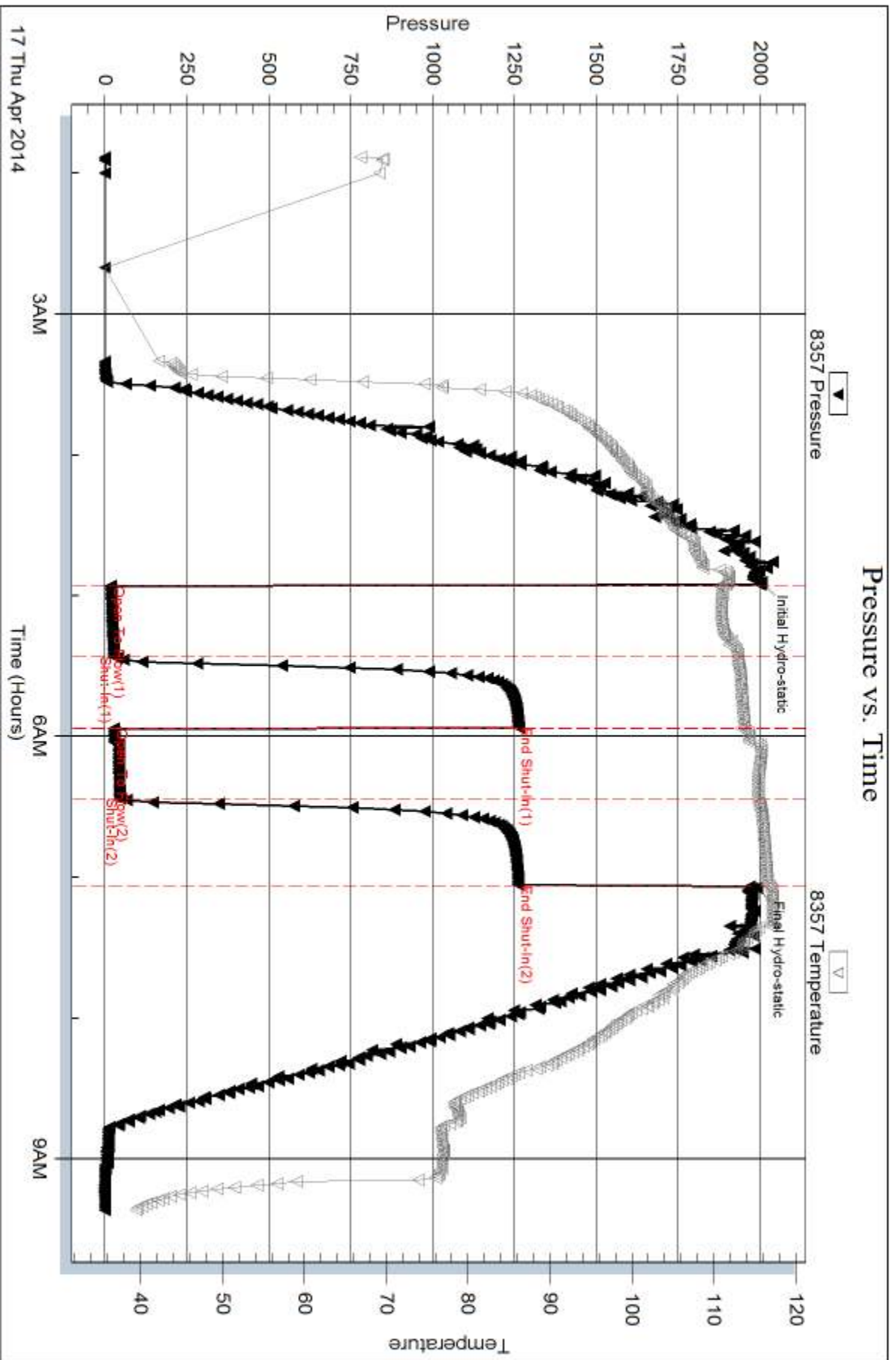
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

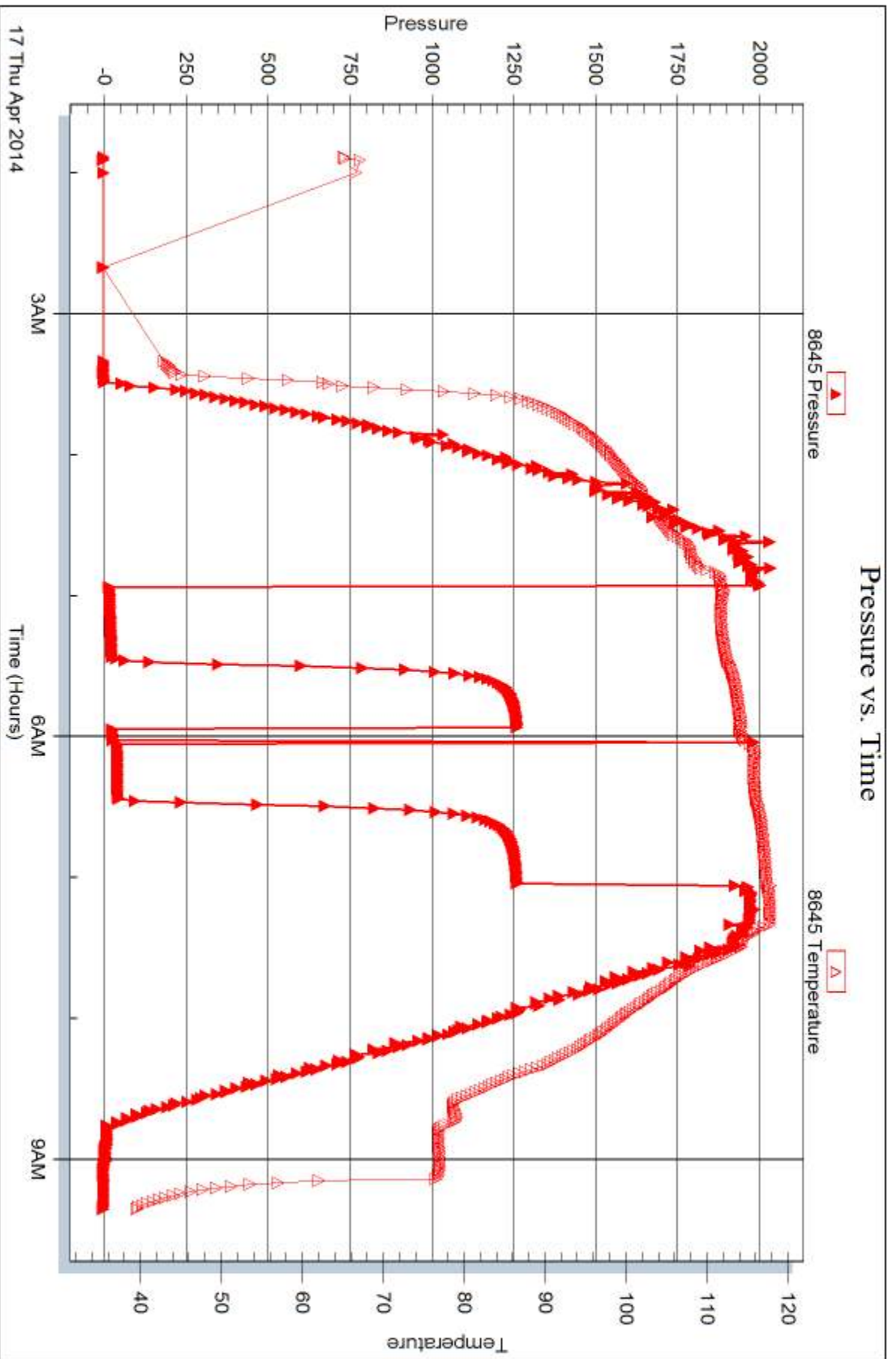


Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.18 @ 02:40:00

End Date: 2014.04.18 @ 10:01:17

Job Ticket #: 56272 DST #: 3

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

Printed: 2014.04.24 @ 14:15:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56272

DST#: 3

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 02:40:00

GENERAL INFORMATION:

Formation: **LKC 'H-K'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:12:18
 Time Test Ended: 10:01:17
 Interval: **4156.00 ft (KB) To 4280.00 ft (KB) (TVD)**
 Total Depth: 4280.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 62
 Reference Elevations: 2993.00 ft (KB)
 2985.00 ft (CF)
 KB to GR/CF: 8.00 ft

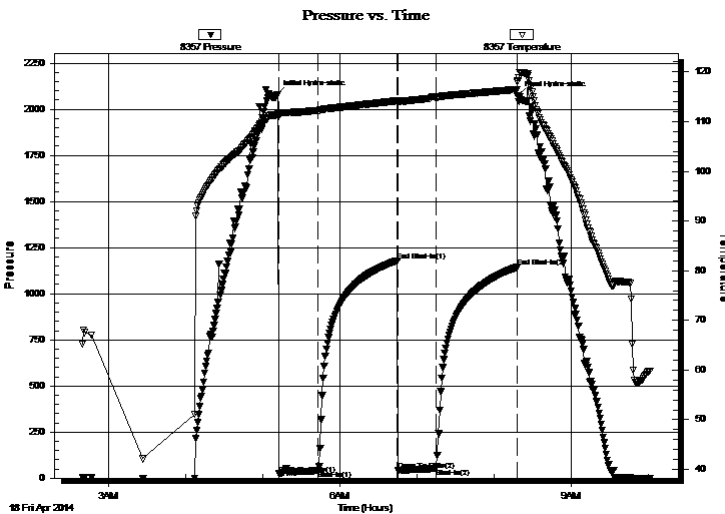
Serial #: 8357

Inside

Press@RunDepth: 52.98 psig @ 4158.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.18 End Date: 2014.04.18 Last Calib.: 2014.04.18
 Start Time: 02:40:05 End Time: 10:01:18 Time On Btm: 2014.04.18 @ 05:10:54
 Time Off Btm: 2014.04.18 @ 08:18:06

TEST COMMENT: 30- 3" Building blow .
 60- No return.
 30- 1" Blow .
 60- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2080.00	111.36	Initial Hydro-static
2	22.55	111.08	Open To Flow (1)
33	41.48	112.25	Shut-In(1)
94	1178.64	114.17	End Shut-In(1)
95	44.20	113.97	Open To Flow (2)
124	52.98	114.91	Shut-In(2)
187	1142.62	116.45	End Shut-In(2)
188	2075.13	118.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OSWM 40w 60m	0.71

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56272

DST#: 3

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 02:40:00

GENERAL INFORMATION:

Formation: **LKC 'H-K'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:12:18
 Time Test Ended: 10:01:17
Interval: 4156.00 ft (KB) To 4280.00 ft (KB) (TVD)
 Total Depth: 4280.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 62

Reference Elevations: 2993.00 ft (KB)
 2985.00 ft (CF)
 KB to GR/CF: 8.00 ft

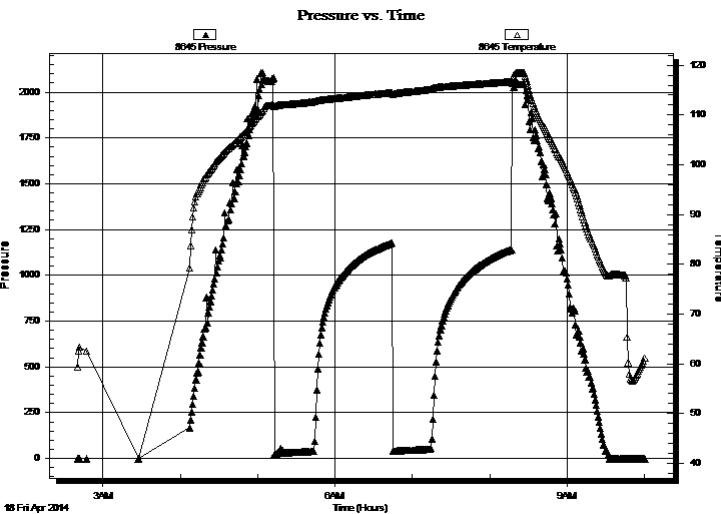
Serial #: 8645

Outside

Press@RunDepth: psig @ 4158.00 ft (KB)
 Start Date: 2014.04.18 End Date: 2014.04.18
 Start Time: 02:40:17 End Time: 10:00:18

Capacity: 8000.00 psig
 Last Calib.: 2014.04.18
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30- 3" Building blow .
 60- No return.
 30- 1" Blow .
 60- No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	OSWM 40w 60m	0.71

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56272

DST#: 3

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 02:40:00

Tool Information

Drill Pipe:	Length: 4130.00 ft	Diameter: 3.80 inches	Volume: 57.93 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 58.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.50 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4156.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	124.00 ft			
Tool Length:	151.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4129.50	
Shut In Tool	5.00			4134.50	
Hydraulic tool	5.00			4139.50	
Jars	5.00			4144.50	
Safety Joint	2.50			4147.00	
Packer	5.00			4152.00	27.50 Bottom Of Top Packer
Packer	4.00			4156.00	
Stubb	1.00			4157.00	
Perforations	1.00			4158.00	
Recorder	0.00	8357	Inside	4158.00	
Recorder	0.00	8645	Outside	4158.00	
Perforations	24.00			4182.00	
Change Over Sub	1.00			4183.00	
Drill Pipe	93.00			4276.00	
Change Over Sub	1.00			4277.00	
Bullnose	3.00			4280.00	124.00 Bottom Packers & Anchor
Total Tool Length:	151.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56272

DST#: 3

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 02:40:00

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:

75000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	OSWM 40w 60m	0.709

Total Length: 70.00 ft Total Volume: 0.709 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: . 175 @ 43 Degrees F = 75000 PPM

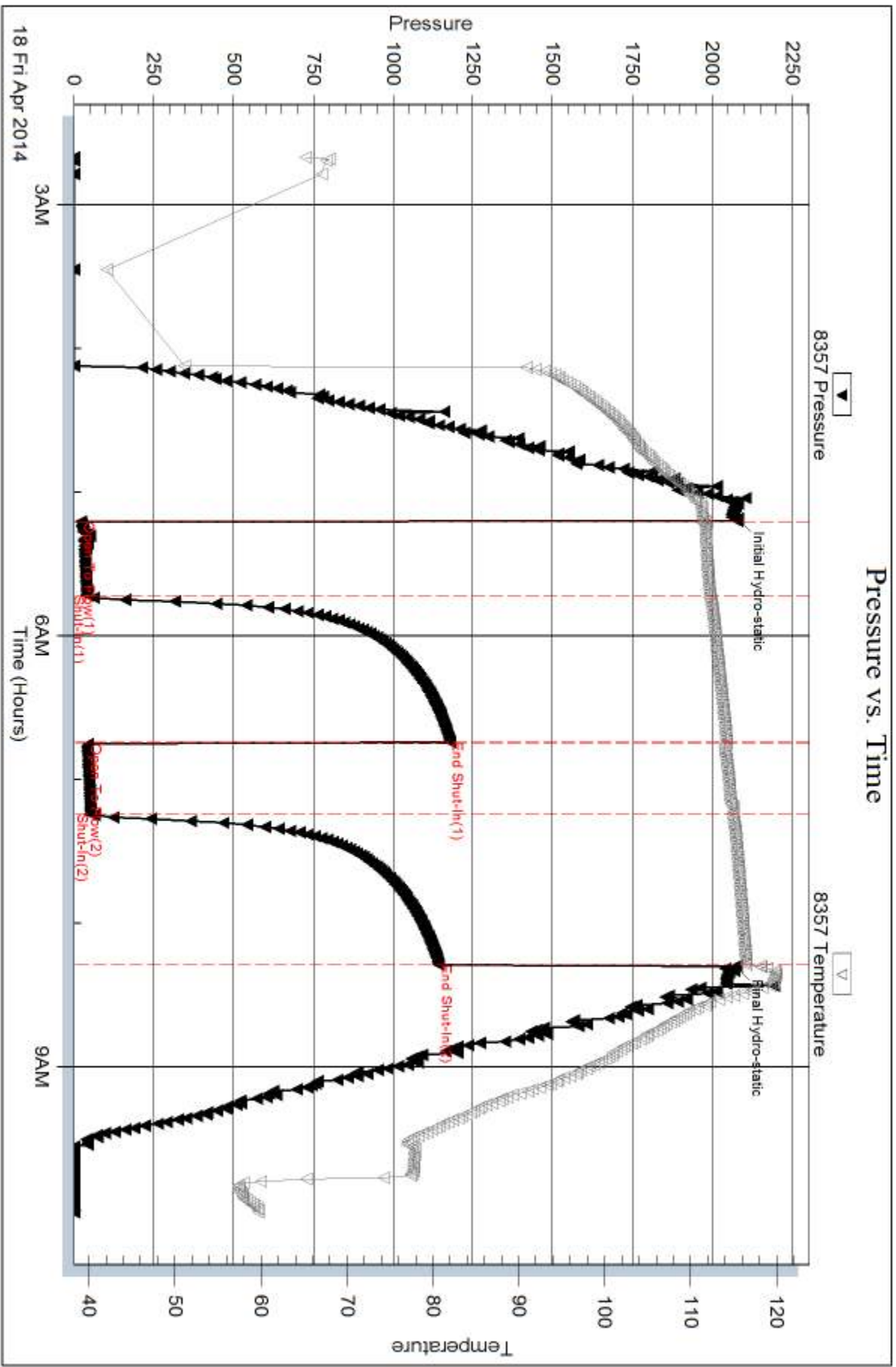
Serial #: 8357

Inside

Prater Oil & Gas Operations

Maurath #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56272

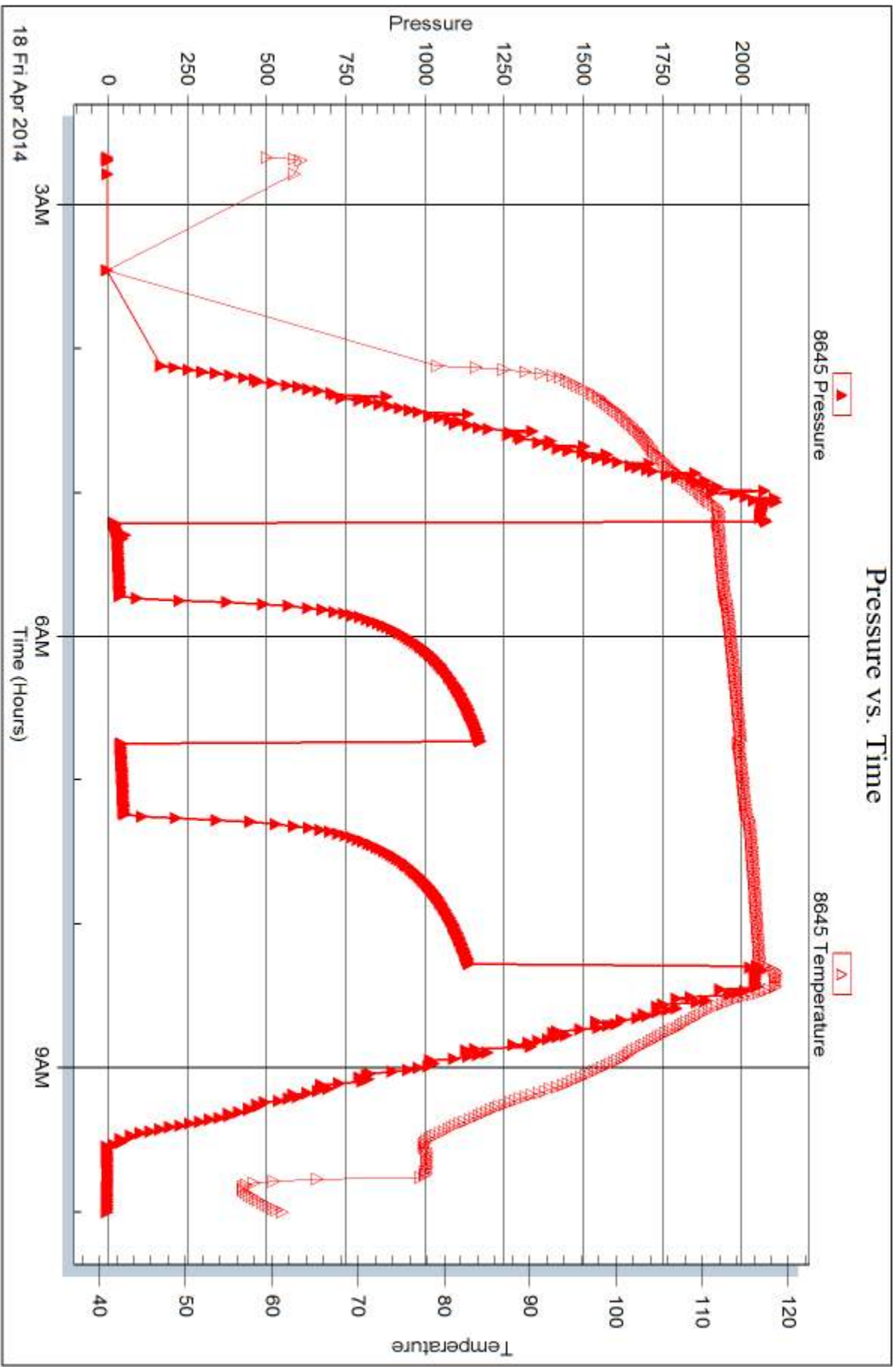
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Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56272

Printed: 2014.04.24 @ 14:15:41



DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.18 @ 20:50:00

End Date: 2014.04.19 @ 03:43:17

Job Ticket #: 56273 DST #: 4

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

Printed: 2014.04.24 @ 14:15:15

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

Maurath #1

DST # 4

LKC 'L - Lenappah'

2014.04.18



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56273

DST#: 4

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 20:50:00

GENERAL INFORMATION:

Formation: **LKC 'L - Lenapah'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:31:30

Time Test Ended: 03:43:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4280.00 ft (KB) To 4348.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4348.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8357

Inside

Press@RunDepth: 47.64 psig @ 4282.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.18

End Date:

2014.04.19

Last Calib.: 2014.04.19

Start Time: 20:50:05

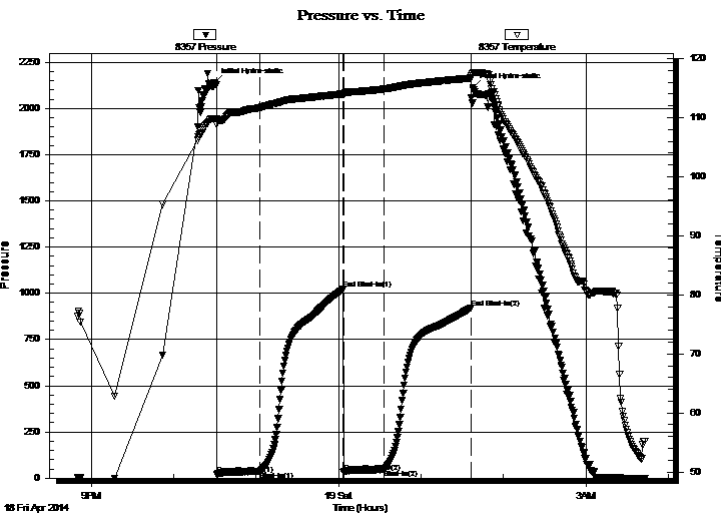
End Time:

03:43:18

Time On Btm: 2014.04.18 @ 22:29:36

Time Off Btm: 2014.04.19 @ 01:38:00

TEST COMMENT: 30- 6" Blow .
60- No return.
30- 8" Blow .
60- No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2137.94	109.82	Initial Hydro-static
2	20.30	108.83	Open To Flow (1)
34	37.44	111.67	Shut-In(1)
94	1021.95	114.00	End Shut-In(1)
94	29.72	113.88	Open To Flow (2)
124	47.64	114.84	Shut-In(2)
187	921.45	116.69	End Shut-In(2)
189	2111.39	117.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 20g 5o 75m	0.57
10.00	GOCM 10g 2o 88m	0.14
0.00	110' Weak GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56273

DST#: 4

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 20:50:00

GENERAL INFORMATION:

Formation: **LKC 'L - Lenapah'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:31:30

Time Test Ended: 03:43:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4280.00 ft (KB) To 4348.00 ft (KB) (TVD)

Total Depth: 4348.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2993.00 ft (KB)

2985.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8645 Outside

Press@RunDepth: psig @ 4282.00 ft (KB)

Start Date: 2014.04.18

End Date: 2014.04.19

Start Time: 20:50:20

End Time: 03:42:09

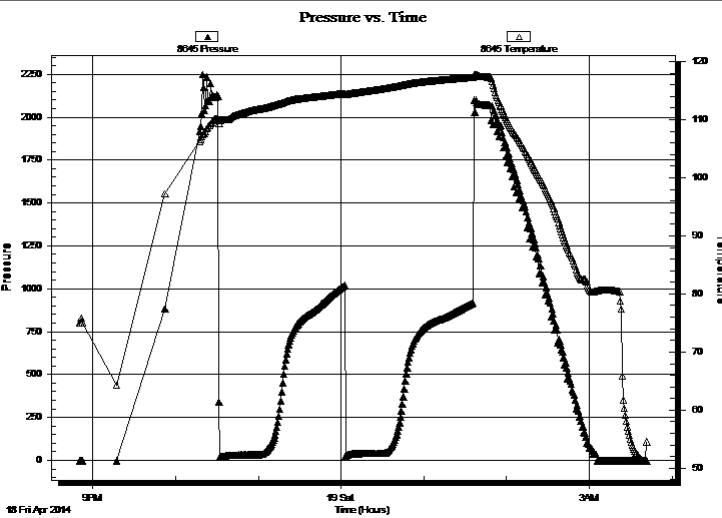
Capacity: 8000.00 psig

Last Calib.: 2014.04.19

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- 6" Blow .
60- No return.
30- 8" Blow .
60- No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 20g 5o 75m	0.57
10.00	GOCM 10g 2o 88m	0.14
0.00	110' Weak 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

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56273

DST#: 4

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 20:50:00

Tool Information

Drill Pipe:	Length: 4225.00 ft	Diameter: 3.80 inches	Volume: 59.27 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.50 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4280.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	95.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4253.50	
Shut In Tool	5.00			4258.50	
Hydraulic tool	5.00			4263.50	
Jars	5.00			4268.50	
Safety Joint	2.50			4271.00	
Packer	5.00			4276.00	27.50 Bottom Of Top Packer
Packer	4.00			4280.00	
Stubb	1.00			4281.00	
Perforations	1.00			4282.00	
Recorder	0.00	8357	Inside	4282.00	
Recorder	0.00	8645	Outside	4282.00	
Perforations	30.00			4312.00	
Change Over Sub	1.00			4313.00	
Drill Pipe	31.00			4344.00	
Change Over Sub	1.00			4345.00	
Bullnose	3.00			4348.00	68.00 Bottom Packers & Anchor
Total Tool Length:	95.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56273

DST#: 4

ATTN: Scott Alberg

Test Start: 2014.04.18 @ 20:50:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 20g 5o 75m	0.568
10.00	GOCM 10g 2o 88m	0.140
0.00	110' Weak GIP	0.000

Total Length: 70.00 ft Total Volume: 0.708 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8357

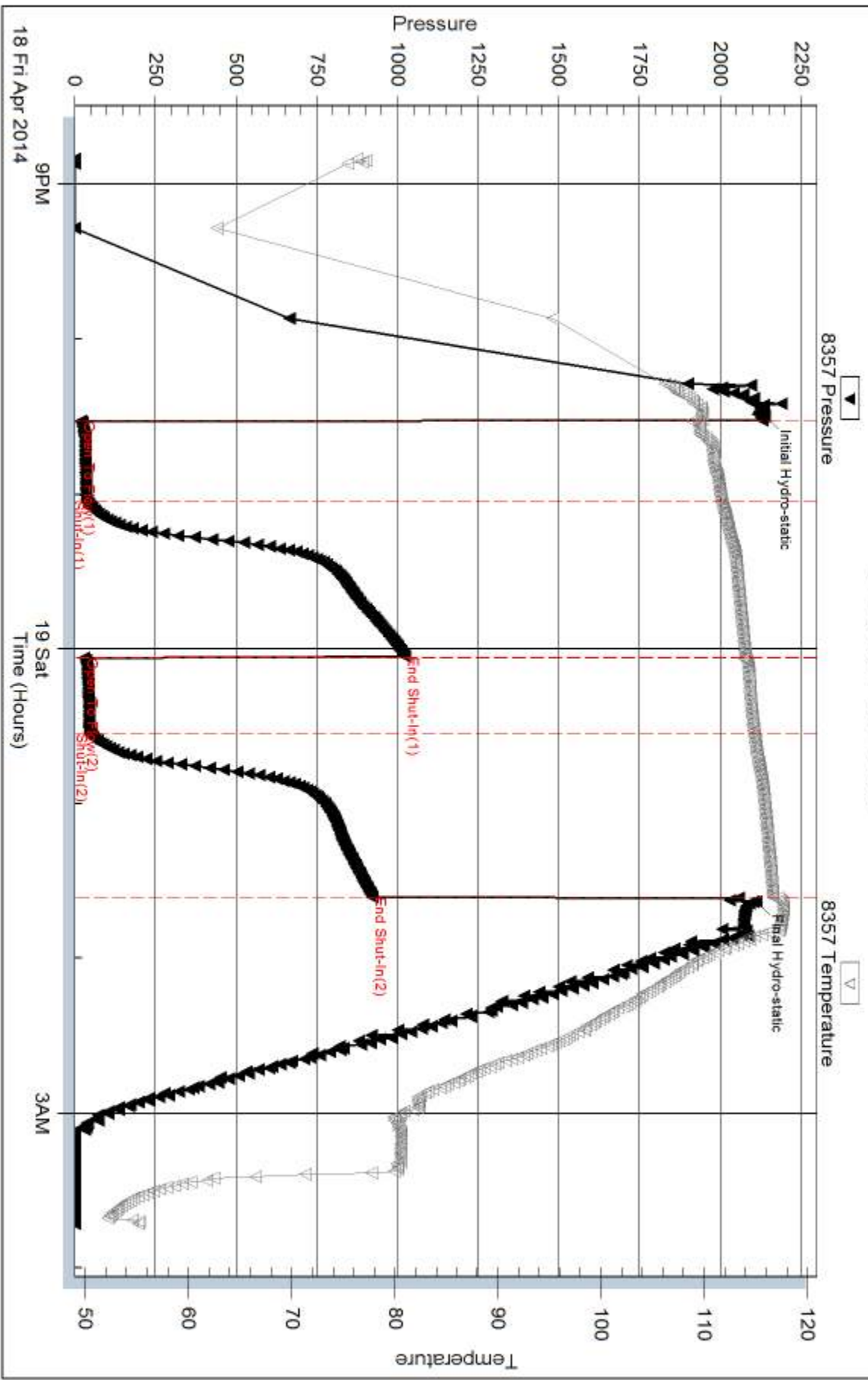
Inside

Prater Oil & Gas Operations

Maurath #1

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 56273

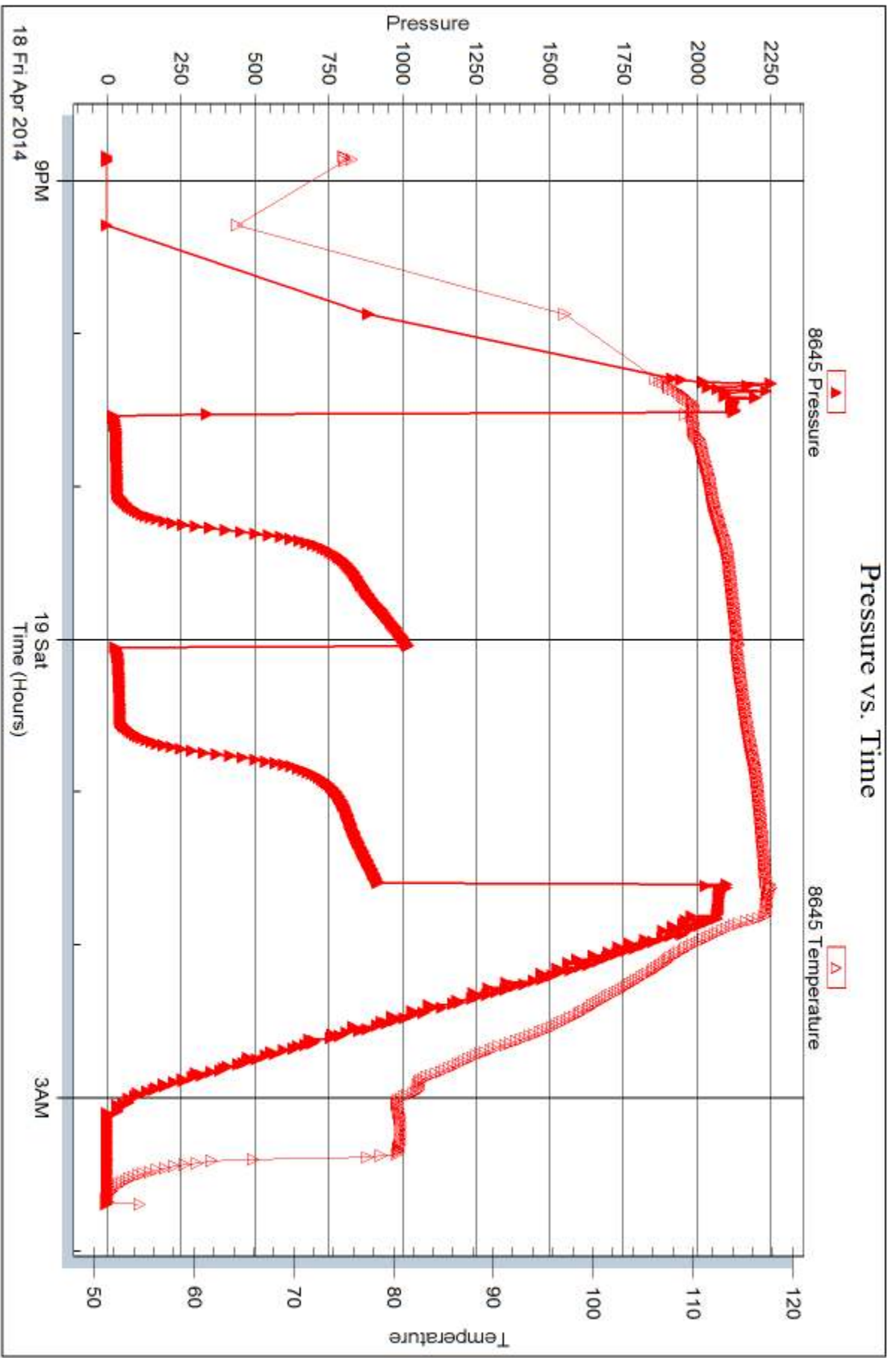
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Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 56273

Printed: 2014.04.24 @ 14:15:16



DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.19 @ 17:38:00

End Date: 2014.04.20 @ 00:36:12

Job Ticket #: 56274 DST #: 5

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

Printed: 2014.04.24 @ 14:14:18



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56274

DST#: 5

ATTN: Scott Alberg

Test Start: 2014.04.19 @ 17:38:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:06

Time Test Ended: 00:36:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4410.00 ft (KB) To 4460.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8357

Inside

Press@RunDepth: 25.01 psig @ 4412.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.19

End Date:

2014.04.20

Last Calib.: 2014.04.20

Start Time: 17:38:05

End Time:

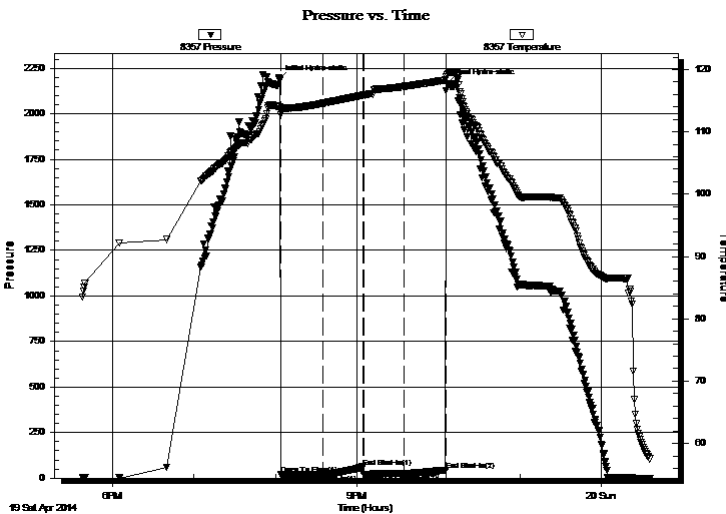
00:36:12

Time On Btm: 2014.04.19 @ 20:02:30

Time Off Btm: 2014.04.19 @ 22:06:24

TEST COMMENT: 30- Surface blow died @ 20 min.
30- No return.
30- No blow , flushed tool, surge died.
30- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2189.74	114.02	Initial Hydro-static
2	19.32	113.22	Open To Flow (1)
33	21.16	114.57	Shut-In(1)
63	62.24	115.88	End Shut-In(1)
63	21.68	115.88	Open To Flow (2)
93	25.01	117.30	Shut-In(2)
123	44.40	118.30	End Shut-In(2)
124	2164.21	119.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prater Oil & Gas Operations
 1303 N. Main
 Pratt, KS 67124
 ATTN: Scott Alberg

S15-10s-31w Thomas,KS

Maurath #1

Job Ticket: 56274 **DST#: 5**
 Test Start: 2014.04.19 @ 17:38:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:06

Time Test Ended: 00:36:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4410.00 ft (KB) To 4460.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 4412.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.19

End Date:

2014.04.20

Last Calib.:

2014.04.20

Start Time: 17:38:30

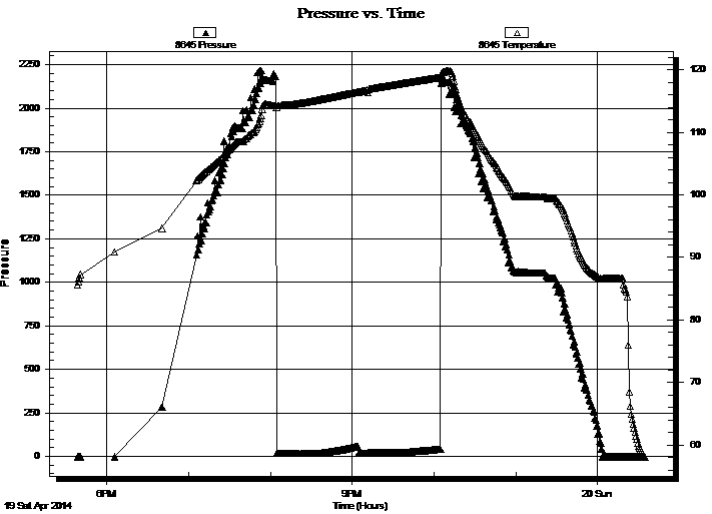
End Time:

00:35:07

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- Surface blow died @ 20 min.
 30- No return.
 30- No blow, flushed tool, surge died.
 30- No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56274

DST#: 5

ATTN: Scott Alberg

Test Start: 2014.04.19 @ 17:38:00

Tool Information

Drill Pipe:	Length: 4381.00 ft	Diameter: 3.80 inches	Volume: 61.45 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 61.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.50 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4410.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4383.50	
Shut In Tool	5.00			4388.50	
Hydraulic tool	5.00			4393.50	
Jars	5.00			4398.50	
Safety Joint	2.50			4401.00	
Packer	5.00			4406.00	27.50 Bottom Of Top Packer
Packer	4.00			4410.00	
Stubb	1.00			4411.00	
Perforations	1.00			4412.00	
Recorder	0.00	8357	Inside	4412.00	
Recorder	0.00	8645	Outside	4412.00	
Perforations	12.00			4424.00	
Change Over Sub	1.00			4425.00	
Drill Pipe	31.00			4456.00	
Change Over Sub	1.00			4457.00	
Bullnose	3.00			4460.00	50.00 Bottom Packers & Anchor
Total Tool Length:	77.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56274

DST#: 5

ATTN: Scott Alberg

Test Start: 2014.04.19 @ 17:38:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 100m	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:

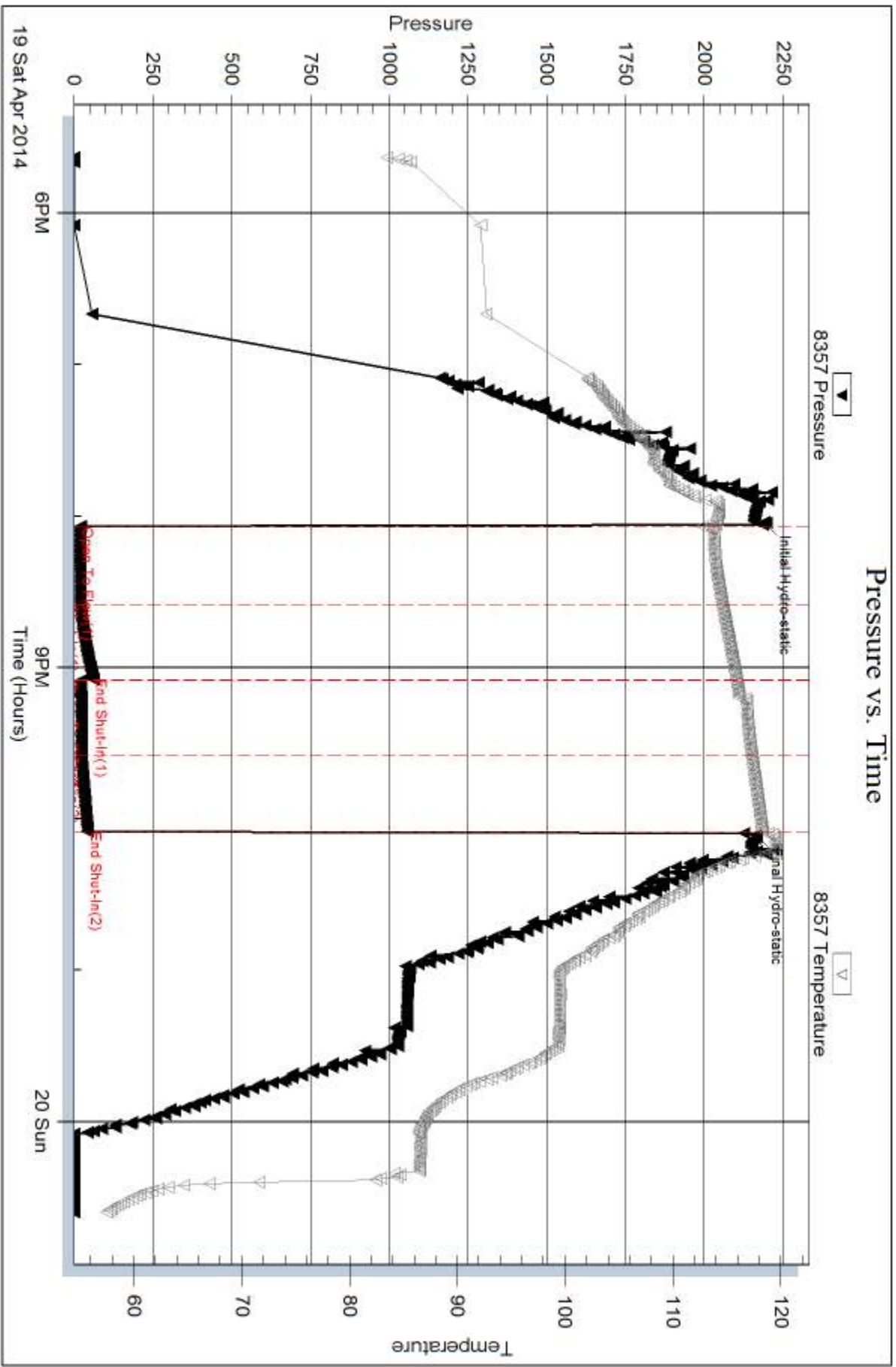
Serial #: 8357

Inside

Prater Oil & Gas Operations

Maurath #1

DST Test Number: 5

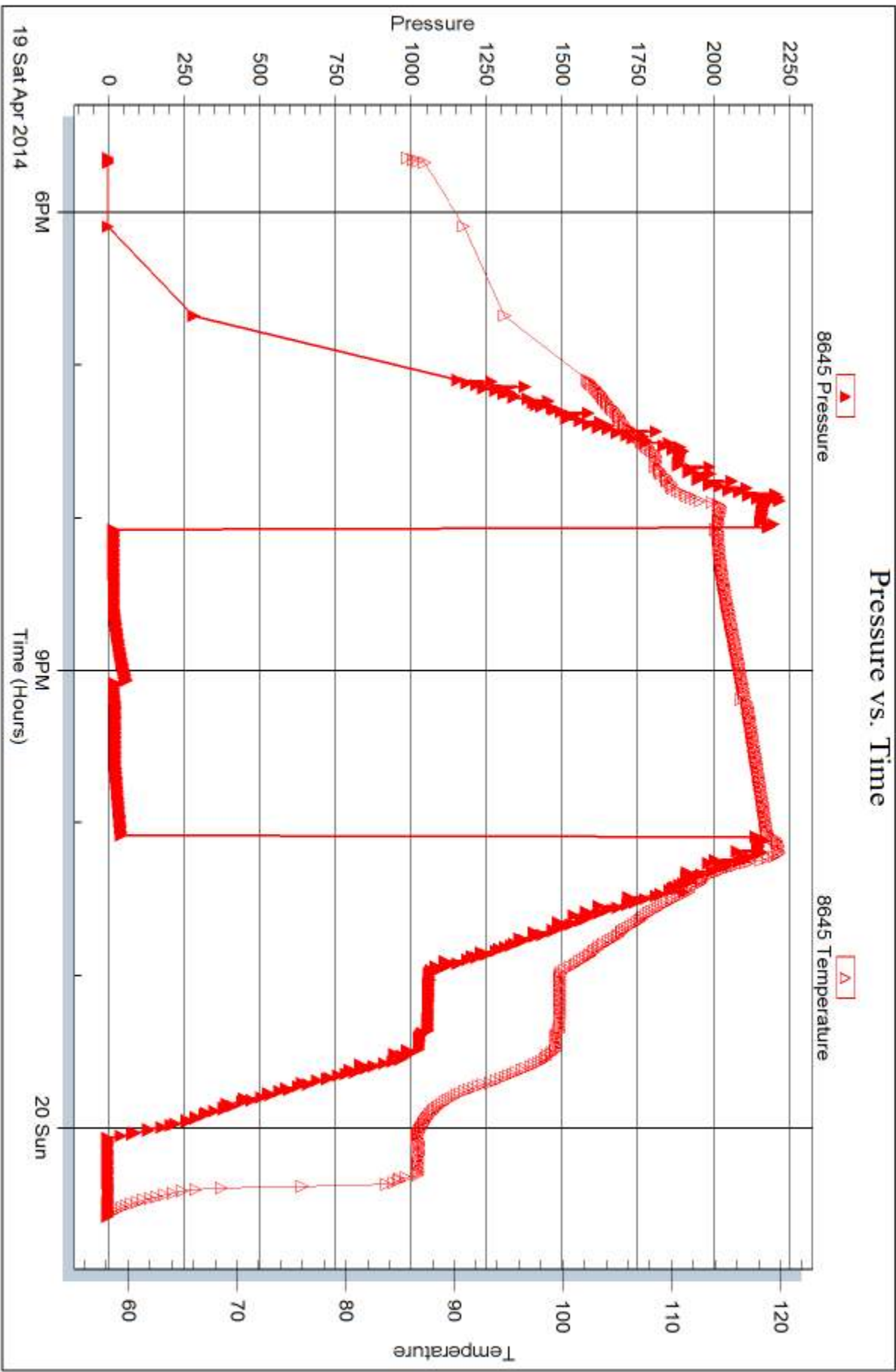


Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 56274

Printed: 2014.04.24 @ 14:14:20



DRILL STEM TEST REPORT

Prepared For: **Prater Oil & Gas Operations**

1303 N. Main
Pratt, KS 67124

ATTN: Scott Alberg

Maurath #1

S15-10s-31w Thomas,KS

Start Date: 2014.04.20 @ 19:12:00

End Date: 2014.04.21 @ 01:44:30

Job Ticket #: 56275 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.24 @ 14:13:38

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

Maurath #1

DST # 6

Myric Station - John

2014.04.20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56275

DST#: 6

ATTN: Scott Alberg

Test Start: 2014.04.20 @ 19:12:00

GENERAL INFORMATION:

Formation: **Myric Station - John**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:35:30

Time Test Ended: 01:44:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4452.00 ft (KB) To 4593.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4593.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8357

Inside

Press@RunDepth: 37.26 psig @ 4454.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.20

End Date:

2014.04.21

Last Calib.: 2014.04.21

Start Time: 19:12:05

End Time:

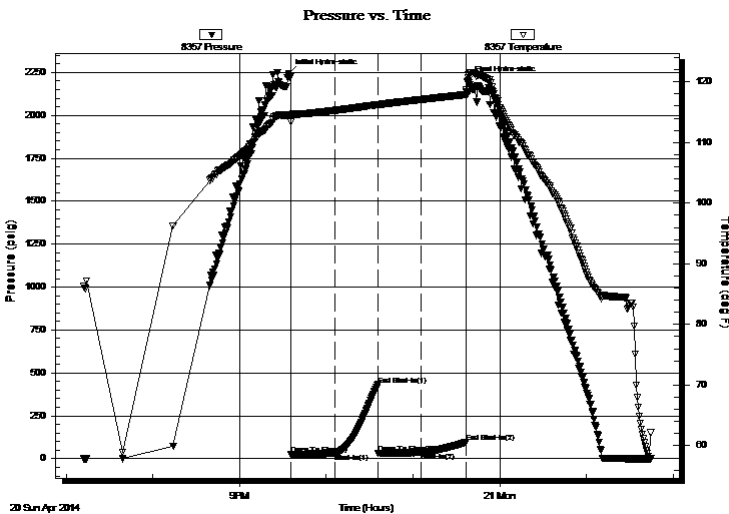
01:44:29

Time On Btm: 2014.04.20 @ 21:34:00

Time Off Btm: 2014.04.20 @ 23:38:00

TEST COMMENT: 30- 3/4" Blow .
30- No return.
30- No blow .
30- No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2244.50	114.42	Initial Hydro-static
2	24.66	113.31	Open To Flow (1)
32	30.88	115.28	Shut-In(1)
62	431.79	116.22	End Shut-In(1)
62	33.14	116.10	Open To Flow (2)
92	37.26	117.07	Shut-In(2)
123	96.39	117.88	End Shut-In(2)
124	2199.46	120.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OSM 100m	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56275

DST#: 6

ATTN: Scott Alberg

Test Start: 2014.04.20 @ 19:12:00

GENERAL INFORMATION:

Formation: **Myric Station - John**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:35:30

Time Test Ended: 01:44:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4452.00 ft (KB) To 4593.00 ft (KB) (TVD)

Reference Elevations: 2993.00 ft (KB)

Total Depth: 4593.00 ft (KB) (TVD)

2985.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8645 **Outside**

Press@RunDepth: psig @ 4454.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.20

End Date:

2014.04.21

Last Calib.:

2014.04.21

Start Time: 19:11:40

End Time:

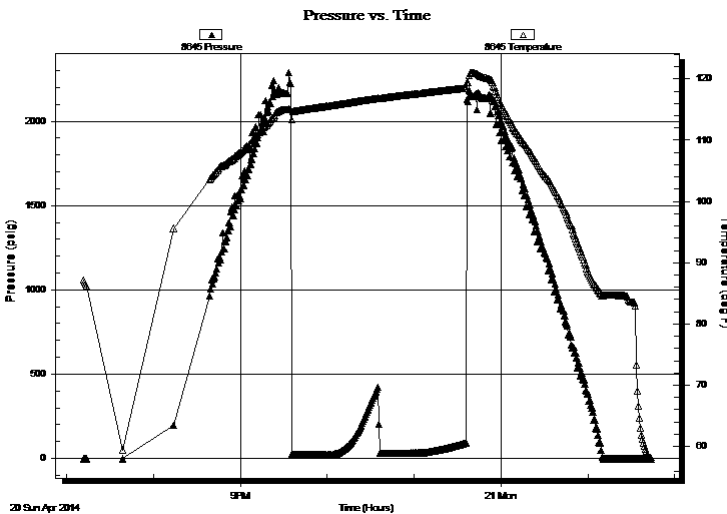
01:43:34

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- 3/4" Blow .
30- No return.
30- No blow .
30- No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OSM 100m	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56275

DST#: 6

ATTN: Scott Alberg

Test Start: 2014.04.20 @ 19:12:00

Tool Information

Drill Pipe:	Length: 4409.00 ft	Diameter: 3.80 inches	Volume: 61.85 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.50 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4452.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	141.00 ft			
Tool Length:	168.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4425.50	
Shut In Tool	5.00			4430.50	
Hydraulic tool	5.00			4435.50	
Jars	5.00			4440.50	
Safety Joint	2.50			4443.00	
Packer	5.00			4448.00	27.50 Bottom Of Top Packer
Packer	4.00			4452.00	
Stubb	1.00			4453.00	
Perforations	1.00			4454.00	
Recorder	0.00	8357	Inside	4454.00	
Recorder	0.00	8645	Outside	4454.00	
Perforations	10.00			4464.00	
Change Over Sub	1.00			4465.00	
Drill Pipe	124.00			4589.00	
Change Over Sub	1.00			4590.00	
Bullnose	3.00			4593.00	141.00 Bottom Packers & Anchor
Total Tool Length:	168.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prater Oil & Gas Operations

S15-10s-31w Thomas,KS

1303 N. Main
Pratt, KS 67124

Maurath #1

Job Ticket: 56275

DST#: 6

ATTN: Scott Alberg

Test Start: 2014.04.20 @ 19:12:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OSM 100m	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8357

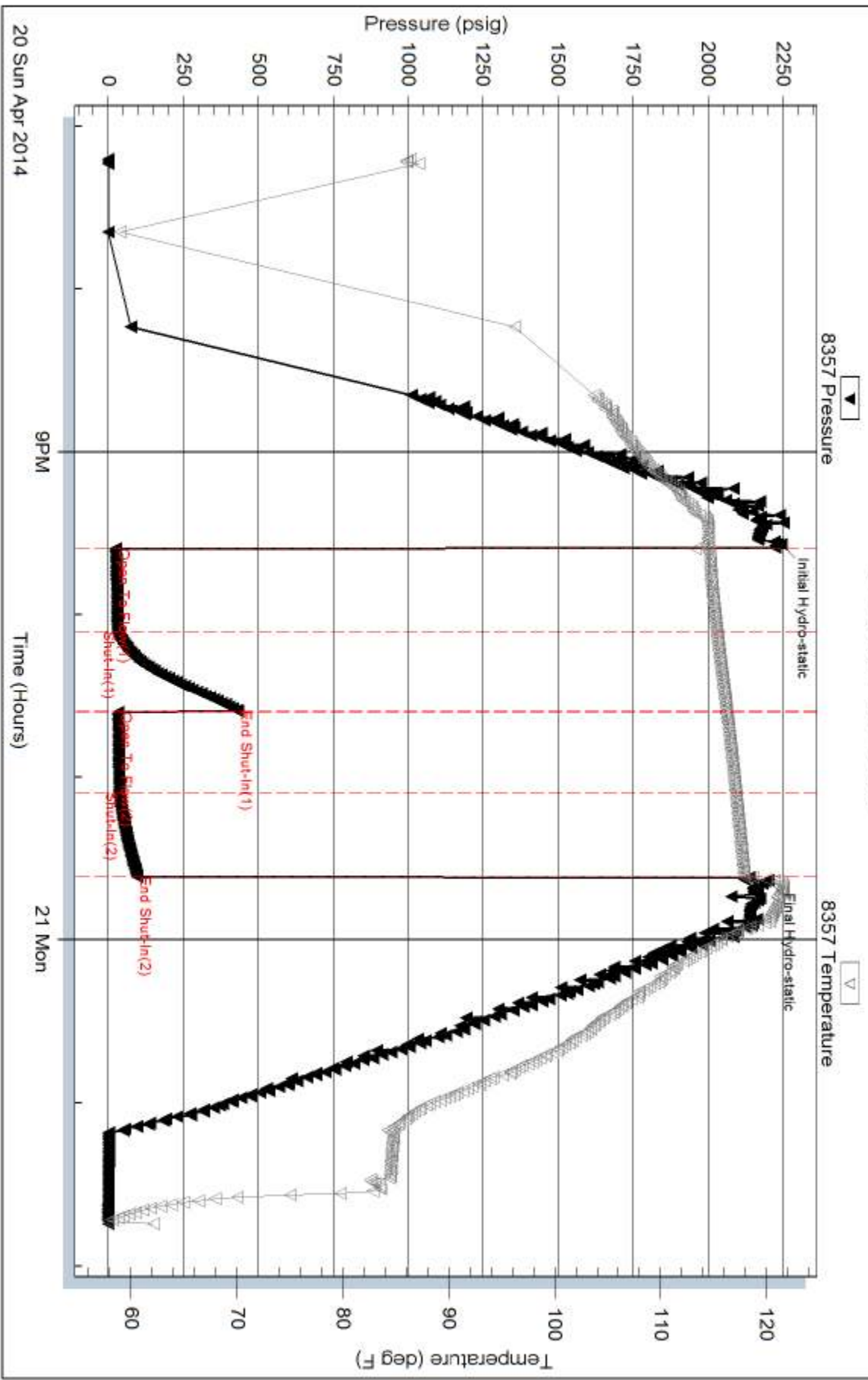
Inside

Prater Oil & Gas Operations

Maurath #1

DST Test Number: 6

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 56275

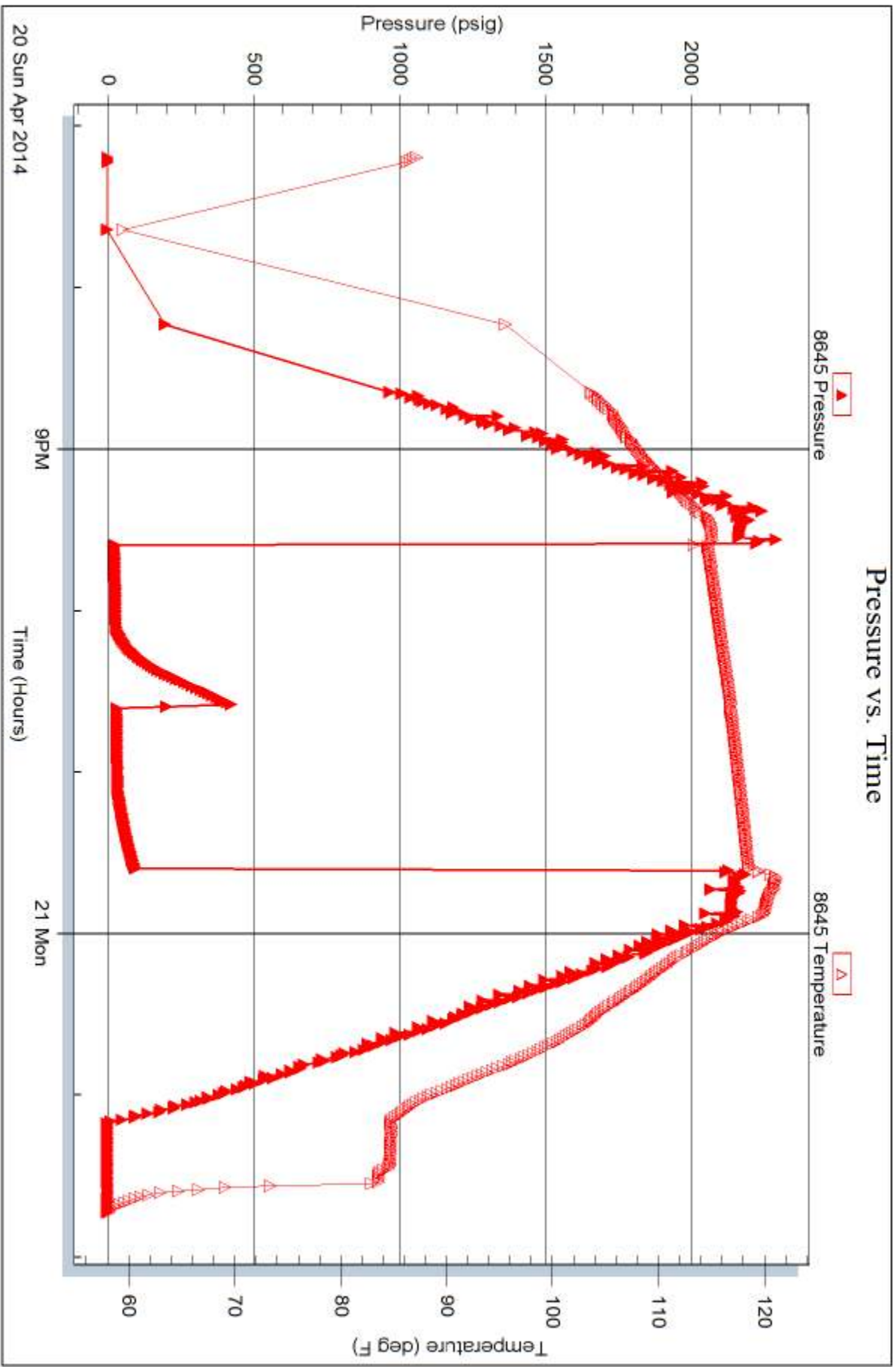
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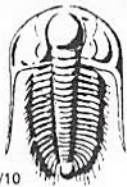
Serial #: 8645

Outside Prater Oil & Gas Operations

Maurath #1

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56270**

4/10

Well Name & No. Maurath #1 Test No. 1 Date 4-16-14
 Company Prater Oil & Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, KS 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick 108
 Location: Sec. 15 Twp. 10s Rge. 3W Co. Thomas State KS

Interval Tested 3990-4075 Zone Tested Tocant, A+B
 Anchor Length 85 Drill Pipe Run 3885 Mud Wt. 9.1
 Top Packer Depth 3986 Drill Collars Run 90 Vis 47
 Bottom Packer Depth 3990 Wt. Pipe Run 0 WL 7.2
 Total Depth 4075 Chlorides 2000 ppm System LCM 1"

Blow Description B.O.B. @ 2min
No return.
B.O.B. @ 3min.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>439</u>	<u>WM</u>		<u>25</u>	<u>75</u>	
<u>496</u>	<u>MW</u>		<u>85</u>	<u>15</u>	
<u>245</u>	<u>MW</u>	<u>Oil spots in tool.</u>	<u>95</u>	<u>5</u>	

Rec Total 1180 BHT 122 Gravity — API RW .133 @ 59 °F Chlorides 70000 ppm

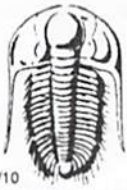
(A) Initial Hydrostatic <u>1946</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>9:37</u>
(B) First Initial Flow <u>93</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>9:59</u>
(C) First Final Flow <u>363</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:30</u>
(D) Initial Shut-In <u>1179</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>15:03</u>
(E) Second Initial Flow <u>379</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:23</u>
(F) Second Final Flow <u>582</u>	<input checked="" type="checkbox"/> Mileage <u>116 RT</u> <u>179.80</u>	Comments
(G) Final Shut-In <u>1169</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1929</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 15 Extra Packer
 Initial Shut-In 60 Extra Recorder
 Final Flow 15 Day Standby
 Final Shut-In 60 Accessibility

Sub Total 1754.80

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56271

Well Name & No. Maurath #1 Test No. 2 Date 4-17-14
 Company Prater Oil & Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, KS 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick #108
 Location: Sec. 15 Twp. 10s Rge. 3W Co. Thomas State KS

Interval Tested 4099-4123 Zone Tested LKC E-F
 Anchor Length 24 Drill Pipe Run 4071 Mud Wt. 9.1
 Top Packer Depth 4095 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 4099 Wt. Pipe Run 0 WL 7.2
 Total Depth 4123 Chlorides 2000 ppm System LCM Trace
 Blow Description 1/4" Blow died @ 7 min.
No return.
No blow, flushed tool, surge died.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>50</u>	Feet of <u>0.5 m</u>	%gas	%oil	%water <u>100</u>	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 50 BHT 117 Gravity - API RW @ °F Chlorides - ppm

(A) Initial Hydrostatic <u>200.5</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1:30</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:53</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:56</u>
(D) Initial Shut-In <u>1264</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>7:04</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:22</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage <u>116 RT</u> 179.80	Comments
(G) Final Shut-In <u>1263</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1992</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>30</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>38</u>	<input type="checkbox"/> Day Standby	Total <u>1754.80</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1754.80</u>	

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56272

4/10

Well Name & No. Maurath #1 Test No. 3 Date 4-18-14
 Company Prater Oil + Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, KS 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick #108
 Location: Sec. 15 Twp. 10s Rge. 3/W Co. Thomas State KS

Interval Tested 4156 - 4280 Zone Tested LKO 'H, I, J, K'
 Anchor Length 124 Drill Pipe Run 4130 Mud Wt. 9.4
 Top Packer Depth 4152 Drill Collars Run 30 Vis 51
 Bottom Packer Depth 4156 Wt. Pipe Run 0 WL 8.0
 Total Depth 4280 Chlorides 2200 ppm System LCM 1*
 Blow Description 3" Building blow.
No return.
1" Blow.
No return.

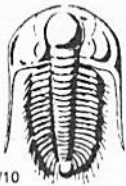
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>70</u>	Feet of <u>OSWM</u>			<u>40</u>	<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70 BHT 116 Gravity — API RW .175 @ 43 °F Chlorides 75000 ppm
 (A) Initial Hydrostatic 2080 Test 1250 T-On Location 2:15
 (B) First Initial Flow 23 Jars 250 T-Started 2:40
 (C) First Final Flow 42 Safety Joint 75 T-Open 5:12
 (D) Initial Shut-In 1179 Circ Sub NIC T-Pulled 8:17
 (E) Second Initial Flow 44 Hourly Standby _____ T-Out 10:01
 (F) Second Final Flow 53 Mileage 179.80 Comments _____
 (G) Final Shut-In 1143 Sampler _____
 (H) Final Hydrostatic 2075 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1754.80
 Final Shut-In 63 Accessibility _____ MP/DST Disc't _____
 Sub Total 1754.80

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56273

4/10

Well Name & No. Maurath #1 Test No. 4 Date 4-18-14
 Company Prater Oil + Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, KS 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick #108
 Location: Sec. 15 Twp. 10s Rge. 31w Co. Thomas State KS

Interval Tested 4280 - 4348 Zone Tested LKC 'L + Lenapah
 Anchor Length 68 Drill Pipe Run 4225 Mud Wt. 9.3
 Top Packer Depth 4276 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 4280 Wt. Pipe Run 0 WL 6.4
 Total Depth 4348 Chlorides 2000 ppm System LCM 2*
 Blow Description 6" Blow.
No return.
8" Blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>10</u>	Feet of <u>GOCM</u>	<u>10</u> %gas	<u>2</u> %oil	<u>88</u> %water	<u>88</u> %mud
Rec <u>60</u>	Feet of <u>GOCM</u>	<u>20</u> %gas	<u>5</u> %oil	<u>75</u> %water	<u>75</u> %mud
Rec	Feet of <u>110' Weak GIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70 BHT 117 Gravity — API RW @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2138 Test 1250 T-On Location 20:45
 (B) First Initial Flow 20 Jars 250 T-Started 20:50
 (C) First Final Flow 37 Safety Joint 75 T-Open 22:32
 (D) Initial Shut-In 1022 Circ Sub NIC T-Pulled 1:37
 (E) Second Initial Flow 30 Hourly Standby T-Out 3:43
 (F) Second Final Flow 48 Mileage 179.80 Comments
 (G) Final Shut-In 921 Sampler
 (H) Final Hydrostatic 2111 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1754.80
 Accessibility MP/DST Disc't
 Sub Total 1754.80

Approved By [Signature] Our Representative Chuck Amick

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56274

4/10

Well Name & No. Maurath #1 Test No. 5 Date 4-19-14
 Company Prater Oil + Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, KS 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick #108
 Location: Sec. 15 Twp. 10s Rge. 31w Co. Thomas State KS

Interval Tested 4410 - 4460 Zone Tested Pawnee
 Anchor Length 50 Drill Pipe Run 4381 Mud Wt. 9.3
 Top Packer Depth 4406 Drill Collars Run 30 Vis 52
 Bottom Packer Depth 4410 Wt. Pipe Run 0 WL 8.6
 Total Depth 4460 Chlorides 3000 ppm System LCM 1#

Blow Description Surface blow died @ 20 min.
No return.
No blow, Flushed Tool, surge died
No return.

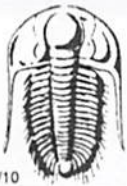
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>5</u>	Feet of <u>0.5m</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 118 Gravity - API RW @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2190</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>17:35</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>17:38</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:04</u>
(D) Initial Shut-In <u>62</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>22:05</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>00:36</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>179.80</u>	Comments
(G) Final Shut-In <u>44</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2164</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1754.80</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1754.80</u>	

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56275

4/10

Well Name & No. Maurath #1 Test No. 6 Date 4-20-14
 Company Prater Oil + Gas Operations Elevation 2993 KB 2985 GL
 Address 1303 N. Main Pratt, Ks 67124
 Co. Rep / Geo. Scott Alberg Rig Maverick #108
 Location: Sec. 15 Twp. 10s Rge. 3W Co. Thomas State Ks

Interval Tested 4452-4593 Zone Tested Myric Station -
 Anchor Length 141 Drill Pipe Run 4409 Mud Wt. 9.4
 Top Packer Depth 4448 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 4452 Wt. Pipe Run 0 WL 8.0
 Total Depth 4593 Chlorides 2200 ppm System LCM 1"
 Blow Description 3/4" Blow.
No return.
No blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>15</u>	Feet of <u>OSM</u>	%gas	%oil	%water <u>100</u>	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 118 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2245</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>19:10</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>19:12</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>21:36</u>
(D) Initial Shut-In <u>432</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>23:37</u>
(E) Second Initial Flow <u>33</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:45</u>
(F) Second Final Flow <u>37</u>	<input checked="" type="checkbox"/> Mileage <u>179.80</u>	Comments
(G) Final Shut-In <u>96</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2129</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>2074.80</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1754.80</u>	

Approved By [Signature] Our Representative Chuck Smith

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CONSOLIDATED
Oil Well Services, LLC

267560

TICKET NUMBER 38181
LOCATION Ogkley K5
FOREMAN Jerry Y

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

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
4-21-14	6515	Maurth #1	15	10	31	Thomas
CUSTOMER		MAILING ADDRESS		CITY		STATE
Prater Oil & Gas		Campus N to D 1w Nint		528-7118		460
				Cody R Dale		

JOB TYPE Plug HOLE SIZE 7 7/8 HOLE DEPTH 4660 CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE 4 1/2 TUBING _____ OTHER _____
 SLURRY WEIGHT 13.8 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting xrig up on Maurick 108 plug as ordered with 220 sks
60/40 poz mix 4% gel 1/4" flo seal per sk
25 sks @ 2575'
100 sks @ 1685'
40 sks @ 311'
10 sks @ 40' with 8 5/8 wooden plug
15 sks MH 30 sks RH

Thank you
Jerry Y Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405N	1	PUMP CHARGE	1395 ⁰⁰	1395 ⁰⁰
5406	10	MILEAGE	52 ⁵⁰	525 ⁰⁰
5407	9.5	ton mileage delivery (min)	430 ⁰⁰	430 ⁰⁰
1131	220 sks	60/40 poz mix	15 ⁸⁶	3489 ²⁰
1186	757 #	berturb gel	27	20451 ⁰⁰
1107	55 #	flo seal	292	16351 ⁰⁰
4432	1	8 5/8 wooden plug	100 ²⁵	100 ²⁵
			Subtotal	5835 ¹⁹
			less 10% disc.	583 ⁵²
			subtotal	5251 ⁶⁷

completed

Ravin 3737 AUTHORIZATION Aol Chidy TITLE _____ DATE _____
 SALES TAX 7.15 ESTIMATED TOTAL 254.67
 5506.34

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.