Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1239067

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 # 35032
Name: K3 Oil & Gas Operating Company
Address 1: 211 HIGHLAND CROSS
Address 2: SUITE 250
City: HOUSTON State: TX Zip: 77073 + _ _ _ _
Contact Person: Doug Pollak
Phone: (832) 234-0811
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Tom Williams
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 #:

11/15/2014	11/27/2014	01/16/2015
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-101-22549-00-00
Spot Description:
_ - _ - _ - SE Sec. 10 Twp. 16 S. R. 27 ☐ East ☑ West
335 Feet from ☐ North / ☑ South Line of Section
3034 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Lane
Lease Name: Grusing Well #: 10-14
Field Name:
Producing Formation: Ft. Scott; LKC
Elevation: Ground: 2587 Kelly Bushing: 2595
Total Vertical Depth: 4590 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 268 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2004 Feet
If Alternate II completion, cement circulated from: 2004
feet depth to: 268 w/ 300 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 20000 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated

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: 01/23/2015
☑ **Confidential Release Date:** 01/22/2017
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 01/28/2015

[redacted]

1239067

Operator Name: K3 Oil & Gas Operating Company Lease Name: Grusing Well #: 10-14

Sec. 10 Twp. 16 S. R. 27 ☐ East ☑ West County: Lane

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	268	Class A	200	3% cc
Production	8.625	5.50	15.5	4590	Class A	175	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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 *(Amount and Kind of Material Used)*	Depth
4	Ft Scott, Ft Scott	250 gal 15 % MCA	4379-81, 4360-68
4	Lansing L	250 Gal 15% MCA	4153-58
4	Lansing K	300 gal 15% MCA	4114-20; 4106-09
4	Lansing I	300 gal 15% MCA	4060-64

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
	69		12		34

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	K3 Oil & Gas Operating Company
Well Name	Grusing 10-14
Doc ID	1239067

All Electric Logs Run

Composite Log
Caliper Log
Array Induction Shallow Focused Electric Log
Microsensitivity Log
Companct Photo Density, comp neutron and Micro log
Sonic Cement

Form	ACO1 - Well Completion
Operator	K3 Oil & Gas Operating Company
Well Name	Grusing 10-14
Doc ID	1239067

Tops

Name	Top	Datum
Anhydrite	2002	+593
Heebner	3826	-1231
Lansing	3864	-1269
Stark	4104	-1509
B/KC	4210	-1615
Marmaton	4240	-1645
Pawnee	4305	-1710
Ft Scott	4359	-1764
Cherokee	4384	-1789
MIss	4468	-1865
RTD	4590	-1995
LTD	4590	-1995

Form	ACO1 - Well Completion
Operator	K3 Oil & Gas Operating Company
Well Name	Grusing 10-14
Doc ID	1239067

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	23	268	Class A	200	3% cc
Production	8.625	5.50	15.5	4590	Class A	175	

ALLIED OIL & GAS SERVICES, LLC 064772

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley

DATE 11-27-14	SEC. 10	TWP. 16	RANGE 27	CALLED OUT	ON LOCATION 11:30pm	JOB START 5:30am	JOB FINISH 6:00, 8:30pm
LEASE Grusing	WELL # 10-14	LOCATION Utica 7w1 N into				COUNTY Lane	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Duke 8
TYPE OF JOB Production (2 Stage)
HOLE SIZE 7 7/8 T.D. 4590'
CASING SIZE 5 1/2 DEPTH 4590'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DV DEPTH 2004'
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42.29'
CEMENT LEFT IN CSG. 42.29'
PERFS.
DISPLACEMENT 108.23

OWNER Same

CEMENT
AMOUNT ORDERED 175 sks ASC 16 Bbls 1# 5# Gilsonite 2% gel
300 sks AMD 12 BBL Super Flush

EQUIPMENT

PUMP TRUCK # 431 CEMENTER Andrew Farstad
HELPER Brandon Wilkinson
BULK TRUCK # 818 DRIVER Wayne Messick
BULK TRUCK # 891 DRIVER Ricardo (TWS)

REMARKS:

Pump 12 BBL Super Flush 175 sks ASC Wash Pump and Line Clean. Release Plug Displace 900# Lift 1500 Land Plug. Float held. Open DV Tool 800#. Plug Rat hole and mix 250 sks Pump down 5 1/2 casing 200# Lift. Land Plug 1500#. Tool Closed and held. Circulate 2 bbls cement to pit. Thank you

COMMON	@		
POZMIX	@		
GEL 3 sks	@ 150	164.50	
CHLORIDE	@		
ASC 175 sks	@ 23.50	4112.50	
	@		
Gilsonite 825 lbs	@ .98	857.50	
	@		
Salt 850 lbs	@ .68	578.00	
	@		
AMD 300 sks	@ 26.57	7971.00	
	@		
Super Flush 12 BBL	@ 25.00	300.00	
HANDLING 576.95 cu/ft	@ 2.48	1406.03	
MILEAGE 2.25 Tons/mile 25.25 TM		2430.31	
Material Only	TOTAL	19,973.66	
3915.38/288	SERVICE		
DEPTH OF JOB 4590'			
PUMP TRUCK CHARGE	2558.25	2446.25	
EXTRA FOOTAGE	@		
MILEAGE 35 miles	@ 7.70	269.50	
MANIFOLD Head	@	225.00	
Light Vehicle	@ 4.40	154.00	
	@		
(585.70/288)	TOTAL	5,663.50	

CHARGE TO: K3 Oil + Gas
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

5 1/2

1 AFU Float Shoe	@	645.00
1 Latch down Plug Assy	@	660.00
1 DV Tool	@	5335.00
3 Baskets	@ 395.00	1185.00
12 Turbo Lizers	@ 95.00	1140.00
(2180.20/288)	TOTAL	8,965.00

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Jeff Crawford

SIGNATURE

SALES TAX (If Any)
TOTAL CHARGES 28,512.00
DISCOUNT 7,983.36 (28%) IF PAID IN 30 DAYS
20,528.64 Net.

COMPOSITE LOG

COMPANY	K3 OIL AND GAS
WELL	GRUSING UNIT 10-14
FIELD	BROUGHTON
PROVINCE/COUNTY	LANE
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	335' FSL & 3034' FWL

SEC 10	TWP 16S	RGE 27W	Other Services
Latitude			
Longitude			
API Number	15-101-22549		

Permanent Datum GL, Elevation 2587.3 feet
Log Measured From KB
Drilling Measured From KB @ 8 feet

Elevations:	feet
KB	2595.30
DF	2593.30
GL	2587.30

Date	27-NOV-2014			
Run Number	ONE			
Service Order	7577-104274036			
Depth Driller	4590.00	feet		
Depth Logger	4590.00	feet		
First Reading	4587.00	feet		
Last Reading	2990.00	feet		
Casing Driller	268.00	feet		
Casing Logger	263.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.40 lb/USg		68.00 CP	
PH / Fluid Loss	9.00		6.40 ml/30Min	
Sample Source	MUD PIT			
Rm @ Measured Temp	1.15 @ 75.0	ohm-m		
Rmf @ Measured Temp	0.92 @ 75.0	ohm-m		
Rmc @ Measured Temp	1.38 @ 75.0	ohm-m		
Source Rmf / Rmc	CALC		CALC	
Rm @ BHT	0.75 @118.0	ohm-m		
Time Since Circulation	3.5 HOURS			
Max Recorded Temp	118.00	deg F		
Equipment / Base	13244		LIB	
Recorded By	JEFFREY RANDLE			
Witnessed By	THOMAS WILLIAMS			
JOB #	LB14-367			

BOREHOLE RECORD

Last Edited: 27-NOV-2014 12:24

Bit Size inches	Depth From feet	Depth To feet
12.250	0.00	275.00
7.875	275.00	4590.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	268.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 14.05.5280.
- RUN ONE: MCG, MML, MDN, MPD, MFE, MAI RUN IN COMBINATION.
  - HARDWARE: DUAL BOWSPRING USED ON MDN.
  0.5 INCH STANDOFF USED ON MFE.
  0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1700 CU.FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3000 FEET: 187 CU.FT.

- RIG: DUKE DRILLING RIG #8.

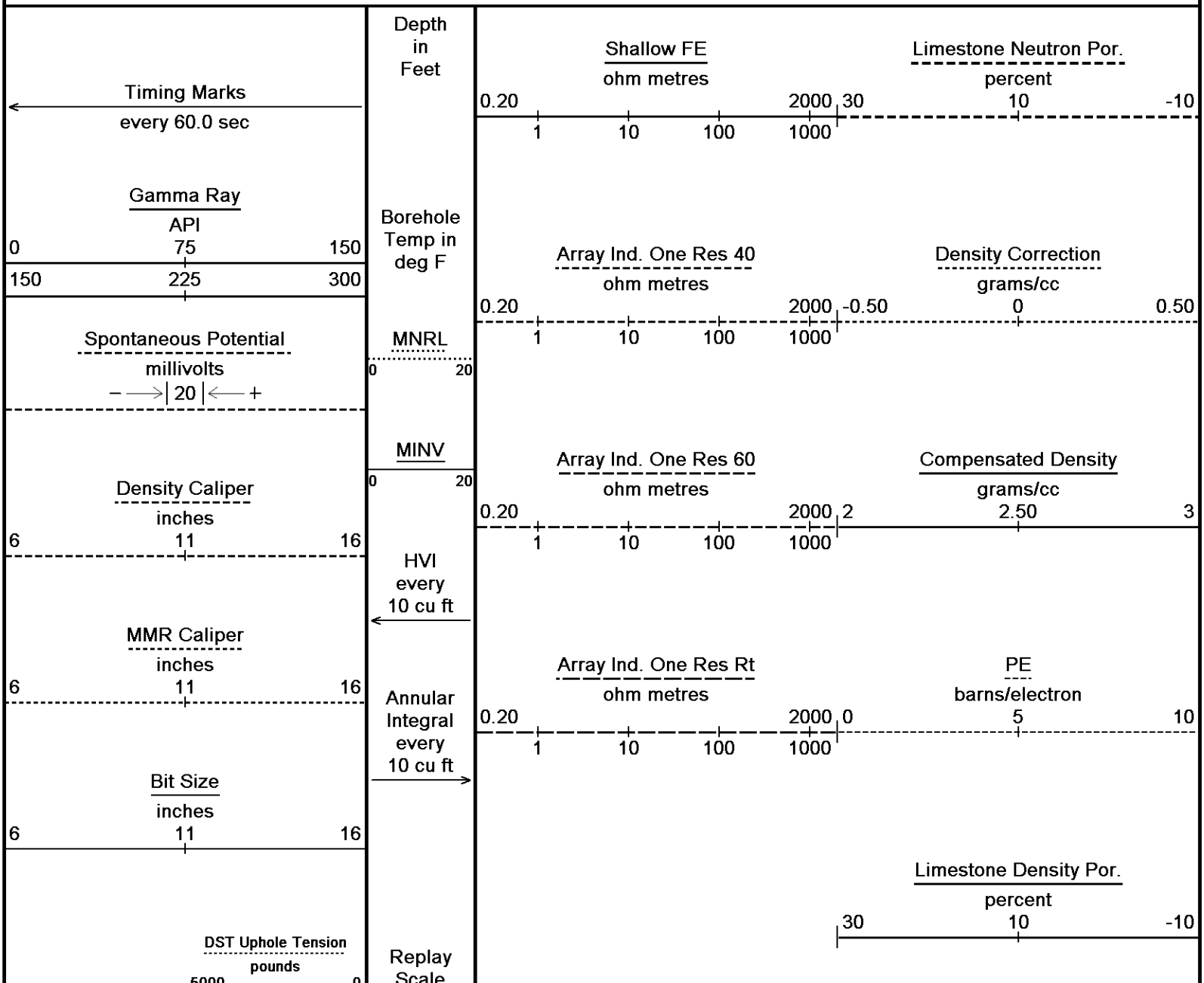
- ENGINEER: J. RANDLE.

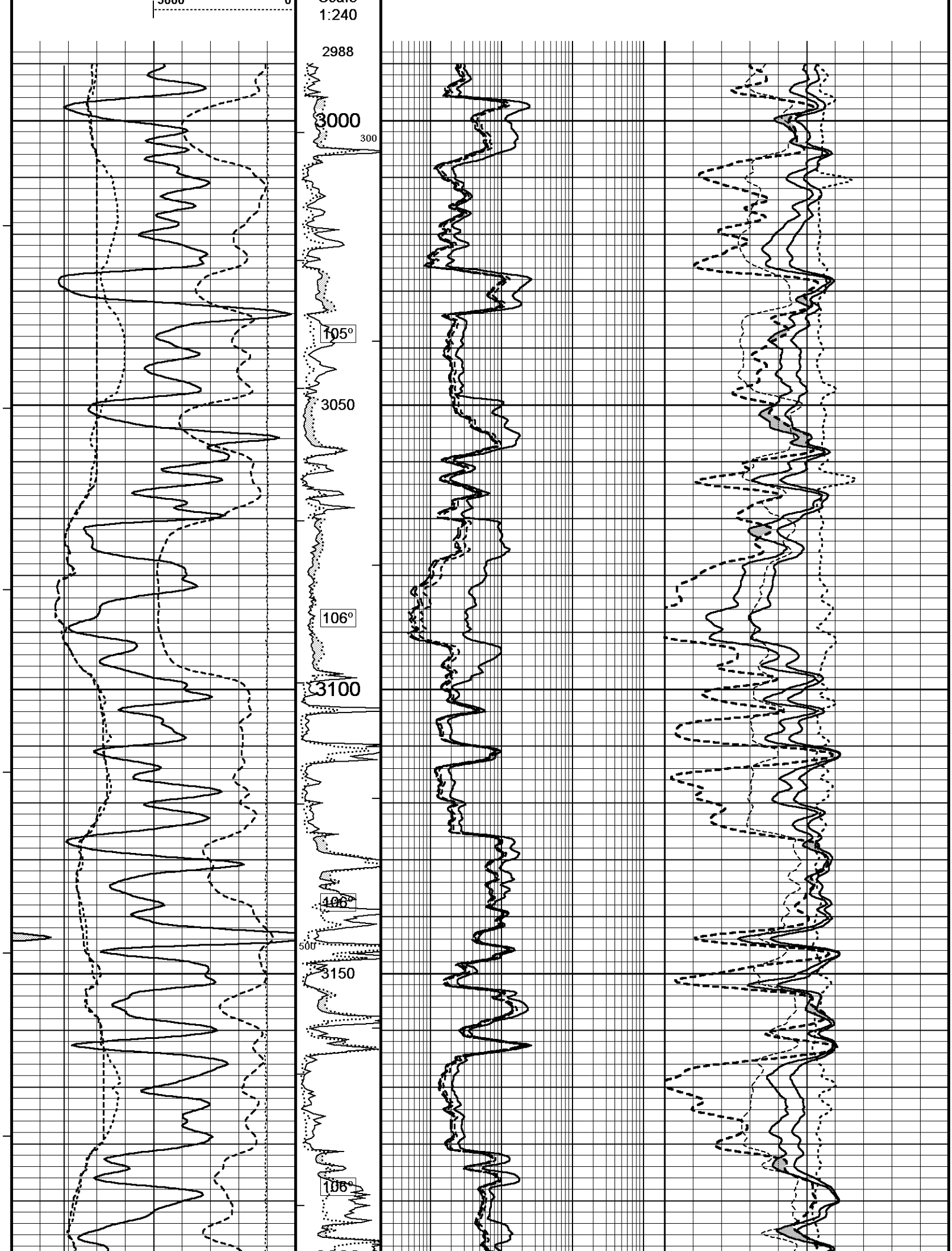
- OPERATOR: J. LaPOINT.

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 27-NOV-2014 17:41
Filename: C:\Minimus 14.05.5280\Logs\K3 Grusing Unit 10-14\K3 Grusing Unit 10-14 Main.dta — Recorded on 27-NOV-2014 14:45
System Versions: Logged with 14.05.5280 Plotted with 14.05.5280

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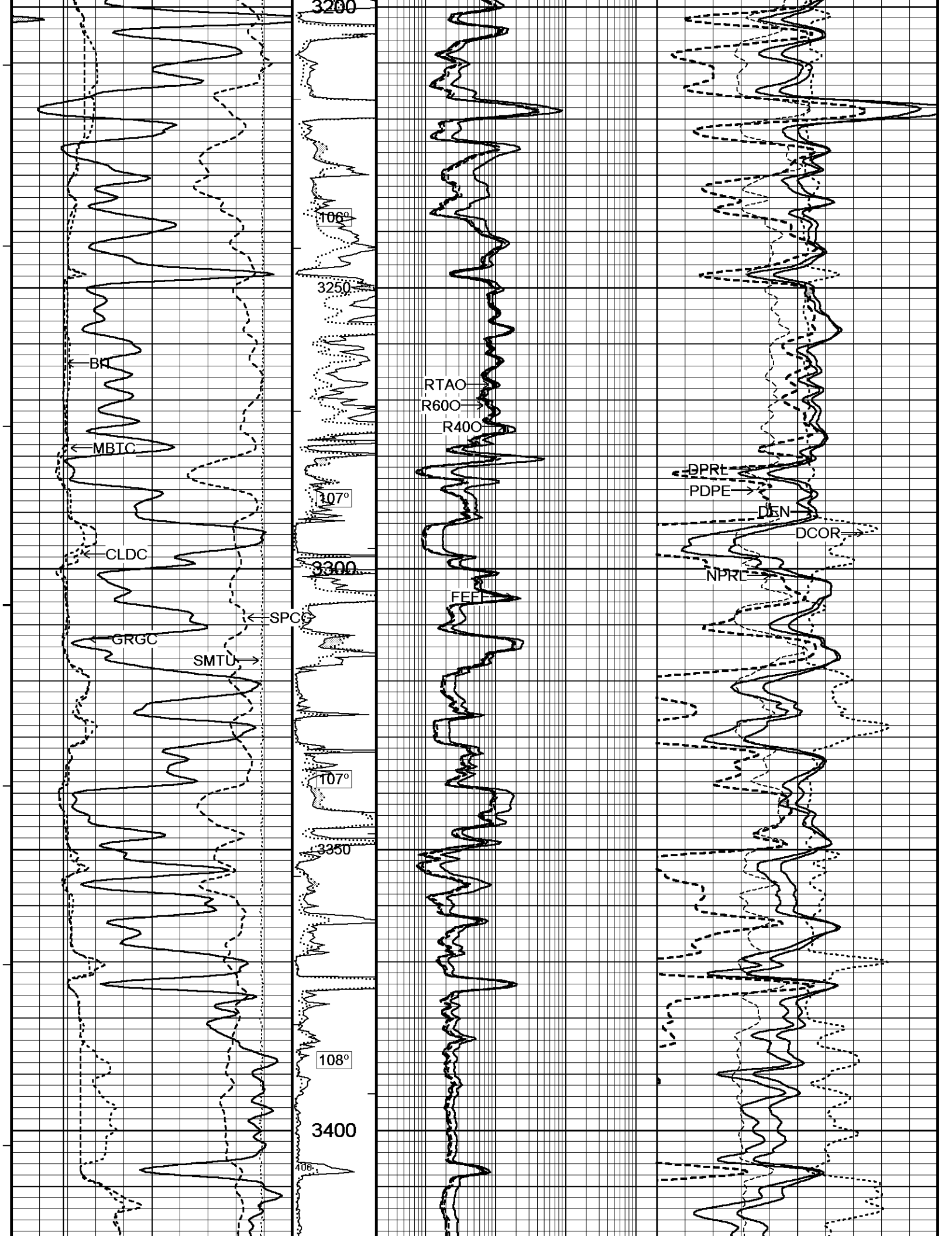
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107°
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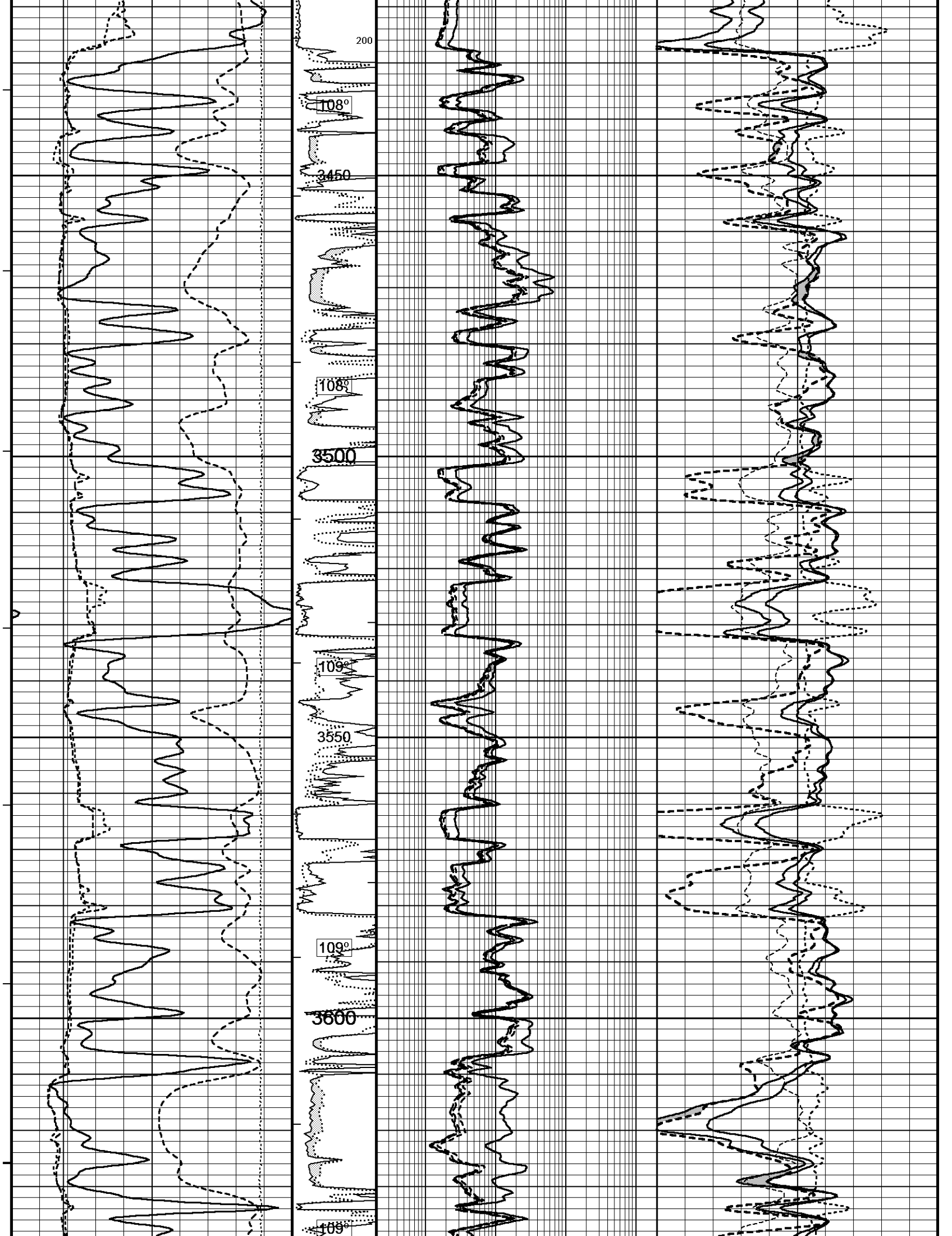
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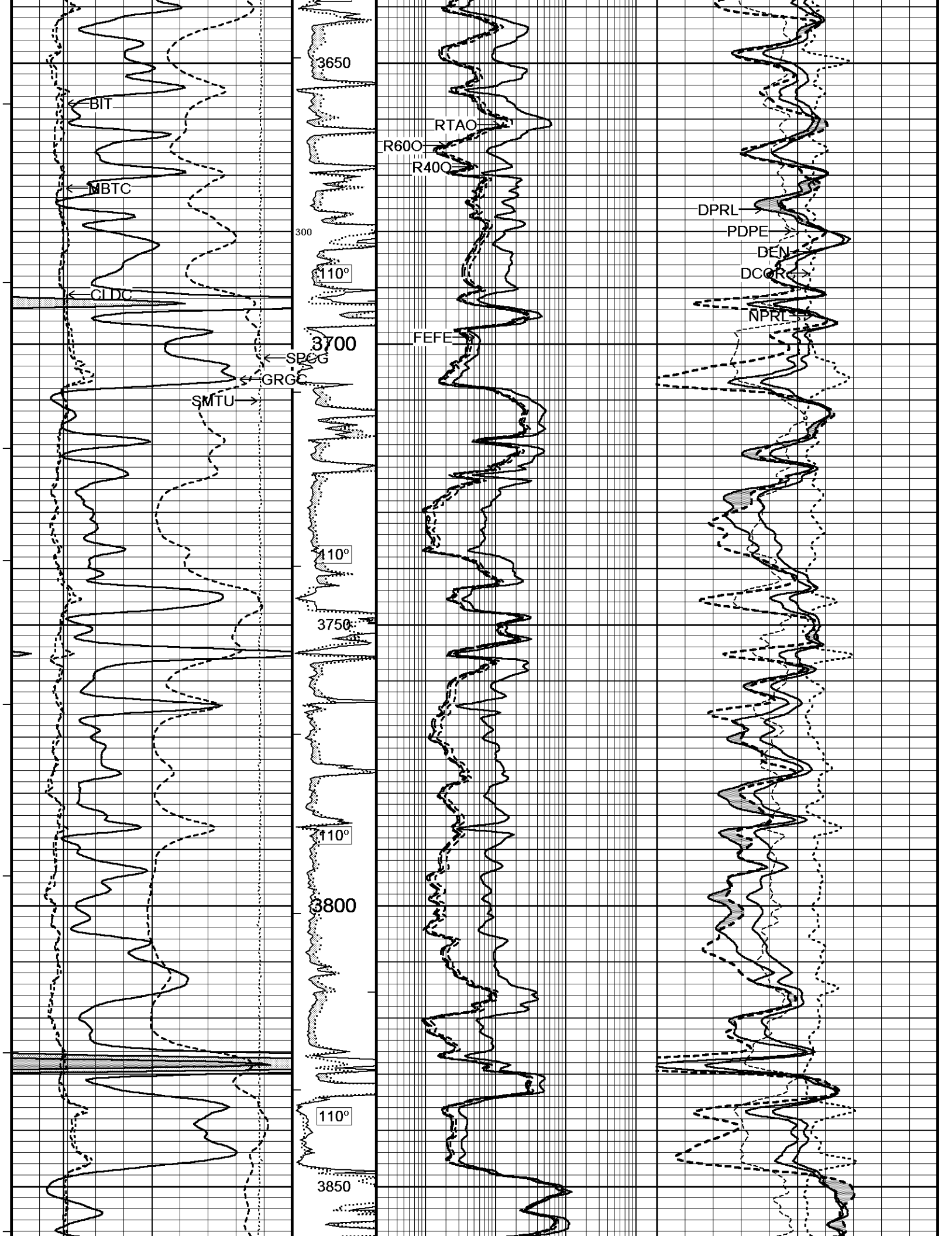
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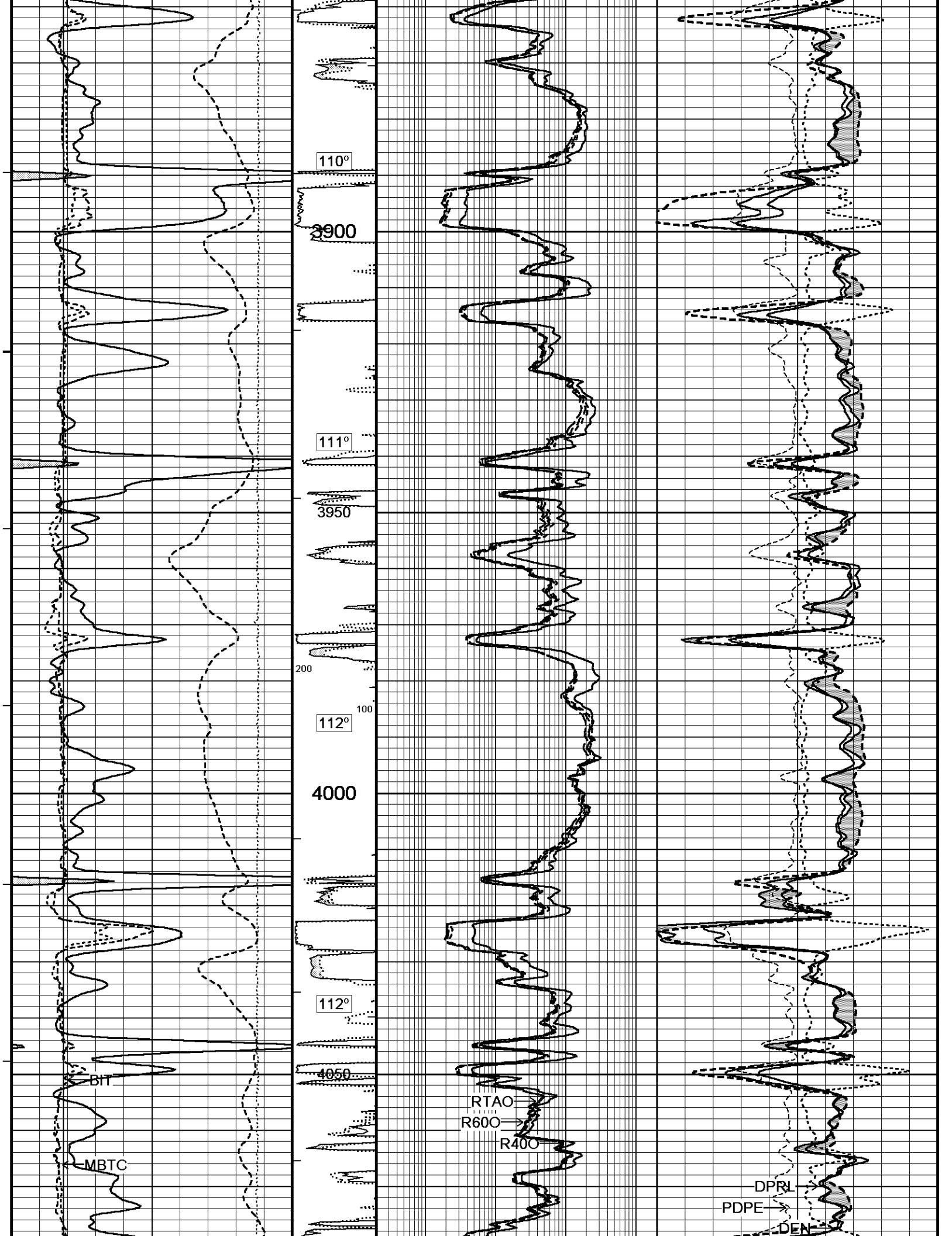
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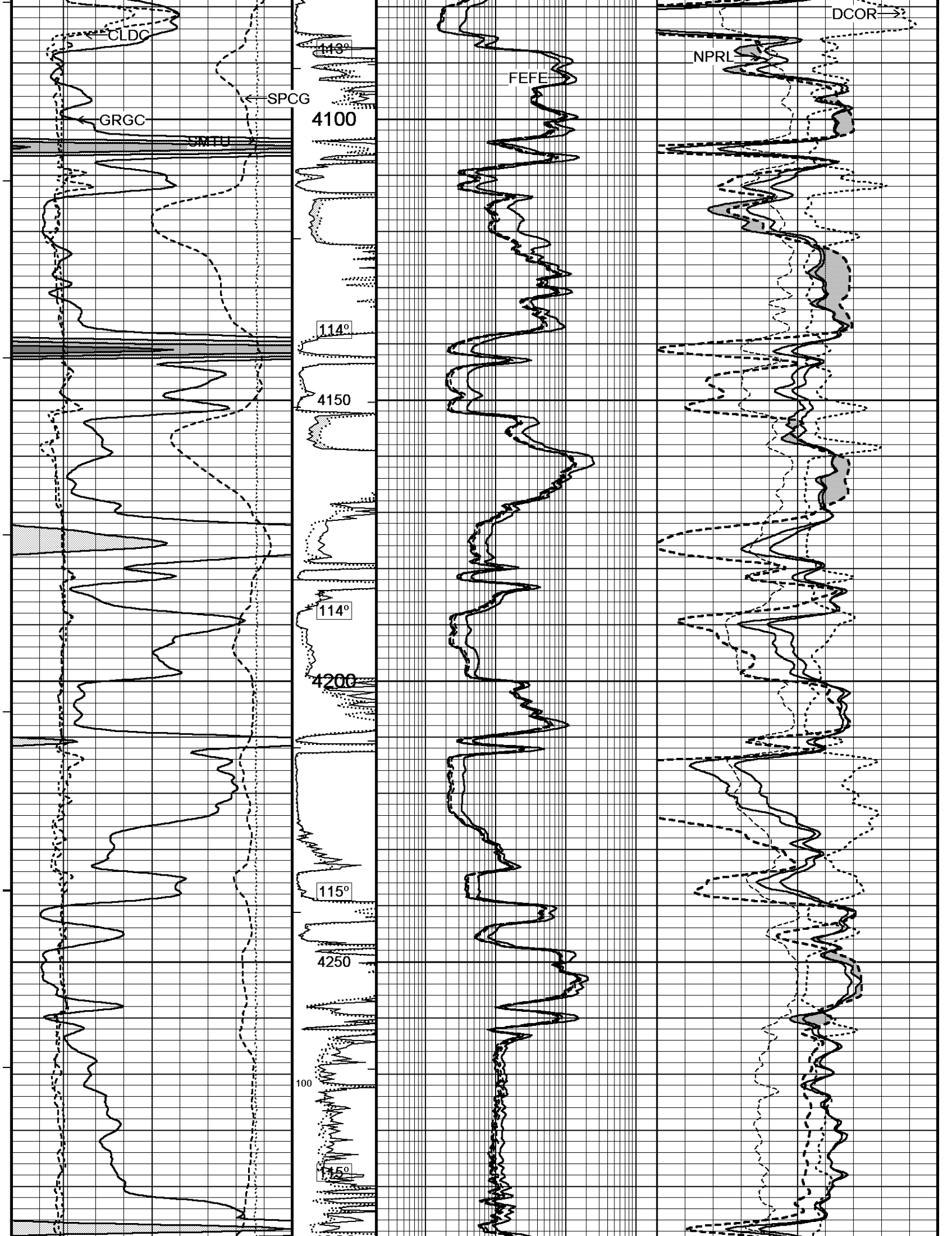
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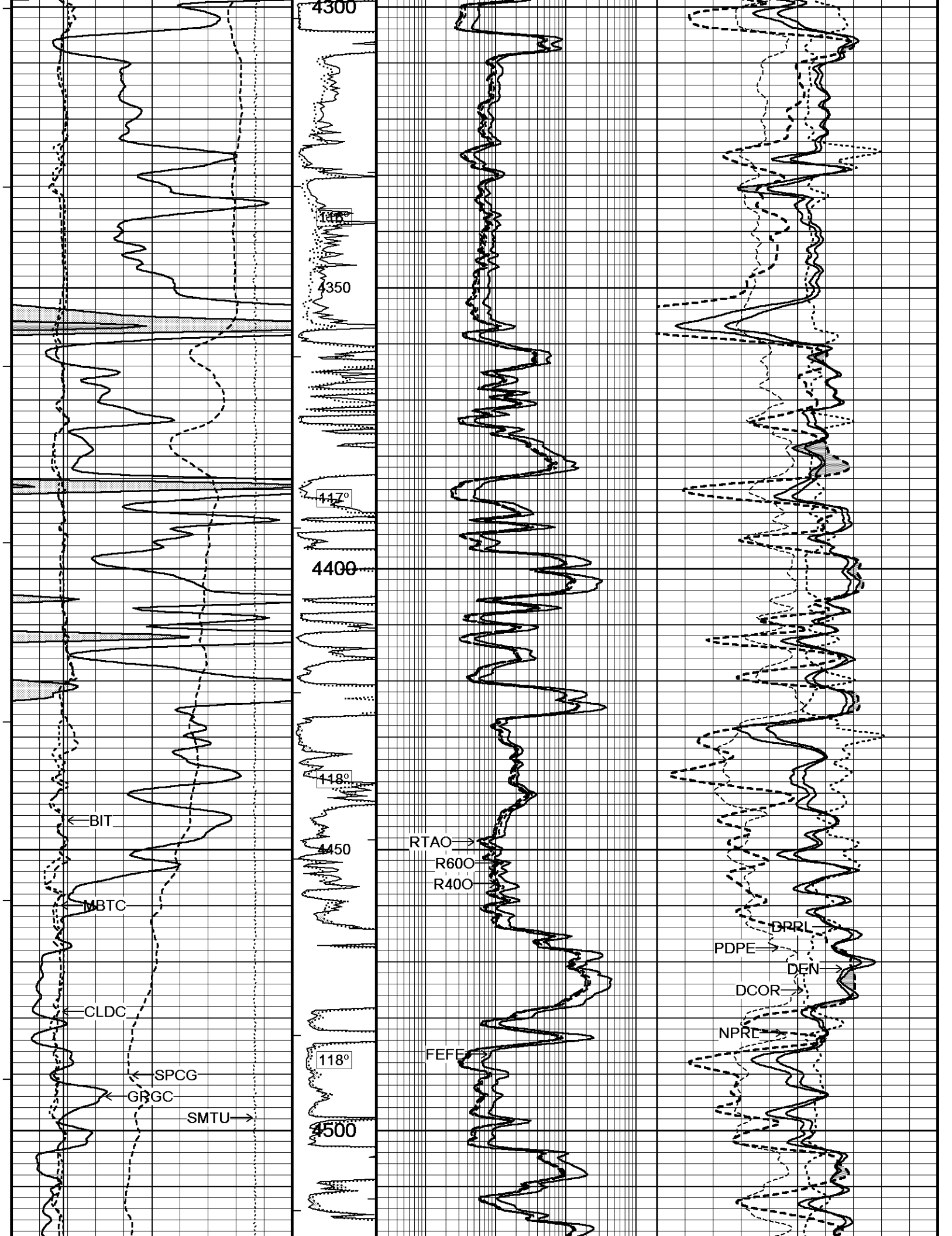
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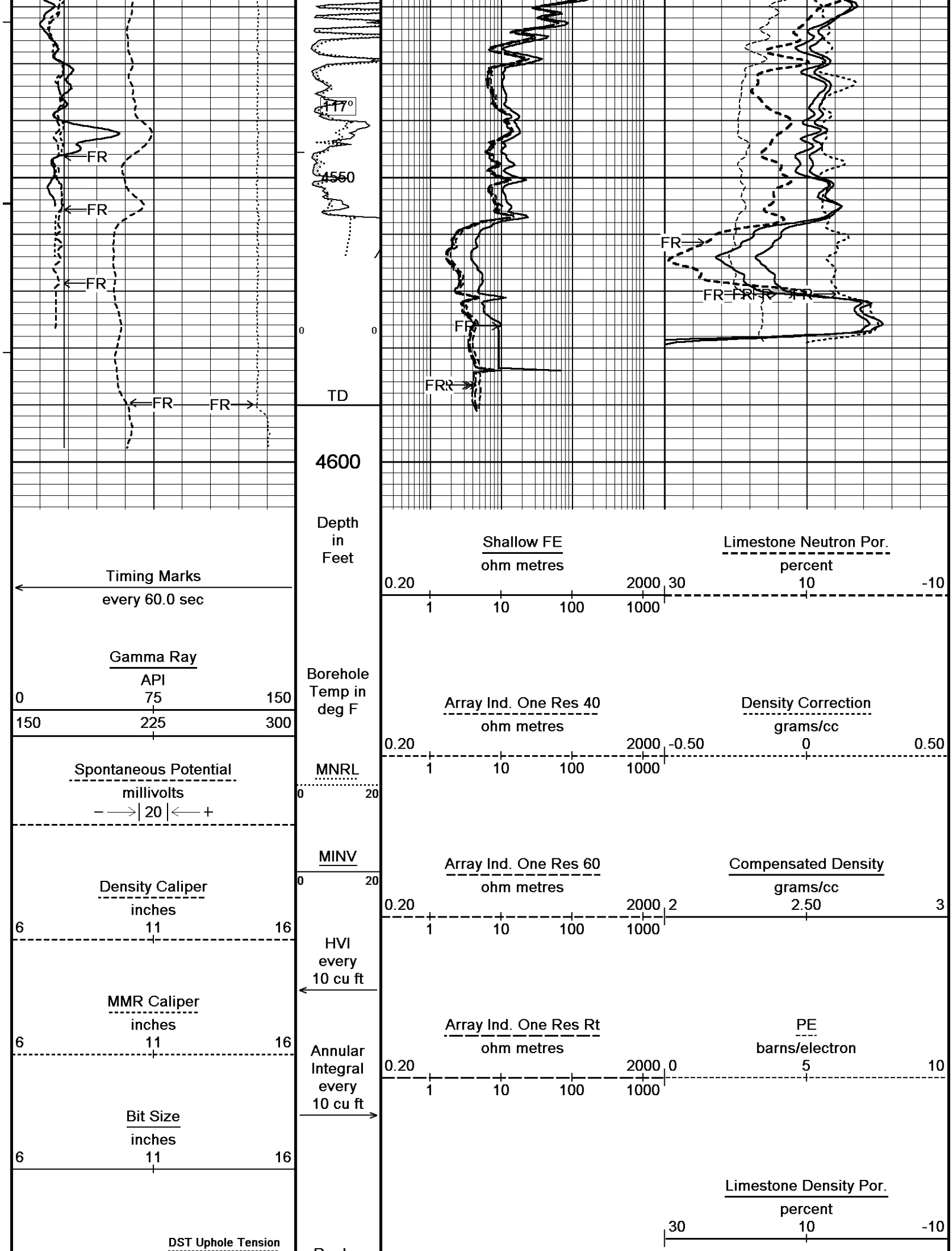
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TD
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FR
FR
FR
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FR
Depth
in
Feet
Timing Marks
every 60.0 sec
Shallow FE
ohm metres
0.20
2000
1
10
100
1000
Limestone Neutron Por.
percent
30
10
-10
Gamma Ray
API
0
75
150
150
225
300
Borehole
Temp in
deg F
Array Ind. One Res 40
ohm metres
0.20
2000
1
10
100
1000
Density Correction
grams/cc
-0.50
0
0.50
Spontaneous Potential
millivolts
– → | 20 | ← +
MNRL
0
20
MINV
0
20
Array Ind. One Res 60
ohm metres
0.20
2000
1
10
100
1000
Compensated Density
grams/cc
2
2.50
3
Density Caliper
inches
6
11
16
HVI
every
10 cu ft
MMR Caliper
inches
6
11
16
Array Ind. One Res Rt
ohm metres
0.20
2000
1
10
100
1000
PE
barns/electron
0
5
10
Annular
Integral
every
10 cu ft
Bit Size
inches
6
11
16
Limestone Density Por.
percent
30
10
-10
DST Uphole Tension

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Minimus 14.05.5280\Logs\K3 Grusing Unit 10-14\K3 Grusing Unit 10-14 Main.dta
System Versions: Logged with 14.05.5280 Plotted with 14.05.5280

Plotted on 27-NOV-2014 17:41
Recorded on 27-NOV-2014 14:45

5 INCH MAIN

REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm
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System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

Plotted on 27-NOV-2014 17:41
Recorded on 27-NOV-2014 14:05

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− → | 20 | ← +

Density Caliper
inches
6 11 16

MMR Caliper
inches
6 11 16

Bit Size
inches
6 11 16

Depth in Feet

Borehole Temp in deg F

MNRL
0 20

MINV
0 20

HVI every 10 cu ft

Annular Integral every 10 cu ft

Shallow FE
ohm metres
0.20 2000
1 10 100 1000

Limestone Neutron Por.
percent
30 10 -10

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

Density Correction
grams/cc
-0.50 0 0.50

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

Compensated Density
grams/cc
2 2.50 3

Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

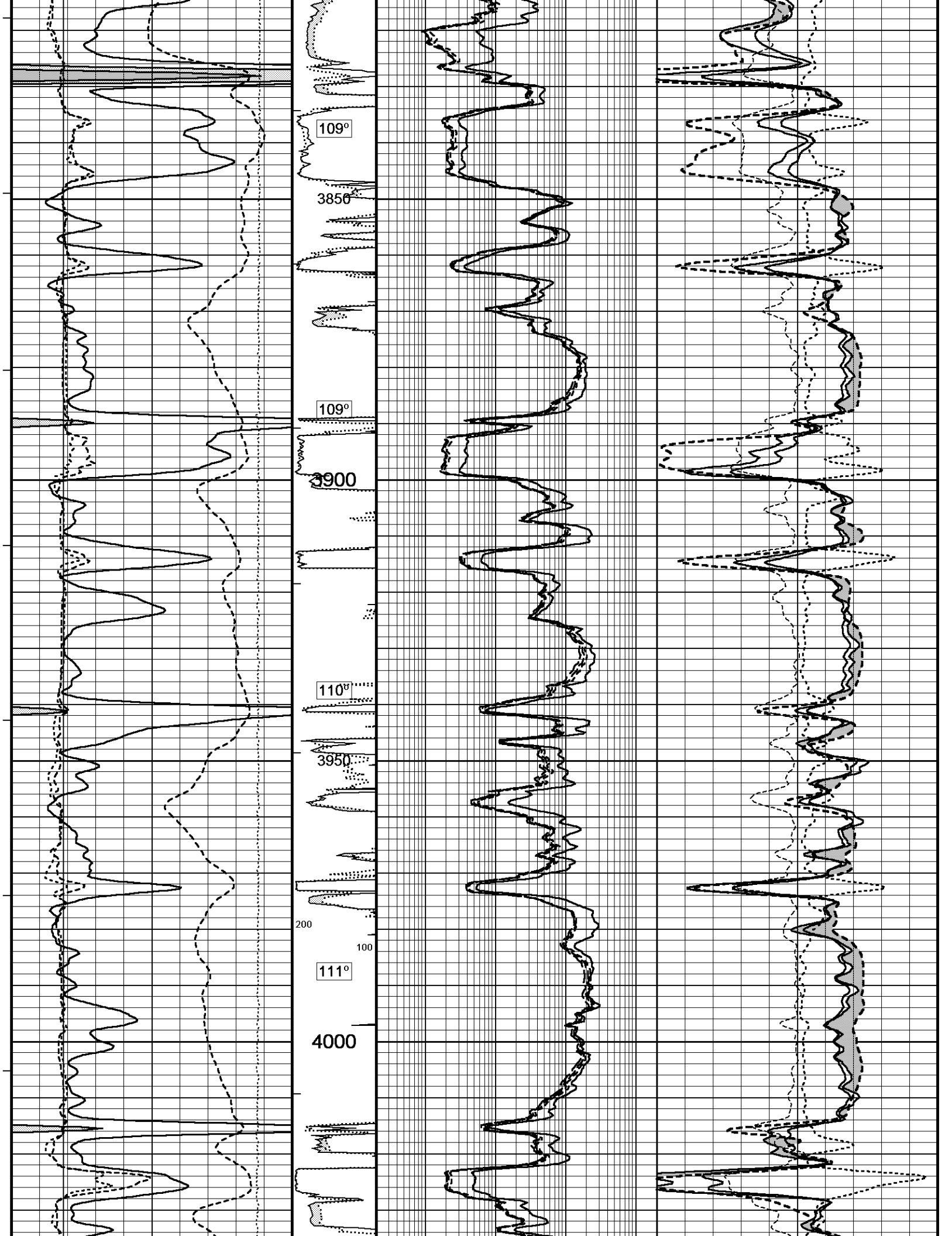
PE
barns/electron
0 5 10

Limestone Density Por.
percent
30 10 -10

DST Uphole Tension
pounds
5000 0

Replay Scale 1:240

3788
3800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110°
3950
200
100
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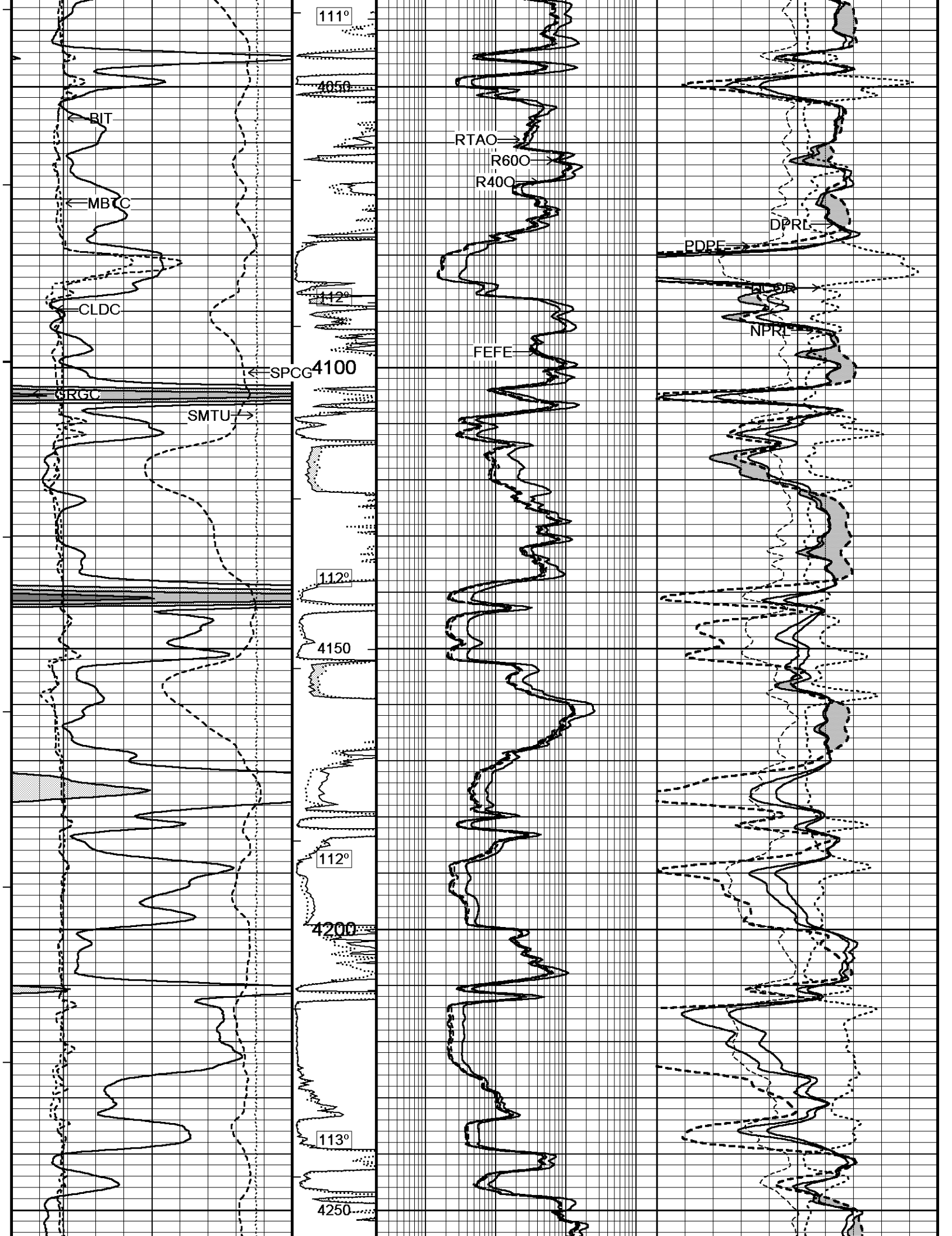
4000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CLDC
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SPCG
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SMTU
112°
4150
112°
4200
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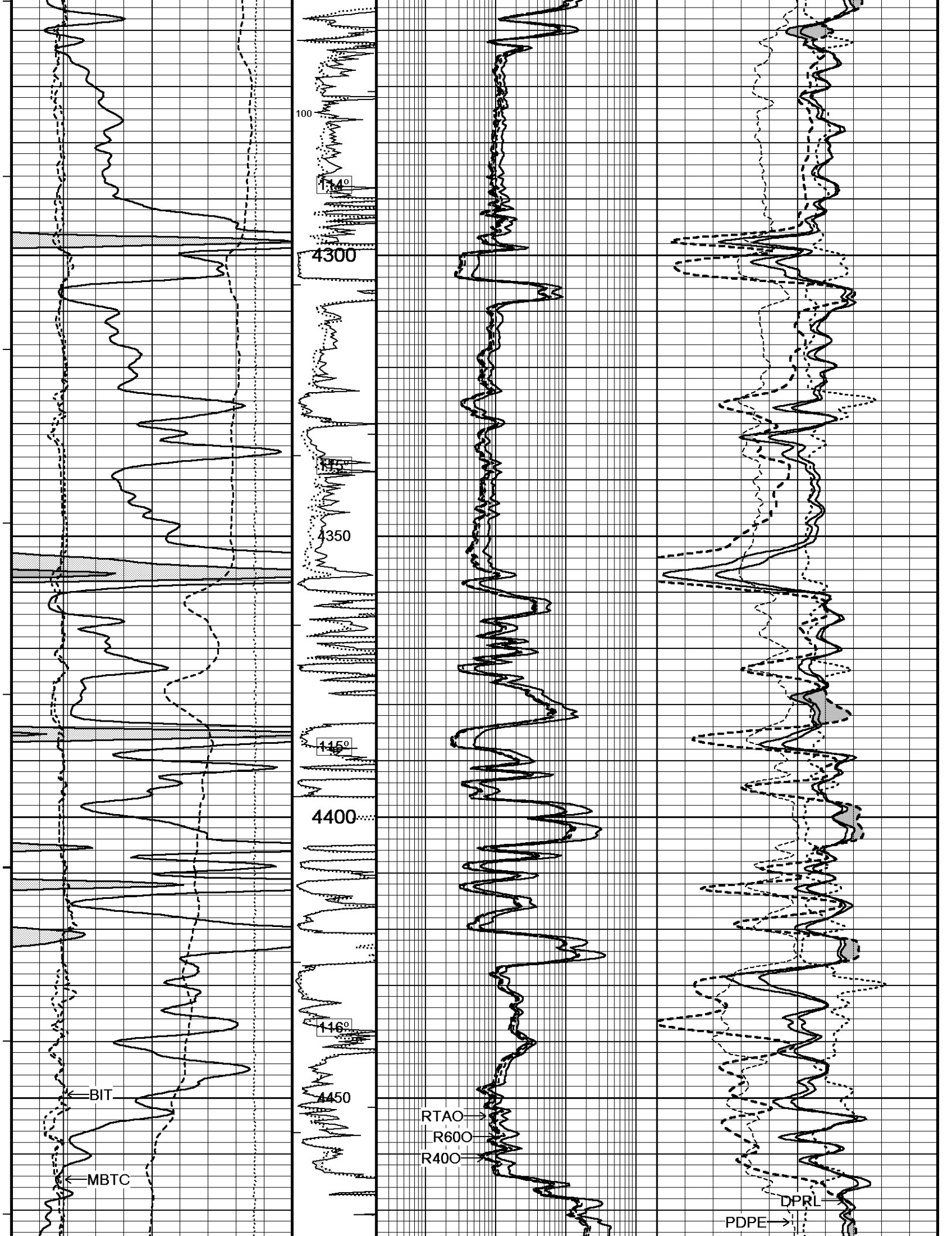
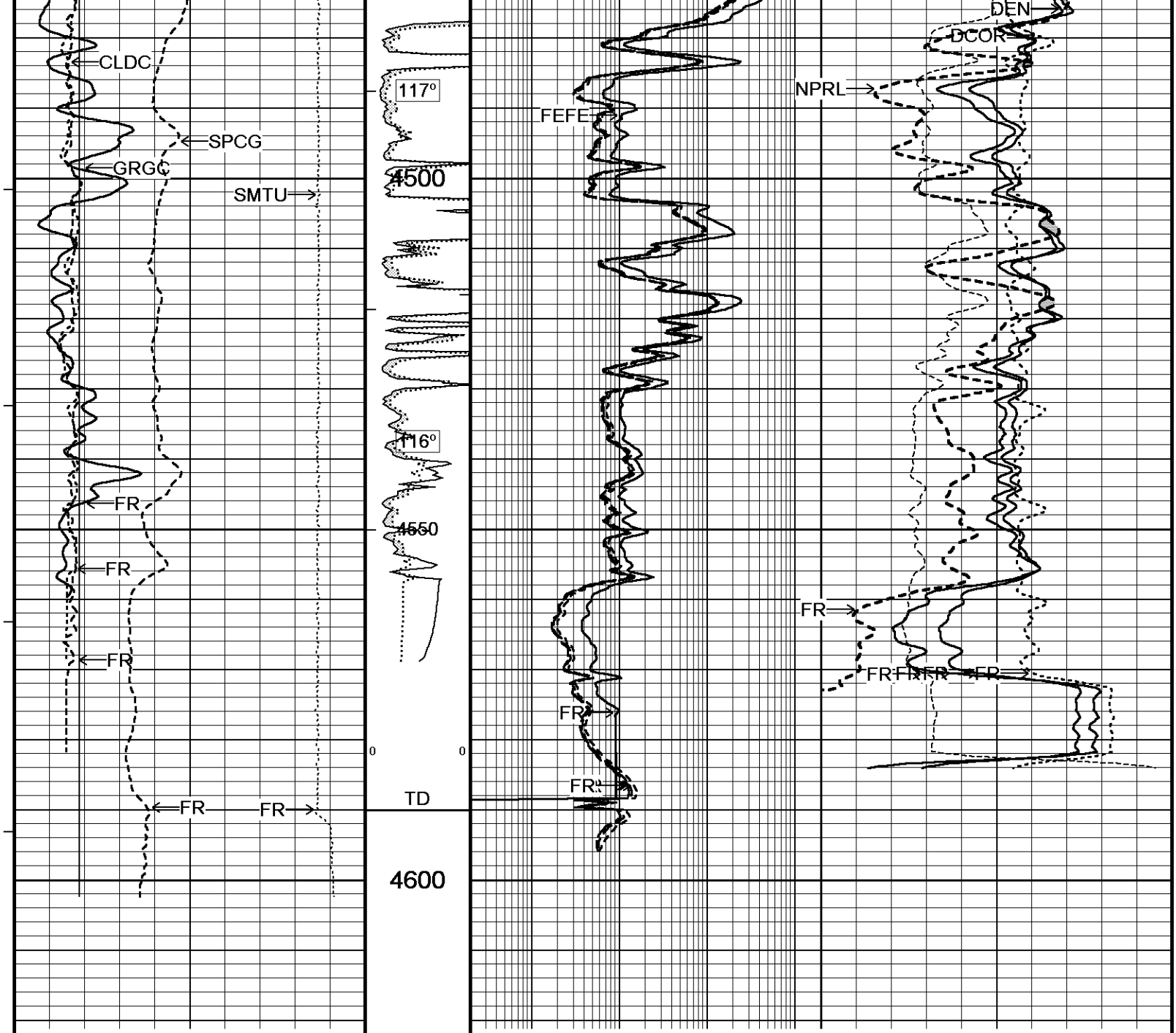
4250
RTAO
R60O
R40O
FEFE
DPRL
PDPE
NPRL


100
114°
4300
115°
4350
115°
4400
116°
4450
BIT
MBTC
RTAO
R60O
R40O
DPRL
PDPE



Timing Marks
every 60.0 sec

Depth
in
Feet

Shallow FE
ohm metres
0.20 1 10 100 1000 2000

Limestone Neutron Por.
percent
30 10 -10

Gamma Ray
API
0 75 150
150 225 300

Borehole
Temp in
deg F

Array Ind. One Res 40
ohm metres
0.20 1 10 100 1000 2000

Density Correction
grams/cc
-0.50 0 0.50

Spontaneous Potential
millivolts
− → | 20 | ← +

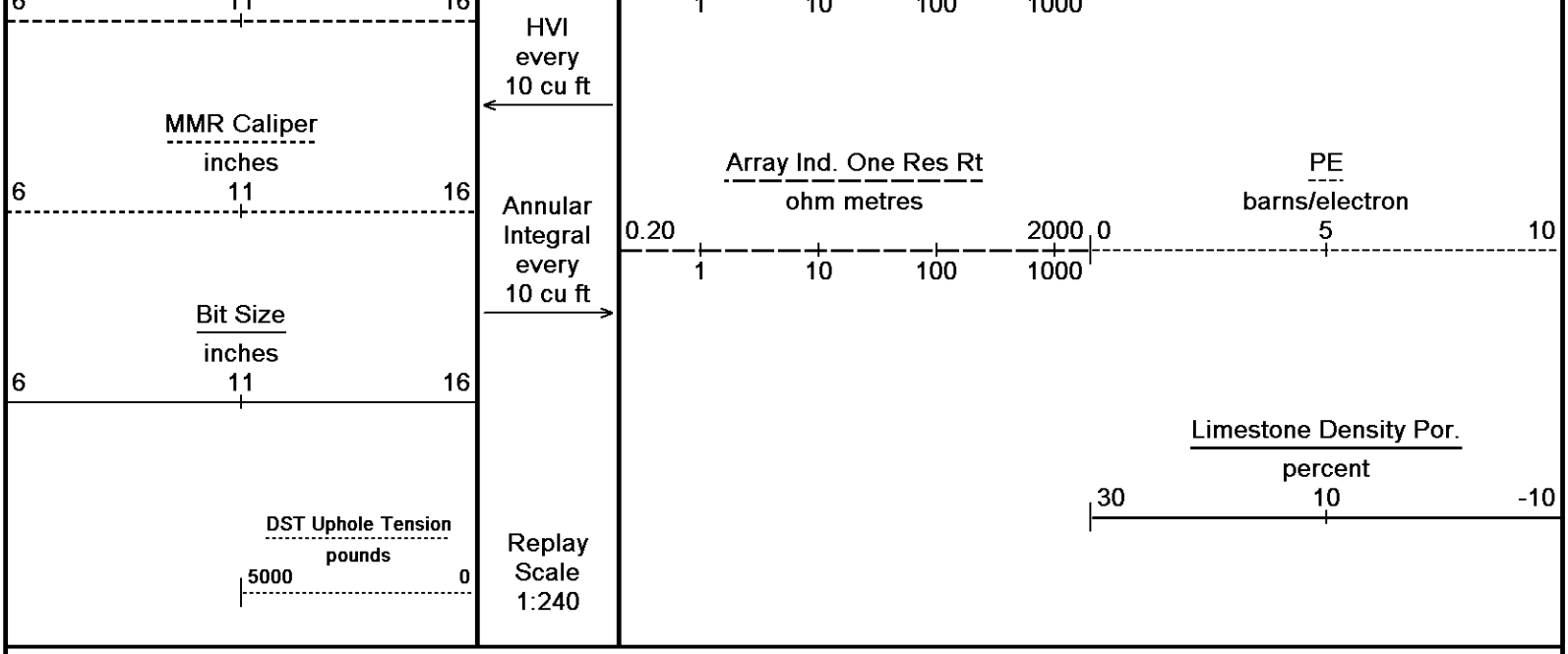
MNRL
0 20

Array Ind. One Res 60
ohm metres
0.20 1 10 100 1000 2000

Compensated Density
grams/cc
2 2.50 3

MINV
0 20

Density Caliper
inches
6 11 16



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 27-NOV-2014 17:41

Filename: C:\Minimus 14.05.5280\Logs\K3 Grusing Unit 10-14\K3 Grusing Unit 10-14 Repeat1.dta — Recorded on 27-NOV-2014 14:05

System Versions: Logged with 14.05.5280 Processed with 14.05.5280 Plotted with 14.05.5280

REPEAT SECTION

BEFORE SURVEY CALIBRATION

C:\Minimus 14.05.5280\Logs\K3 Grusing Unit 10-14\K3 Grusing Unit 10-14 Repeat1.dta

General Constants All 000

Last Edited on 27-NOV-2014,12:27

General Parameters		
Mud Resistivity	1.150	ohm-metres
Mud Resistivity Temperature	75.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	
Rwa Parameters		
Porosity used	Crossplot Porosity	
Resistivity used	Array Ind. Four Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0

Field Calibration on 27-NOV-2014 13:15

Reading No	Measured	Calibrated (lbs)
1	15806.51	0.00
2	16340.04	407.90

Gamma Calibration MCG-F.A 594

Field Calibration on 27-NOV-2014 07:48

	Measured	Calibrated (API)
Background	76	51
Calibrator (Gross)	1153	776
Calibrator (Net)	1077	725

Gamma Calibration Tolerances MCG-F.A 594

Ratio 1.485 (1.40 – 1.475 – 1.55) Counts/API

Gamma Constants MCG-F.A 594

Last Edited on 27-NOV-2014,12:26

Gamma Calibrator Number	GRC038	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.13	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

SP Calibration MCG-F.A 594

Field Calibration on 27-NOV-2014 07:35

	Measured	Calibrated (mV)
Reference 1	100.8	99.1
Reference 2	-97.4	-98.8

High Resolution Temperature Calibration MCG-F.A 594

Field Calibration on 25-SEP-2014,16:40

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG-F.A 594

Last Edited on 25-SEP-2014,16:40

Pre-filter Length	11

Caliper Calibration MMR-C.A 248

Base Calibration on 21-NOV-2014 08:42
Field Calibration on 27-NOV-2014 07:31

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13793	5.98
2	17139	7.97
3	20425	9.86
4	24380	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.98	7.97

Caliper Calibration Tolerances MMR-C.A 248

		7.77	7.97	8.17	
Short Arm Field Cal.	7.98				in

Micro Normal and Micro Inverse Calibration MMR-C.A 248

Base Calibration on 21-NOV-2014 08:49
Field Check on 27-NOV-2014 07:32

Base Calibration

Channel	Measured Resistor 1	Measured Resistor 2	Calibrated (ohm-m) Resistor 1	Calibrated (ohm-m) Resistor 2
Micro Normal	10.2	49.9	5.1	25.6
Micro Inverse	9.9	49.5	3.4	16.9

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	93.5	93.5
Micro Inverse	62.2	62.2

Micro Normal & Micro Inverse Calibration Tolerance MMR-C.A 248

		-5%	10.0	+5%			-5%	50.0	+5%	
Micro Normal Res. 1	10.2				ohm	Micro Normal Res. 2	49.9			ohm
Micro Inverse Res. 1	9.9				ohm	Micro Inverse Res. 2	49.5			ohm

		-2%	93.15	+2%	
Micro Normal Base Check	93.5				ohm-m
Micro Inverse Base Check	62.2		62.12		ohm-m

		-2%	93.5	+2%	
Micro Normal Field Check	93.5				ohm-m
Micro Inverse Field Check	62.2		62.2		ohm-m

Micro Normal and Micro Inverse Constants MMR-C.A 248

Last Edited on 19-SEP-2014,16:14

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159	
Micro Normal K Factor	0.5110	
Micro Inverse K Factor	0.3380	
Standoff Offset	0.0000	inches

Micro-Resistivity Caliper Constants MMR-C.A 248

Last Edited on

Sonde Configuration	Resistivity Mode

Micro Laterolog Calibration MMR-C.A 248

Base Calibration on 31-DEC-1999 00:00
Field Check on 31-DEC-1999 00:00

Base Calibration

Measured		Calibrated (ohm-m)	
Ref 1	Ref 2	Ref 1	Ref 2
0.0	0.0	0.0	0.0

Base Check (ohm-m)	Field Check (ohm-m)
0.0	0.0

Micro Laterolog Constants MMR-C.A 248

Last Edited on 23-SEP-2014,18:59

Pad Type	6 in Solid Nylon B23059	
Micro Laterolog K Factor	0.0128	
Standoff Offset	0.0000	inches

Mudcake Thickness Correction Constants

Mud Cake Source	Constant Value	
Mud Cake Thickness	0.4000	inches
Mud Cake Thickness Caliper	N/A	
Mud Cake Resistivity	0.1500	ohm-m
Mud Cake Resistivity Temp.	68.00	Deg F
Mud Cake Resistivity Source	Constant Value	
Temp. Source Rmc Correc.	N/A	

Neutron Calibration MDN-A.B 163

Base Calibration on 22-OCT-2014 17:32
Field Check on 27-NOV-2014 07:52

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3042	93	3714	110
Ratio	32.627		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1687	2482
Ratio	0.680	

Field Check

	Calibrated (cps)	
	1677	2450
Ratio	0.684	

Neutron Calibration Tolerances MDN-A.B 163

Near Reading	3042	-25% 3500 +25%	cps	Far Reading	93 -50% 106 +50% cps
Ratio	32.627	-5% 33 +5%			
Base Check	0.680	0.65 0.7 0.75			
Field Check	0.684	0.660 0.680 0.700			

Neutron Constants MDN-A.B 163

Last Edited on 27-NOV-2014,12:26

Neutron Source Id	P58125B	
Neutron Jig Number	5824NE	
Air Hole Processing	Legacy	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu

Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-A.A 55

Base Calibration on 21-NOV-2014 08:57
Field Check on 27-NOV-2014 07:16

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	950.8	126.8
Base Check		281.7
Field Check		281.7

FE Calibration Tolerances MFE-A.A 55

Reference 2	950.8	-3% 980.0 +3%	ohm	
Base Check	281.7	-2% 277.0 +2%	ohm-m	
Field Check	281.7	-2% 281.7 +2%	ohm-m	

FE Constants MFE-A.A 55

Last Edited on 27-NOV-2014,12:25

Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Density Caliper	
Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Constant Value: Temperature Corrected	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	0.5	inches

Induction Calibration MAI-A.A 5

Base Calibration on 22-OCT-2014,13:28
Field Check on 27-NOV-2014 07:21

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	16.3	470.8	9.3	966.2
2	5.6	376.1	7.6	821.4
3	2.6	266.1	5.2	566.0
4	1.6	130.0	2.6	279.2
Array Temperature		71.1	Deg F	

Test Loop Calibration Verified 21-NOV-2014 16:29

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High	
1	14.5	3863.1	14.5	3862.4	
2	31.6	3591.6	31.6	3591.3	
3	29.8	2972.0	29.8	2972.2	
4	20.8	2126.6	20.8	2126.8	
Deep	18.4	1912.5	18.4	1912.9	
Medium	43.1	3862.1	43.0	3862.2	
Shallow	47.0	5373.9	47.0	5373.0	
Array Temperature		61.8		61.5	Deg F

Induction Calibration Tolerances MAI-A.A 5

Low Conductivity 1	16.3	13.0 17.0 21.0	mmho/m	High Conductivity 1	470.8	430.0 475.0 520.0	mmho/m
Low Conductivity 2	5.6	4.5 6.0 7.5 / 1.0 3.5 6.0	mmho/m	High Conductivity 2	376.1	345.0 385.0 425.0 / 240.0 260.0 280.0	mmho/m

Low Conductivity 3	2.6	0.0 2.0 4.0	mmho/m	High Conductivity 3	266.1	120.0 135.0 150.0	mmho/m
Low Conductivity 4	1.6	-110.0 -32.5 45.0	mmho/m	High Conductivity 4	130.0	-2.0 0.0 2.0	mmho/m
Background Vx 1	0.0	-35.0 20.0 75.0	mmho/m	Phase Check Loop 1	0.0	-2.0 0.0 2.0	%
Background Vx 2	0.0	-60.0 2.5 65.0	mmho/m	Phase Check Loop 2	0.0	-2.0 0.0 2.0	%
Background Vx 3	0.0	-50.0 -17.5 15.0	mmho/m	Phase Check Loop 3	0.0	-2.0 0.0 2.0	%
Background Vx 4	0.0		mmho/m	Phase Check Loop 4	0.0	-2.0 0.0 2.0	%

Induction Constants MAI-A.A 5

Last Edited on 27-NOV-2014,12:25

Induction Model	RtAP-WBM	
Caliper for Borehole Corr.	Density Caliper	
Hole Size for Borehole Correction	N/A	inches
Tool Centred	No	
Stand-off Type	Fins	
Stand-off	0.50	inches
Number of Fins on Stand-off	8.0000	
Stand-off Fin Angle	45.00	degrees
Stand-off Fin Width	0.0000	inches
Borehole Corr. Rm Source	Global Value: Temperature Corrected	
Temp. for Rm Corr.	MCG External Temperature	
Squasher Start	0.0020	mhos/metre
Squasher Offset	N/A	mhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1		0.0000
DRM2	0.0000	DRC2		0.0000
MRM1	0.0000	MRC1		0.0000
MRM2	0.0000	MRC2		0.0000
SRM1	0.0000	SRC1		0.0000
SRM2	0.0000	SRC2		0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants

Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

High Resolution Temperature Calibration MAI-A.A 5

Field Calibration on 01-NOV-2014,01:00

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-A.A 5

Last Edited on 01-NOV-2014,01:00

Pre-filter Length	11

Photo Density Calibration MPD-D.A 481

Base Calibration on 21-NOV-2014 17:33
Field Check on 27-NOV-2014 07:29

Density Calibration

Base Calibration	Measured Near	Measured Far	Calibrated (sdu) Near	Calibrated (sdu) Far
Background	1210	1417		
Reference 1	54958	25863	59556	30836
Reference 2	22227	2586	24941	2541

Field Check at Base

	1210.3	1416.9

Field Check

1206.9 1424.8

PE Calibration

Base Calibration	WS	Measured WH	Ratio	Calibrated Ratio
Background	228	1082		
Reference 1	23973	54761	0.442	0.371
Reference 2	6760	22088	0.311	0.272

Field Check at Base

227.8 1081.5

Field Check

229.9 1079.8

Photo Density Calibration Tolerances MPD-D.A 481

Near Density Ratio	2.56	-5% 2.52 +5%	Far Density Ratio	20.91	-5% 21.00 +5%
PE Calibration	0.123	0.089 0.110 0.131			
Near Den. Field Check	1206.9	-3% 1210.3 +3%	Far Den. Field Check	1424.8	-3% 1416.9 +3%
PE WS Field Check	229.9	-6% 227.8 +6%	PE WH Field Check	1079.8	-6% 1081.5 +6%

Density Constants MPD-D.A 481

Last Edited on 27-NOV-2014,12:25

Density Source Id	P50557B	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.13	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	

Matrix density (gm/cc)	Depth (m)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	

Caliper Calibration MPD-D.A 481

Base Calibration on 21-NOV-2014 17:17
Field Calibration on 27-NOV-2014 07:23

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17697	3.99
2	27802	5.98
3	37891	7.97
4	47589	9.86
5	58699	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.94	7.97

Caliper Calibration Tolerances MPD-D.A 481

Short Arm Field Cal.	7.94	7.77 7.97 8.17	in

DOWNHOLE EQUIPMENT

C:\Minimus 14.05.5280\Logs\K3 Grusing Unit 10-14\K3 Grusing Unit 10-14 Repeat1.dta

CBH-C, Cablehead, 11 pin
CBH-C 266 LG: 2.40 ft WT: 24.3 lb OD: 2.240 in

Compact Comms Gamma
MCG-F.A 594 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-Resistivity
MMR-C.A 248 LG: 8.59 ft WT: 81.6 lb OD: 4.882 in

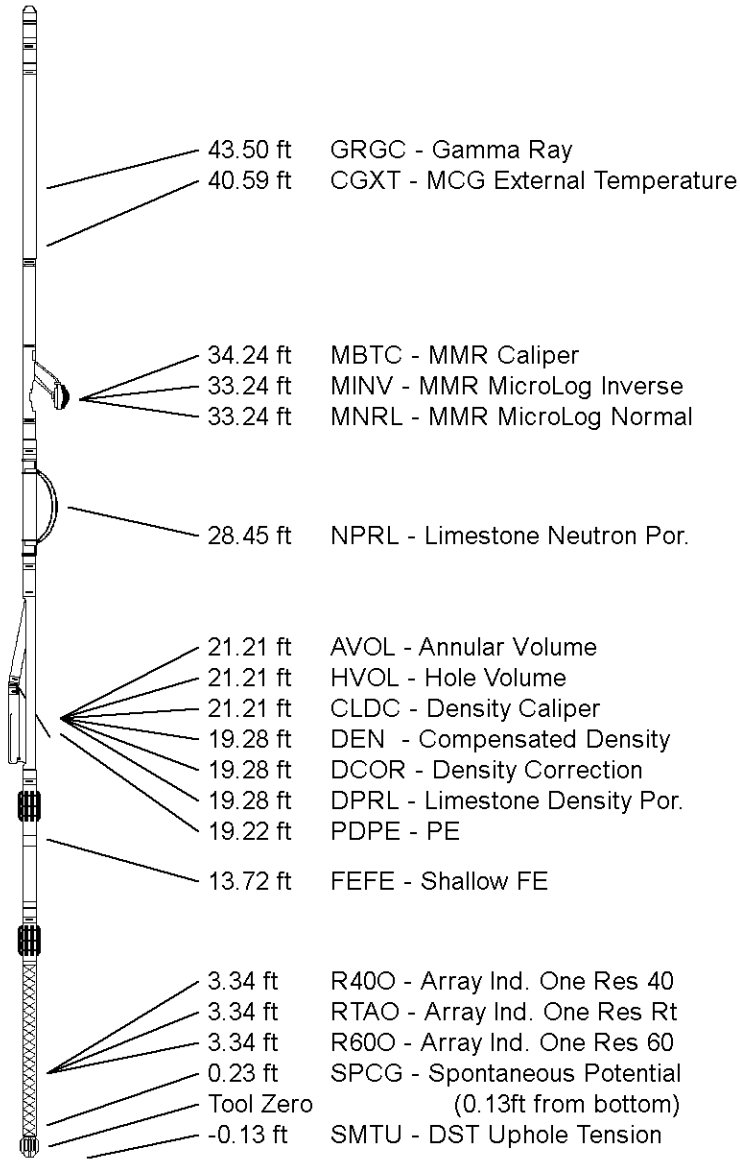
Compact Neutron
MDN-A.B 163 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper
MPD-D.A 481 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Focussed Electric
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-A.A 5 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 51.18 ft Weight: 407.9 lb



COMPANY	K3 OIL AND GAS
WELL	GRUSING UNIT 10-14
FIELD	BROUGHTON
PROVINCE/COUNTY	LANE
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	2595.30	feet	First Reading	4587.00	feet
Elevation Drill Floor	2593.30	feet	Depth Driller	4590.00	feet
Elevation Ground Level	2587.30	feet	Depth Logger	4590.00	feet

Weatherford®

COMPOSITE LOG

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.21 @ 19:56:15

End Date: 2014.11.22 @ 02:10:45

Job Ticket #: 59665 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:54:18

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59665 **DST#: 1**

Test Start: 2014.11.21 @ 19:56:15

GENERAL INFORMATION:

Formation: **KC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:28:15
Time Test Ended: 02:10:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3936.00 ft (KB) To 3960.00 ft (KB) (TVD)
Total Depth: 3960.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

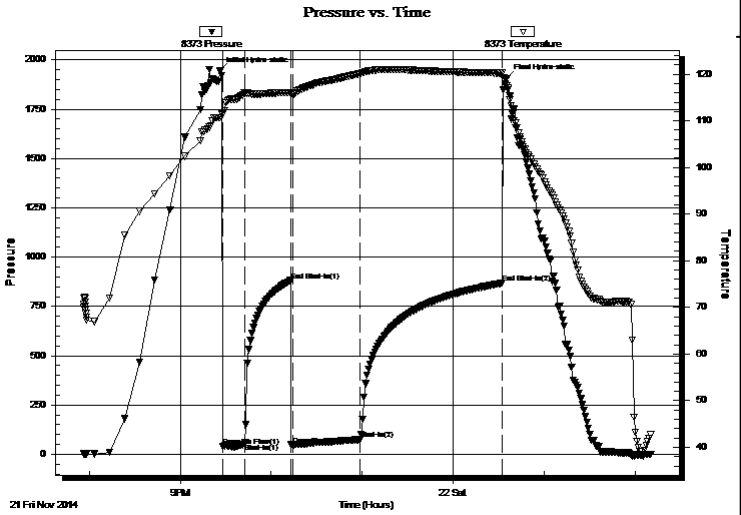
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 74.09 psig @ 3937.00 ft (KB)
Start Date: 2014.11.21 End Date: 2014.11.22
Start Time: 19:56:20 End Time: 02:10:44

Capacity: 8000.00 psig
Last Calib.: 2014.11.22
Time On Btm: 2014.11.21 @ 21:26:15
Time Off Btm: 2014.11.22 @ 00:35:15

TEST COMMENT: IF: 1/4" blow built to 2 1/2" in 15 mins.
IS: No return.
FF: Surface blow built to 3" in 45 mins.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1943.19	110.73	Initial Hydro-static
2	40.97	111.30	Open To Flow (1)
17	58.57	115.98	Shut-In(1)
47	880.71	116.10	End Shut-In(1)
48	45.88	115.71	Open To Flow (2)
92	74.09	120.09	Shut-In(2)
186	867.66	120.24	End Shut-In(2)
189	1903.74	117.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cm 40%w 60%m	0.87
40.00	mcw 60%w 40%m	0.56

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59665 **DST#: 1**

Test Start: 2014.11.21 @ 19:56:15

GENERAL INFORMATION:

Formation: **KC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:28:15
Time Test Ended: 02:10:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Brandon Turley
Unit No: 79

Interval: 3936.00 ft (KB) To 3960.00 ft (KB) (TVD)
Total Depth: 3960.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

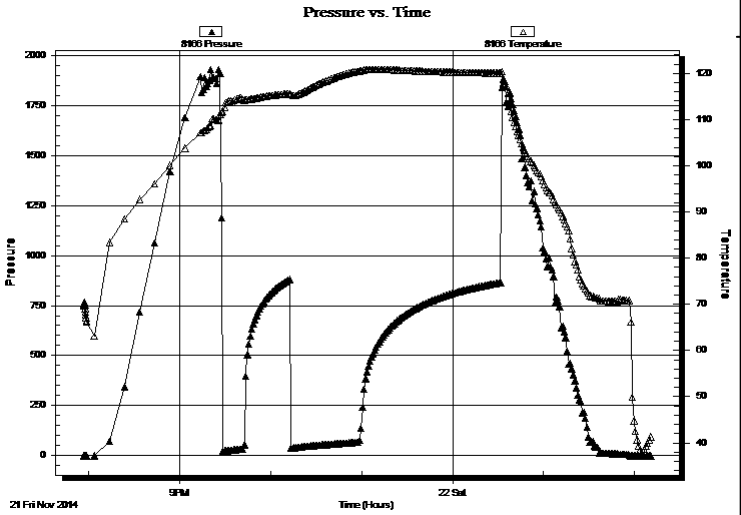
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: psig @ 3937.00 ft (KB)
Start Date: 2014.11.21 End Date: 2014.11.22
Start Time: 19:56:37 End Time: 02:10:31

Capacity: 8000.00 psig
Last Calib.: 2014.11.22
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 2 1/2" in 15 mins.
IS: No return.
FF: Surface blow built to 3" in 45 mins.
FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cm 40%w 60%m	0.87
40.00	mcw 60%w 40%m	0.56

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59665 **DST#: 1**

Test Start: 2014.11.21 @ 19:56:15

Tool Information

Drill Pipe:	Length:	3917.00 ft	Diameter:	3.80	inches	Volume:	54.95	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
						Total Volume:	54.95	bbl	

Drill Pipe Above KB:	8.00 ft
Depth to Top Packer:	3936.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	24.00 ft
Tool Length:	51.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		60000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3910.00		
Shut In Tool	5.00			3915.00		
Hydraulic tool	5.00			3920.00		
Jars	5.00			3925.00		
Safety Joint	2.00			3927.00		
Packer	5.00			3932.00	27.00	Bottom Of Top Packer
Packer	4.00			3936.00		
Stubb	1.00			3937.00		
Recorder	0.00	8373	Inside	3937.00		
Recorder	0.00	8166	Outside	3937.00		
Perforations	18.00			3955.00		
Bullnose	5.00			3960.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**51.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59665 **DST#: 1**

Test Start: 2014.11.21 @ 19:56:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	65000 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.76 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	w cm 40%w 60%m	0.870
40.00	mcw 60%w 40%m	0.561

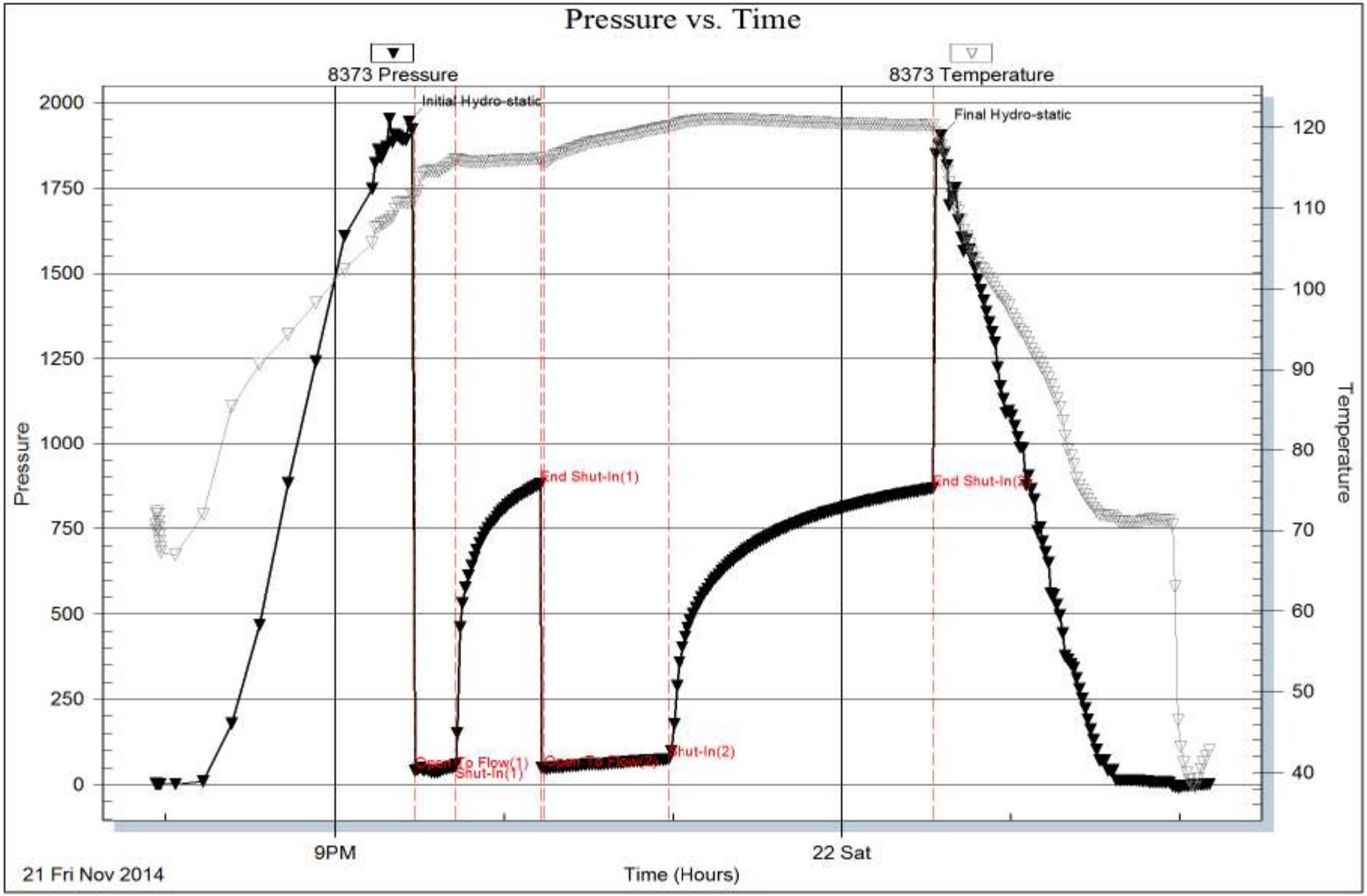
Total Length: 102.00 ft Total Volume: 1.431 bbl

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

Laboratory Name: Laboratory Location:

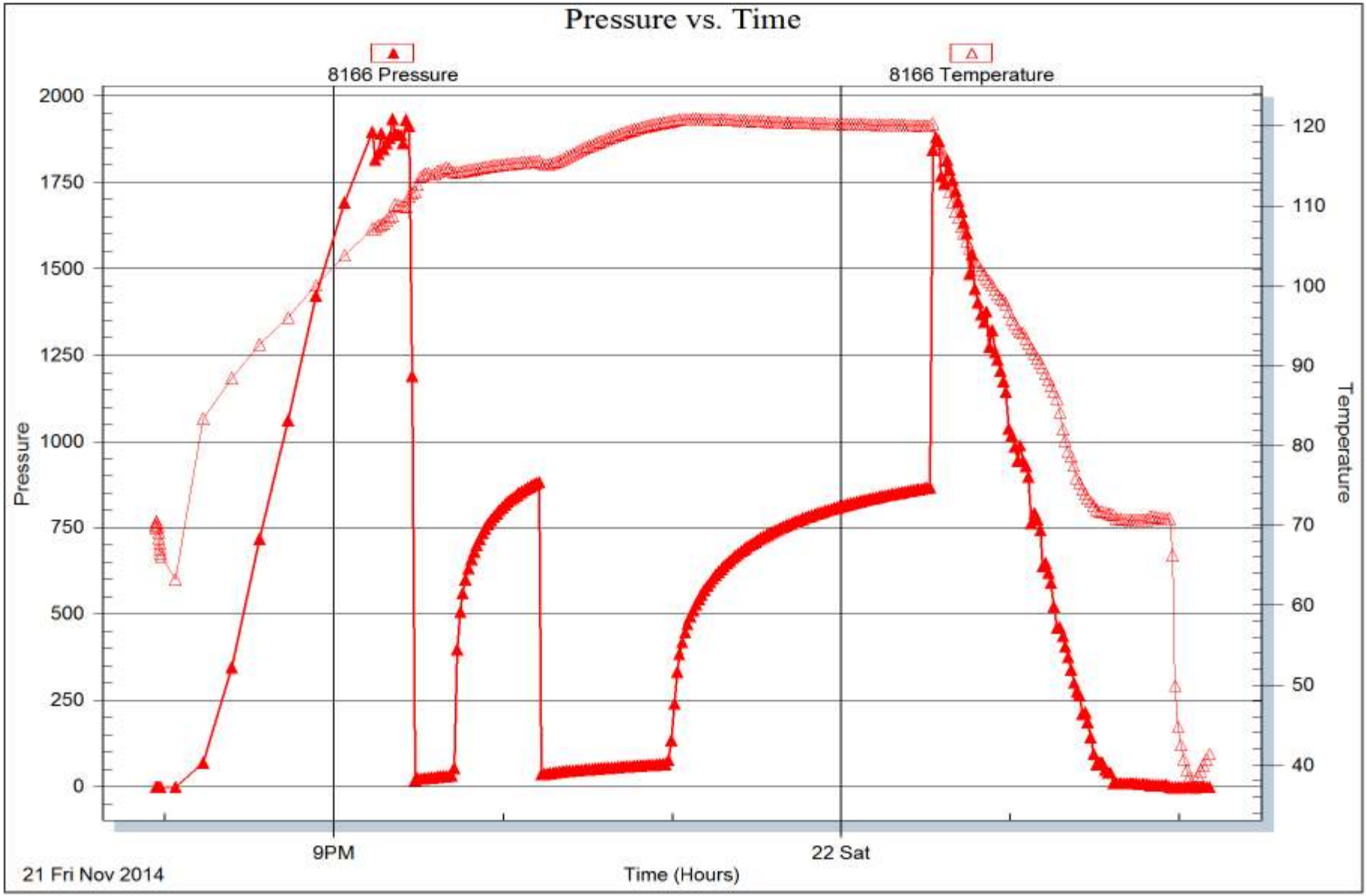
Recovery Comments: .19@45=65000

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 59665 Printed: 2014.11.26 @ 13:54:19

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 59665 Printed: 2014.11.26 @ 13:54:19

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.22 @ 14:44:07

End Date: 2014.11.22 @ 21:17:07

Job Ticket #: 59666 DST #: 2

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:53:45

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59666 **DST#: 2**

Test Start: 2014.11.22 @ 14:44:07

GENERAL INFORMATION:

Formation: **LKC F Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:33:07
Time Test Ended: 21:17:07

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4012.00 ft (KB) To 4025.00 ft (KB) (TVD)
Total Depth: 4025.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

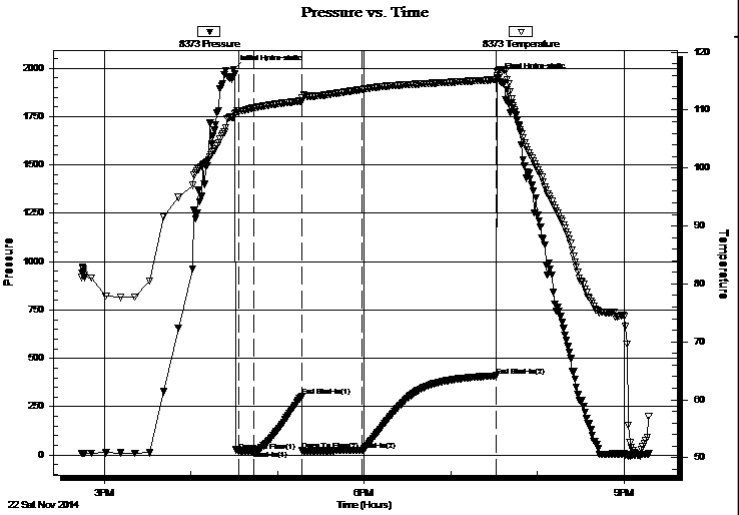
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 23.30 psig @ 4013.00 ft (KB)
Start Date: 2014.11.22 End Date: 2014.11.22
Start Time: 14:44:12 End Time: 21:17:06

Capacity: 8000.00 psig
Last Calib.: 2014.11.22
Time On Btm: 2014.11.22 @ 16:29:37
Time Off Btm: 2014.11.22 @ 19:32:37

TEST COMMENT: IF: 1/4" blow built 2.
IS: No return.
FF: 2" blow BOB in 30 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.57	108.70	Initial Hydro-static
4	21.25	109.90	Open To Flow (1)
14	22.15	110.41	Shut-In(1)
47	302.17	111.58	End Shut-In(1)
48	21.93	112.08	Open To Flow (2)
89	23.30	113.56	Shut-In(2)
182	409.72	115.27	End Shut-In(2)
183	1952.14	116.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
31.00	ocm 10%o 90%m	0.43
0.00	279 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59666 **DST#: 2**

Test Start: 2014.11.22 @ 14:44:07

GENERAL INFORMATION:

Formation: **LKC F Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:33:07
Time Test Ended: 21:17:07

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4012.00 ft (KB) To 4025.00 ft (KB) (TVD)
Total Depth: 4025.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

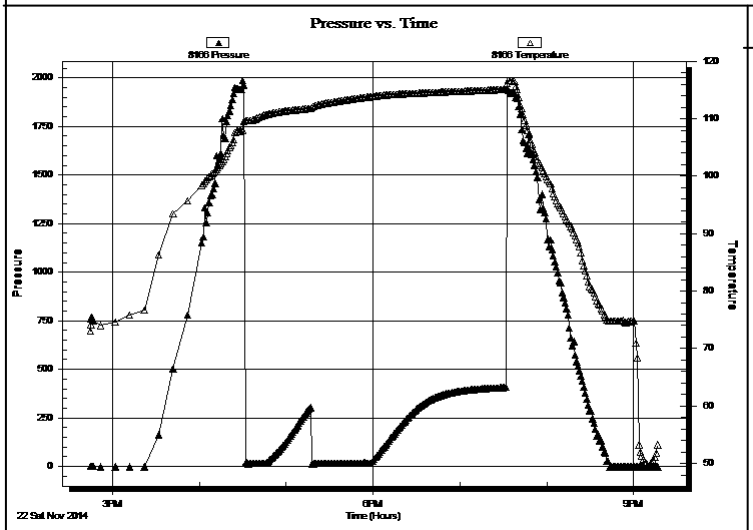
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: psig @ 4013.00 ft (KB)
Start Date: 2014.11.22 End Date: 2014.11.22
Start Time: 14:44:43 End Time: 21:17:07

Capacity: 8000.00 psig
Last Calib.: 2014.11.22
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built 2.
IS: No return.
FF: 2" blow BOB in 30 min.
FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
31.00	ocm 10%o 90%m	0.43
0.00	279 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59666 **DST#: 2**

Test Start: 2014.11.22 @ 14:44:07

Tool Information

Drill Pipe:	Length:	4010.00 ft	Diameter:	3.80 inches	Volume:	56.25 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	56.25 bbl	

Drill Pipe Above KB:	25.00 ft
Depth to Top Packer:	4012.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	13.00 ft
Tool Length:	40.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		75000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	58000.00 lb
	Final	58000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3986.00		
Shut In Tool	5.00			3991.00		
Hydraulic tool	5.00			3996.00		
Jars	5.00			4001.00		
Safety Joint	2.00			4003.00		
Packer	5.00			4008.00	27.00	Bottom Of Top Packer
Packer	4.00			4012.00		
Stubb	1.00			4013.00		
Recorder	0.00	8373	Inside	4013.00		
Recorder	0.00	8166	Outside	4013.00		
Perforations	7.00			4020.00		
Bullnose	5.00			4025.00	13.00	Bottom Packers & Anchor
Total Tool Length:	**40.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59666 **DST#: 2**

Test Start: 2014.11.22 @ 14:44:07

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

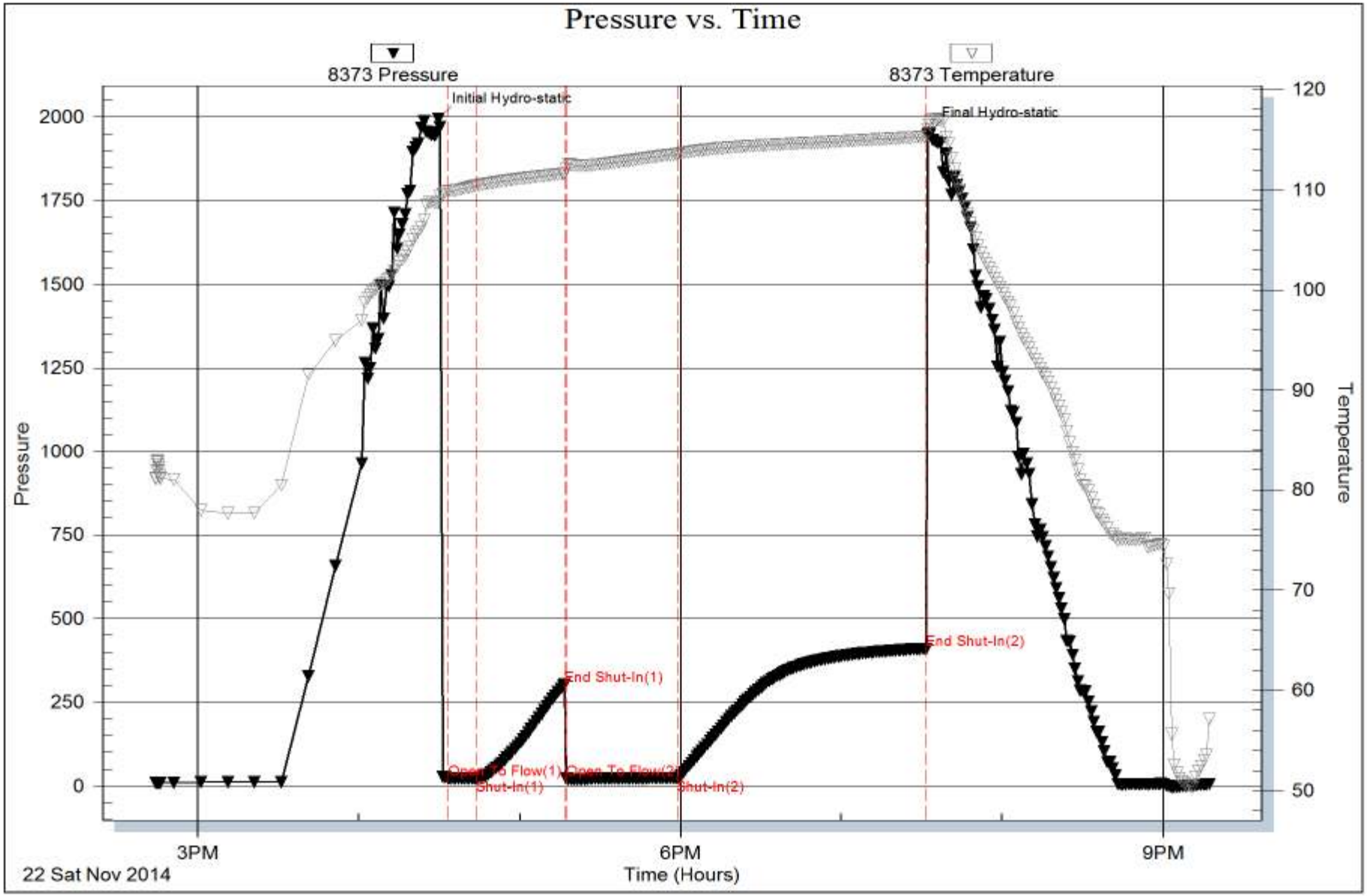
Recovery Table

Length ft	Description	Volume bbl
31.00	ocm 10%o 90%m	0.435
0.00	279 GIP	0.000

Total Length: 31.00 ft Total Volume: 0.435 bbl

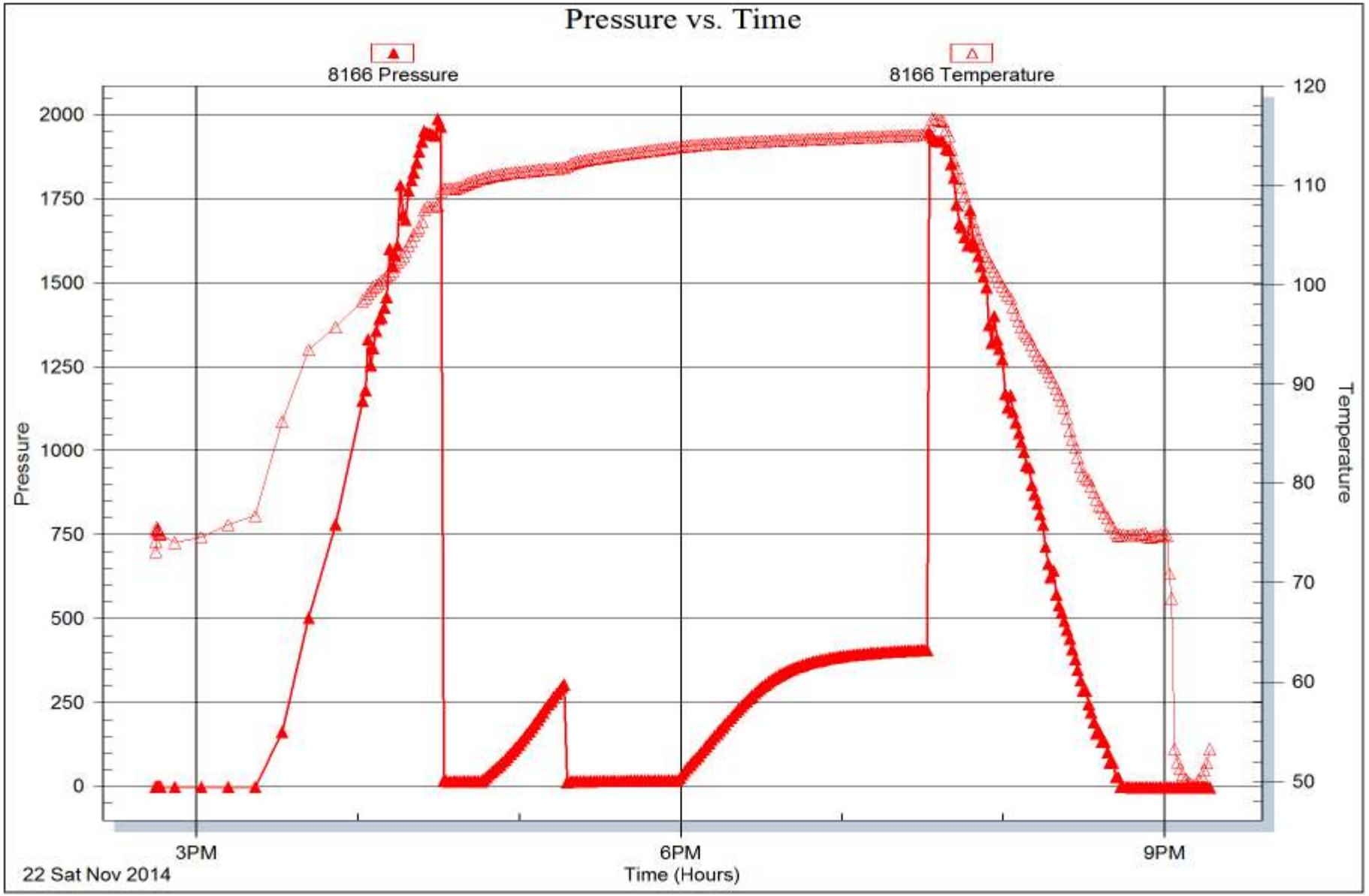
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59666 Printed: 2014.11.26 @ 13:53:46

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59666 Printed: 2014.11.26 @ 13:53:46

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.23 @ 08:15:51

End Date: 2014.11.23 @ 13:12:51

Job Ticket #: 59667 DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:53:23

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59667 **DST#: 3**

Test Start: 2014.11.23 @ 08:15:51

GENERAL INFORMATION:

Formation: **LKC G Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:42:21
Time Test Ended: 13:12:51

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4025.00 ft (KB) To 4045.00 ft (KB) (TVD)
Total Depth: 4045.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

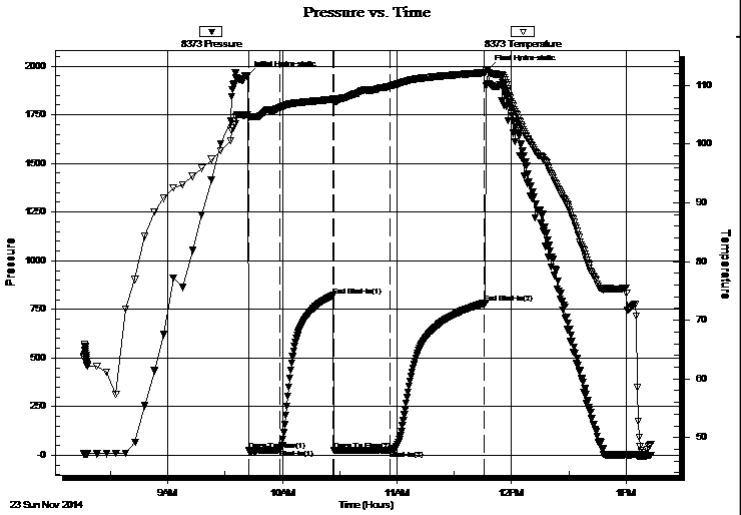
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 27.30 psig @ 4026.00 ft (KB)
Start Date: 2014.11.23 End Date: 2014.11.23
Start Time: 08:15:56 End Time: 13:12:50

Capacity: 8000.00 psig
Last Calib.: 2014.11.23
Time On Btm: 2014.11.23 @ 09:41:51
Time Off Btm: 2014.11.23 @ 11:47:51

TEST COMMENT: IF: 1/4" blow died in 8 min.
IS: No return.
FF: No blow .
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1950.03	105.01	Initial Hydro-static
1	23.65	104.60	Open To Flow (1)
17	29.91	106.17	Shut-In(1)
45	820.63	107.65	End Shut-In(1)
45	25.02	107.29	Open To Flow (2)
75	27.30	109.86	Shut-In(2)
124	782.44	112.17	End Shut-In(2)
126	1982.97	112.74	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59667 **DST#: 3**

Test Start: 2014.11.23 @ 08:15:51

GENERAL INFORMATION:

Formation: **LKC G Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:42:21
Time Test Ended: 13:12:51

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4025.00 ft (KB) To 4045.00 ft (KB) (TVD)
Total Depth: 4045.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

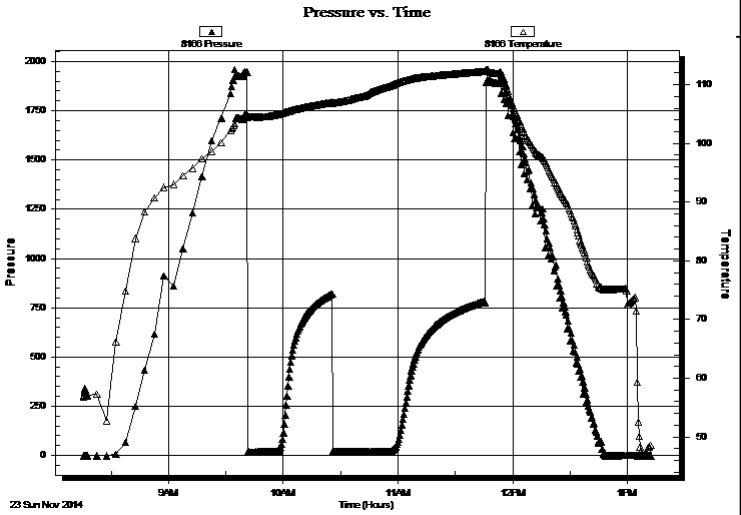
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: psig @ 4026.00 ft (KB)
Start Date: 2014.11.23 End Date: 2014.11.23
Start Time: 08:15:41 End Time: 13:12:05

Capacity: 8000.00 psig
Last Calib.: 2014.11.23
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow died in 8 min.
IS: No return.
FF: No blow .
FS: No return.



PRESSURE SUMMARY

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

Recovery

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

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59667 **DST#: 3**

Test Start: 2014.11.23 @ 08:15:51

Tool Information

Drill Pipe:	Length:	4010.00 ft	Diameter:	3.80 inches	Volume:	56.25 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	56.25 bbl	

Drill Pipe Above KB:	12.00 ft
Depth to Top Packer:	4025.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	20.00 ft
Tool Length:	47.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		70000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	52000.00 lb
	Final	52000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			3999.00		
Shut In Tool	5.00			4004.00		
Hydraulic tool	5.00			4009.00		
Jars	5.00			4014.00		
Safety Joint	2.00			4016.00		
Packer	5.00			4021.00	27.00	Bottom Of Top Packer
Packer	4.00			4025.00		
Stubb	1.00			4026.00		
Recorder	0.00	8373	Inside	4026.00		
Recorder	0.00	8166	Outside	4026.00		
Perforations	14.00			4040.00		
Bullnose	5.00			4045.00	20.00	Bottom Packers & Anchor
Total Tool Length:	**47.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59667 **DST#: 3**

Test Start: 2014.11.23 @ 08:15:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%m	0.140

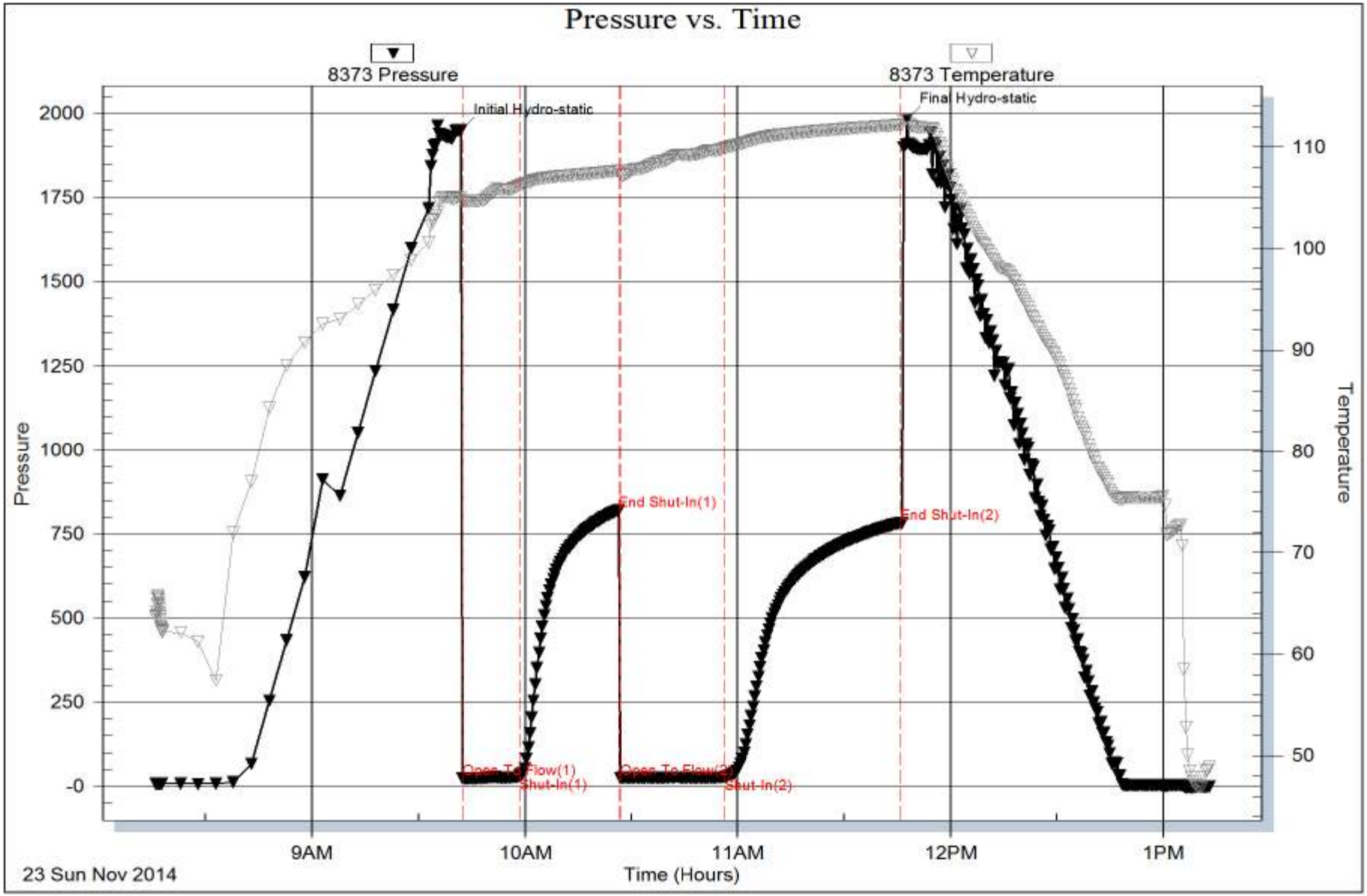
Total Length: 10.00 ft Total Volume: 0.140 bbl

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

Laboratory Name: Laboratory Location:

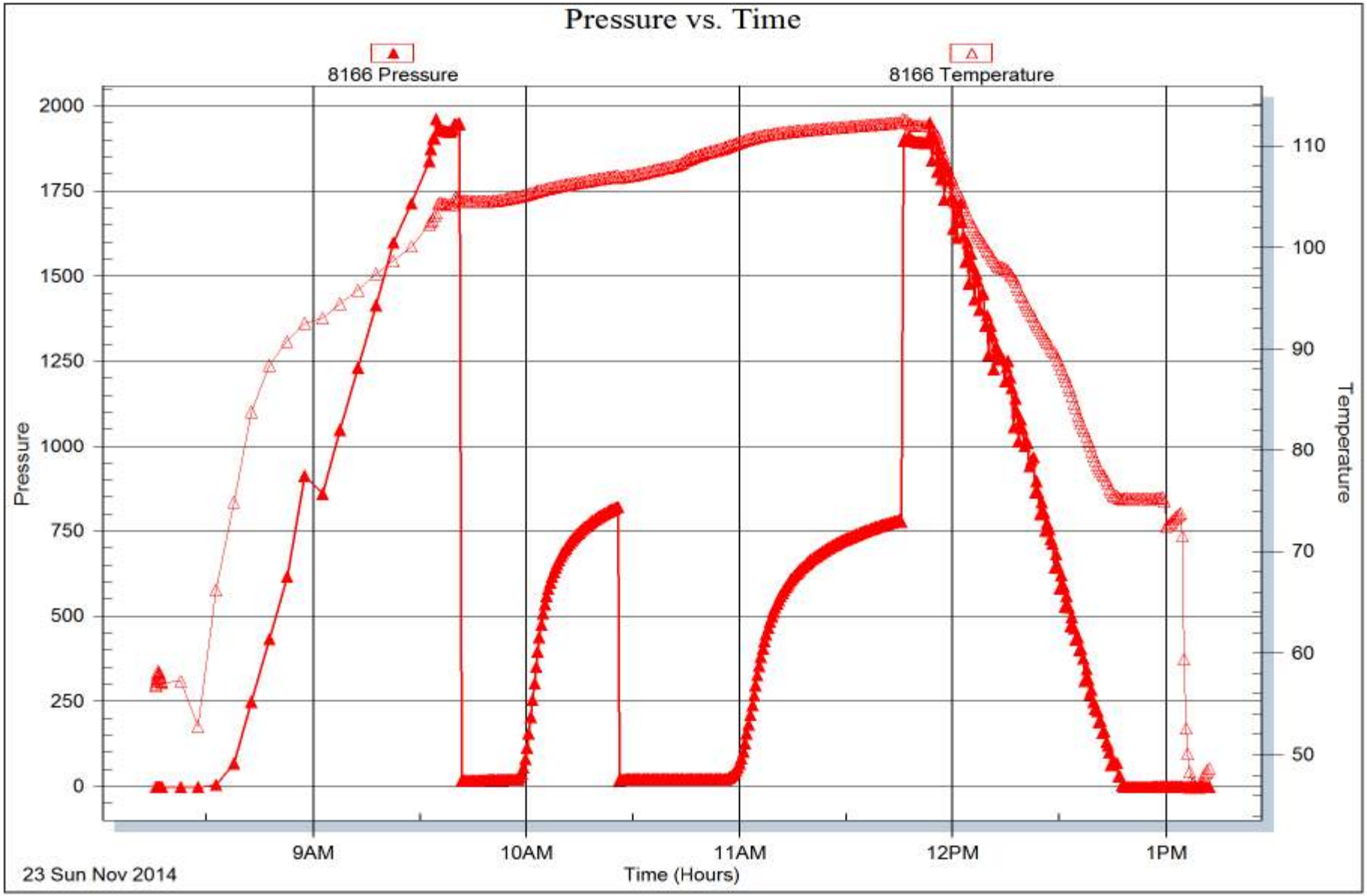
Recovery Comments:

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 59667 Printed: 2014.11.26 @ 13:53:24

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 59667 Printed: 2014.11.26 @ 13:53:24

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.23 @ 21:49:36

End Date: 2014.11.24 @ 04:04:36

Job Ticket #: 59668 DST #: 4

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:52:57

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59668 **DST#: 4**

Test Start: 2014.11.23 @ 21:49:36

GENERAL INFORMATION:

Formation: **H lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:51:36
Time Test Ended: 04:04:36

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4058.00 ft (KB) To 4070.00 ft (KB) (TVD)
Total Depth: 4070.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

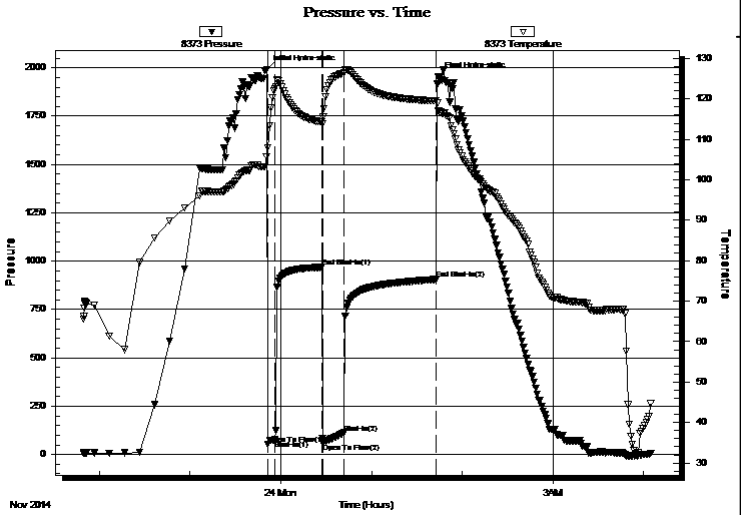
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 112.68 psig @ 4059.00 ft (KB)
Start Date: 2014.11.23 End Date: 2014.11.24
Start Time: 21:49:41 End Time: 04:04:35

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm: 2014.11.23 @ 23:50:36
Time Off Btm: 2014.11.24 @ 01:44:06

TEST COMMENT: IF: BOB in 1 min.
IS: Surface blow built to 6" in 30 min.
FF: BOB in 1 min.
FS: BOB in 24 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.89	105.76	Initial Hydro-static
1	53.95	107.87	Open To Flow (1)
6	76.31	122.53	Shut-In(1)
37	969.15	114.32	End Shut-In(1)
38	59.23	115.53	Open To Flow (2)
51	112.68	126.39	Shut-In(2)
112	905.92	119.54	End Shut-In(2)
114	1953.41	117.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mcgo 50%g 10%o 40%m	0.87
62.00	go 20%g 80%o	0.87
155.00	go 10%g 90%o	2.17
0.00	3701 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59668 **DST#: 4**

Test Start: 2014.11.23 @ 21:49:36

GENERAL INFORMATION:

Formation: **H lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:51:36
Time Test Ended: 04:04:36

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4058.00 ft (KB) To 4070.00 ft (KB) (TVD)
Total Depth: 4070.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

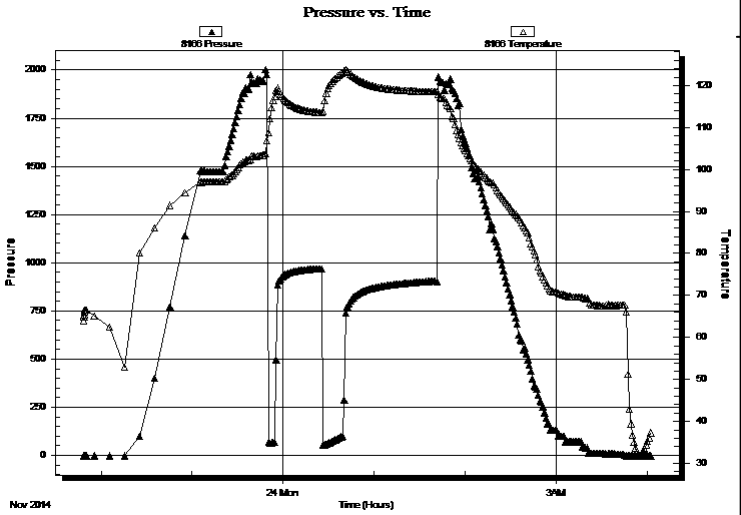
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: psig @ 4059.00 ft (KB)
Start Date: 2014.11.23 End Date: 2014.11.24
Start Time: 21:48:30 End Time: 04:02:54

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB in 1 min.
IS: Surface blow built to 6" in 30 min.
FF: BOB in 1 min.
FS: BOB in 24 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mcgo 50%g 10%o 40%m	0.87
62.00	go 20%g 80%o	0.87
155.00	go 10%g 90%o	2.17
0.00	3701 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59668 **DST#: 4**

Test Start: 2014.11.23 @ 21:49:36

Tool Information

Drill Pipe:	Length:	4041.00 ft	Diameter:	3.80 inches	Volume:	56.68 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	56.68 bbl	

Drill Pipe Above KB:	10.00 ft
Depth to Top Packer:	4058.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	12.00 ft
Tool Length:	39.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		85000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	52000.00 lb
	Final	58000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			4032.00		
Shut In Tool	5.00			4037.00		
Hydraulic tool	5.00			4042.00		
Jars	5.00			4047.00		
Safety Joint	2.00			4049.00		
Packer	5.00			4054.00	27.00	Bottom Of Top Packer
Packer	4.00			4058.00		
Stubb	1.00			4059.00		
Recorder	0.00	8373	Inside	4059.00		
Recorder	0.00	8166	Outside	4059.00		
Perforations	6.00			4065.00		
Bullnose	5.00			4070.00	12.00	Bottom Packers & Anchor
Total Tool Length:	**39.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59668 **DST#: 4**

Test Start: 2014.11.23 @ 21:49:36

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	39 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

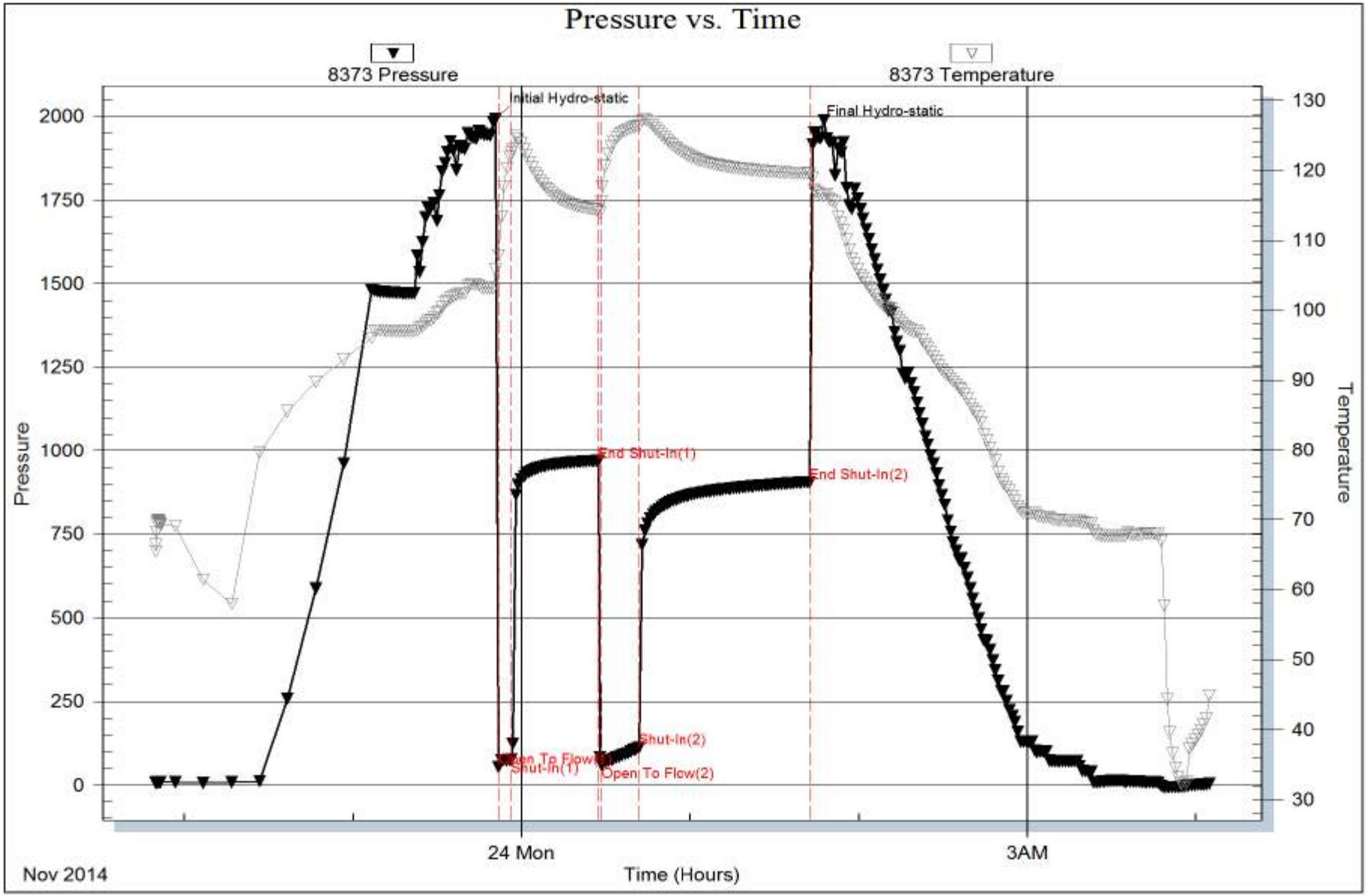
Recovery Table

Length ft	Description	Volume bbl
62.00	mcgo 50%g 10%o 40%m	0.870
62.00	go 20%g 80%o	0.870
155.00	go 10%g 90%o	2.174
0.00	3701 GIP	0.000

Total Length: 279.00 ft Total Volume: 3.914 bbl

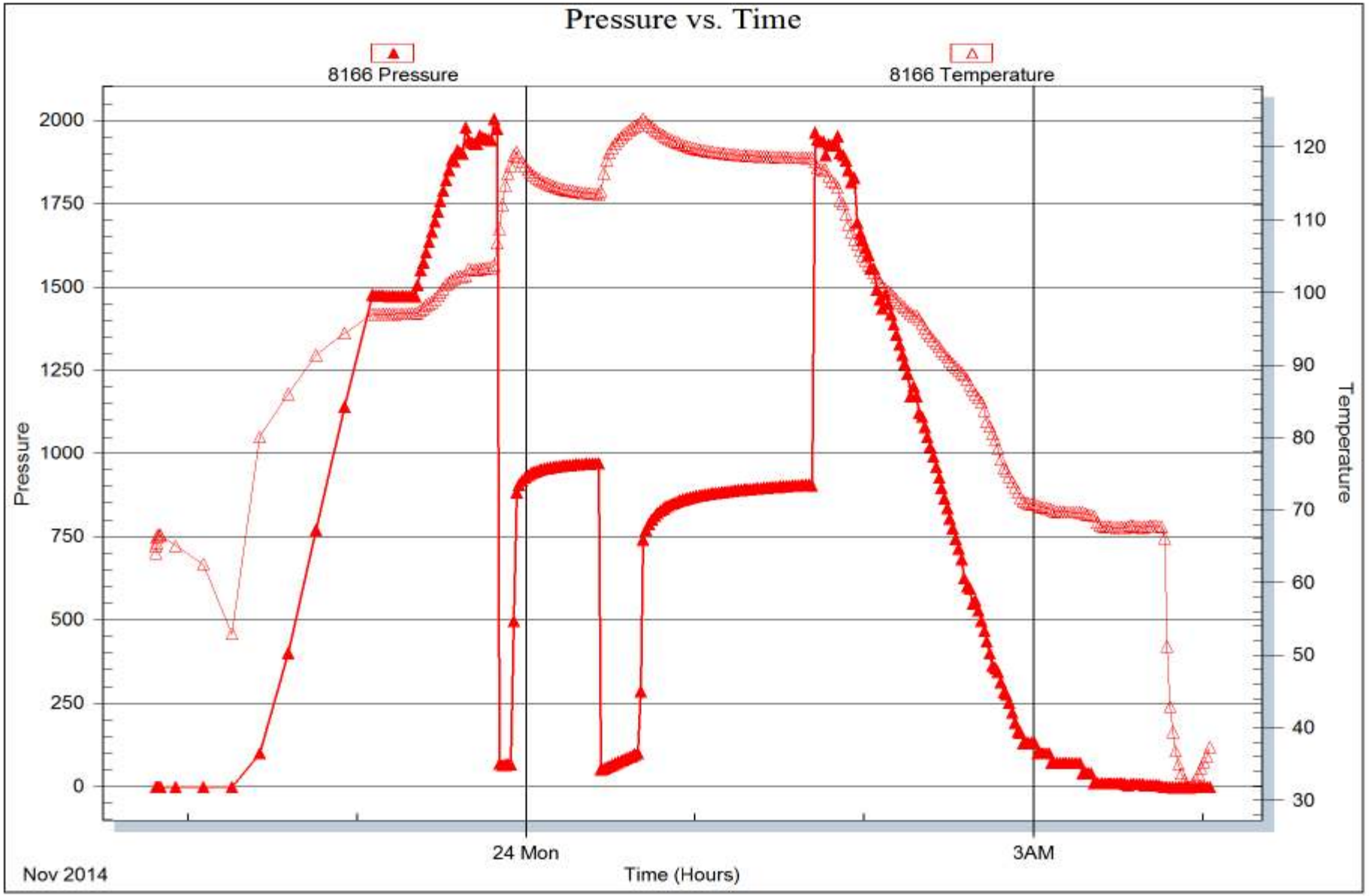
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 37@40=39

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 59668 Printed: 2014.11.26 @ 13:52:59

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 59668 Printed: 2014.11.26 @ 13:52:59

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.24 @ 14:06:00

End Date: 2014.11.24 @ 20:09:00

Job Ticket #: 59669 DST #: 5

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:51:49

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59669 **DST#: 5**

Test Start: 2014.11.24 @ 14:06:00

GENERAL INFORMATION:

Formation: **I Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:59:30
Time Test Ended: 20:09:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4072.00 ft (KB) To 4100.00 ft (KB) (TVD)
Total Depth: 4100.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

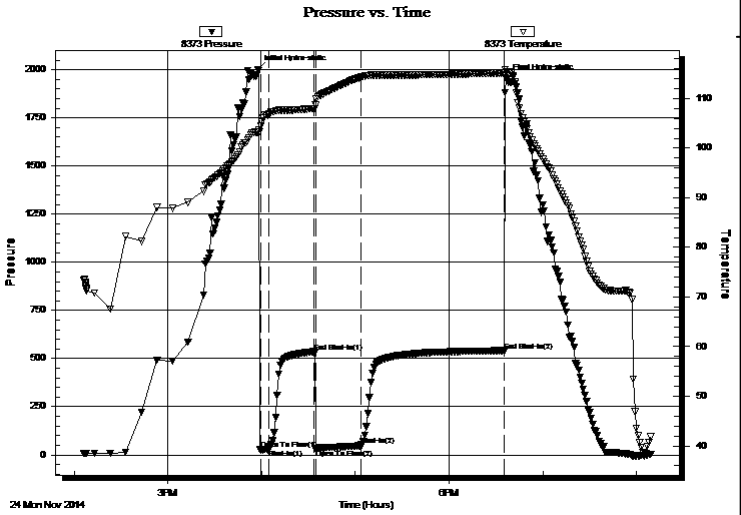
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: 47.68 psig @ 4073.00 ft (KB)
Start Date: 2014.11.24 End Date: 2014.11.24
Start Time: 14:06:05 End Time: 20:08:59

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm: 2014.11.24 @ 15:57:30
Time Off Btm: 2014.11.24 @ 18:36:30

TEST COMMENT: IF: 1/4" blow built to 5"
IS: No return.
FF: BOB in 16 min.
FS: Surface blow died in 30 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2001.92	103.21	Initial Hydro-static
2	27.19	104.44	Open To Flow (1)
7	28.91	106.72	Shut-In(1)
36	535.81	108.00	End Shut-In(1)
37	30.25	108.69	Open To Flow (2)
66	47.68	114.29	Shut-In(2)
158	541.14	115.18	End Shut-In(2)
159	1953.47	115.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.87
5.00	oil 100%o	0.07
0.00	310 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59669 **DST#: 5**

Test Start: 2014.11.24 @ 14:06:00

GENERAL INFORMATION:

Formation: **I Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:59:30
Time Test Ended: 20:09:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Brandon Turley
Unit No: 79

Interval: 4072.00 ft (KB) To 4100.00 ft (KB) (TVD)
Total Depth: 4100.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

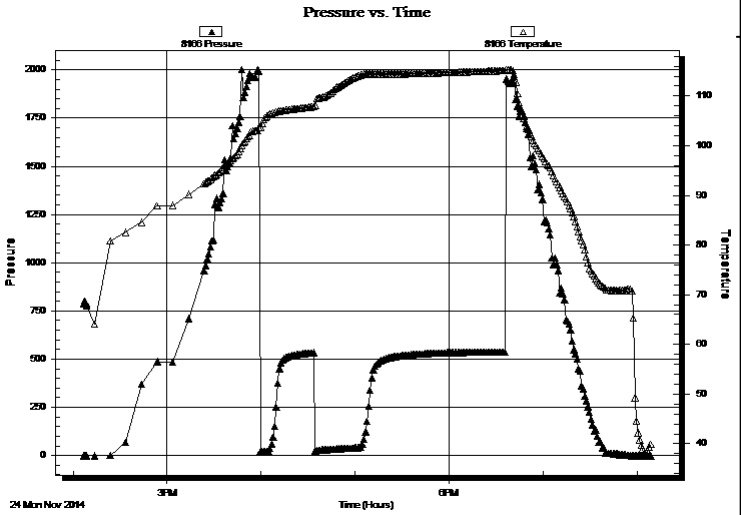
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: psig @ 4073.00 ft (KB)
Start Date: 2014.11.24 End Date: 2014.11.24
Start Time: 14:06:44 End Time: 20:09:08

Capacity: 8000.00 psig
Last Calib.: 2014.11.24
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 5"
IS: No return.
FF: BOB in 16 min.
FS: Surface blow died in 30 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.87
5.00	oil 100%o	0.07
0.00	310 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59669 **DST#: 5**

Test Start: 2014.11.24 @ 14:06:00

Tool Information

Drill Pipe:	Length:	4073.00 ft	Diameter:	3.80	inches	Volume:	57.13	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
						Total Volume:	57.13	bbl	

Drill Pipe Above KB:	28.00 ft
Depth to Top Packer:	4072.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	28.00 ft
Tool Length:	55.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		75000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	52000.00 lb
	Final	52000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			4046.00		
Shut In Tool	5.00			4051.00		
Hydraulic tool	5.00			4056.00		
Jars	5.00			4061.00		
Safety Joint	2.00			4063.00		
Packer	5.00			4068.00	27.00	Bottom Of Top Packer
Packer	4.00			4072.00		
Stubb	1.00			4073.00		
Recorder	0.00	8373	Inside	4073.00		
Recorder	0.00	8166	Outside	4073.00		
Perforations	22.00			4095.00		
Bullnose	5.00			4100.00	28.00	Bottom Packers & Anchor
Total Tool Length:	**55.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 59669 **DST#: 5**

Test Start: 2014.11.24 @ 14:06:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

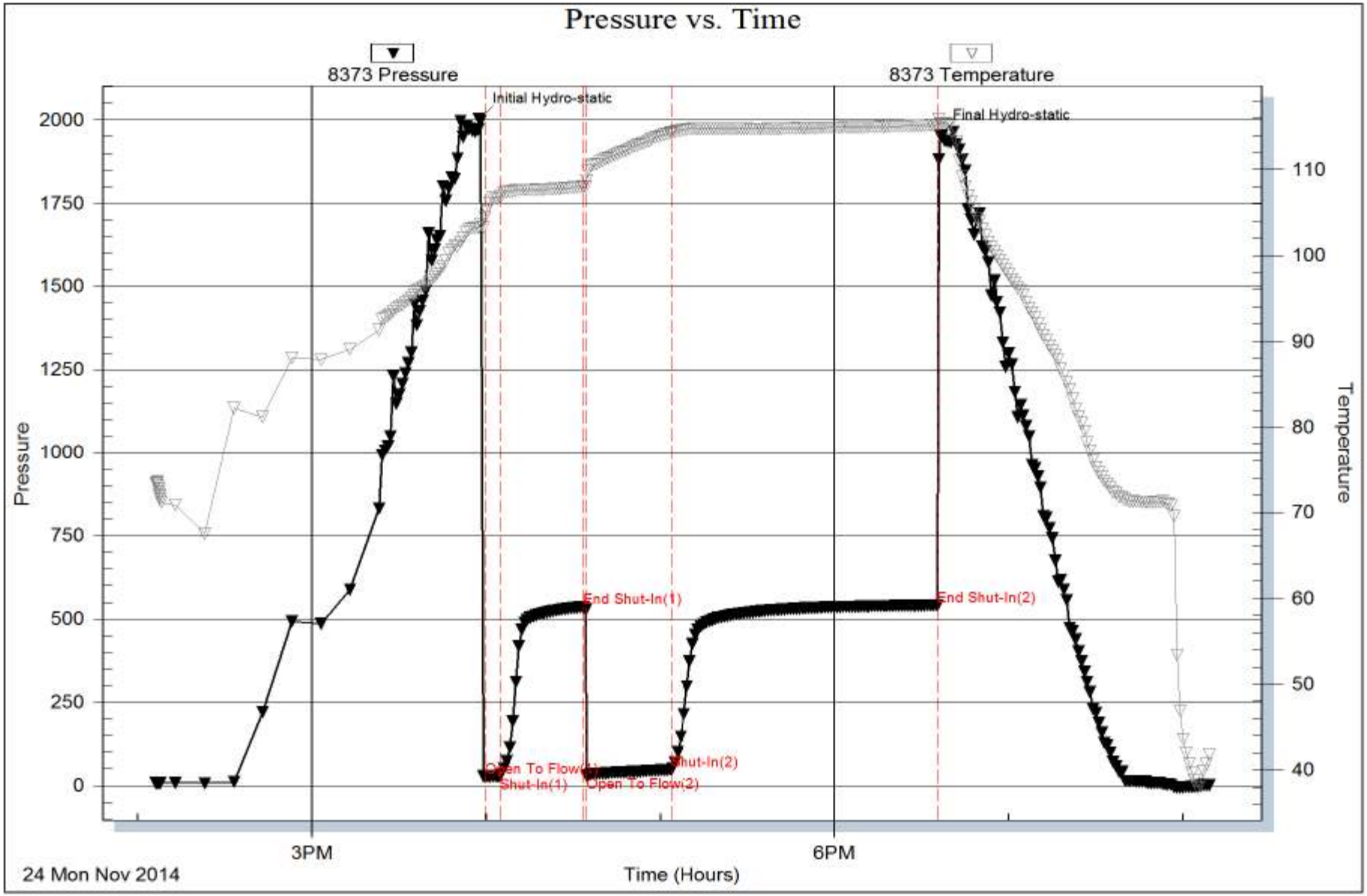
Recovery Table

Length ft	Description	Volume bbl
62.00	ocm 10%o 90%m	0.870
5.00	oil 100%o	0.070
0.00	310 GIP	0.000

Total Length: 67.00 ft Total Volume: 0.940 bbl

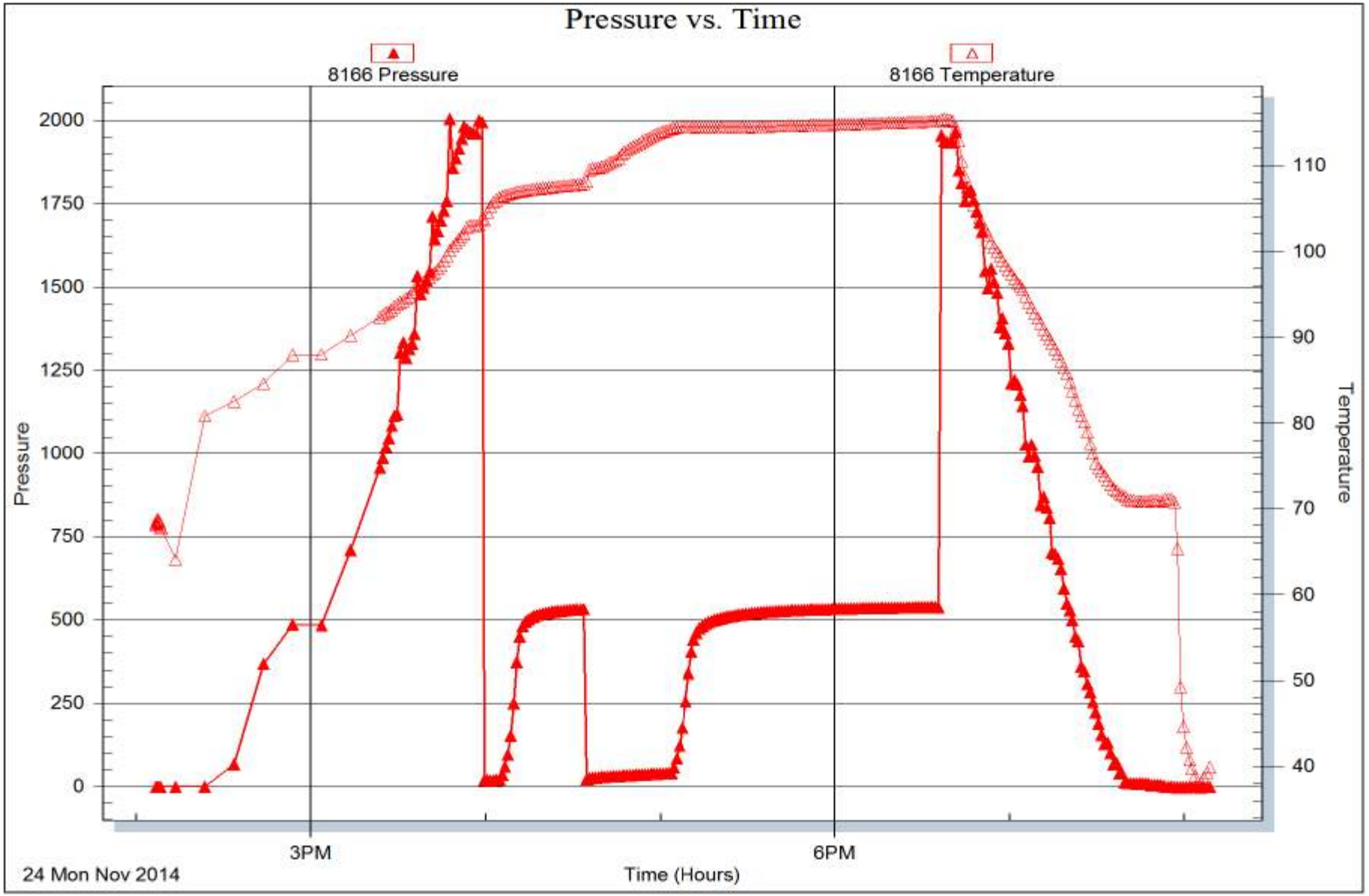
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 59669 Printed: 2014.11.26 @ 13:51:51

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 59669 Printed: 2014.11.26 @ 13:51:51

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **K3 Oil & Gas Operaing**

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

Grusing #10-14

10-16s-27w Lane,KS

Start Date: 2014.11.25 @ 08:29:46

End Date: 2014.11.25 @ 16:24:10

Job Ticket #: 58606 DST #: 6

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.11.26 @ 13:49:01

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 58606 **DST#: 6**

Test Start: 2014.11.25 @ 08:29:46

GENERAL INFORMATION:

Formation: **'' J" Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:27:11
Time Test Ended: 16:24:10

Test Type: Conventional Bottom Hole (Reset)
Tester: James Geier
Unit No: 79

Interval: 4102.00 ft (KB) To 4130.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

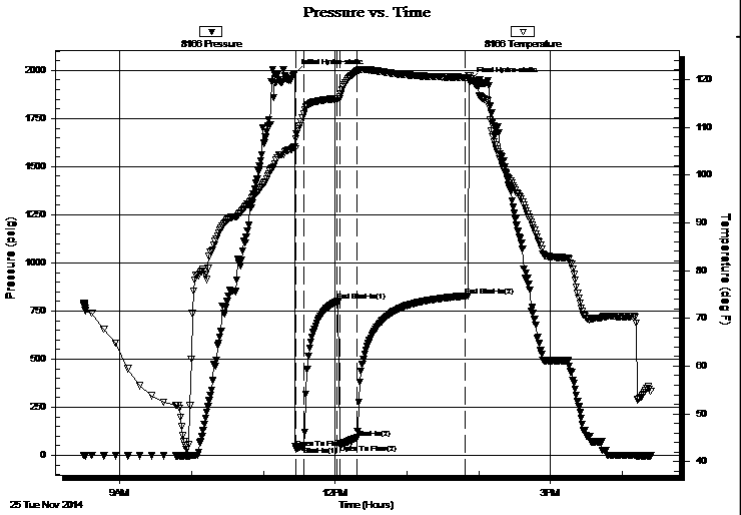
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Outside**

Press@RunDepth: 90.47 psig @ 4103.00 ft (KB)
Start Date: 2014.11.25 End Date: 2014.11.25
Start Time: 08:29:46 End Time: 16:24:10

Capacity: 8000.00 psig
Last Calib.: 2014.11.25
Time On Btm: 2014.11.25 @ 11:26:11
Time Off Btm: 2014.11.25 @ 13:52:41

TEST COMMENT: IF: BOB in 2 min
ISI: No return
FF: BOB in 3 min.
FSI:No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1985.34	105.89	Initial Hydro-static
1	37.48	107.63	Open To Flow (1)
8	46.58	112.72	Shut-In(1)
36	800.03	115.93	End Shut-In(1)
38	58.12	116.46	Open To Flow (2)
52	90.47	121.72	Shut-In(2)
143	828.30	120.42	End Shut-In(2)
147	1944.83	120.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
88.00	g c w o 20%g 30%w 50%o	1.23
88.00	g c m o 5% g 80%m 15%o	1.23

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 58606 **DST#: 6**

Test Start: 2014.11.25 @ 08:29:46

GENERAL INFORMATION:

Formation: **'' J" Lime**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:27:11
Time Test Ended: 16:24:10

Test Type: Conventional Bottom Hole (Reset)
Tester: James Geier
Unit No: 79

Interval: 4102.00 ft (KB) To 4130.00 ft (KB) (TVD)
Total Depth: 4130.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

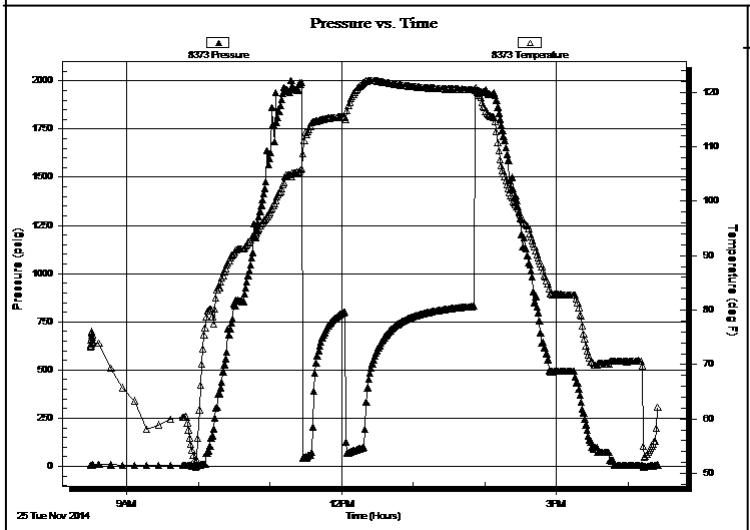
Reference Elevations: 2597.00 ft (KB)
2587.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8373 **Inside**

Press@RunDepth: psig @ 4103.00 ft (KB)
Start Date: 2014.11.25 End Date: 2014.11.25
Start Time: 08:29:57 End Time: 16:24:51

Capacity: 8000.00 psig
Last Calib.: 2014.11.25
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: BOB in 2 min
ISI: No return
FF: BOB in 3 min.
FSI:No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
88.00	g c w o 20%g 30%w 50%o	1.23
88.00	g c m o 5% g 80%m 15%o	1.23

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 58606 **DST#: 6**

Test Start: 2014.11.25 @ 08:29:46

Tool Information

Drill Pipe:	Length:	4100.00 ft	Diameter:	3.80 inches	Volume:	57.51 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	57.51 bbl	

Drill Pipe Above KB:	25.00 ft
Depth to Top Packer:	4102.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	28.00 ft
Tool Length:	55.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		750000.0 lb
Tool Chased		0.00 ft
String Weight:	Initial	50000.00 lb
	Final	51000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			4076.00		
Shut In Tool	5.00			4081.00		
Hydraulic tool	5.00			4086.00		
Jars	5.00			4091.00		
Safety Joint	2.00			4093.00		
Packer	5.00			4098.00	27.00	Bottom Of Top Packer
Packer	4.00			4102.00		
Stubb	1.00			4103.00		
Recorder	0.00	8373	Inside	4103.00		
Recorder	0.00	8166	Outside	4103.00		
Perforations	22.00			4125.00		
Bullnose	5.00			4130.00	28.00	Bottom Packers & Anchor
Total Tool Length:	**55.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

K3 Oil & Gas Operaing

211 Highland Cross
Houston, TX 77073

ATTN: Tom Williams

10-16s-27w Lane,KS

Grusing #10-14

Job Ticket: 58606 **DST#: 6**

Test Start: 2014.11.25 @ 08:29:46

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
88.00	g c w o 20%g 30%w 50%o	1.234
88.00	g c m o 5% g 80%m 15%o	1.234

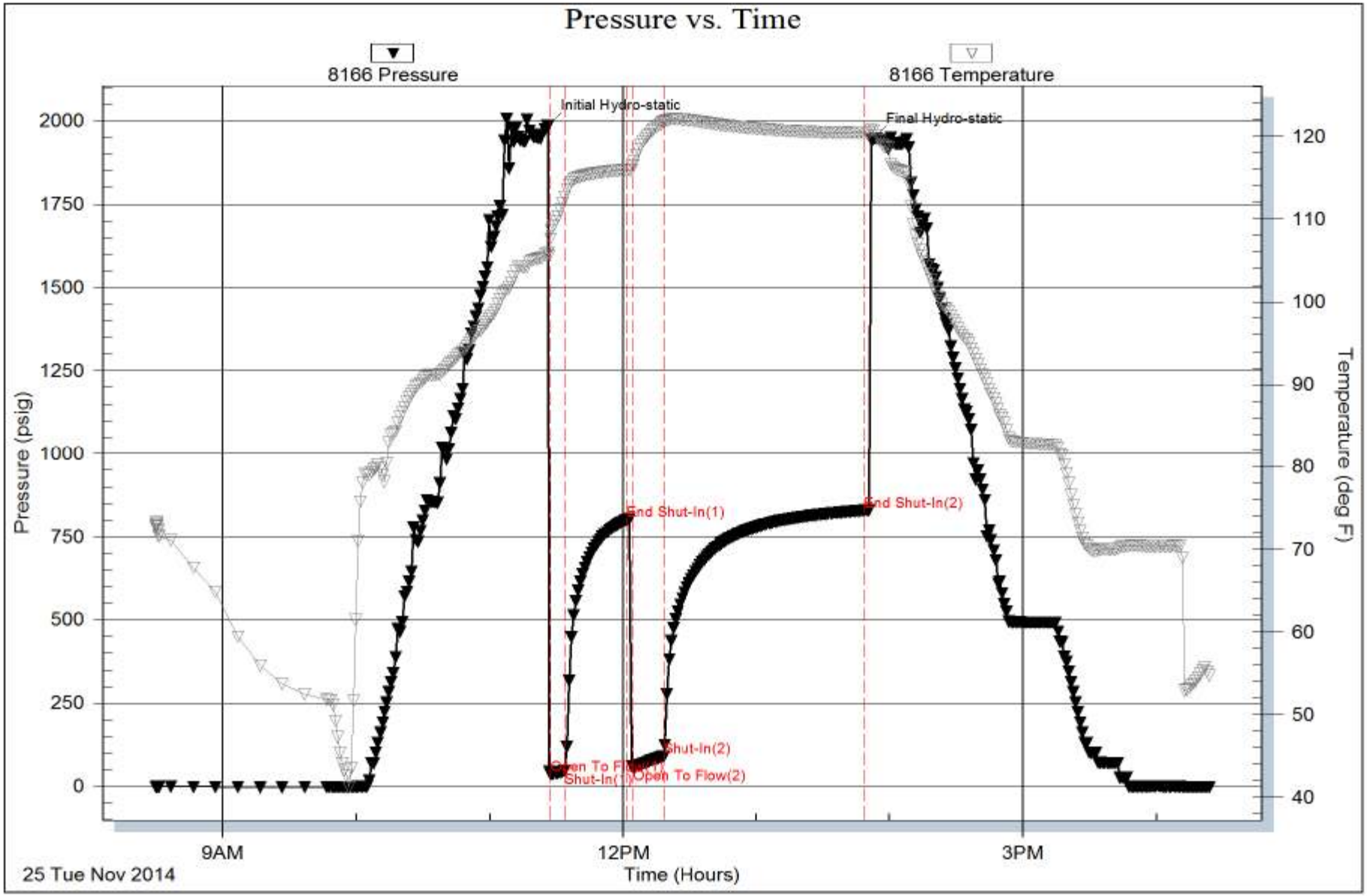
Total Length: 176.00 ft Total Volume: 2.468 bbl

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

Laboratory Name: Laboratory Location:

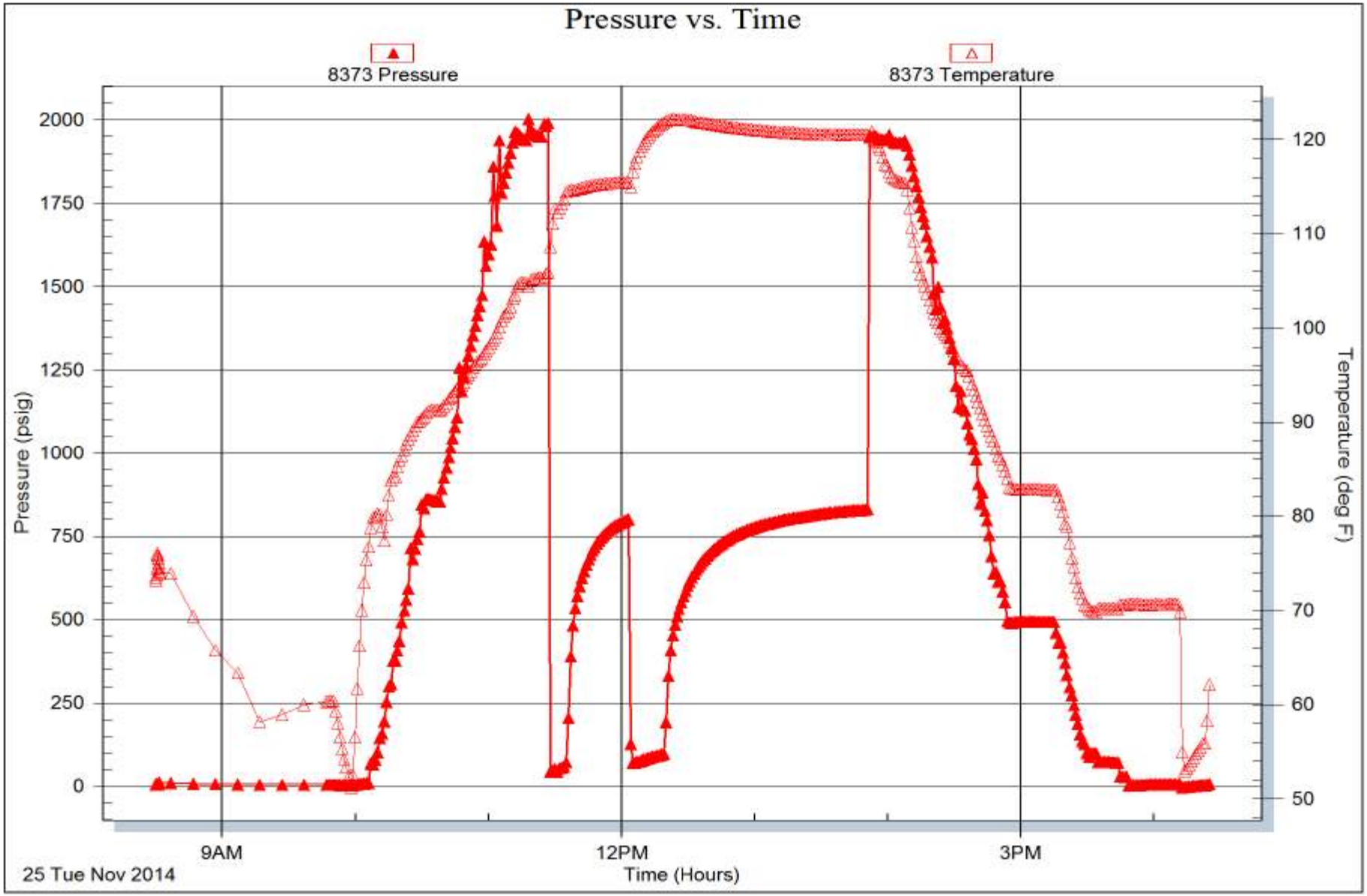
Recovery Comments: 461' Gas in pipe

Serial #: 8166 **Outside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 58606 Printed: 2014.11.26 @ 13:49:02

Serial #: 8373 **Inside** K3 Oil & Gas Operaing Grusing #10-14 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 58606 Printed: 2014.11.26 @ 13:49:02

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 59665

Well Name & No. Grusing 10-14 Test No. 1 Date 11-21-14

Company K3 oil & Gas operating Elevation 2597 KB 2587 GL

Address 211 Highland Cross Houston, Tx 77073

Co. Rep / Geo. Tom Williams Rig Duke #8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State KS

Interval Tested 3936 3960 Zone Tested KC

Anchor Length 24 Drill Pipe Run 3917 Mud Wt. 9.2

Top Packer Depth 3931 Drill Collars Run — Vis 48

Bottom Packer Depth 3936 Wt. Pipe Run — WL 8.8

Total Depth 3960 Chlorides 4000 ppm System LCM 1

Blow Description IF: 1/4 blow built to 2½ in 15 mins,
IS: No return,
FF: surface blow built to 3 in 45 mins.
FS: No return.

Rec 40	Feet of MCW	%gas	%oil 60	%water 40	%mud	
Rec 62	Feet of WCM	%gas	%oil 40	%water 60	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 102 BHT 120 Gravity — API RW .19 @ 45 °F Chlorides 65,000 ppm

(A) Initial Hydrostatic 1943	☑ Test 1150	T-On Location 19:10
(B) First Initial Flow 40	☑ Jars 250	T-Started 19:56
(C) First Final Flow 58	☑ Safety Joint 75	T-Open 21:28
(D) Initial Shut-In 880	☑ Circ Sub N/C	T-Pulled 00:28
(E) Second Initial Flow 45	☐ Hourly Standby	T-Out 2:12
(F) Second Final Flow 74	☑ Mileage 98 — 151.90	Comments on the bank at 6:15 was told 8:00
(G) Final Shut-In 867	☐ Sampler	
(H) Final Hydrostatic 1903	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 15	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1626.90
Final Shut-In 90	☐ Accessibility	MP/DST Disc't
	Sub Total 1626.90	

Approved By Tom M Williams Our Representative

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

4/10

Test Ticket

NO. 59666

Well Name & No. Grusing 10-14 Test No. 2 Date 11-22-14

Company KS Oil & Gas operating Elevation 2597 KB 2587 GL

Address

Co. Rep / Geo. Tom Williams Rig Duke 8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State KS

Interval Tested 4012 4025 Zone Tested LKC 'F' Lime

Anchor Length 13 Drill Pipe Run 4010 Mud Wt. 9.2

Top Packer Depth 4007 Drill Collars Run — Vis 49

Bottom Packer Depth 4012 Wt. Pipe Run — WL 8.0

Total Depth 4025 Chlorides 4000 ppm System LCM 1

Blow Description IF: 1/4 blow built to 2.

IS: No return.

FF: 2" blow BOB in 30 min.

FS: No return.

Rec 31	Feet of 6CM	%gas	10 %oil	%water	90 %mud	
Rec —	Feet of 279 GIP	%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 31 BHT — Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1993	☑ Test 1250	T-On Location 14:15	
(B) First Initial Flow 21	☑ Jars 250	T-Started 14:44	
(C) First Final Flow 22	☑ Safety Joint 75	T-Open 16:30	
(D) Initial Shut-In 302	☑ Circ Sub N/C	T-Pulled 19:30	
(E) Second Initial Flow 21	☐ Hourly Standby	T-Out 21:15	
(F) Second Final Flow 23	☑ Mileage 98 — 151.90	Comments	
(G) Final Shut-In 409	☐ Sampler		
(H) Final Hydrostatic 1952	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 15	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0	
Final Flow 45	☐ Day Standby	Total 1726.90	
Final Shut-In 90	☐ Accessibility	MP/DST Disc't	
	Sub Total 1726.90		

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 59667

Well Name & No. Grusing 10-14 Test No. 3 Date 11-23-14

Company 153 Oil & Gas Operating Elevation 2597 KB 2587 GL

Address

Co. Rep / Geo. Tom Williams Rig Duke 8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State KS

Interval Tested 4025 4045 Zone Tested LKC G Lime

Anchor Length 20 Drill Pipe Run 4010 Mud Wt. 9.3

Top Packer Depth 4020 Drill Collars Run — Vis 45

Bottom Packer Depth 4025 Wt. Pipe Run — WL 6.4

Total Depth 4045 Chlorides 3000 ppm System LCM 0

Blow Description IF: ¼ blow died in 8 min.
IS: No return.
FF: No blow.
FS: No return.

Rec 10	Feet of mud	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1950	☑ Test	1250	T-On Location	8:00
(B) First Initial Flow	23	☑ Jars	250	T-Started	8:15
(C) First Final Flow	29	☑ Safety Joint	75	T-Open	9:40
(D) Initial Shut-In	820	☑ Circ Sub	N/C	T-Pulled	11:40
(E) Second Initial Flow	25	☐ Hourly Standby		T-Out	13:15
(F) Second Final Flow	27	☑ Mileage	98 – 151.90	Comments	
(G) Final Shut-In	782	☐ Sampler			
(H) Final Hydrostatic	1982	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	15	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	30	☐ Day Standby		Total	1726.90
Final Shut-In	45	☐ Accessibility		MP/DST Disc't	
		Sub Total	1726.90		

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 59668

Well Name & No. Grusing 10-14 Test No. 4 Date 11-23-14

Company KS Oil & Gas operating Elevation 2597 KB 2587 GL

Address

Co. Rep / Geo. Tom Williams Rig Duke 8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State KS

Interval Tested 4058 4070 Zone Tested H Lime

Anchor Length 12 Drill Pipe Run 4041 Mud Wt. 9.3

Top Packer Depth 4053 Drill Collars Run — Vis 45

Bottom Packer Depth 4058 Wt. Pipe Run — WL 6.4

Total Depth 4070 Chlorides 3000 ppm System LCM 0

Blow Description IF: BoB in 1 min.

ISI surface blow built to 6 in 30 min.

FFI BoB in 1 min.

FSI BoB in 26 min.

Rec 155	Feet of 90	10 %gas	90 %oil	%water	%mud		
Rec 62	Feet of 90	20 %gas	80 %oil	%water	%mud		
Rec 62	Feet of MCGO	50 %gas	10 %oil	%water 40	%mud		
Rec	Feet of 3701 GIP	%gas	%oil	%water	%mud		
Rec	Feet of	%gas	%oil	%water	%mud		

Rec Total 279 BHT 119 Gravity 39 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	1991	☑ Test	1250	T-On Location	21:20
(B) First Initial Flow	53	☑ Jars	250	T-Started	21:48
(C) First Final Flow	76	☑ Safety Joint	75	T-Open	23:48
(D) Initial Shut-In	969	☑ Circ Sub	N/C	T-Pulled	1:38
(E) Second Initial Flow	59	☐ Hourly Standby		T-Out	4:05
(F) Second Final Flow	112	☑ Mileage	98 151.90	Comments	
(G) Final Shut-In	905	☐ Sampler			
(H) Final Hydrostatic	1953	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	5	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	15	☐ Day Standby		Total	1726.90
Final Shut-In	60	☐ Accessibility		MP/DST Disc't	
		Sub Total	1726.90		

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 59669

Well Name & No. Grusing ID-14 Test No. 5 Date 11-24-14

Company K3 oil & gas operating Elevation 2597 KB 2587 GL

Address

Co. Rep / Geo. Tom Williams Rig Duke 8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State KS

Interval Tested 4072 4100 Zone Tested F Lime

Anchor Length 28 Drill Pipe Run 4073 Mud Wt. 9.3

Top Packer Depth 4067 Drill Collars Run — Vis 50

Bottom Packer Depth 4072 Wt. Pipe Run — WL 8.0

Total Depth 4100 Chlorides 3200 ppm System LCM 0

Blow Description IF; ¼ blow built to 5.
IS: No return.
FF; BoB in 16 min.
FS: surface blow died in 30 min.

Rec 5	Feet of oil	%gas 100	%oil	%water	%mud	
Rec 62	Feet of ocm	%gas 10	%oil	%water 90	%mud	
Rec	Feet of 310 GIP	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 67 BHT 115 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic	2001	☑ Test	1250	T-On Location	13:44
(B) First Initial Flow	27	☑ Jars	250	T-Started	14:06
(C) First Final Flow	28	☑ Safety Joint	75	T-Open	15:58
(D) Initial Shut-In	535	☑ Circ Sub		T-Pulled	18:33
(E) Second Initial Flow	30	☐ Hourly Standby		T-Out	20:10
(F) Second Final Flow	47	☑ Mileage	98 – 151.90	Comments	
(G) Final Shut-In	541	☐ Sampler			
(H) Final Hydrostatic	1953	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	5	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	0
Final Flow	30	☐ Day Standby		Total	1726.90
Final Shut-In	90	☐ Accessibility		MP/DST Disc't	
		Sub Total	1726.90		

Approved By T. Williams Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 58606

Well Name & No. Crusing 10-14 Test No. 6 Date 11/25/14

Company L3 Oil & Gas Operations Elevation 2597 KB 2587 GL

Address 211 Highland Cross Houston TX 77073

Co. Rep / Geo. Tom Williams Rig Duke 8

Location: Sec. 10 Twp. 16 Rge. 27 Co. Lane State Ks

Interval Tested 4102 — 4130 Zone Tested "I" lime

Anchor Length 28' Drill Pipe Run 4109 Mud Wt. 9.3

Top Packer Depth 4098 Drill Collars Run 0 Vis 50

Bottom Packer Depth 4102 Wt. Pipe Run 0 WL 8.0

Total Depth 4130 Chlorides 3200 ppm System LCM 0

Blow Description IF: BoB in 2 min

ISI: No Return

FF: BoB in 3 min

FSI: No Return

Rec 88	Feet of gc wo 20%g	20 %gas	50 %oil	30 %water		%mud
Rec 88	Feet of	5 %gas	15 %oil		%water	80 %mud
Rec	Feet of	%gas	%oil	%water		%mud
Rec	Feet of GIP 461'	100 %gas	%oil	%water		%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 176 BHT 120 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1985	☒ Test 1250	T-On Location 0734
(B) First Initial Flow 137	☒ Jars 250	T-Started 0829
(C) First Final Flow 46	☒ Safety Joint 75	T-Open 1136
(D) Initial Shut-In 800	☒ Circ Sub N/A	T-Pulled 1346
(E) Second Initial Flow 58	☐ Hourly Standby	T-Out 1624
(F) Second Final Flow 90	☒ Mileage 99 R/T 151.90	Comments loaded tools 11/26 12:30
(G) Final Shut-In 838	☐ Sampler 151.90	
(H) Final Hydrostatic 1944	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 5	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1878.80
Final Shut-In 90	☐ Accessibility	MP/DST Disc't
	Sub Total 1878.80	

Approved By Thomas M Williams Our Representative [signature]