



PIONEER
Pioneer Energy Services

MICRORESISTIVITY LOG

Company PROSPECT OIL & GAS CORP.
Well ORTH-ALTENBAUMER #1-12
Field CHASE SILICA
County RICE
State KANSAS

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Location: API #: 15-159-22866-00-00

1650' FNL & 1150' FWL

SEC 12 TWP 19S RGE 10W

Permanent Datum GROUND LEVEL Elevation 1723'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
CNL/CDL
DIL
Elevation
K.B. 1731'
D.F. N/A
G.L. 1723'

Date 6/20/2019

Run Number ONE

Depth Driller 3370'

Depth Logger 3370'

Bottom Logged Interval 3369'

Top Log Interval 2500'

Casing Driller 8.625" @ 305'

Casing Logger 304'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 6,000

Density / Viscosity 9.3 60

pH / Fluid Loss 10.0 8.4

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.75 @ 75

Rmf @ Meas. Temp 0.56 @ 75

Rmc @ Meas. Temp 1.01 @ 75

Source of Rmf / Rmc CHARTS

Rm @ BHT 0.51 @ 110

Operating Rig Time 3 HOURS

Max Rec. Temp. F 110

Equipment Number P-24

Location HAYS

Recorded By IAN MABB

Witnessed By BRAD HUTCHINSON

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

CLAFLIN, KS.
EAST TO RD 4, SOUTH TO RD I,
EAST 2 MILES, NORTH 1/2 MILE,
EAST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: IAN MABB
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: BRAD HUTCHINSON
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 110	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 7	mmho/m 22	mV 195	degF 75	Off	ft 0

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD	28.43			CDL-M&W (96-916)	8.50	4.00	250.00
DCAL	28.42			ML-PSIML (PSI-01)	7.58	4.00	65.00
SSD	27.93			GO Micro log tools converted to Simplec electronics			
MCAL	19.83						
MI	19.83						
MN	19.83						
RLL3F	15.80						
RLL3	15.80						
CILD	8.00			DIL-PSI HIGH TEMP (1039)	18.50	3.50	220.00

CILM

4.70

SP

0.20

Dataset: prospect_orth-altenbaumer_1_12.db: field/well/stackmel/pass3.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

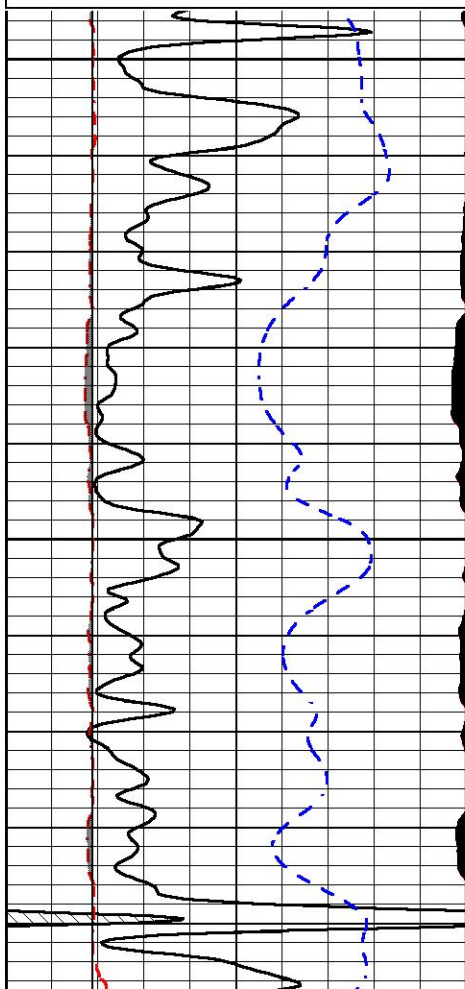


MAIN PASS

Database File prospect_orth-altenbaumer_1_12.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format _micro
 Dataset Creation Thu Jun 20 08:48:08 2019
 Charted by Depth in Feet scaled 1:240

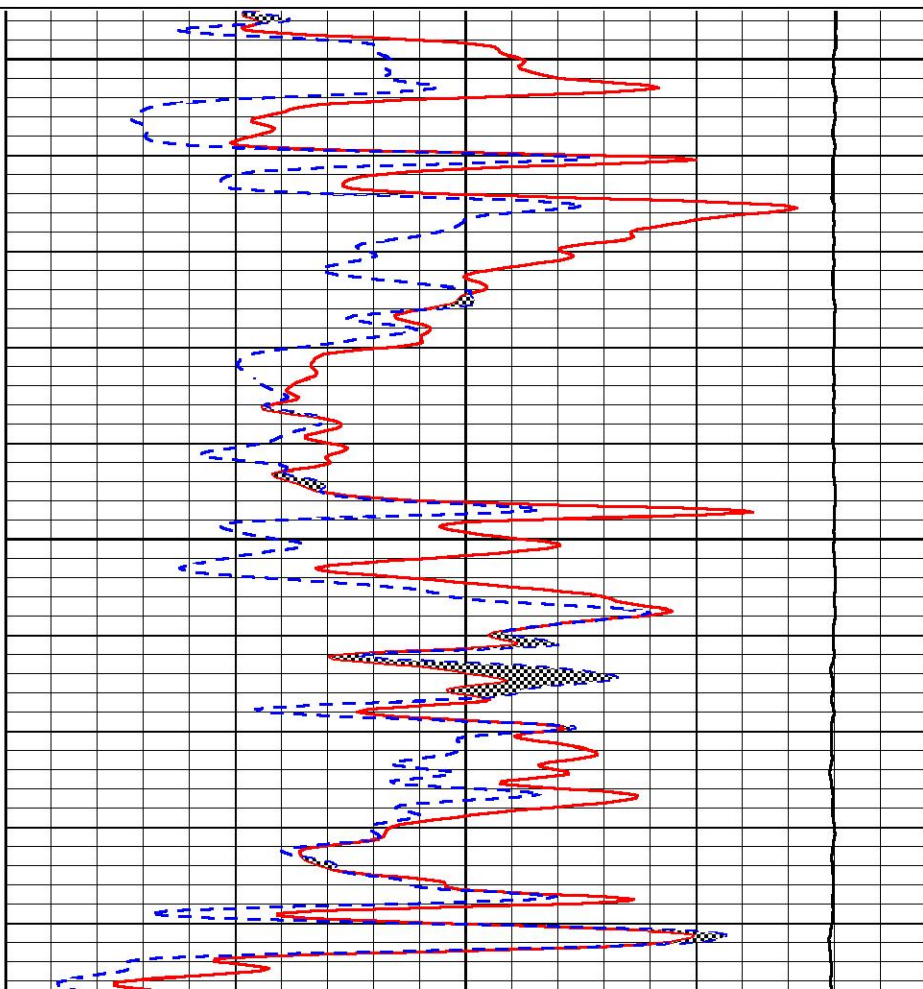
0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
2.875	mcAl (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0

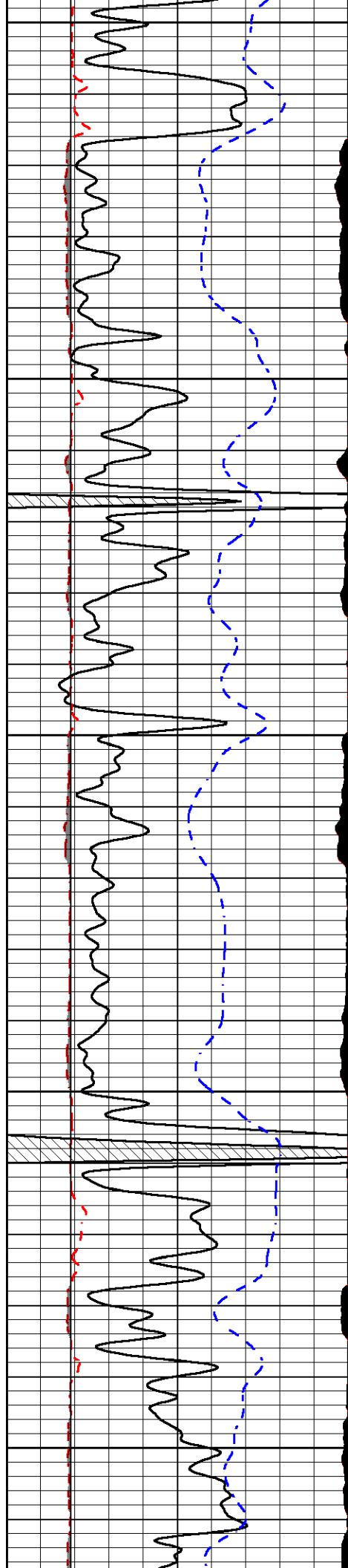
0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0



2500

2550





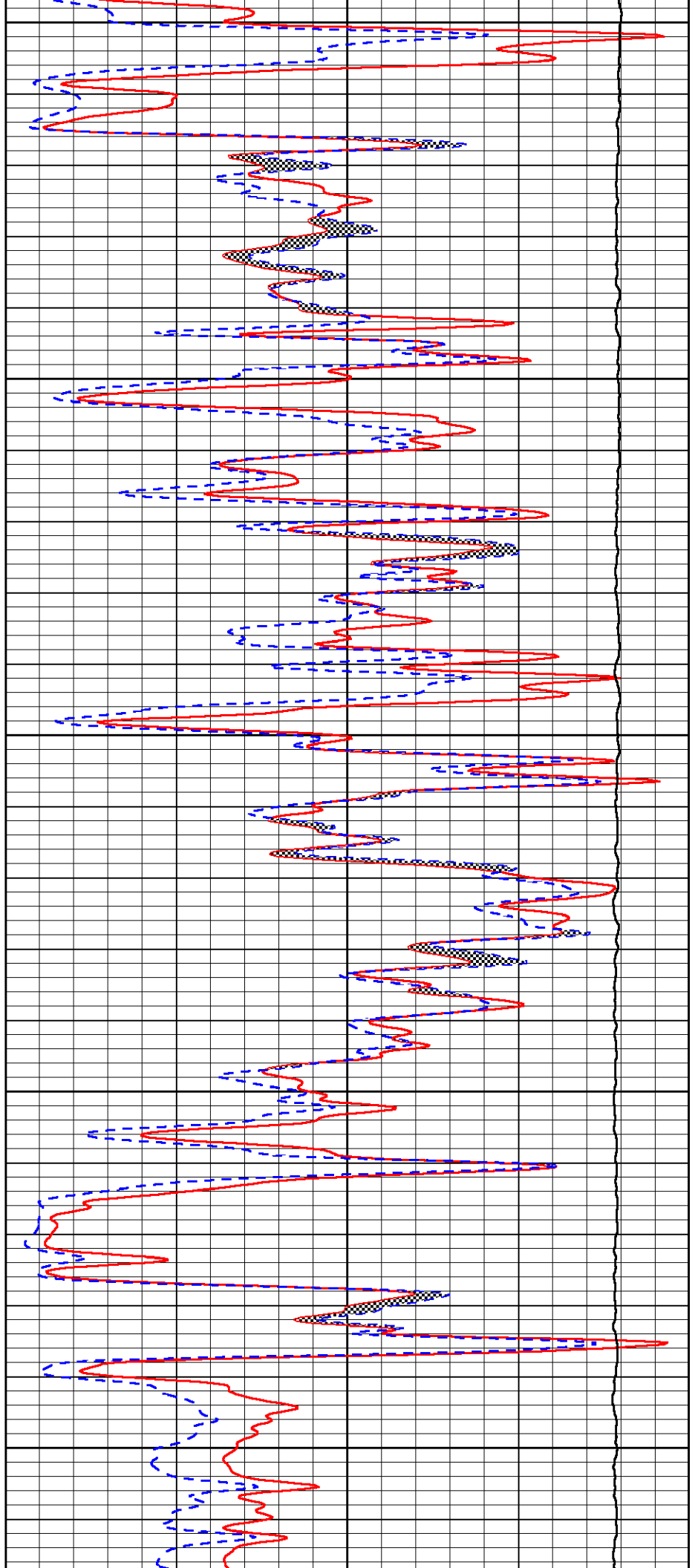
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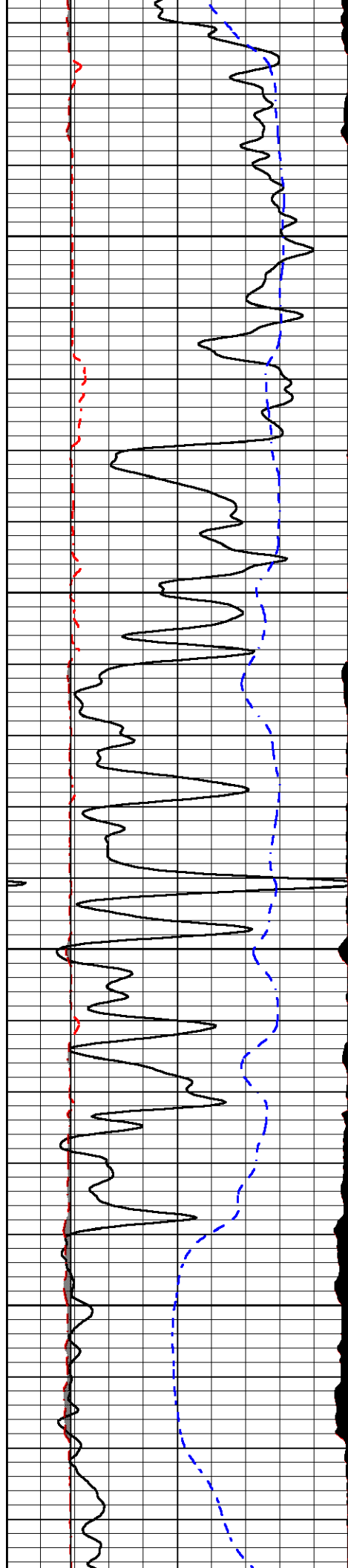
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2700

2750

2800



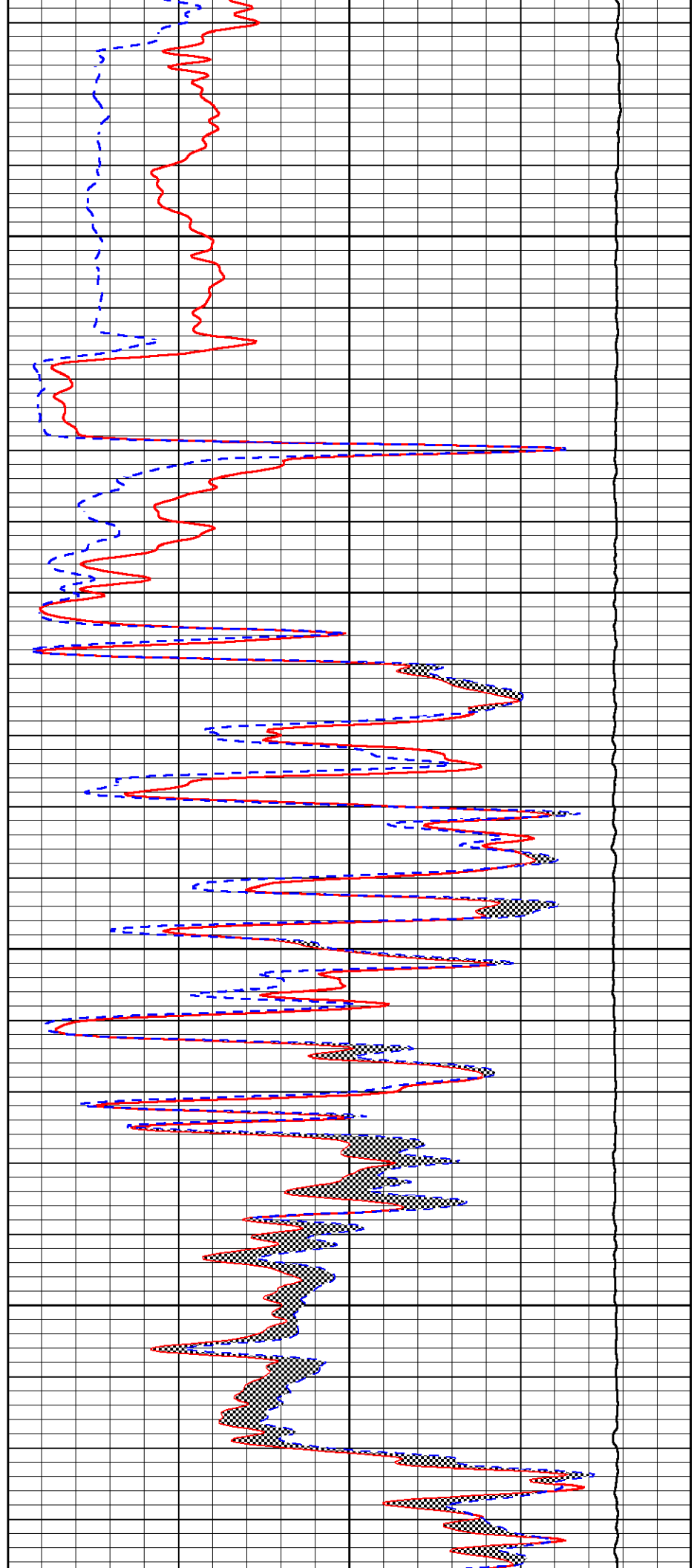


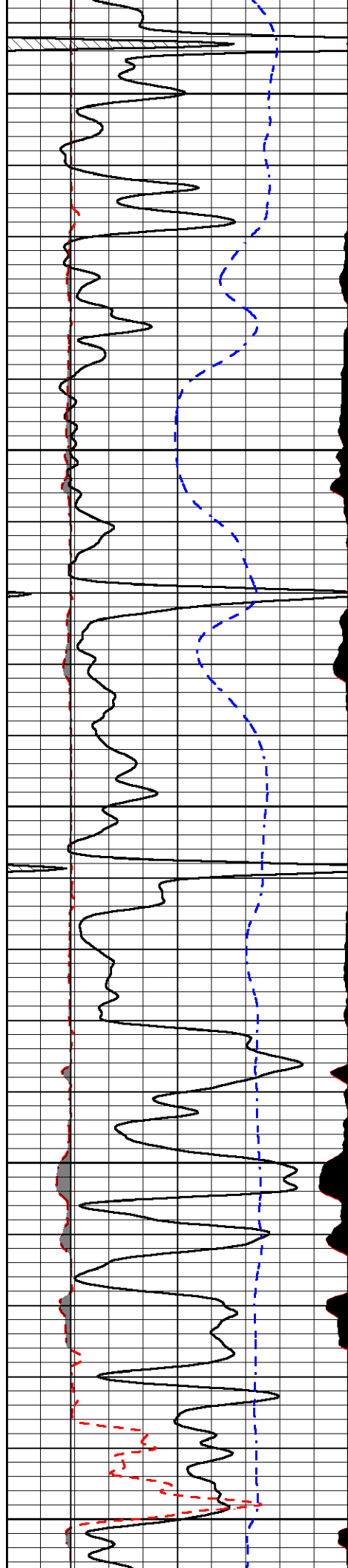
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2900

2950

3000





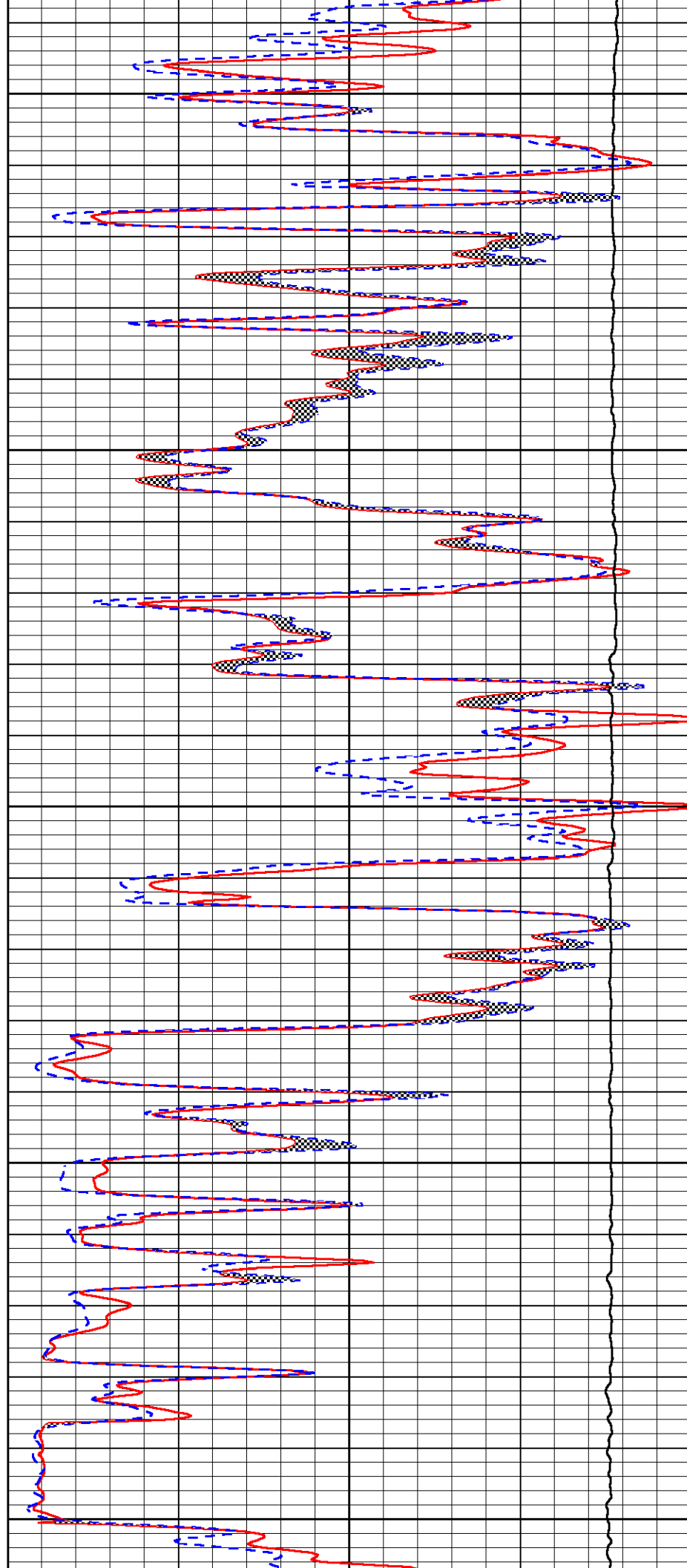
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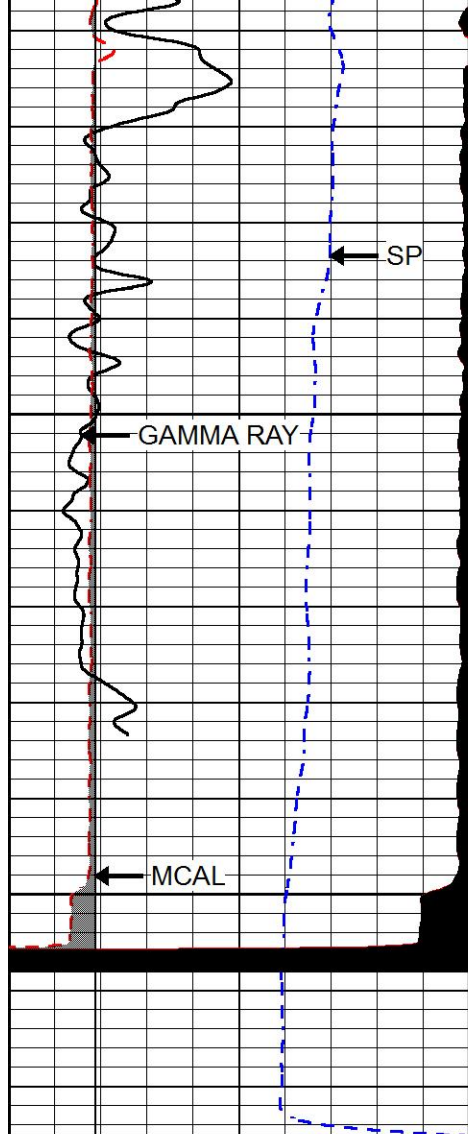
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3150

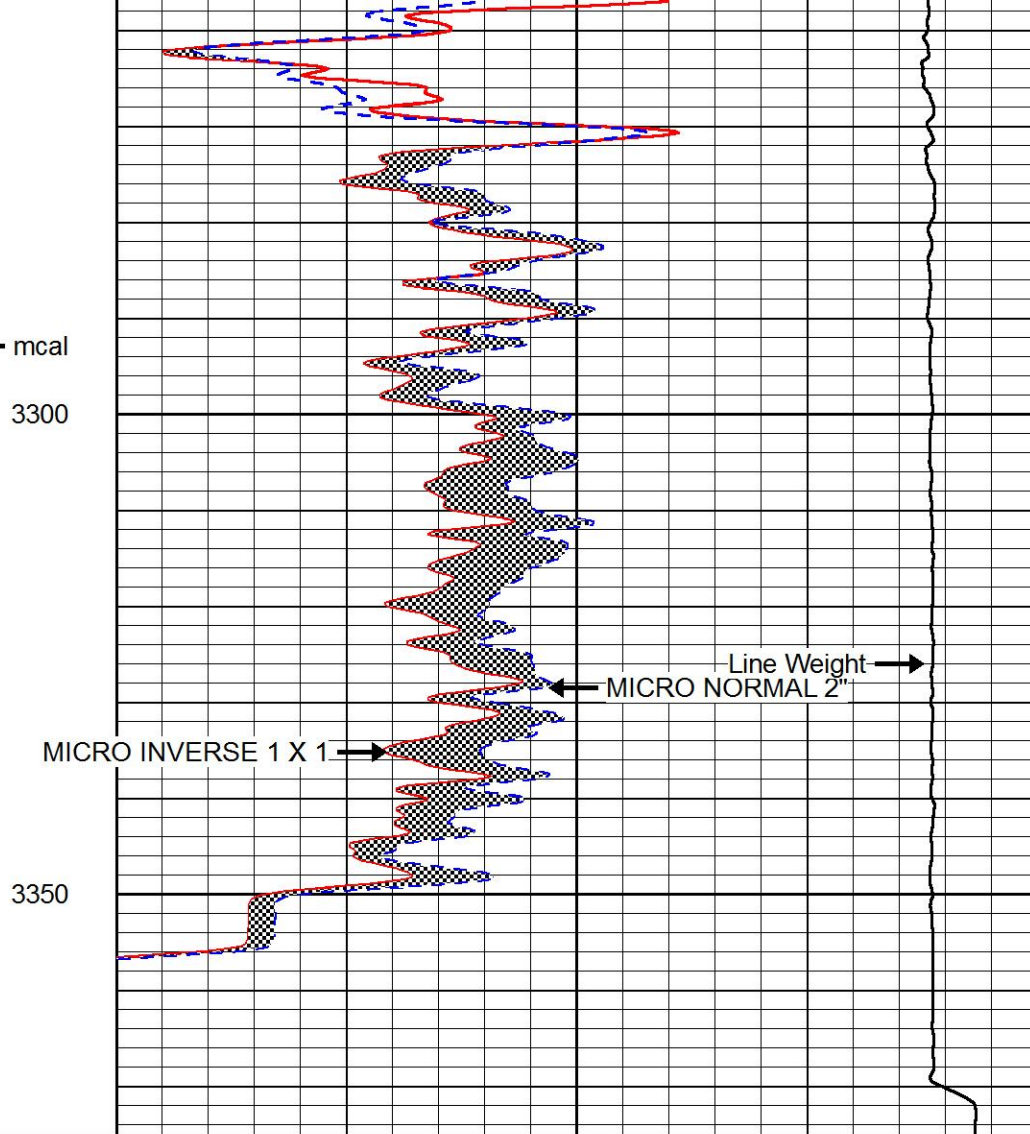
3200

3250





0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0



0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0



REPEAT SECTION

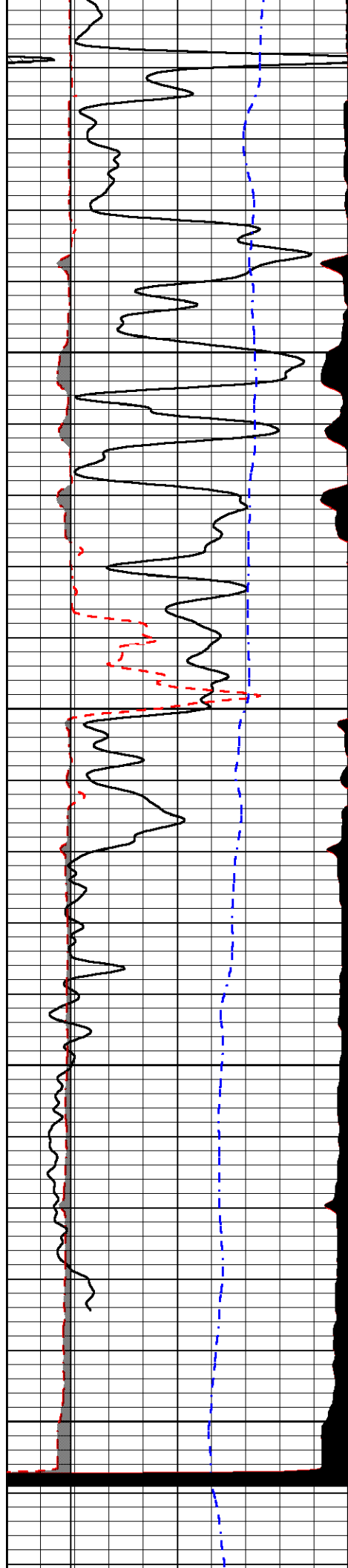
Database File prospect_orth-altenbaumer_1_12.db
 Dataset Pathname stackmel/pass2.1
 Presentation Format _micro
 Dataset Creation Thu Jun 20 08:55:55 2019
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	MCAL (in)	16
2.875	mcal (in)	7.875
6	Bit Size (in)	16
-200	SP (mV)	0



0	MICRO INVERSE 1 X 1 (Ohm-m)	40
0	MICRO NORMAL 2" (Ohm-m)	40
10000	Line Weight (lb)	0



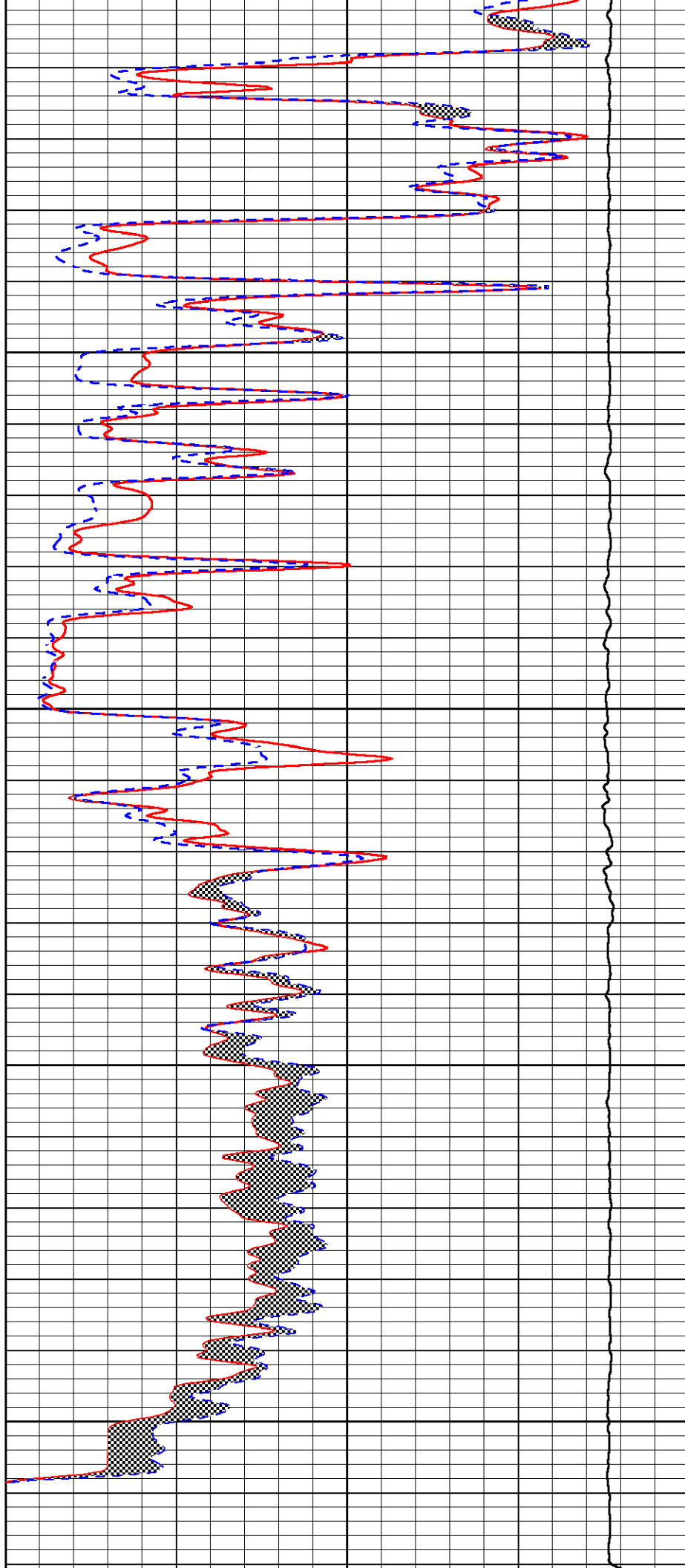


3200

3250

3300

3350



0	GAMMA RAY (GAPI)	150	0	MICRO INVERSE 1 X 1 (Ohm-m)	40
6	MCAL (in)	16	0	MICRO NORMAL 2" (Ohm-m)	40
2.875	mcal (in)	7.875	10000	Line Weight (lb)	0
6	Bit Size (in)	16			
-200	SP (mV)	0			

Calibration Report	
Database File	prospect_orth-altenbaumer_1_12.db
Dataset Pathname	stackmel/pass3.1
Dataset Creation	Thu Jun 20 08:48:08 2019

Dual Induction Calibration Report

Serial-Model:	1039-PSI HIGH TEMP
Calibration Performed:	Fri Jun 14 09:48:37 2019

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.800	mmho/m	0.430	-48.000
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.365	-56.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Sun Feb 24 09:53:40 2019

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	38000.0000	-1.7000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	75000.0000	-2.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-65.7000

Compensated Density Calibration Report
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Serial-Model:	96-916-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Wed Mar 27 11:00:53 2019

Master Calibration					
Density		Far Detector		Near Detector	
Magnesium	1.755 g/cc	8943.64	10054.60	cps	
Aluminum	2.655 g/cc	1595.61	6242.82	cps	
Spine Angle = 74.54		Density/Spine Ratio = 0.503			
Size		Reading			
Small Ring	6.00 in	1.75			
Large Ring	16.00 in	1.46			

Compensated Neutron Calibration Report
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Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	WED FEB 13 10:30:30 2019

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number:	233-M&W	
Tool Model:	M&W	
Calibration Performed:	Fri Feb 07 01:42:40 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps



Company	PROSPECT OIL & GAS CORP.
Well	ORTH-ALTENBAUMER #1-12
Field	CHASE SILICA
County	RICE
State	KANSAS