



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **K-BAR OIL**
Well **KREHBIEL #2**
Field **RICK**
County **BARTON** State **KANSAS**

Location: API #: 15-009-26290-00-00

Other Services

SEC 13 TWP 19S RGE 11W
660' FNL & 330' FWL

CNL/CDL
MEL

Permanent Datum GROUND LEVEL Elevation 1779'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1789'
D.F. N/A
G.L. 1779'

Date 6/16/2020

Run Number ONE

Depth Driller 3450'

Depth Logger 3450'

Bottom Logged Interval 3449'

Top Log Interval 250'

Casing Driller 8.625" @ 282'

Casing Logger

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 4000

Density / Viscosity 9.0 58

pH / Fluid Loss 10.0 8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.60 @ 80

Rmf @ Meas. Temp 0.45 @ 80

Rmc @ Meas. Temp 0.81 @ 80

Source of Rmf / Rmc CHARTS

Rm @ BHT 0.43 @ 111

Operating Rig Time 3 HOURS

Max Rec. Temp. F 111

Equipment Number P-24

Location HAYS

Recorded By D. SCHMIDT

Witnessed By HERB DEINES

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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,
EAST TO COUNTY LINE, 8 SOUTH,
EAST INTO

Log Measured From: KELLY BUSHING 10 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: HERB DEINES
Secondary Witness:
Secondary Witness:
Secondary Witness:

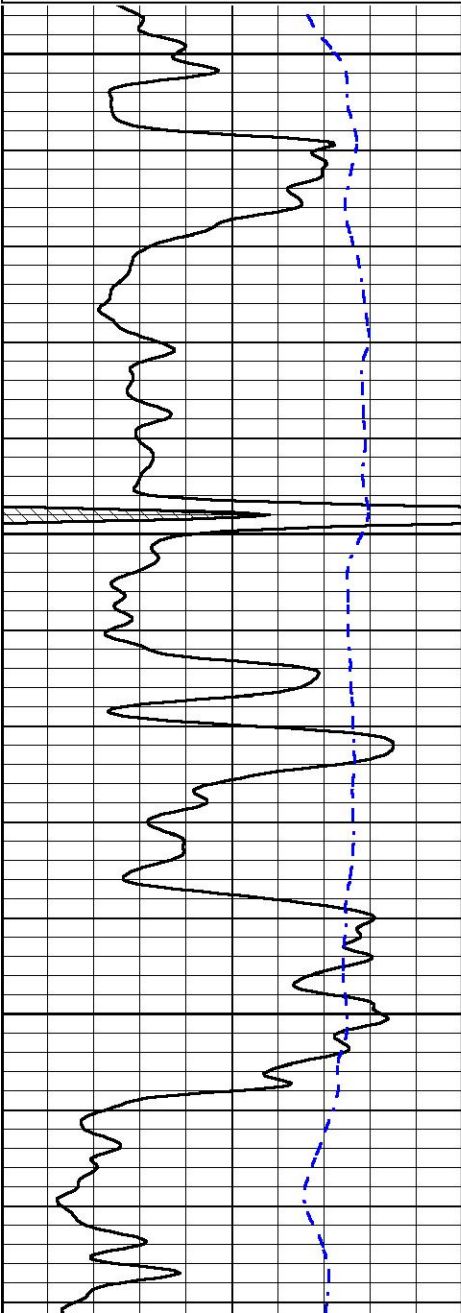


REPEAT SECTION

Database File k-bar oil_krehbiel 2.db
Dataset Pathname STKML/pass2.3
Presentation Format _dil
Dataset Creation Tue Jun 16 02:19:31 2020
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

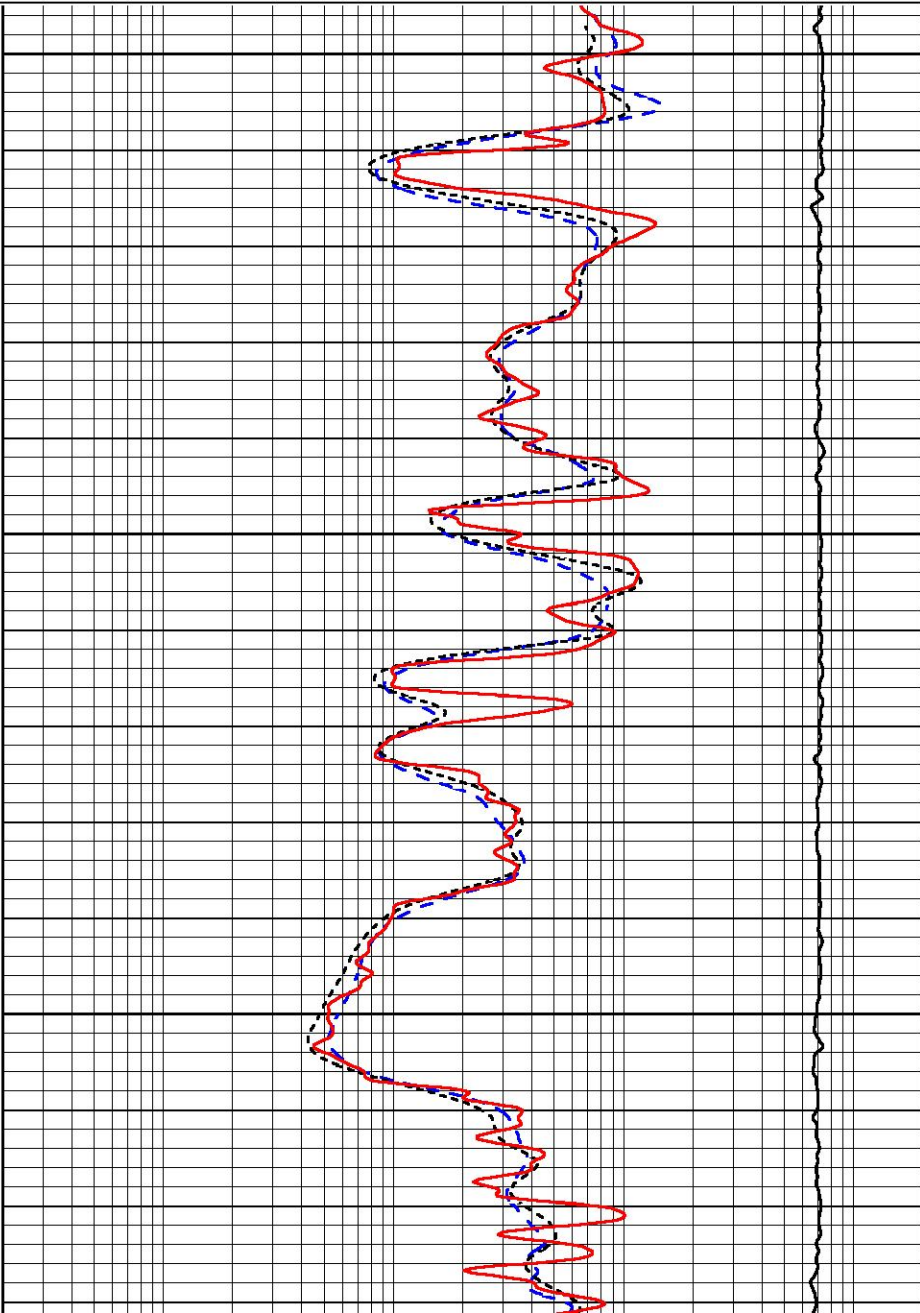
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0

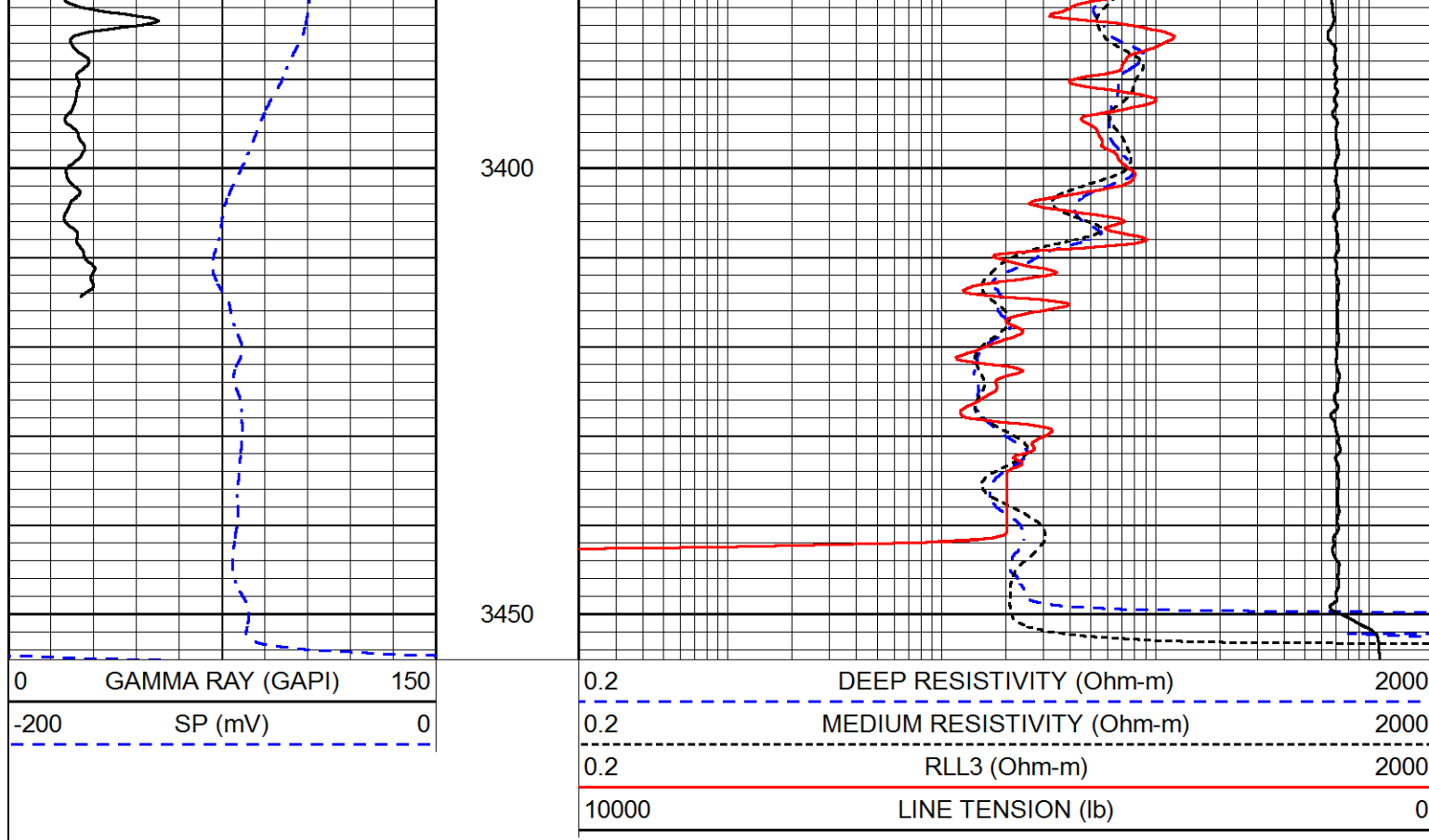


3250

3300

3350





Calibration Report

Database File: k-bar oil_krehbiel 2.db
 Dataset Pathname: STKML/pass3.1
 Dataset Creation: Tue Jun 16 02:16:52 2020

Dual Induction Calibration Report

Serial-Model: 952-828-PSI HIGH TEMP
 Calibration Performed: Sun Mar 01 09:43:59 2020

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.390	-28.000
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.260	-24.000

Microlog Calibration Report

Serial-Model: PSI-01-PSIML
 Performed: Tue Jun 16 01:32:04 2020

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	14000.0000	-1.2000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	17000.0000	-1.1000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.4000

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16955B / 2cj

Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		6127.15	5922.31	cps
Aluminum	2.680	g/cc		1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.532			
	Size			Reading		
Small Ring	4.50	in		1.02		
Large Ring	14.50	in		1.23		

Compensated Neutron Calibration Report

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



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