PIONEER
Pioneer Energy Services

HIGH RESOLUTION INDUCTION

Company	EnCana Oil & Gas (USA) Inc.
Well	Mumby State 4F-36H-P266
Field	Wattenberg
County	Weld
State	Colorado

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Field Wattenberg
County Weld State Colorado
Location: API # : 05123392170000
SHL: 1234 FSL & 983 FEL
SE/SE
SEC 36 TWP 2N RGE 66W
Other Services: None

Permanent Datum	GL	Elevation 5018	Elevation
Log Measured From	KB		K.B. 5038
Drilling Measured From	KB		D.F. 5038 G.L. 5018

Date	August 8, 2014		
Run Number	1		
Depth Driller	7575		
Depth Logger	7270		
Bottom Logged Interval	7270		
Top Log Interval	Casing		
Casing Driller	1108		
Casing Logger	1114		
Bit Size	8 3/4		
Type Fluid in Hole	WBM		
Density / Viscosity	10.5 / 45		
pH / Fluid Loss	8.0 / 9.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	3.60 @ 65 F		
Rmf @ Meas. Temp	2.75 @ 65 F		
Rmc @ Meas. Temp	4.30 @ 65 F		
Source of Rmf / Rmc	Measure / Calc		
Rm @ BHT	1.11 @ 215 F		
Time Circulation Stopped	2330 8/7/2014		
Time Logger on Bottom	0530 8/8/2014		
Maximum Recorded Temperature	215 F		
Equipment Number	48		
Location	Fort Morgan, CO		
Recorded By	Schuman/Stump		
Witnessed By	Mr. Roy Hunt		

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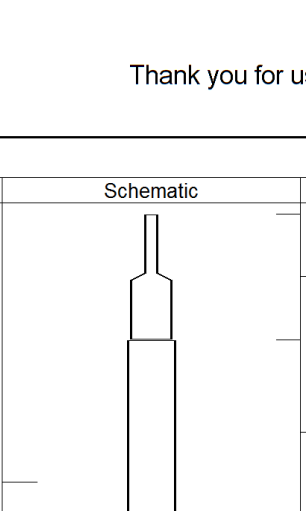
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

H & P Drilling Rig 522

Thank you for using Pioneer Energy Services



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CHD (~0)	2.00	3.50	30.00
		GR-PSI (223)	2.92	3.50	40.00
GR	0.00				
RLL3	-4.02				
		DIL-PSI (1039)	18.25	3.75	175.00
CILD	-11.47				
CILM	-14.92				
SP	-18.92				

Dataset: 13653.db: field/well/run1/pass2
Total Length: 23.17 ft
Total Weight: 245.00 lb
O.D. 3.75 in

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MAIN PASS

Database File: 13653.db
Dataset Pathname: Final2
Presentation Format: dil5enc
Dataset Creation: Fri Aug 08 07:17:25 2014
Charted by: Depth in Feet scaled 1:600

0	SP (mV)	200	0	Deep Resistivity (Ohm-m)	50	1000	CILD (mmho/m)	0
0	Gamma Ray (GAPI)	300	0	Shallow Resistivity (Ohm-m)	50			
			50	RILD (Ohm-m)	500			
			50	RLL3 (Ohm-m)	500			

0	SP (mV)	200	0	Deep Resistivity (Ohm-m)	50	1000	CILD (mmho/m)	0
0	Gamma Ray (GAPI)	300	0	Shallow Resistivity (Ohm-m)	50			
			50	RILD (Ohm-m)	500			
			50	RLL3 (Ohm-m)	500			

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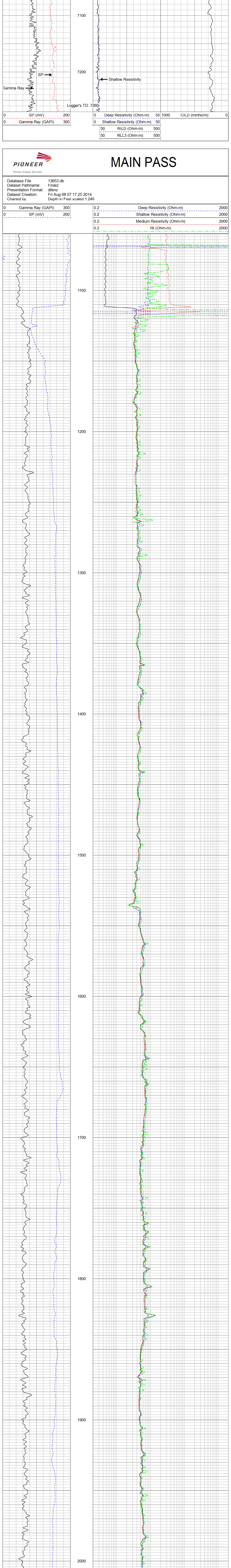
MAIN PASS

Database File: 13653.db
Dataset Pathname: Final2
Presentation Format: dilenc
Dataset Creation: Fri Aug 08 07:17:25 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	300	0.2	Deep Resistivity (Ohm-m)	2000
0	SP (mV)	200	0.2	Shallow Resistivity (Ohm-m)	2000
			0.2	Medium Resistivity (Ohm-m)	2000
			0.2	Rt (Ohm-m)	2000



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Calibration Report

Database File: 13653.db
Dataset Pathname: pass2
Dataset Creation: Fri Aug 08 05:21:58 2014 by Log 0

Dual Induction Calibration Report

Serial-Model: 1039-PSI
Surface Cal Performed:

Loop:	Readings Air	Readings Loop	References Air	References Loop		Results m	Results b
Deep	0.000	1.000	0.000	1.000	mmho/m	0.595	-45.000
Medium	0.000	1.000	0.000	1.000	mmho/m	0.475	-40.000

Gamma Ray Calibration Report

Serial Number: 223
Tool Model: PSI
Performed: Tue Jul 29 05:11:24 2014

Calibrator Value: 253.0 GAPI

Background Reading: 30.0 cps
Calibrator Reading: 380.0 cps

Sensitivity: 0.6500 GAPI/cps

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