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Pioneer Energy Services

RADIAL SECTOR BOND LOG WITH GAMMA RAY

Company ENCANA OIL & GAS (USA) INC.
Well MUMBY STATE 4B-36H-P266
Field WATTENBERG
County WELD
State CO

Company ENCANA OIL & GAS (USA) INC.
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Field WATTENBERG
County WELD State CO
Location: API # : 05123392200000
SHL: 1235' FSL & 1023' FEL
SESE
SEC 36 TWP 2N RGE 66W
Other Services: None

Permanent Datum GL Elevation 5018
Log Measured From KB
Drilling Measured From KB

Elevation
K.B. 5048
D.F. 5048
G.L. 5018

Date of Service	JULY 4, 2014
Run Number	ONE
Depth Driller or PBTD	12800
Depth Logger	7544
Bottom Log Interval	7543
Top Log Interval	SURFACE
Open Hole Size	8-3/4"
Type Fluid	WBM
Fluid Level	SURFACE
Fluid Density	11.2 / 42
Max. Recorded Temperature	224 F
Max. Wellhead Pressure	0
Wellhead Connection	NA
Estimated Cement Top	288
Unit Number	53
Wireline Size	9/32"
Location	FT MORGAN, CO
Recorded By	SCHUMAN
Witnessed By	MR. KEVIN BERGERON

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9-5/8"	40	Surface	1139
Production Casing	7"	26	0	7836
Liner Record	4.5"	13.5	NA	NA

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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

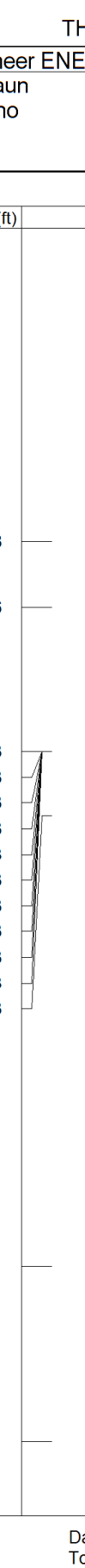
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
Log shifted 6' down to correlate to 7" Casing Tally

H&P Drilling Rig 522

SO# 2-280014

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer ENERGY Services Crew	Tool Data - Services	Serial Number
Engineer: Shaun	Sector CBL	111206
Operator: Geno		
Operator:		
Operator:		



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		PTS275	2.83	2.75	
IntTemp	14.88				
TEMP	13.86				
WVF3FT	11.63	RBT-RBT-C3 (111206) Probe Radii Bond Tool with Digital Telemetry	9.40	2.75	90.00
WVFCAL	11.63				
WVFS1	11.63				
WVFS2	11.63				
WVFS3	11.63				
WVFS4	11.63				
WVFS5	11.63				
WVFS6	11.63				
WVFS7	11.63				
WVFS8	11.63				
WVF5FT	10.63				
		PTS275	2.83	2.75	
CCL	3.63	GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00
GR	0.90				

Dataset: mumbystate4b-36h-p266_rbl.db: field/well/run1/pass3
Total Length: 19.60 ft
Total Weight: 190.00 lb
O.D. 2.75 in

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MAIN LOG

Logged with 0 PSI applied at surface

Database File: mumbystate4b-36h-p266_rbl.db
Dataset Pathname: pass3.2
Presentation Format: scbl02
Dataset Creation: Fri Jul 04 21:06:06 2014 by Calc 7.0 B1
Charted by: Depth in Feet scaled 1:240

3500
3600
3700
3800
3900
4000
4100
4200
4300
4400
4500
4600
4700
4800
4900
5000
5100
5200
5300
5400
5500
5600
5700
5800
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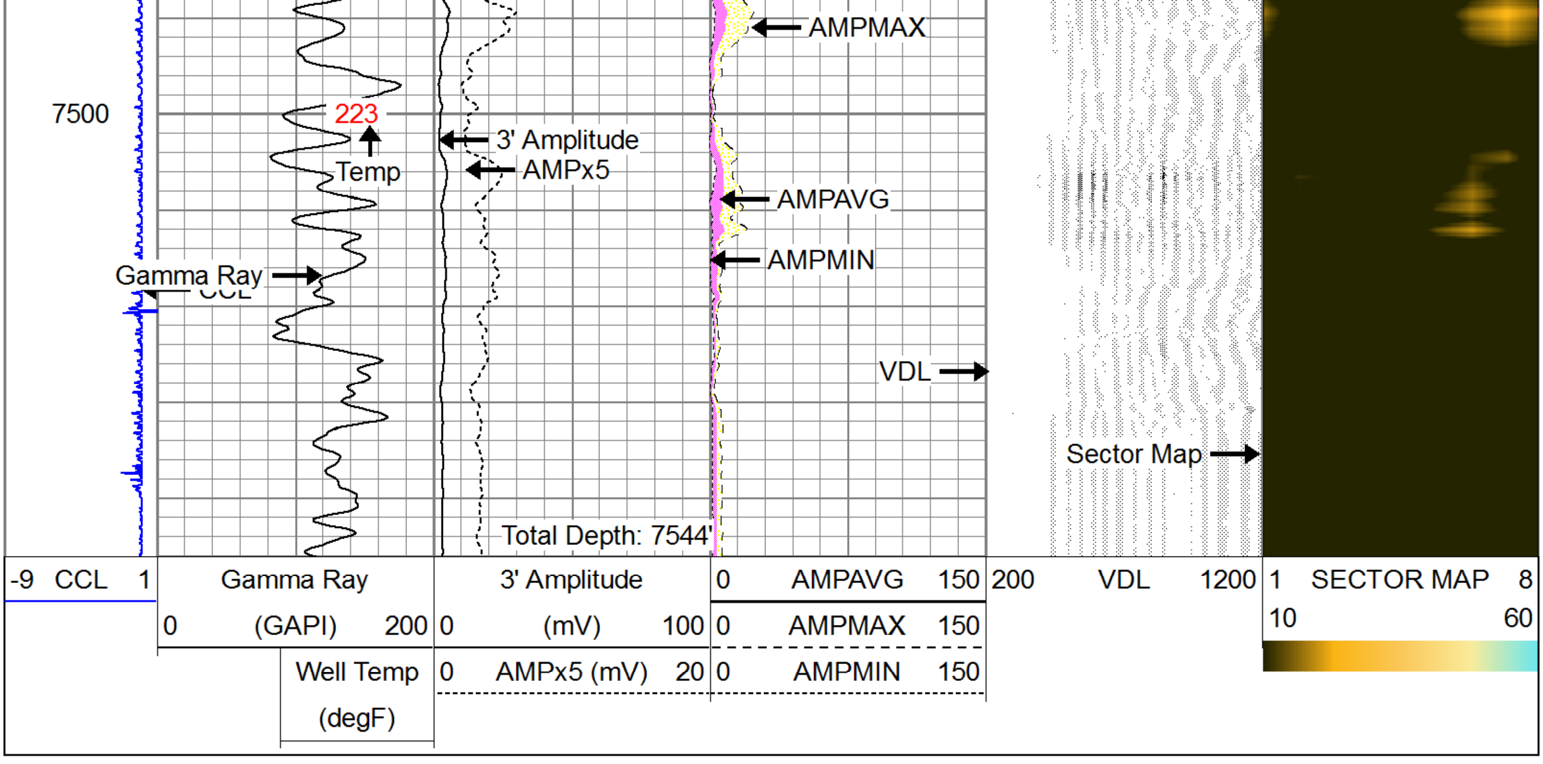
7000
7100
7200
7300
7400



Calibration Report

Database File: mumbystate4b-36h-p266_rbl.db
Dataset Pathname: pass2
Dataset Creation: Fri Jul 04 19:14:42 2014 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: 111211
Tool Model: Probe
Performed: Wed Jun 18 11:32:16 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 111206
Tool Model: RBT-C3

Calibration Casing Diameter: 7.000 in
Calibration Depth: 435.128 ft

Master Calibration, performed Wed Jun 11 05:59:13 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.540	1.500	62.165	80.000	-0.700
CAL	0.013	0.995				
5'	0.012	0.473	1.500	62.165	91.700	-0.800
SUM						
S1	0.010	0.553	0.000	100.000	129.000	-1.909
S2	0.012	0.560	0.000	100.000	127.000	-2.254
S3	0.012	0.555	0.000	100.000	128.000	-2.263
S4	0.012	0.545	0.000	100.000	130.000	-2.313
S5	0.012	0.535	0.000	100.000	134.000	-2.365
S6	0.012	0.527	0.000	100.000	135.000	-2.414
S7	0.012	0.525	0.000	100.000	136.000	-2.417
S8	0.012	0.541	0.000	100.000	130.000	-2.336

Internal Reference Calibration, performed Wed Jun 4 16:50:40 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.013	0.995	1.000	0.000

Air Zero Calibration, performed Wed Jun 4 16:54:11 2014:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number: 111206
Tool Model: RBT-C3
Performed: Wed Jun 11 03:38:10 2014

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF

Gain: 0.30
Offset: 12.00
Delta Spacing 1

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Well	MUMBY STATE 4B-36H-P266
Field	WATTENBERG
County	WELD
State	CO
Country	USA