Company	Kerr-McGee Oil and Gas Onshore LP
Well	Strong P 21-10 J
Field	Wattenberg
County	Weld
State	CO

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Pioneer Energy Services

CEMENT BOND LOG WITH GAMMA RAY

Company	**Kerr-McGee Oil and Gas Onshore LP**
Well	**Strong P 21-10 J**
Field	**Wattenberg**
County	**Weld**
State	**CO**

Location: API # : 0512314265

NW SE

SEC 21 TWP 3N RGE 67W

Other Services

Permanent Datum	Ground Level	Elevation 4792'	Elevation	
Log Measured From	Kelley Bushing		K.B.	4792
Drilling Measured From	Kelley Bushing		D.F.	4793
			G.L.	4792

Date of Service	Jan, 18th 2015
Run Number	1
Depth Driller or PBTD	7570
Depth Logger	6838
Bottom Log Interval	6838
Top Log Interval	Surface
Open Hole Size	N/A
Type Fluid	Water
Fluid Level	Full
Fluid Density	
Max. Recorded Temperature	N/A
Max. Wellhead Pressure	0
Wellhead Connection	Open
Estimated Cement Top	6159'
Unit Number	59
Wireline Size	9/32
Location	Fort Morgan
Recorded By	Cody Nelson
Witnessed By	Mr. Terry Hollingsworth

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	8.63"	24#	Surface	484'
Production Casing	5.5"	15.5#	Surface	6626'
Liner Record				

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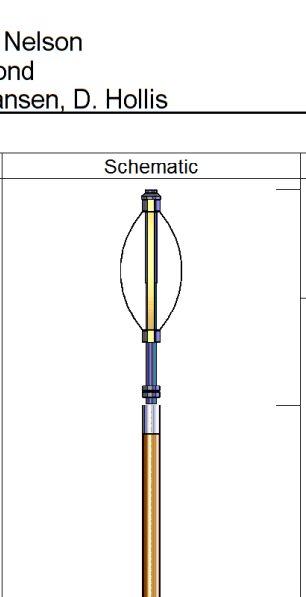
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages,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

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: Operator: Cody Nelson Operator: C. B ond Operator: M. Hansen, D. Hollis		

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			PTS275	2.83	2.75	
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63		RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
			PTS275	2.83	2.75	
CCL	3.63					
GR	2.30		GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00

Dataset: strong_p_21_10_j_cbl.db: field/well/run1/pass13.1
Total Length: 19.13 ft
Total Weight: 190.00 lb
O.D. 2.75 in

Database File: strong_p_21_10_j_cbl.db
Dataset Pathname: pass13.1
Presentation Format: cbl_drs
Dataset Creation: Wed Jan 28 16:18:16 2015 by Calc SCH 120430
Charted by: Depth in Feet scaled 1:240

9	Collar Locator	-1	0	AMP AMPLITUDE (mV)	20	200	VDL	1200
0	Gamma Ray (GAPI)	200	0	AMPLITUDE (mV)	100			

Calibration Report

Database File:	strong_p_21_10_j_cbl.db
Dataset Pathname:	pass13.1
Dataset Creation:	Wed Jan 28 16:18:16 2015 by Calc SCH 120430

Gamma Ray Calibration Report

Serial Number:	111211	
Tool Model:	Probe	
Performed:	Wed Jan 28 15:08:54 2015	
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:	Base	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	656.508	ft

Master Calibration, performed Wed Jan 28 16:18:10 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.007	2.066	0.000	71.921	34.696	0.246
CAL	-0.006	0.365				
5'	-0.007	2.121	0.000	71.921	33.812	0.221
SUM						
S1	-0.008	2.084	0.000	100.000	47.788	0.404
S2	-0.006	2.121	0.000	100.000	47.015	0.295
S3	-0.006	2.162	0.000	100.000	46.114	0.290
S4	-0.006	2.181	0.000	100.000	45.727	0.259
S5	-0.006	2.174	0.000	100.000	45.859	0.283
S6	-0.007	2.157	0.000	100.000	46.217	0.303
S7	-0.006	2.099	0.000	100.000	47.503	0.306
S8	-0.006	2.035	0.000	100.000	48.989	0.314

Internal Reference Calibration, performed Wed Aug 21 11:08:58 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.006	0.365	1.000	0.000

Air Zero Calibration, performed Wed Jan 28 14:18:28 2015:

	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

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