RADIAL SECTOR BOND LOG WITH GAMMA RAY

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Pioneer Energy Services

Company	VERDAD OIL & GAS CORPORATION
Well	AMEN 5
Field	WATTENBERG
County	WELD
State	CO

Company **VERDAD OIL & GAS CORPORATION**
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Location:
API # : 05123398640000
SHL: 211' FNL & 791' FEL
NENE
SEC 14 TWP 1N RGE 65W

Other Services
None

Permanent Datum	GL	Elevation 4988	Elevation K.B. 5005 D.F. 5005 G.L. 4988
Log Measured From	KB		
Drilling Measured From	KB		

Date of Service	NOVEMBER 4, 2014
Run Number	ONE
Depth Driller or PBTD	11663
Depth Logger	7275
Bottom Log Interval	7273
Top Log Interval	SURFACE
Open Hole Size	8+3/4"
Type Fluid	WBM
Fluid Level	95
Fluid Density	9.8 PPG
Max. Recorded Temperature	NA
Max. Wellhead Pressure	0
Wellhead Connection	PACKOFF TO 7" LTC
Estimated Cement Top	2314
Unit Number	P-59
Wireline Size	9/32"
Location	FT MORGAN, CO
Recorded By	SCHUMAN
Witnessed By	MR RANDY ANDERSON

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9+5/8"	36#	Surface	1250
Production Casing	7"	26#	Surface	7394
Liner Record	4+1/2"	13.5#	Surface	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.

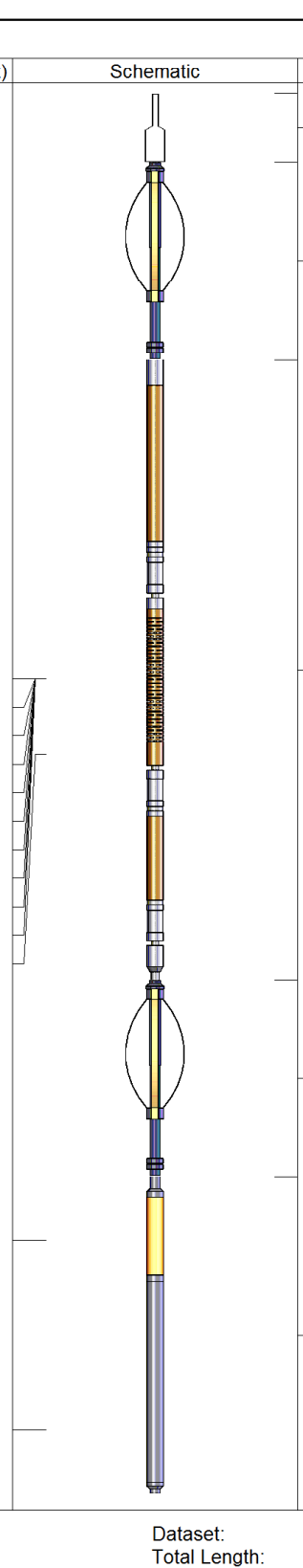
Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
Frontier Drilling Rig 6

SO# 2-280076

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer ENERGY Services Crew	Tool Data - Services	Serial Number
Engineer: Shaun	Sector CBL	130434
Operator: Angelo	GR	080632
Operator: Geno		
Operator:		



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		STNDRD Standard Cable Head	1.00	1.69	10.00
		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 (130434) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL GR	3.63 0.90	GR_CCL-Probe (110249) Probe Gamma CCL	4.54	2.75	100.00

Dataset: amen5_rbl.db: field/well/rbl/pass1
Total Length: 20.13 ft
Total Weight: 200.00 lb
O.D. 2.75 in

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MAIN LOG

LOGGED WITH 0 PSI APPLIED AT SURFACE

Database File: amen5_rbl.db
Dataset Pathname: rbl/pass1
Presentation Format: scbl02
Dataset Creation: Tue Nov 04 06:20:25 2014 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

-9 CCL 1	Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100 0 AMPx5 (mV) 20	0 AMPAVG 150 0 AMPMAX 150 0 AMPMIN 150	200 VDL 1200	1 SECTOR MAP 8 10 60

Calibration Report

Database File: amen5_rbl.db
Dataset Pathname: rbl/pass1
Dataset Creation: Tue Nov 04 06:20:25 2014 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number:	110249	
Tool Model:	Probe	
Performed:	Mon Oct 20 09:05:06 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:	130434	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	1686.508	ft

Master Calibration, performed Tue Nov 04 05:45:03 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.005	0.755	1.501	62.165	100.000	2.880
CAL	-0.003	0.747				
5'	-0.001	0.615	1.501	62.165	98.393	1.648
SUM						
S1	-0.008	0.628	0.000	100.000	157.139	1.281
S2	-0.002	0.629	0.000	100.000	158.622	0.242
S3	-0.002	0.644	0.000	100.000	154.715	0.302
S4	-0.003	0.667	0.000	100.000	149.196	0.450
S5	0.000	0.677	0.000	100.000	147.627	-0.016
S6	-0.003	0.693	0.000	100.000	143.563	0.463
S7	-0.003	0.674	0.000	100.000	147.860	0.415
S8	0.001	0.656	0.000	100.000	152.806	-0.216

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.003	0.747	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

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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County	WELD		
State	CO	Country	USA