Company KERR-MCGEE OIL & GAS ONSHORE
Well HULSTROM 6-22
Field WATTENBERG
County WELD
State CO
Location SEC 22 T1N R66W 2 FSL 2 FEL
Permanent Datum GROUND LEVEL Elev. 0
Log Measured From KB 10 Ft Above Perm. Datum
Drilling Measured From KB
API Serial No. 05-123-35430
Job Number 130433
Run Number ONE
Date 11-Feb-15
Depth Driller 7,991 Ft
Depth Logger 7,991 Ft
Bottom Logged Interval 7,991 Ft
Top Logged Interval 0 Ft
Type Fluid in Hole WATER BASED MUD
Salinity, PPM Cl 2,000
Density 8.4 LB/GAL
Level FULL
Max Recorded Temperature 0 DEG F
Estimated Cement Top 0 Ft
Time Since Circulation
Time on Bottom 11-Feb-15 11:53
Unit Number 5
Recorded By ANGELO
Witnessed By MIKE

Equipment Number: 10284 | Location: | Date: 11-Feb-15 | Time: 11:53

Run 1 | Run 2 | Run 3

Tool Type	Tool Number	Density	Viscosity	Weight	Fluid Loss	Source	RM @ Meas. Temp	RMF @ Meas. Temp	RMC @ Meas. Temp	Source of RMF & RMC	RM @ BHT	Time Circulation Stopped	Time Logger on Bottom	Max Recorded Temperature	Equipment Number	Location	Recorded By	Witnessed By
GR/CCL	10284																	
GR/CCL	10284																	
GR/CCL	10284																	

Run 1 Date 11-Feb-15

RADIAL BOND LOG WITH GAMMA RAY

SECTION 22 T1N R66W

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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 interpretations and Pioneer Wireline Services, LLC shall 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.

API#

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
S.O.# 2-280306

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer ENERGY Services Crew	Tool Data - Services	Serial Number
Engineer: Shawn	Radial CBL	130433
Operator: Brian	GR	080632
Operator: Angelo		
Operator: Mike		

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CSS_MID	2.79	3.00	36.00
MVF3/T1	11.71					
MVFCAL	11.71		RBT-Probe (130433)	8.92	2.75	90.00
MVF5/1	11.71		Probe Rate Burst Tool with Digital Telemetry			
MVF5/2	11.71					
MVF5/3	11.71					
MVF5/4	11.71					
MVF5/5	11.71					
MVF5/6	11.71					
MVF5/7	11.71					
MVF5/8	11.71					
MVF5/T	10.63					
			PTS275	2.83	2.75	
CCL	3.63					
GR	2.36		GR_CCL-Probe (115249)	4.54	2.75	100.00
			Probe Gamma CCL			

Dataset: hulstrom 6-22_rbt.dlis: field\well\f06L\pass1
Total Length: 7991 Ft
Tool Weight: 331.00 lb
O.D.: 3.00 in

PIONEER

MAIN LOG

LOGGED WITH 0 PSI APPLIED AT SURFACE

Database File: hulstrom 6-22_rbt.dlis
Dataset Pathname: pass1
Presentation Format: sclog2
Dataset Creation: Thu Dec 04 11:15:13 2014 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

CCL	0	GR (GAPI)	200	AMP (mV)	100	AMPMAX	150	VDL	1200	SECTOR MAP	0
			0	AMP1x1 (mV)	30	AMPMAX	150				60
					0	AMPMIN	150				

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600

Pick Top of Cement?

CCL
AMP
AMPMAX
AMPMIN
GR
VDL
SECTOR

Total Depth: 3598

CCL	0	GR (GAPI)	200	AMP (mV)	100	AMPMAX	150	VDL	1200	SECTOR MAP	0
			0	AMP1x1 (mV)	30	AMPMAX	150				60
					0	AMPMIN	150				

Database File: hulstrom 6-22_rbt.dlis
Dataset Pathname: pass1
Dataset Creation: Thu Dec 04 11:06:47 2014 by Log SCH 120430

Calibration Report

Gamma Ray Calibration Report

Serial Number	110249
Probe Type	PGGT
Performed	Sat Oct 11 10:40:17 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	130433	
Tool Radial	Probe	
Calibration Casing Diameter	4.500	in
Calibration Depth	1219.442	ft

Master Calibration, performed Fri Jun 06 09:22:21 2014

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
1	0.015	0.313	1.000	81.198	175.000	0.000
2	0.015	0.284				
3	0.015	0.246	1.000	81.198	344.516	-4.115
SUM						
4	0.015	0.287	0.000	100.000	367.140	-5.414
52	0.015	0.269	0.000	100.000	164.851	-3.333
53	0.015	0.305	0.000	100.000	344.065	-5.074
54	0.015	0.270	0.000	100.000	164.851	-3.333
55	0.015	0.332	0.000	100.000	298.902	-4.937
56	0.015	0.305	0.000	100.000	249.979	-4.042
57	0.015	0.332	0.000	100.000	298.902	-4.937
58	0.014	0.306	0.000	100.000	252.776	-4.037

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	0.015	0.517	1.000	0.000

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

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero			Offset
7	0.000		0.000			0.000
8	0.000		0.000			0.000
SUM						
51	0.000		0.000			0.000
52	0.000		0.000			0.000
53	0.000		0.000			0.000
54	0.000		0.000			0.000
55	0.000		0.000			0.000
56	0.000		0.000			0.000
57	0.000		0.000			0.000
58	0.000		0.000			0.000

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