

Opritz, Steve

34-099-2-3184-00-00

From: Fleming, John
Sent: Monday, October 15, 2012 6:51 AM
To: Claus, Dave; Worstall, Robert; Hill, Thomas; Tomastik, Tom; Opritz, Steve; Simmers, Rick
Subject: FW: 20" casing failure

I will be gone to the location this morning to make an inspection and then coming to the office.

John Fleming
 Mineral Resources Inspector
 Division of Oil and Gas Resources Management
 3575 Forest Lake Drive. Suite 150
 Uniontown, Ohio 44685-8116
 330.896.0616 Office
 330.896.1949 Fax
 330.458.9206 Cell

From: Shrewsbury, Wendell [mailto:WendellShrewsbury@consolenergy.com]
Sent: Sunday, October 14, 2012 1:48 PM
To: Shrewsbury, Wendell; Nickel, Pete; Fleming, John; John Fleming (jf3102@aol.com)
Cc: Ice, Kevin; Srivastava, Ravi; Boggs, Jeffery; Schurr, Harry; Palamides, David; Moyer, Ed; Hvizda, Stephen; Coffman, Ryan; Arbus, Tristan
Subject: RE: 20" casing failure

20" Plan Moving Forward

- 30" conductor was run to 110' and cemented back to surface
- 20", 94#, J-55 casing was set to 370' and cemented to surface
- 15 bbl cement returns were realized on the 20" cement job
- Cement can be seen at surface in the 20" x 30" annulus
- A caliper and bond log have been performed indicating good casing integrity

We propose to cut the parted 20" casing off ~6" below the split (~1-2' below bottom of cellar). We then would nipple back up on the 30" conductor with 30" rotating head and drill the 17 1/2" hole on air/foam to ~1000' GL, run 13 3/8" to bottom, and cement back to surface with Class A. We will complete a CIT on the 13" string when landing the plug on the cement job.

Note: We had a good cement job on the 13" string on the 7A well on this pad with 26 bbls cement returns

Wendell Shrewsbury

Horizontal Rig Supervisor
 CONSOL Energy, CPA Gas Operations
 280 Indian Springs Road
 Indiana, PA 15701

Work Cell (724)-762-8790
wendellshrewsbury@consolenergy.com

From: Shrewsbury, Wendell
Sent: Sunday, October 14, 2012 12:44 AM
To: Nickel, Pete; John Fleming (john.fleming@dnr.state.oh.us); John Fleming (jf3102@aol.com)
Cc: Ice, Kevin; Srivastava, Ravi; Boggs, Jeffery; Schurr, Harry; Palamides, David; Moyer, Ed; Hvizda, Stephen; Coffman, Ryan; Arbus, Tristan
Subject: RE: 20" casing failure

We have finished running the 3-Arm Caliper Log and CBL with Weatherford. See attached logging files.

So some of the details from the job: (Note: All depths on the logs are from GL, this was the easiest place to zero the tools for the most accurate information.)

3-Arm Caliper Log

We ran the 3-Arm Caliper initially we had a good run. We accurately saw the separation at surface and the pipe was deformed (~2.5" difference) down to ~25' GL. The log reads constant and steady all the way to bottom except from ~320' to ~324' where we saw another deformation (~0.5"). Bottom was tagged at 343' GL which lines up about 3' above the shoe. We displaced all but 1 bbl of cement during the job and it was confirmed this was in the pipe by seeing cement on the logging tools after running. After running the tool the first pass the tool quit working on surface. The tool lost calibration. We reset a rough calibration and ran the tool an additional two runs. For the information on these runs the size is inaccurate but the trends can be correlated to the first run. These trends match up extremely well, assuring the information from the first pass was accurate. The log labeled is pass3 and the pass6/pass7 are the logging runs with the tool not calibrated correctly. Overall in my opinion I see no real deformations or holes in casing except the one at surface.

CBL Log

We were able to run the CBL tool with no issues we ran two passes again to verify the information and tools we reading properly. The logs look llike there is no cement from 100' above but the wireline operator assured us that was not enough hydrostatic for the tool to read. We can physically confirm we have cement all the way to surface. The bond shows cement throughout the whole string and a good bond. The surprising information found from this logging run is the GR and Temp log. First the GR shows one hot zone from ~100' to ~150'. I can't see why we would see a GR increase here this all is sandstone from our drilling samples. The most surprising of all is the Temp log. At 200' we have 81 deg, at 150' we have 85 deg, at 100' we have 96 deg, and at 50' we have 95 deg. I have no idea what that temperature difference could be from. Overall in my opinion I believe we have a good cement job and bond on the backside of the casing.

While RU and running tools we have noticed that we have some type of gas percolating inside of the 20" casing and none on the backside. We saw no gas shows while drilling and not really sure what could be going on here. We tested the air inside the pipe with a gas monitor and saw no LEL readings. Further investigation will have to be done to figure out our exact situation there.

ODNR Inspector John Fleming was onsite to witness the logs ran. He wants our side to get together and develop a proposal with some options that we want to move forward with. Lets all decide on a time and have a conferene call tomorrow to develop our proposals. On Monday morning he will share this proposal with the chiefs. Once they review our proposal we will schedule a conference call to discuss and decide upon an action plan.

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From: Nickel, Pete

Sent: Saturday, October 13, 2012 12:10 PM

To: John Fleming (john.fleming@dnr.state.oh.us); John Fleming (jf3102@aol.com)

Cc: Ice, Kevin; Srivastava, Ravi; Boggs, Jeffery; Schurr, Harry; Palamides, David; Moyer, Ed; Hvizda, Stephen; Coffman, Ryan; Arbus, Tristan; Shrewsbury, Wendell

Subject: 20" casing failure

We ran 370' of 20", 94#, J-55 casing. Halliburton cemented with 650sks of Class A with 15 bbls cement returns to surface. After WOC ~11.5 hrs we RU 20" casing swage in preparation for our CIT. We planned to pressure up to 140 psi, which with 370' hydrostatic, is 300 psi, the ODNR minimum pressure for CIT. The water level was down the casing ~10' (~3.55 bbl). The mud pumps were brought on line at 20 spm and then up to 40 spm (2 and 4 bpm) to fill the casing. Pressure was reading 0 psi. Approximately 5-6 bbl was pumped with pressure reading 0 psi when the 20" casing failed causing an ~4' vertical split in the casing at GL. When the 20" split, it impacted the 30" conductor outside of it and put a horizontal crack in a weld ~10" long. 20", 94#, J-55 casing is rated to 2110 psi burst, so it would be assumed that the pressure was higher than 2110 psi, although we have no record of the actual pressure because it was determined after the failure that the pressure transducer for mud pump 2 was not functioning.

John Fleming was on site and inspected the split casing.

The plan going forward, with ODNR approval, we will bring Weatherford Wireline out to run a 3 arm caliper and a CBL to evaluate

the condition of the 20" and the cement. John Fleming will be contacted to witness the job in 6-8 hrs when Weatherford is expected. Once the caliper and bond log are run, we will evaluate and discuss with ODNR to come up with a plan going forward. Pictures of casing attached.

Pete Nickel
Horizontal Rig Manager--CPA Ops

CNX Gas Company
724-599-9465
petenickel@consolenergy.com

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Opritz, Steve

From: Fleming, John
Sent: Sunday, October 14, 2012 7:41 AM
To: Claus, Dave; Worstall, Robert; Hill, Thomas; Opritz, Steve; Tomastik, Tom; Simmers, Rick
Subject: FW: 20" casing failure
Attachments: 10 13 12 cnx Mahn 7c 20 cbl.pdf; 10 13 12 cnx Mahn 7c 20 3 arm.pdf

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Opritz, Steve

From: Fleming, John
Sent: Saturday, October 13, 2012 11:55 AM
To: Claus, Dave; Worstall, Robert; Hill, Thomas; Opritz, Steve; Simmers, Rick; Tomastik, Tom
Subject: FW: Mahn 7C Morning Update 10.13.12 Parted 20" casing and damaged 30" casing.

I was on location this morning and met with Peter Nickle and Wendell Shrewbury from CNX. The decision was made to run a bond log and a caliber log. Weatherford is schedule to be on location within 6 to 8 hours, I will be notified by CNX personal when they are on location to witness the bond log and casing caliber log. Once this is completed I will contact Deputy Chief Dave Claus with all information and all of the logs.

Any questions call my cell phone.

John Fleming

Mineral Resources Inspector

Division of Oil and Gas Resources Management

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Uniontown, Ohio 44685-8116

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330.896.1949 Fax

330.458.9206 Cell

-----Original Message-----

From: Arbus, Tristan [mailto:TristanArbus@consolenergy.com]

Sent: Saturday, October 13, 2012 6:08 AM

To: Hvizda, Stephen; Palamides, David; Thrower, Marlin; Coffman, Ryan; Liszka, Brian; Boggs, Jeffery; Srivastava, Ravi; Huffman, Timothy; Hardcastle, John; Ice, Kevin; Smith, Kevin; Black, Vince; Rinehart, Tim; Smith, Adam; Moyer, Ed; Nickel, Pete; Shrewsbury, Wendell; Zoka, Joseph; Neal, Craig; Fleming, John; Rodriguez, Seth; Schurr, Harry; Tellers, John; Corbett, John; Rockey, Matthew; Ryan, Michael; Martincic, Wesley

Cc: 'jf3102@aol.com'; 'Mike.Gazda@Halliburton.com'; 'cullen.miller@halliburton.com'; 'Dan.Jockel@Halliburton.com'; 'ronald.ewing@halliburton.com'; 'dhunter2@slb.com'

Subject: Mahn 7C Morning Update 10.13.12

No accidents or near misses to report. All E&S controls in place and functioning, no spills or environmental issues. All contractors have completed at least one safety meeting per shift in addition to safety meetings conducted for non-routine tasks. Comm Center has been contacted.

Nabors and Halliburton completed our 20" casing cement job receiving 16bbls of cement return to surface. ODNr was present and satisfied. While WOC for 8 hours, we R/D Halliburton, flushed our flow line, and TOOH with our inner string. CC and GPX were on site to dispose of returns.

After WOC for 8 hours, we began to pressure test our 20" casing. While pressure testing, the 20" casing parted at ground level, also parting the 30" conductor. We are currently removing the 20" and 30" under the floor in order to further assess.

We will assess our casing before moving forward.

Current depth: 390'

24 hour footage: 0'

Tristan Arbus

Drilling Engineer

Consol Energy / CNX Gas Operations

724.579.8266

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Sent: Saturday, October 13, 2012 12:45 PM
To: Claus, Dave; Worstall, Robert; Hill, Thomas; Tomastik, Tom; Simmers, Rick; Opritz, Steve
Subject: FW: 20" casing failure
Attachments: 2012-10-13_06-25-43_556.jpg; 2012-10-13_06-25-39_155.jpg; 2012-10-13_06-25-57_228.jpg; 2012-10-13_06-25-52_514.jpg; 2012-10-13_06-26-08_298.jpg; 2012-10-13_06-25-43_556.jpg

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Cement Bond Log
Gamma Ray/CCL/Temp

Company	Consol Energy	Company	Consol Energy
Well	Mahn #7C	Well	Mahn #7C
Field	N/A	Field	N/A
County	Mahoning	County	Mahoning
State	OH	State	OH
Date	13-Oct-2012	Location:	API #: 34-099-2-3184-00-00
Run Number	One	SEC	TWP
Depth Driller	370'		RGE
Depth Logger	343'	Jackson Township	
Bottom Logged Interval	343'	Permanent Datum	Ground Level
Top Log Interval	0	Log Measured From	Ground Level
Open Hole Size	26"	Drilling Measured From	Kelly Bushing
Type Fluid	Water		Elevation 1060'
Density / Viscosity	8.3		Elevation
Max. Recorded Temp.	96		K.B. N/A
Estimated Cement Top	0		D.F. N/A
Time Well Ready	ROA		G.L. 1060'
Time Logger on Bottom	N/A		
Equipment Number	14061		
Location	Weston, WV		
Recorded By	S Farnsworth		
Witnessed By	Wendell Shrewsbury		
		John Fleming	
Run Number	Bit	From	To
		Size	Weight
		From	To
Casing Record	Size	Wd/Ft	Top
Surface String	20"	94	0
Prod. String			
Production String			
Liner			Bottom
			343'

<<< Fold Here >>>

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and 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 employees or agents. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Remarks: Rig:Neibors M62 Prints:3 Service Order #193468
 Logging speeds and log presentation at customers request
 Well was making gas while logging

BHT	Run No	Tool Type	EQUIPMENT DATA
Bit Size			Tool No
Surface Pressure			450 RIBT-II 7E9-02
Shut In			

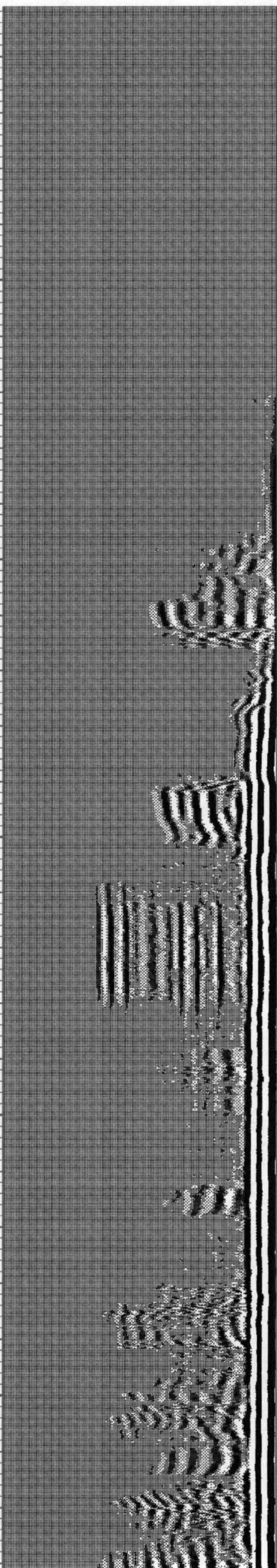
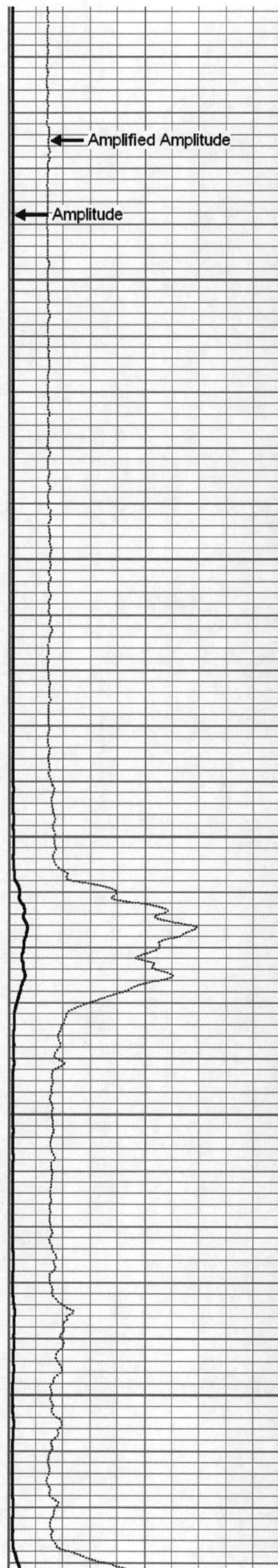
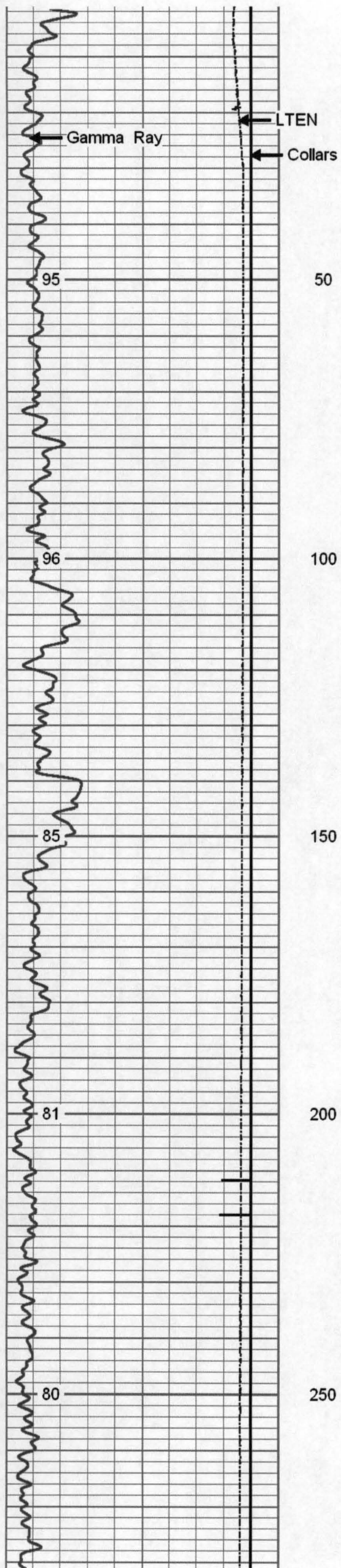


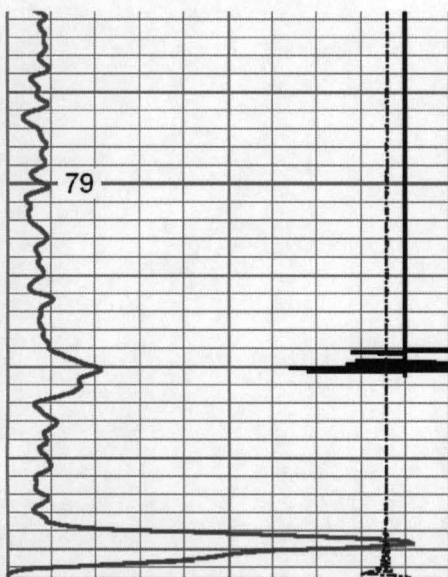
Main Log



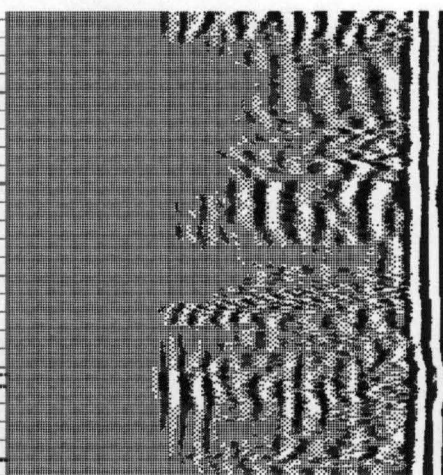
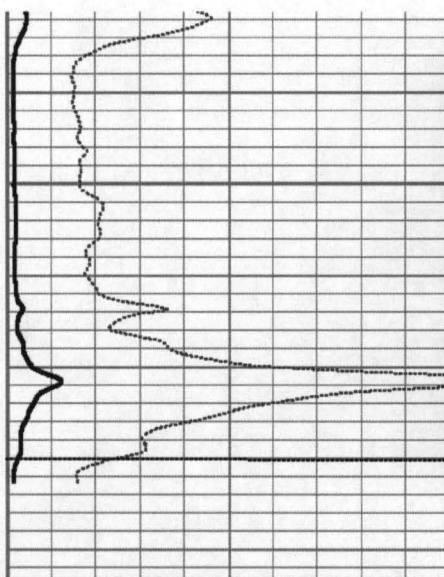
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 Presentation Format: sectorws
 Dataset Creation: Sat Oct 13 22:39:07 2012 by Calc Weatherford Casedho
 Charted by: Depth in Feet scaled 1:240

9	Collars	-1	0	AMP5FT (mV)	10	300	VDL	1300
0	Gamma Ray (GAPI)	200	0	AMP5FT (mV)	100			
200	GR (GAPI)	400	365	TT (usec)	265			
2500	LTEN (lb)	0	365	PPT (usec)	265			
TEMP1								
(degF)								





300



9	Collars	-1
0	Gamma Ray (GAPI)	200
200	GR (GAPI)	400
2500	LTEN (lb)	0

0	AMP5FT (mV)	10
0	AMP5FT (mV)	100
365	TT (usec)	265
365	PPT (usec)	265

300 VDL 1300

TEMP1
(degF)



Weatherford

T.D. @ 343'



Weatherford

Repeat Section

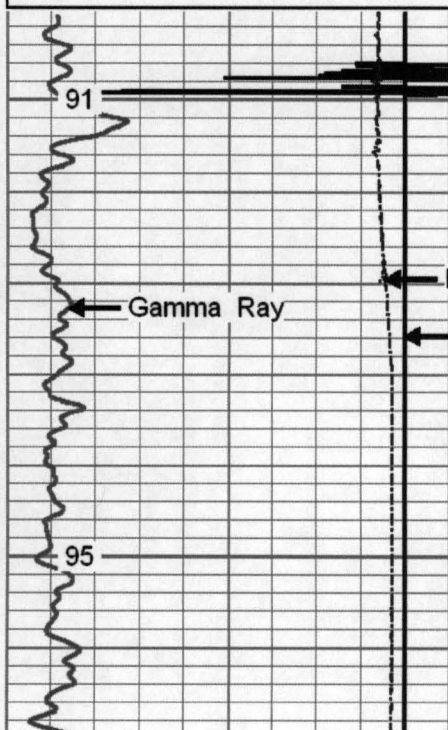
Database File: 10 13 12 cnx 20.db
 Dataset Pathname: pass10
 Presentation Format: sectorws
 Dataset Creation: Sat Oct 13 22:24:11 2012 by Log Weatherford Casedho
 Charted by: Depth in Feet scaled 1:240

9	Collars	-1
0	Gamma Ray (GAPI)	200
200	GR (GAPI)	400
2500	LTEN (lb)	0

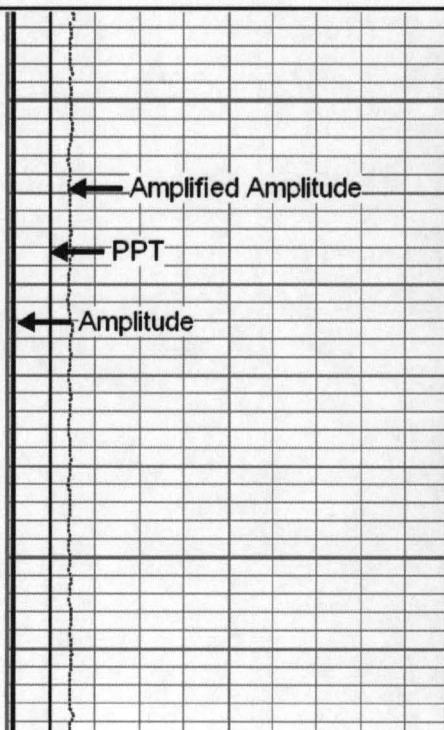
0	AMP5FT (mV)	10
0	AMP5FT (mV)	100
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468	PPT (usec)	368

300 VDL 1300

TEMP1
(degF)



0



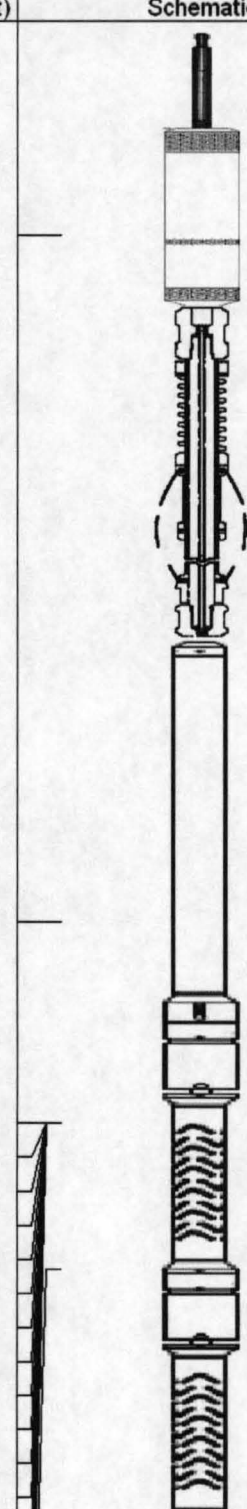
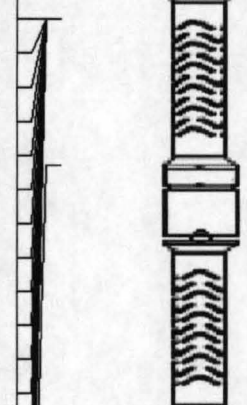
50

S1	0.015	0.000	-0.015
S2	-0.008	0.000	-0.124
S3	-0.004	0.000	-0.029
S4	0.008	0.000	-0.043
S5	-0.002	0.000	-0.015
S6	-0.006	0.000	-0.059
S7	-0.002	0.000	-0.008
S8	0.001	0.000	-0.001
S9	0.010	0.000	-0.020
S10	0.006	0.000	-0.009
S11	0.003	0.000	-0.012
S12	0.002	0.000	-0.010
S13	-0.002	0.000	-0.008
S14	-0.009	0.000	-0.002
S15	-0.008	0.000	-0.011
S16	-0.009	0.000	0.006

Temperature Calibration Report

Serial Number: 450 RIB EX TEMP
 Tool Model: Tek16_Ex_Temp
 Performed: Thu Feb 09 23:47:50 2012

	Reference	Reading
Low Reference:	0.00 degF	0.00 usec
High Reference:	1.00 degF	1.00 usec
Gain:	0.33	
Offset:	0.00	
Delta Spacing	2	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Weatherford 1 7/16 Cable Head	1.00	1.43	5.00
CCL	22.08		CCL-450tekco (450) Tekco 4 1/2" 450 Deg. "F" SmCo Logging CCL	1.87	4.50	80.00
			5419 Titan 3 1/8" Adjustable Centralizer	3.45	3.13	34.00
TEMP	14.96					
WV3FT	12.89		SCBL-Tek16_Ex_Temp (450 RIB EX TEMP) TEKCO 4.5" 400 Deg F 16 Sector RIB w Ext. Temp	10.25	4.50	234.00
WVFCAL	12.89					
WVFS1	12.89					
WVFS2	12.89					
WVFS3	12.89					
WVFS4	12.89					
WVFS5	12.89					
WVFS6	12.89					
WVFS7	12.89					
WVFS8	12.89					
WVFS9	12.89					
WVFS10	12.89					