

HALLIBURTON

Advanced Cement Evaluation

CAST-M Circumferential Acoustic Scanning Tool – Monoconductor

Client: WPX ENERGY
Well: SG 432-22
Field: GRAND VALLEY
County: GARFIELD
State: CO

Analyst: Xinli Paugh
Date: 8/19/2013
Location: Denver FRS
Phone: (303)899-4670

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DATA, RECOMMENDATIONS, INTERPRETATIONS LIMITATIONS

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Executive Summary

1. Well Intervention Objectives

- **Ran Advanced Cement Evaluation**
Tools: CASTM-CBL-GR-CCL

2. Well Information

- Borehole Record
N/A
- Casing & Tubing Record

18"; 48#;	0'-60'
9.625",32.3#	0'-1118'
4.5",11.6#	0'-5731'

3. Logging Information

- Logged Date: August 19, 2013
- Logged Interval: 73'-5680'
- Log Engineer: Richard Macke

4. Conclusion

Advanced Cement Evaluation:

The transitions and free pipe is around 70' -410'. See Figure1. Estimated top of cement is at 410 ft. See Figure 2.

The cement bond is good from 410' to 3450'; there are some channels at 3450'-4820' but still good cement bond. See Figure3; and there is fair cement bond at 4820'-5370' and also have heavy cement at 5370'-Bottom, See Figure4.

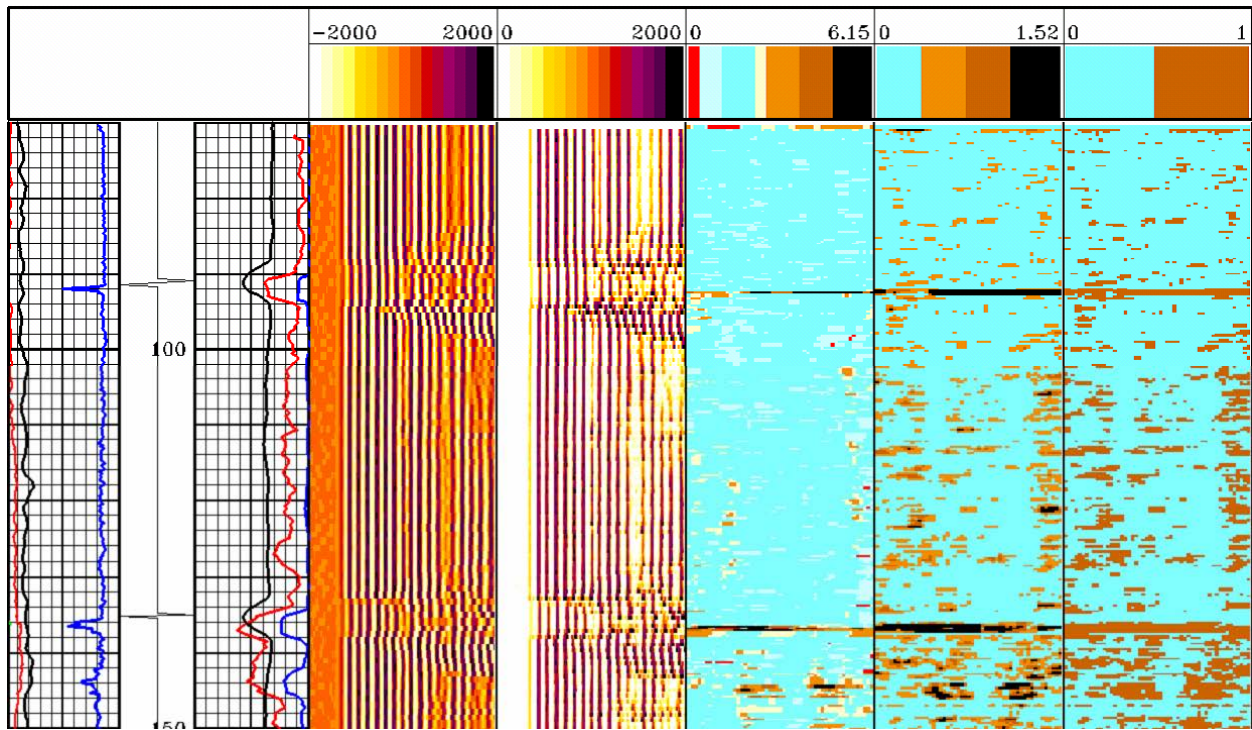


Figure 1: Free pipe

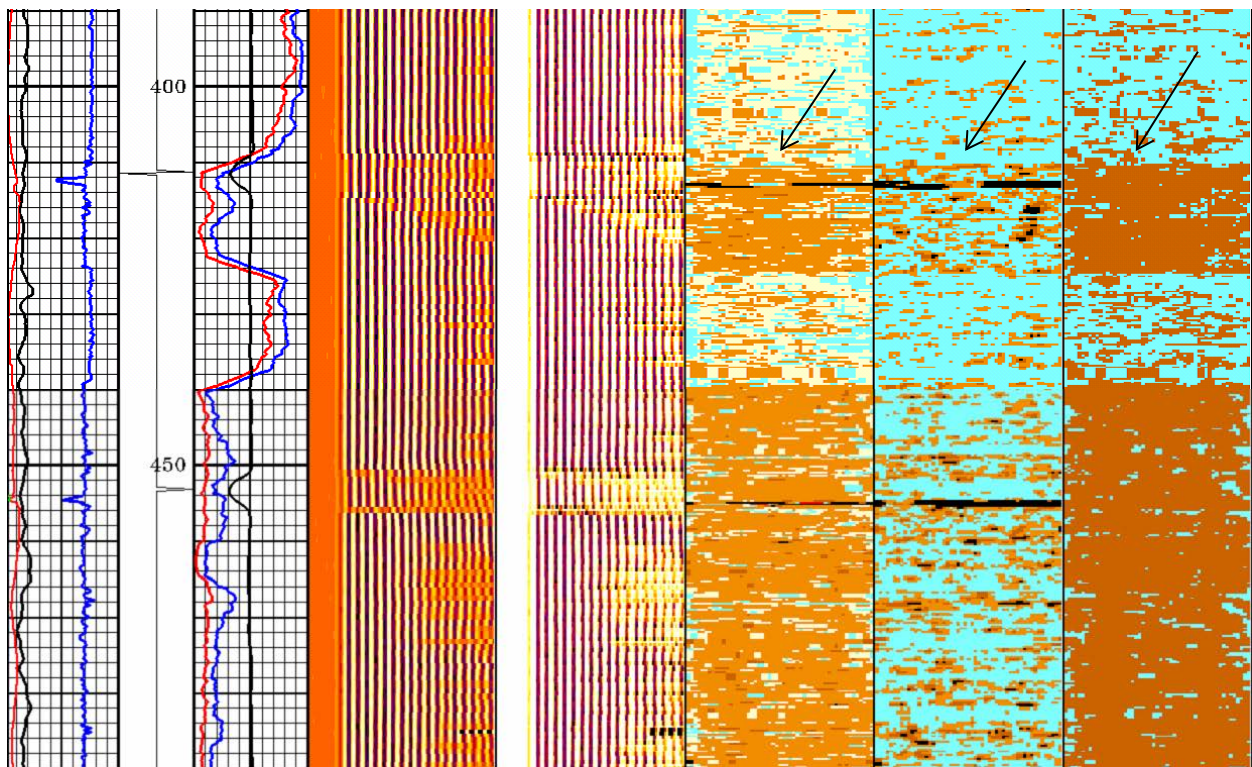


Figure 2: Estimated Top of Cement is at 410 ft

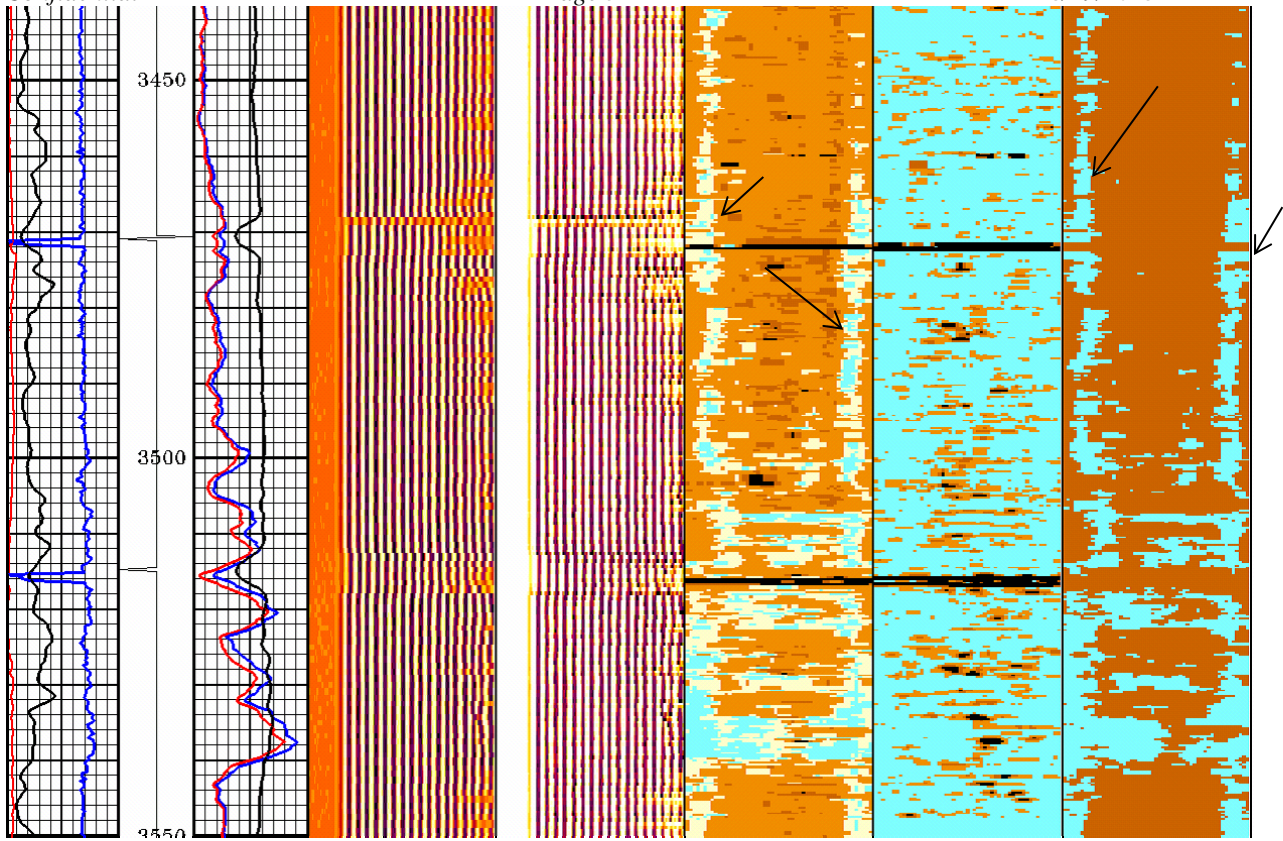


Figure 3: Some channels at 3450ft-4820ft but still good cement bond.

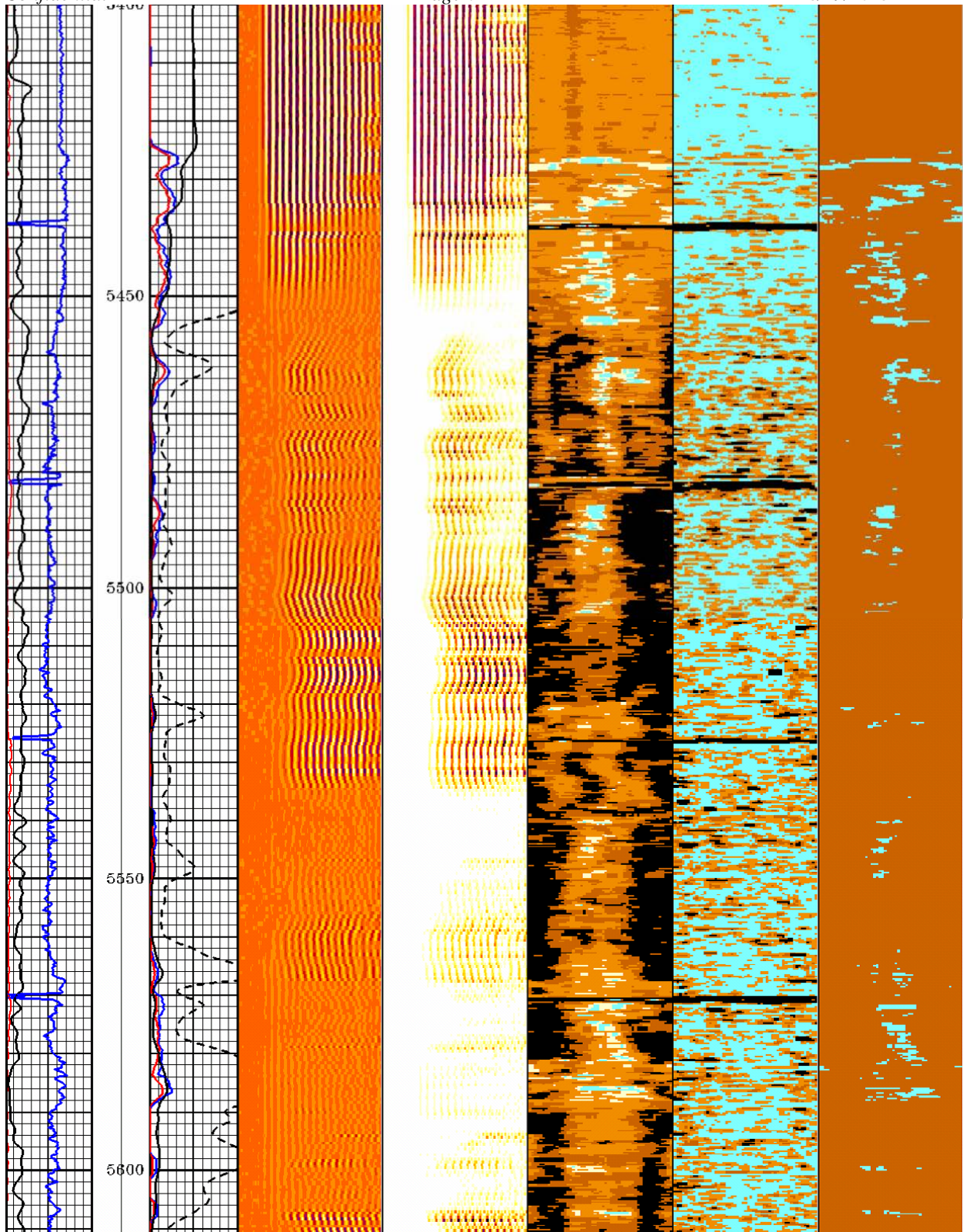


Figure 4: Some heavy cement at 5370ft-Bottom.

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