



Date: September 9, 2024  
Applicability: XEM  
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### **BACKGROUND INFORMATION**

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During the pre-run of an XEM job it was noticed that the Babel Fish probe had all values reading 0 when connected to an XEM string but all values read correctly when disconnected. Babel Fish had been previously used with XEM without issue. Further troubleshooting found that when the HVTX probe was connected to the female ROTC (Uphole connection of the BF probe) the values would then go to 0 even if several probes were between the BF and HVTX. Further testing was done, and it was found that certain Babel Fish boards would cause the issue while others did not.

The root cause was found to be RS485 communication between the HVTX and Babel Fish when connected via the female ROTC. This would continue to occur even if multiple probes were placed between the two.

### **PROCESS IMPROVEMENTS**

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There were several solutions available but the least intrusive was to modify the HVTX firmware to eliminate RS485 line communication. Since this type is not utilized in the XEM system the change would not affect the tool's performance.

Telemetry firmware 3.255.10.35 was edited to create 3.255.10.37 that disabled these lines. When tested on the bench and in full string configurations the data issues with Babel Fish were no longer present.

Field testing under all possible variations of the XEM tool string were conducted with no issues found.

### **MOVING FORWARD**

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All HVTX probes leaving Extreme will have 3.255.10.37 installed