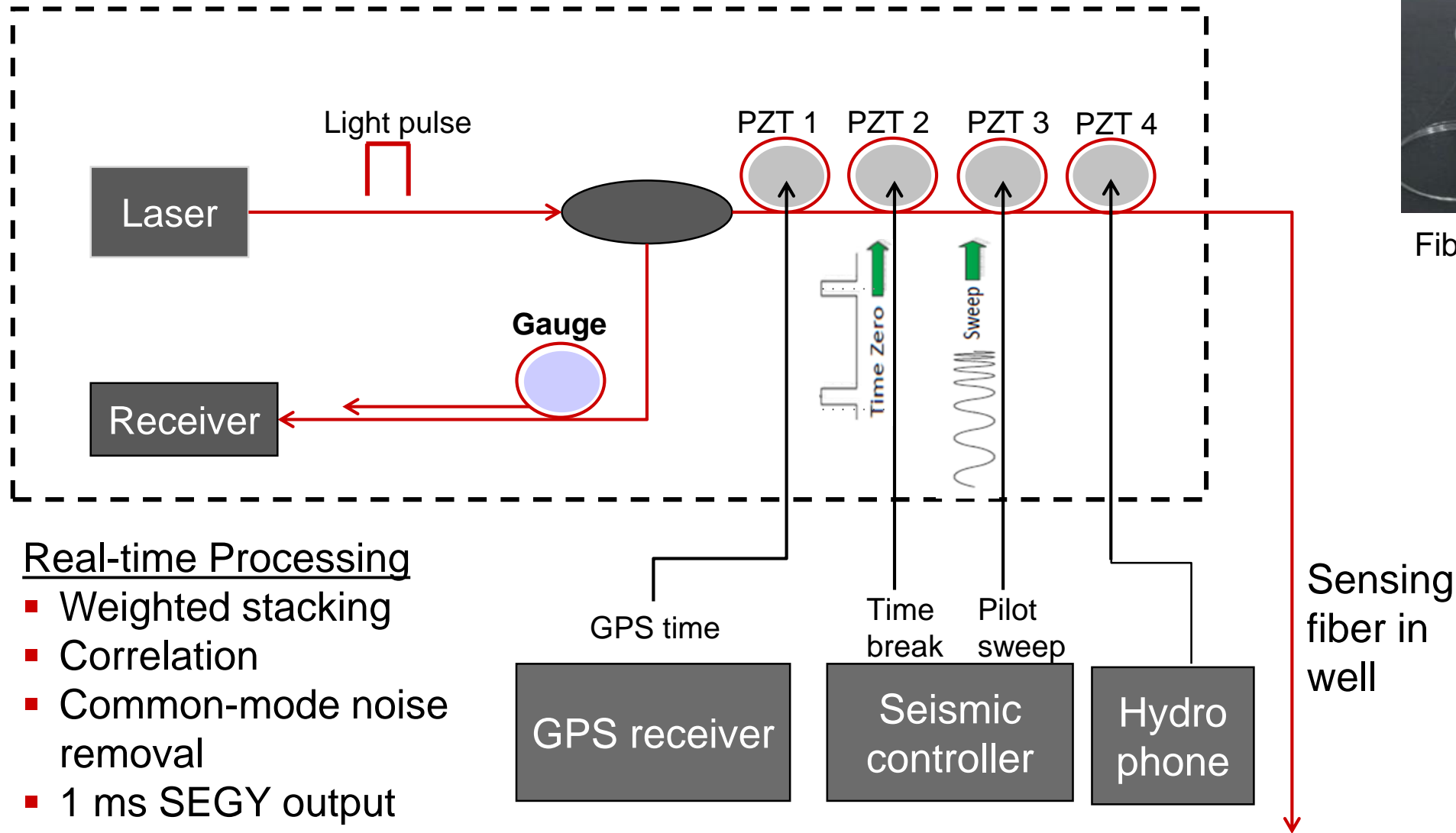




Real-Time Acquisition and Processing of DAS VSP Data

Glenn Wilson

Real-Time DAS VSP Interrogator Schematic



FiberVSP Real-Time Processing Flow



DAS



Weighted Stack



Correlation

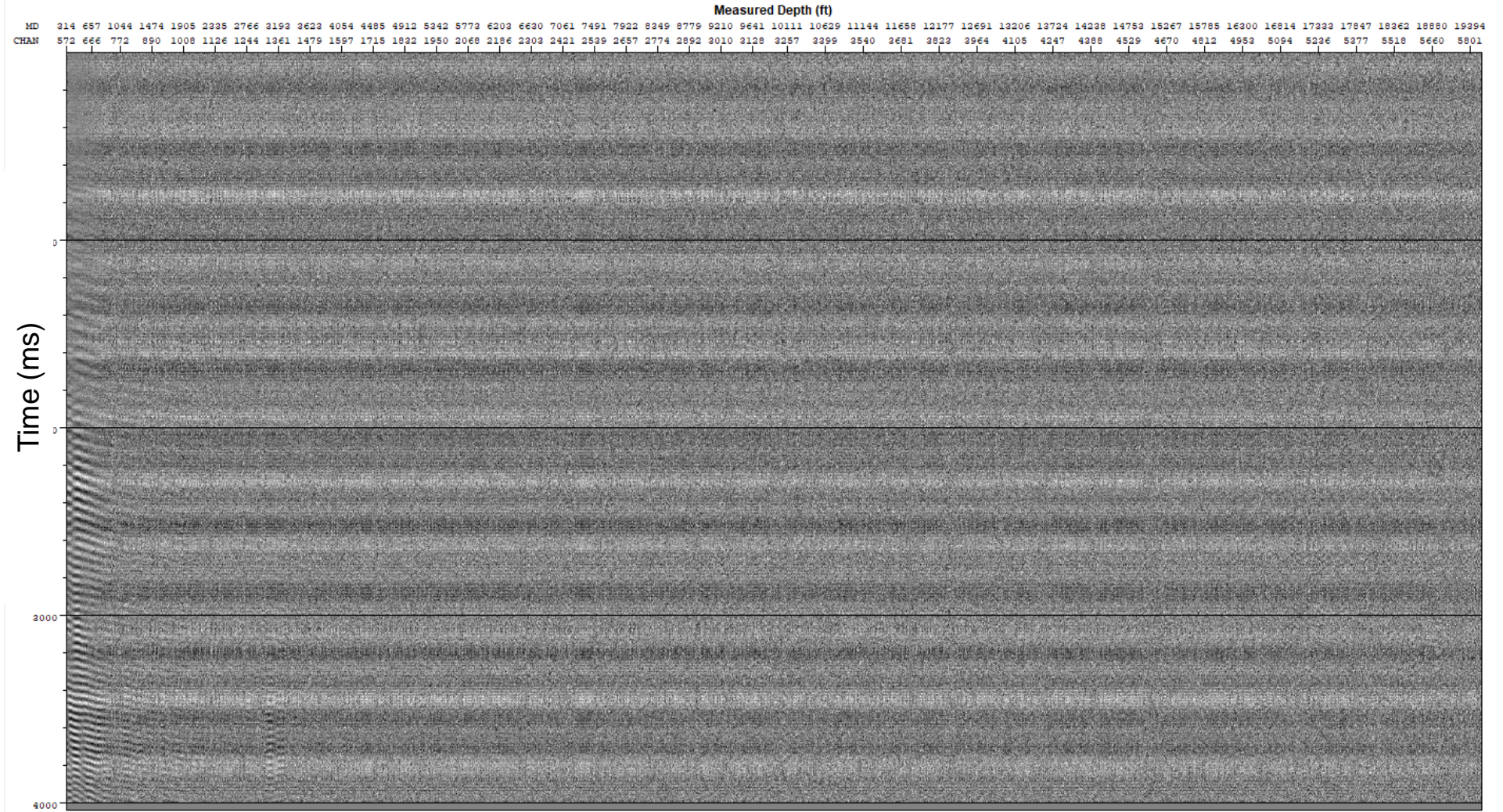


Common Mode Noise Removal

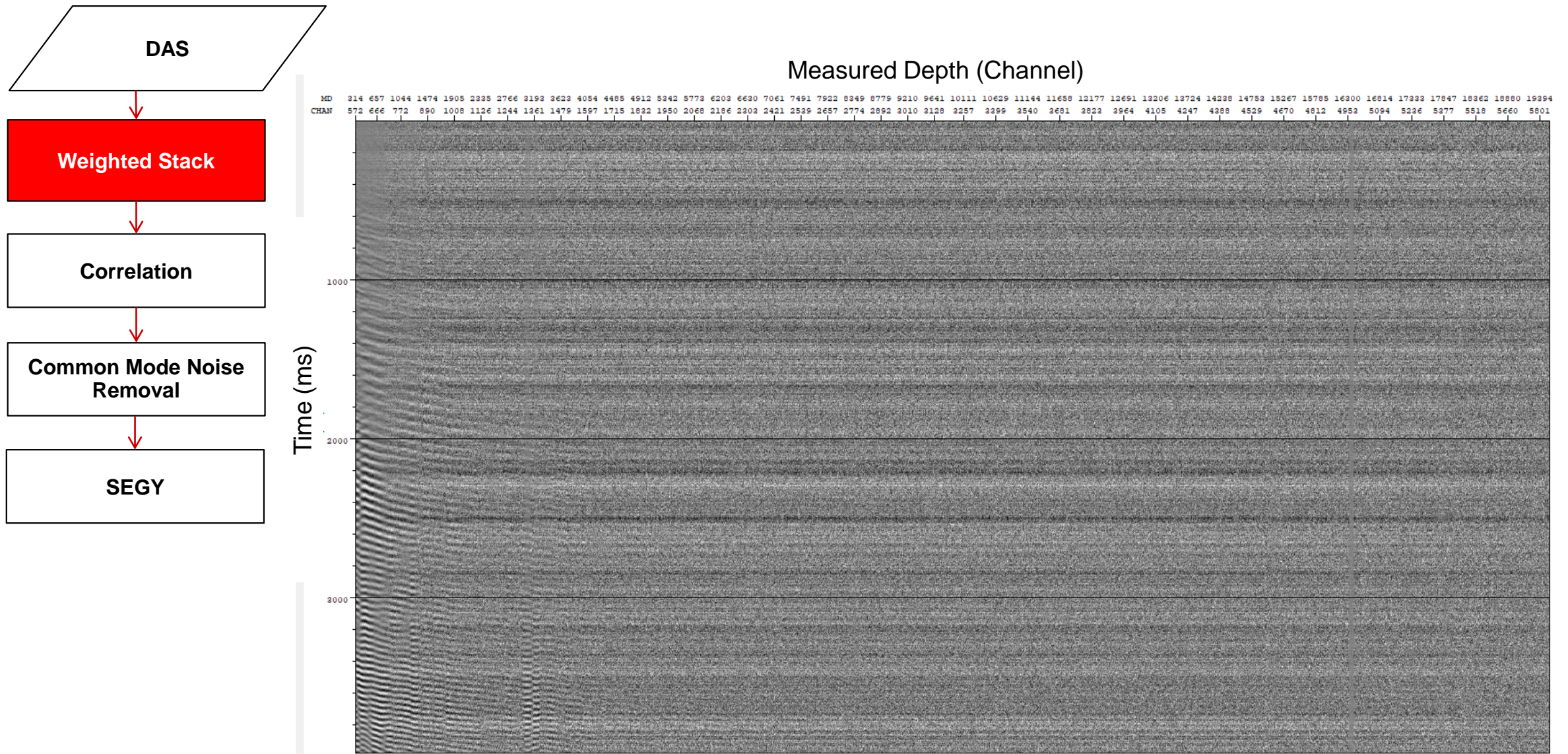


SEGY

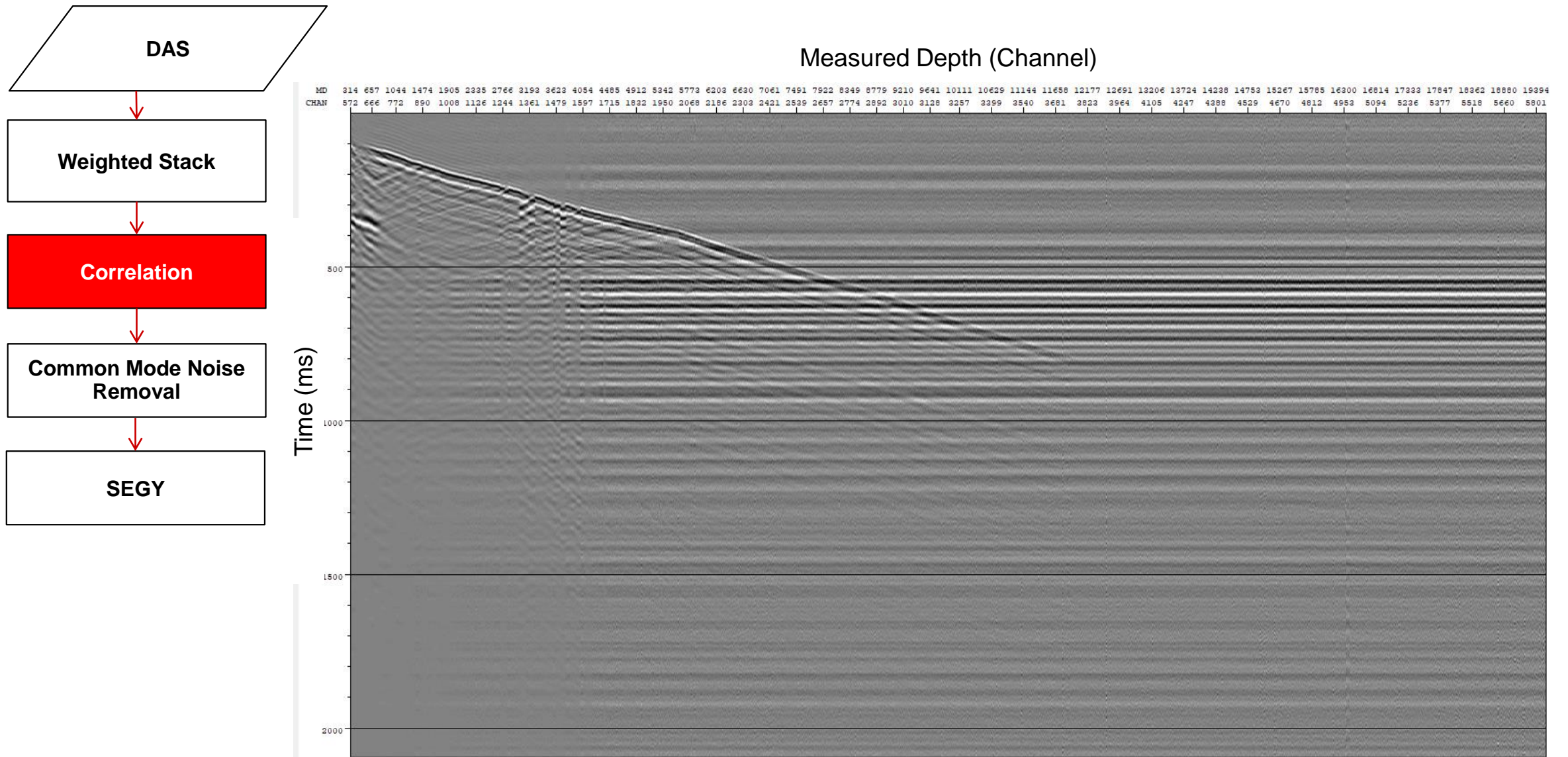
Measured Depth (Channel)



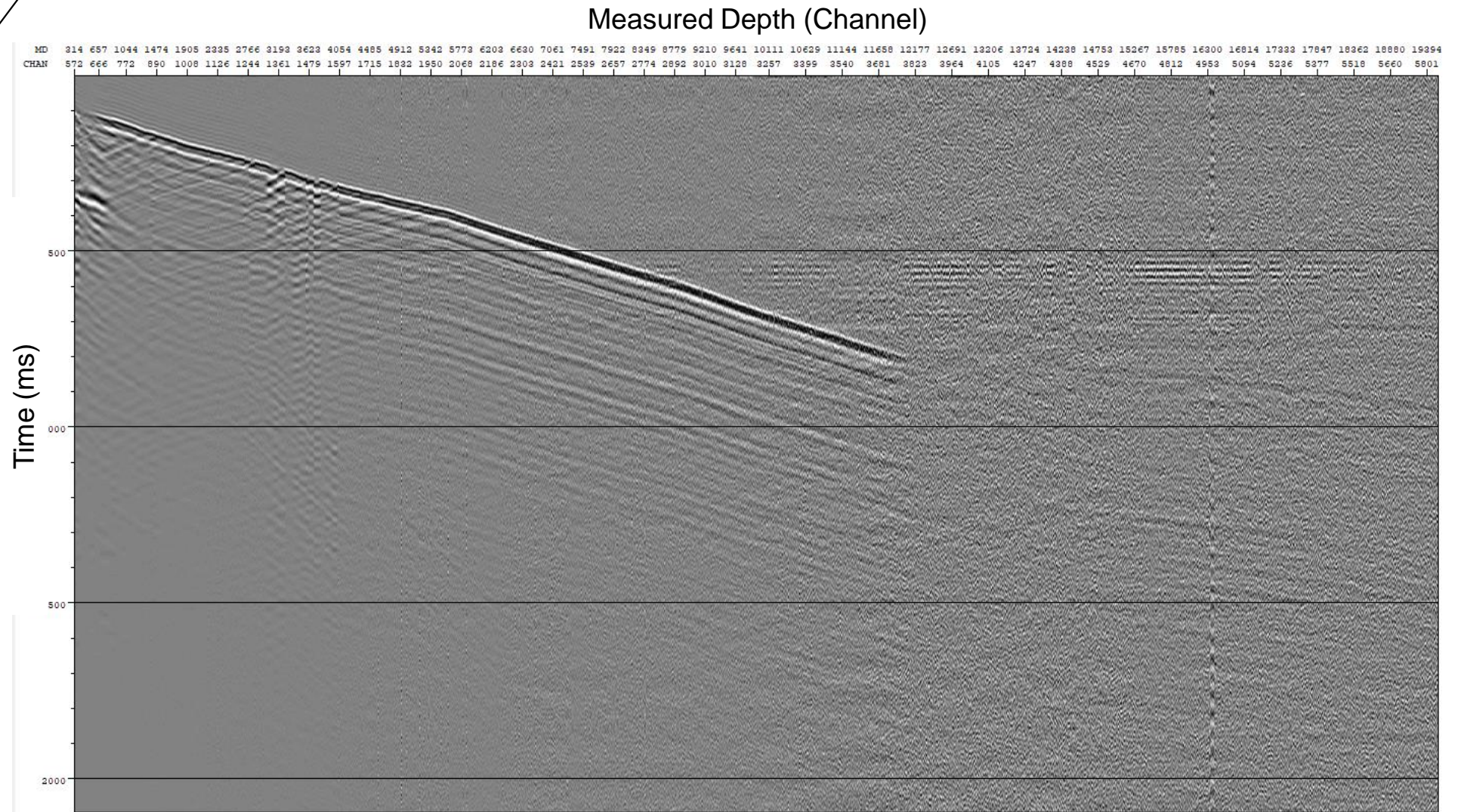
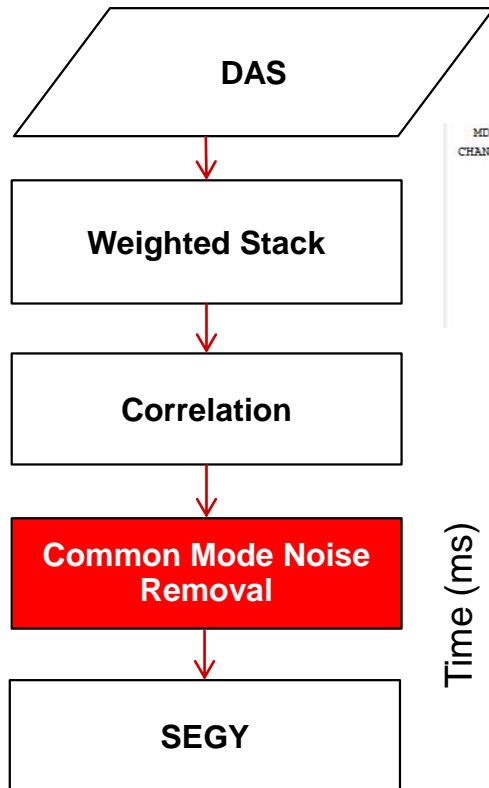
FiberVSP Real-Time Processing Flow



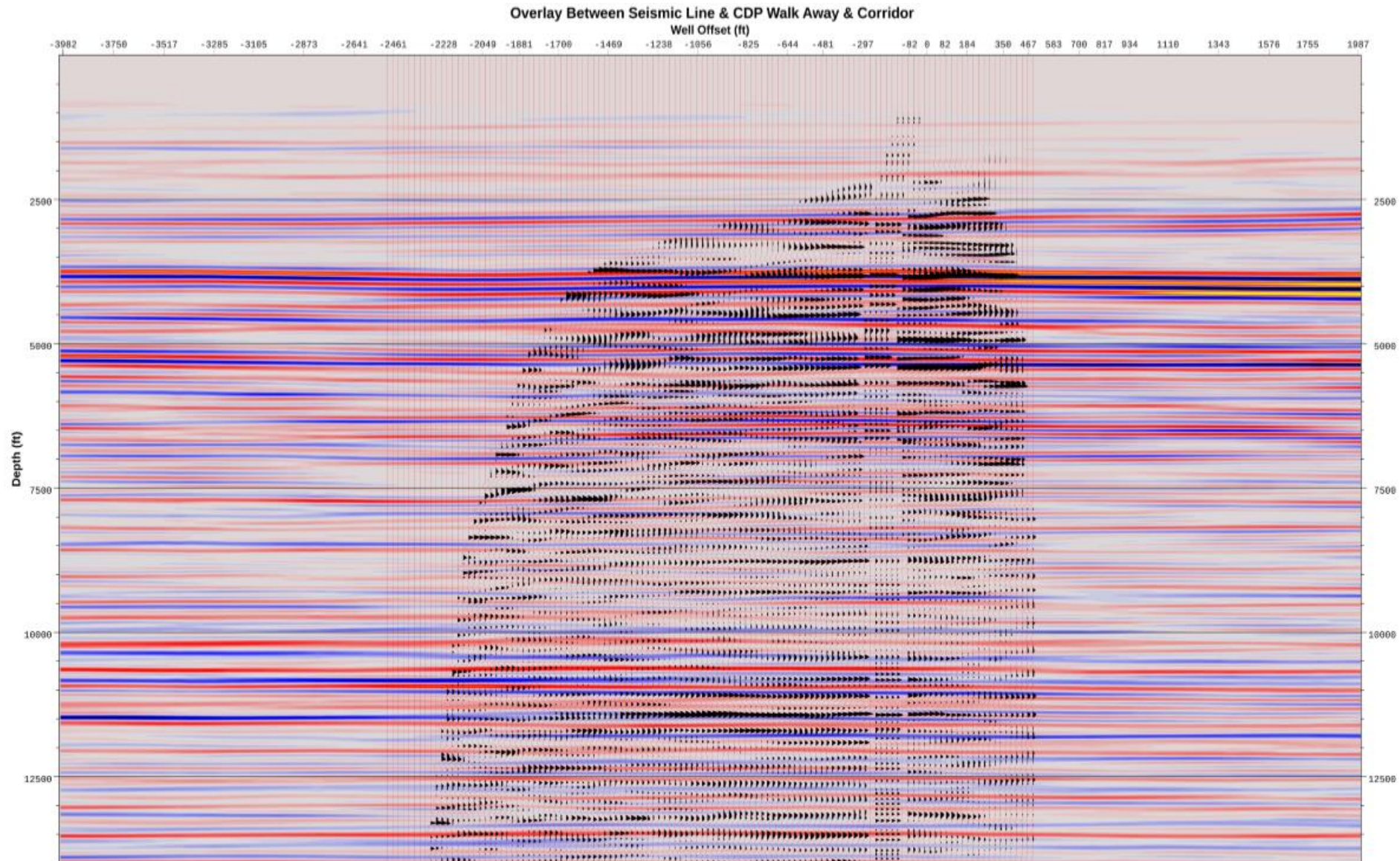
FiberVSP Real-Time Processing Flow



FiberVSP Real-Time Processing Flow

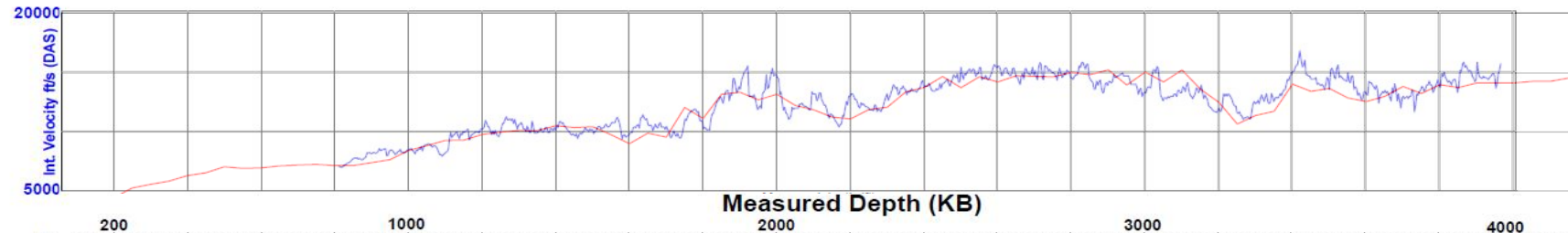


South WAW CDP transform, ZVSP corridor overlay with Surface Seismic

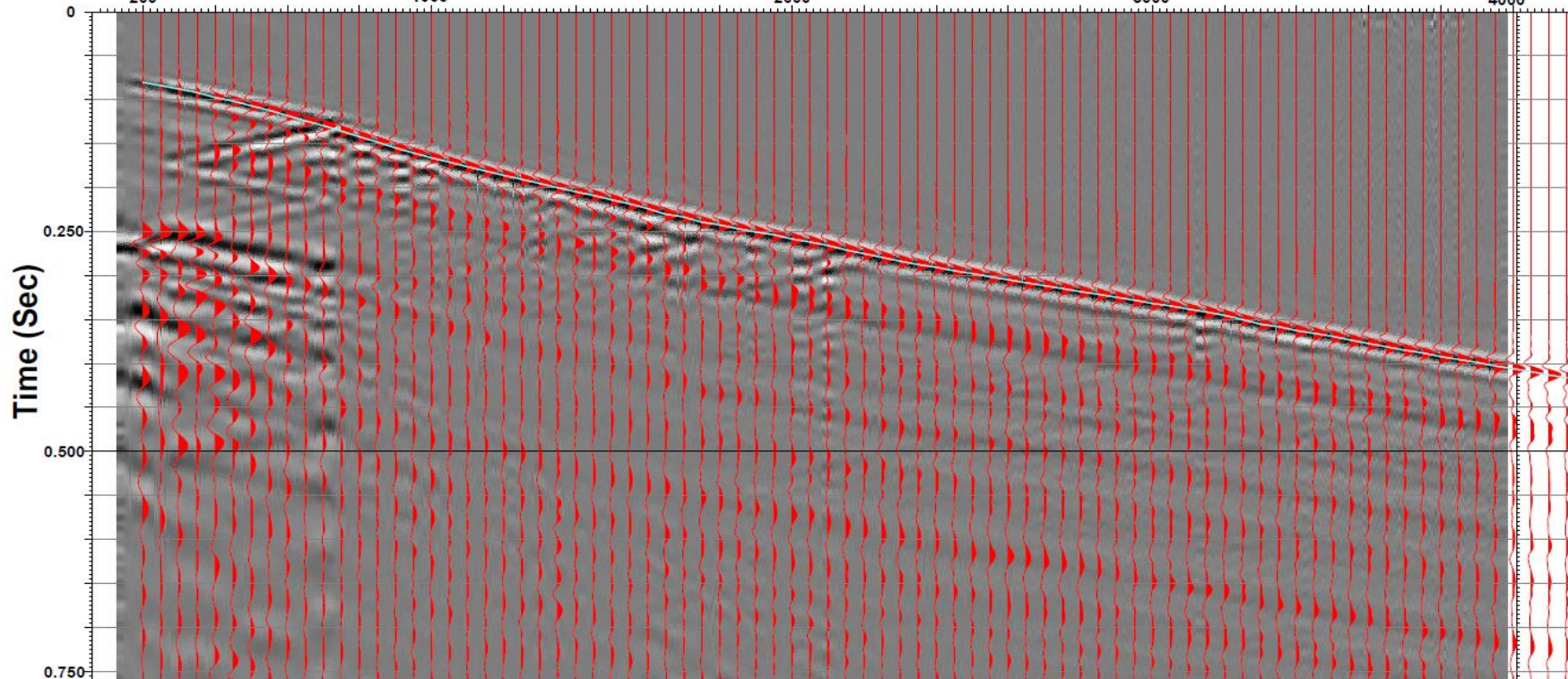


Retrievable Wireline Fiber vs. Conventional Geophone Overlay – Cameron, Texas

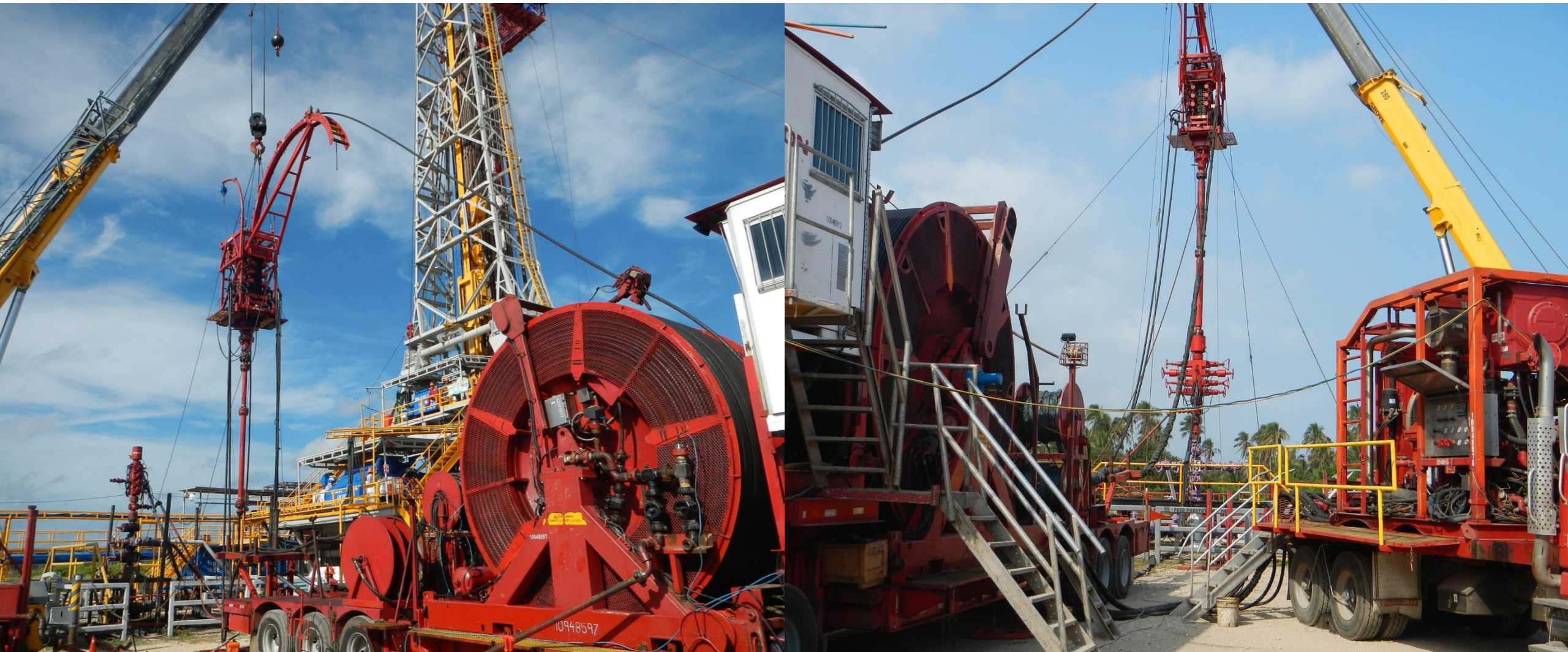
Velocity:
Geophone
Wireline Fiber



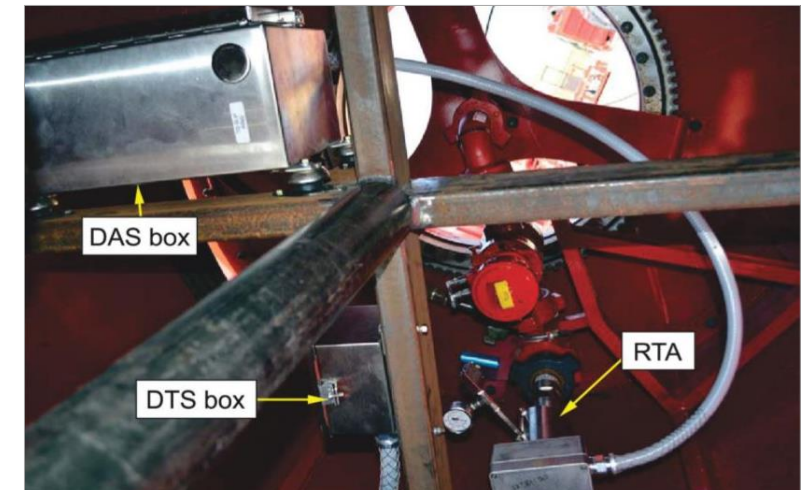
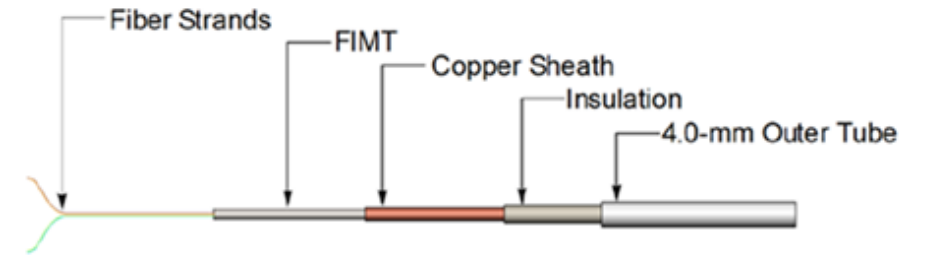
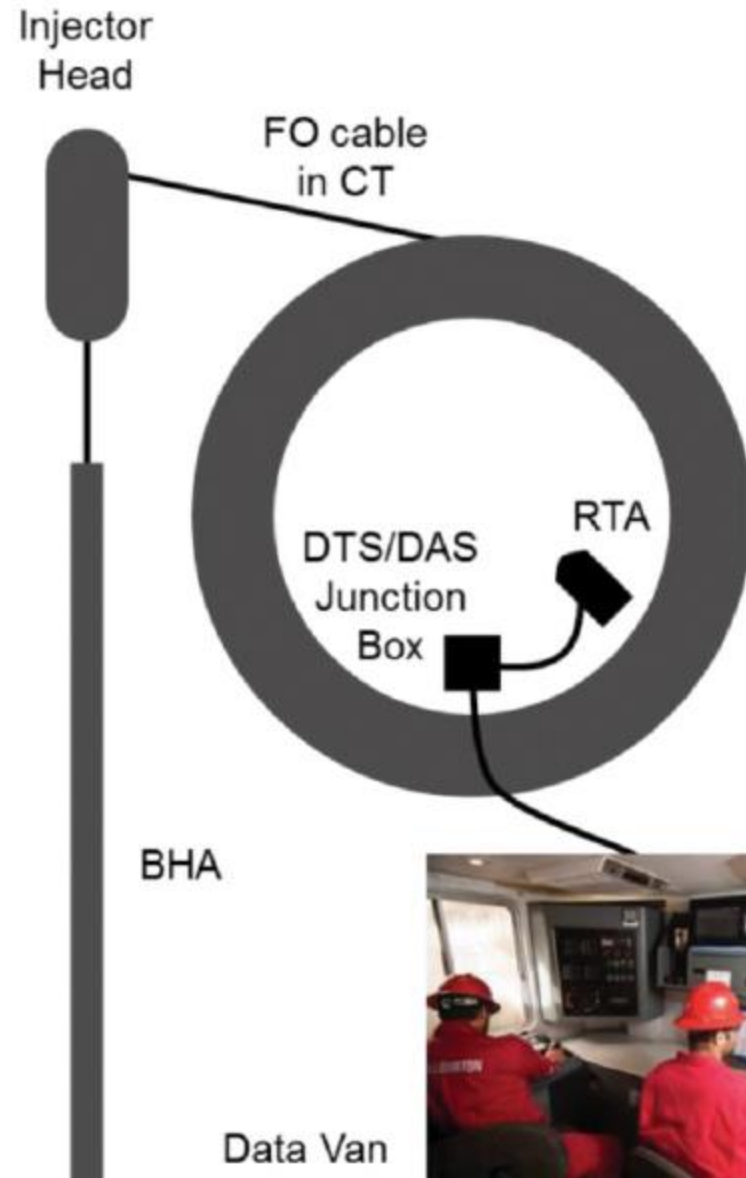
Waveforms:
Geophone
Wireline Fiber



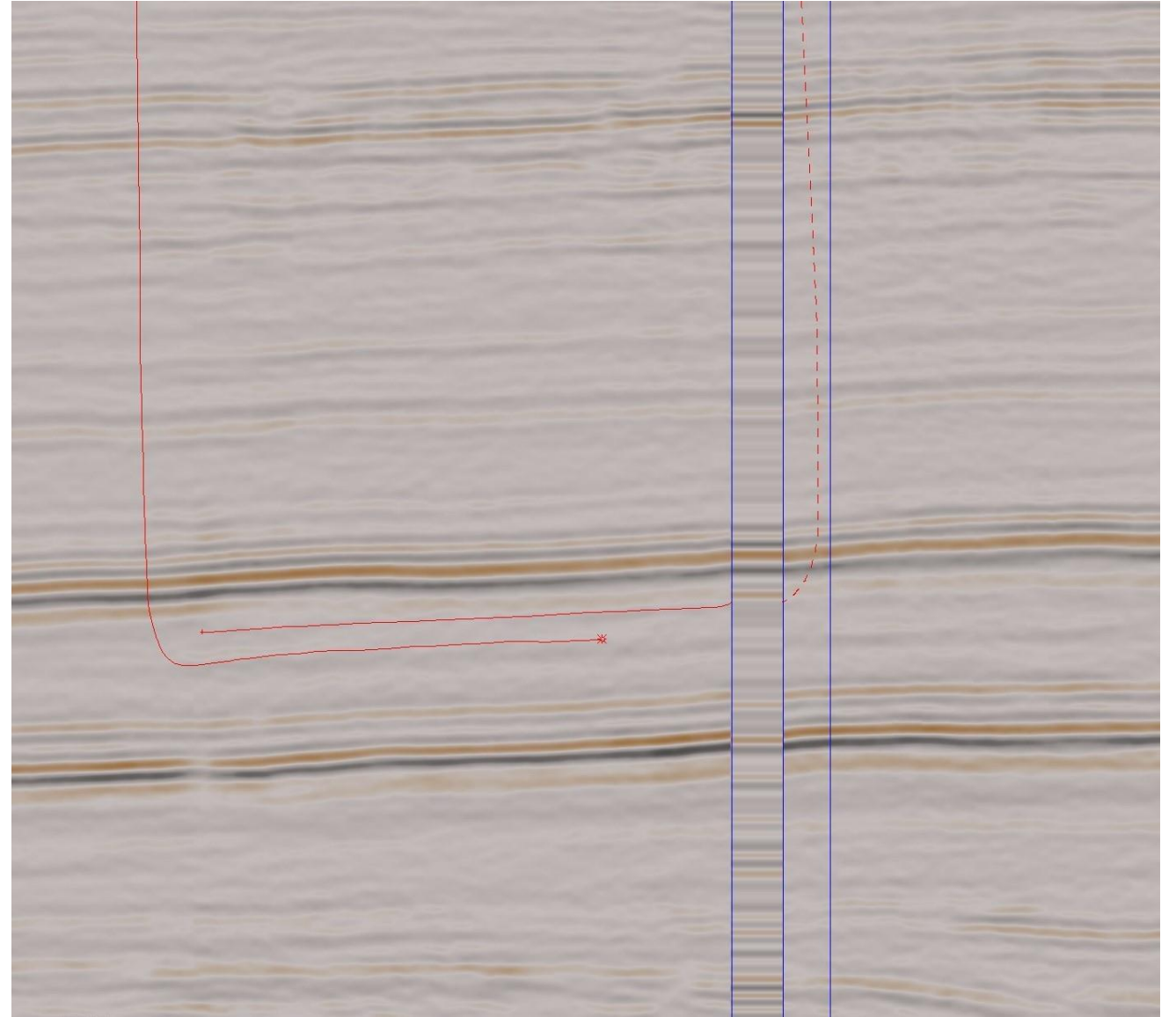
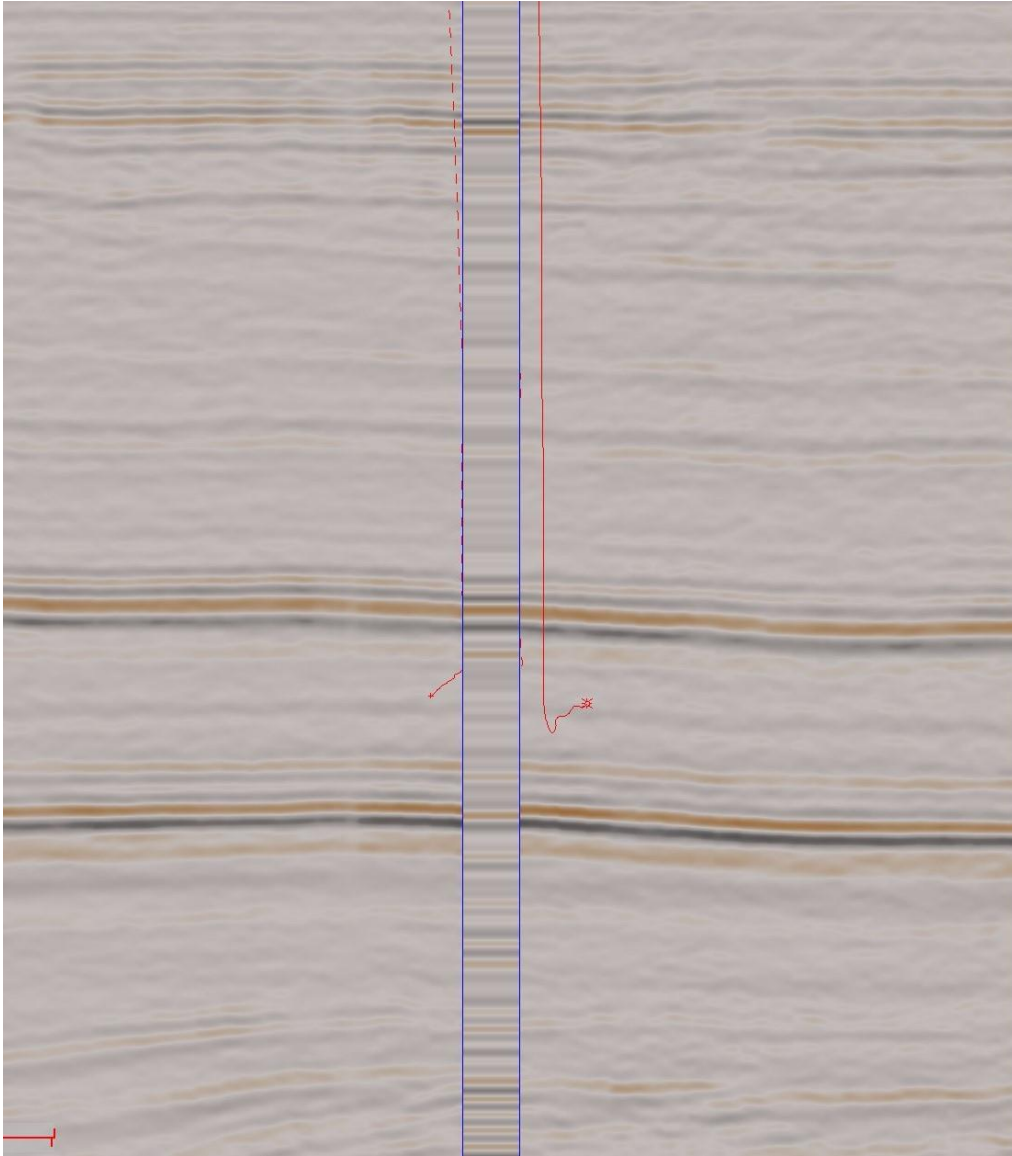
Fiber Optic Deployment via Coiled Tubing



Fiber Optic Deployment via Coiled Tubing



FiberVSP & Surface Seismic Overlay



Summary

- Conveyance agnostic VSP acquisition
 - Permanent, Wireline, Slickline, Coiled Tubing, Pump Down, Disposable...
- No latency in ability to deliver SEG Y shot records
- Since extended to subsea installations



THANK YOU