

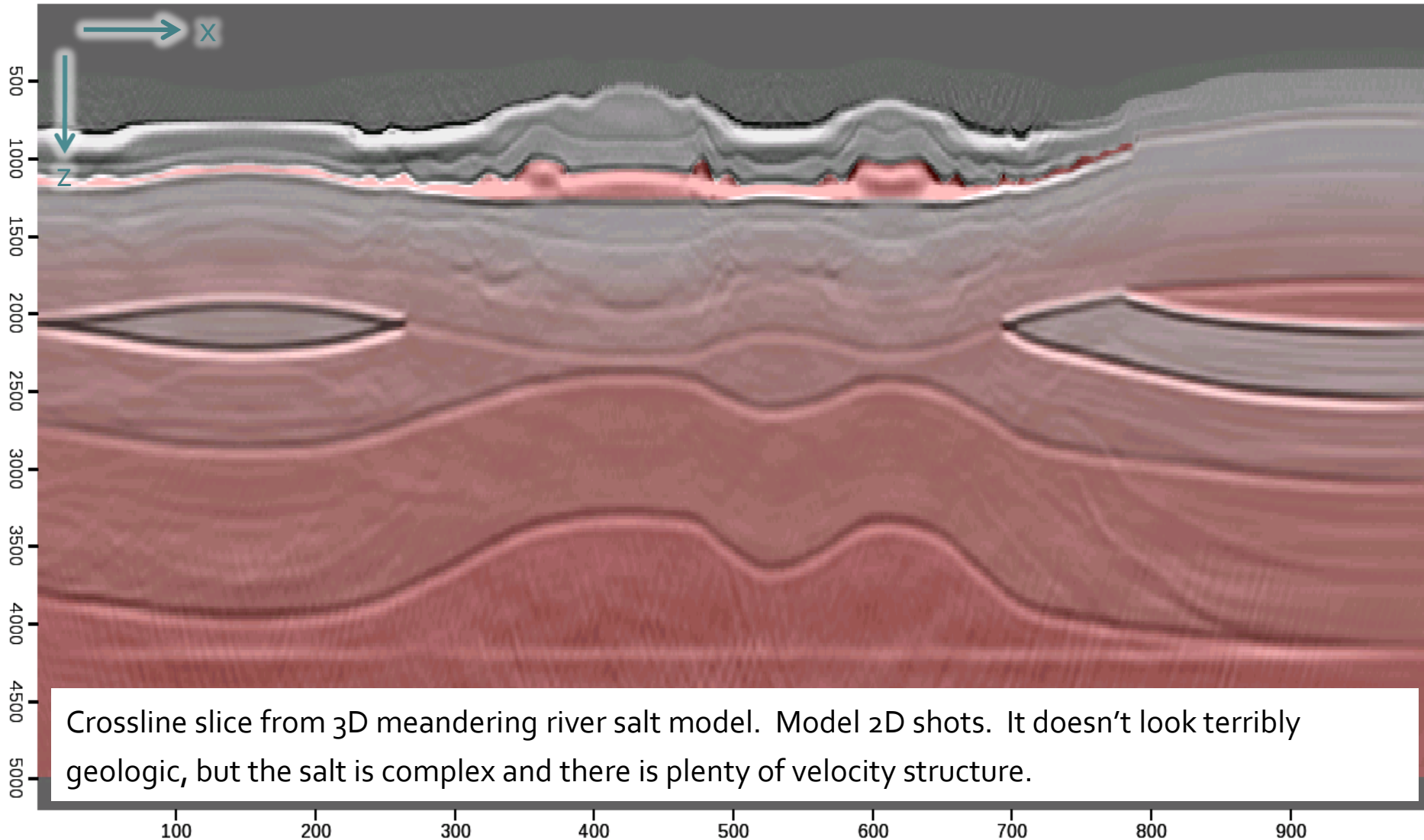
Wave Imaging Technology (WIT) Inc.

Excerpts from August, 2009 invited
presentation at Kansas Next Steps Conference
January 17, 2010



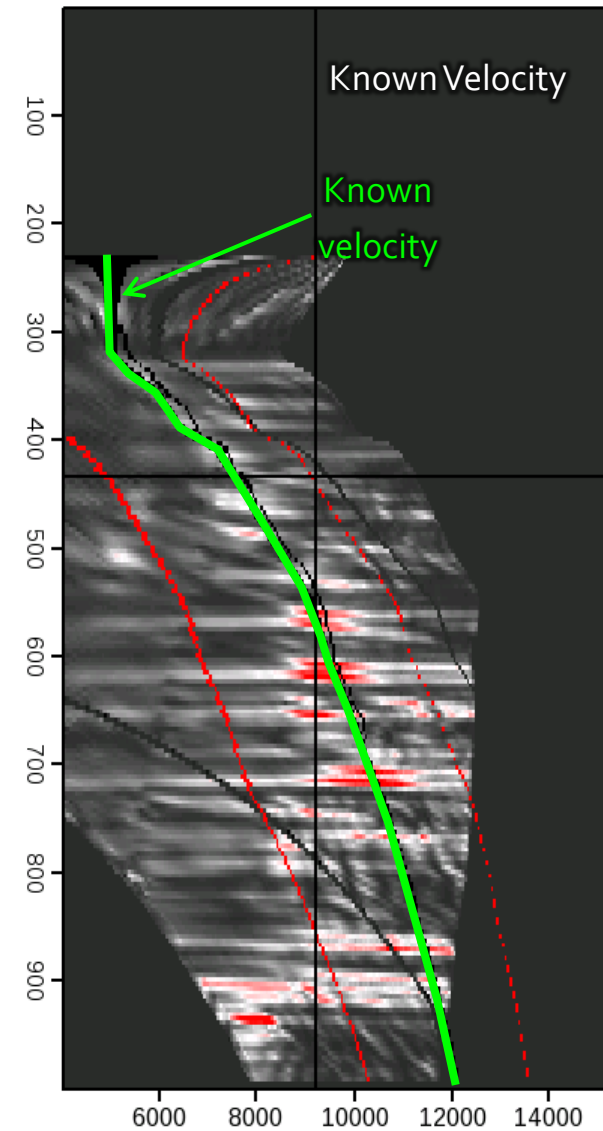
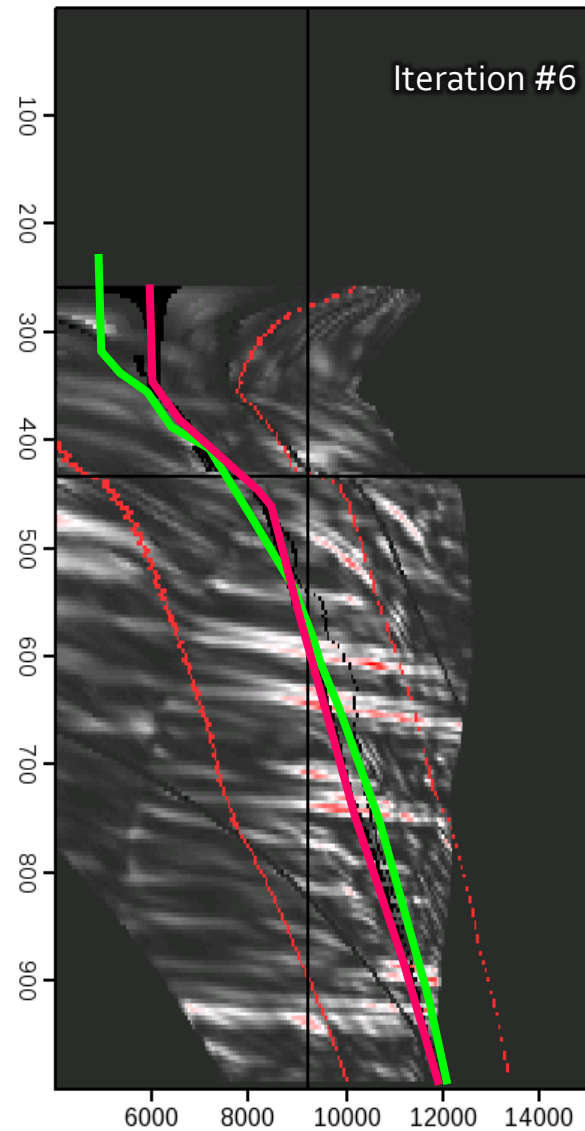
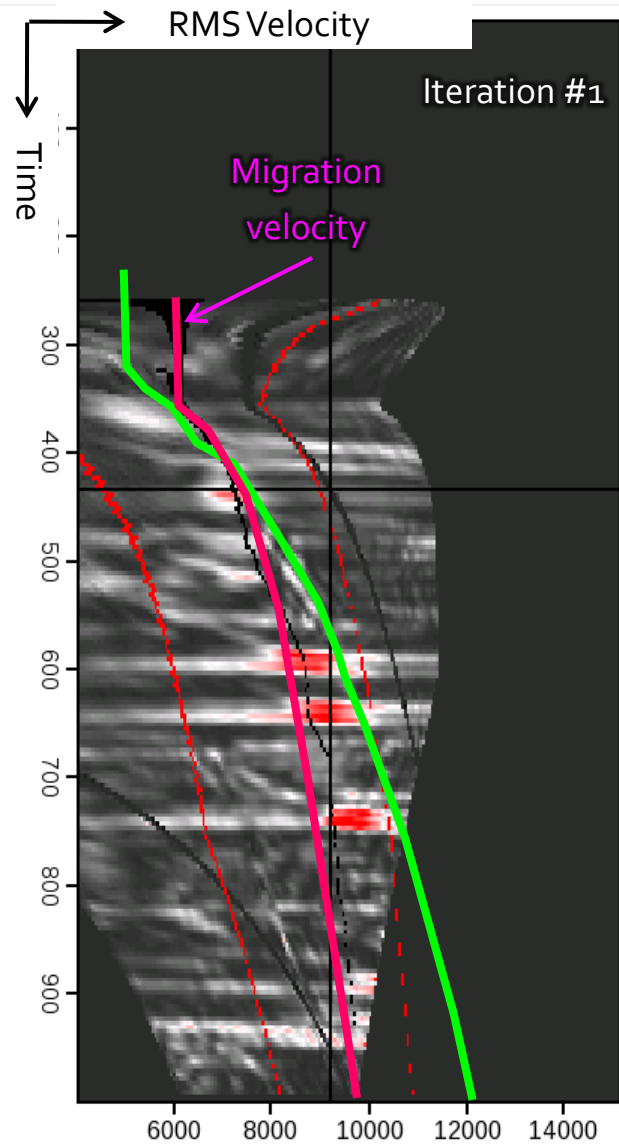


Model Building Example





Migration Velocity Focusing Analysis



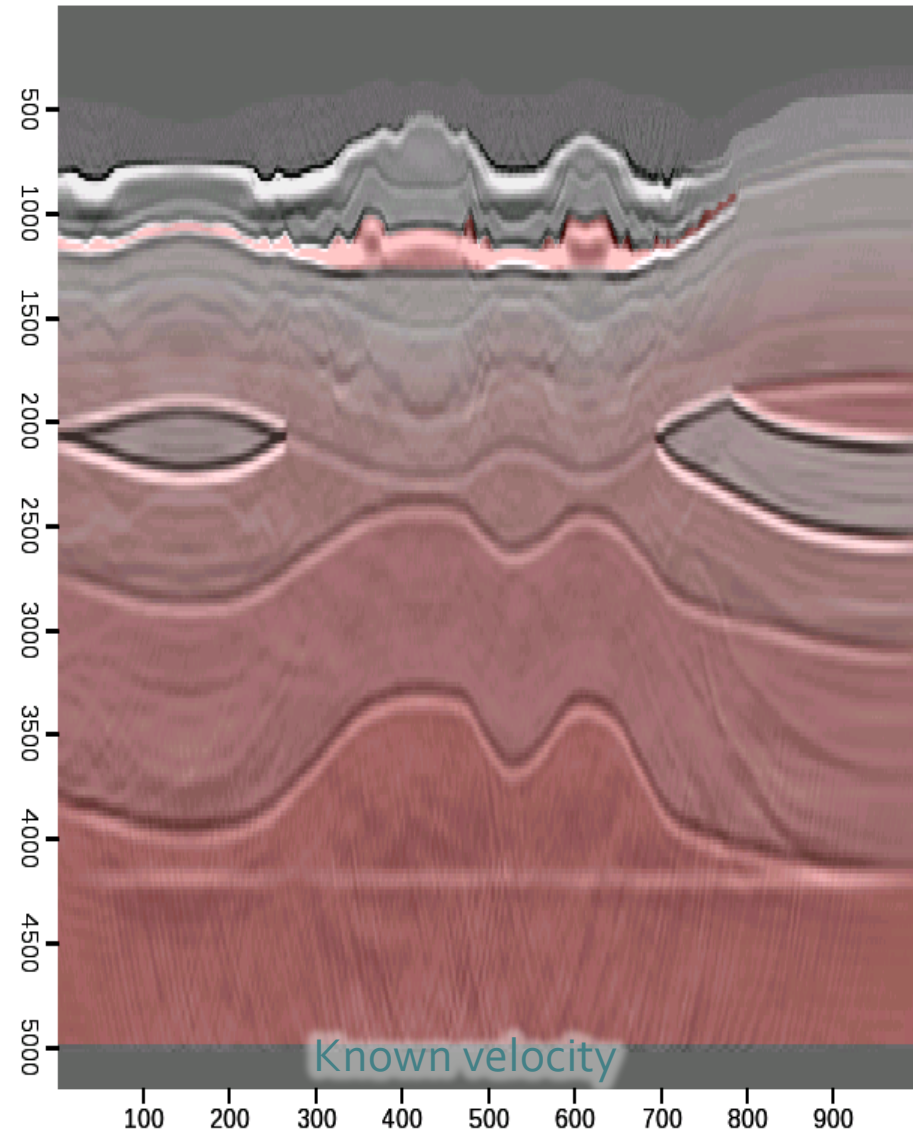
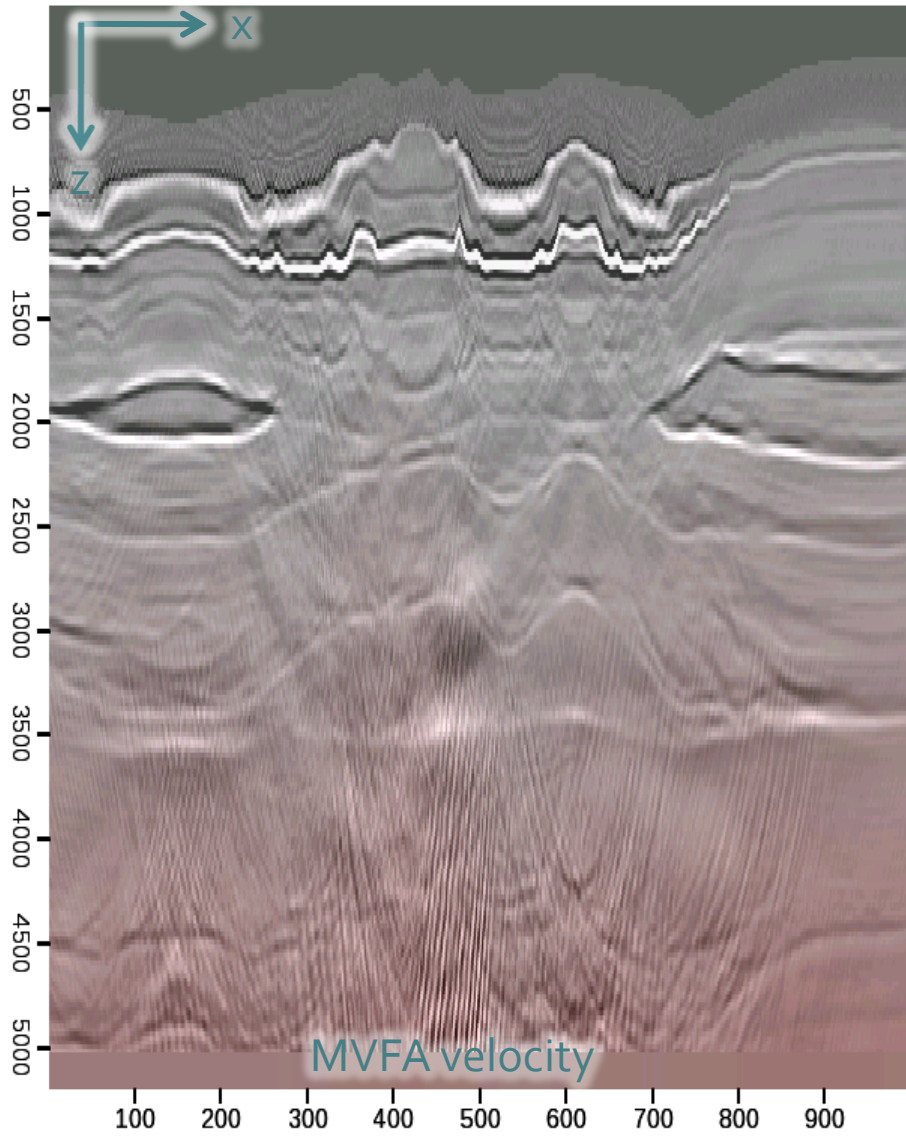


Model Building Example

- “ α -scan”: Constant velocity migrations, 5,000 – 15,000 ft/sec, pick “ V_{RMS} ” curves, convert to V_{INT} .
- 1 MVFA iteration to refine velocity above salt
- “Salt flood” sequence to define salt geometry
- 5 additional sub-salt iterations of MVFA
 - Fix starting velocity above/inside salt

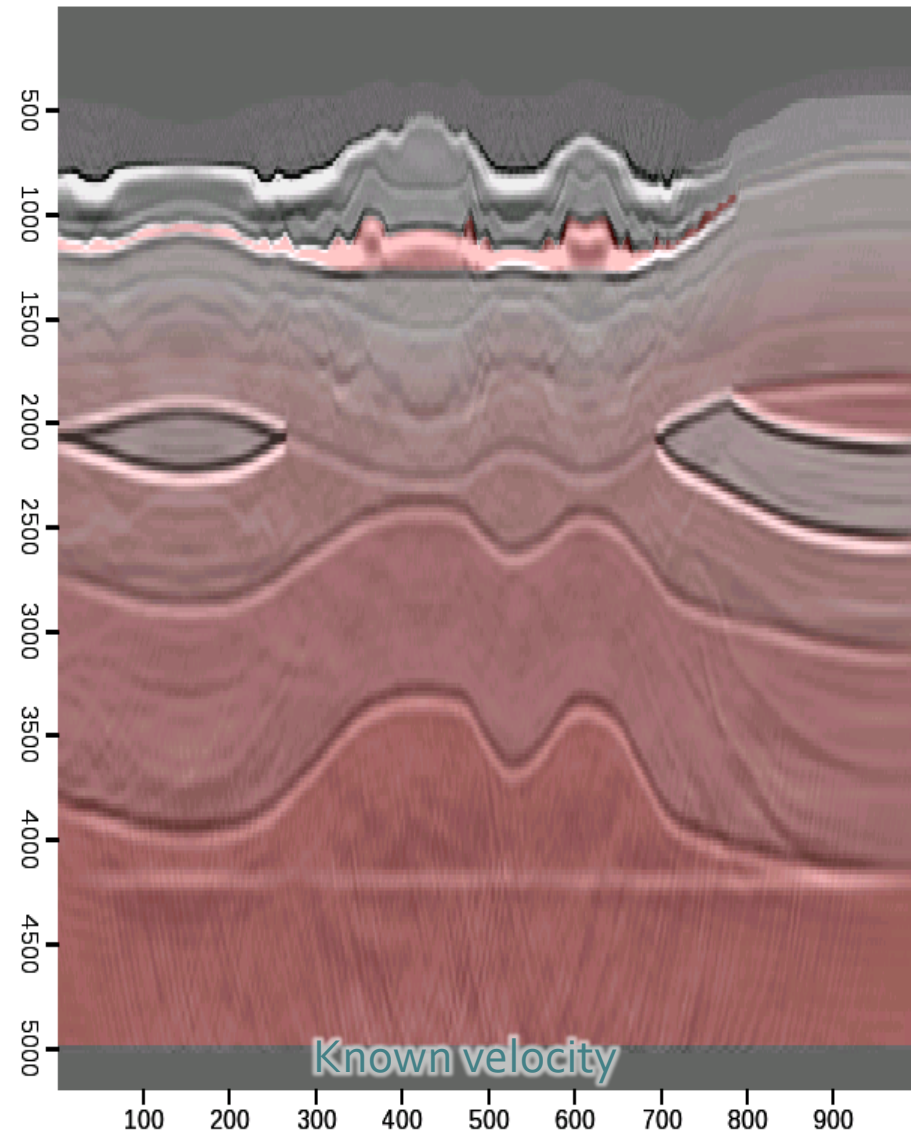
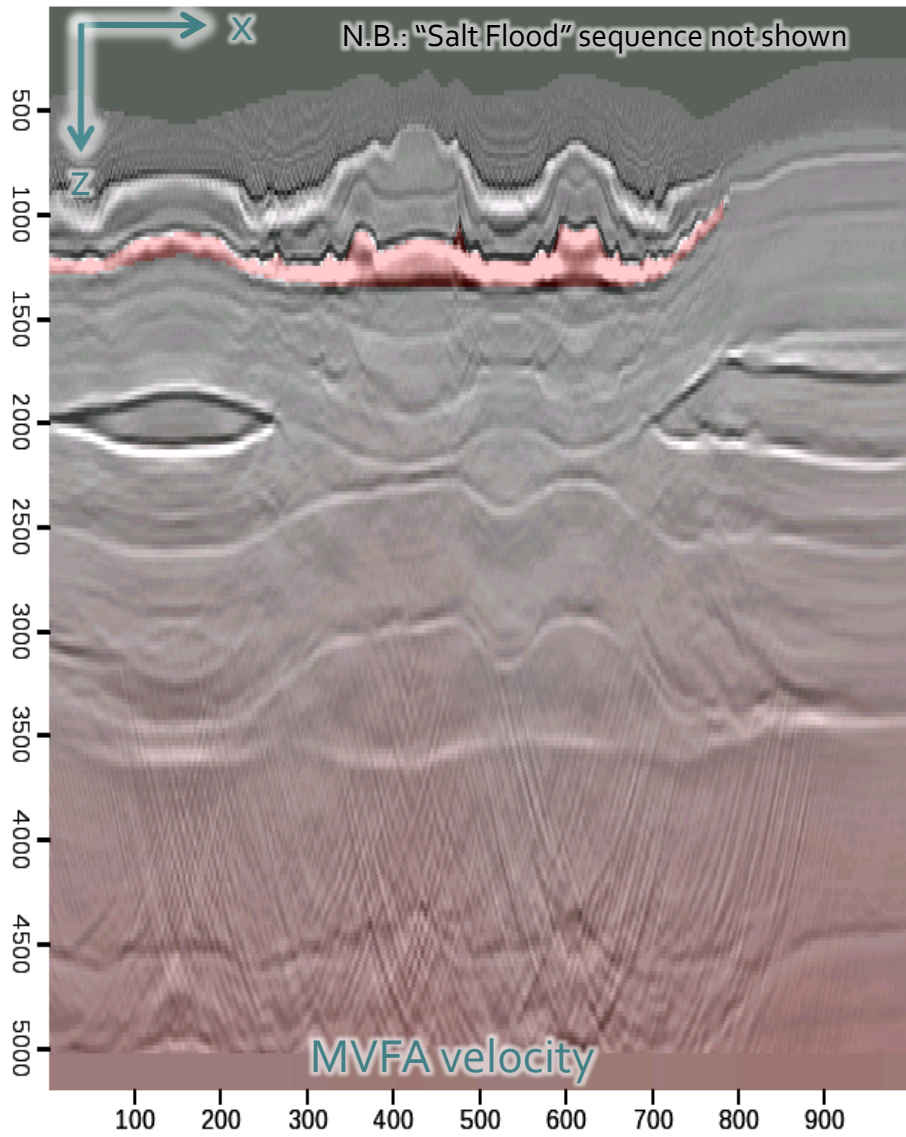


MVFA iteration 1



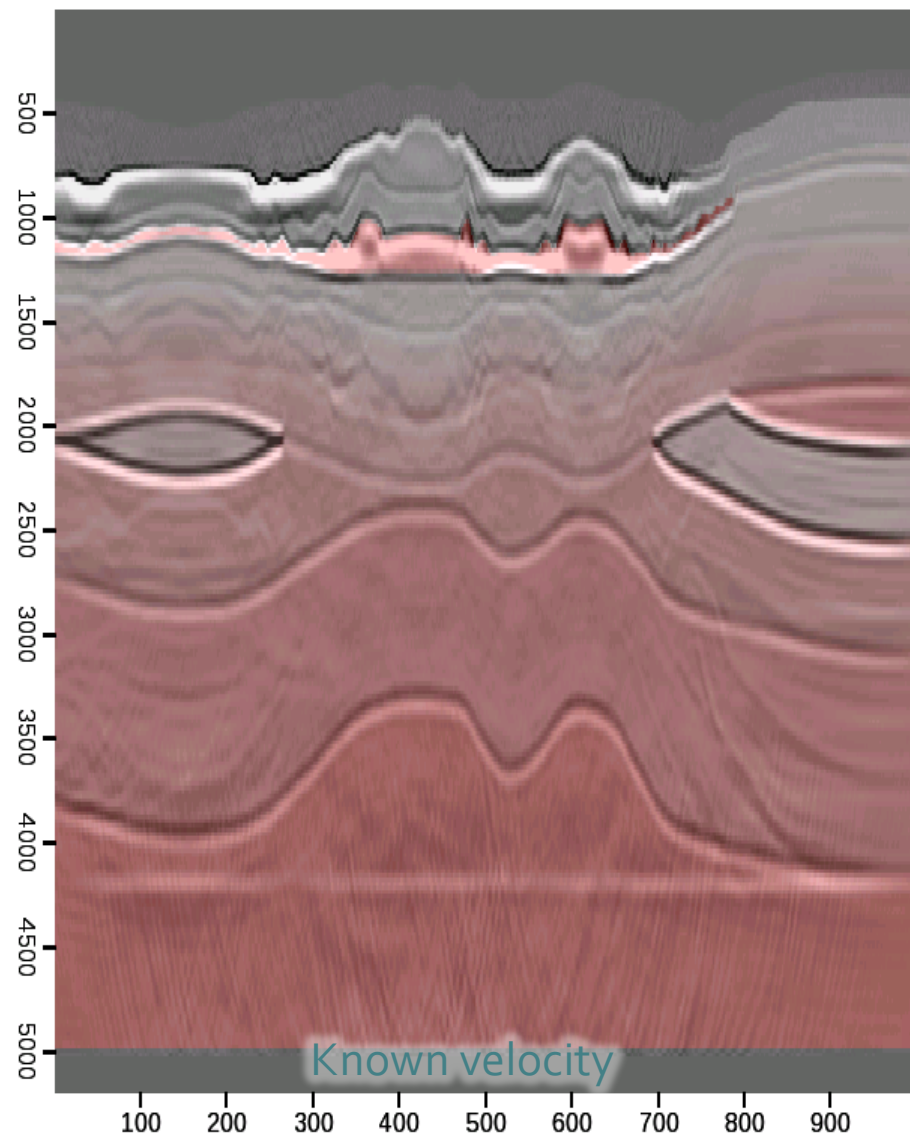
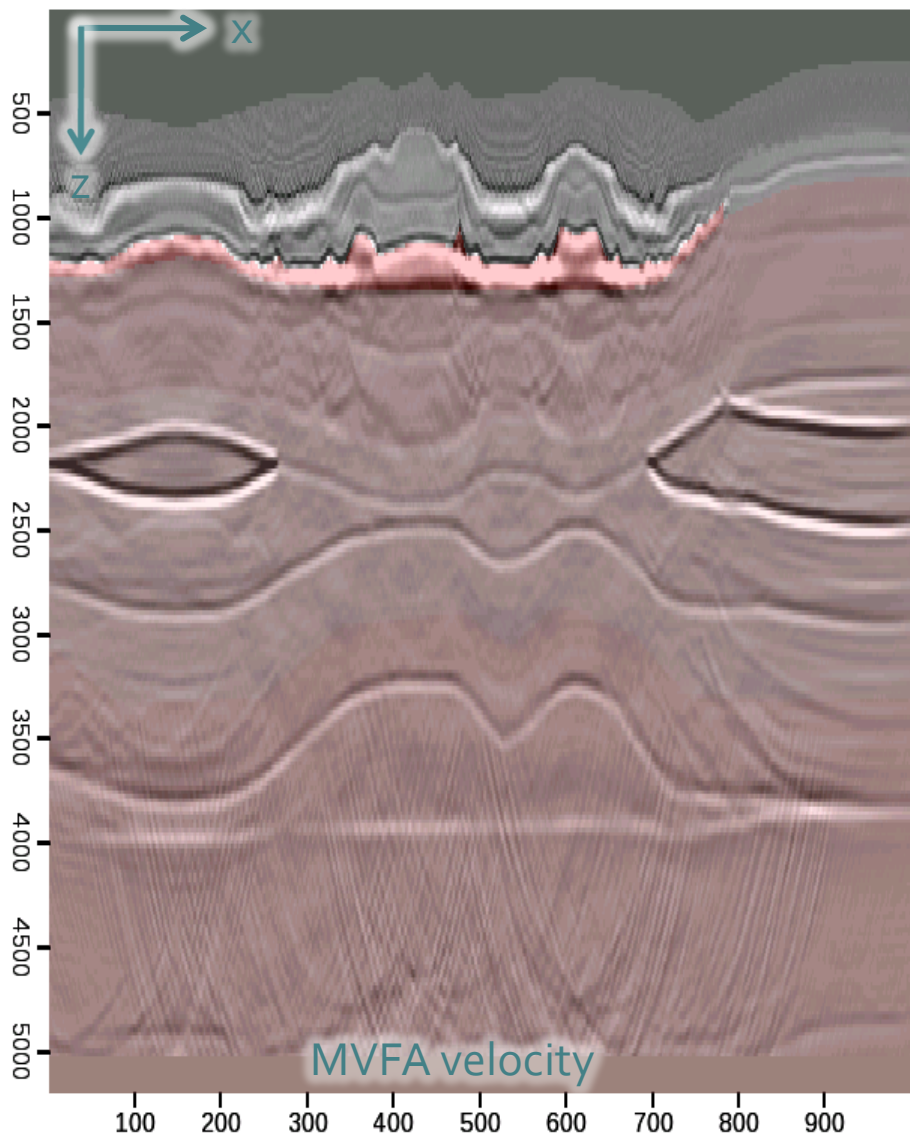


MVFA iteration 2



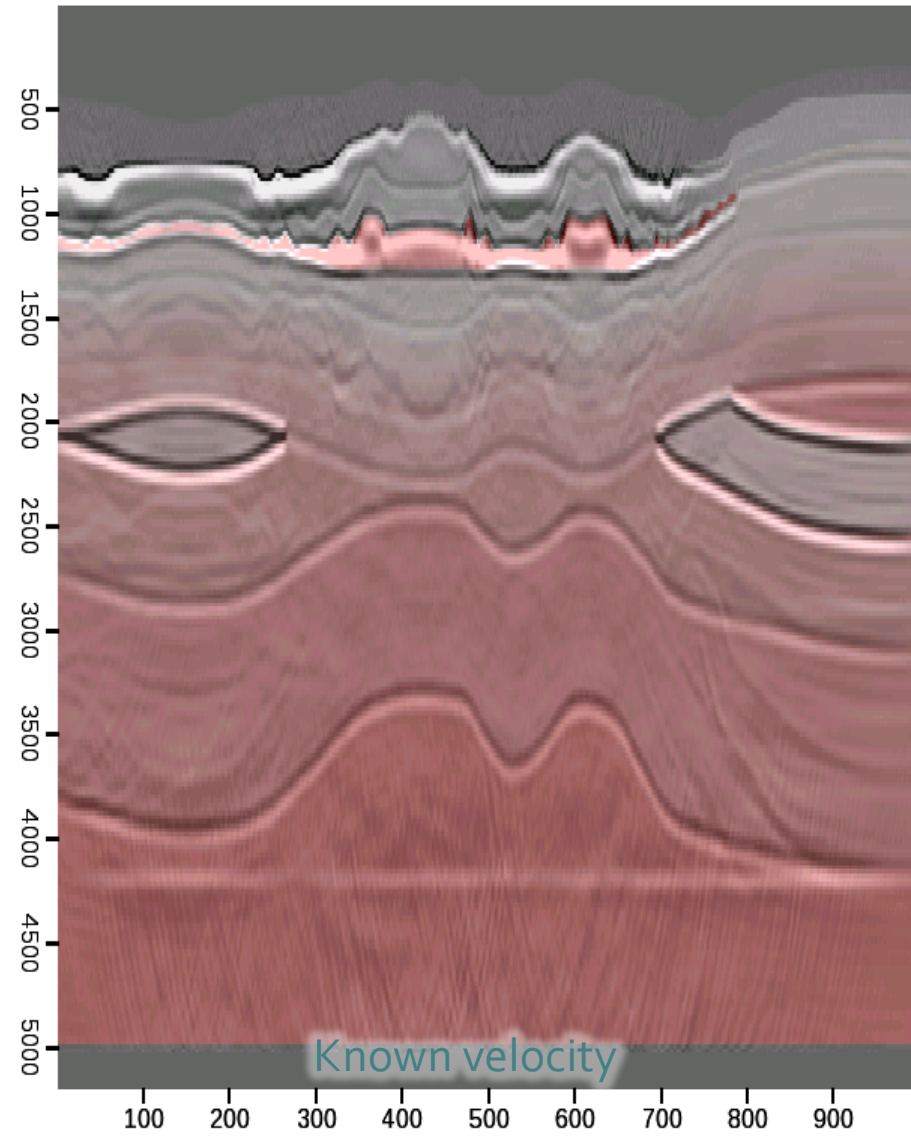
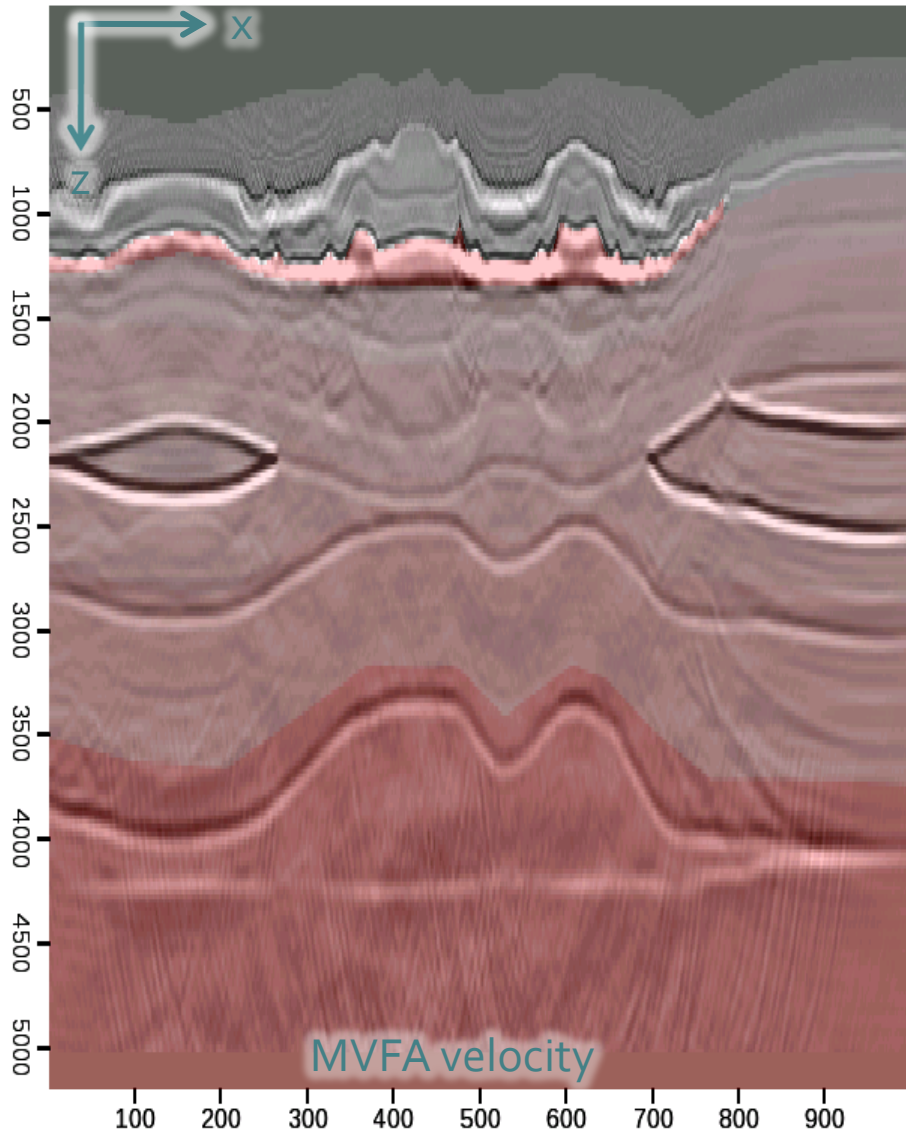


MVFA iteration 3



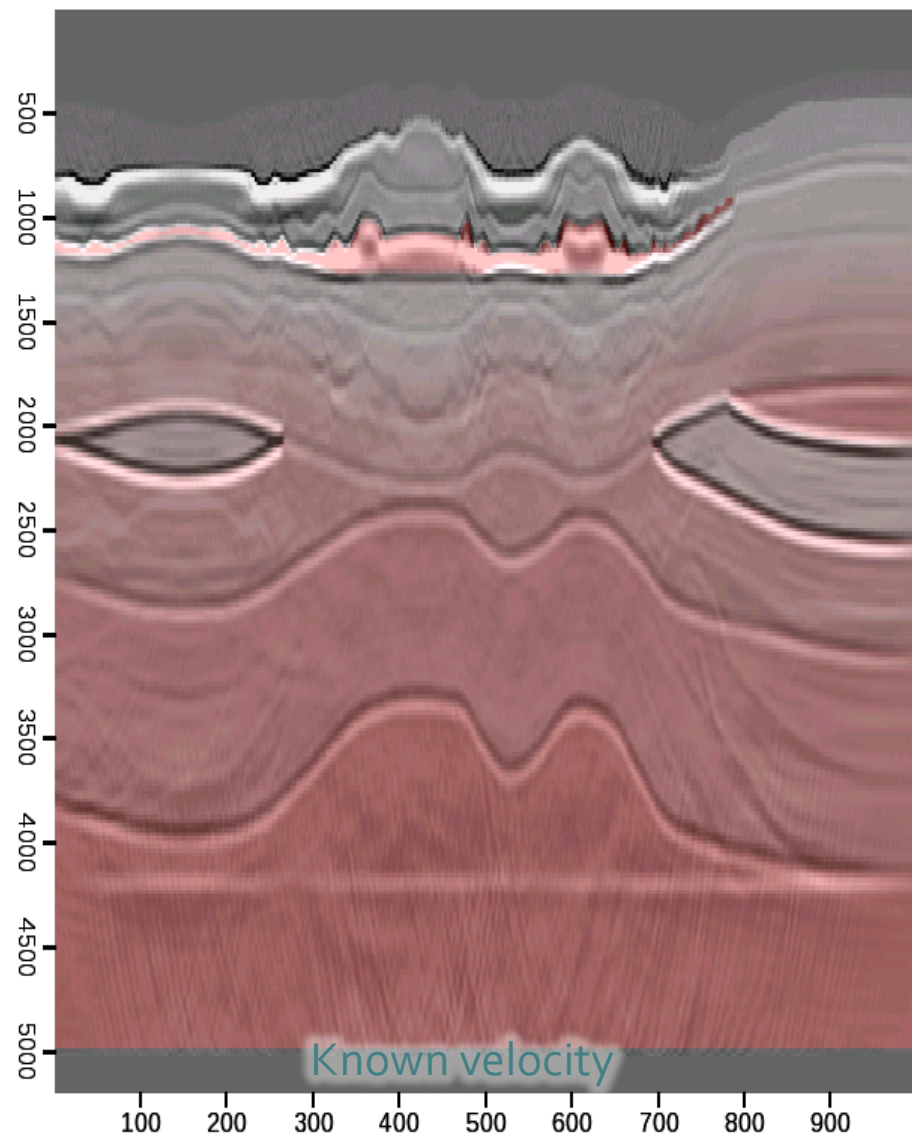
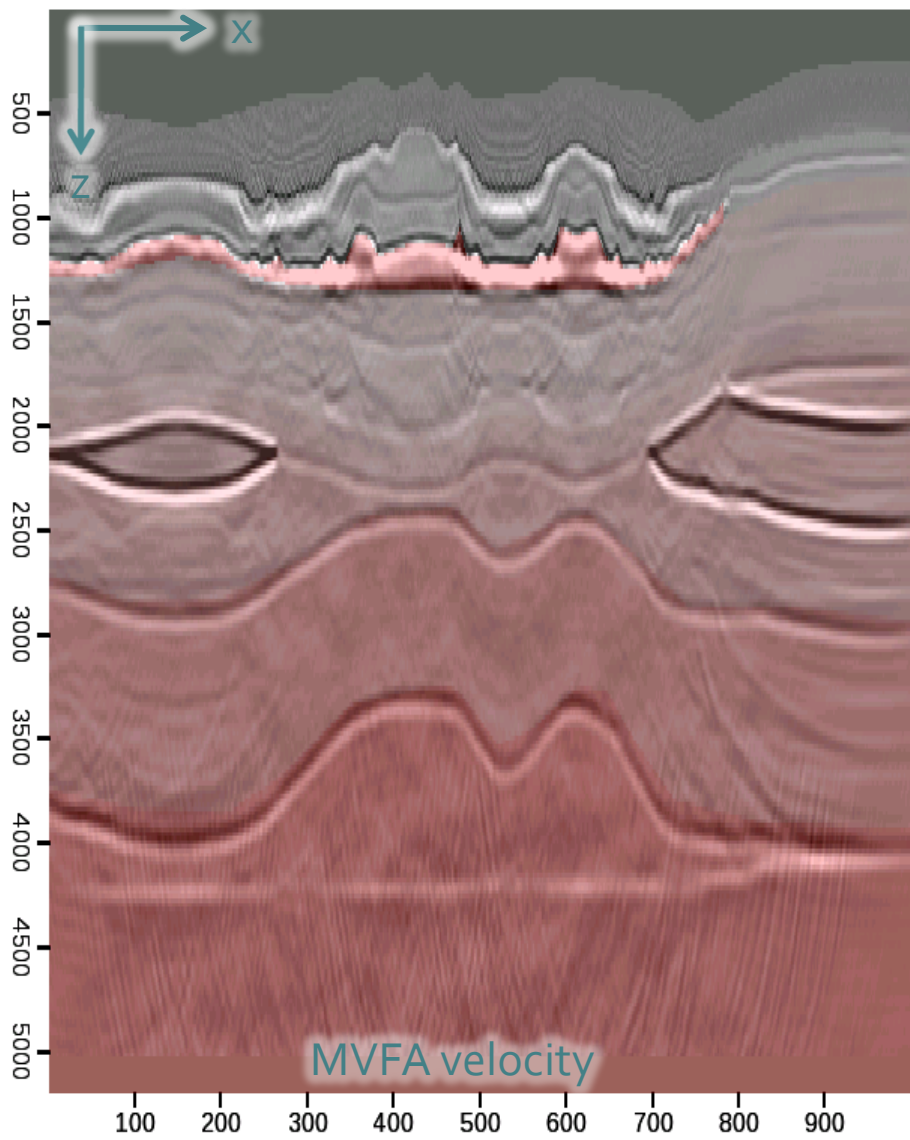


MVFA iteration 4



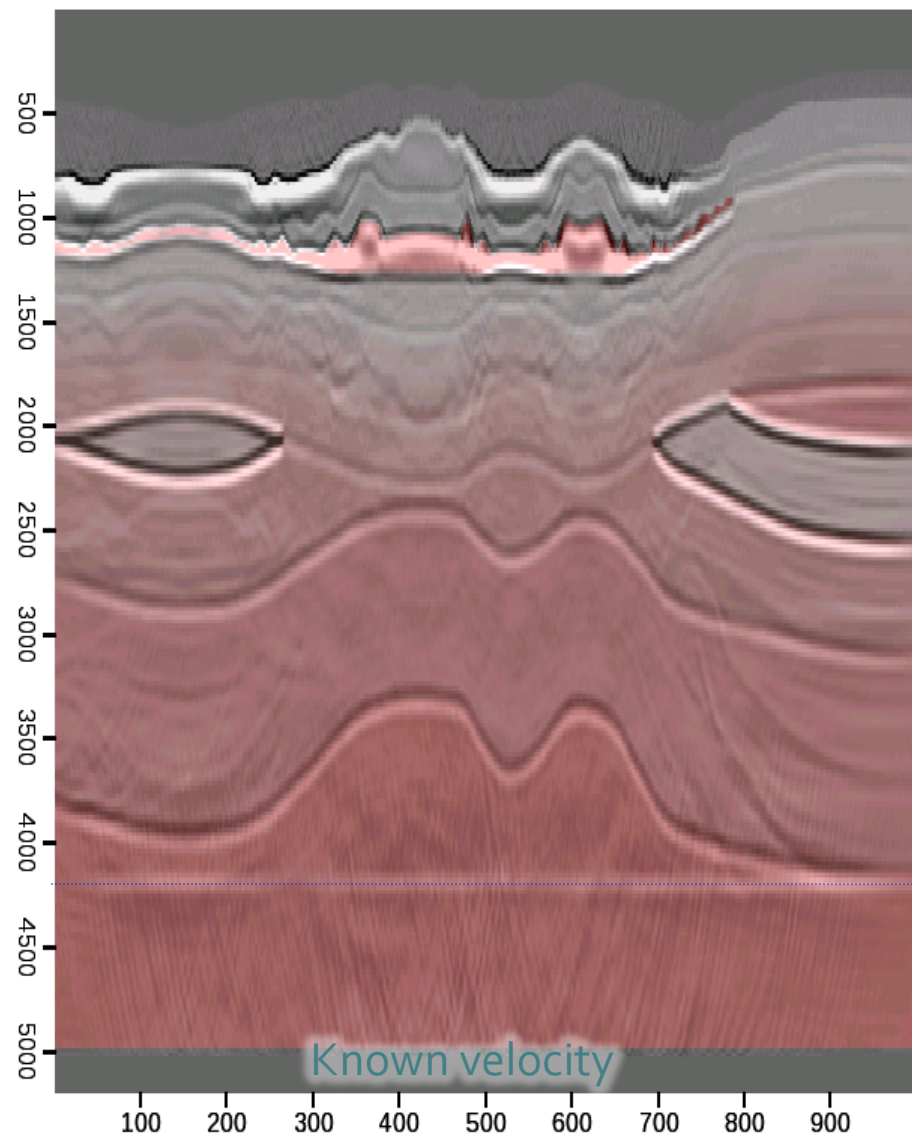
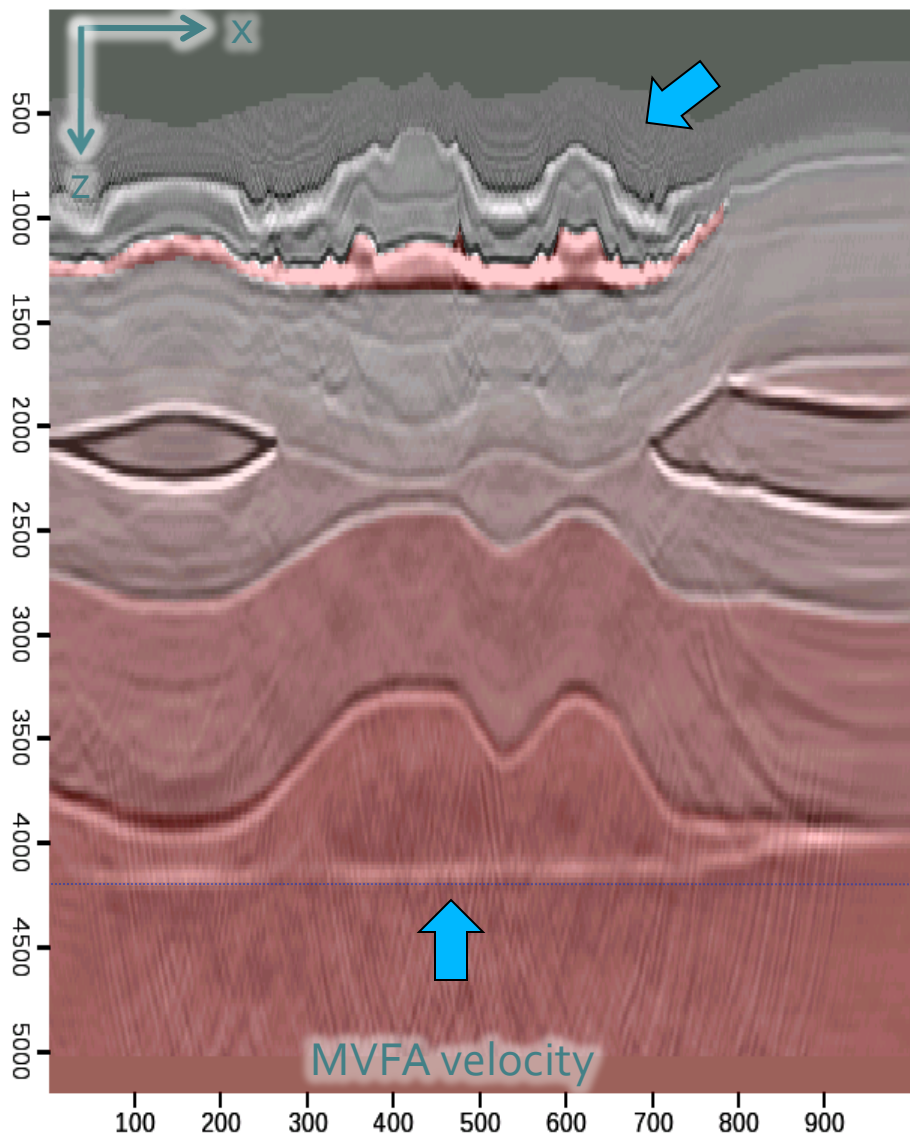


MVFA iteration 5





MVFA iteration 6





WEM in Kansas?

- Any lateral velocity variation → PSDM wins
 - Even for simple roof collapse
 - Rugose T.o.S. → WEM beats Kirchhoff
 - **Can you build a model?**
- Could we build a model? Yes
 - MVFA works below rugose salt
 - Errors in the shallow velocity cannot be ignored
 - Deep event ties to within 50 ft