



Angle Mute for Angle Stack

NZ 3D Processing

16 July 2021

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INSTITUTE FOR GEOPHYSICS



Passion for Geoscience

1. Convert to CGG Internal Format
2. Nav merge / trace edit
3. Low Cut Filter
4. Time Variant Scaling (TVS) & Resample to 4ms
5. Swell Noise Attenuation (SNA)
6. Debubble
7. Linear Noise Attenuation (LNA)
8. Tidal Statics Correction
9. Water Column Statics Correction
10. Shot & Channel Scaling
11. Receiver Motion Correction (RMC)
12. Joint Deghost & Designature
13. Residual Bubble Removal
14. Source Sensor Datum Correction
15. Shallow Water Demultiple
16. Surface Related Multiple Elimination (3D SRME)
17. Simultaneous Subtraction of MWD & SRME
18. Residual Linear Noise Attenuation (residual LNA)
19. Trace Regularization & Interpolation
20. Velocity Analysis
21. Radon Demultiple
22. Footprint Removal
23. Diffracted Multiple Removal
24. Common Offset Denoise
25. Q Analysis and Compensation
26. Final TTI Kirchhoff Migration
27. Convert from Depth to Time Domain
28. High Density Automatically Velocity Analysis
29. Radon Demultiple
30. Trim Static Correction
31. Post Migration Denoise
32. Q Compensation (Amplitude)
33. Spectra Offset Balancing
34. Angle Mute for Angle Stack

- **Objective:**

To test angle mute for angle stack.

- **Procedure:**

- Divided Full Stack angle range (3-35 degree) to 3 parts.
- 3-14 degree for near stack.
- 14-25 degree for middle stack.
- 25-35 degree for far stack.

- **Display:**

- IL300, 530 and 776.
- CDP gathers with angle mute display.
- Near, middle and far stacks.

- **Observation & Recommendation:**

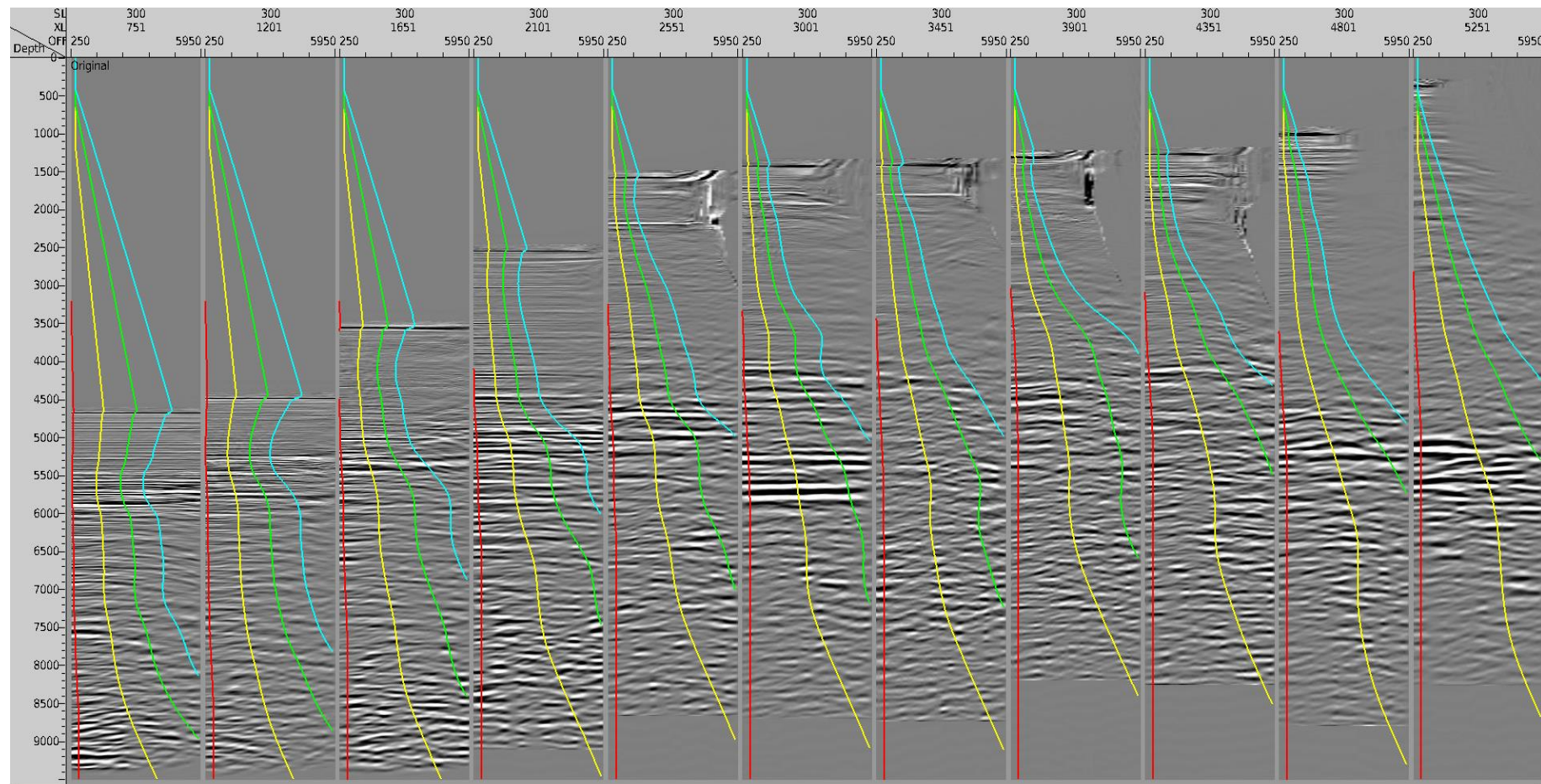
Angle mute is reasonable for angle stack. Recommend 3-14, 14-25, 25-35 degree angle mute for near, middle and far stack.

Subline 300



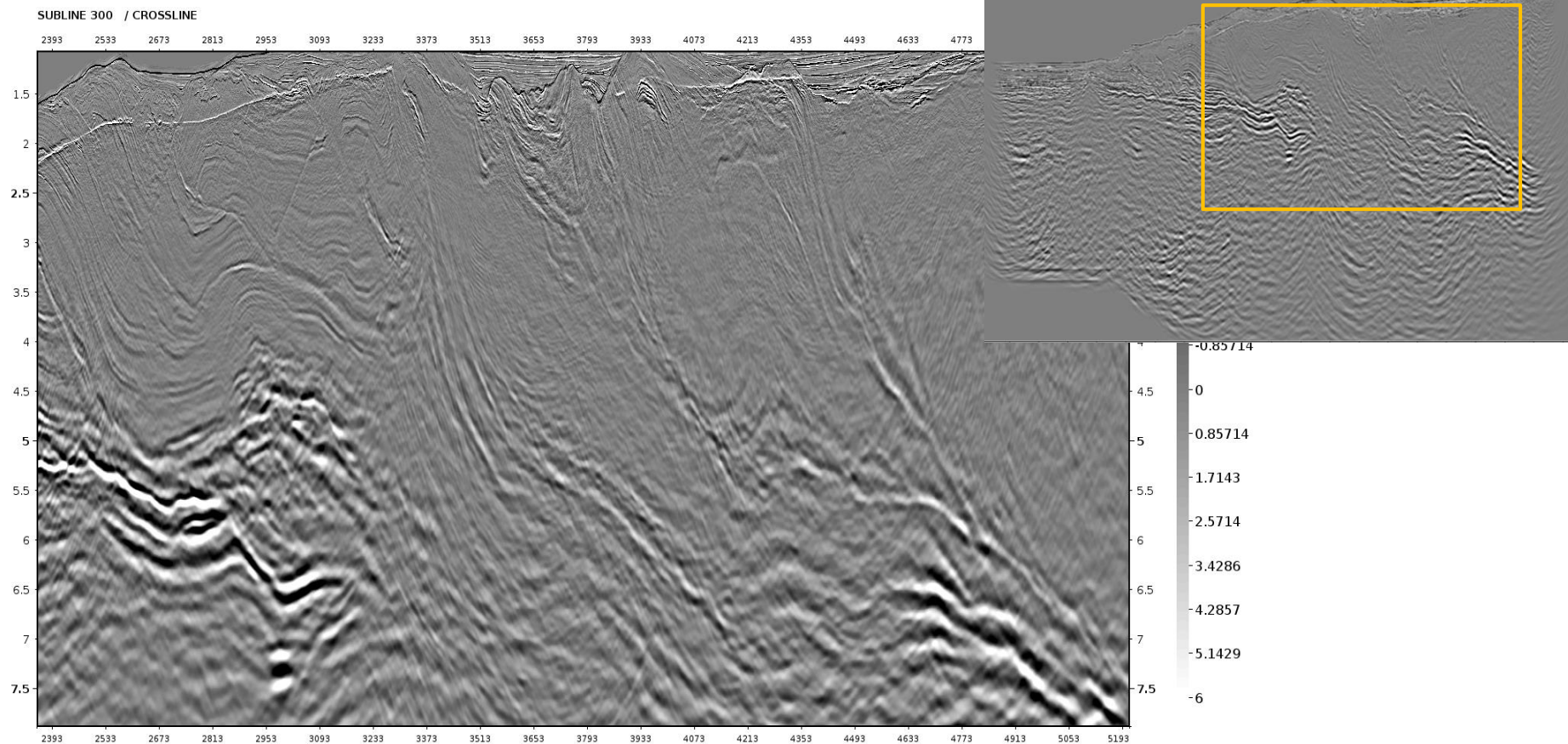
Subline 300: Angle Display - 03deg 14deg 25deg 35deg

5



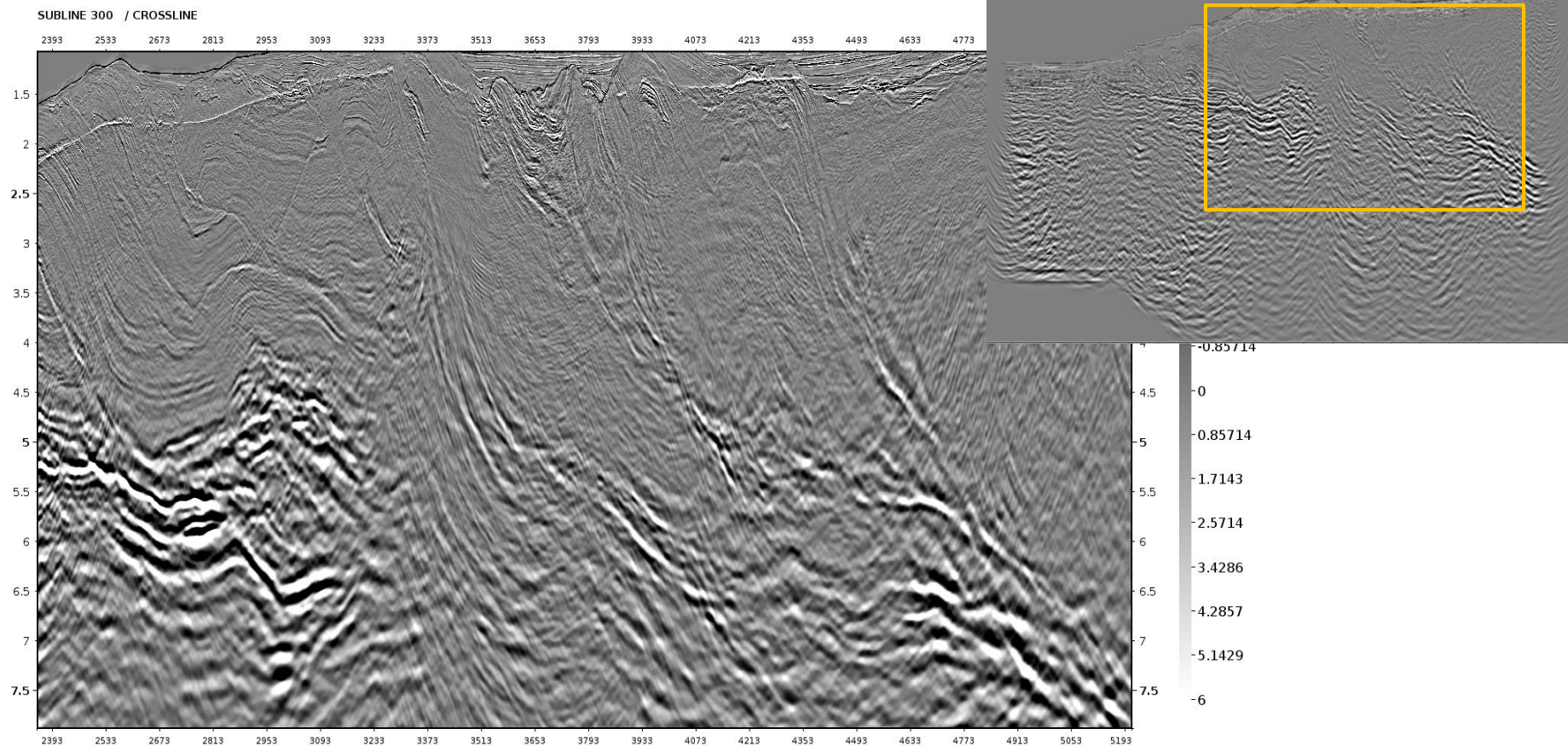
Subline 300: Full Stack (3-35 deg, Depth)

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Subline 300: Near Stack(3-14 deg, Depth)

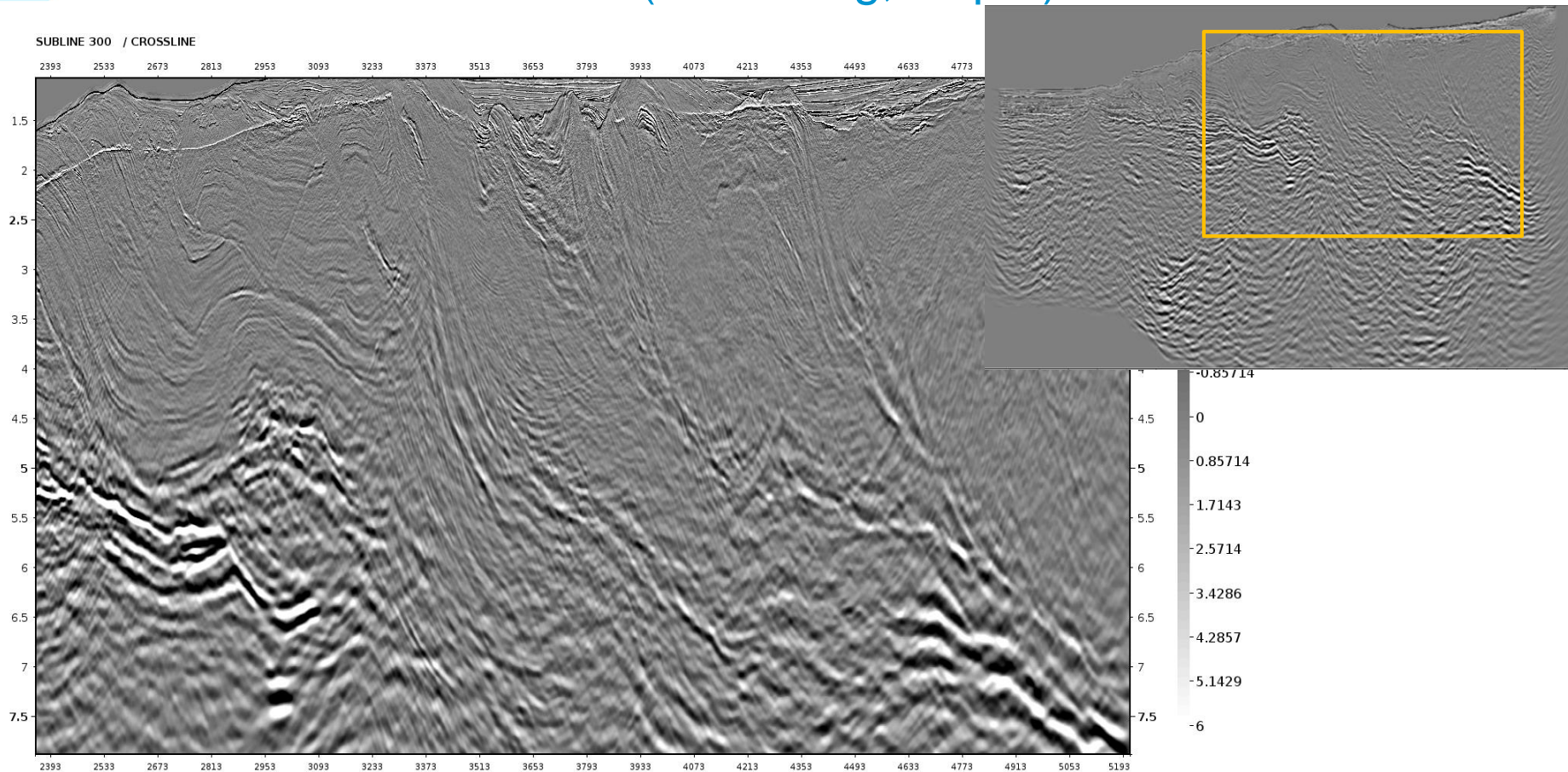
7





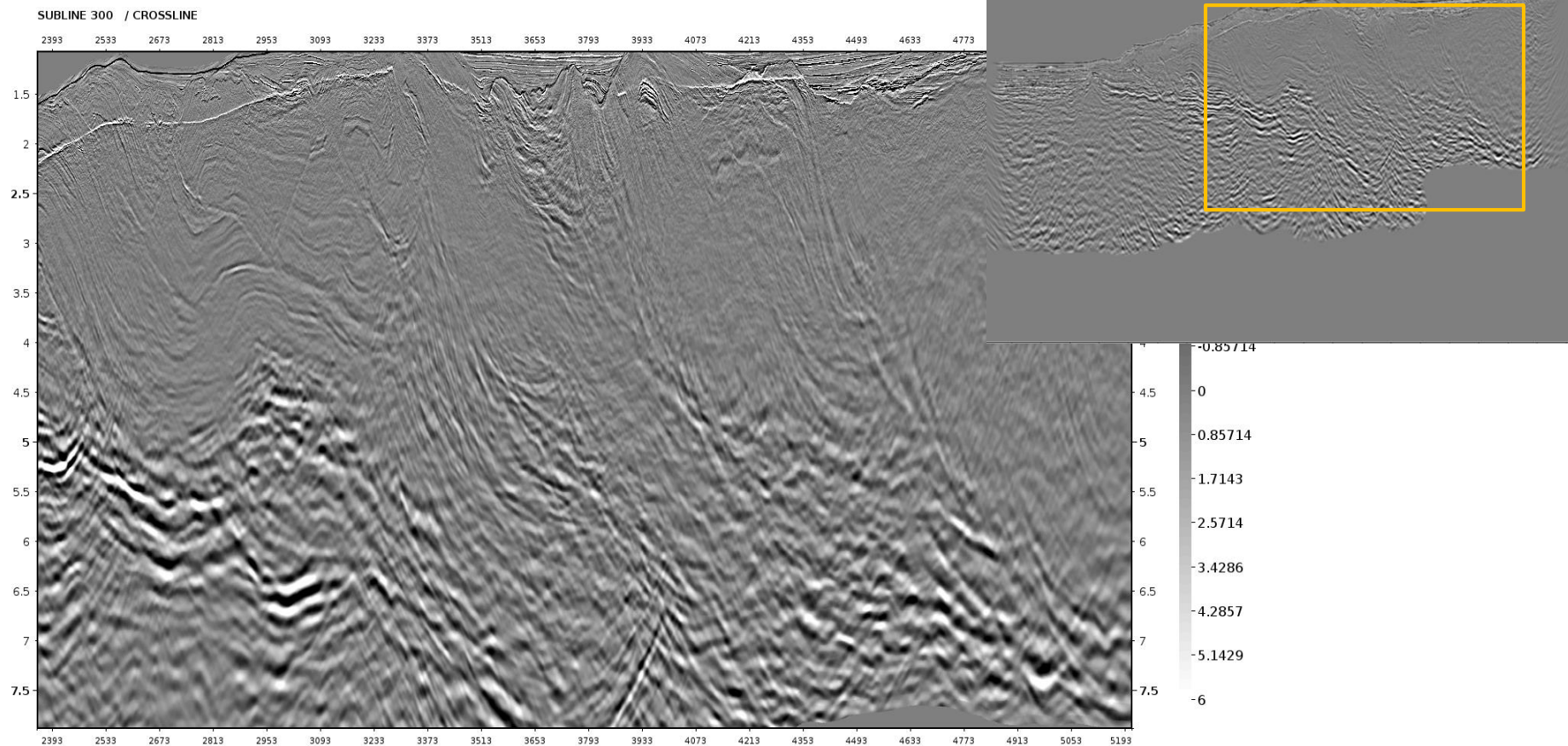
Subline 300: Middle Stack(14-25 deg, Depth)

8



Subline 300: Far Stack(25-35 deg, Depth)

9

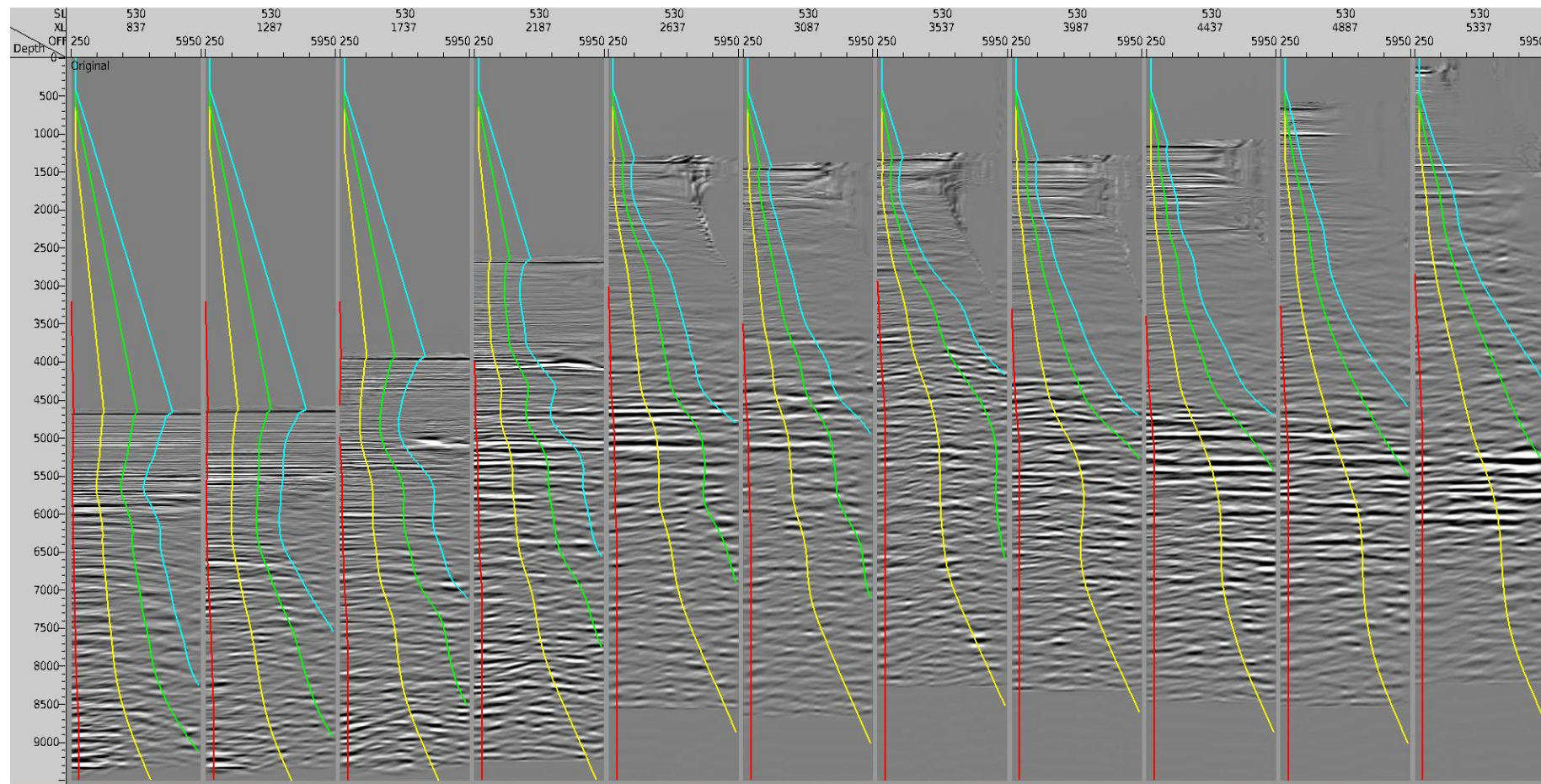


Subline 530



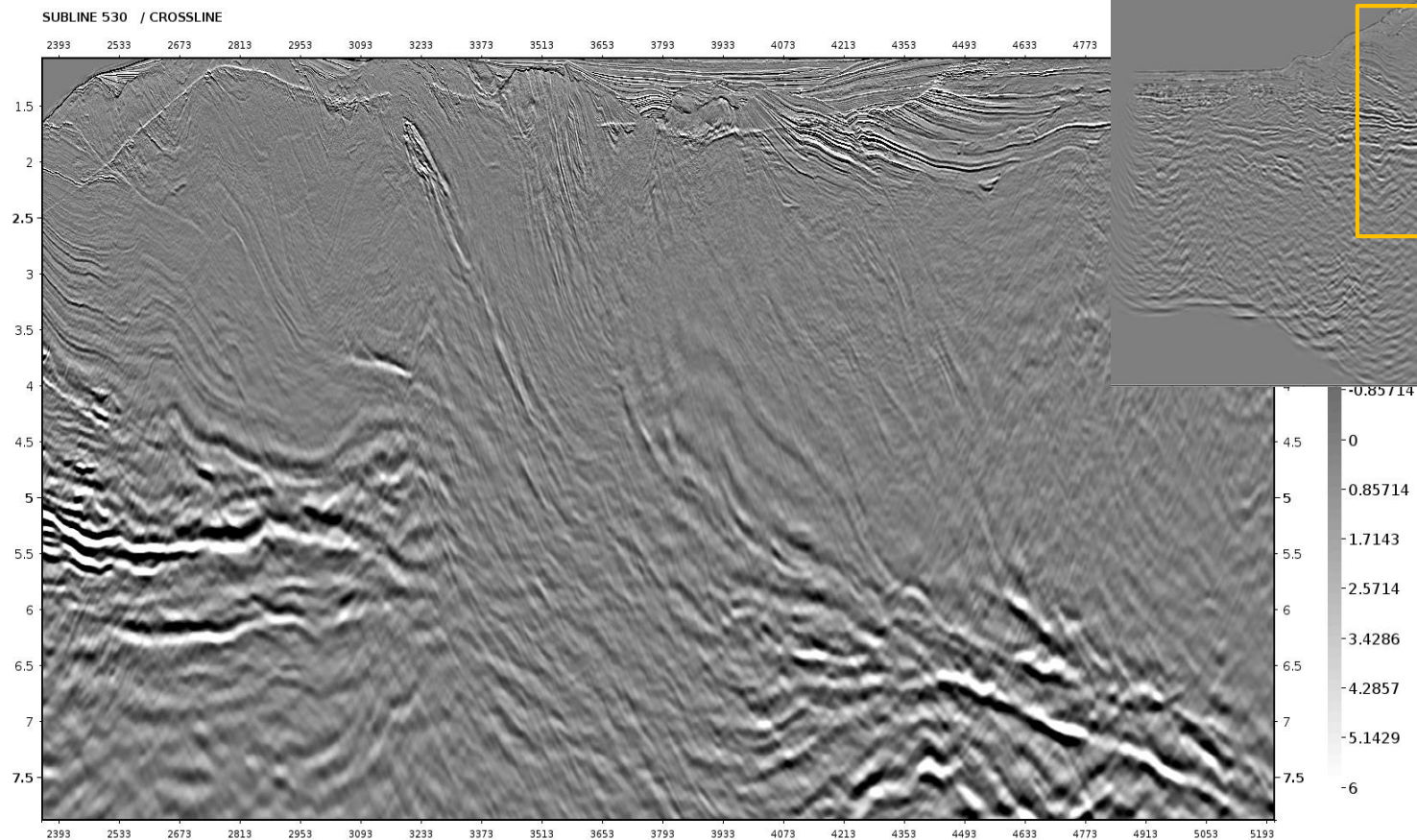
Subline 530: Angle Display - 03deg 14deg 25deg 35deg

11



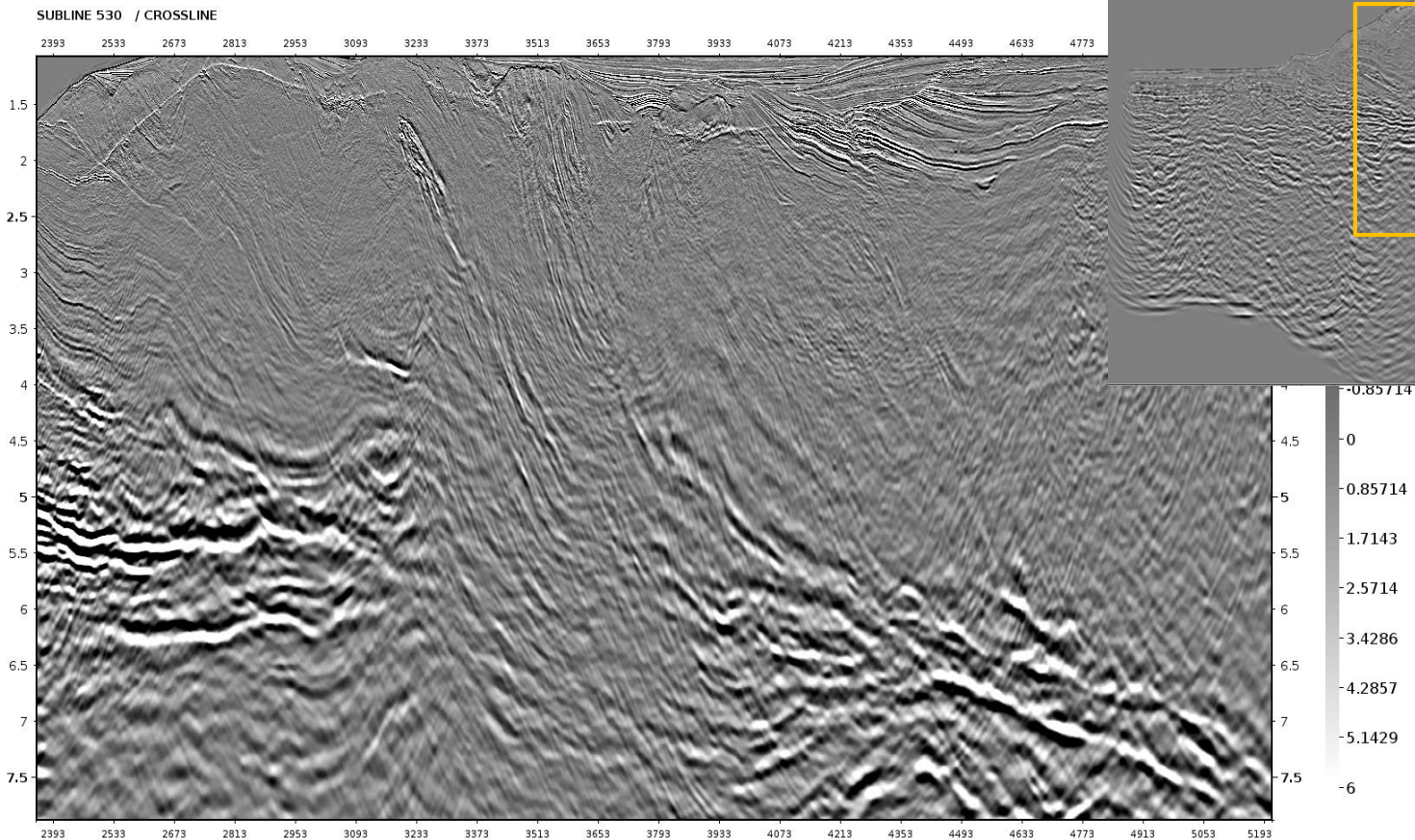
Subline 530: Full Stack (3-35 deg, Depth)

12



Subline 530: Near Stack(3-14 deg, Depth)

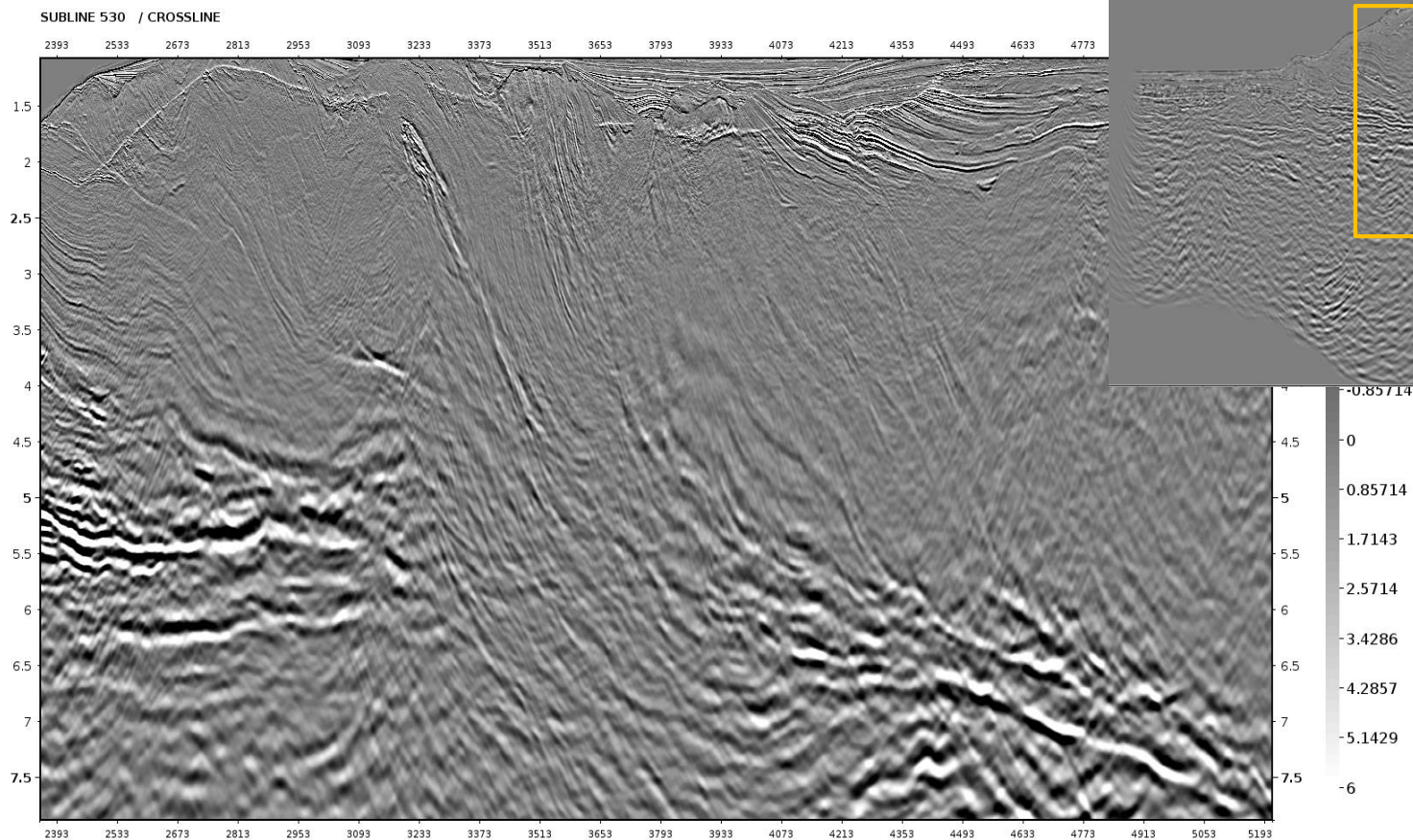
13





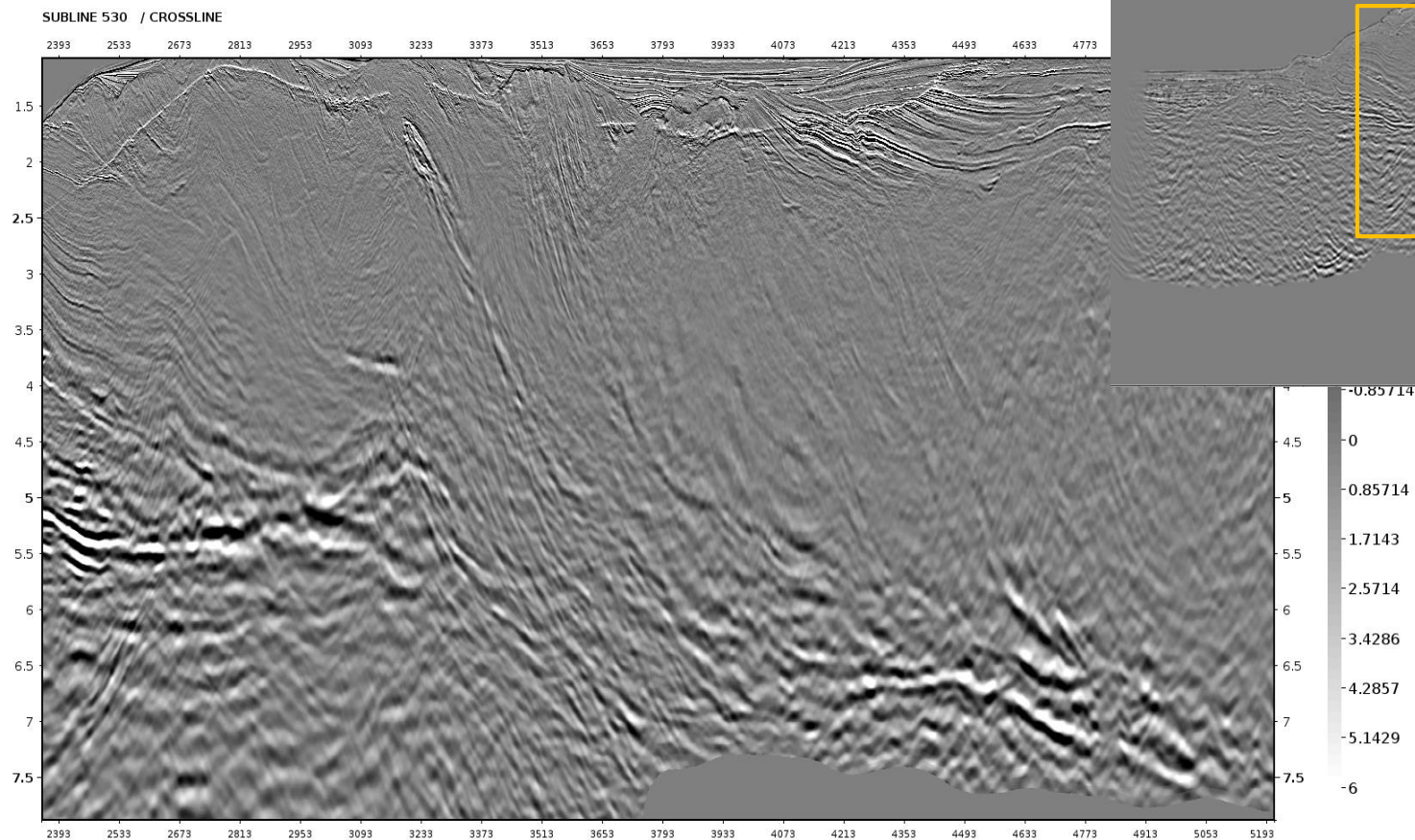
Subline 530: Middle Stack(14-25 deg, Depth)

14



Subline 530: Far Stack(25-35 deg, Depth)

15

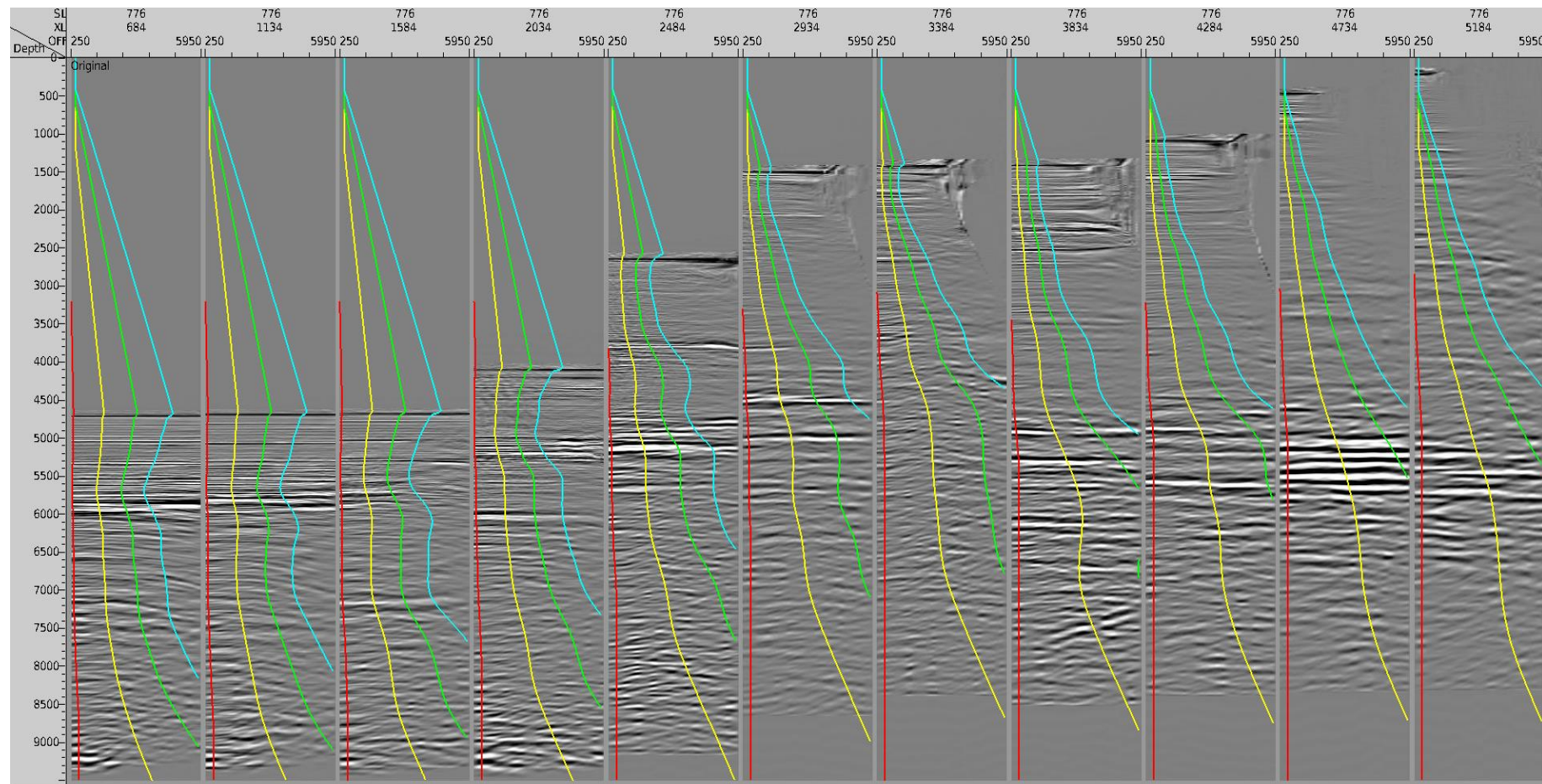


Subline 776



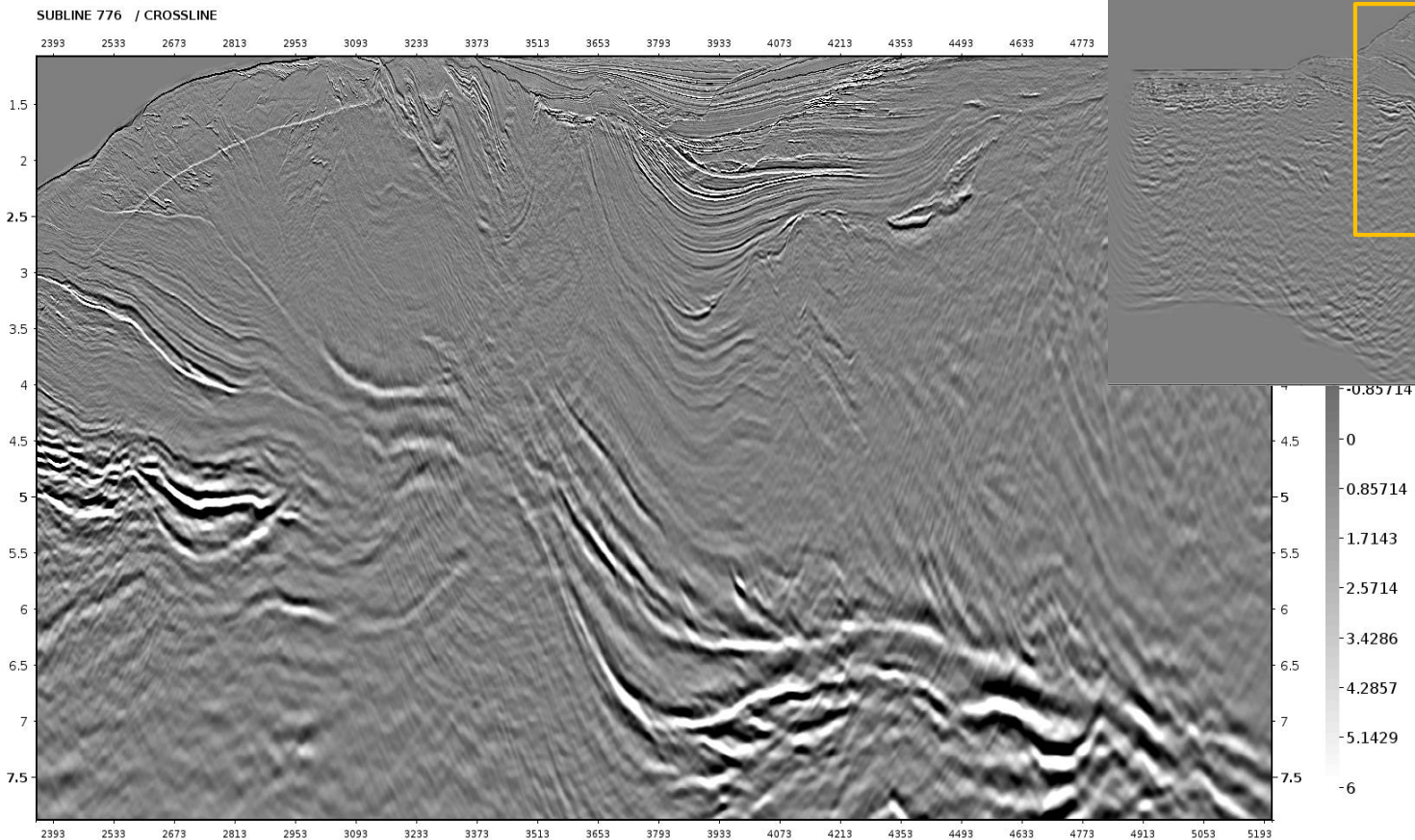
Subline 776: Angle Display - 03deg 14deg 25deg 35deg

17



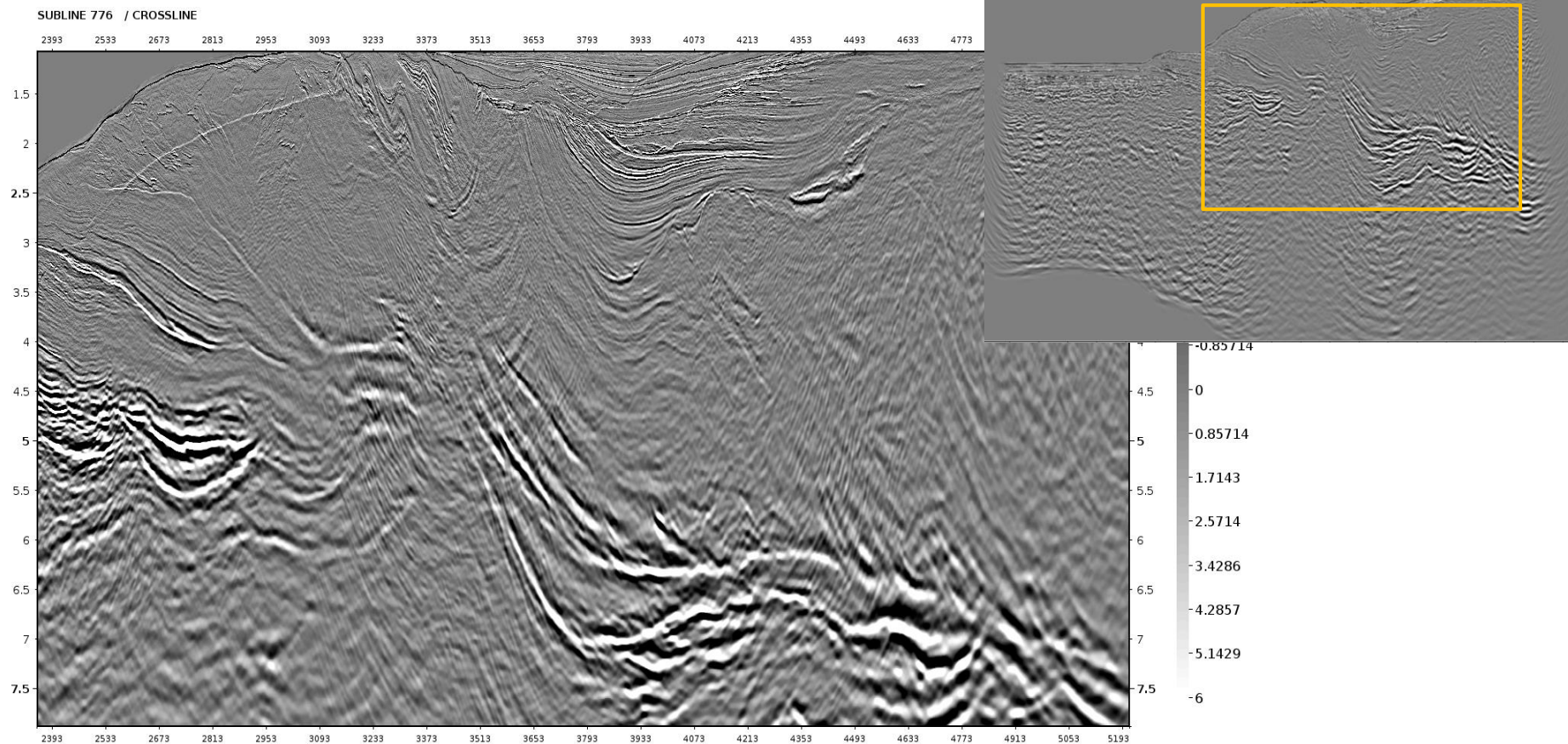
Subline 776: Full Stack (3-35 deg, Depth)

18



Subline 776: Near Stack(3-14 deg, Depth)

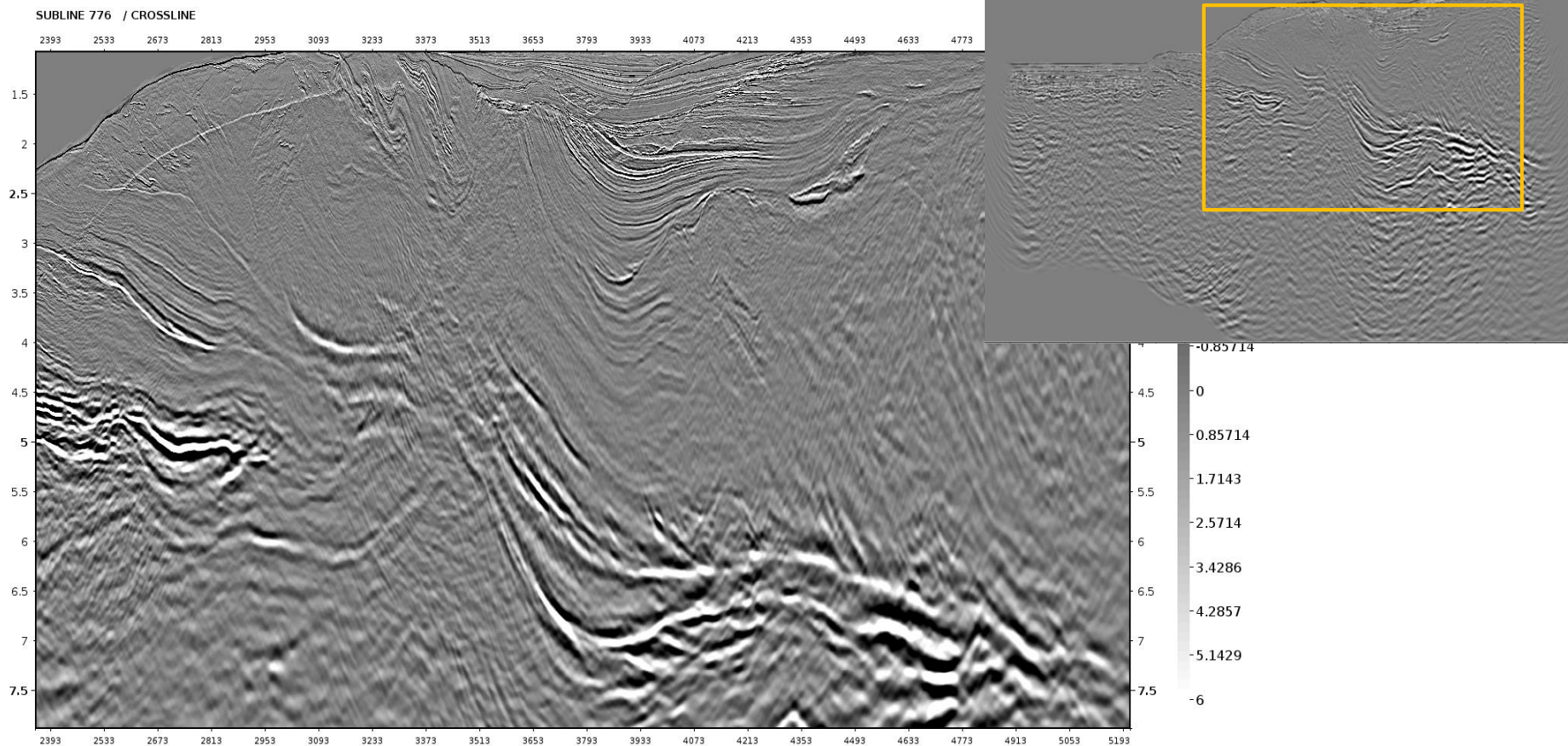
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Subline 776: Middle Stack(14-25 deg, Depth)

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Subline 776: Far Stack (25-35 deg, Depth)

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