01_SR_SRME.ppt

Benaris T/39 P 3D/2D
Sample Rate comparison and Initial SRME Tests on 3D Test Sail-line 1252060
01/12/05

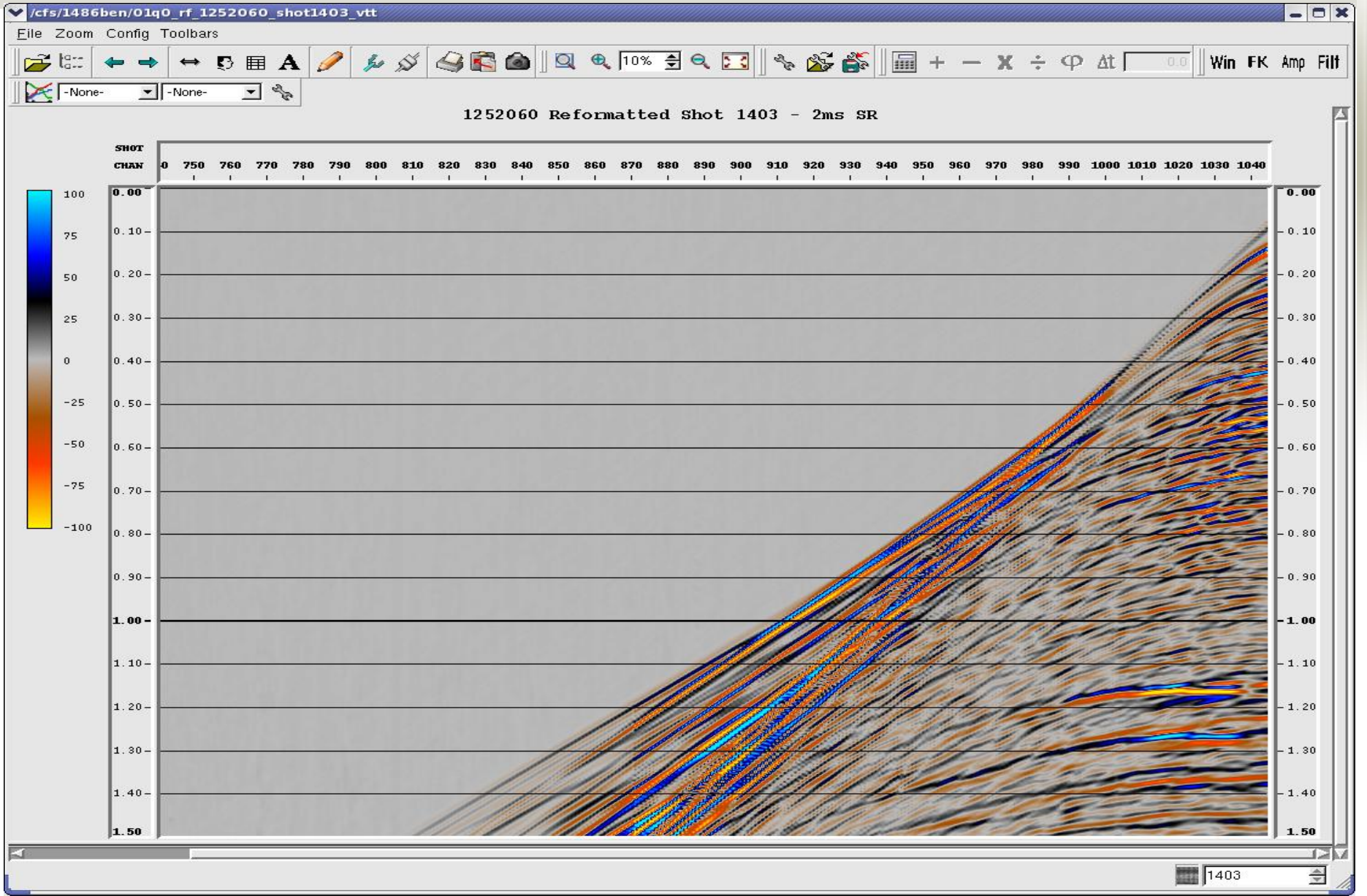
SUMMARY OF CONTENTS

- Shots and 2D stacks from sail-line1252060 comparing 2 versus 4ms SR. There is a slight phase shift with the application of the resample ZP anti-alias filter which will be corrected for in Production with a dephase filter once the resampling and any low-cut filtering are confirmed.

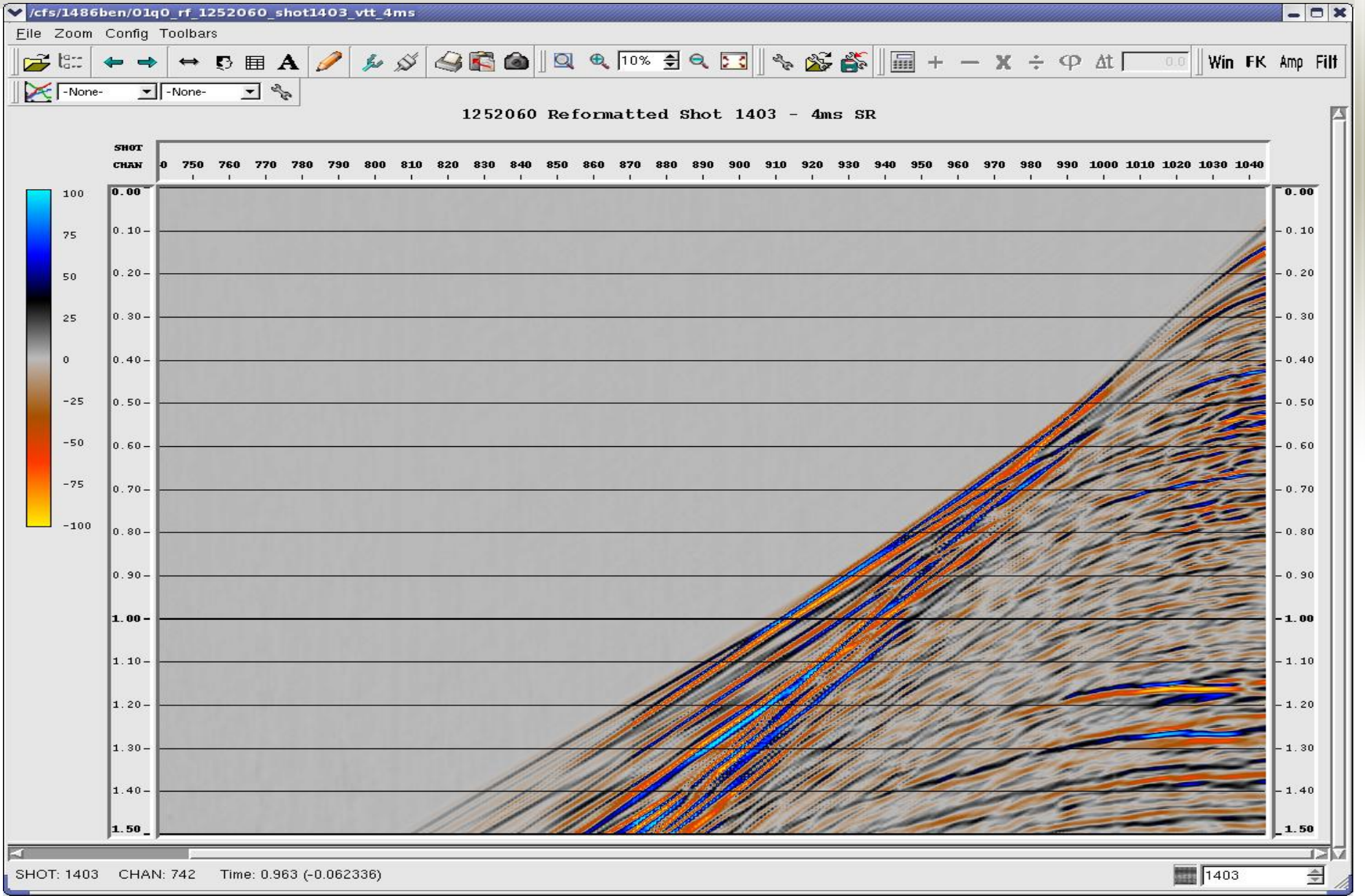
- Initial SRME tests on the 2D stack from sail-line 1252060.

- The stacks are produced from a port source into the inner port streamer. Velocity analyses were run every 1km to stack the data and an outer mute picked from the gathers. A vvt spherical divergence and an exponential gain (9dB 0-3sec) are the only scaling applied. The data is binned at a 12.5m interval at approx. 116 fold and every trace is displayed.

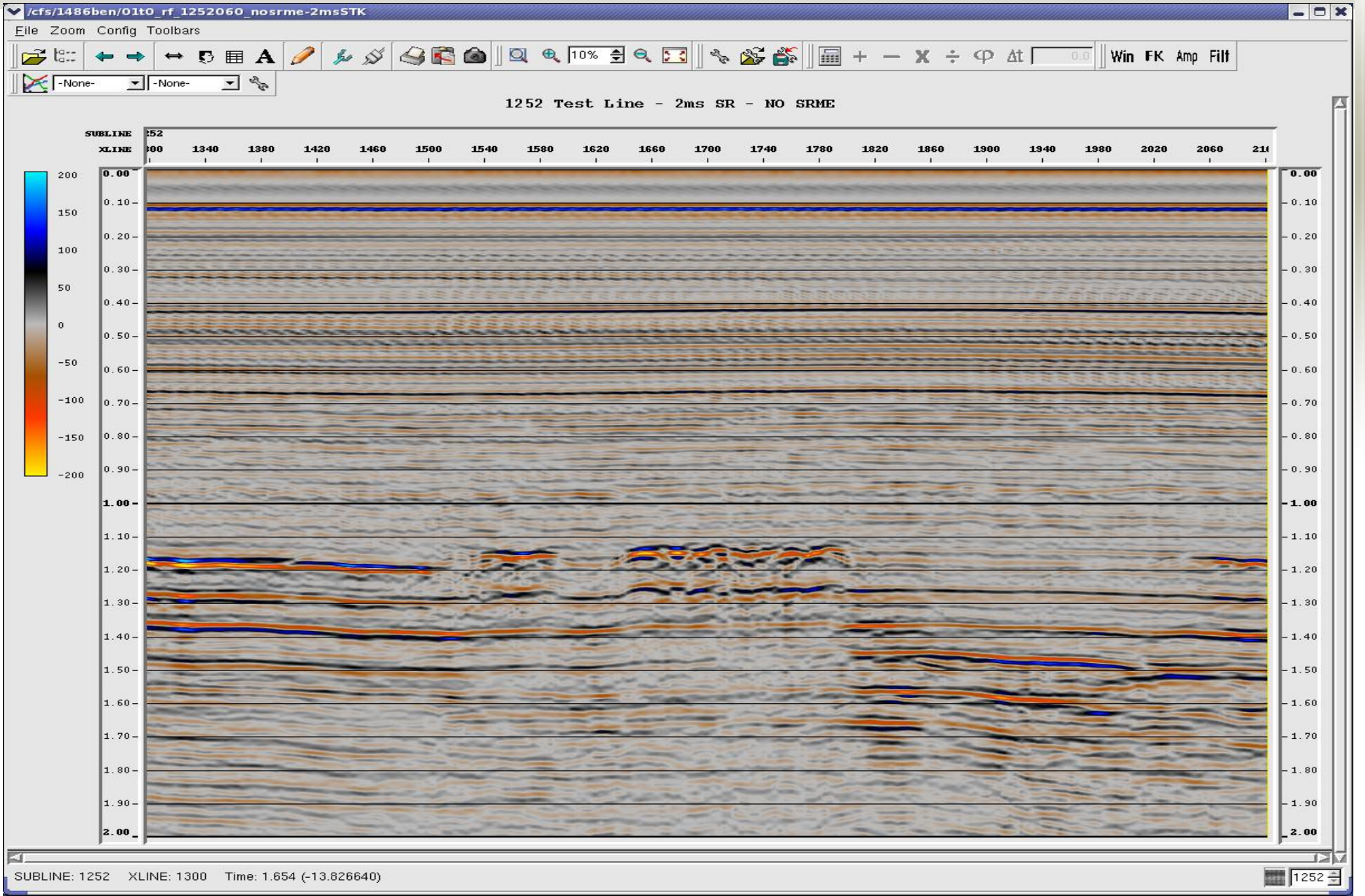
2ms SR.


/cfs/1486ben/01q0_rf_1252060_shot1403_vtt
File Zoom Config Toolbars
10%
Win FK Amp Filt
-None-
-None-
1252060 Reformatted Shot 1403 - 2ms SR
SHOT
CHAN
0 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040
100 75 50 25 0 -25 -50 -75 -100
0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50
1403

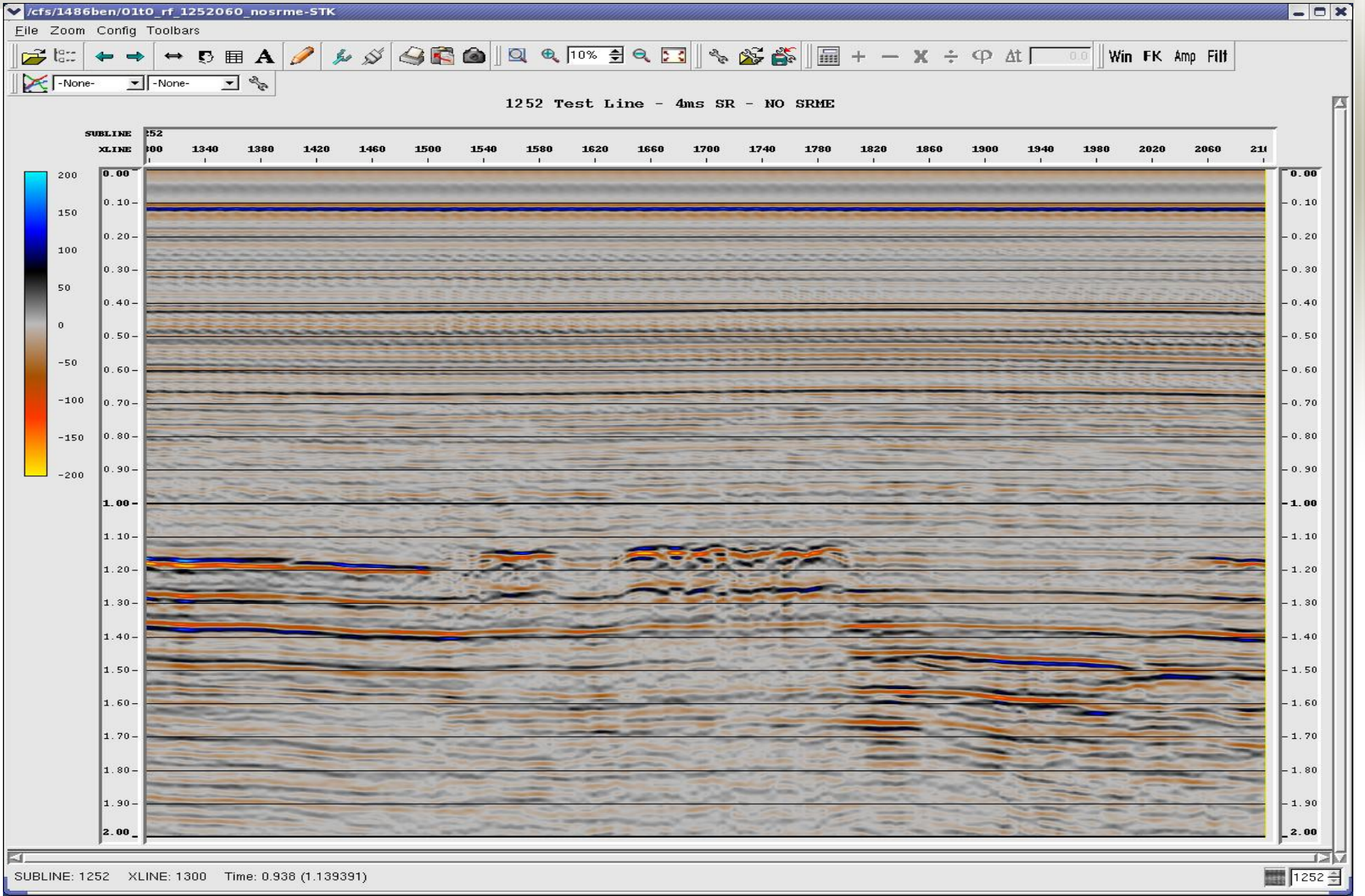
4ms SR.


/cfs/1486ben/01q0_rf_1252060_shot1403_vtt_4ms
File Zoom Config Toolbars
10%
Win FK Amp Filt
-None-
-None-
1252060 Reformatted Shot 1403 - 4ms SR
SHOT
CHAN
0 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040
100 75 50 25 0 -25 -50 -75 -100
0.00 0.10 0.20 0.30 0.40 0.50 0.60 0.70 0.80 0.90 1.00 1.10 1.20 1.30 1.40 1.50
SHOT: 1403 CHAN: 742 Time: 0.963 (-0.062336)
1403

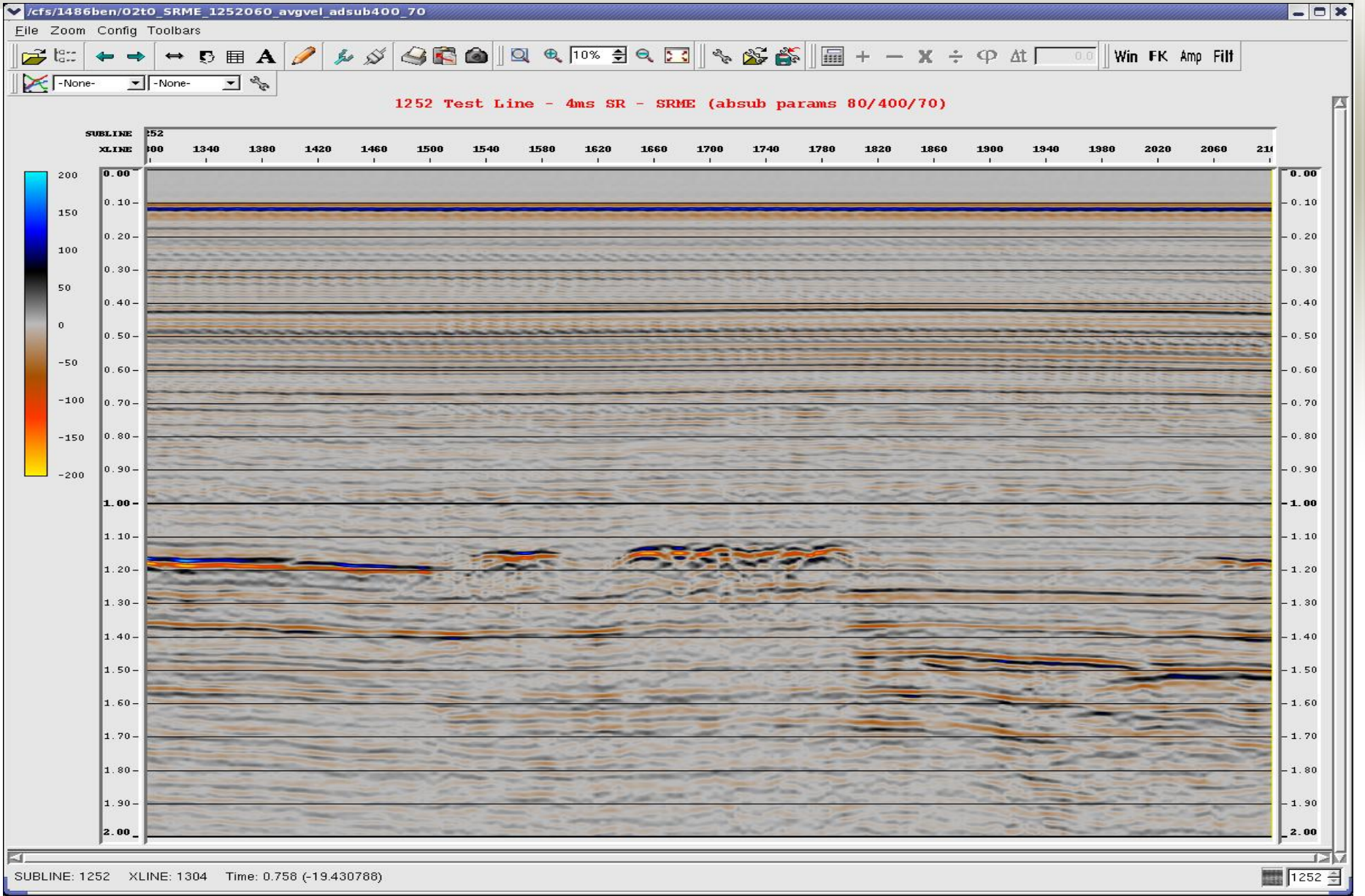
2ms SR. NO SRME.



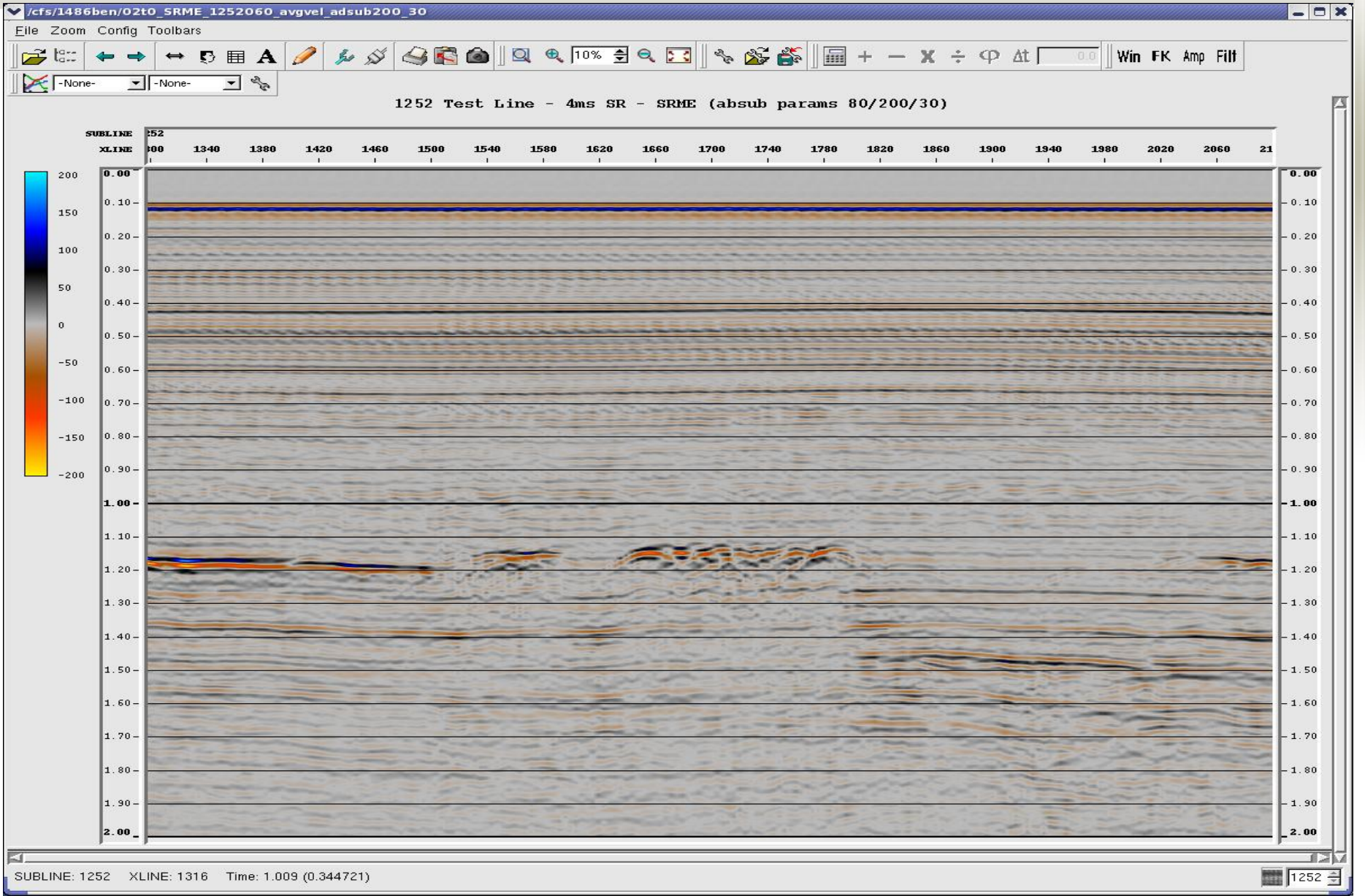
4ms SR. NO SRME.



4ms SR. Preferred Milder SRME.



4ms SR. Stronger SRME.



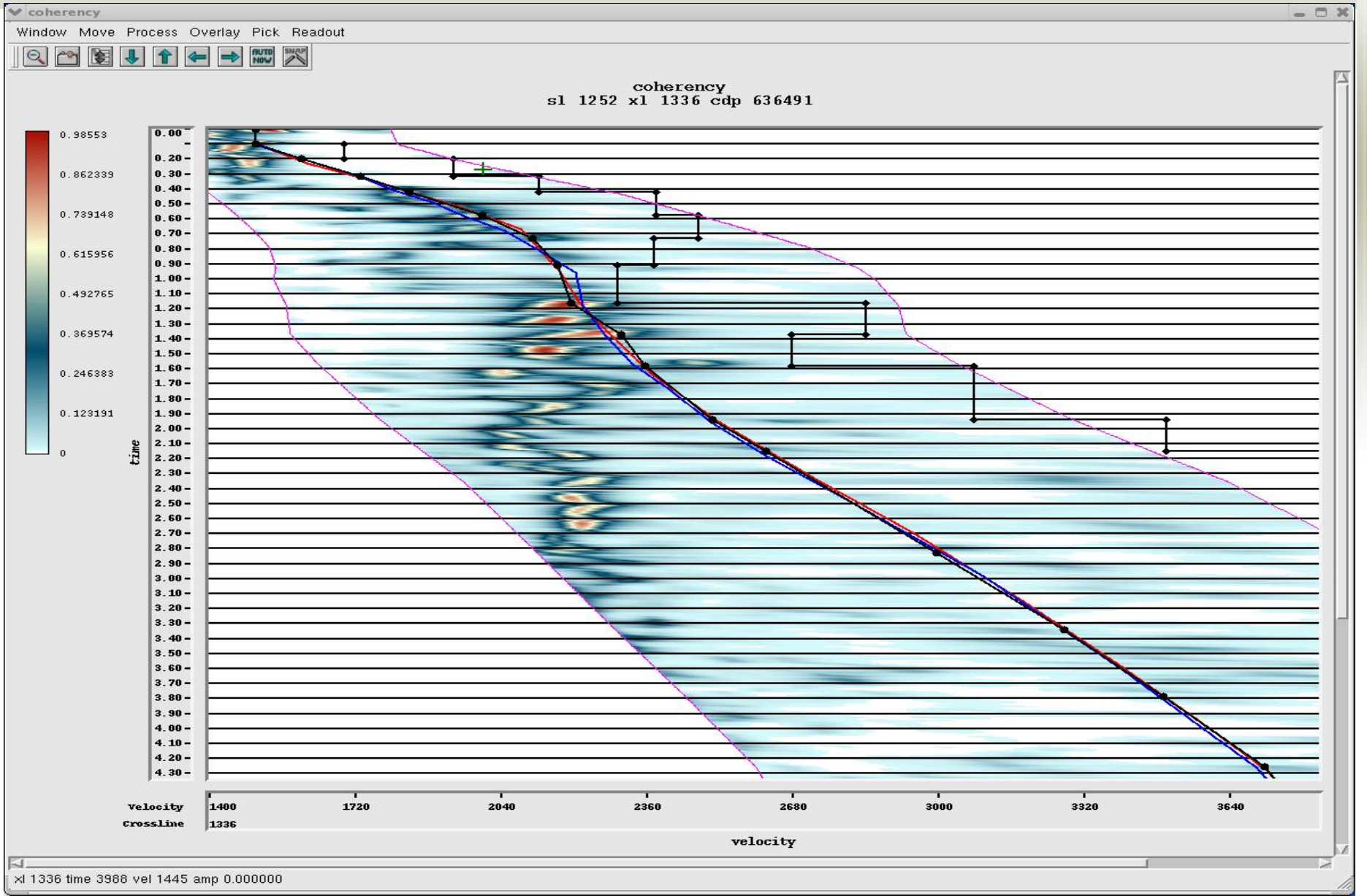
02_SRME.ppt

Benaris T/39 P 3D/2D
Comparison of initial Velocity Analyses and of SRME Stacks(new Vels) from test line 1252060.
07/12/05

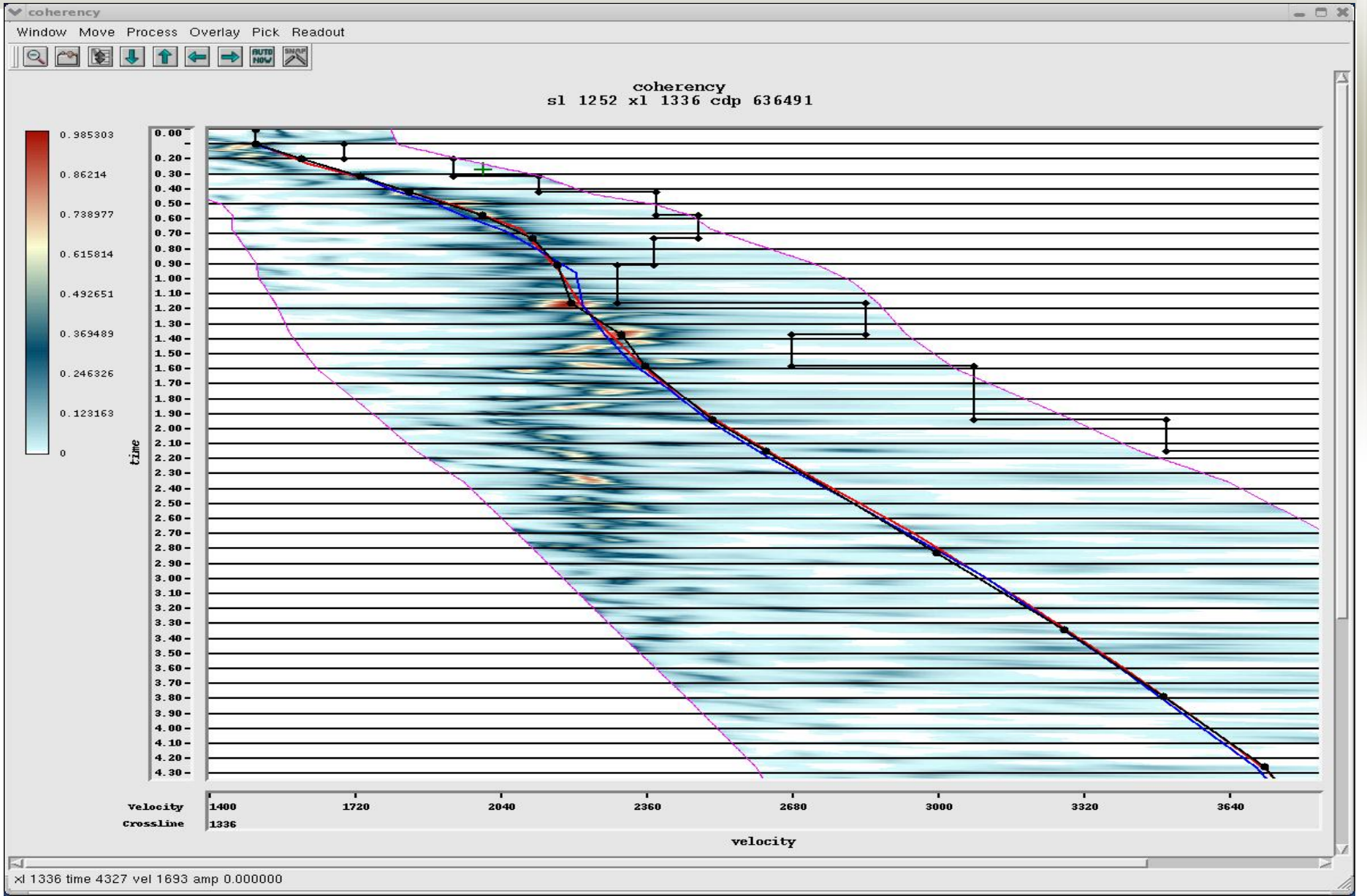
SUMMARY OF CONTENTS

- Velocity comparisons from three locations on 1252 with no TP DBS and SRME, with TP DBS only and with TP DBS followed by SRME.
- TP DBS/SRME tests on the 2D stack from sail-line 1252060 (with revised velocity picks).
- The stacks are produced from a port source into the inner port streamer. Velocity analyses were run every 1km to stack the data and an outer mute picked from the gathers. A vvt spherical divergence and an exponential gain (9dB 0-3sec) are the only scaling applied. The data is binned at a 12.5m interval at approx. 116 fold and every trace is displayed.

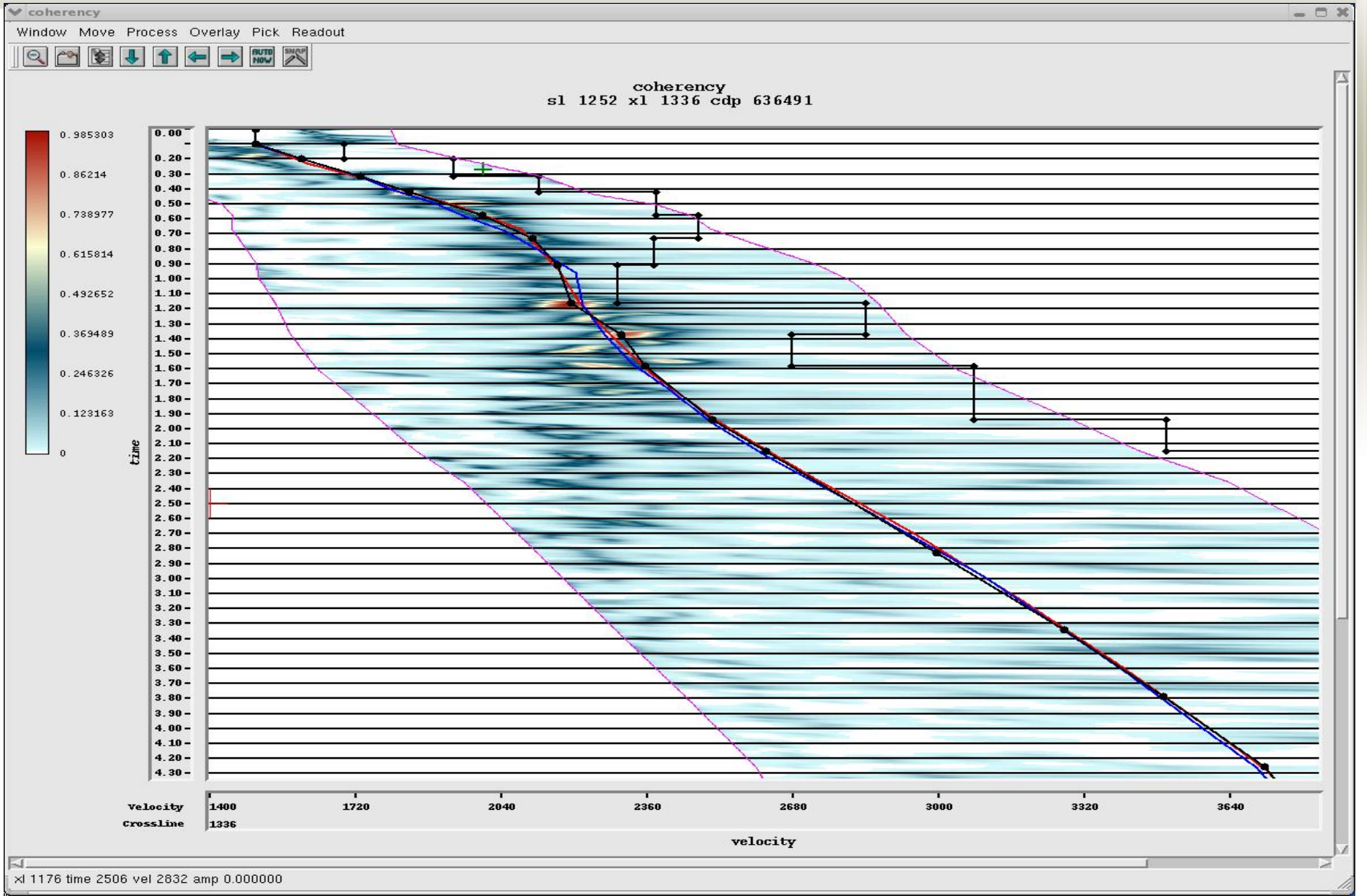
No TP DBS, no SRME



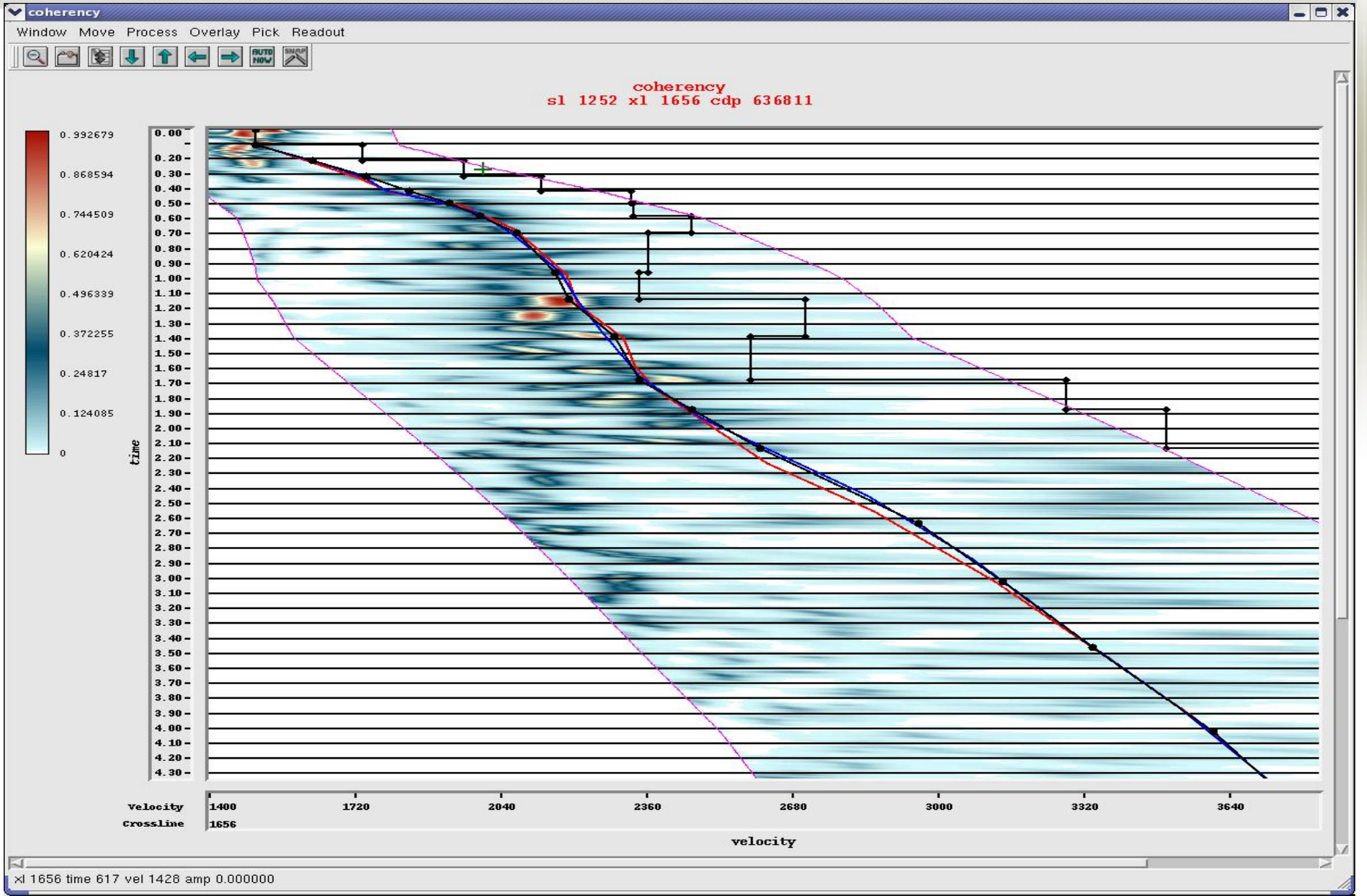
TP DBS, no SRME



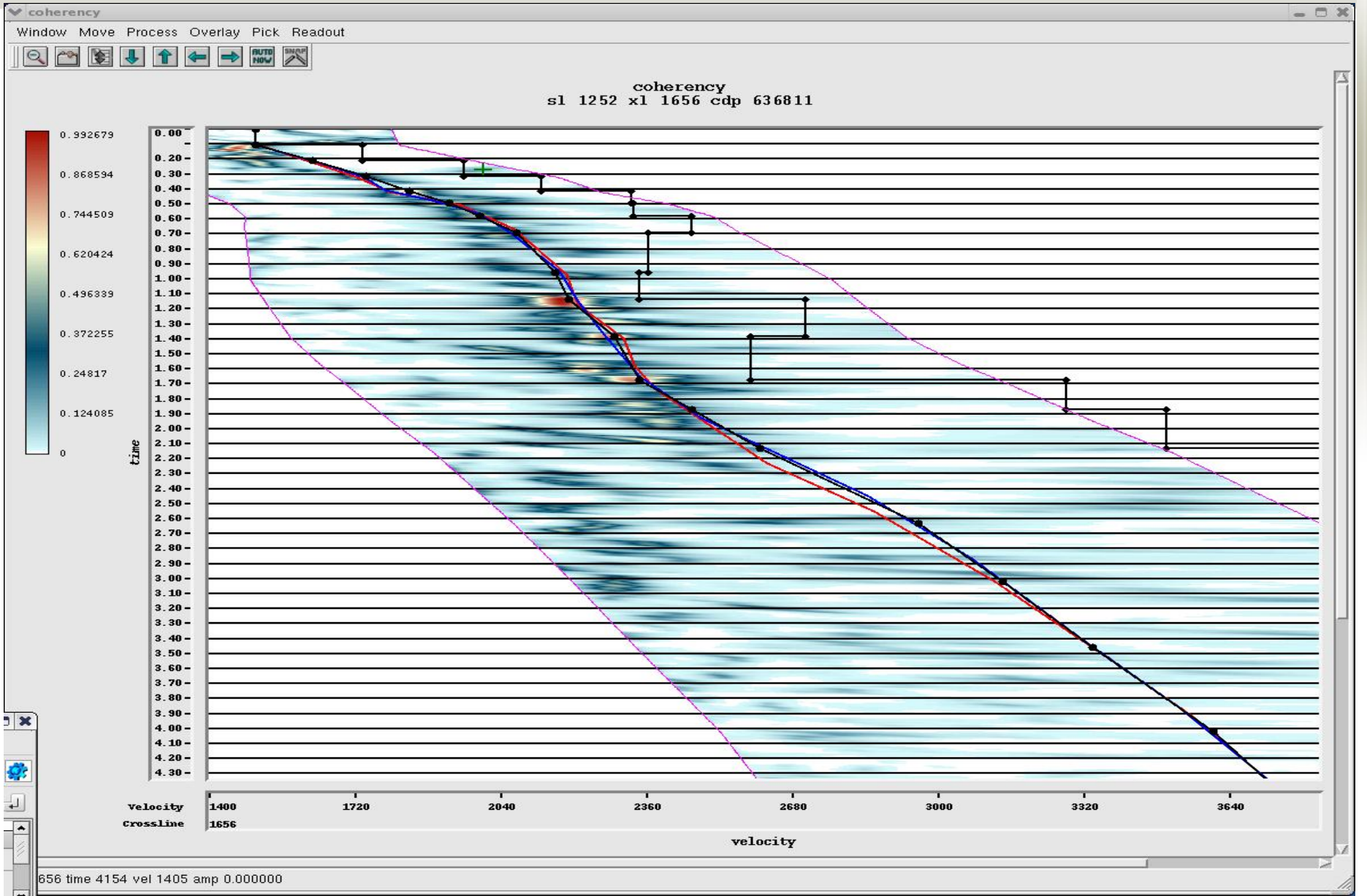
TP DBS, SRME


coherency
Window Move Process Overlay Pick Readout
coherency
sl 1252 xl 1336 cdp 636491
0.985303
0.86214
0.738977
0.615814
0.492652
0.369489
0.246326
0.123163
0
time
0.00
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
1.10
1.20
1.30
1.40
1.50
1.60
1.70
1.80
1.90
2.00
2.10
2.20
2.30
2.40
2.50
2.60
2.70
2.80
2.90
3.00
3.10
3.20
3.30
3.40
3.50
3.60
3.70
3.80
3.90
4.00
4.10
4.20
4.30
Velocity
Crossline
1400
1336
1720
2040
2360
2680
3000
3320
3640
velocity
xl 1176 time 2506 vel 2832 amp 0.000000

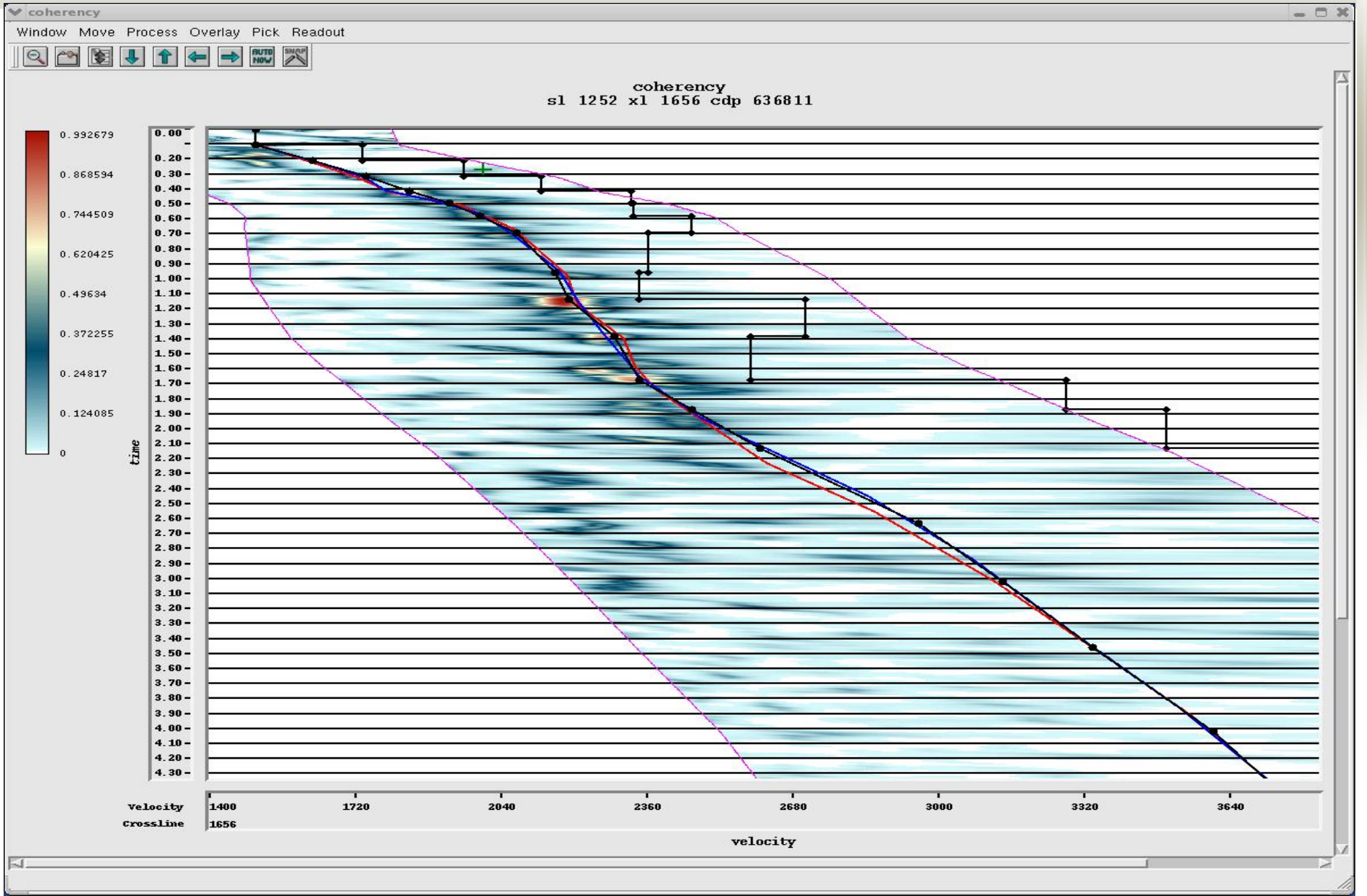
No TP DBS, no SRME



TP DBS, no SRME



TP DBS, SRME


coherency
Window Move Process Overlay Pick Readout
coherency
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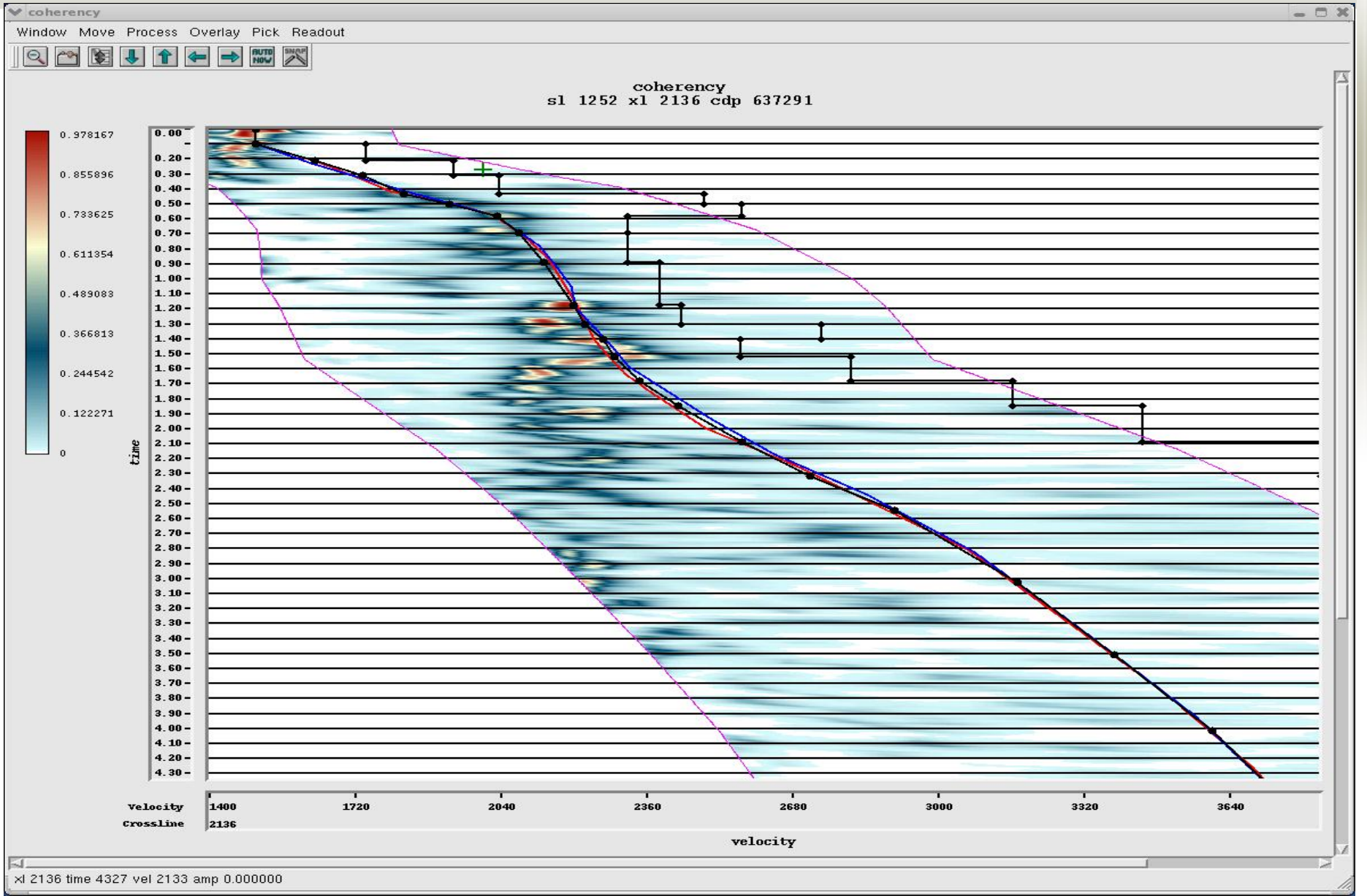
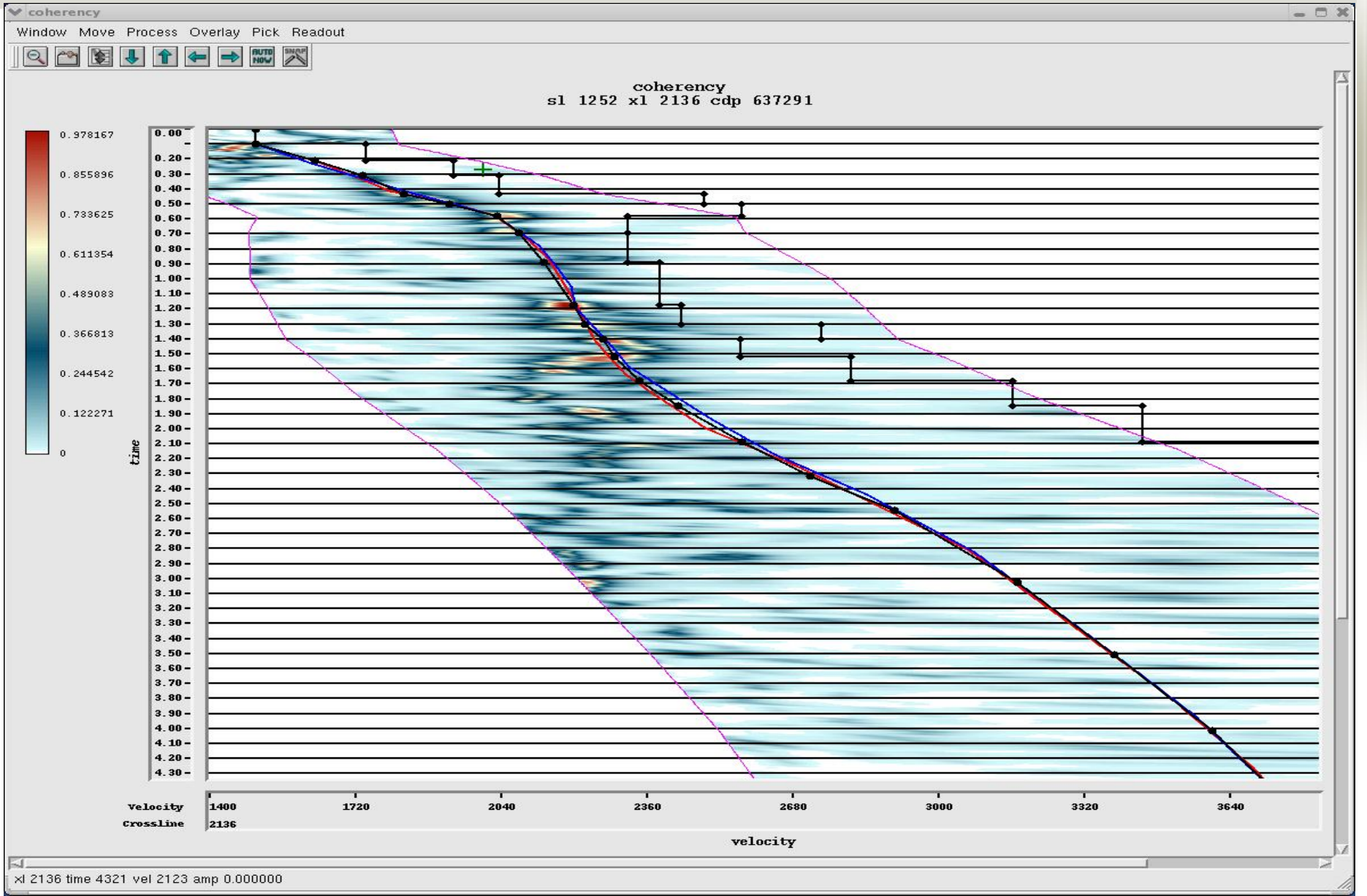
0.868594
0.744509
0.620425
0.49634
0.372255
0.24817
0.124085
0
time
0.00
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
1.10
1.20
1.30
1.40
1.50
1.60
1.70
1.80
1.90
2.00
2.10
2.20
2.30
2.40
2.50
2.60
2.70
2.80
2.90
3.00
3.10
3.20
3.30
3.40
3.50
3.60
3.70
3.80
3.90
4.00
4.10
4.20
4.30
Velocity
Crossline
1400
1656
1720
2040
2360
2680
3000
3320
3640
velocity

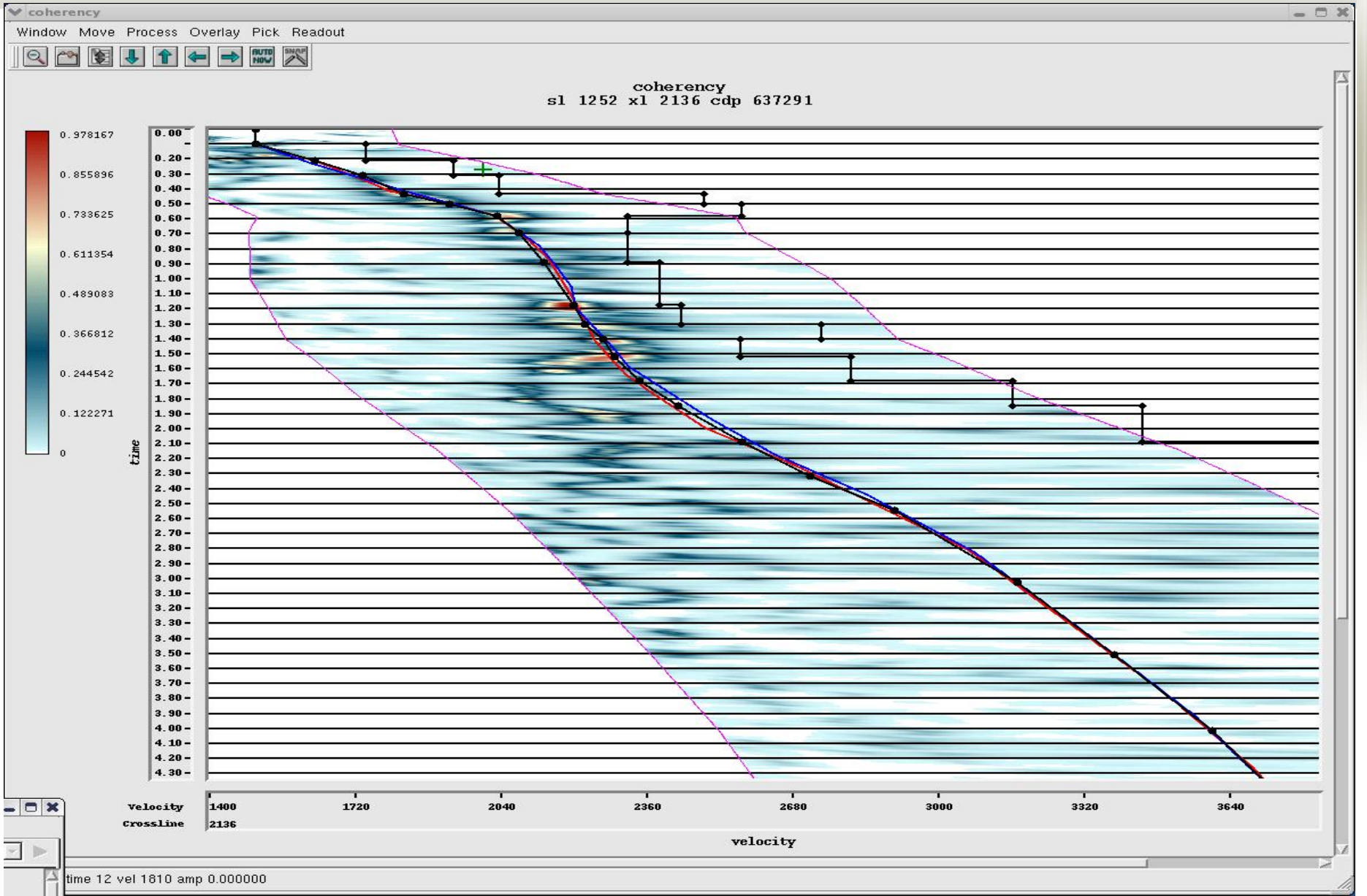
No TP DBS, no SRME



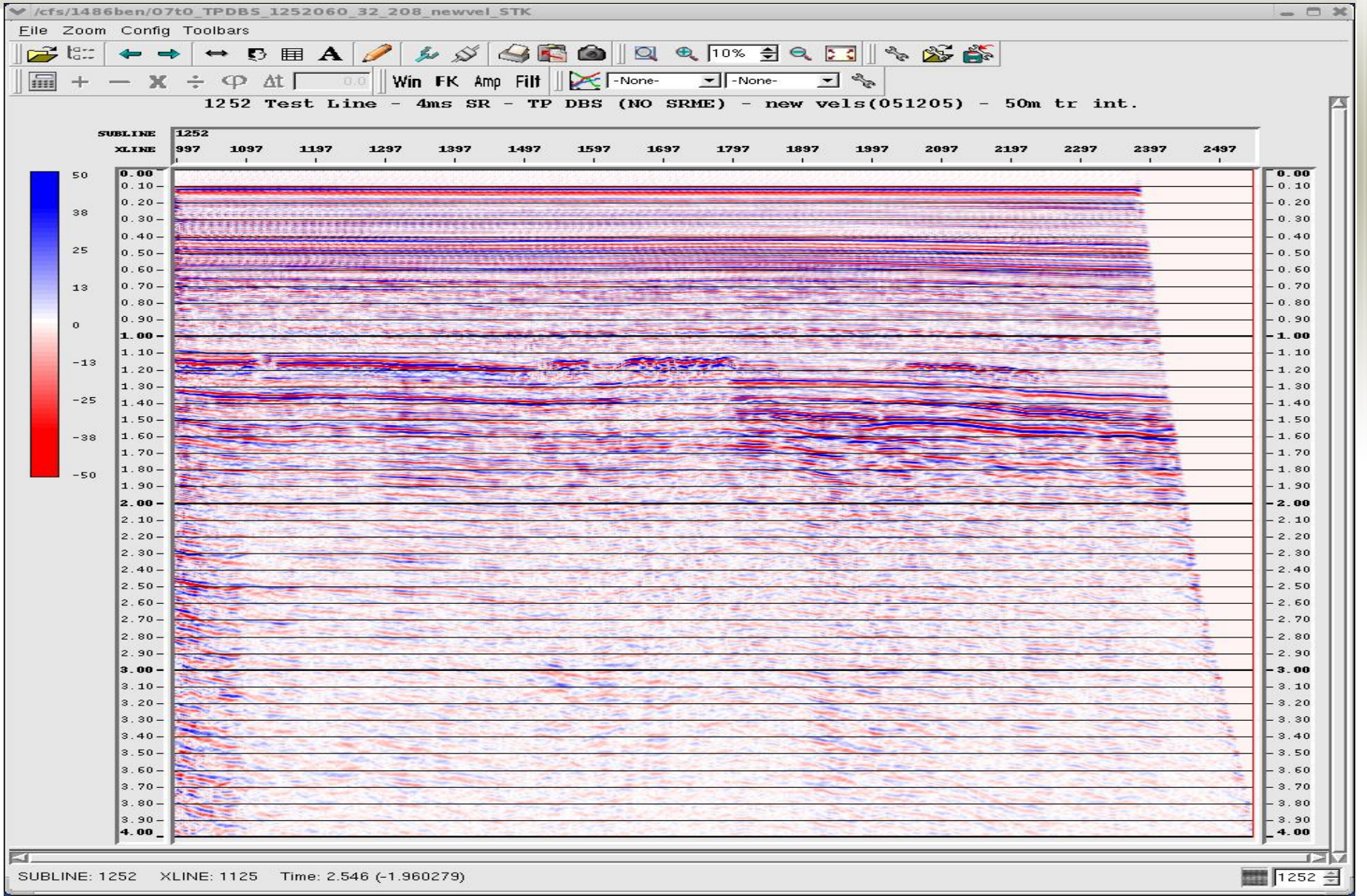
TP DBS, no SRME



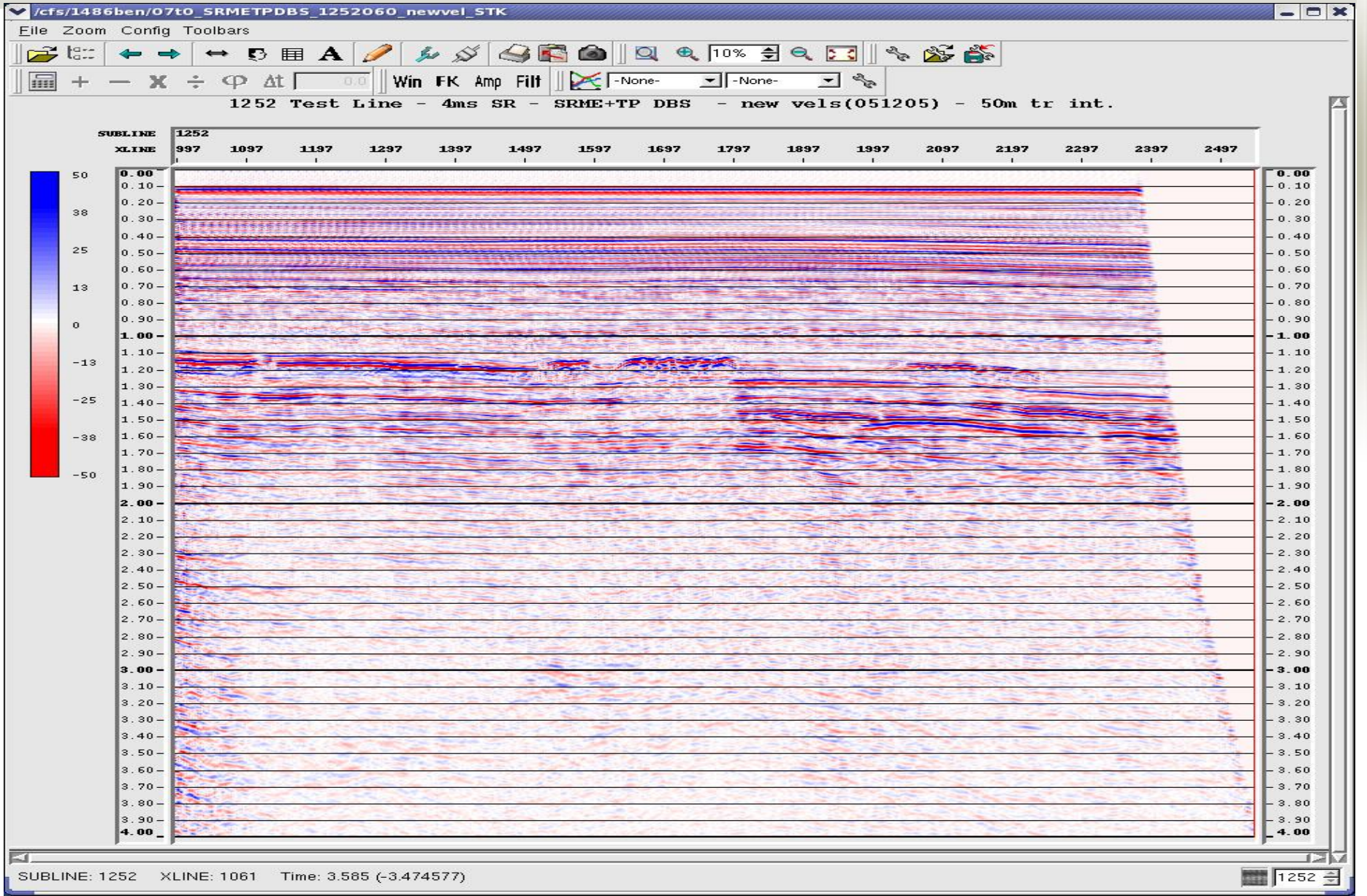
TP DBS, SRME


coherency
Window Move Process Overlay Pick Readout
coherency
sl 1252 xl 2136 cdp 637291
0.978167
0.855896
0.733625
0.611354
0.489083
0.366812
0.244542
0.122271
0
time
0.00
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
1.10
1.20
1.30
1.40
1.50
1.60
1.70
1.80
1.90
2.00
2.10
2.20
2.30
2.40
2.50
2.60
2.70
2.80
2.90
3.00
3.10
3.20
3.30
3.40
3.50
3.60
3.70
3.80
3.90
4.00
4.10
4.20
4.30
Velocity
Crossline
1400
1720
2040
2360
2680
3000
3320
3640
2136
velocity
time 12 vel 1810 amp 0.000000

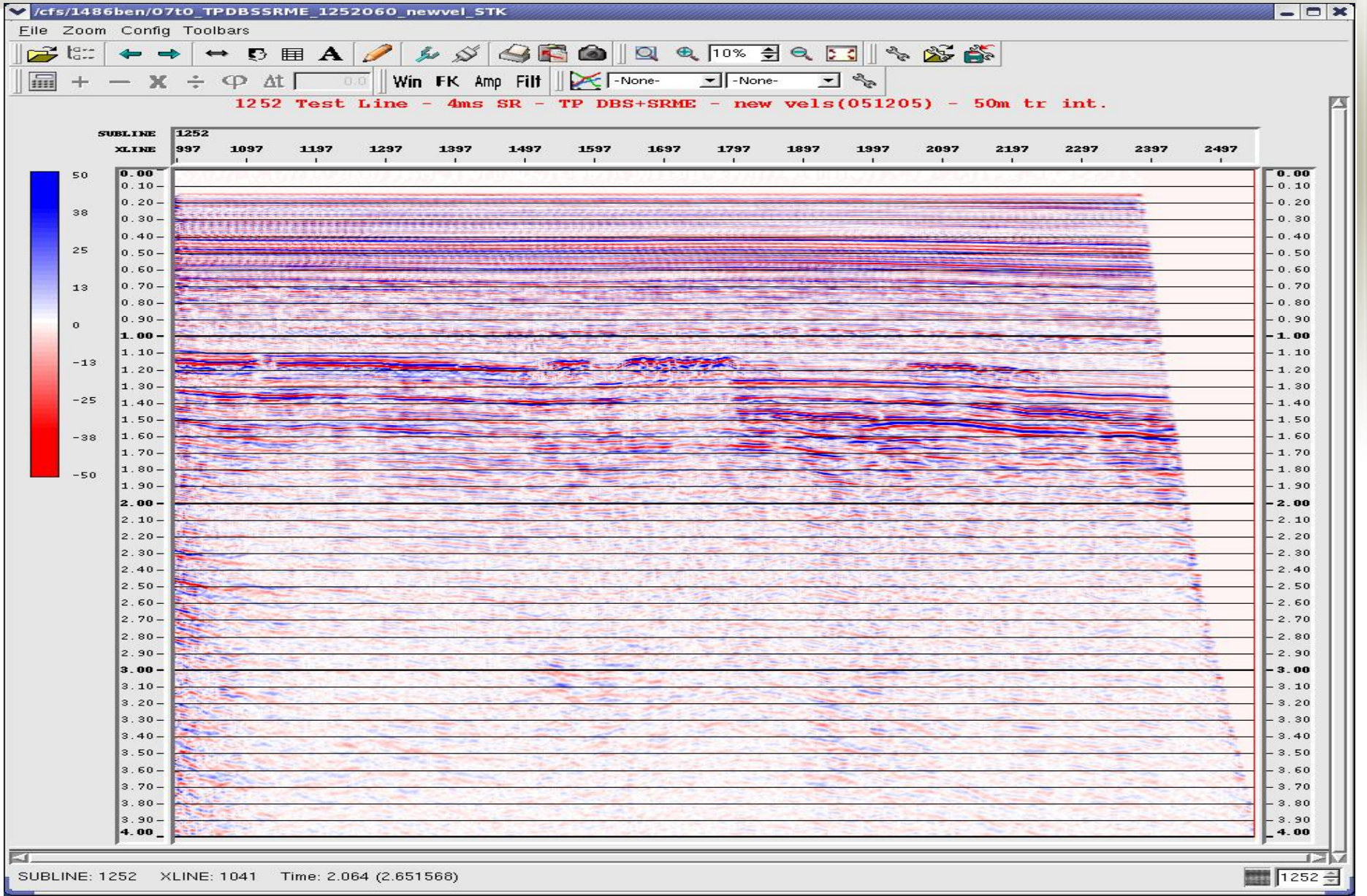
Stack with TP DBS only



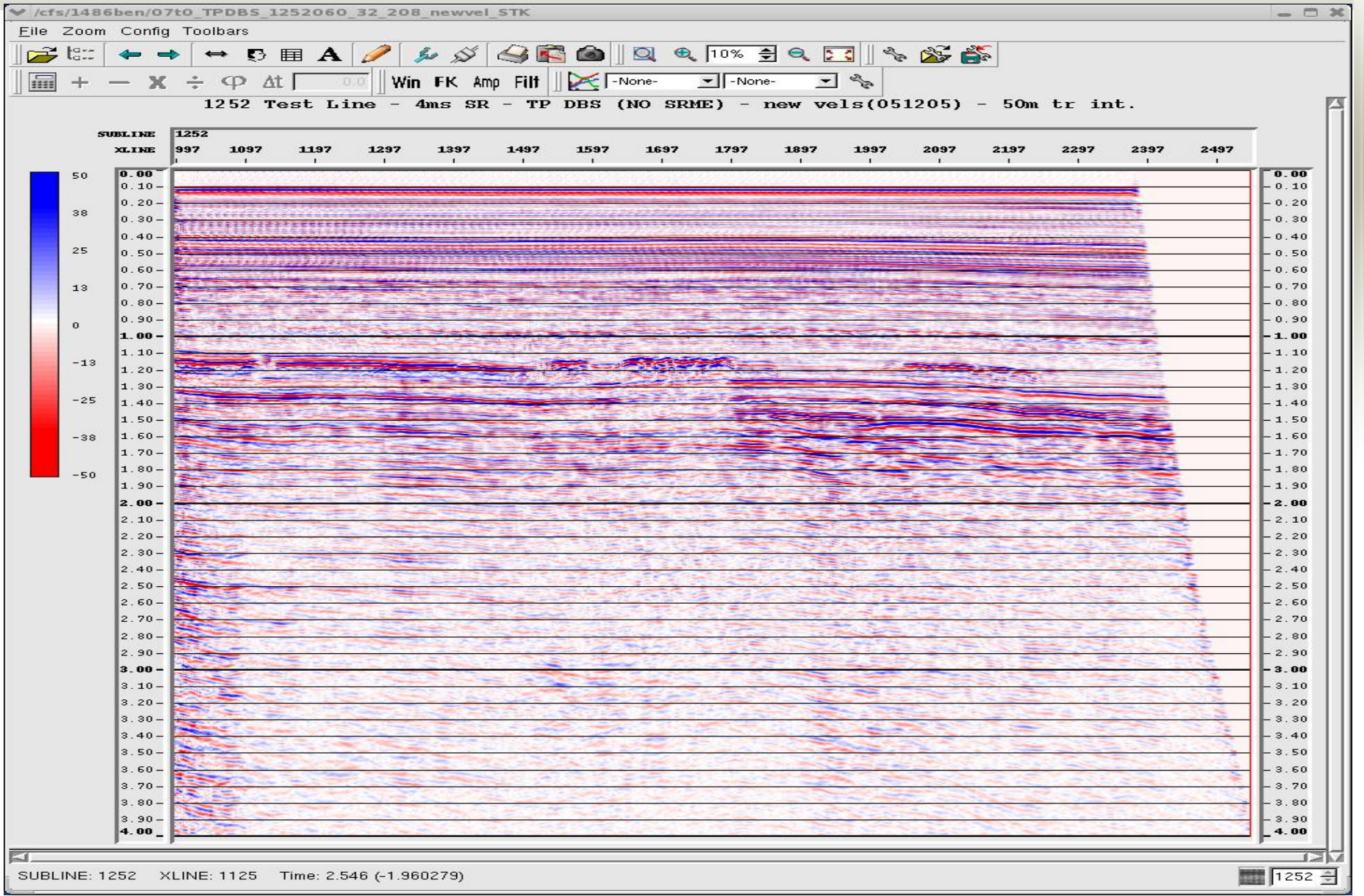
Stack with SRME+TP DBS



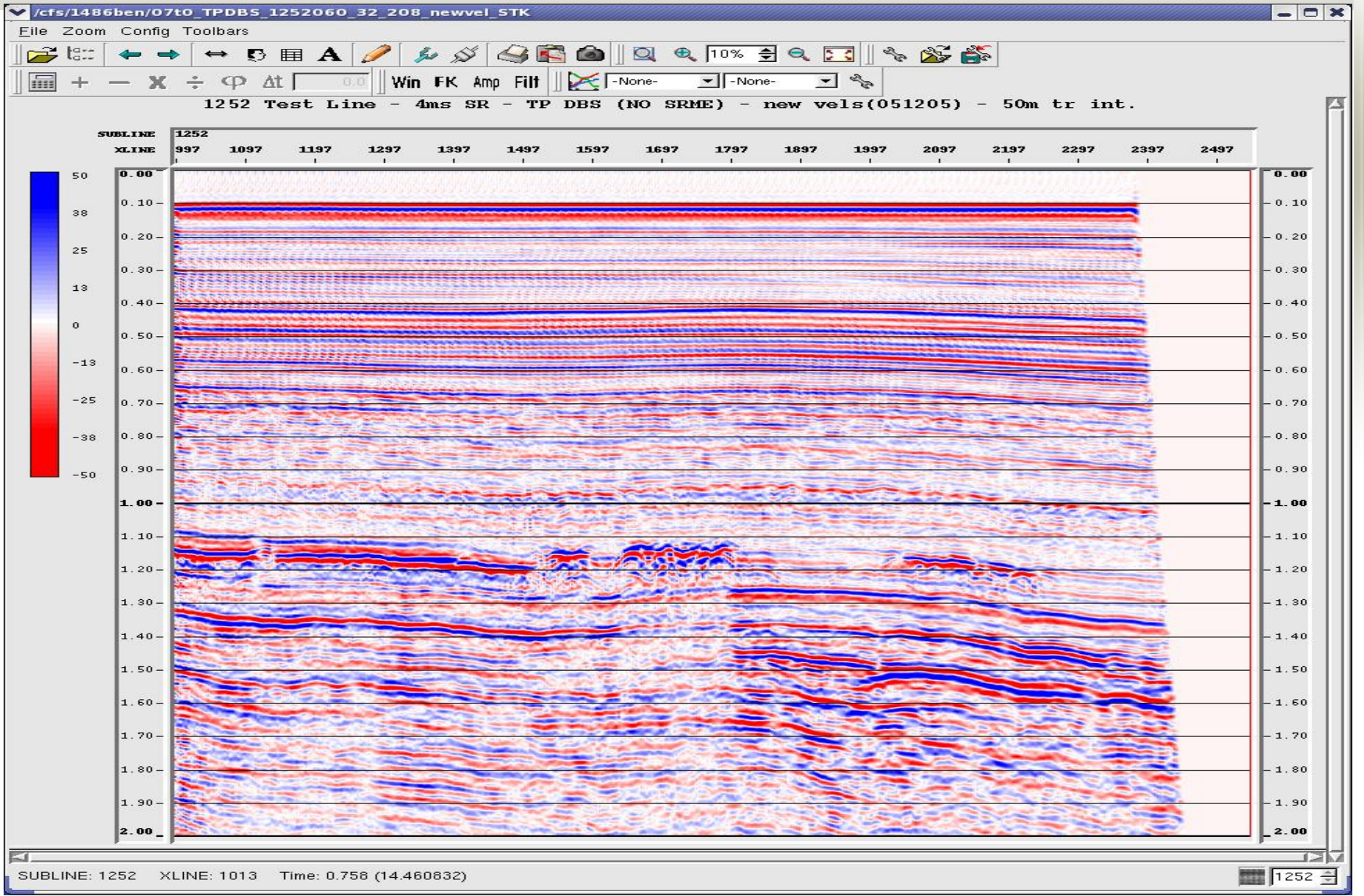
Stack with TP DBS+SRME



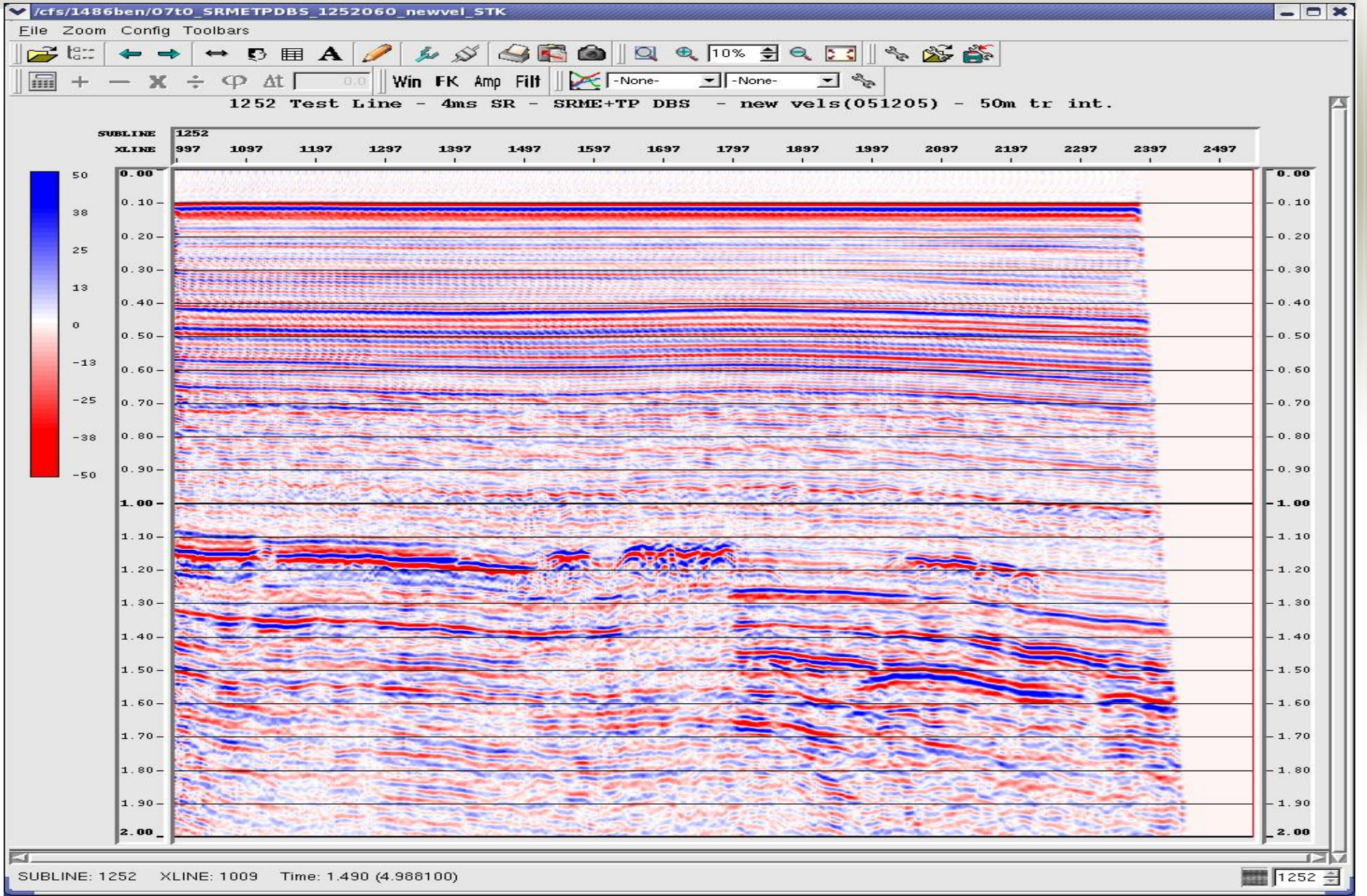
Stack with TP DBS only



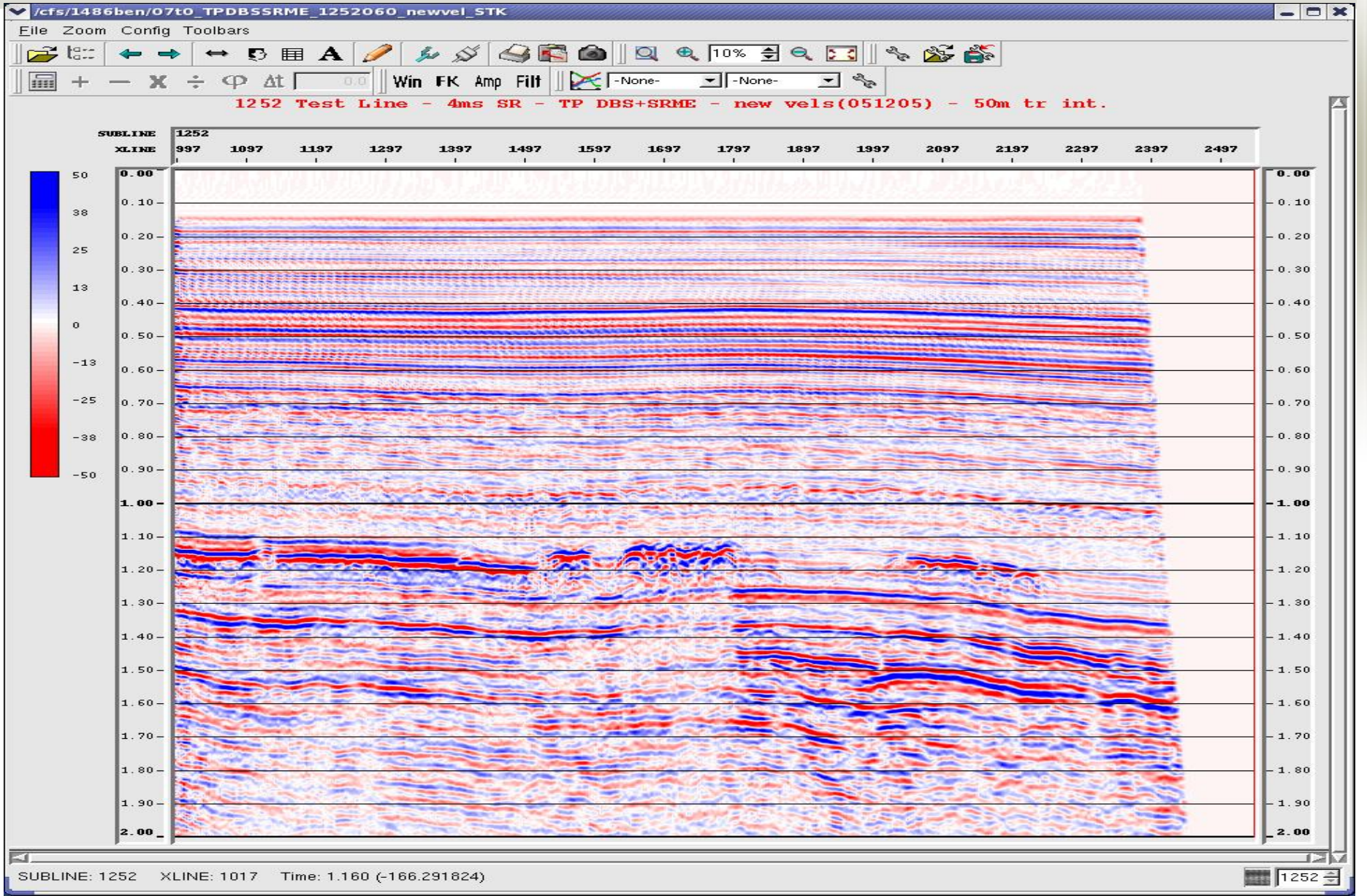
Stack with TP DBS only



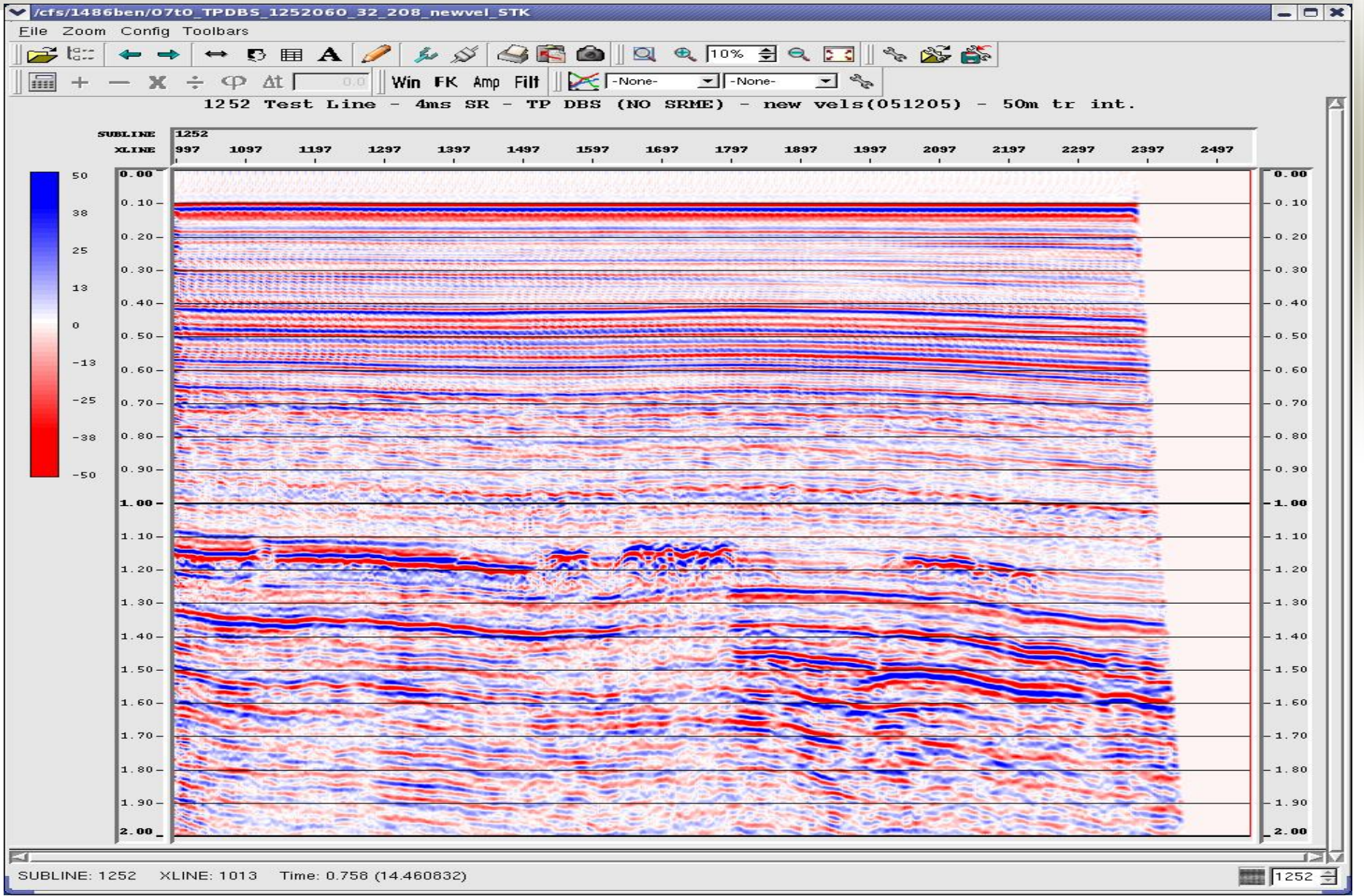
Stack with SRME+TP DBS



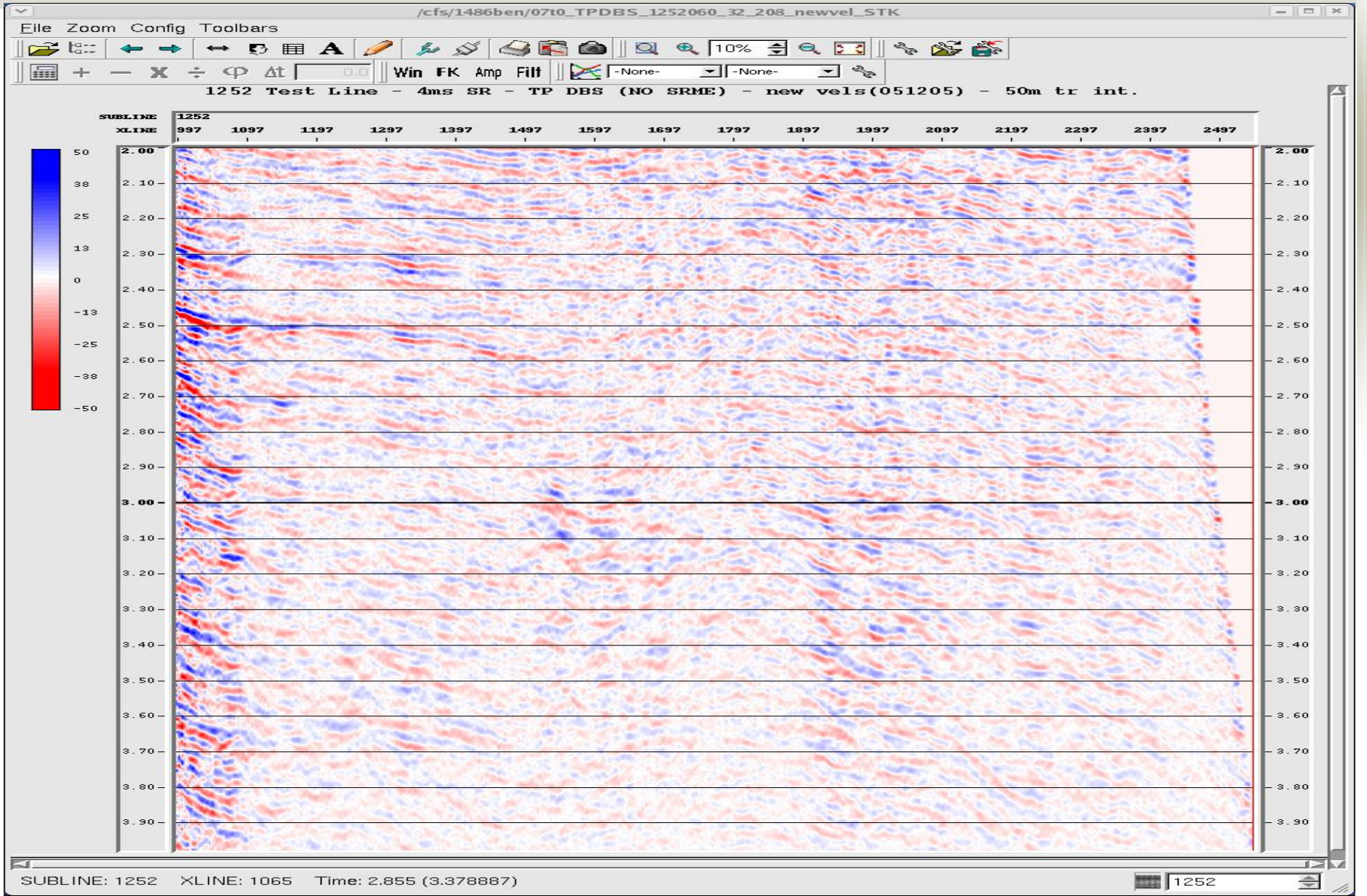
Stack with TP DBS+SRME



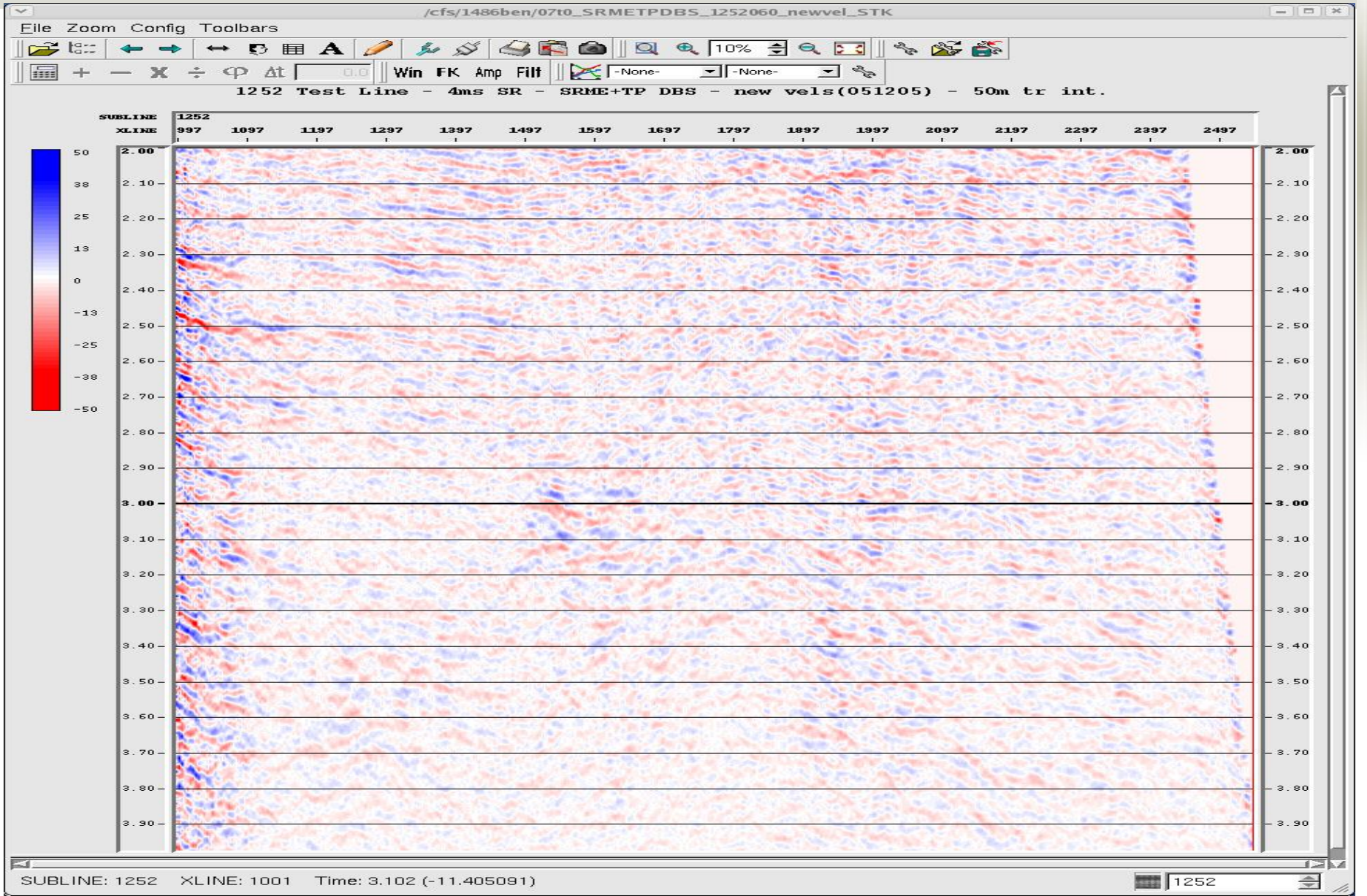
Stack with TP DBS only



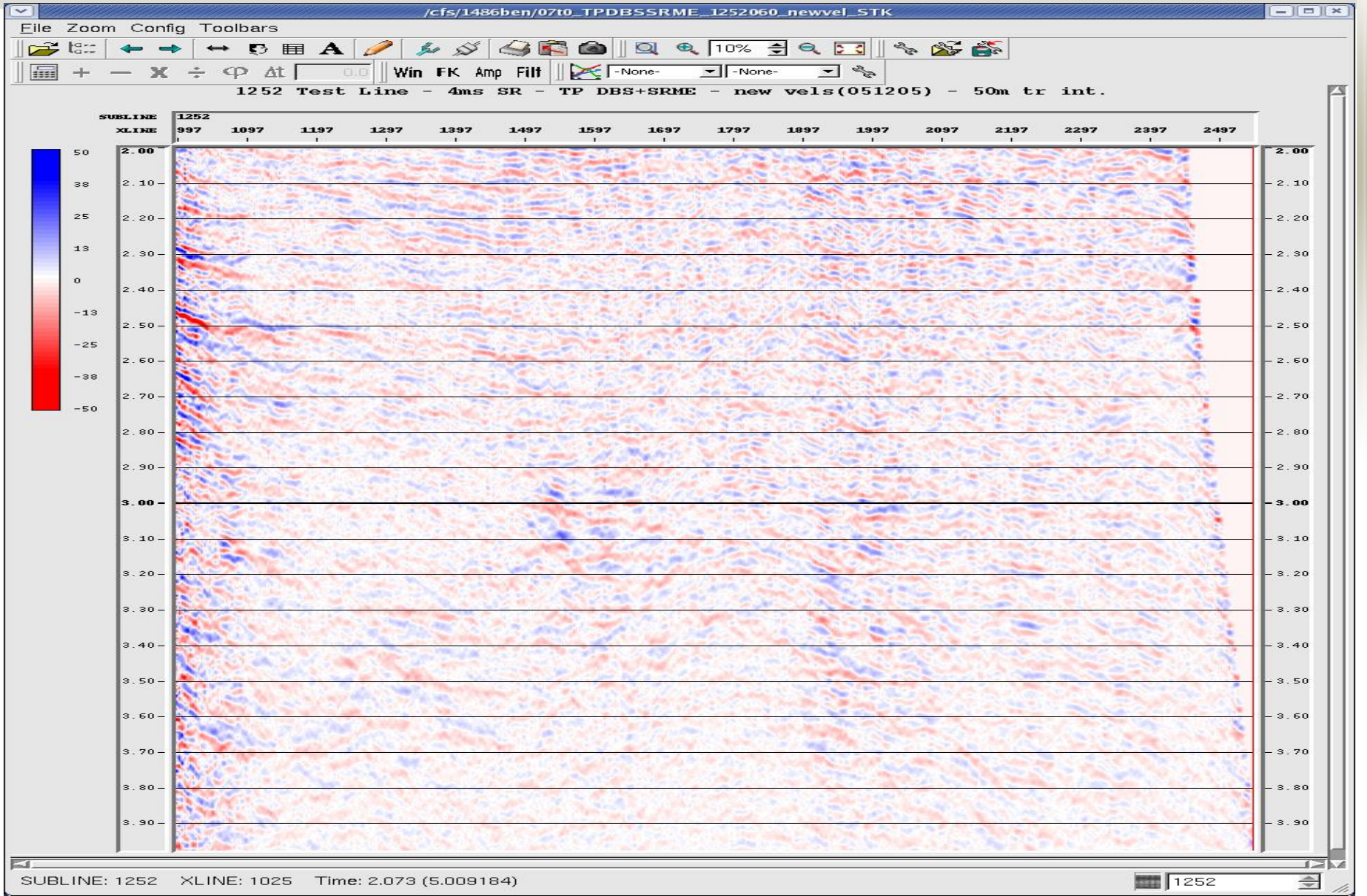
Stack with TP DBS only



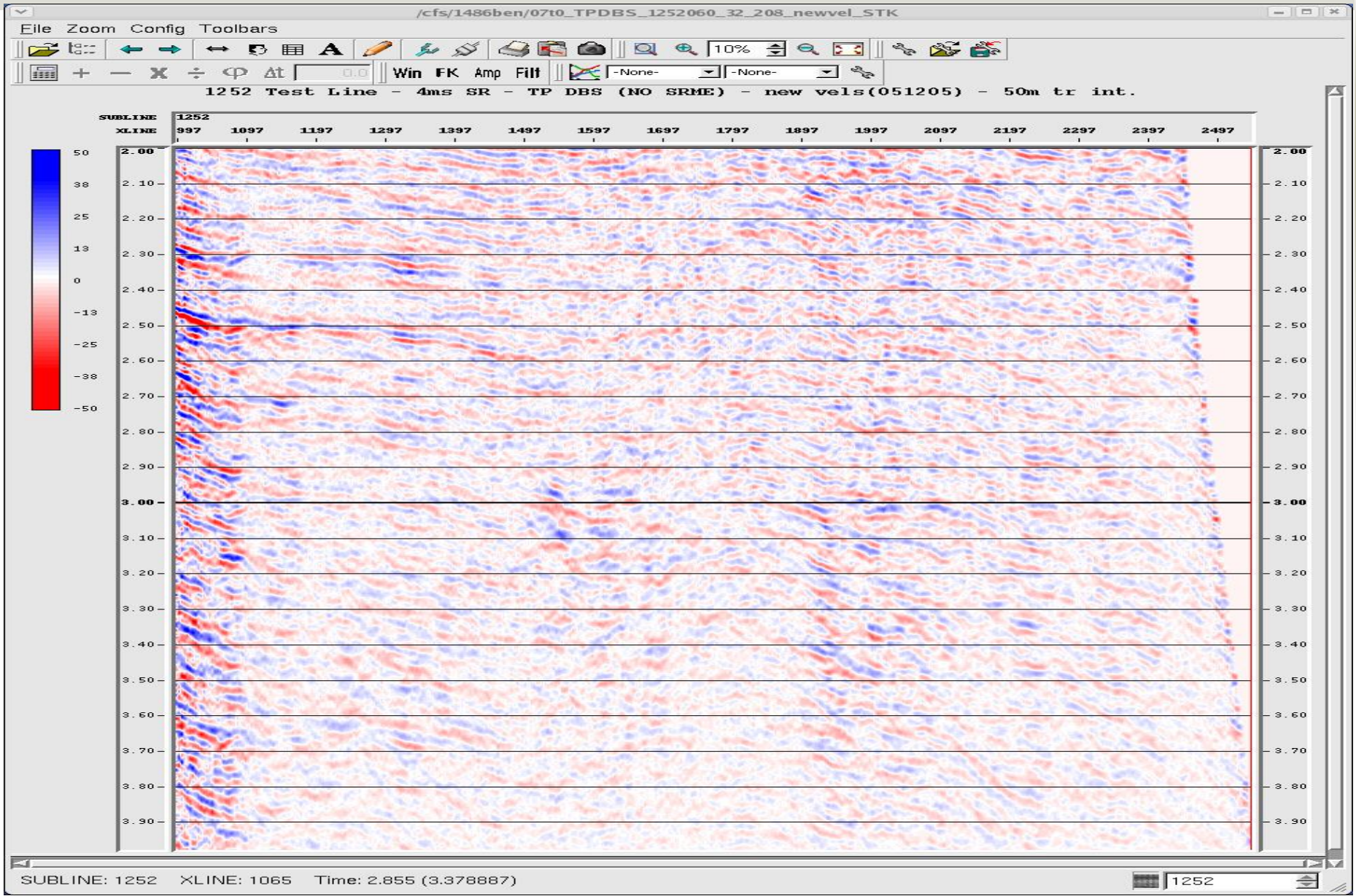
Stack with SRME+TP DBS



Stack with TP DBS+SRME



Stack with TP DBS only



03_SRME.ppt

Benaris T/39 P 3D/2D
SRME Stacks(new Vels) from test line 1252060.
08/12/05

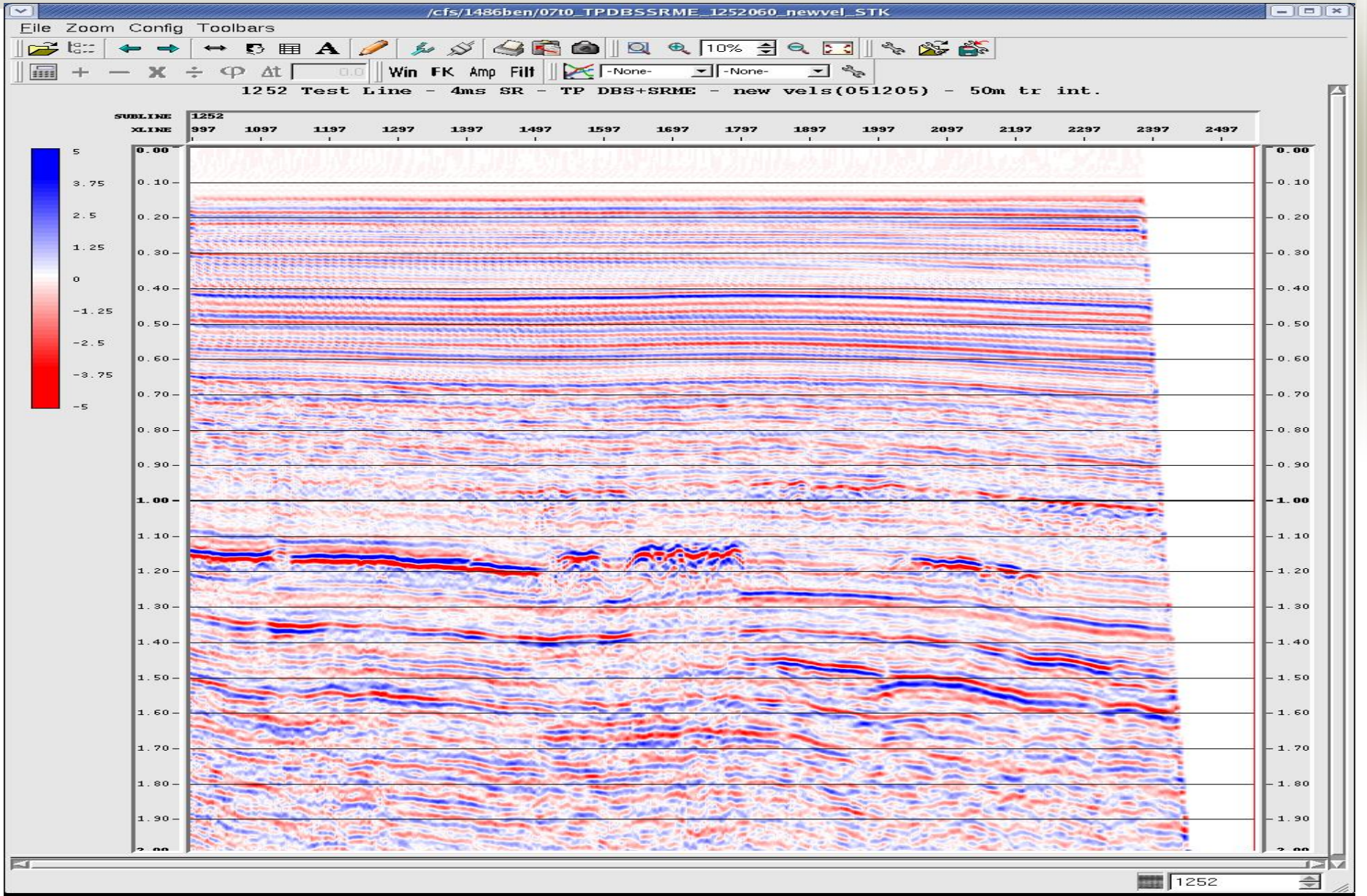
SUMMARY OF CONTENTS

- SRME tests on the 2D stack from sail-line 1252060 (with revised velocity picks). 2 other options are compared to the previous choice.

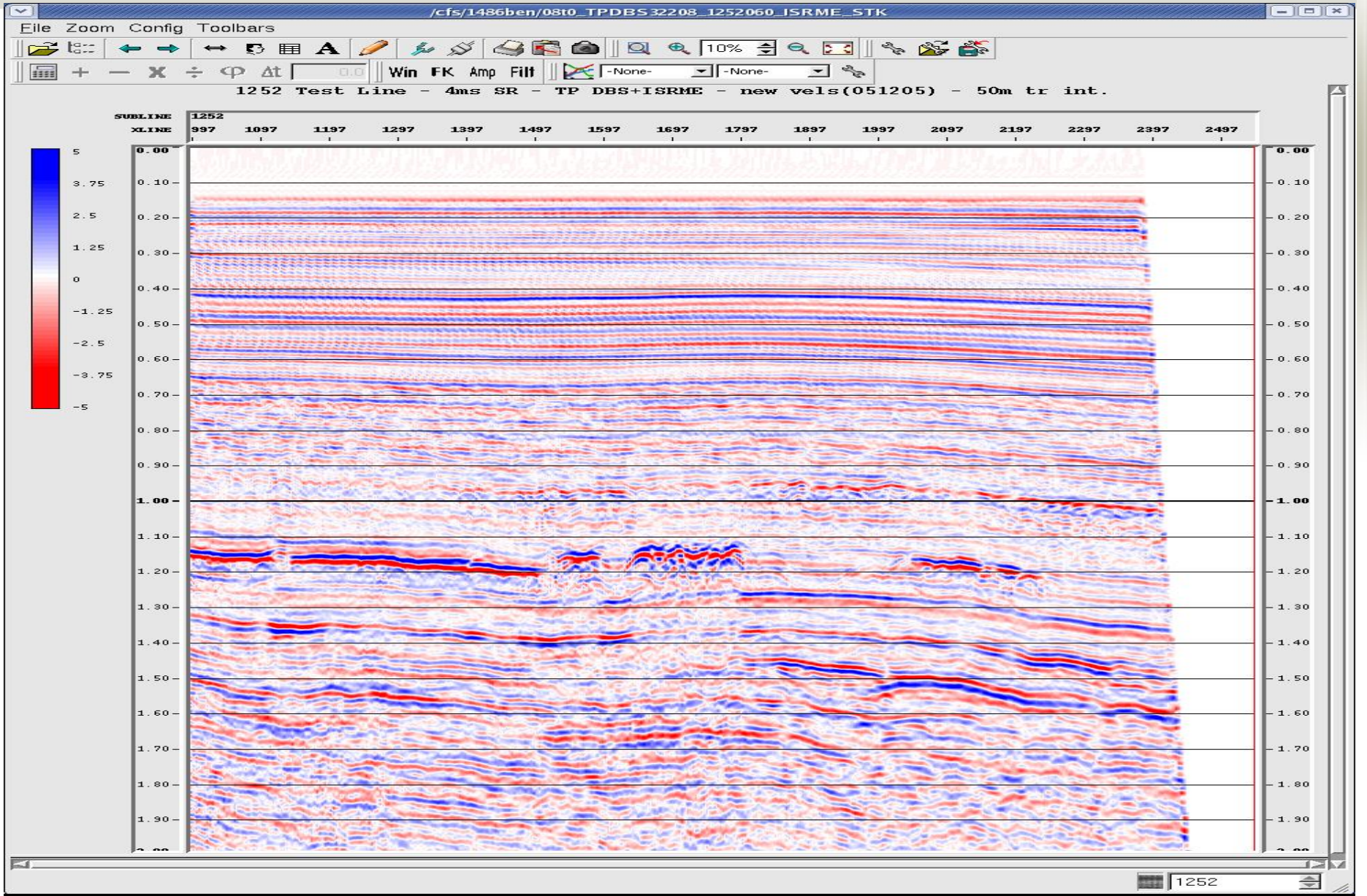
  The ISRME is an extra iteration of SRME. The other option is the IME (Interbed Multiple Elimination) applied in addition to the single pass SRME.

- The stacks are produced from a port source into the inner port streamer. Velocity analyses were run every 1km to stack the data and an outer mute picked from the gathers. A vvt spherical divergence and an exponential gain (9dB 0-3sec) are the only scaling applied. The data is binned at a 12.5m interval at approx. 116 fold and every trace is displayed.

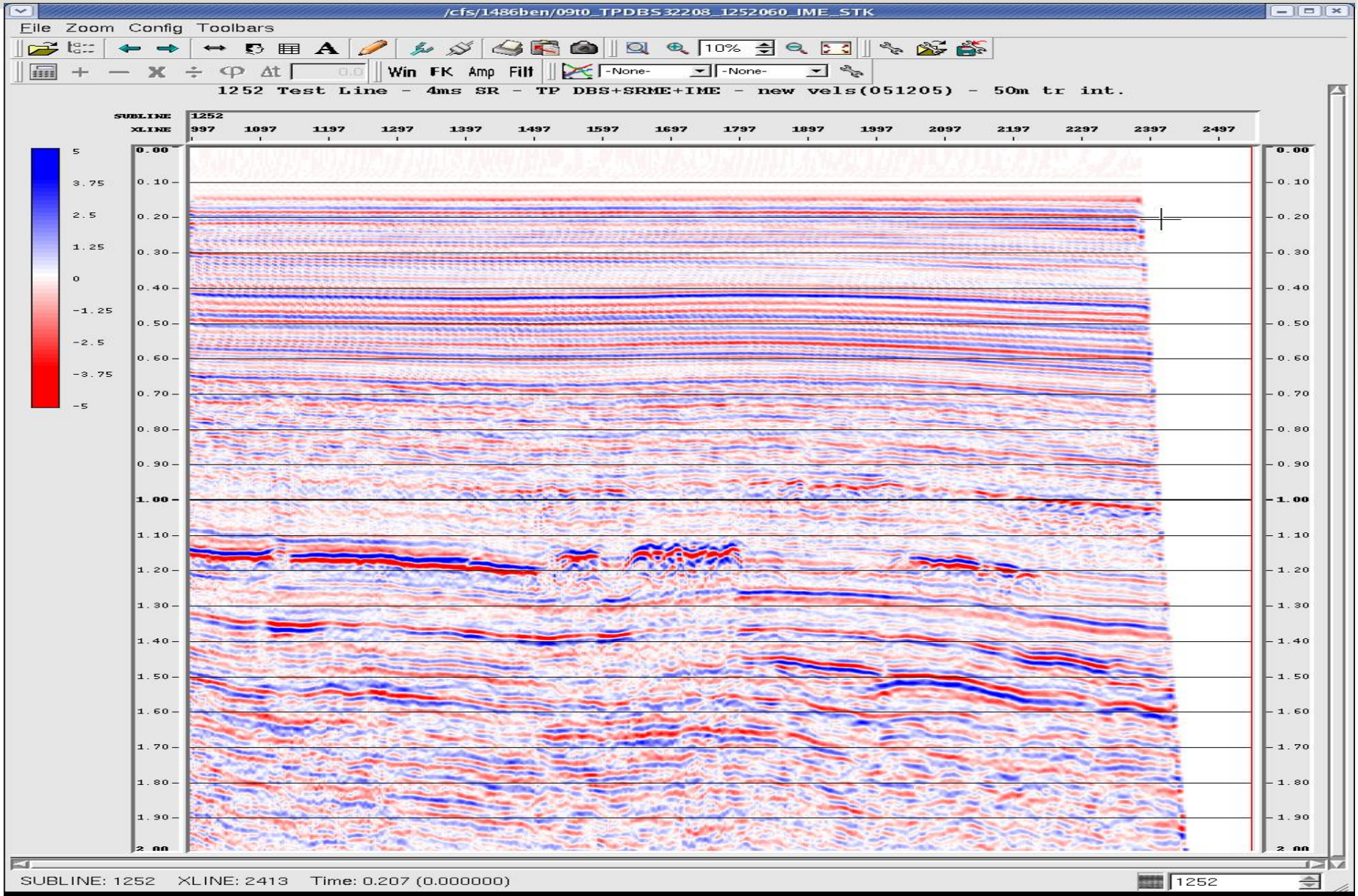
Stack with TP DBS+SRME+AGC (previous choice)



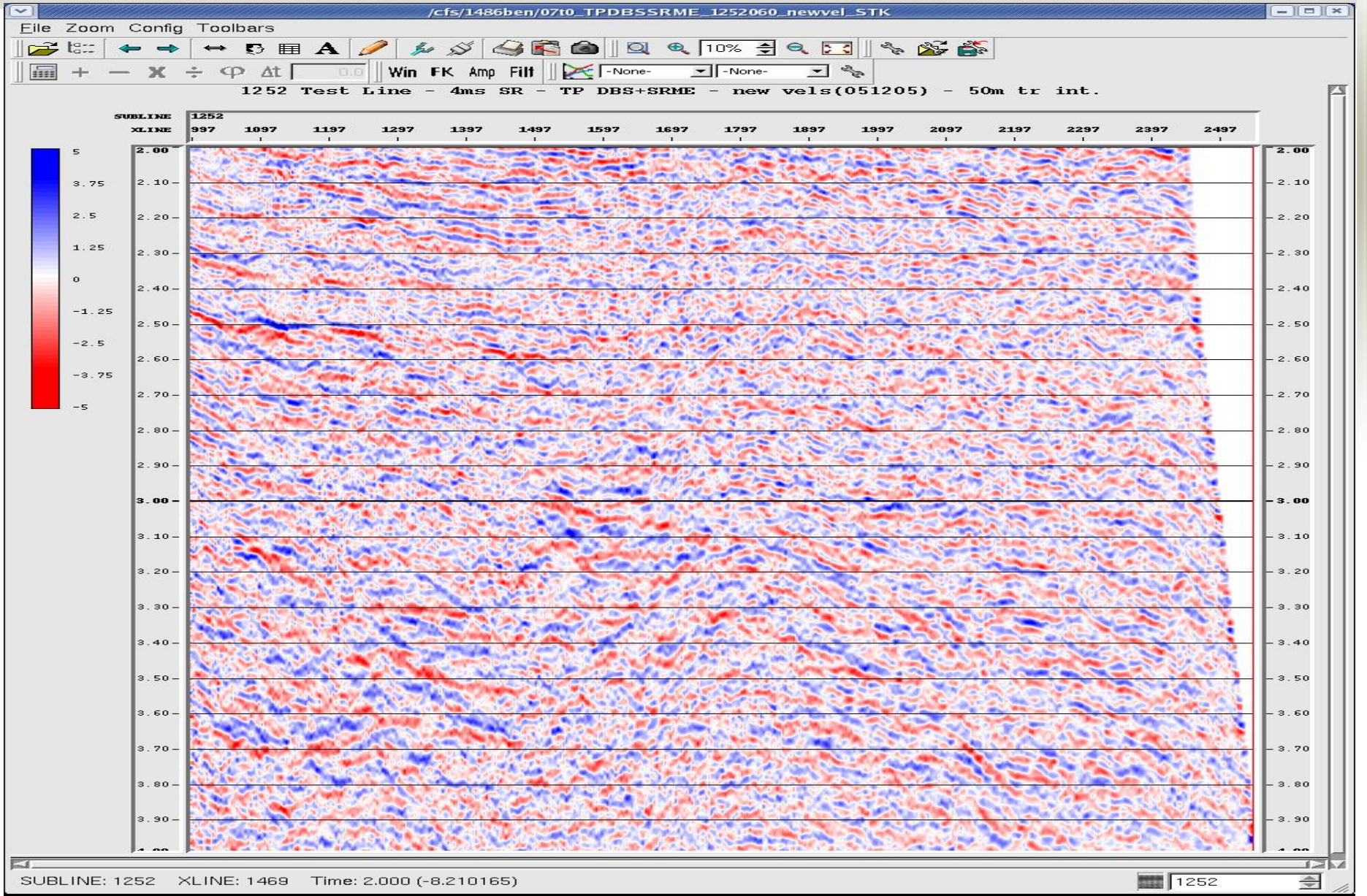
Stack with TP DBS+ISRME+AGC



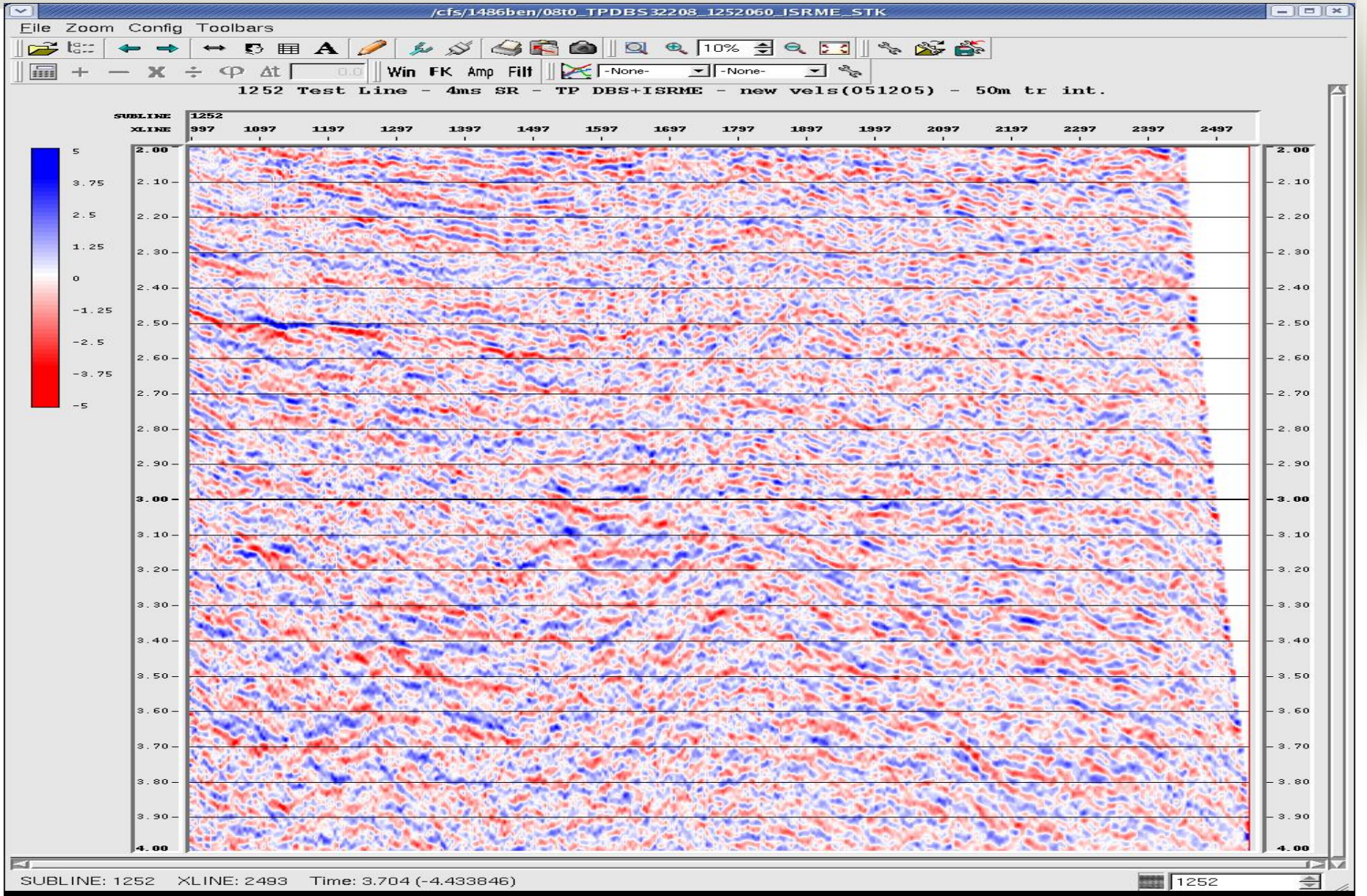
Stack with TP DBS+SRME+IME+AGC



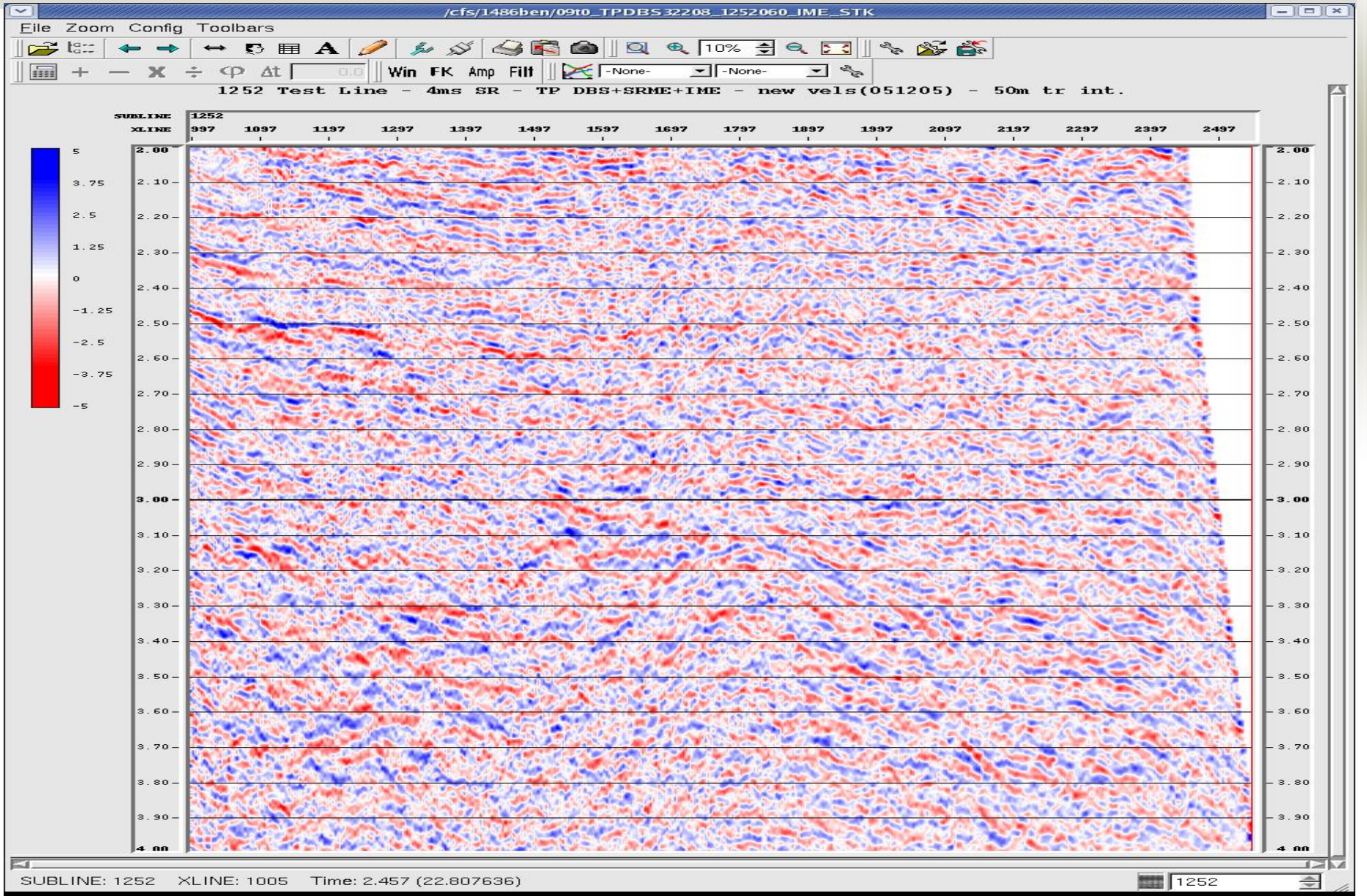
Stack with TP DBS+SRME+AGC (previous choice)



Stack with TP DBS+ISRME+AGC



Stack with TP DBS+SRME+IME+AGC



03_SRME.ppt

Benaris T/39 P 3D/2D
SRME Stacks and Example Gathers(new Vels) from test line 1252060.
09/12/05

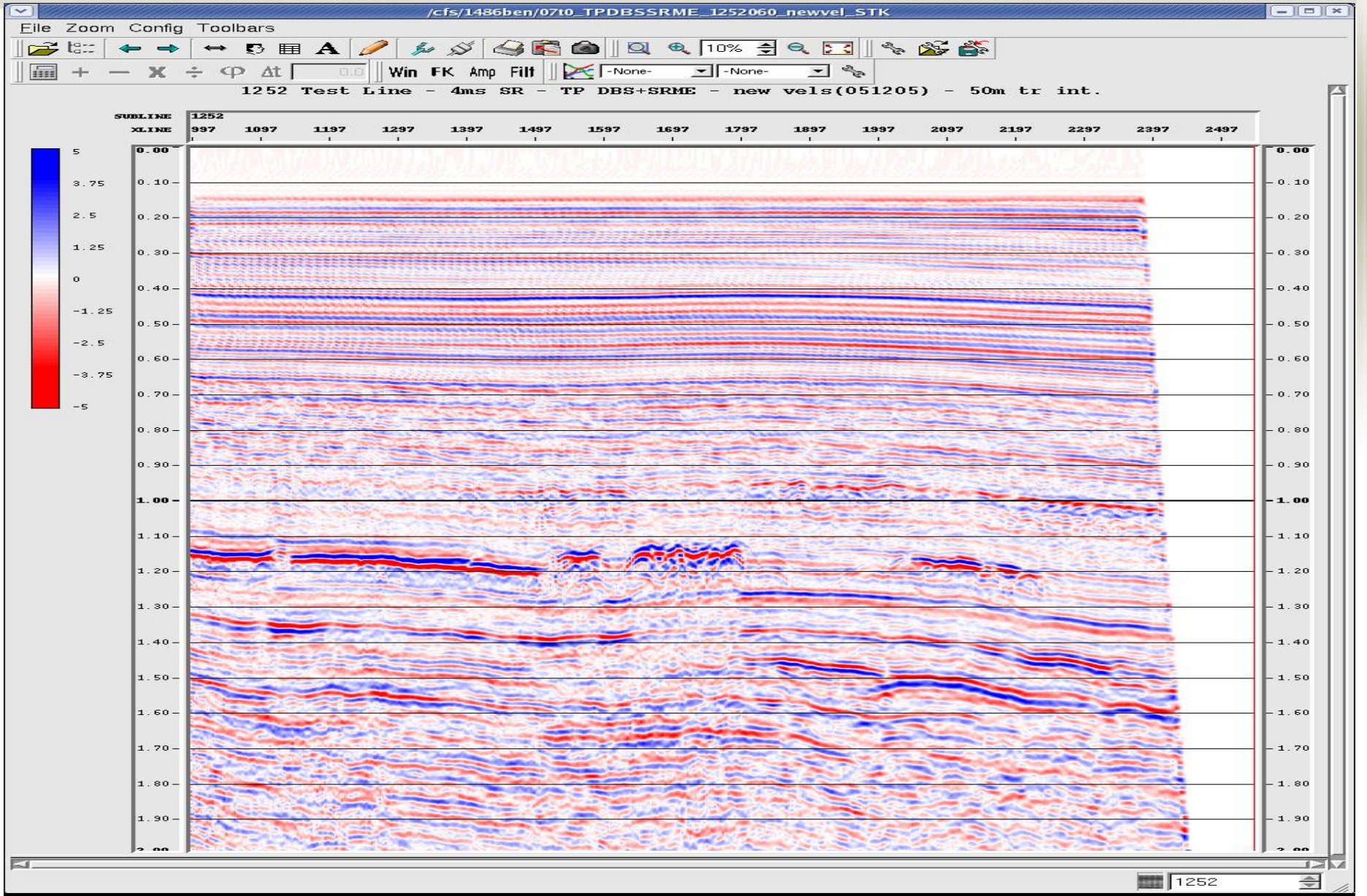
SUMMARY OF CONTENTS

- SRME tests on the 2D stack from sail-line 1252060 (with revised velocity picks). 2 other options are compared to the previous choice.

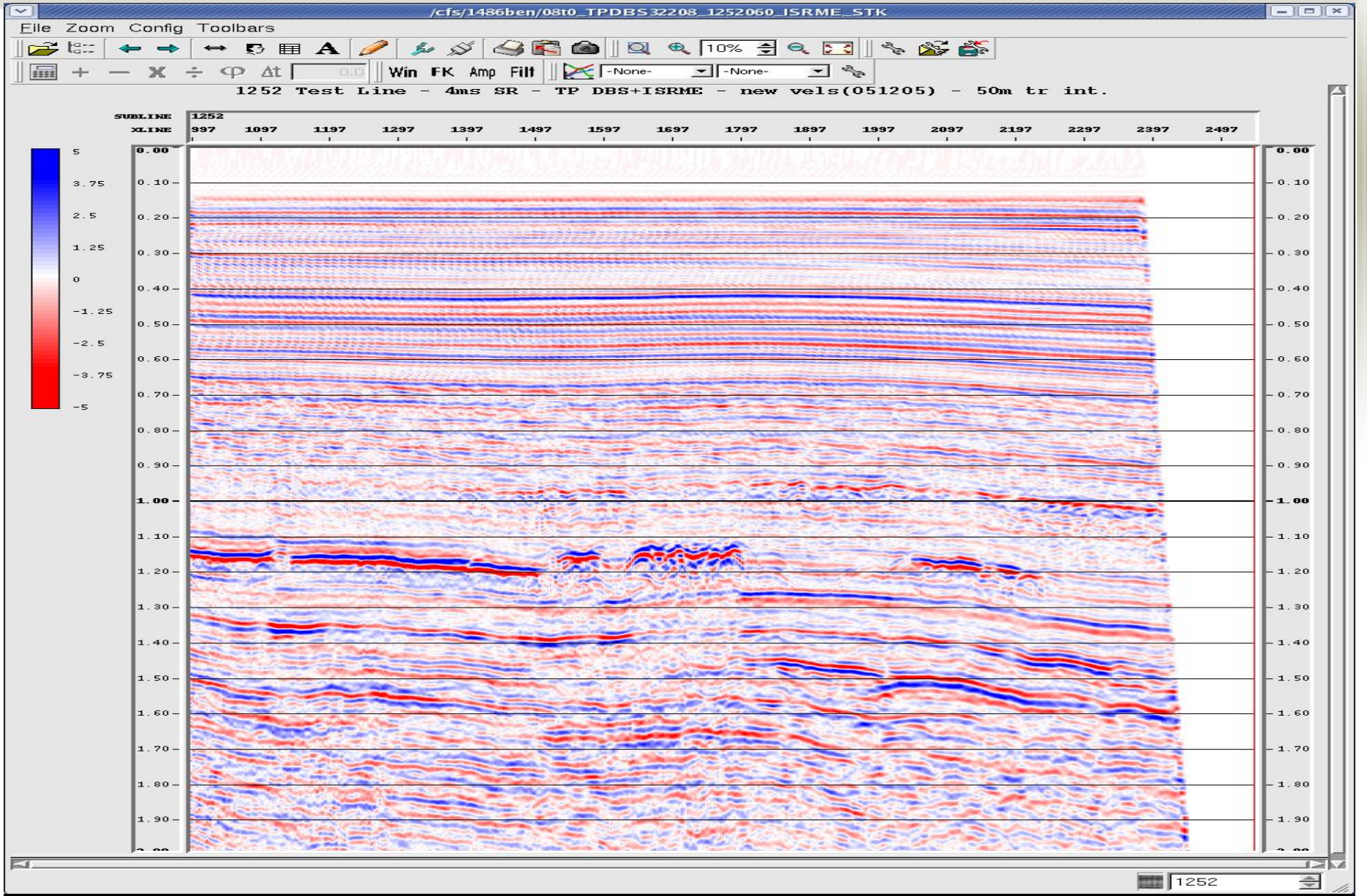
  The ISRME is an extra iteration of SRME. The other option is the IME (Interbed Multiple Elimination) applied in addition to the single pass SRME.

- The stacks are produced from a port source into the inner port streamer. Velocity analyses were run every 1km to stack the data and an outer mute picked from the gathers. A vvt spherical divergence and an exponential gain (9dB 0-3sec) are the only scaling applied. The data is binned at a 12.5m interval at approx. 116 fold and every 4^{th} trace is displayed.

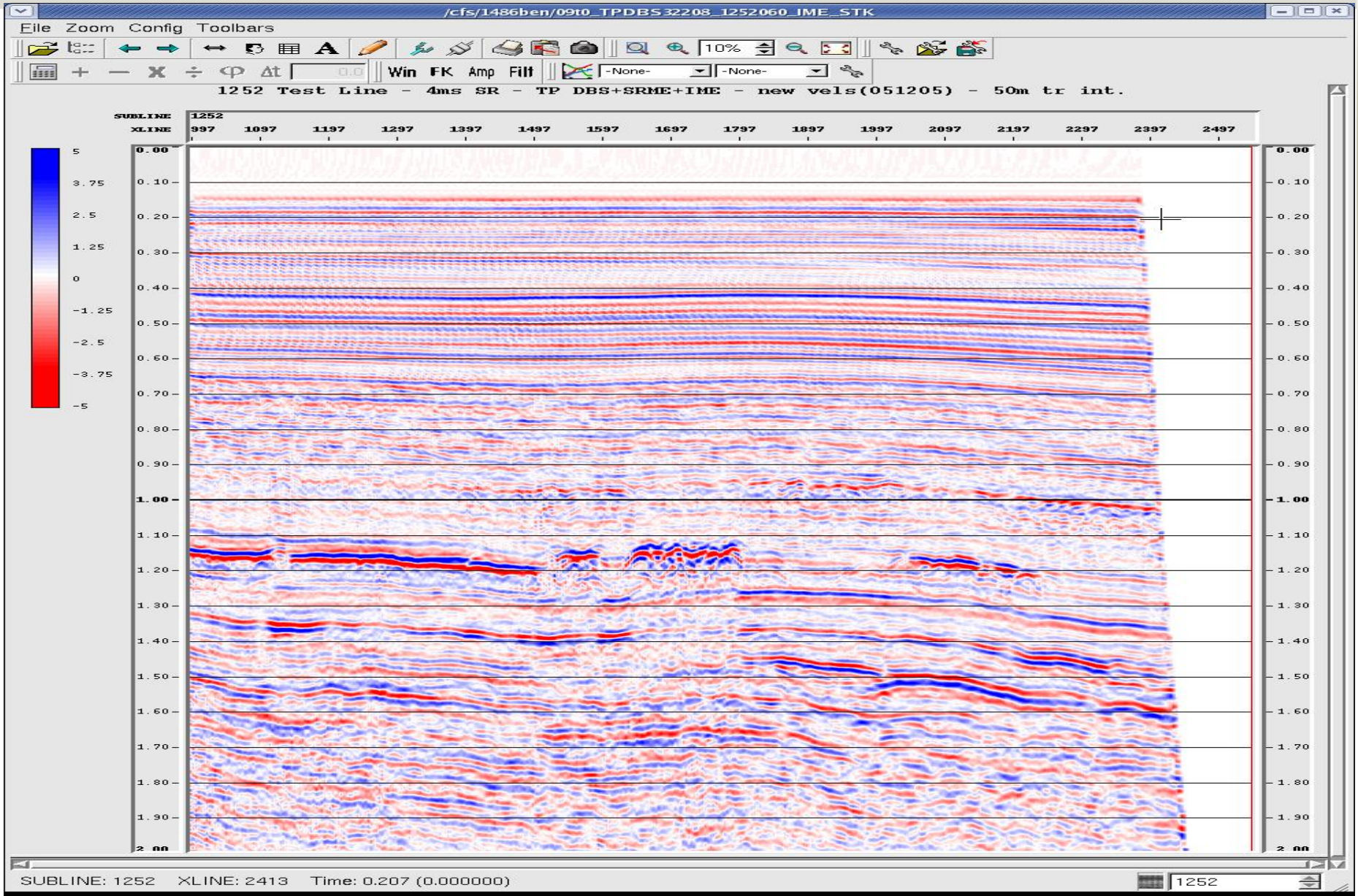
Stack with TP DBS+SRME+AGC (previous choice)



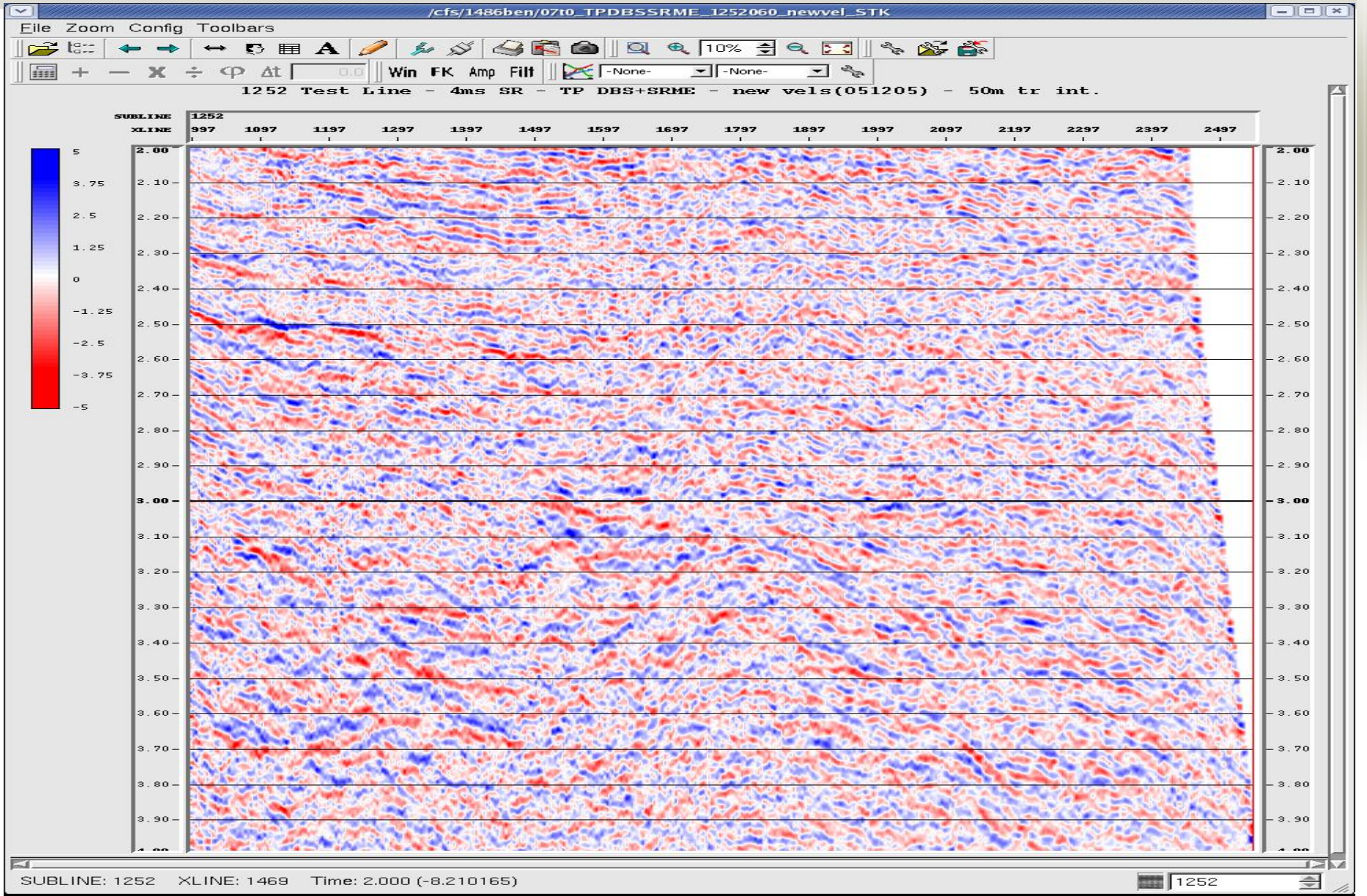
Stack with TP DBS+ISRME+AGC



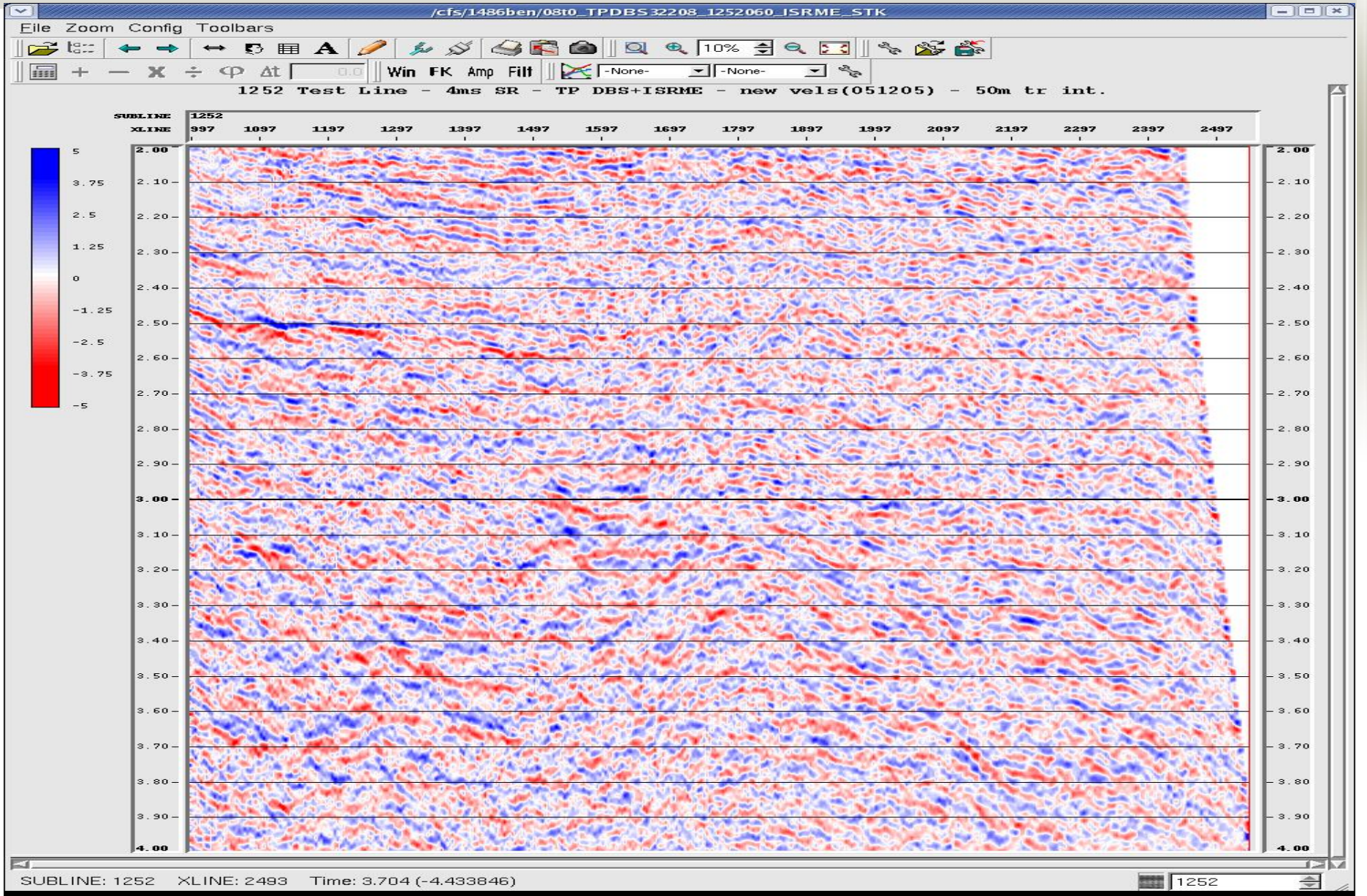
Stack with TP DBS+SRME+IME+AGC



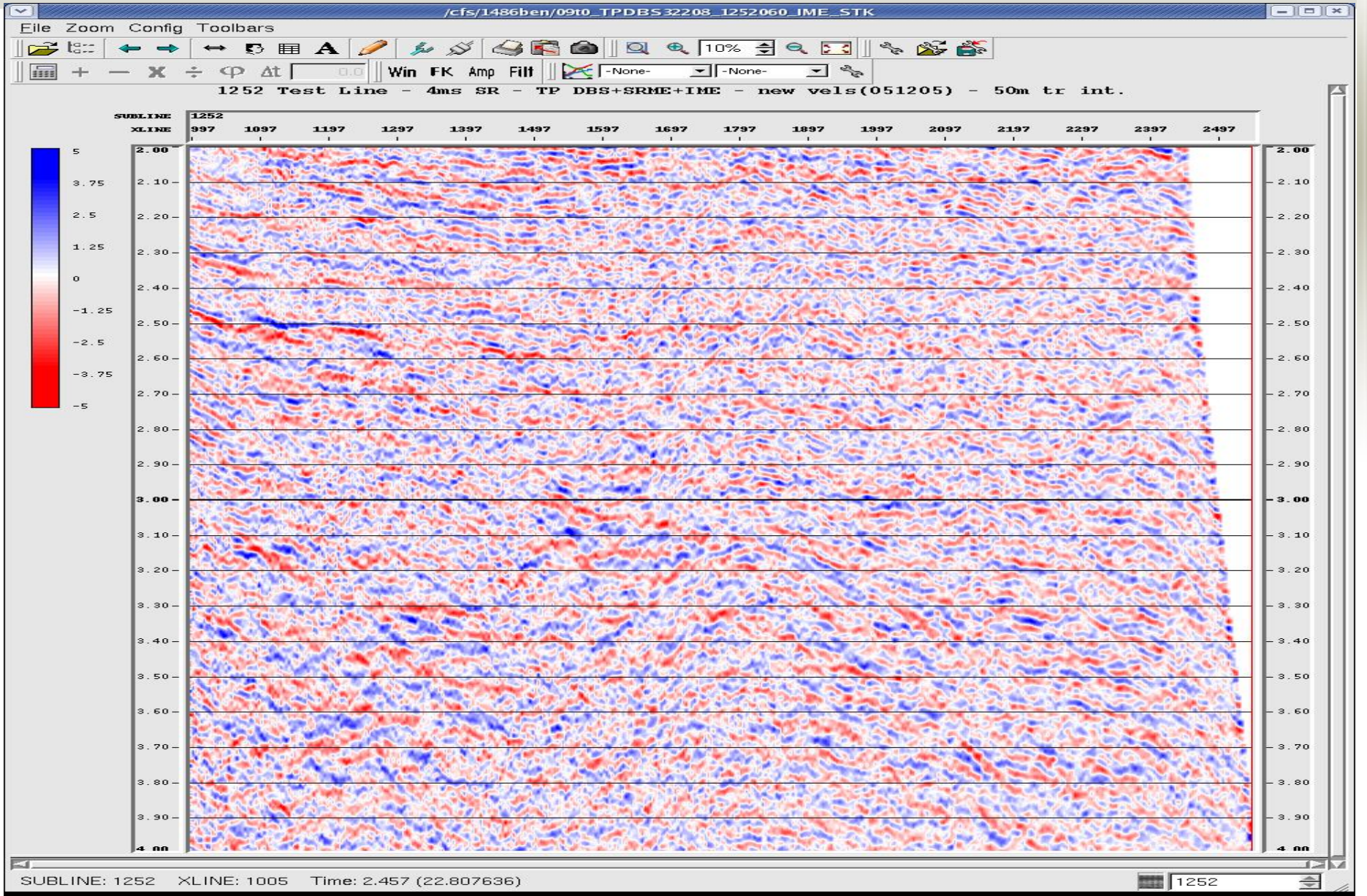
Stack with TP DBS+SRME+AGC (previous choice)



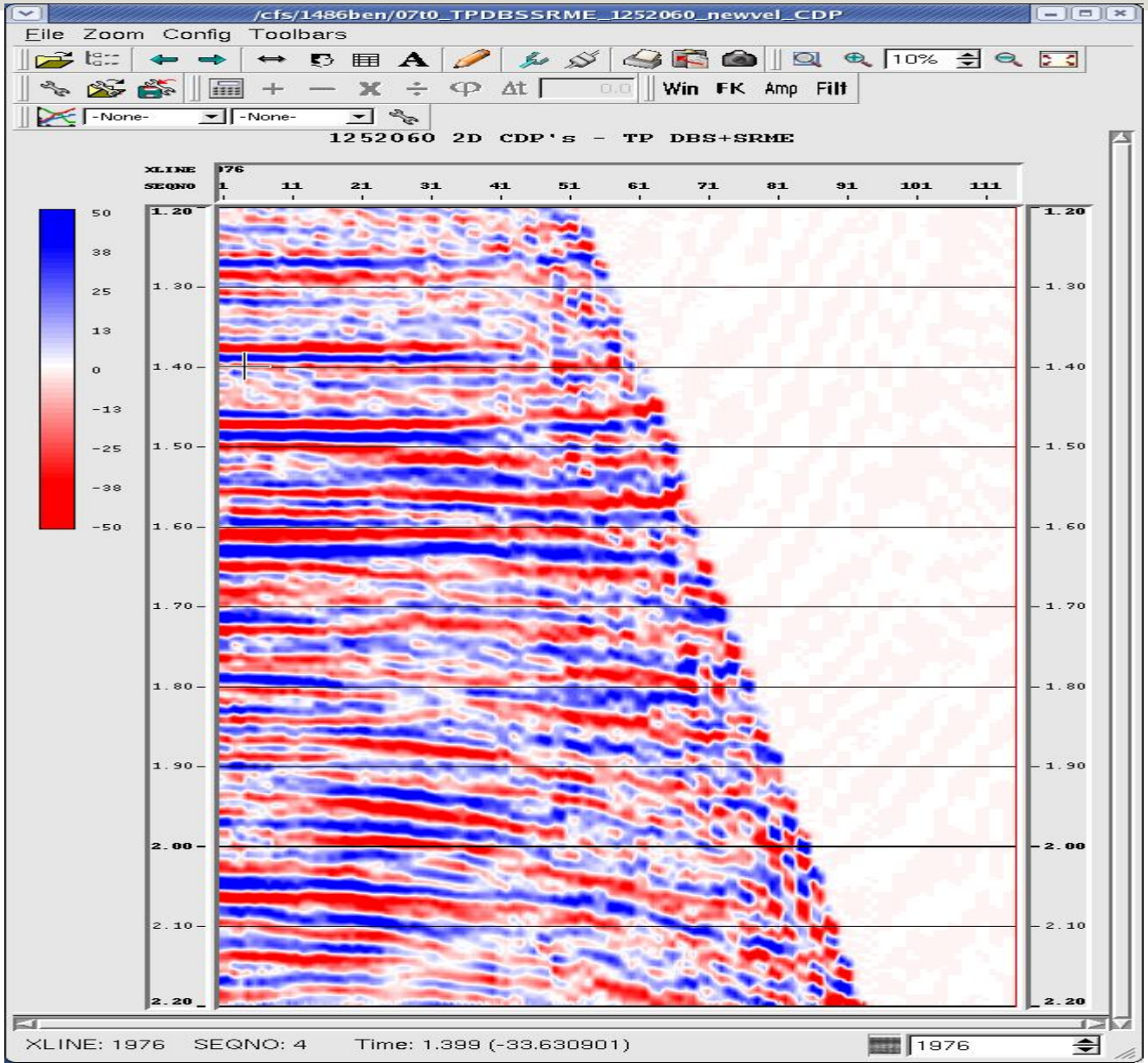
Stack with TP DBS+ISRME+AGC



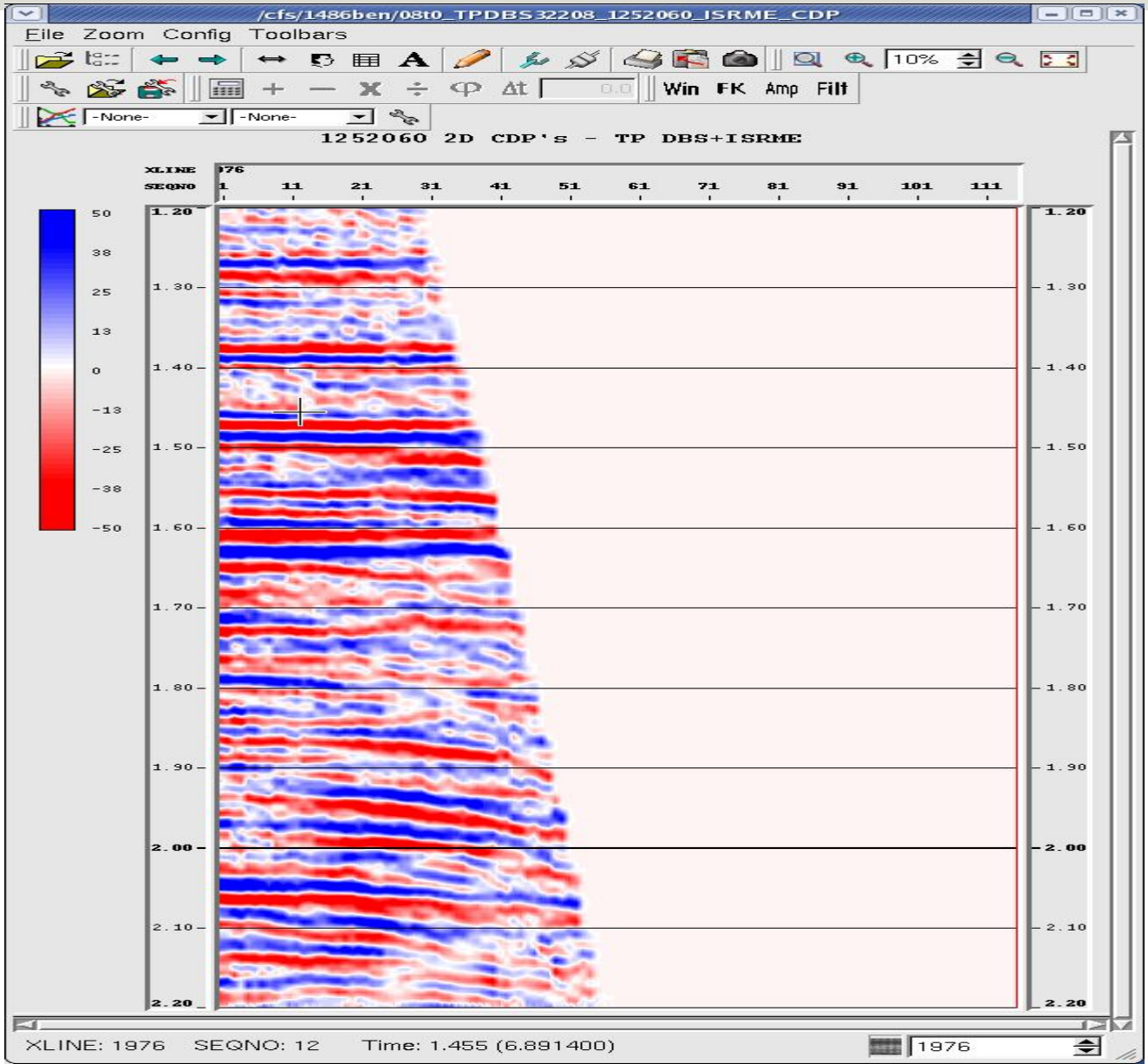
Stack with TP DBS+SRME+IME+AGC



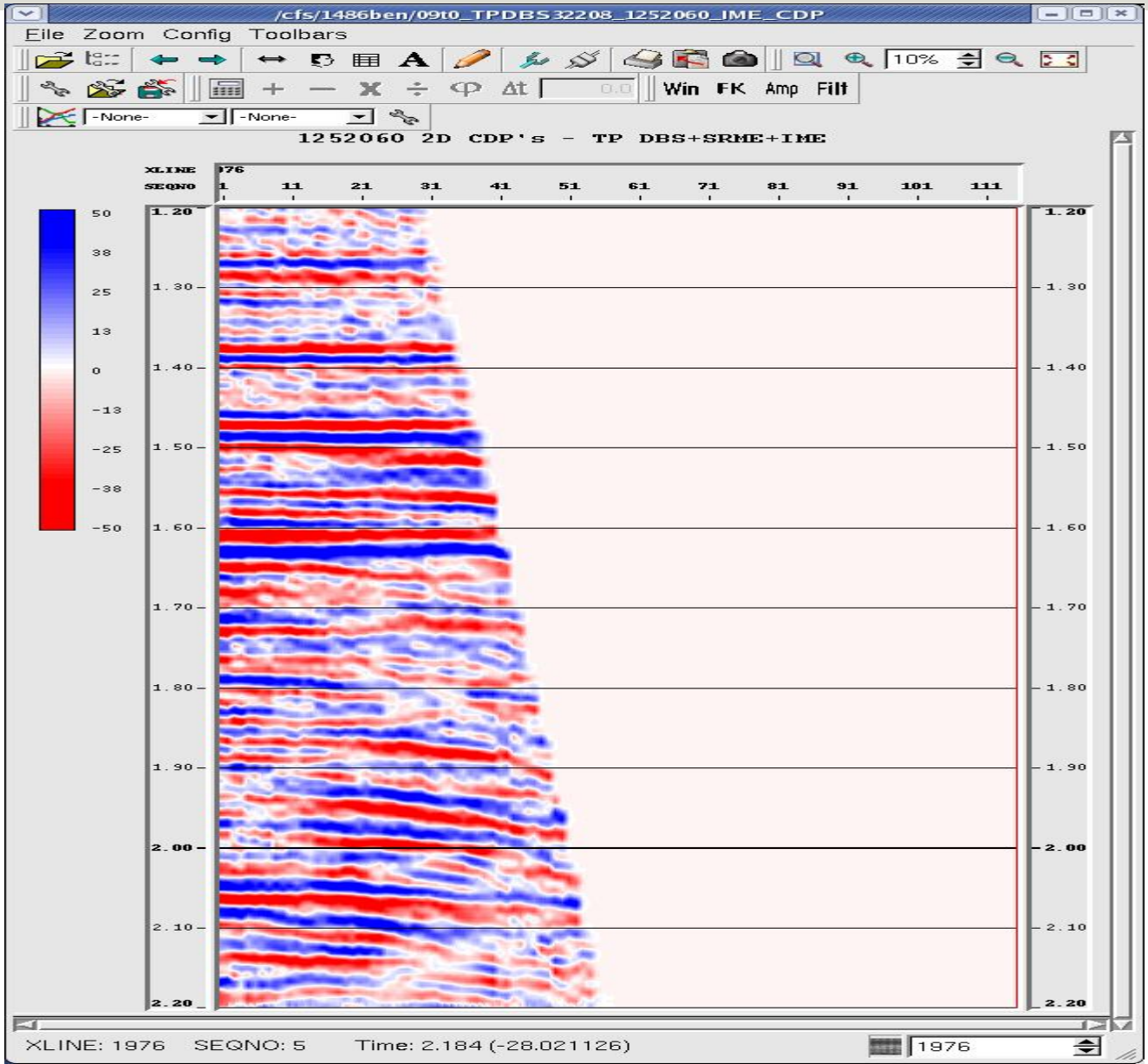
2D CDP Gather with TP DBS+SRME (previous choice)



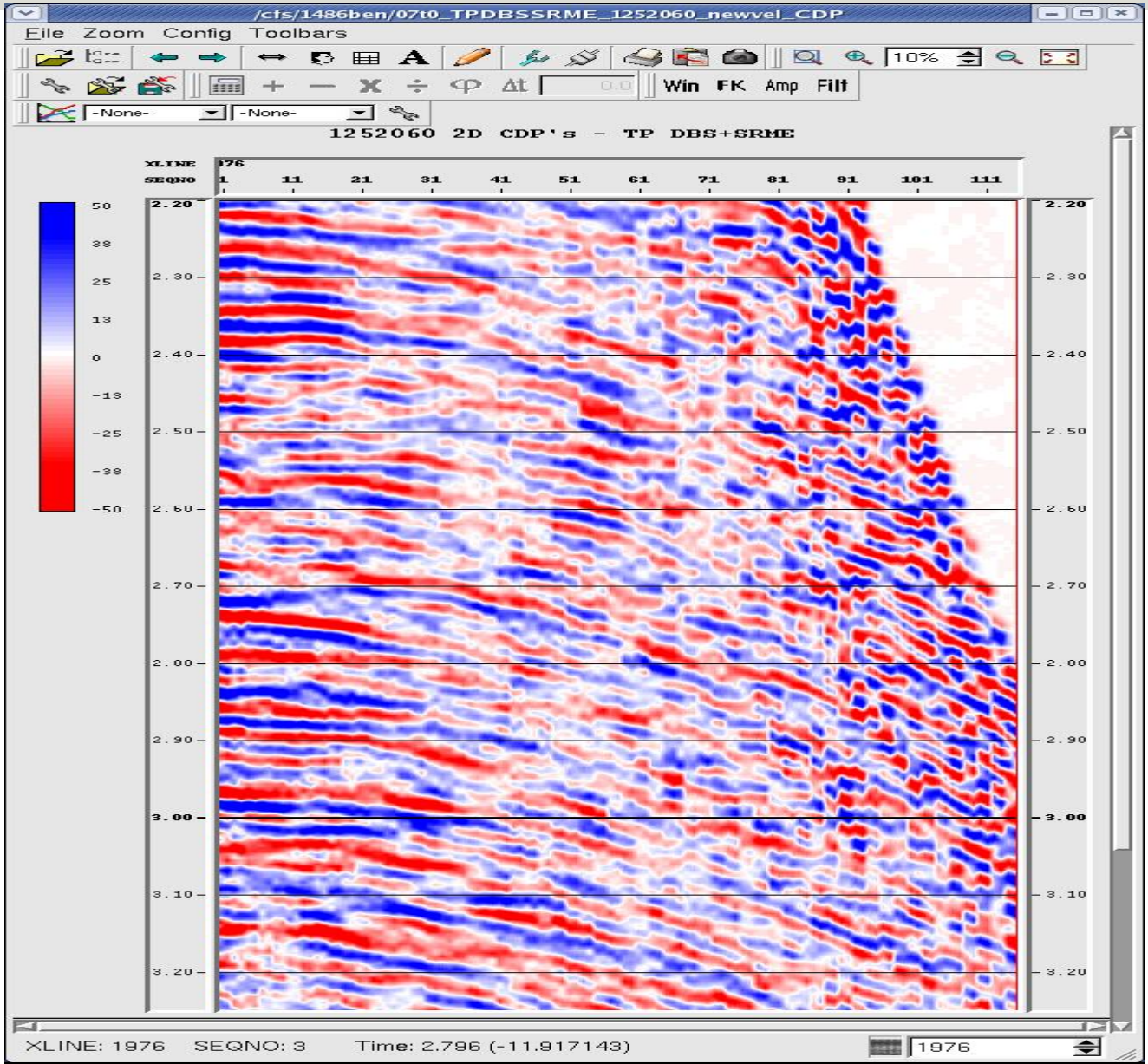
2D CDP Gather with TP DBS+ISRME



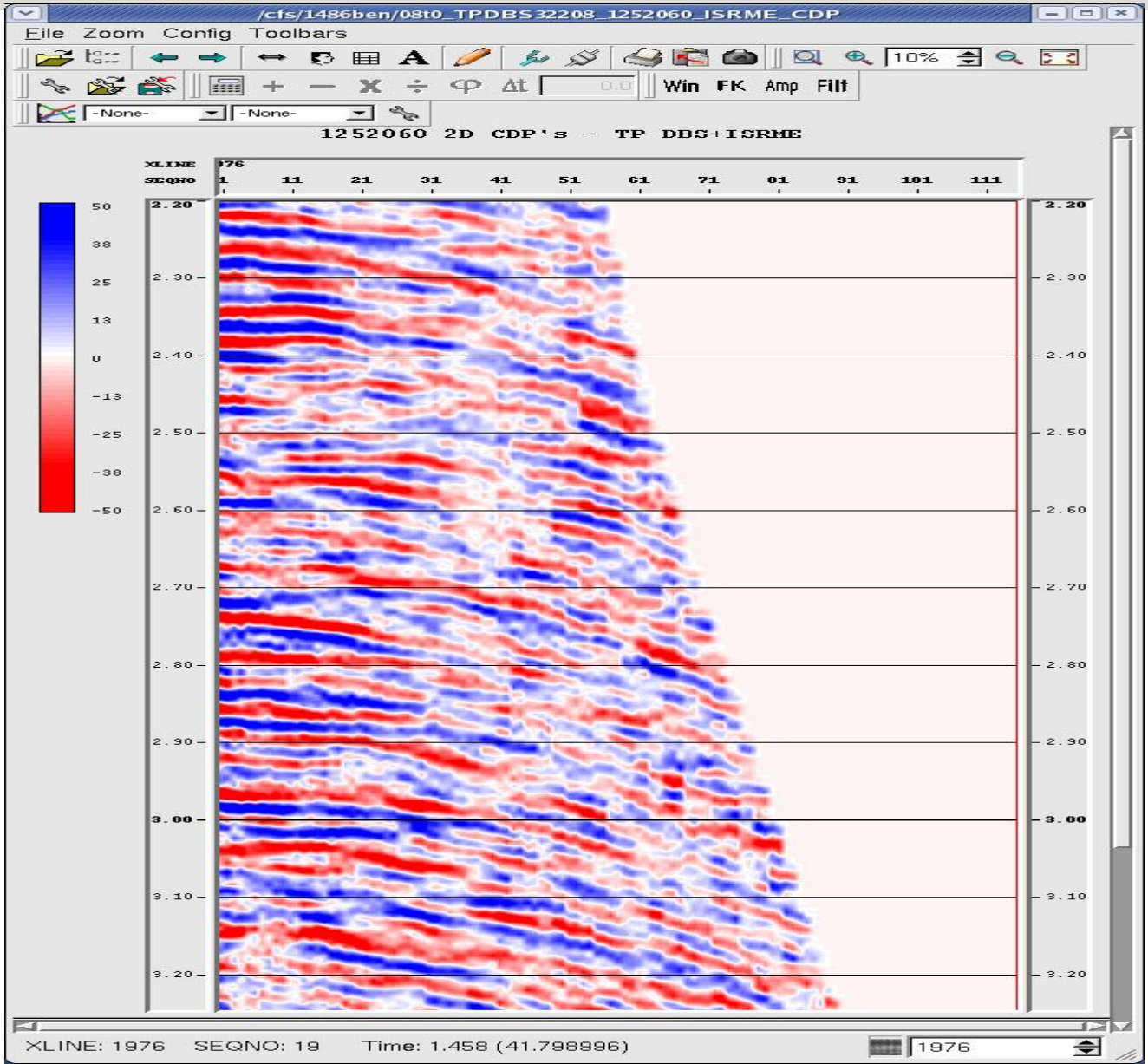
2D CDP Gather with TP DBS+SRME+IME



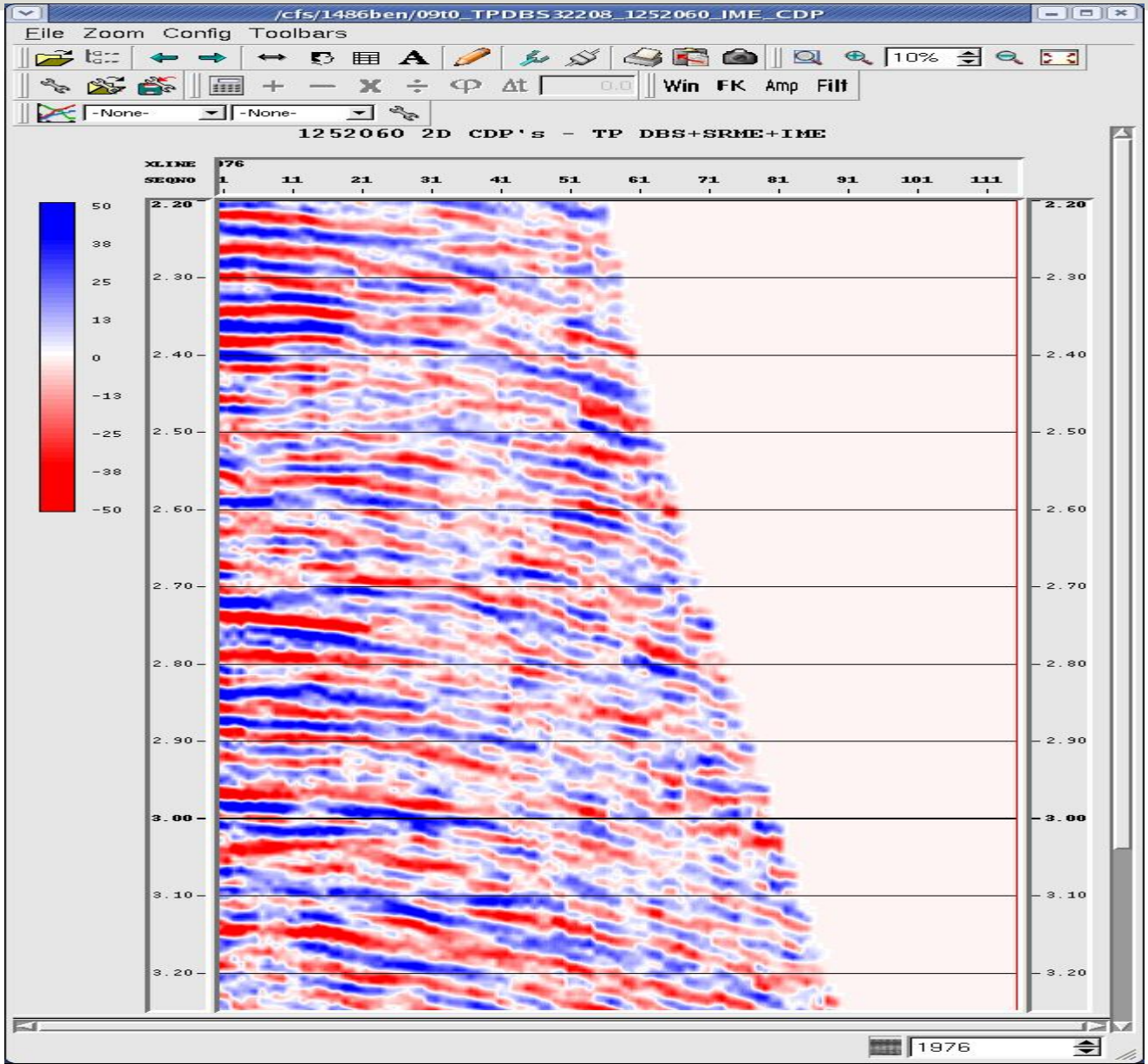
2D CDP Gather with TP DBS+SRME (previous choice)



2D CDP Gather with TP DBS+ISRME



2D CDP Gather with TP DBS+SRME+IME



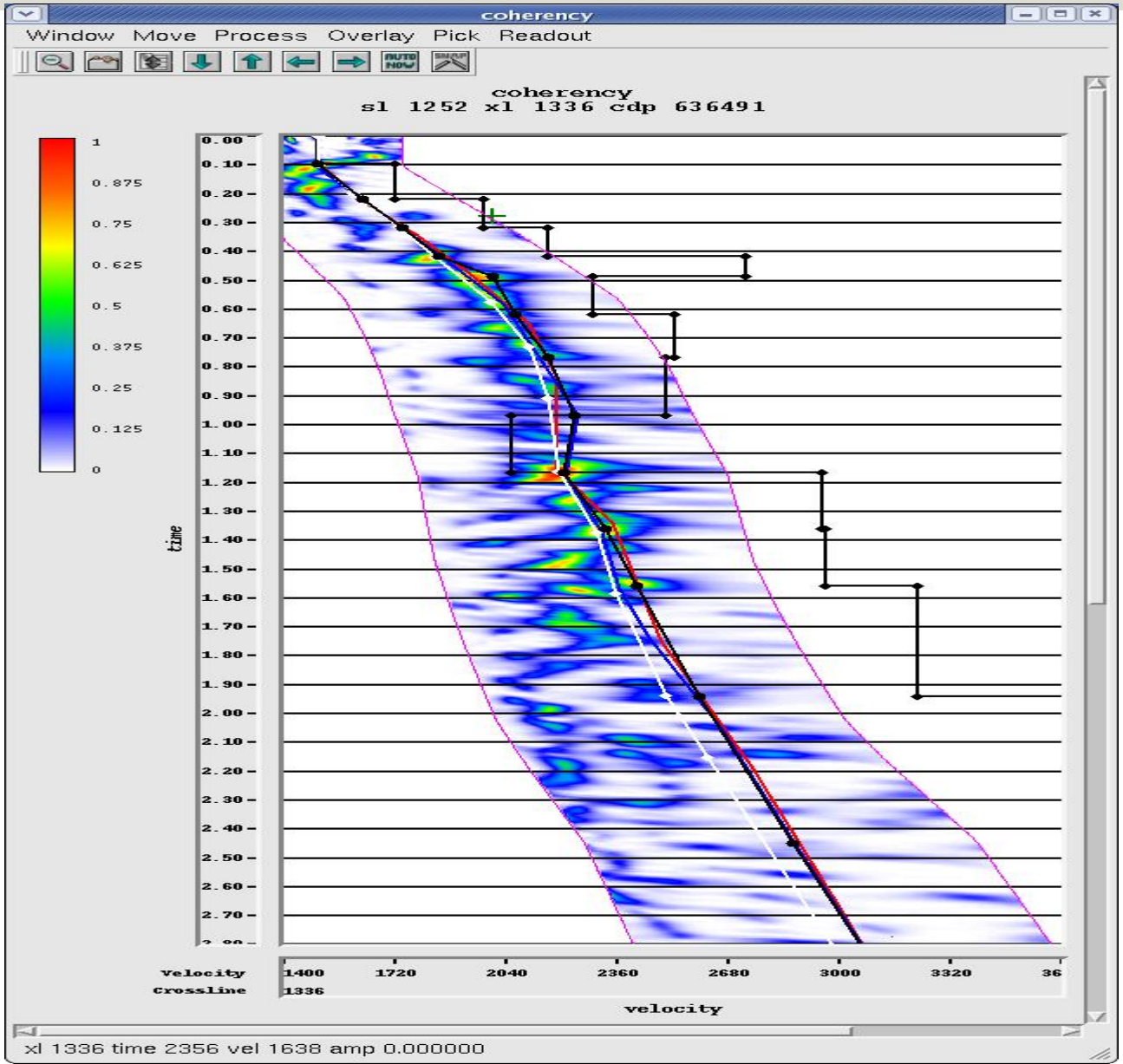
04_VEL2.ppt

Benaris T/39 P 3D/2D
Vel. Analysis post-TPDBS+SRME from test line 1252060. Dispayed with/without Radon Demultiple.
19/12/05

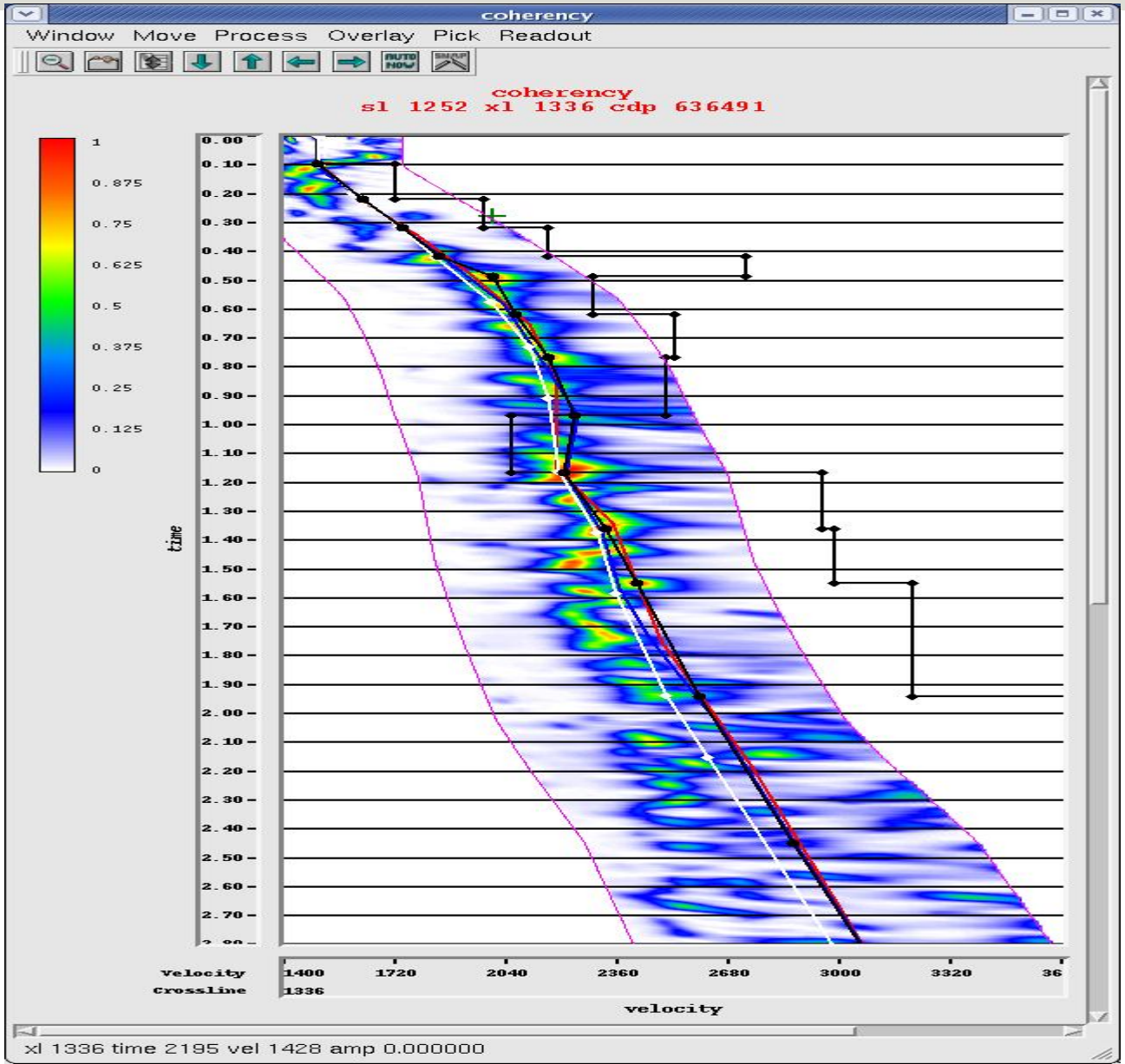
SUMMARY OF CONTENTS

- The ‘white line’ overlay is the previously picked trend.

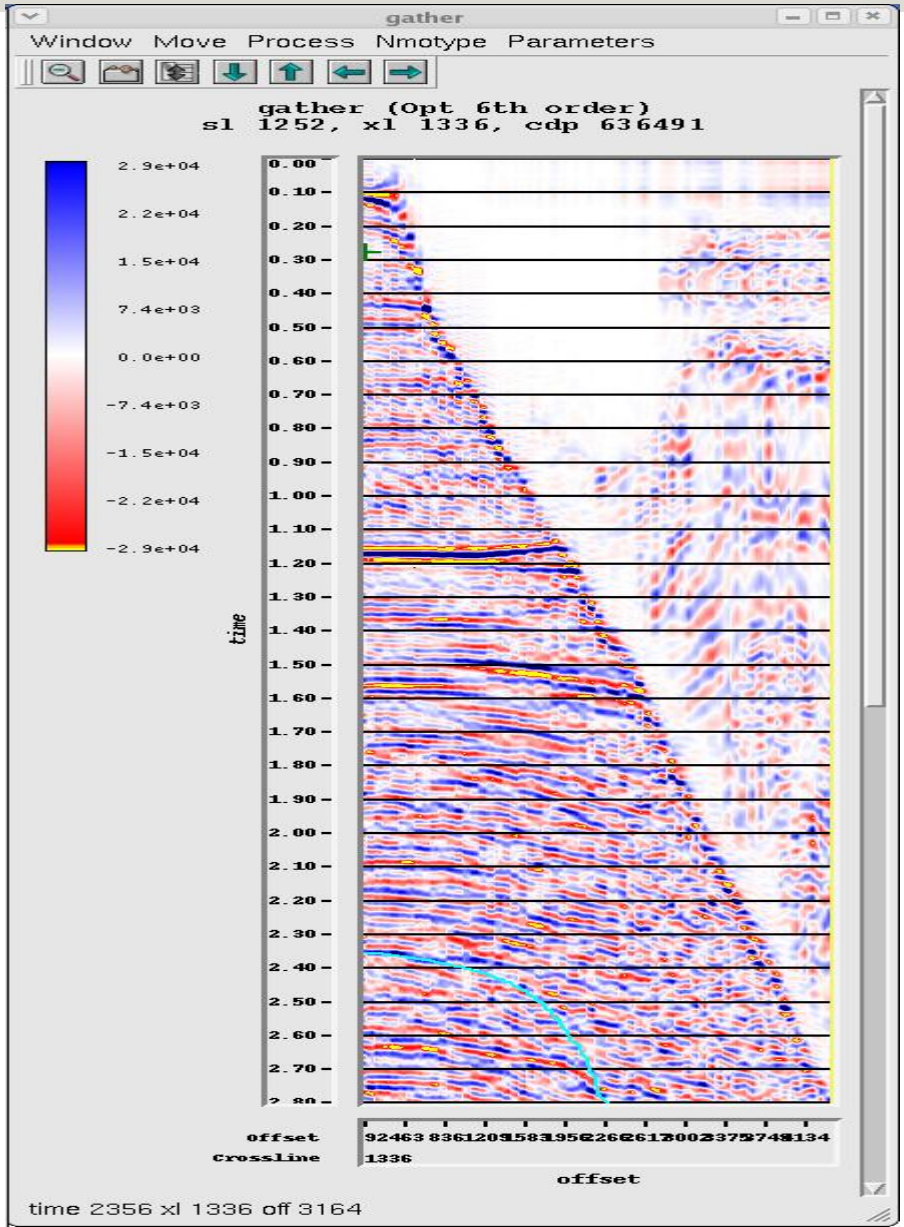
Analysis without Radon Demultiple



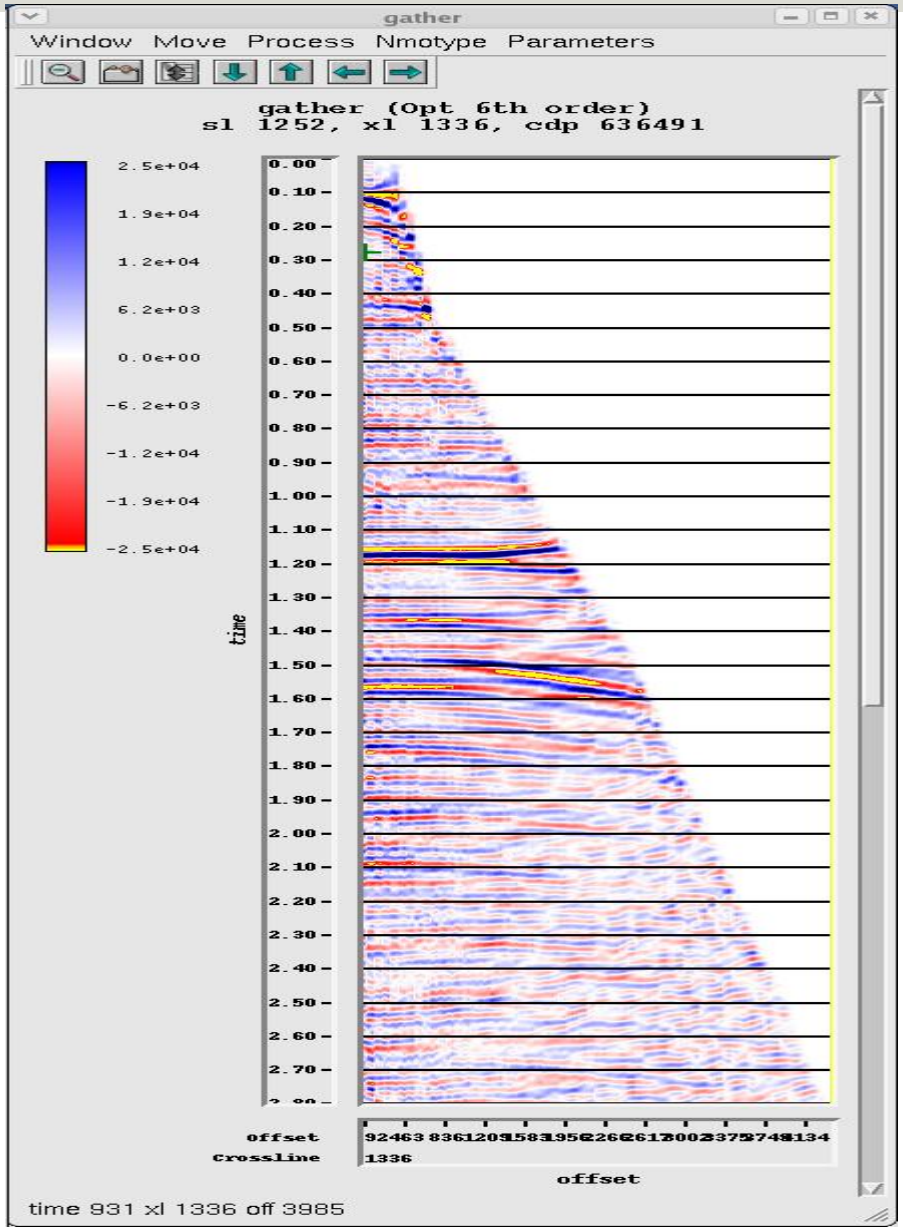
Analysis with Radon Demultiple



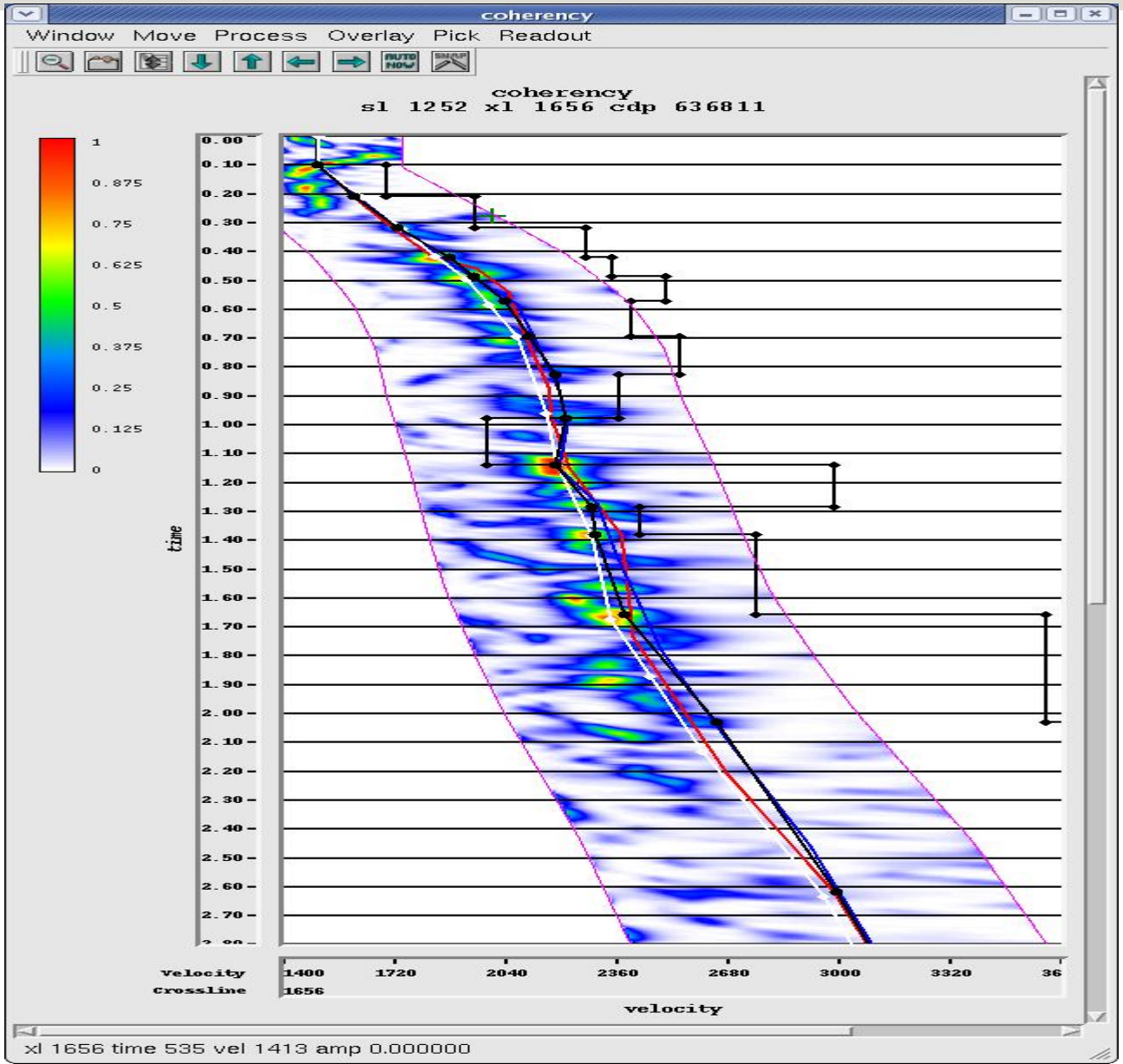
Analysis Gather without Radon Demultiple



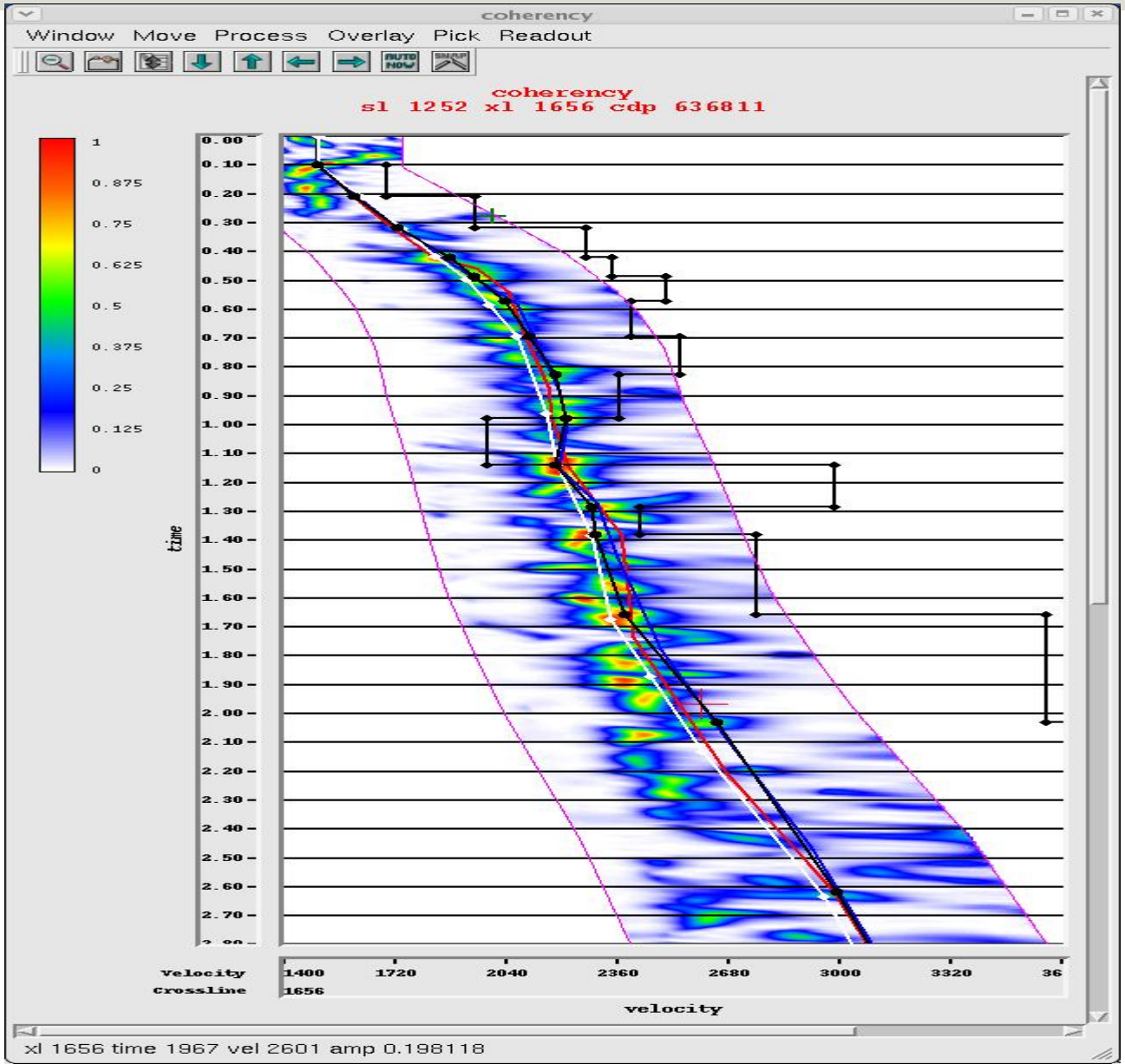
Analysis Gather with Radon Demultiple



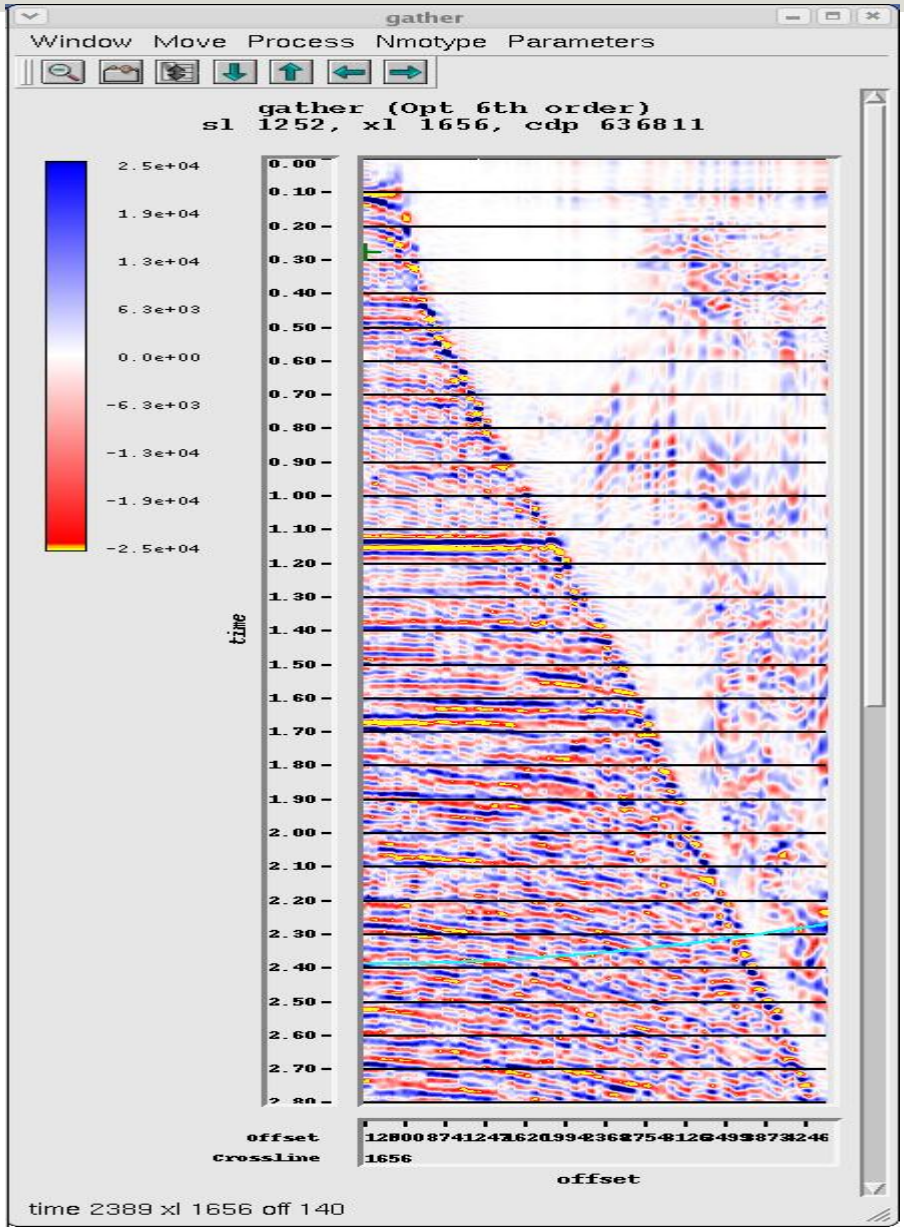
Analysis without Radon Demultiple



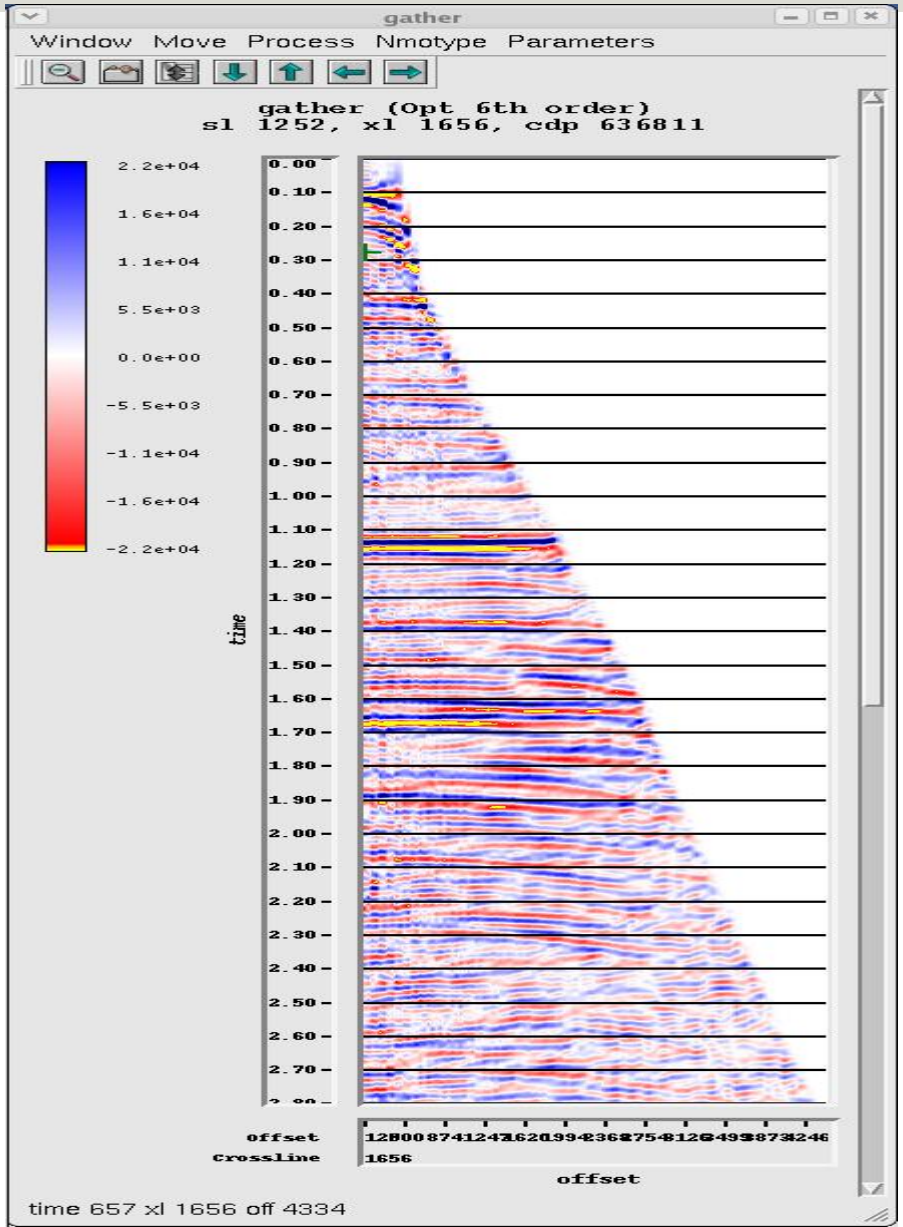
Analysis with Radon Demultiple



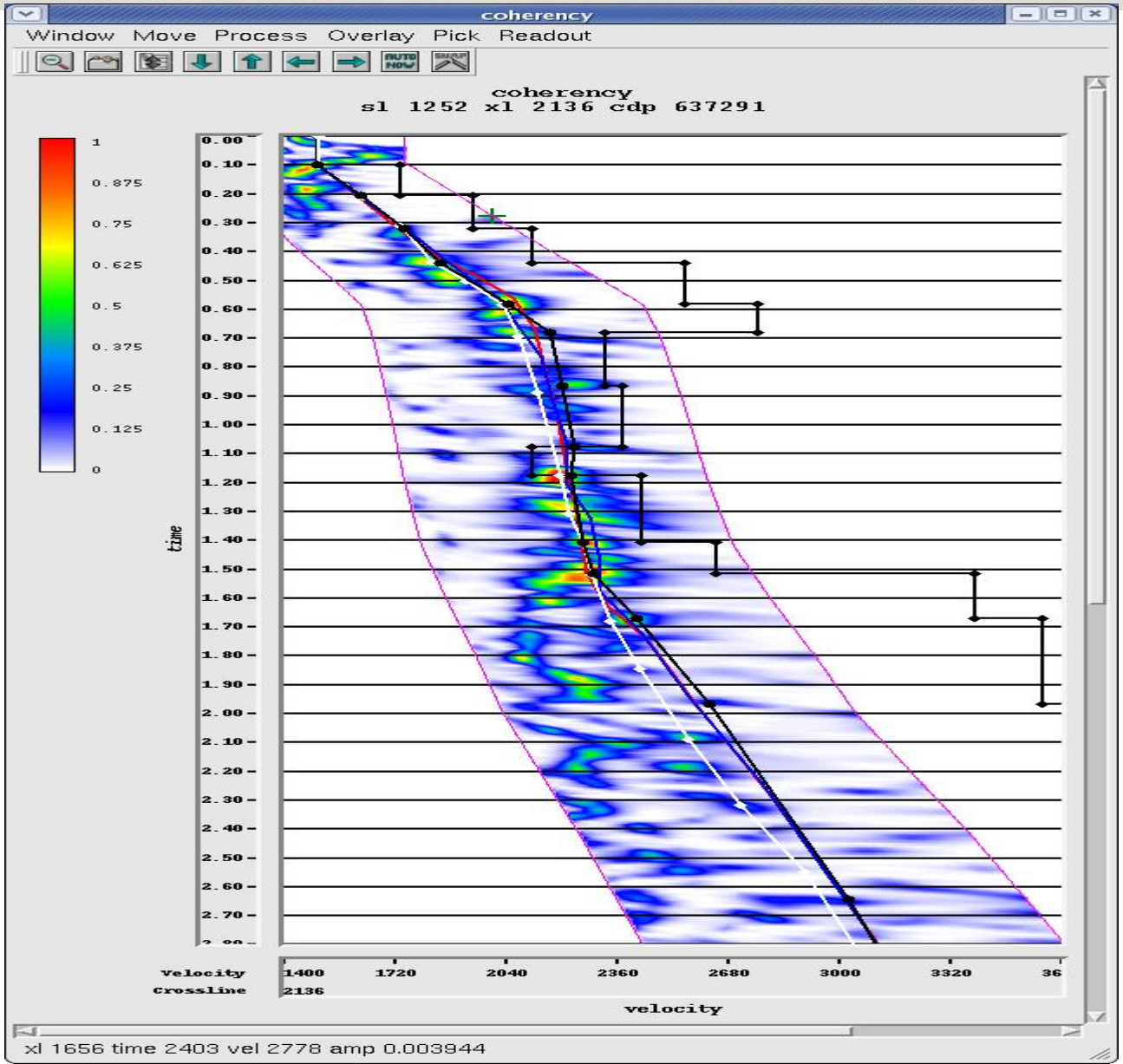
Analysis Gather without Radon Demultiple



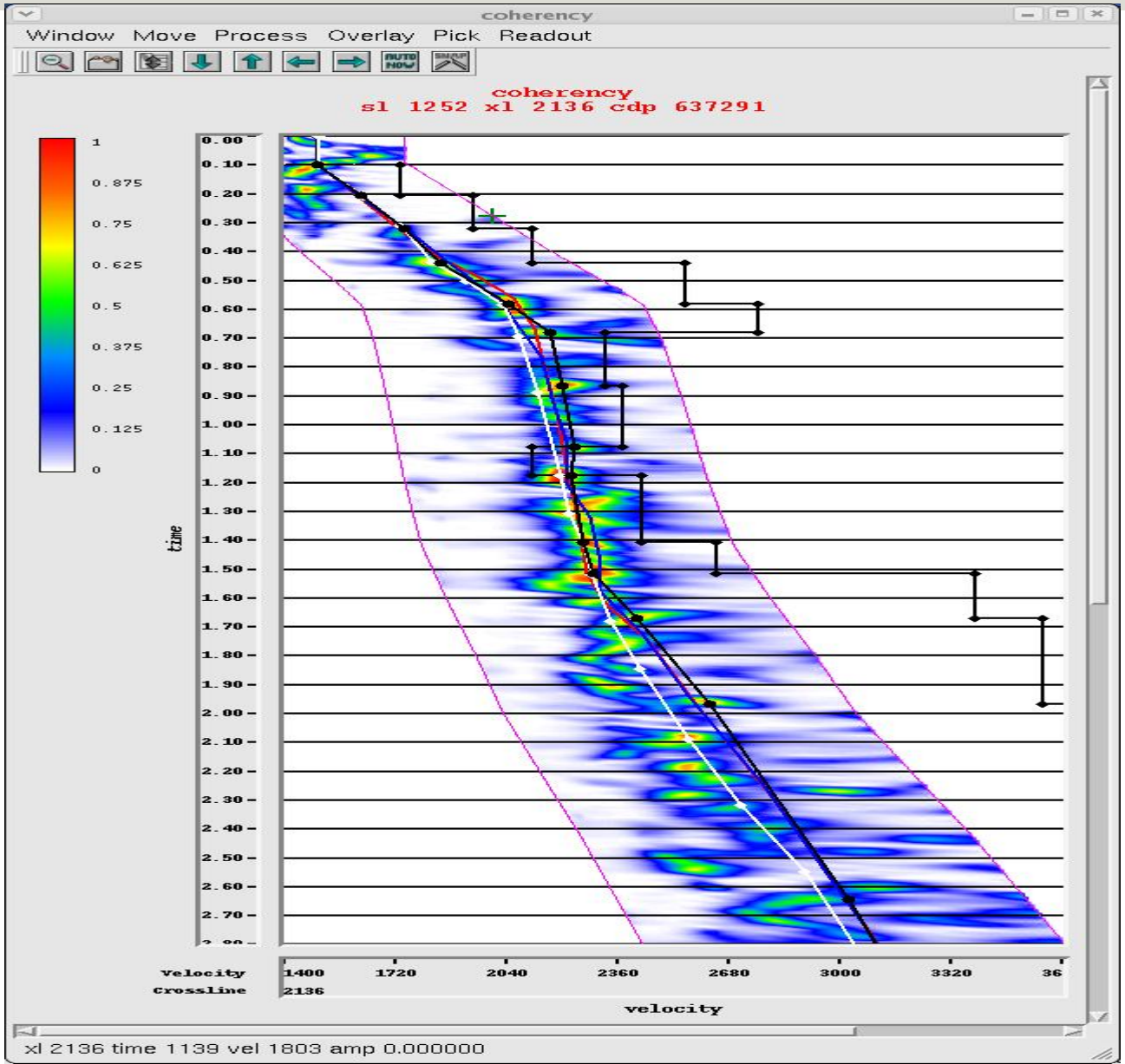
Analysis Gather with Radon Demultiple



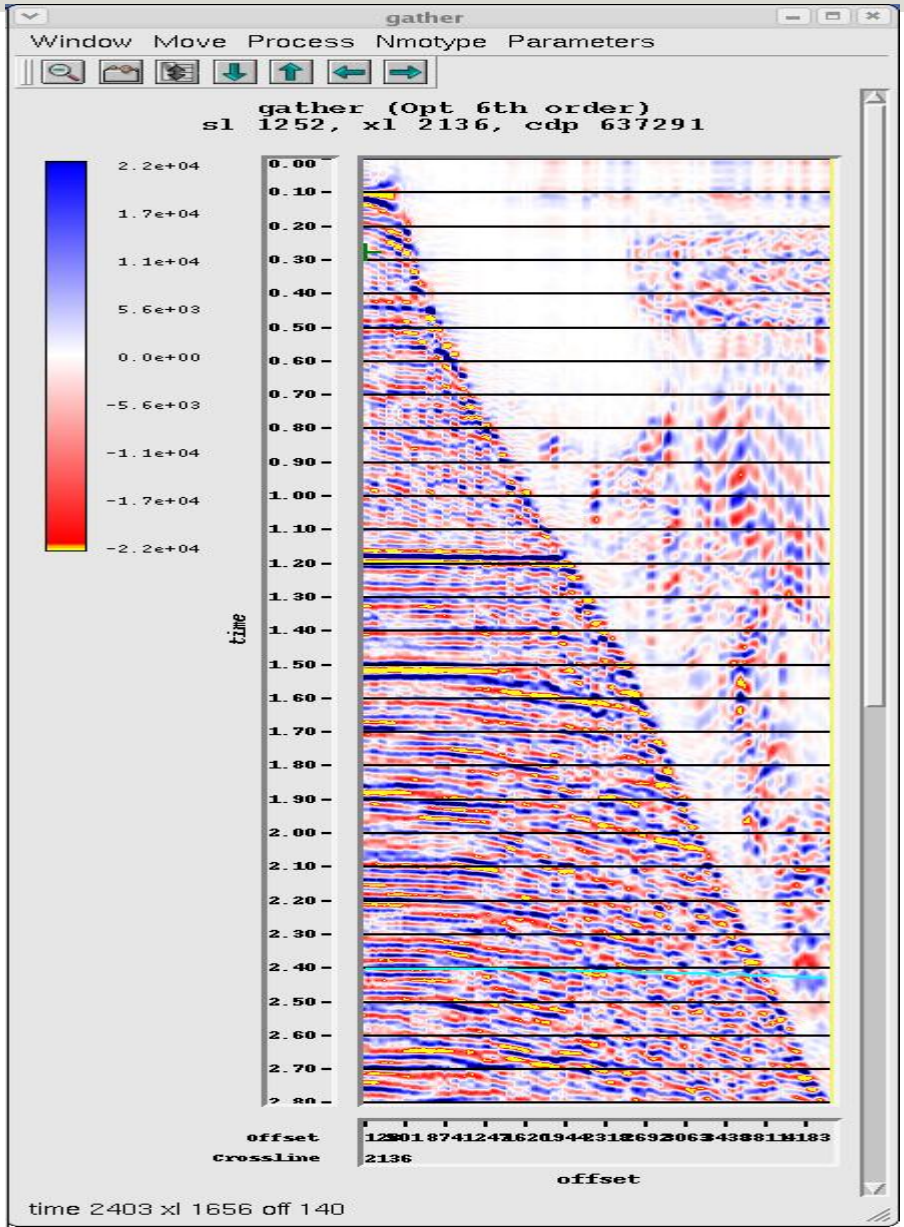
Analysis without Radon Demultiple



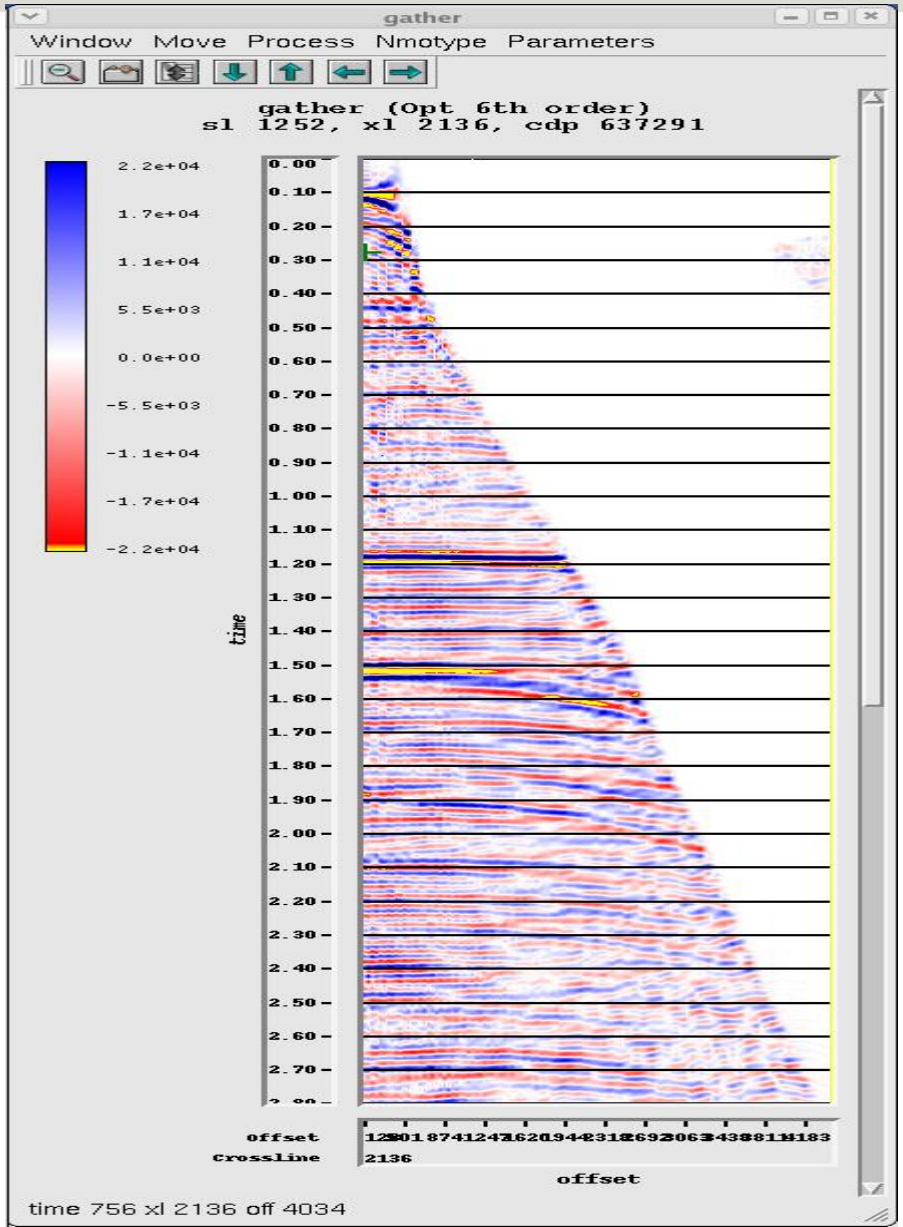
Analysis with Radon Demultiple



Analysis Gather without Radon Demultiple



Analysis Gather with Radon Demultiple



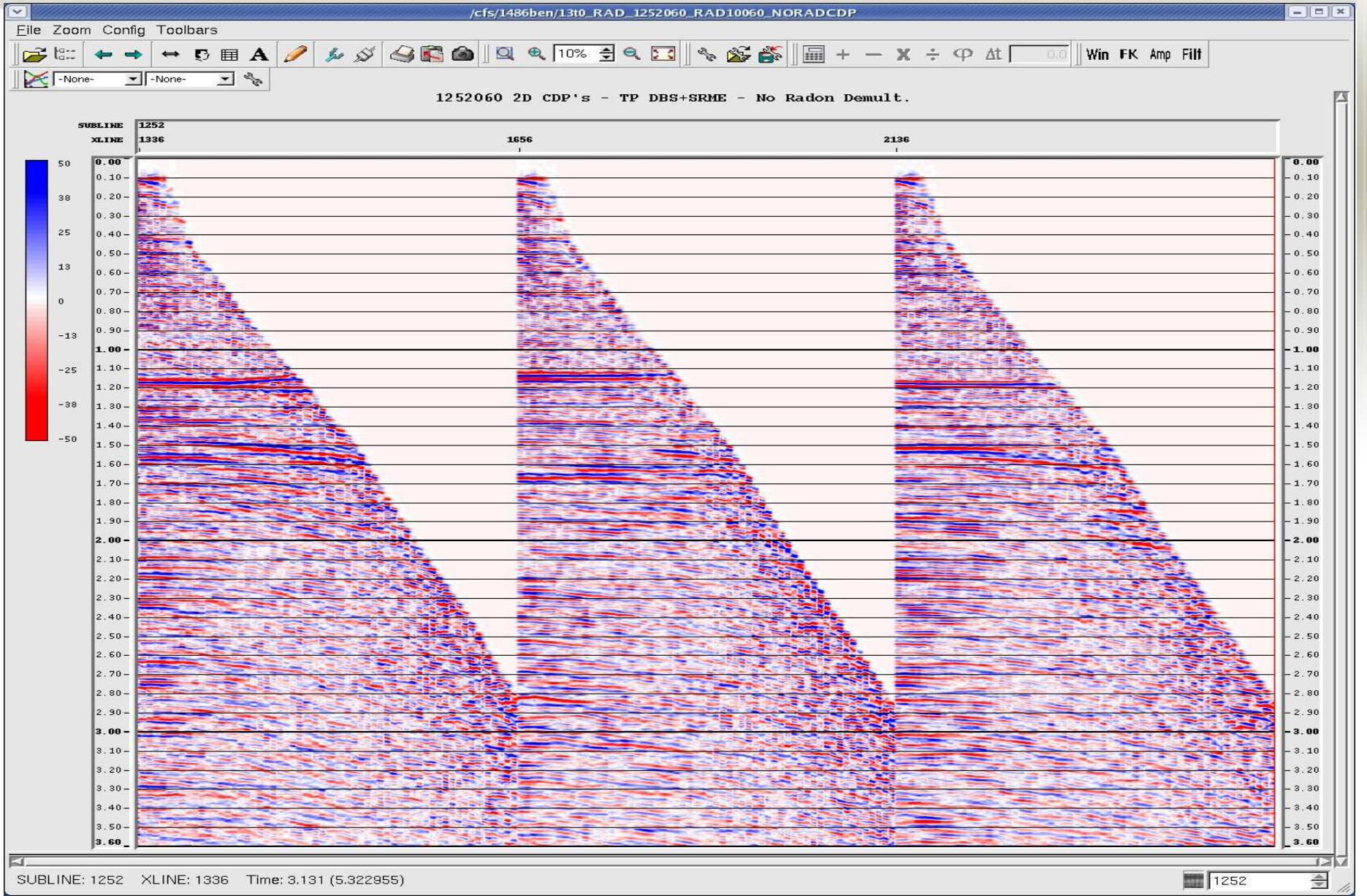
05_Demult.ppt

Benaris T/39 P 3D/2D
Radon Demultiple Test Stacks and Gathers from test line 1252060.
23/12/05

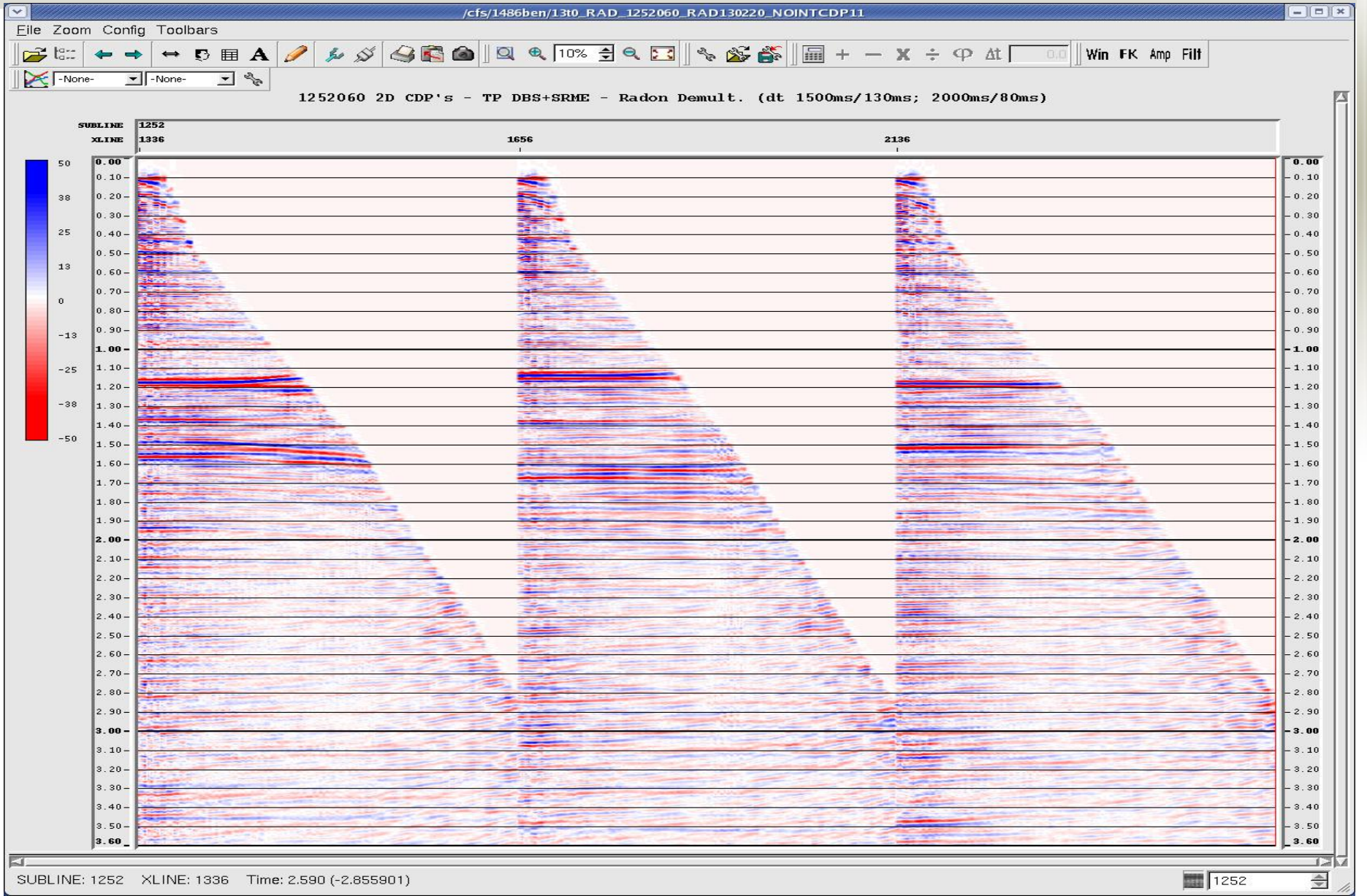
SUMMARY OF CONTENTS

- Radon Demultiple tests on the 2D stack from sail-line 1252060 (with revised velocity picks).
- The stacks are produced from a port source into the inner port streamer. Velocity analyses were run every 1km to stack the data and an outer mute picked from the gathers. A vvt spherical divergence and an exponential gain (9dB 0-3sec) are the only scaling applied. The data is binned at a 12.5m interval at approx. 116 fold and every 2nd trace is displayed.

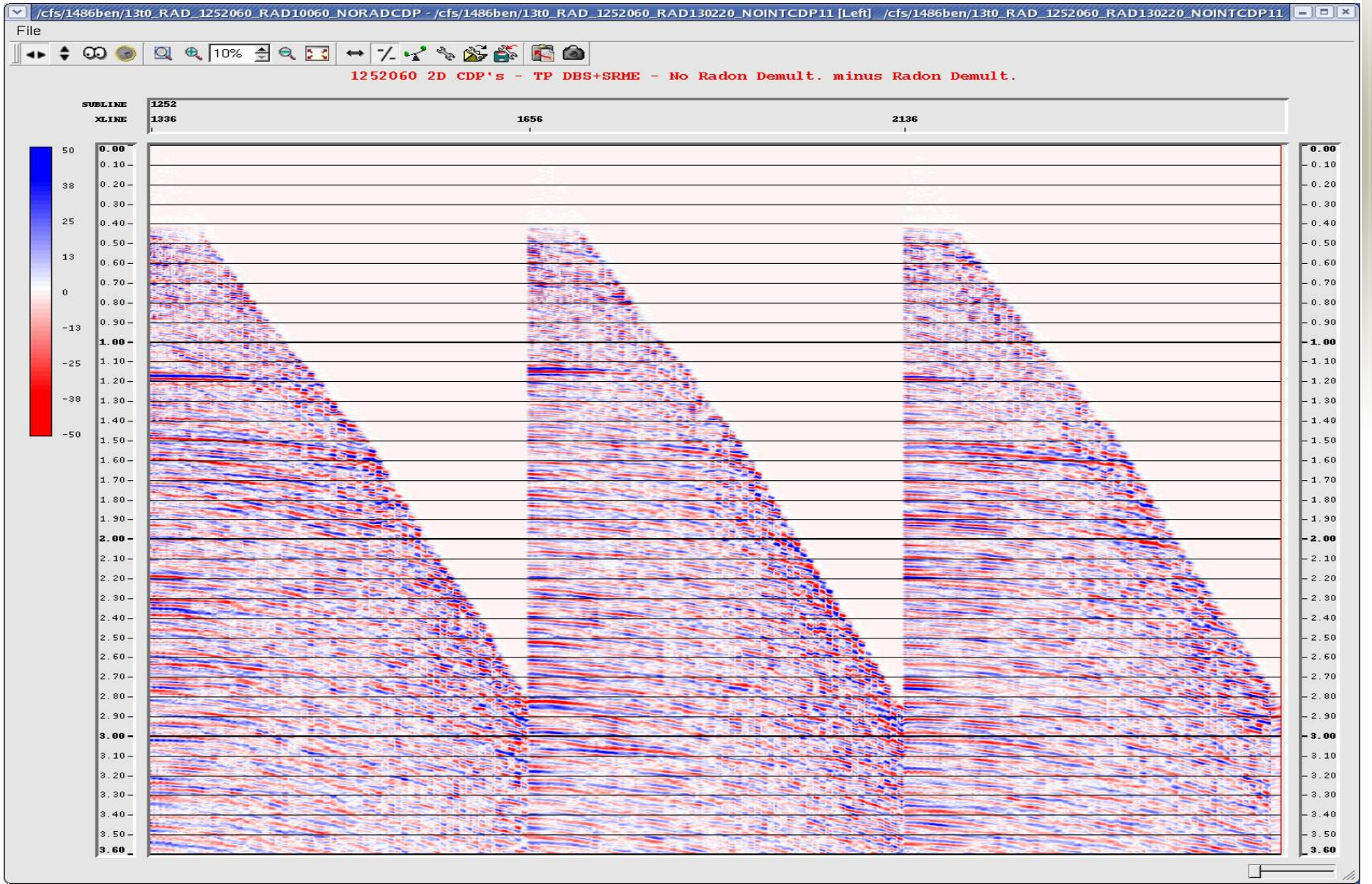
Gather with TP DBS+SRME- No Demult.



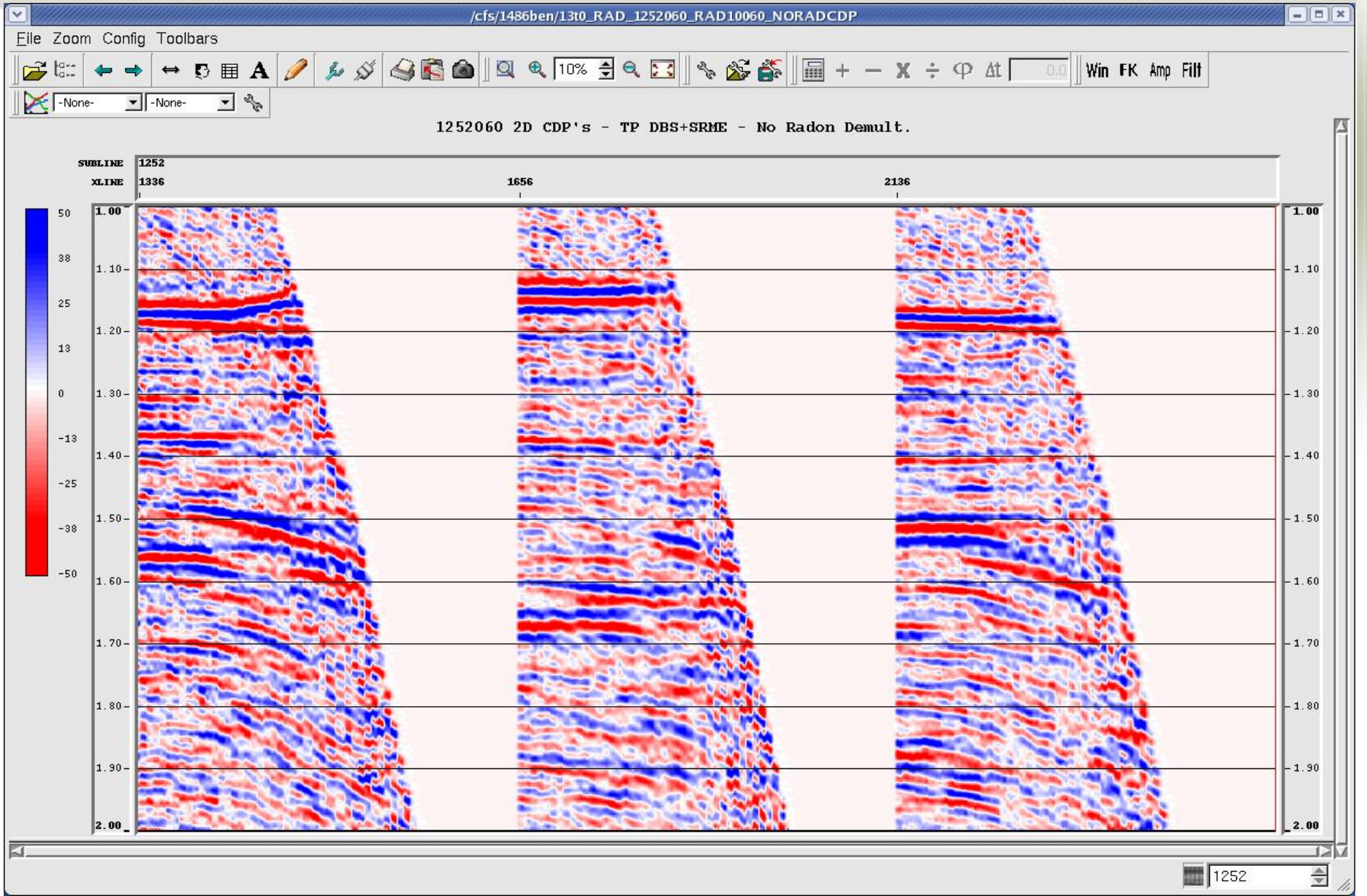
Gather with TP DBS+SRME- Demult.



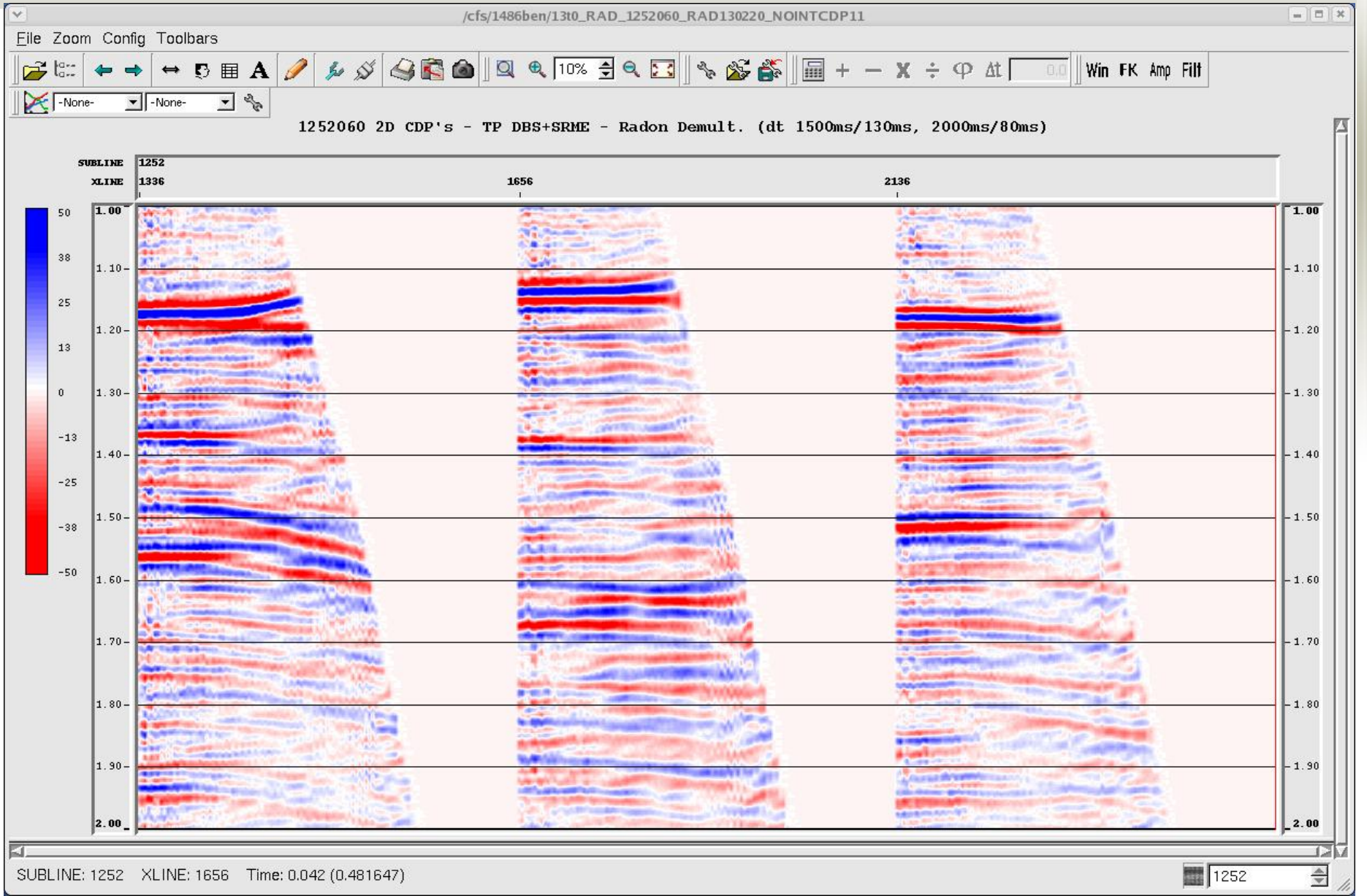
Multiples Removed



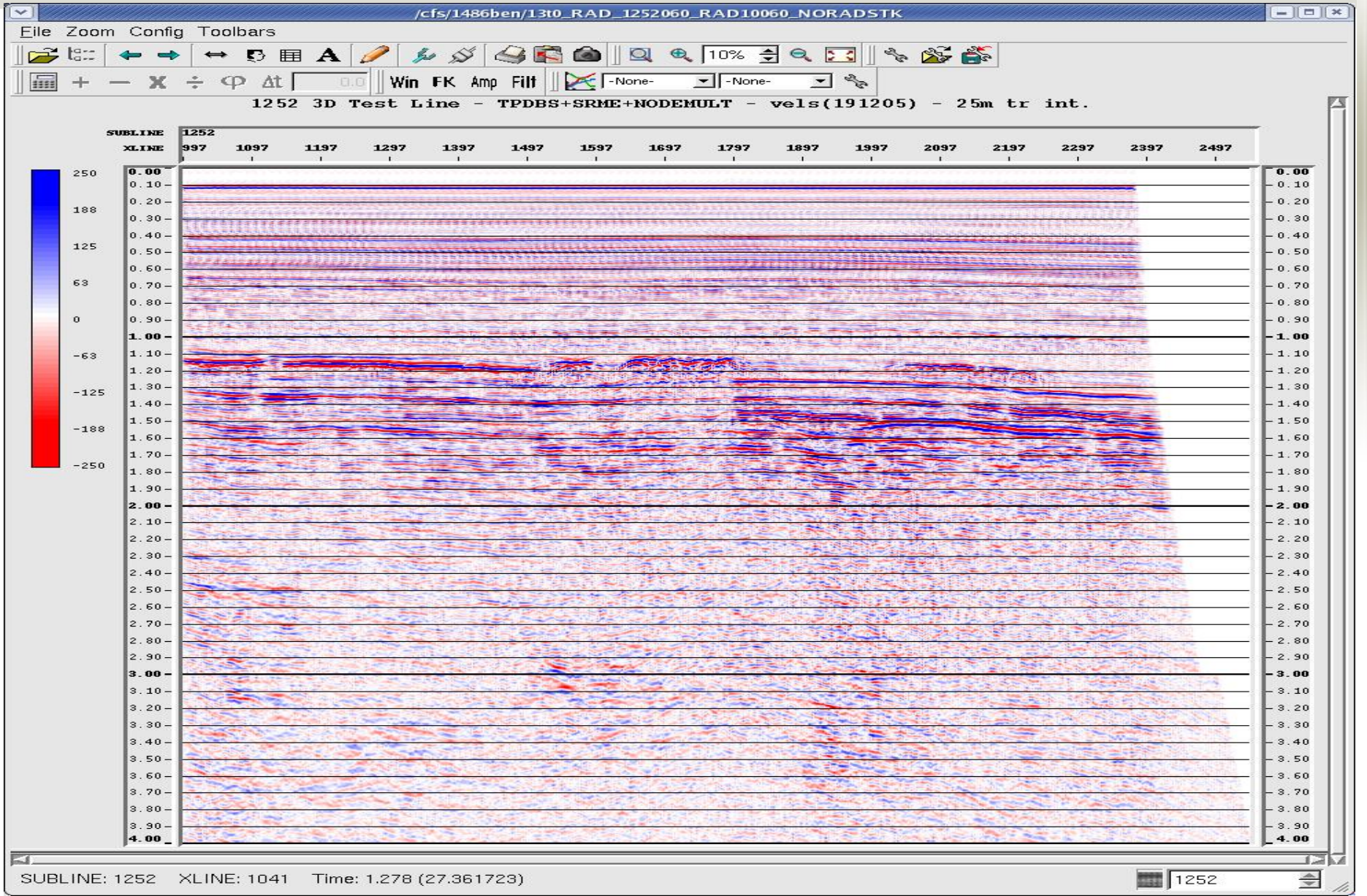
Gather with TP DBS+SRME- No Demult.



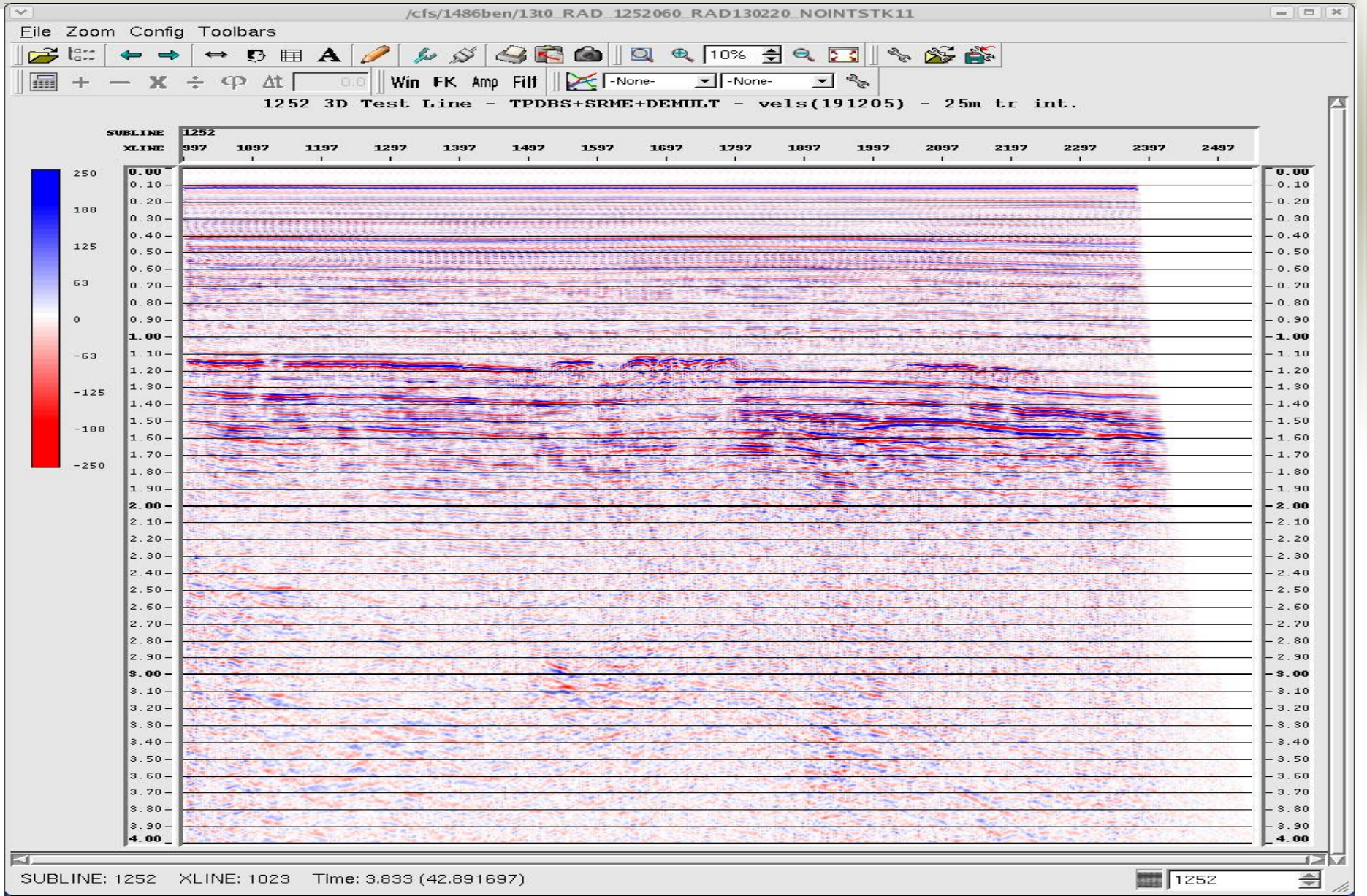
Gather with TP DBS+SRME- Demult.



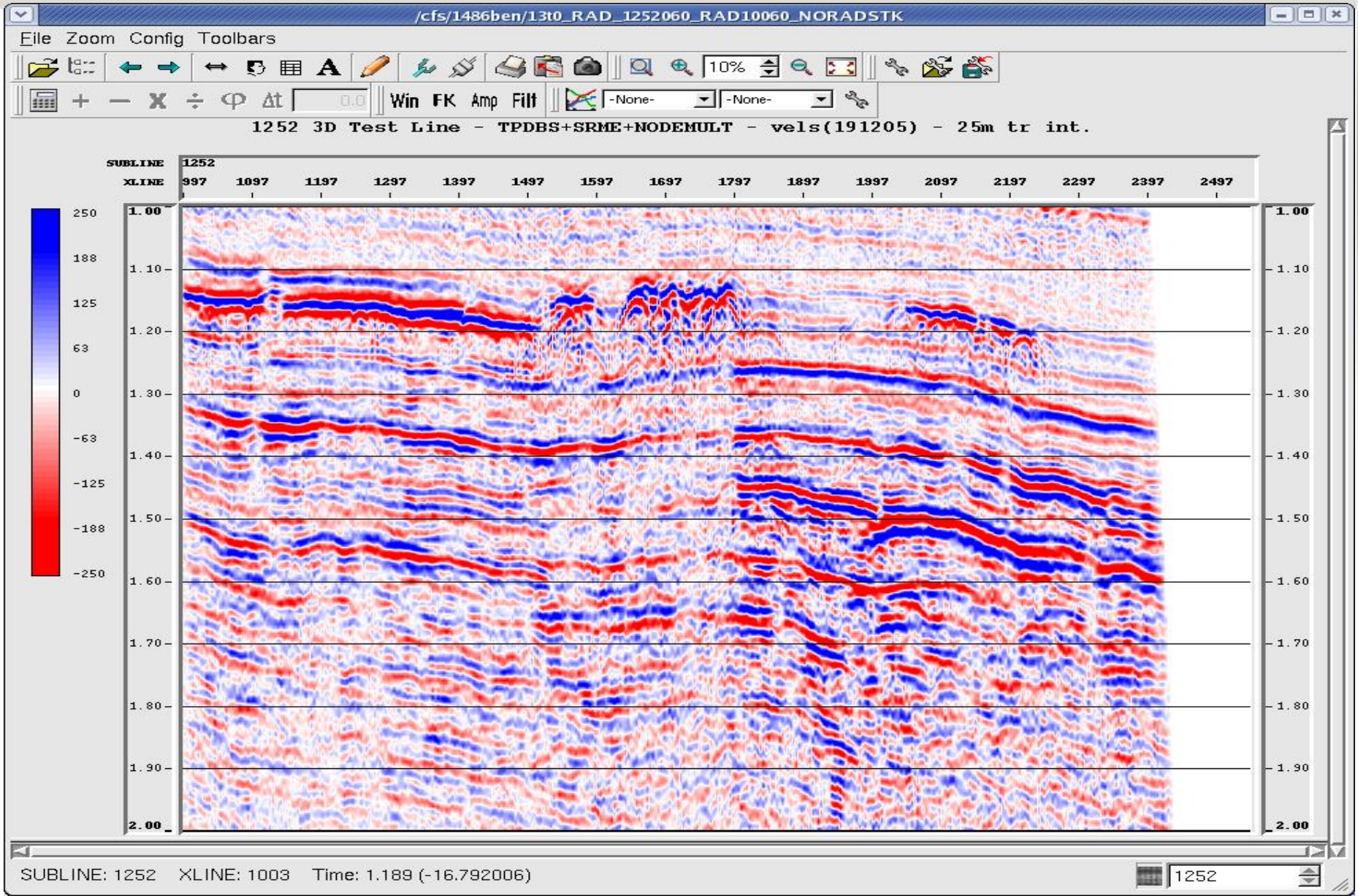
Stack with TP DBS+SRME- No Demult.



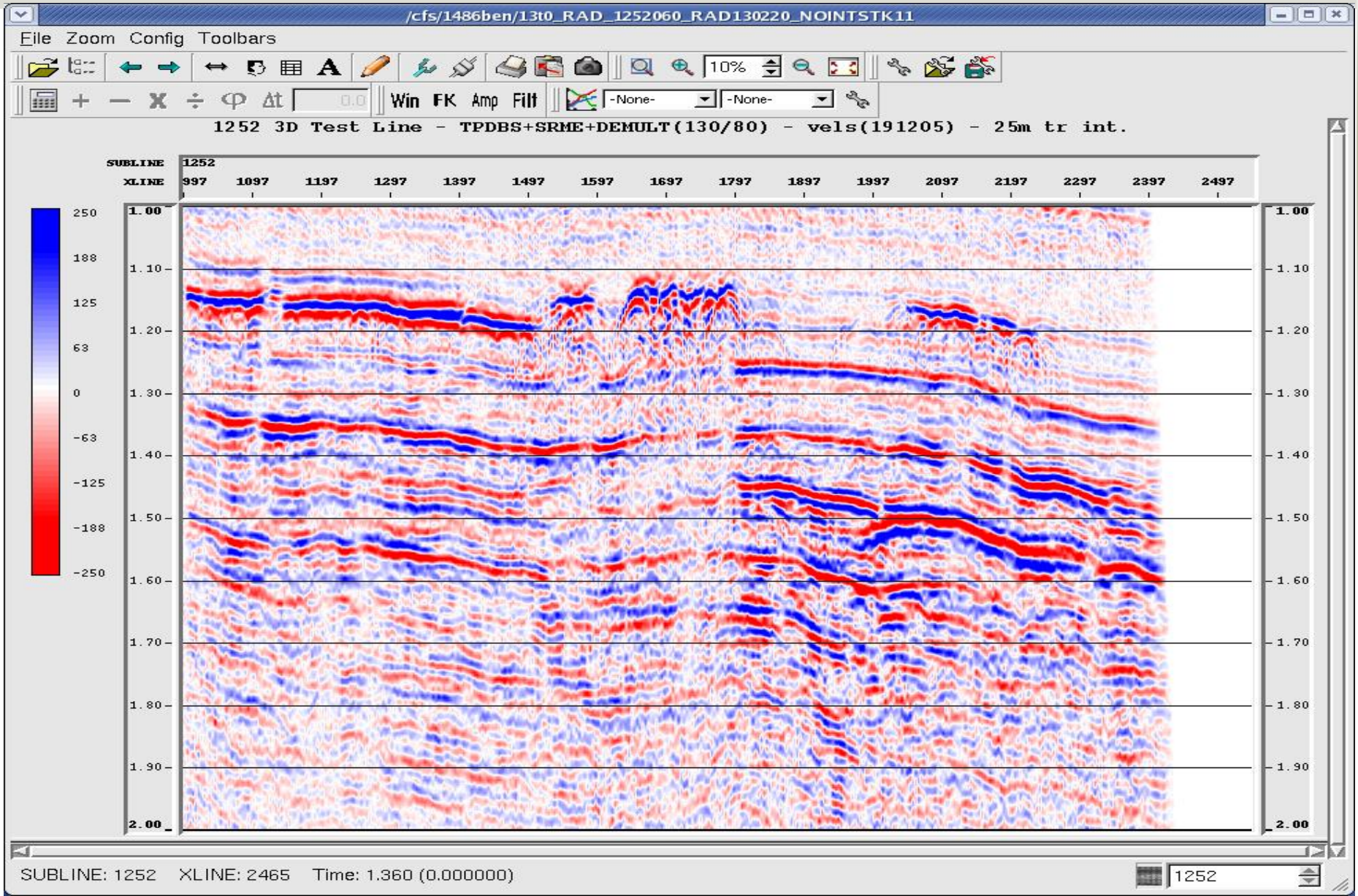
Stack with TP DBS+SRME- Demult.



Stack with TP DBS+SRME- No Demult.



Stack with TP DBS+SRME- Demult.



06_Demult.ppt

Benaris T/39 P 3D/2D
Pre-PSTM Radon Demultiple Tests from test lines 1252060, 2022102 and 2001082.
11/01/06

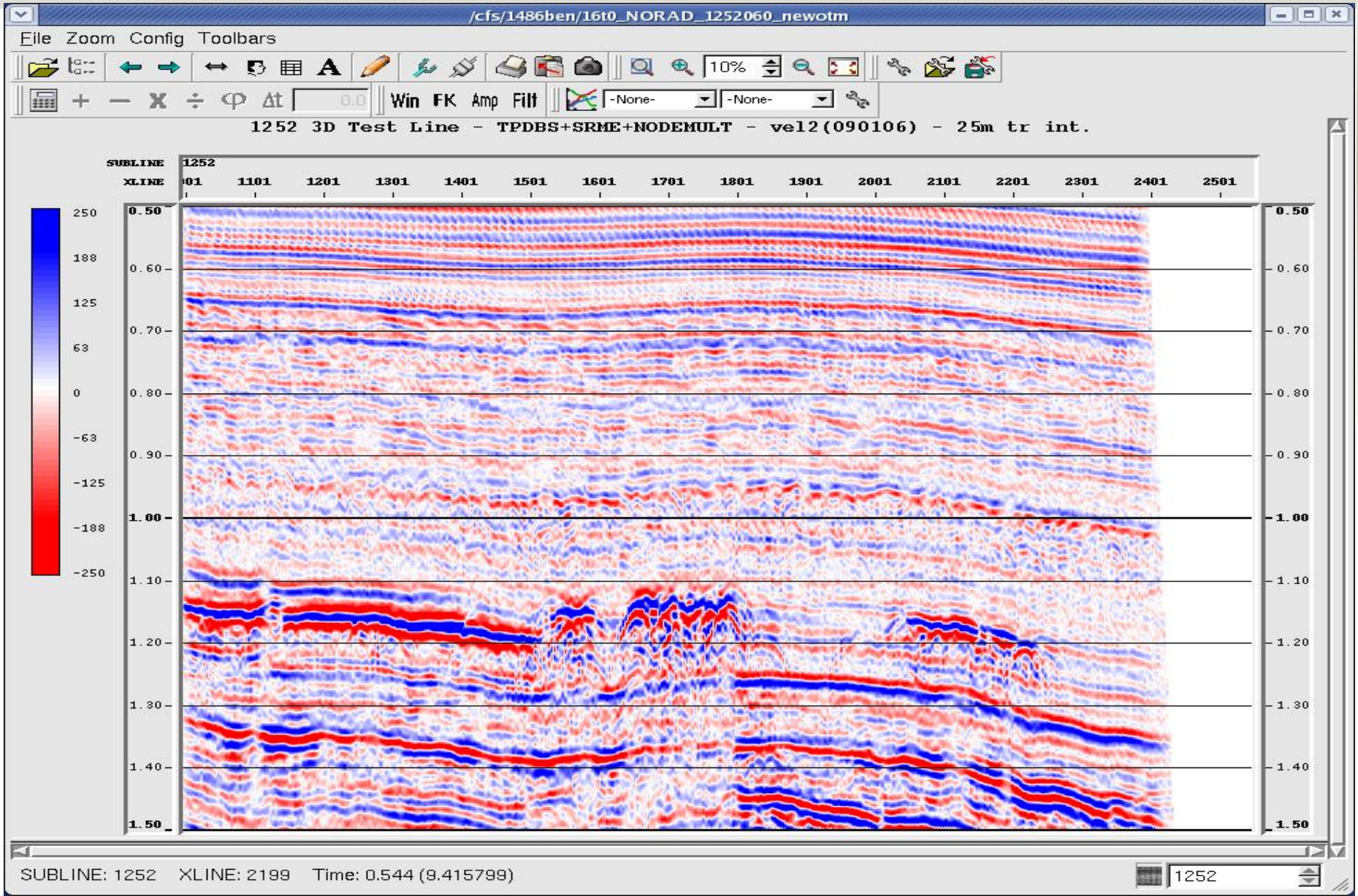
SUMMARY OF CONTENTS

- Review of Radon Demultiple results from the 3D test line 1252060 and the 2D test lines 2022102 and 2001082.

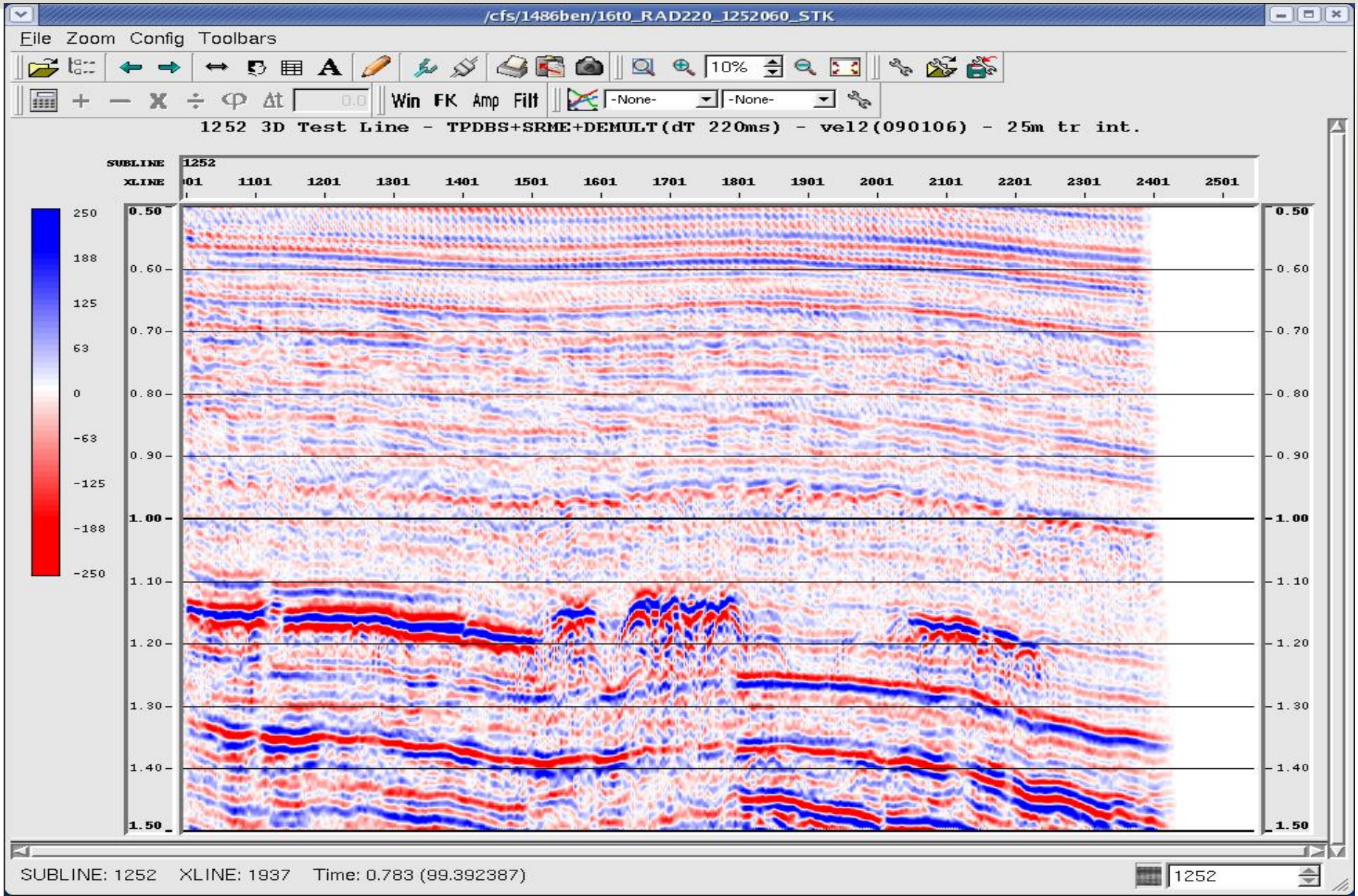
- In each case the Demult is applied 100% from 500ms down. The Demult. examples included are for two different severities – the dT=220ms as a mild application and the dT=130ms as a standard application targeted at the zone of interest (1500ms). Both applications are very mild for the deeper data (>2000ms) where there is less velocity backup.

- The velocities used were the approved (09/01/06) second pass vels.
- The outer mute was widened slightly from that used in previous tests.
- The stack traces are displayed every 25m (alternate traces).
- Sph. Div (vvt) and an exponential gain (0-3s, 0-9dB) are applied.

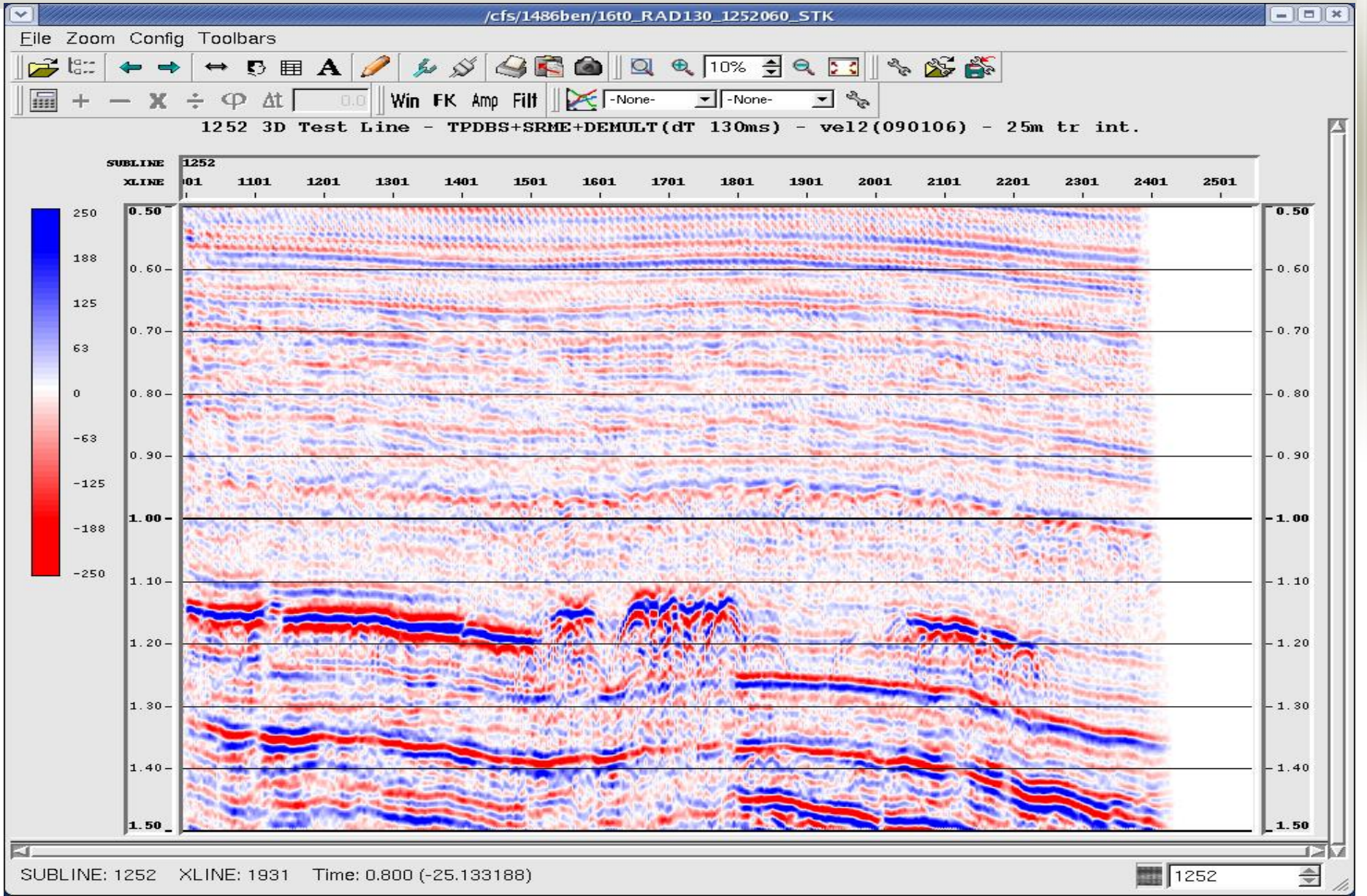
1252 3D Test Line with TP DBS+SRME- No Demult.



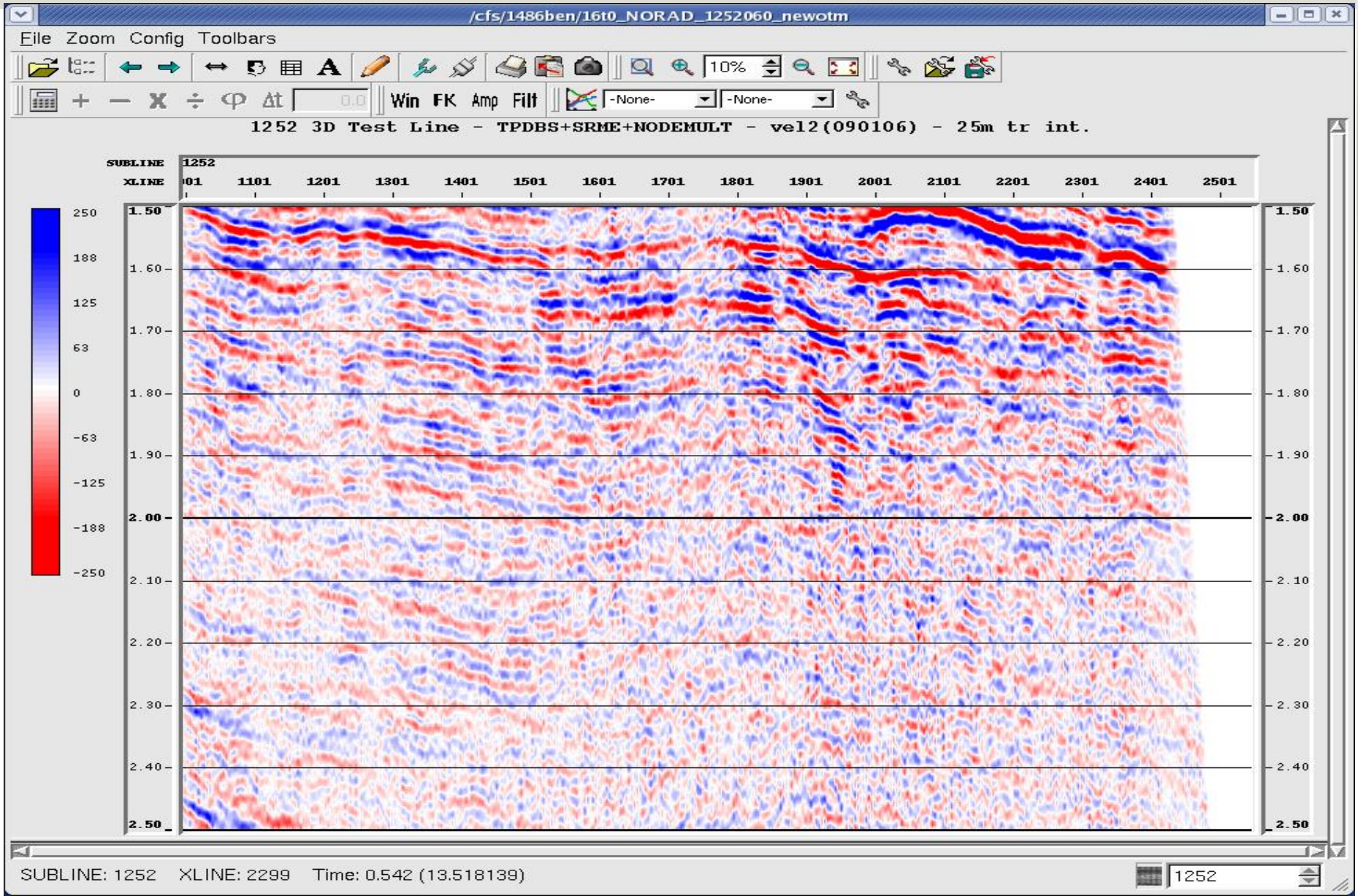
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



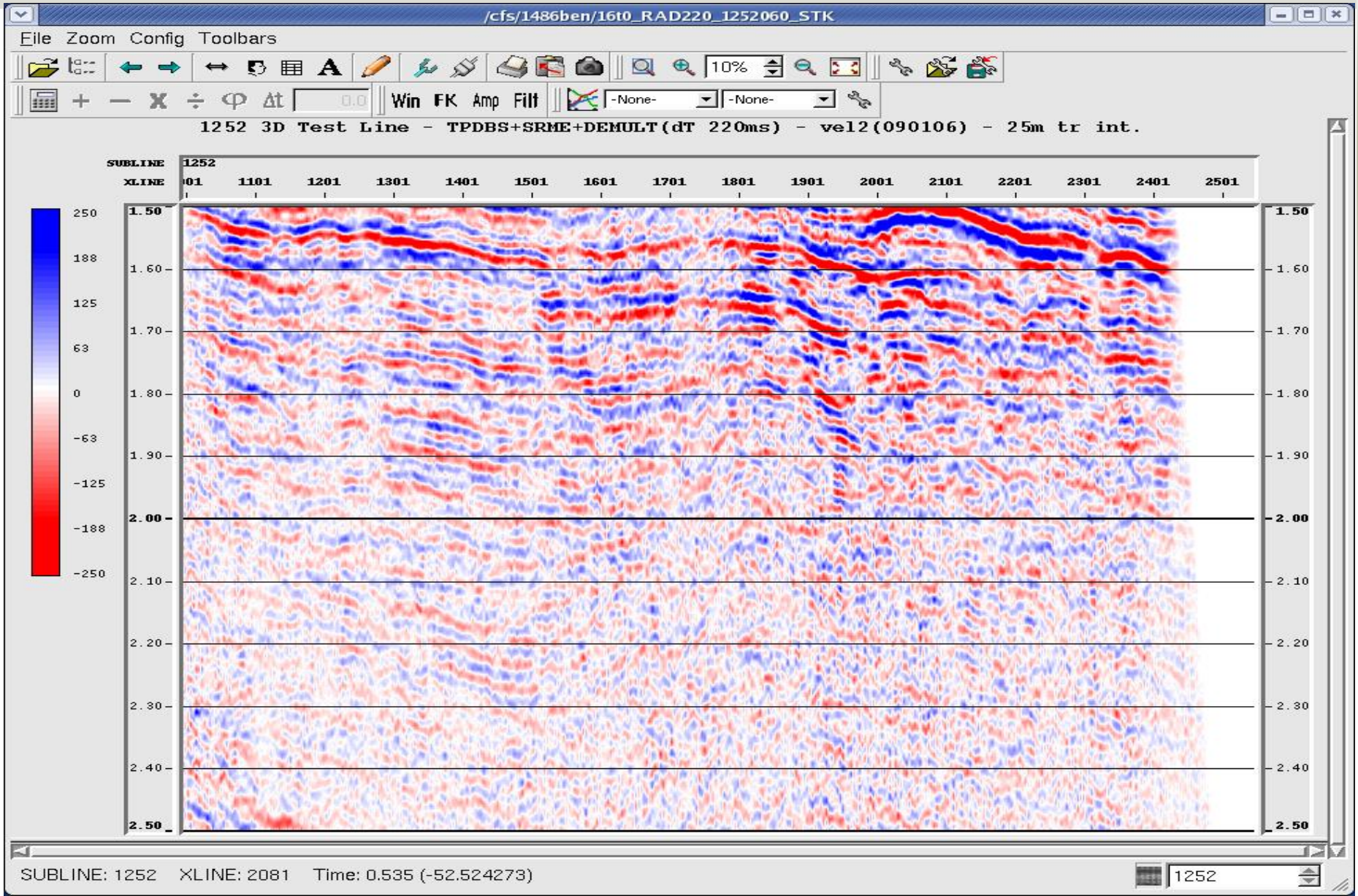
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



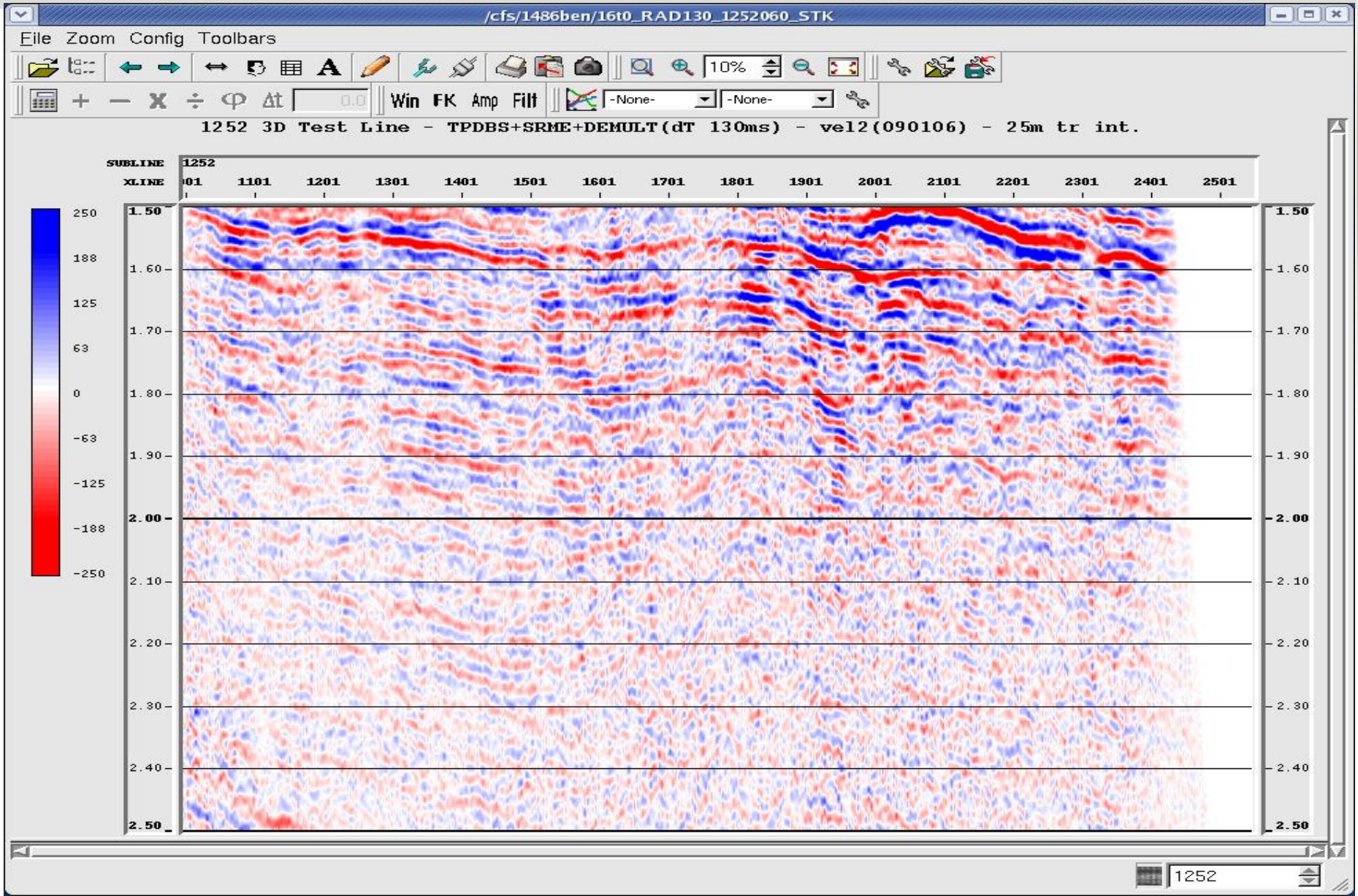
1252 3D Test Line with TP DBS+SRME- No Demult.



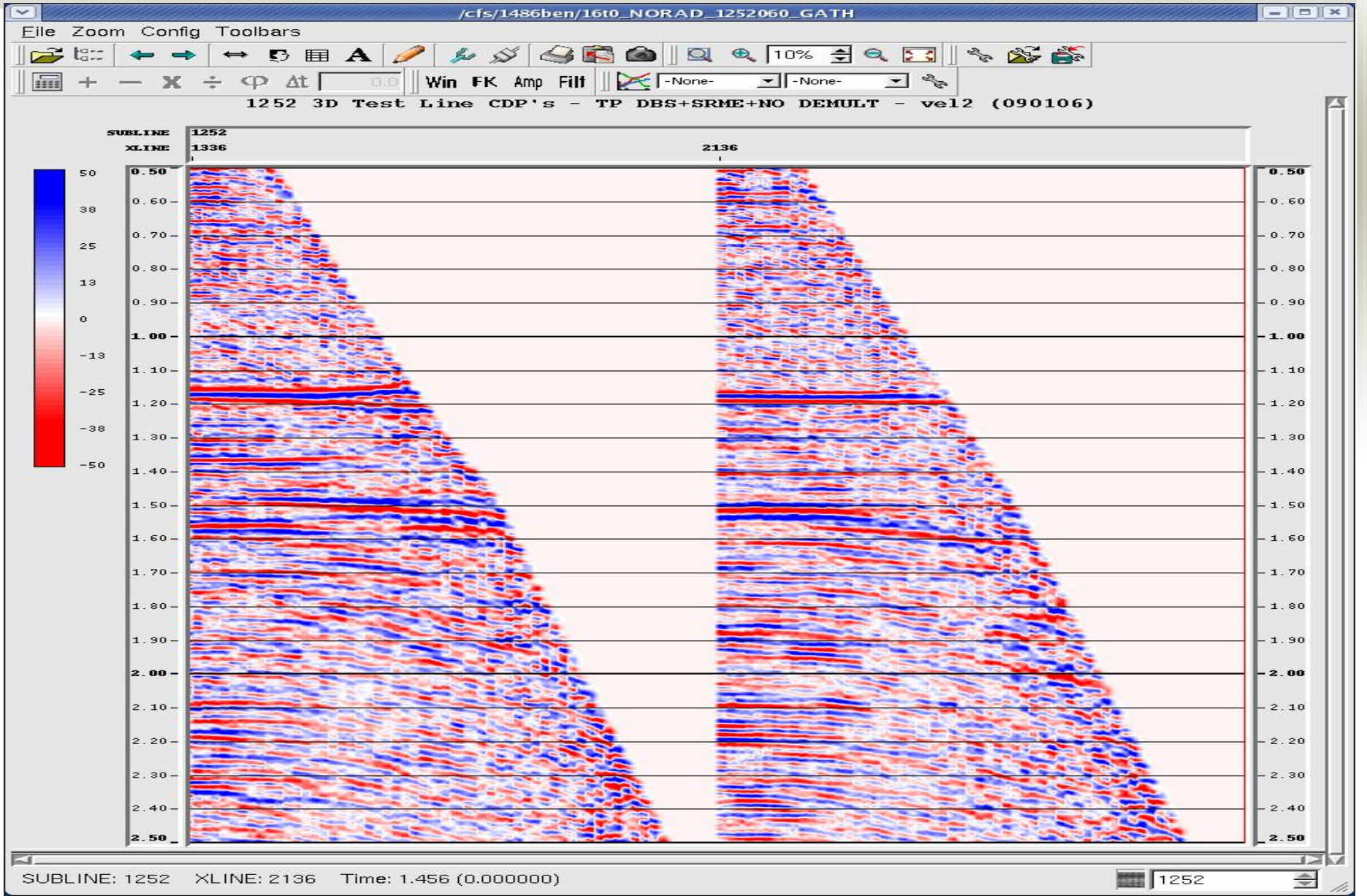
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



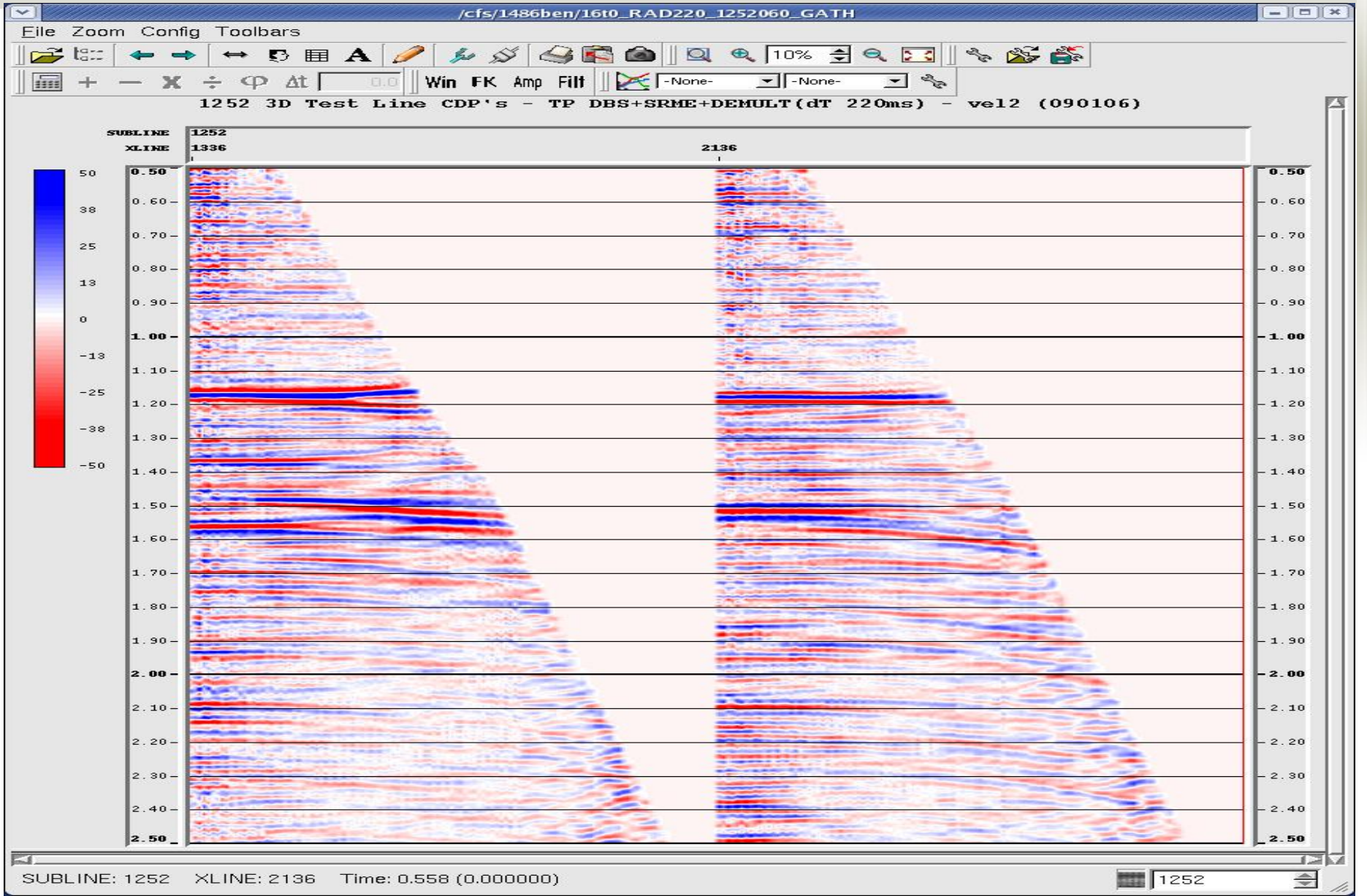
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



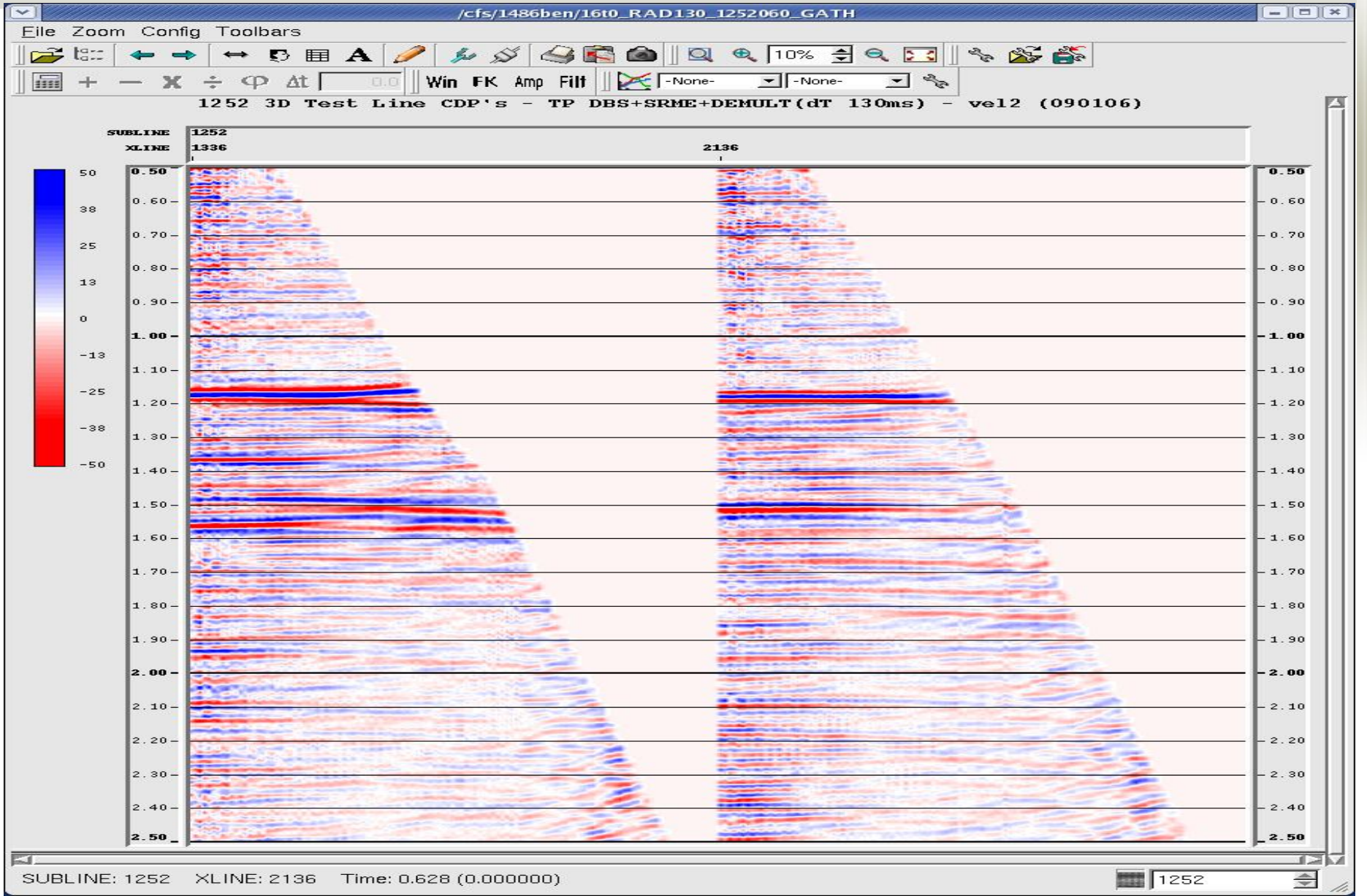
1252 3D Test Line with TP DBS+SRME- No Demult.



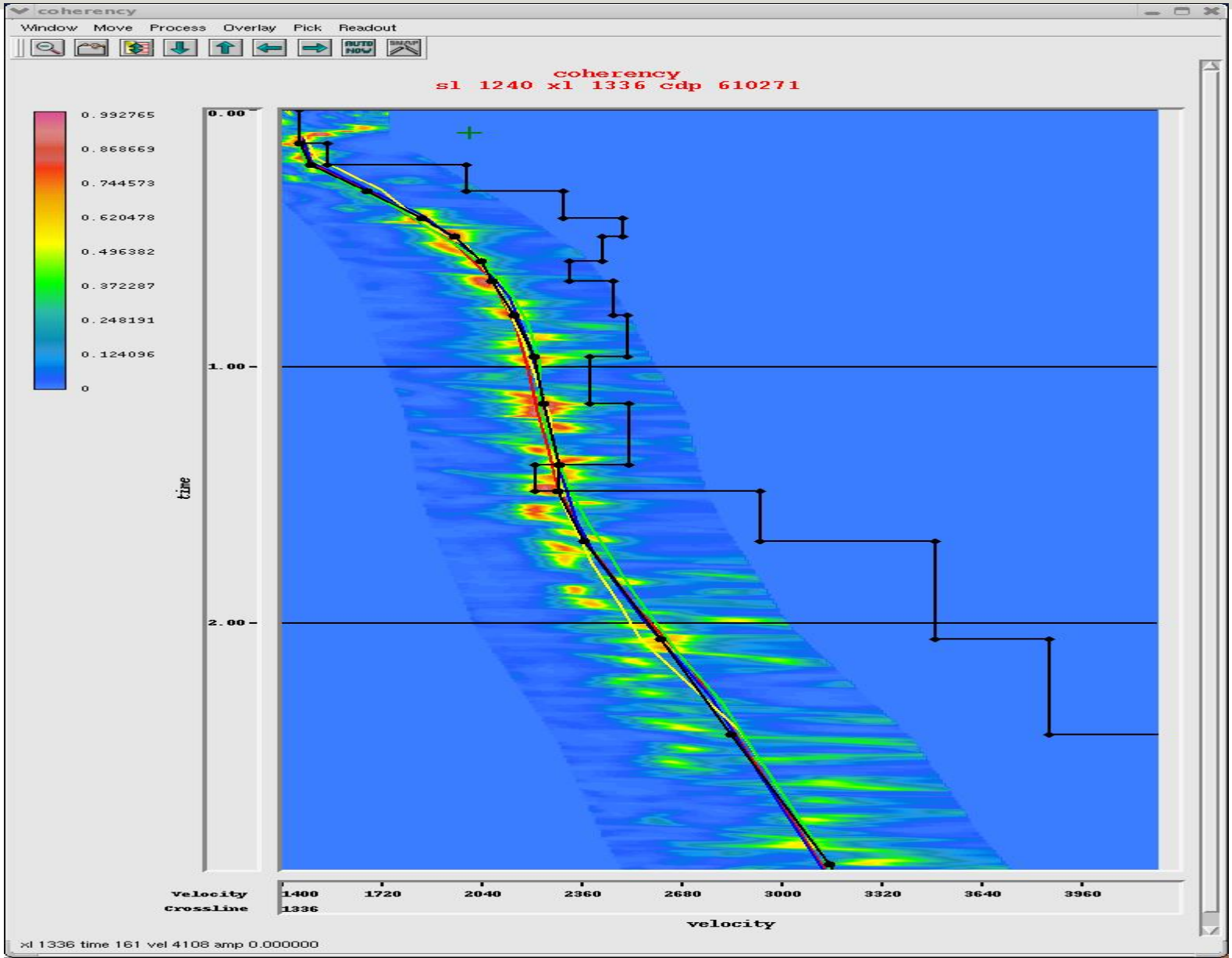
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



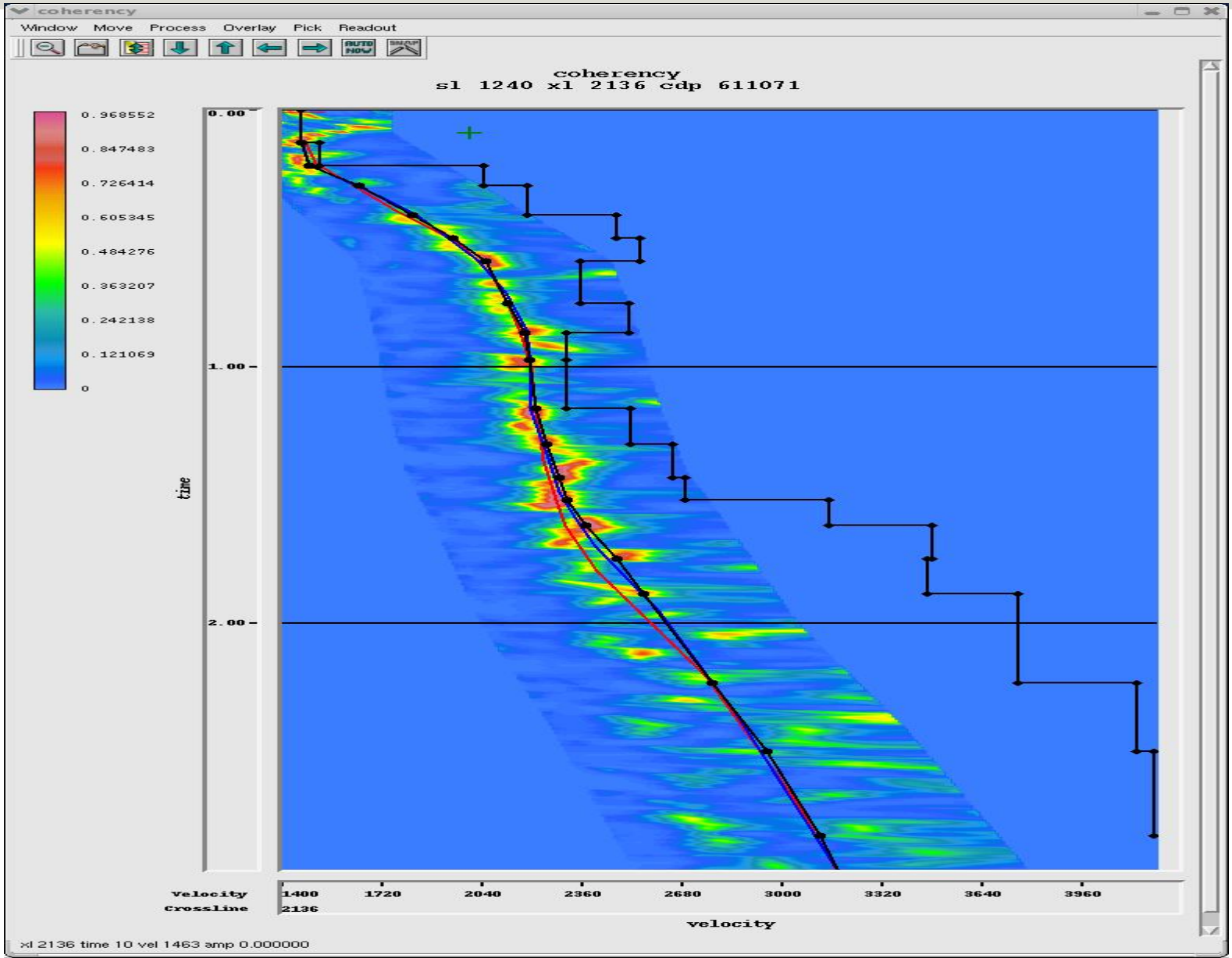
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



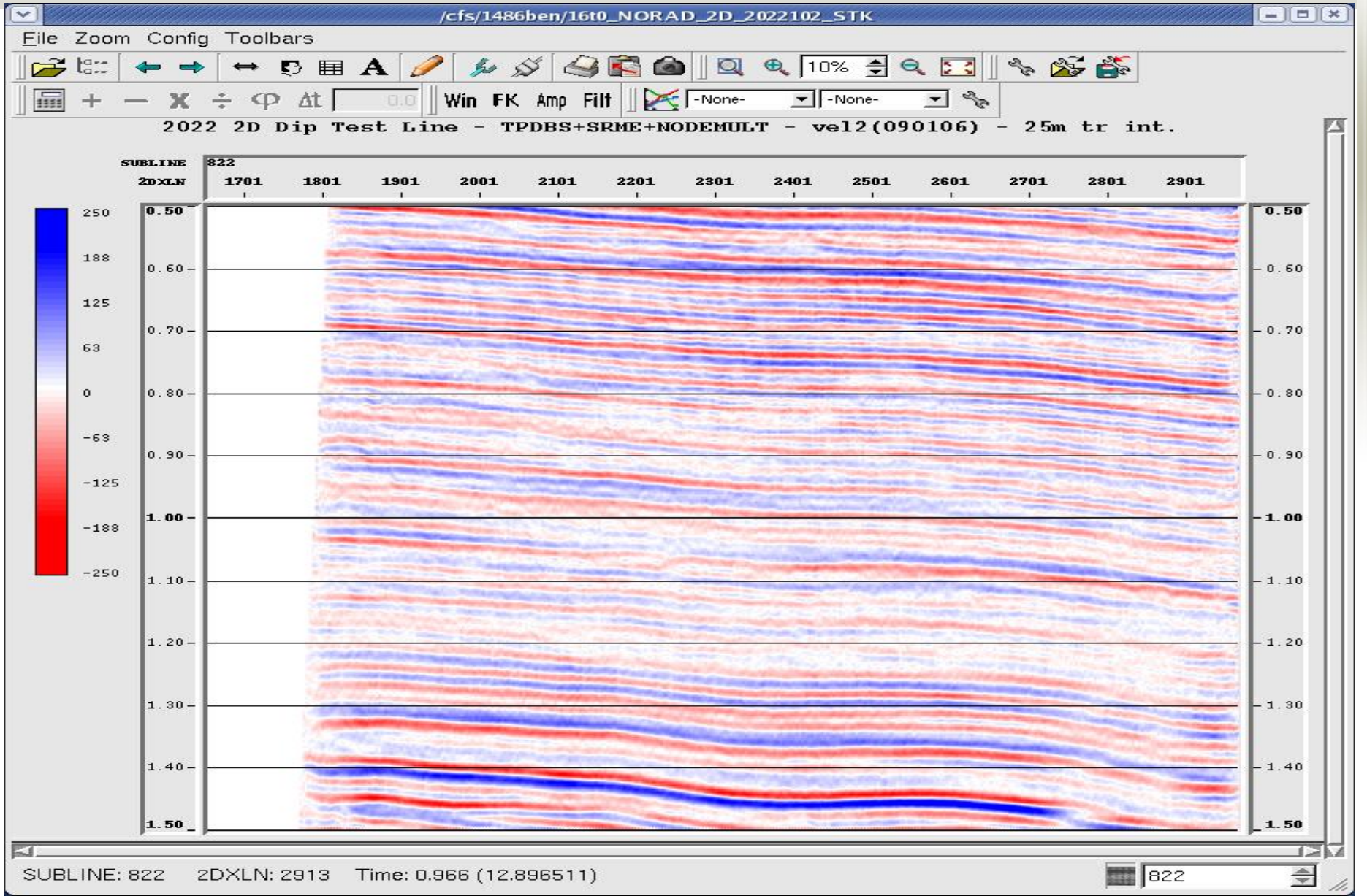
Vel2 semblance for example gather.



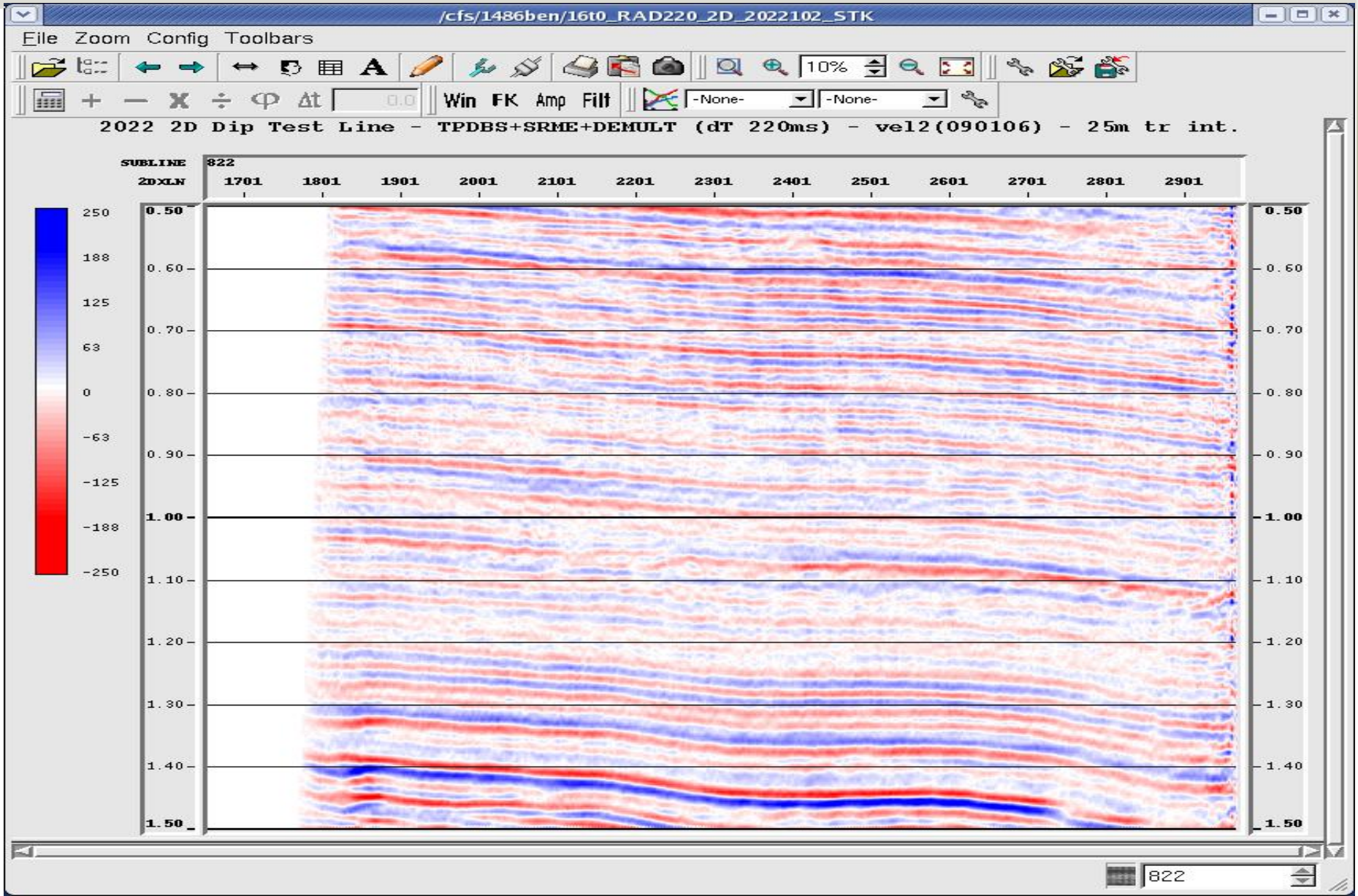
Vel2 semblance for example gather.



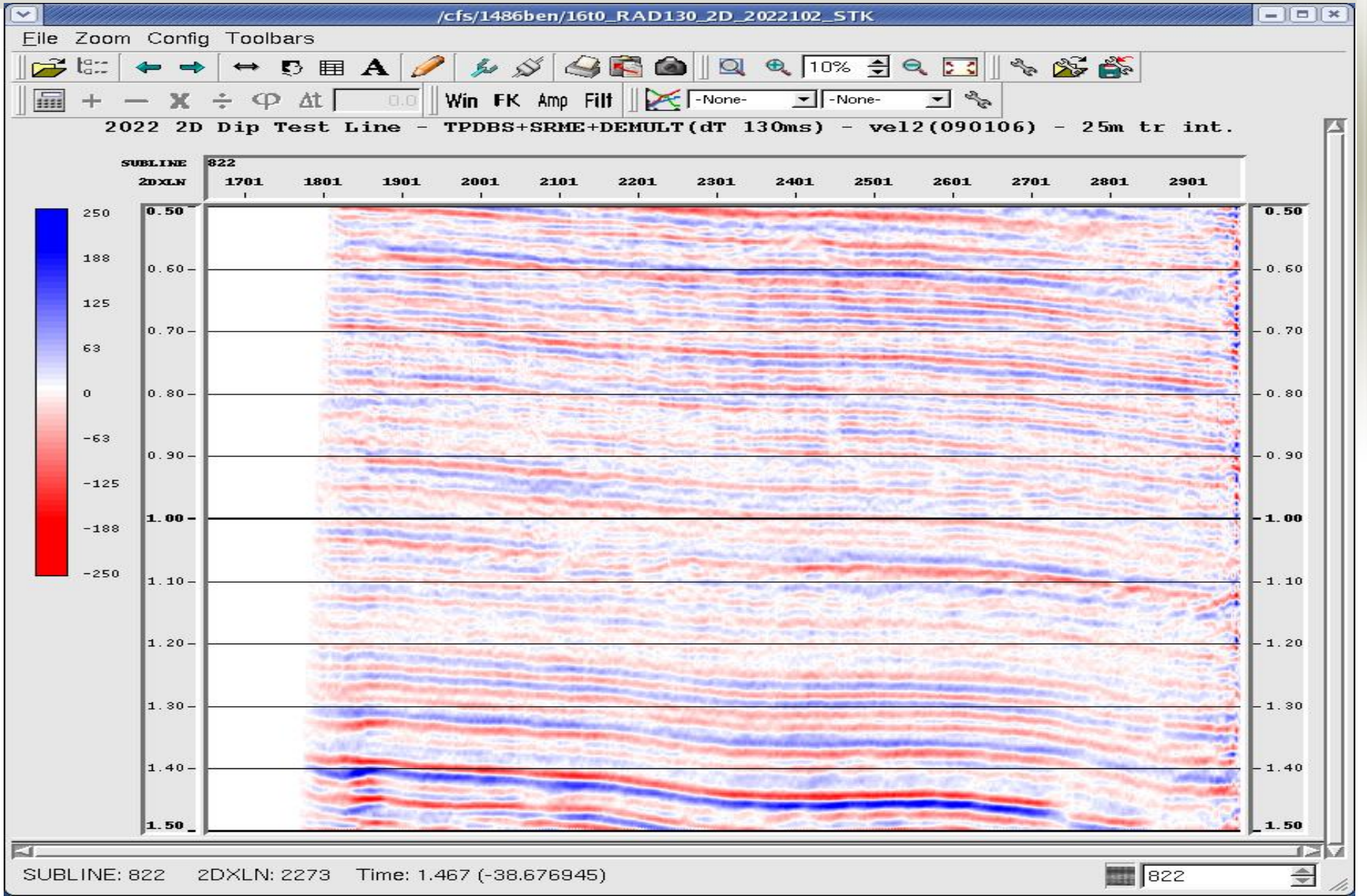
2022 2D Dip Test Line with TP DBS+SRME- No Demult.



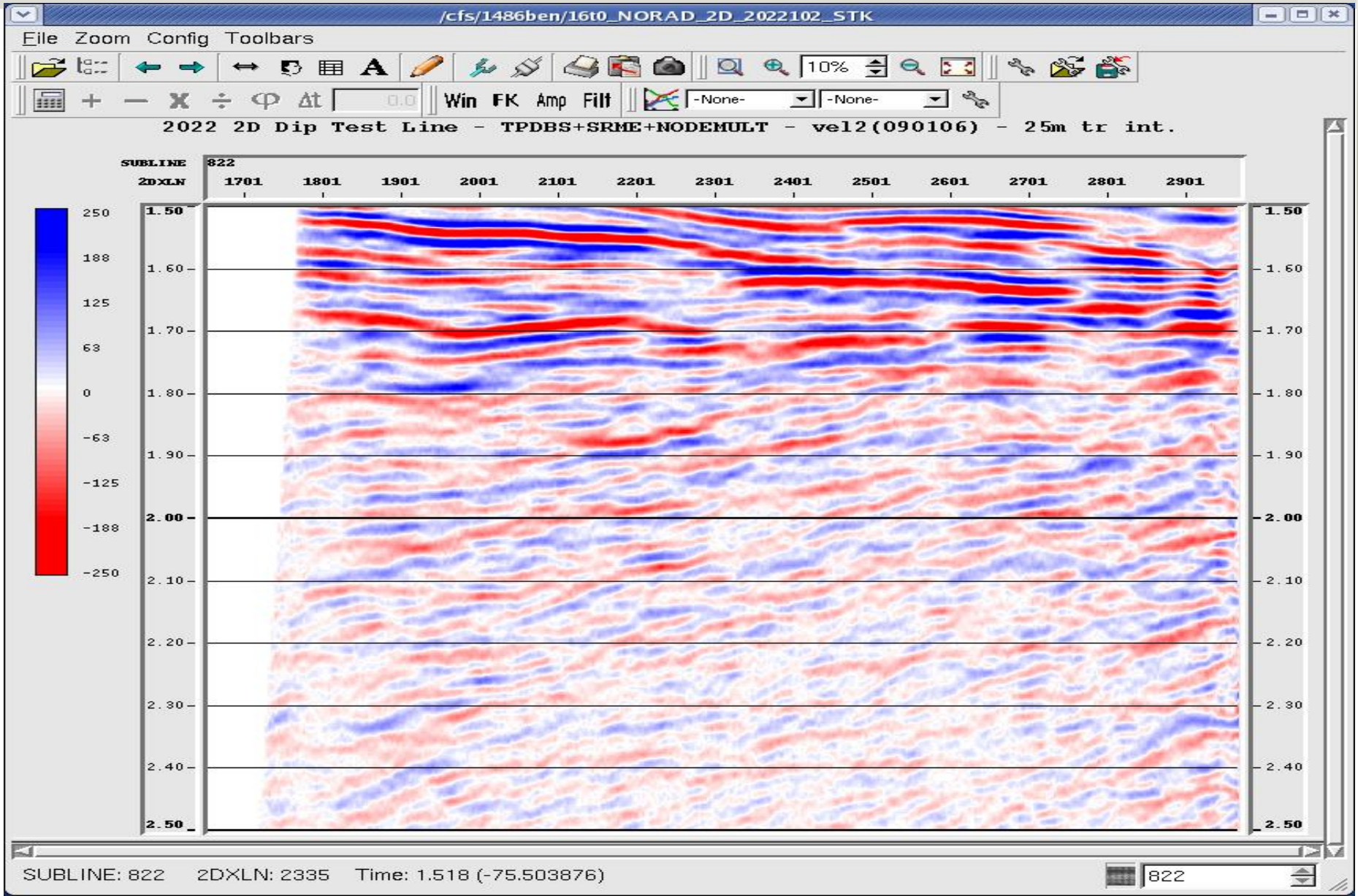
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 220ms)



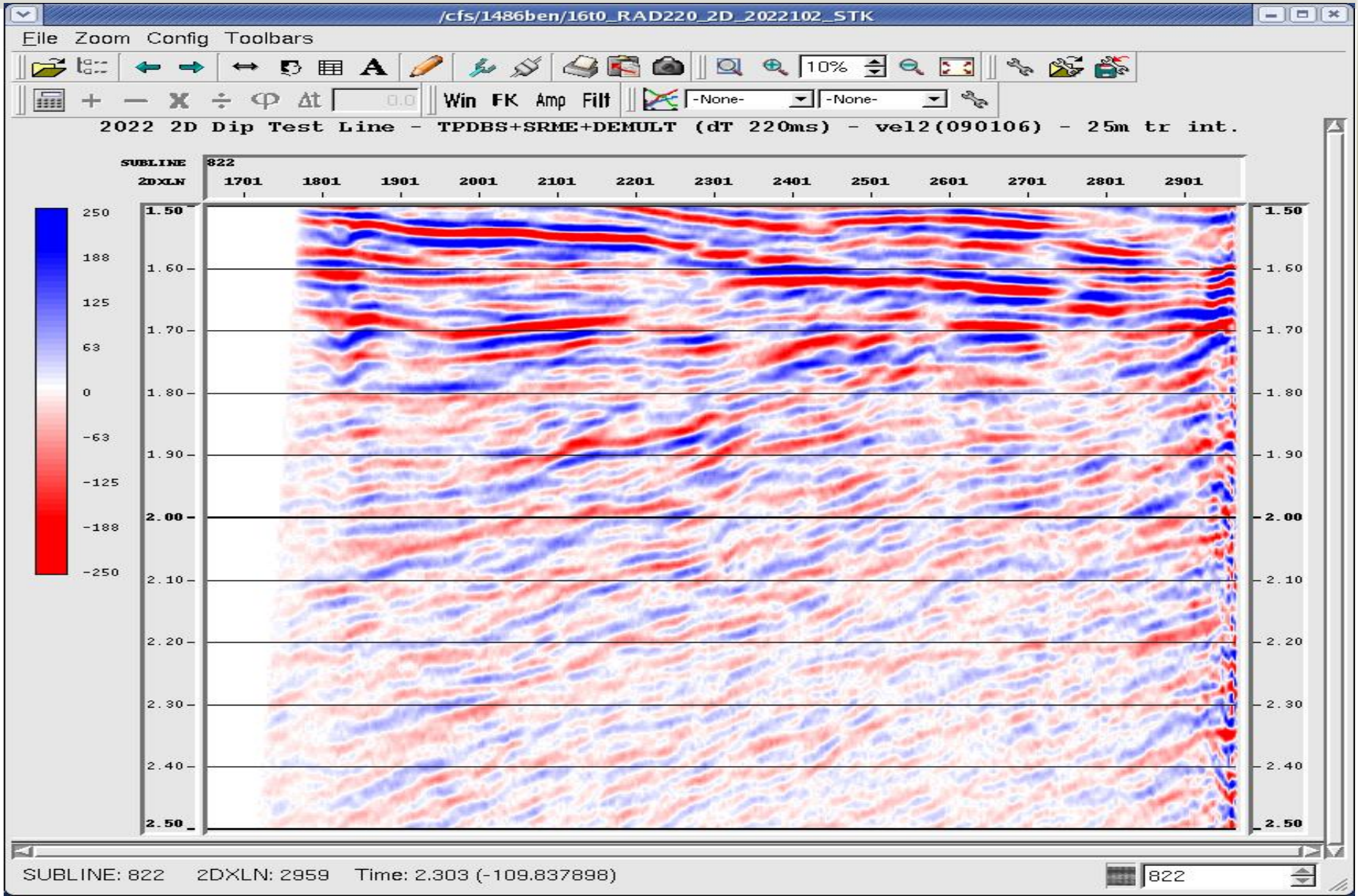
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 130ms)



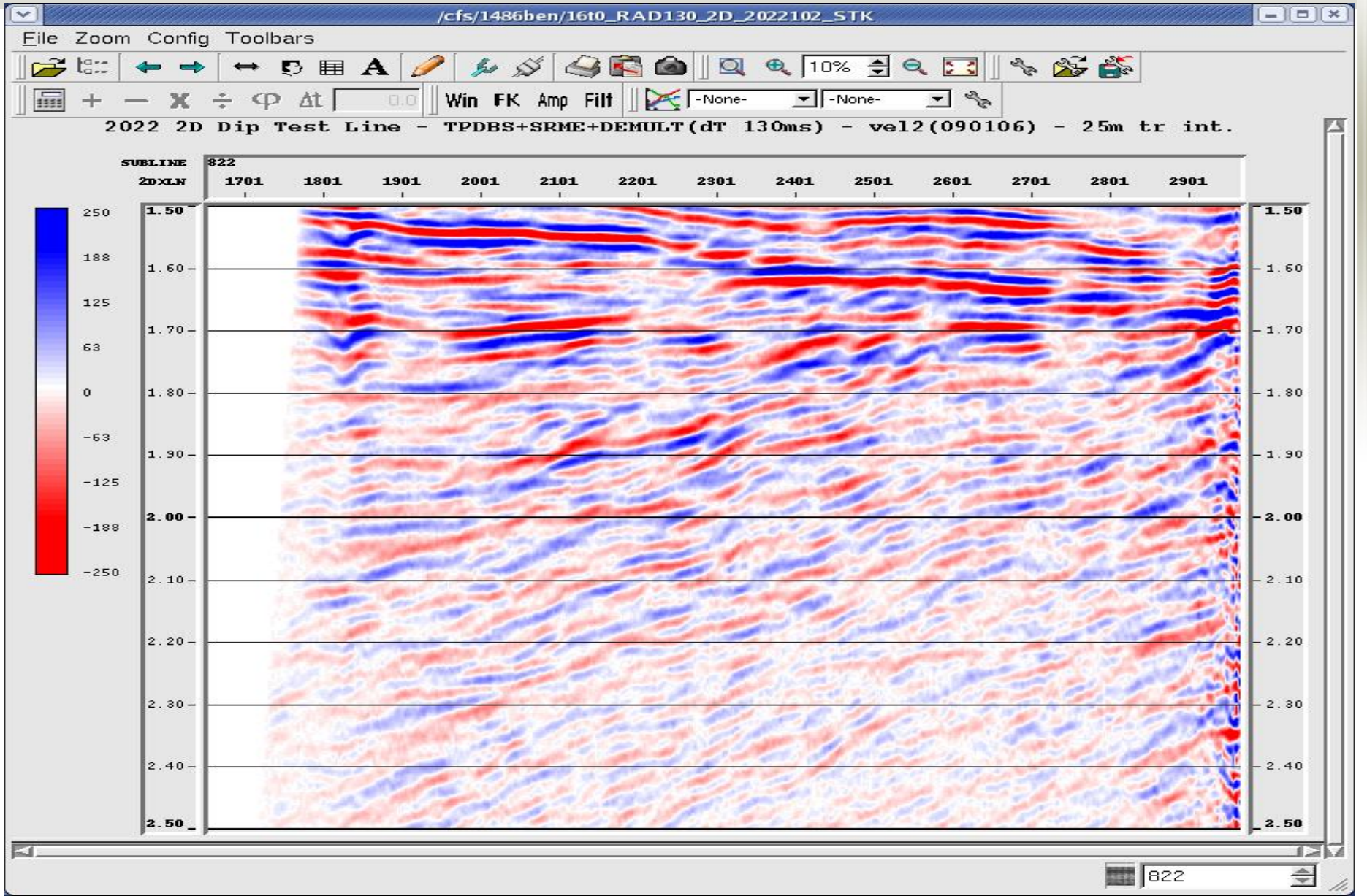
2022 2D Dip Test Line with TP DBS+SRME- No Demult.



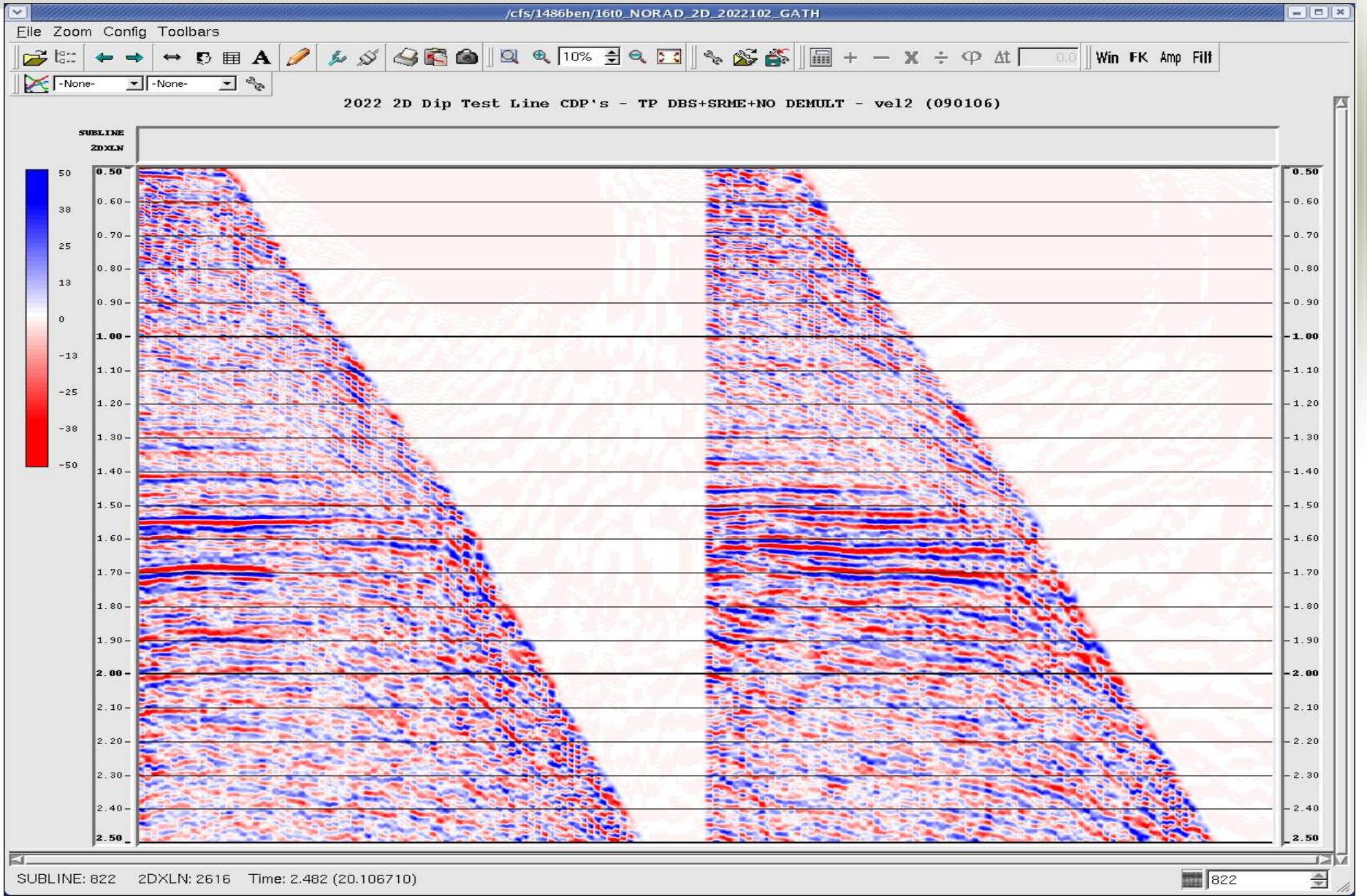
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 220ms)



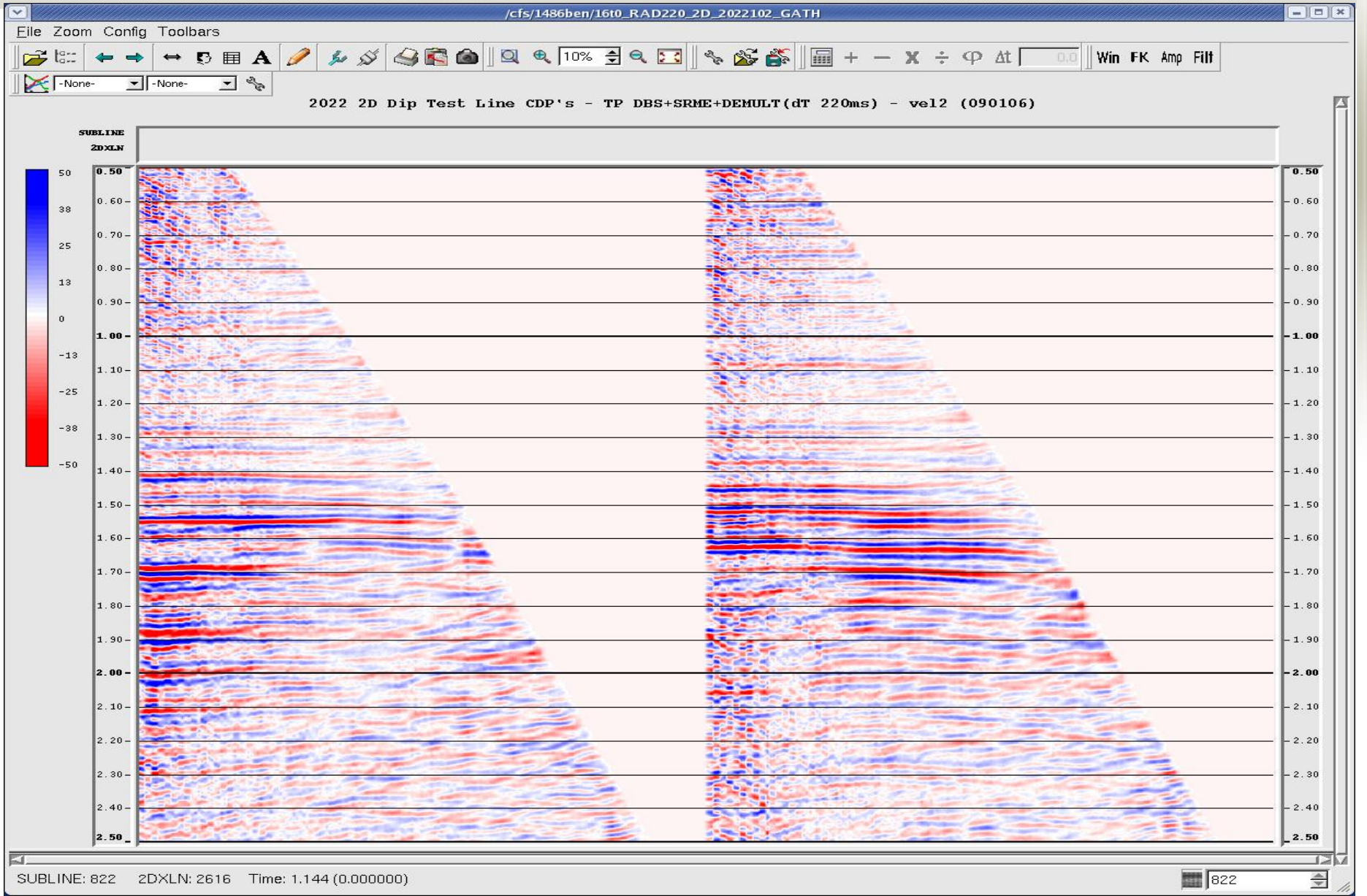
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 130ms)



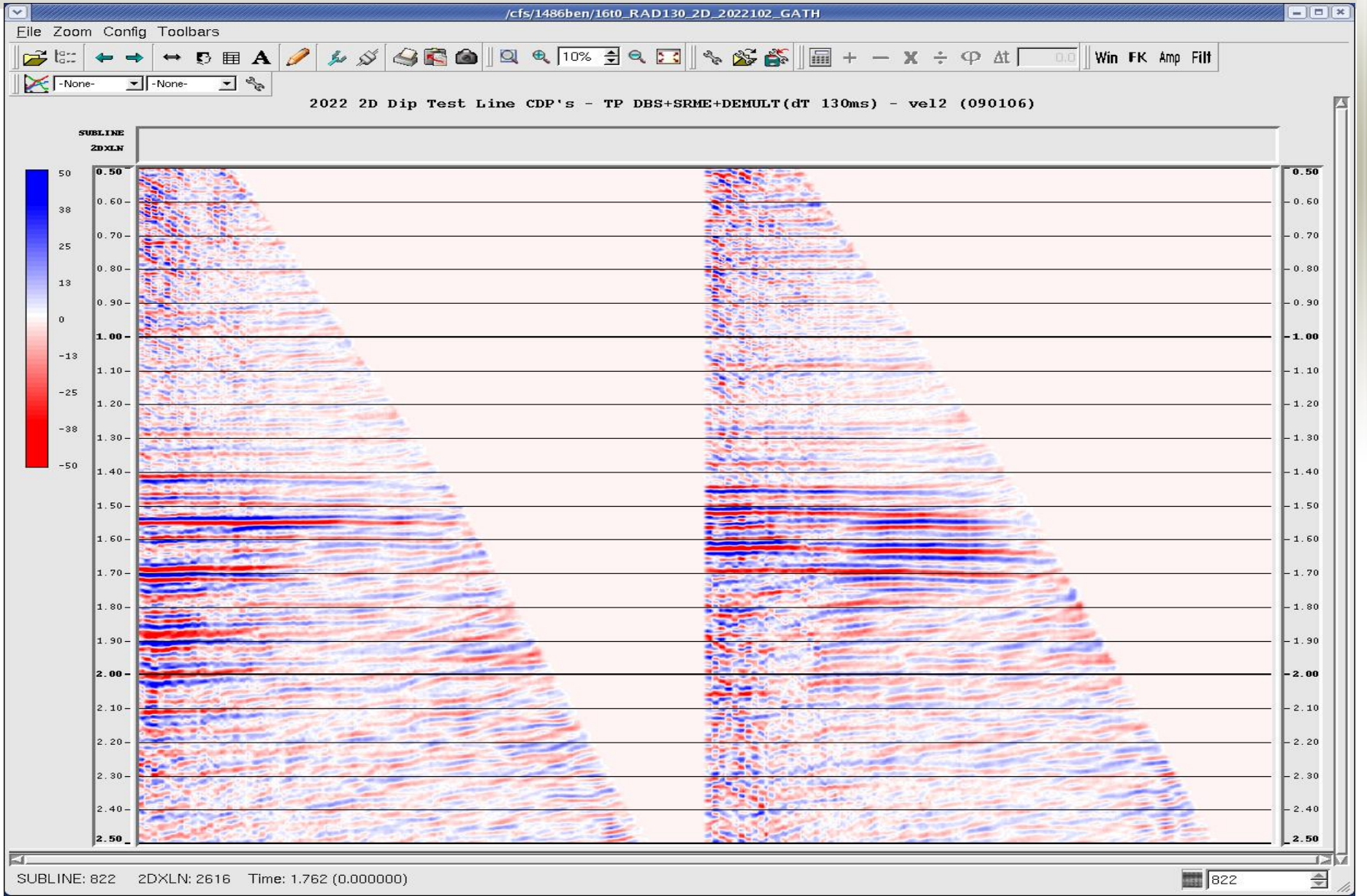
2022 2D Dip Test Line with TP DBS+SRME- No Demult.



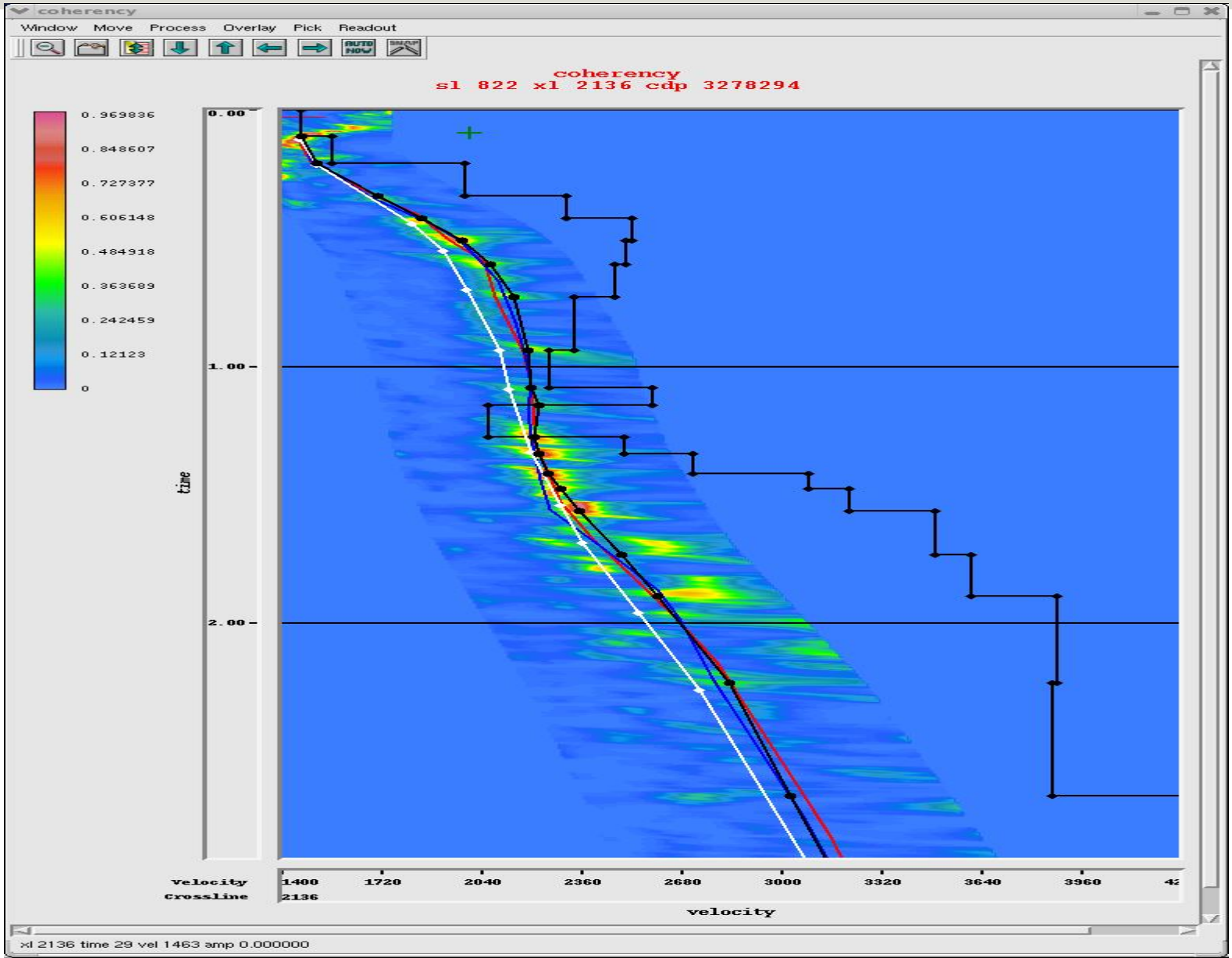
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 220ms)



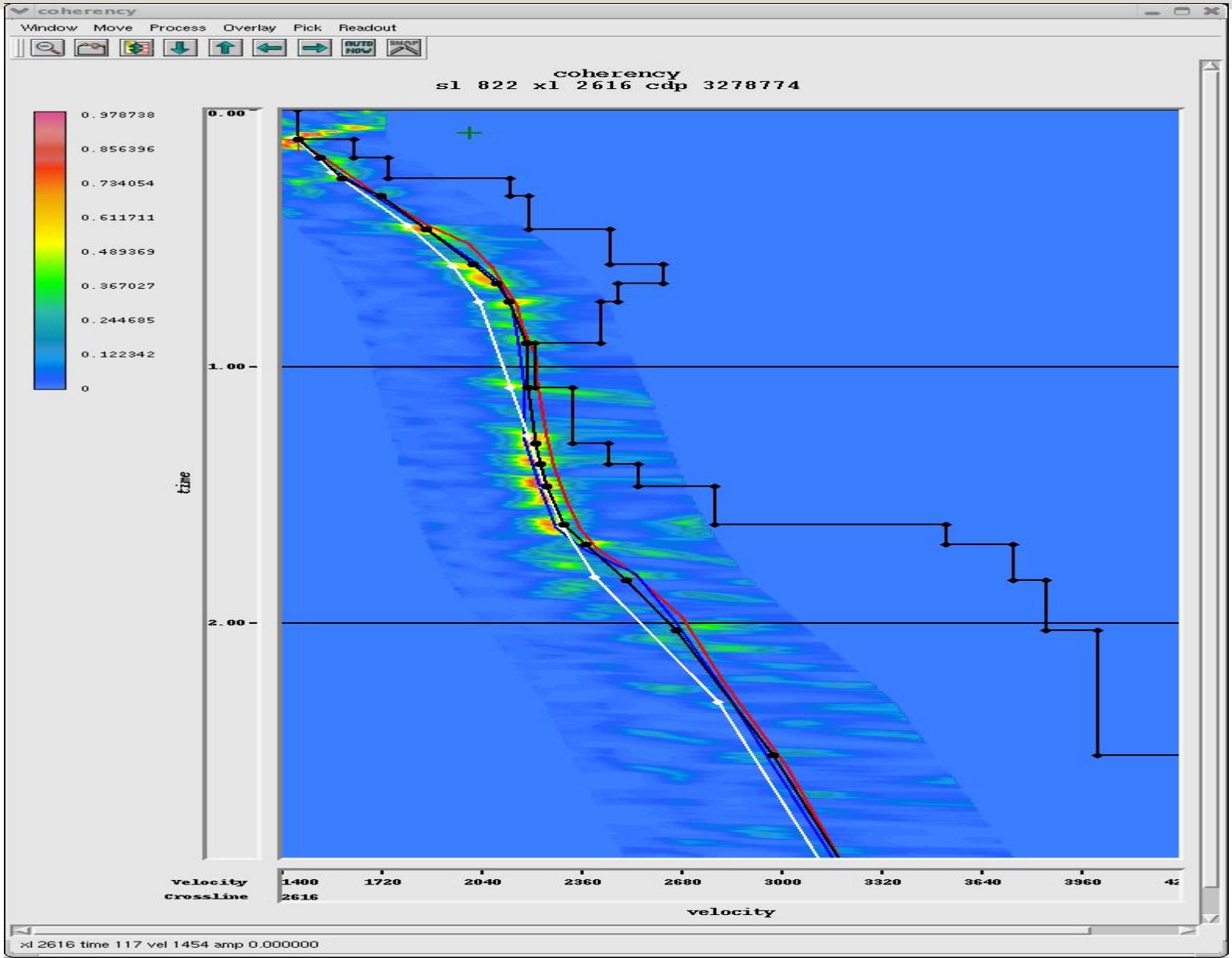
2022 2D Dip Test Line with TP DBS+SRME- Demult.(dT 130ms)



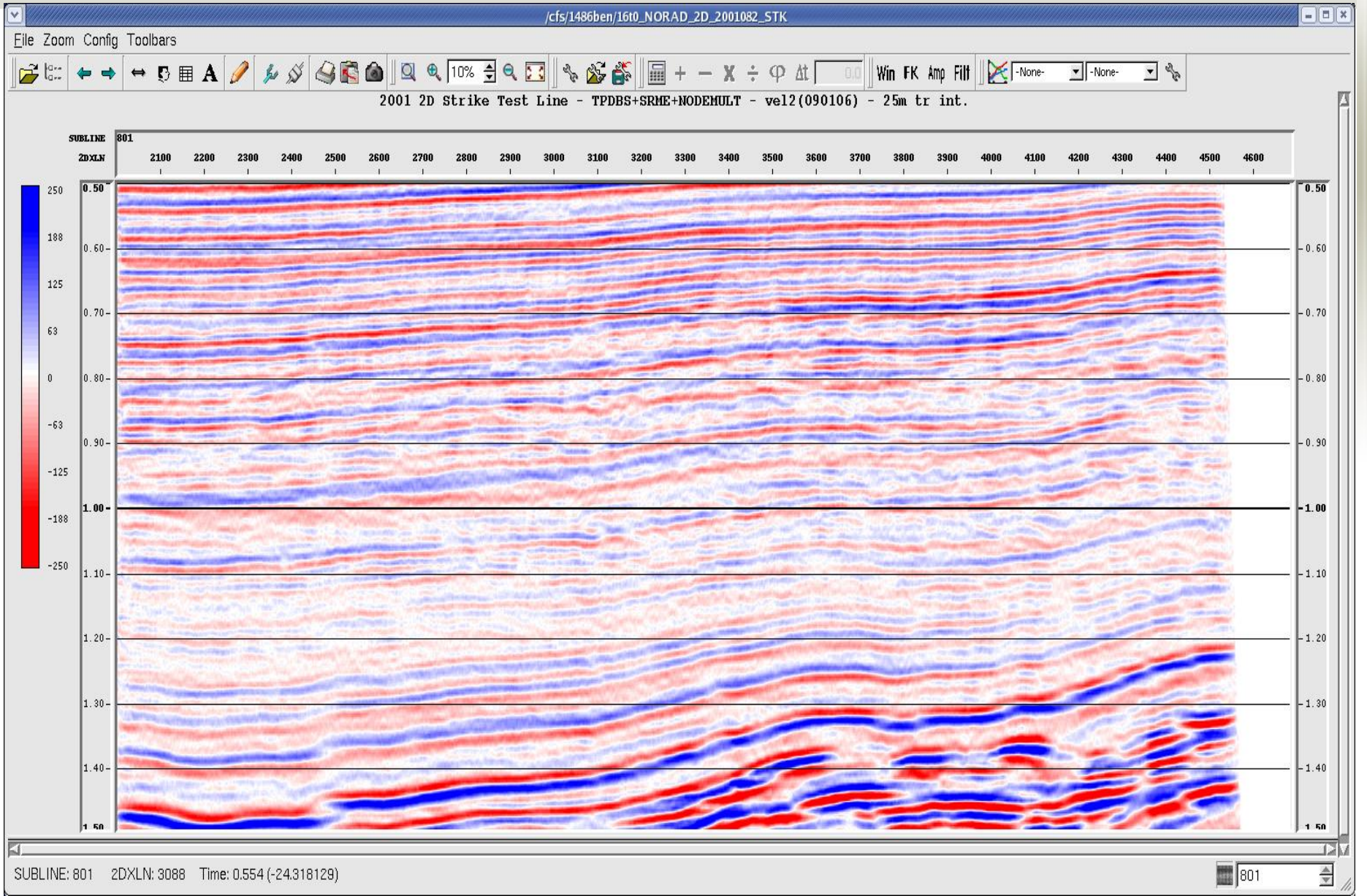
Nearest Vel2 semblance to example gather.



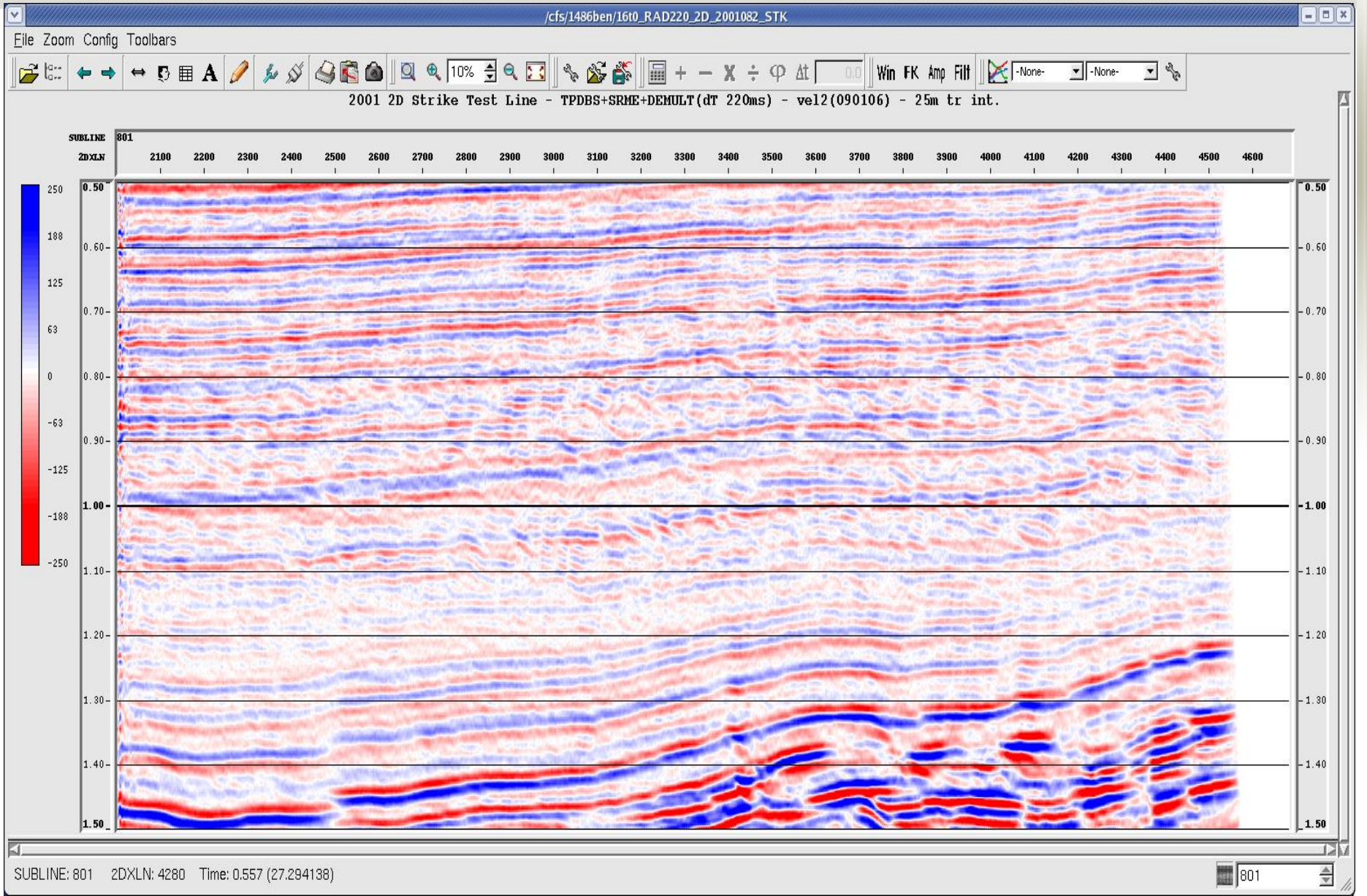
Nearest Vel2 semblance to example gather.



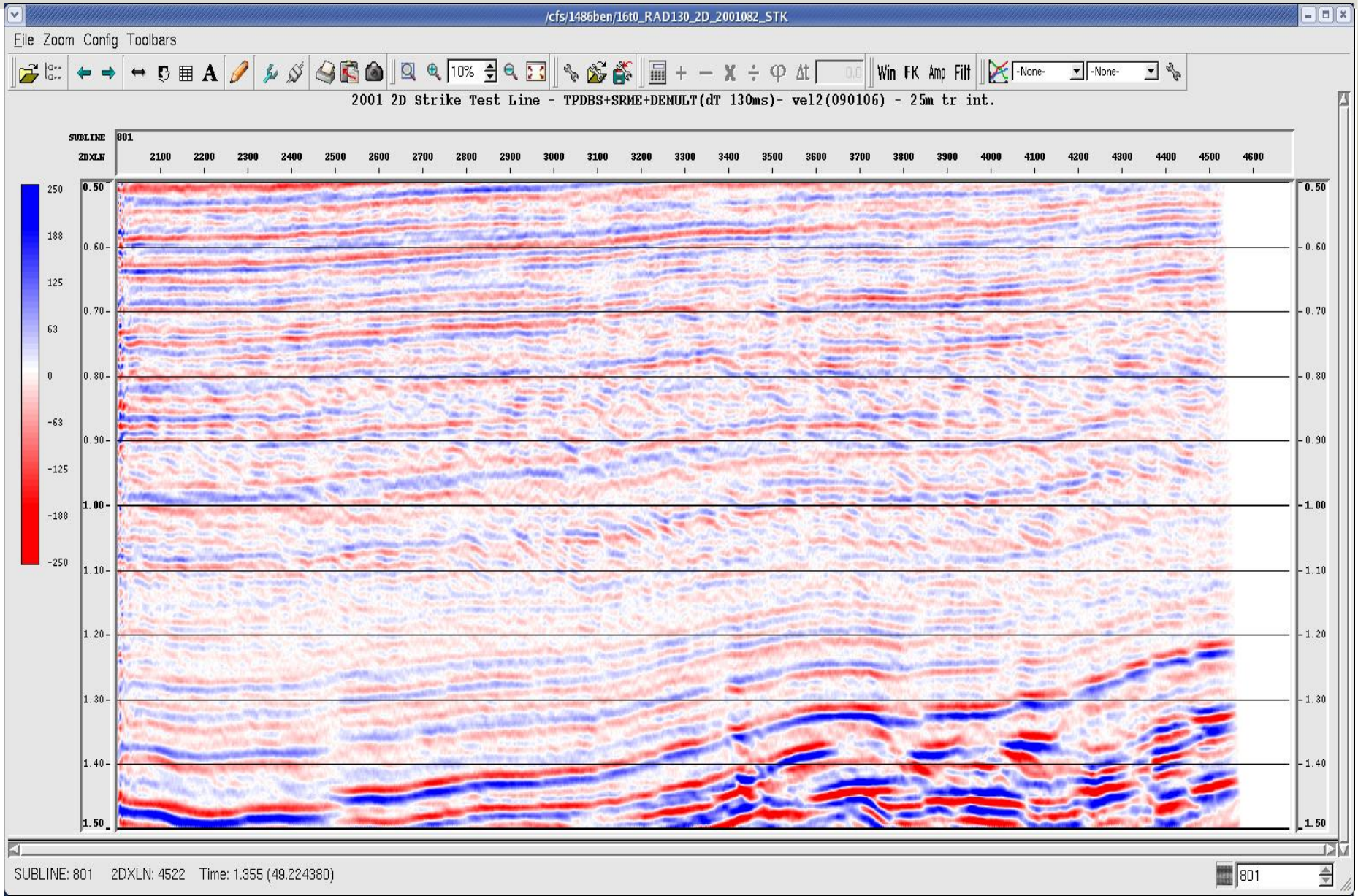
2001 2D Strike Test Line with TP DBS+SRME- No Demult.



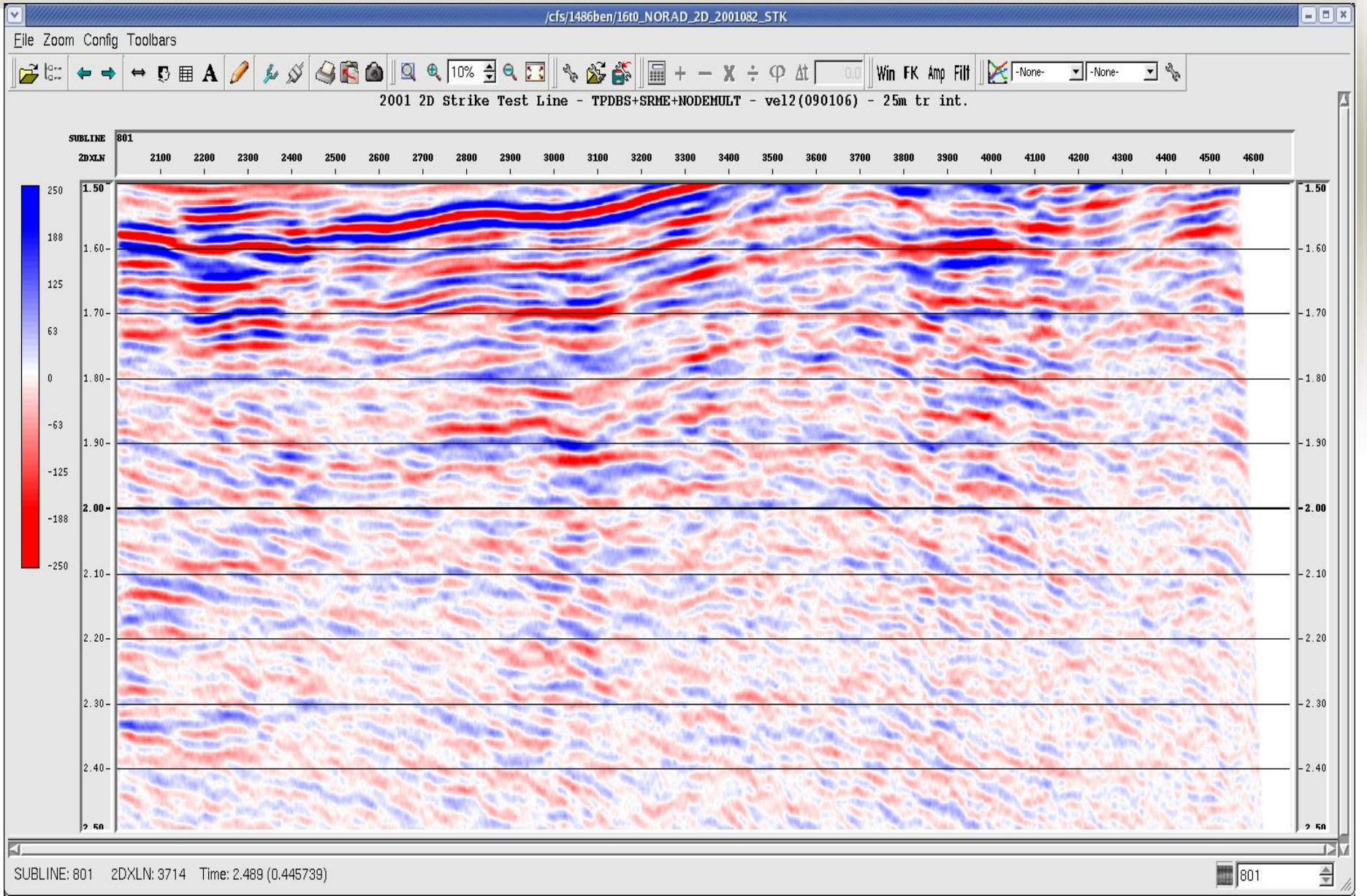
2001 2D Strike Test Line with TP DBS+SRME- Demult.(dT 220ms)



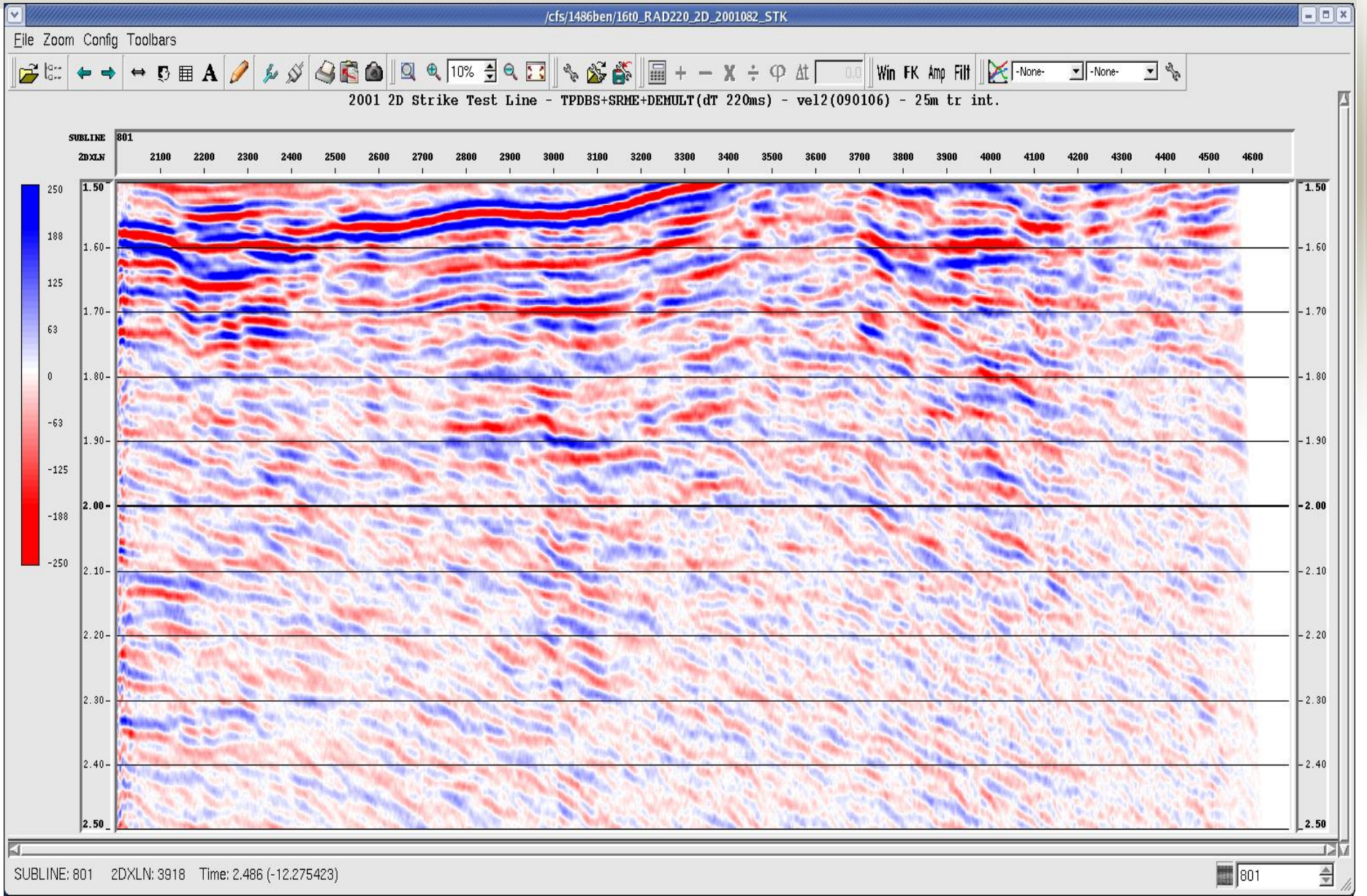
2001 2D Strike Test Line with TP DBS+SRME- Demult.(dT 130ms)



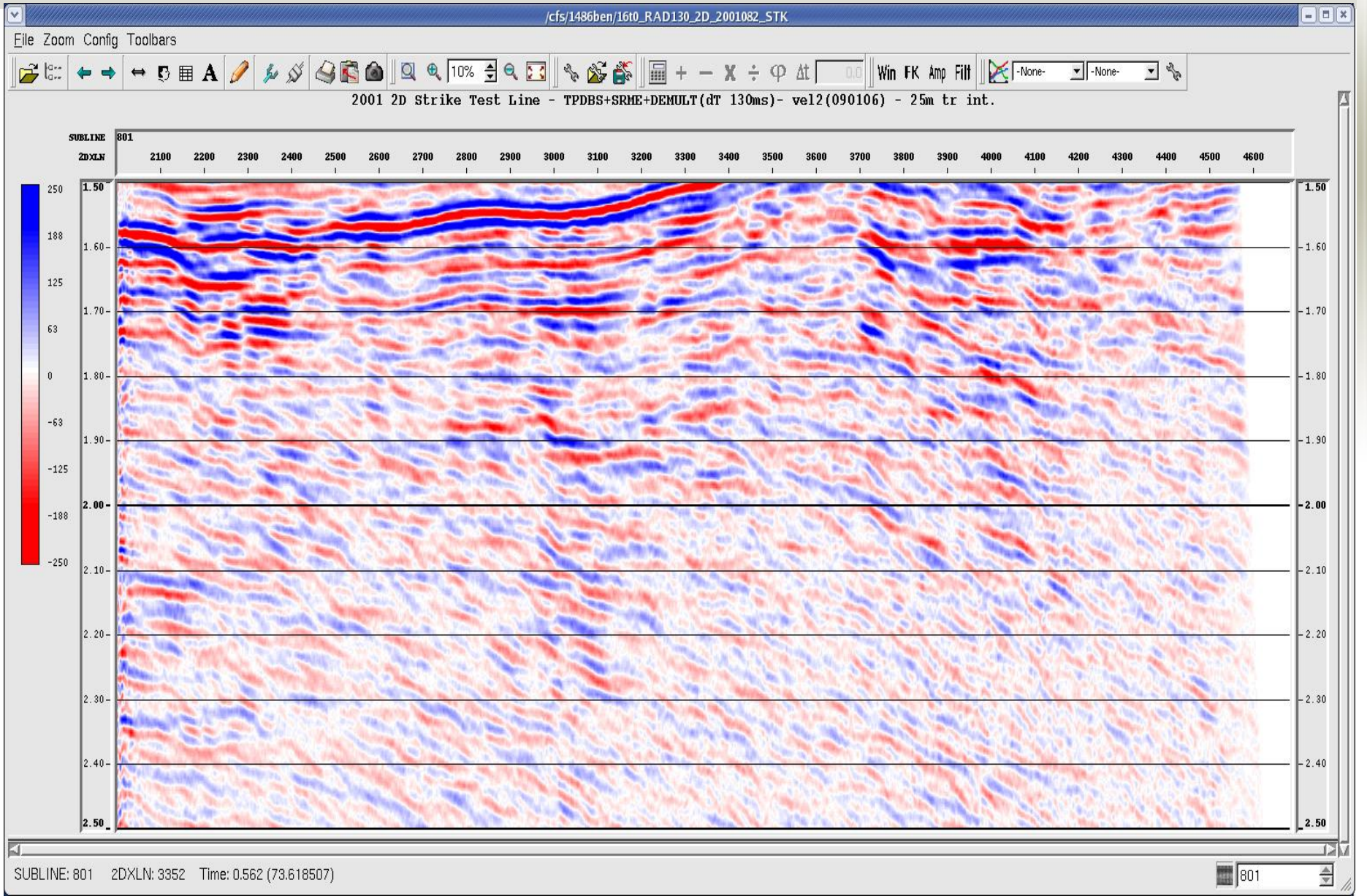
2001 2D Strike Test Line with TP DBS+SRME- No Demult.



2001 2D Strike Test Line with TP DBS+SRME- Demult.(dT 220ms)



2001 2D Strike Test Line with TP DBS+SRME- Demult.(dT 130ms)



CONCLUSION

•On the stack data the Demultiple appears to generally attenuate primary above 1400ms. However, on closer inspection, below 800ms to the top of the zone of interest, there is multiple removal and an increase in resolution of particular horizons and faults. Thus it is recommended that the demultiple be ramped on from 750 –850ms in production.

•Although there is occasionally an area where the ‘dT=130’ demultiple is slightly better, at this stage of the processing it is better to be cautious and apply the mild ‘dt=220’ demultiple until the complexities in the gathers are resolved somewhat with PSTM and velocities.

•There is quite an improvement in the resolution of the 2D data in and below the zone of interest whereas the improvement in the 3D line is only slight. Not sure why this is the case. There is some near-offset noise leaking into the stack of 2001 which is not evident on the other two lines.

•Although not shown here, a comparison was made between applying the demultiple before and after PSTM. There was very little difference in the resulting PSTM stacks although the PSTM gathers, with the demultiple applied before the PSTM, were definitely ‘cleaner’ on the mid and far offsets.

06R_Demult.ppt

Benaris T/39 P 3D/2D
Pre-PSTM Radon Demultiple Tests from test lines 1252060, 2022102 and 2001082.
07/02/06

Re-runs of the 2D lines with corrected geometry are included

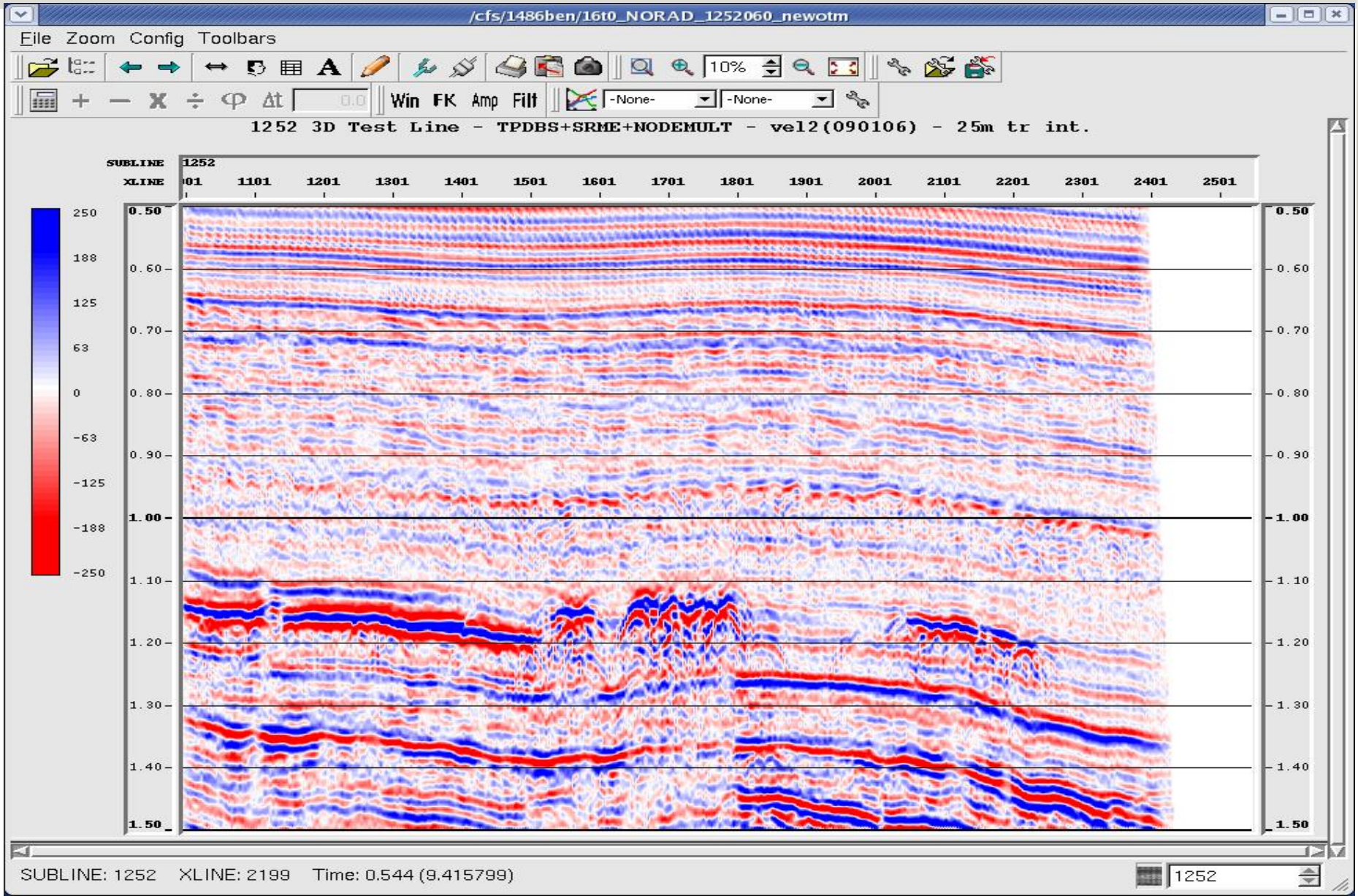
SUMMARY OF CONTENTS

- Review of Radon Demultiple results from the 3D test line 1252060 and the 2D test lines 2022102 and 2001082.

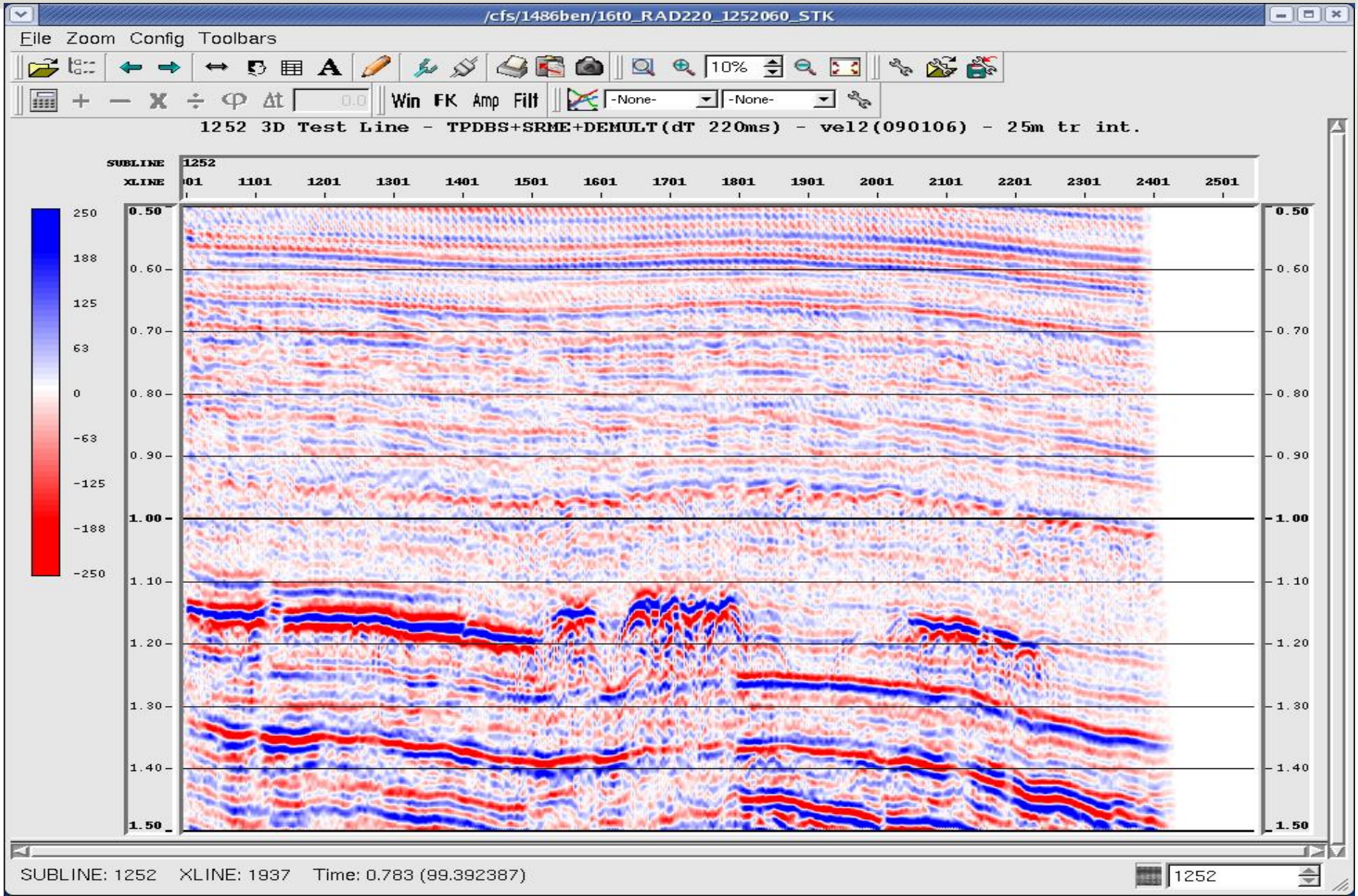
- In each case the Demult is applied 100% from 500ms down. The Demult. examples included are for two different severities – the dT=220ms as a mild application and the dT=130ms as a standard application targeted at the zone of interest (1500ms). Both applications are very mild for the deeper data (>2000ms) where there is less velocity backup.

- The velocities used were the approved second pass vels.
- The outer mute was widened slightly from that used in previous tests.
- The stack traces are displayed every 25m (alternate traces).
- Sph. Div (vvt) and an exponential gain (0-3s, 0-9dB) are applied.

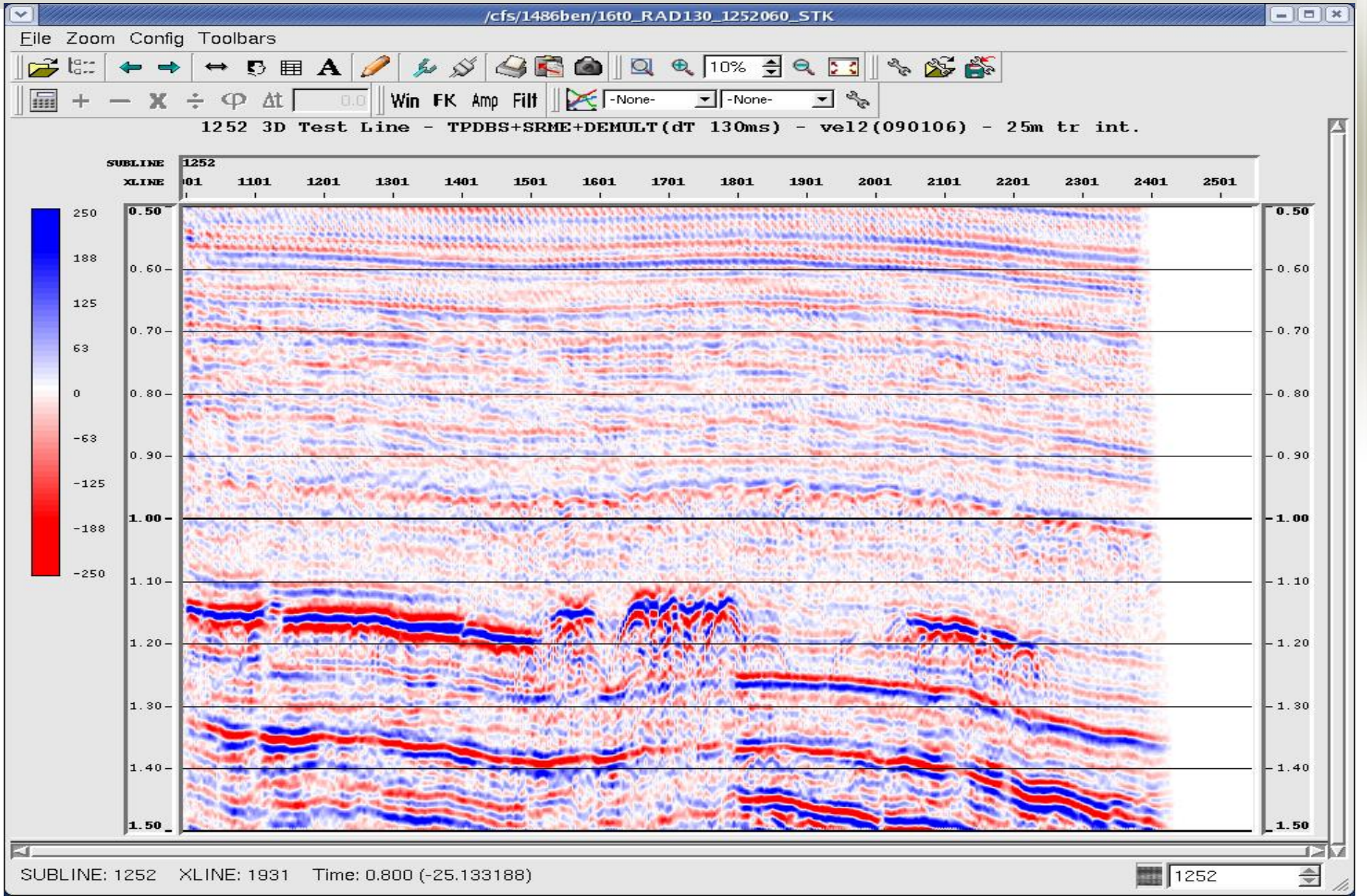
1252 3D Test Line with TP DBS+SRME- No Demult.



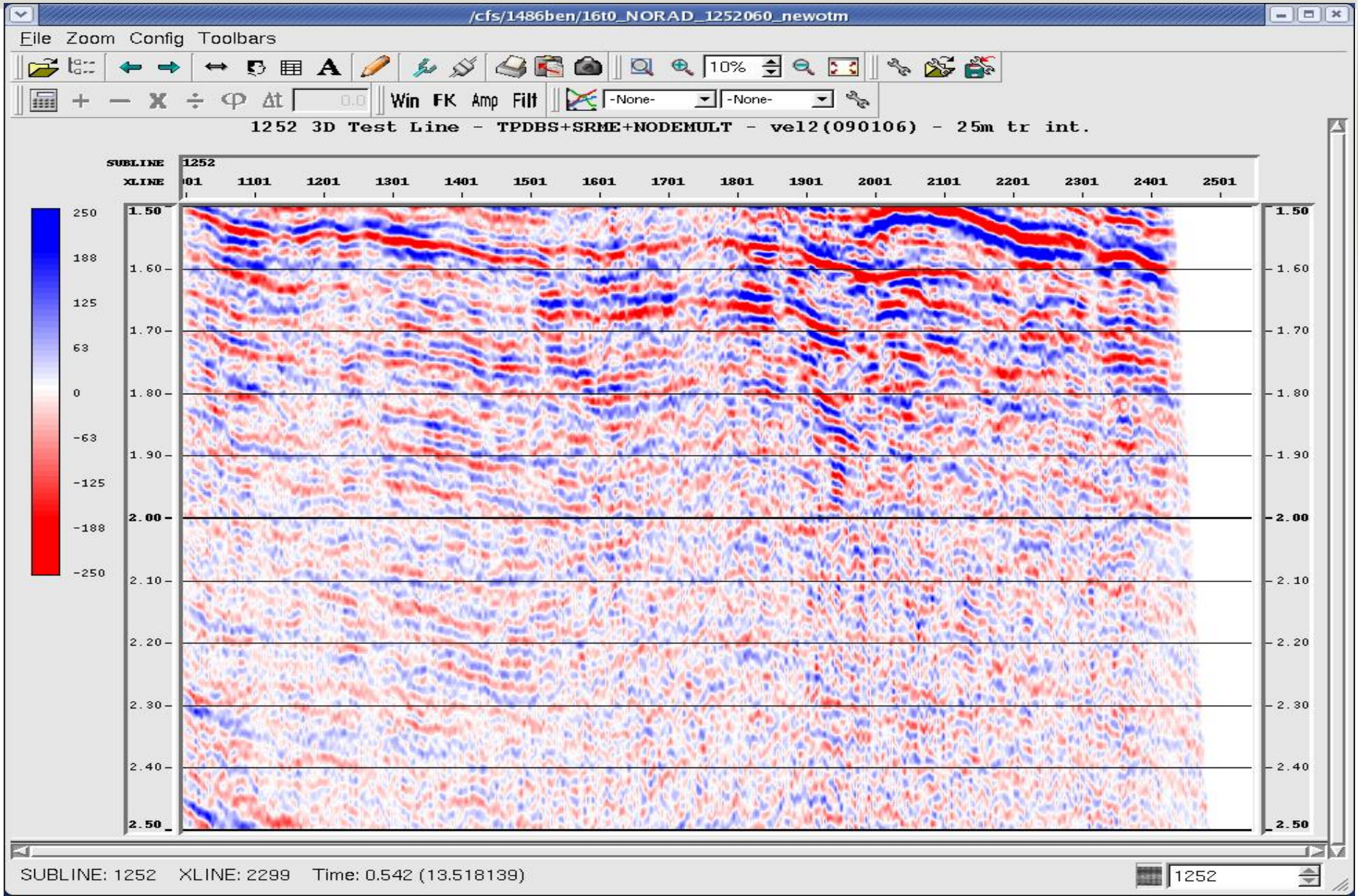
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



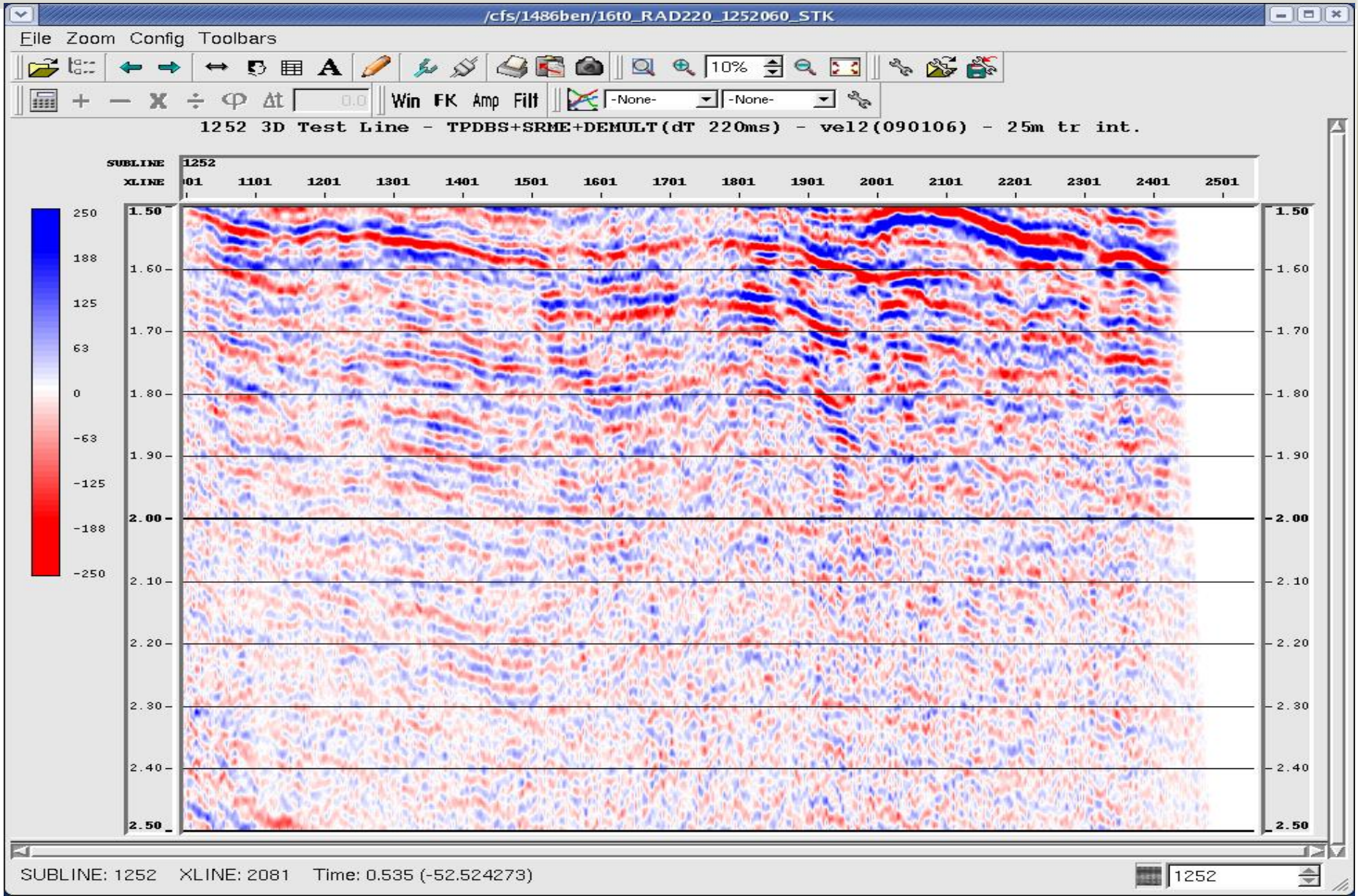
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



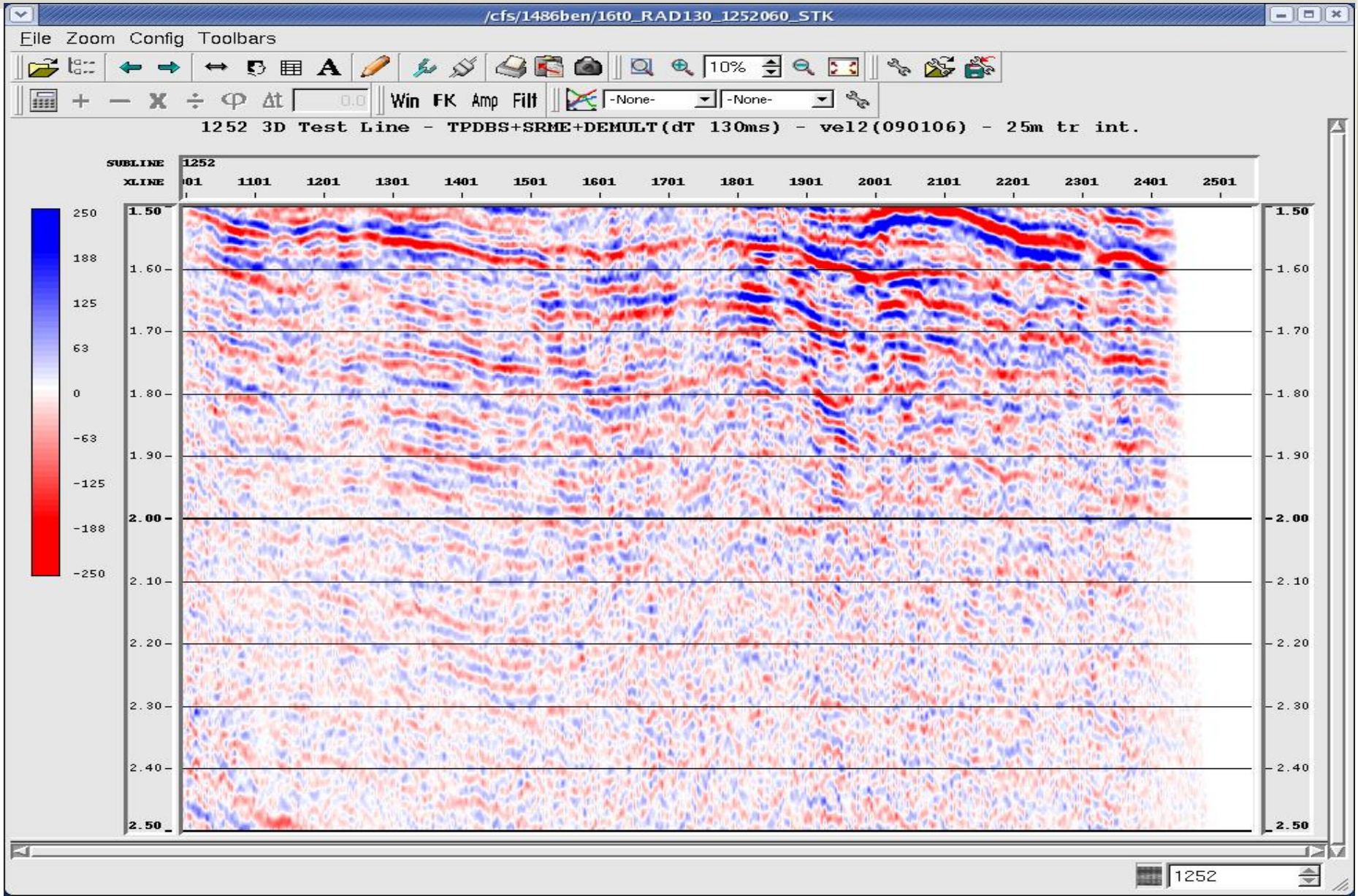
1252 3D Test Line with TP DBS+SRME- No Demult.



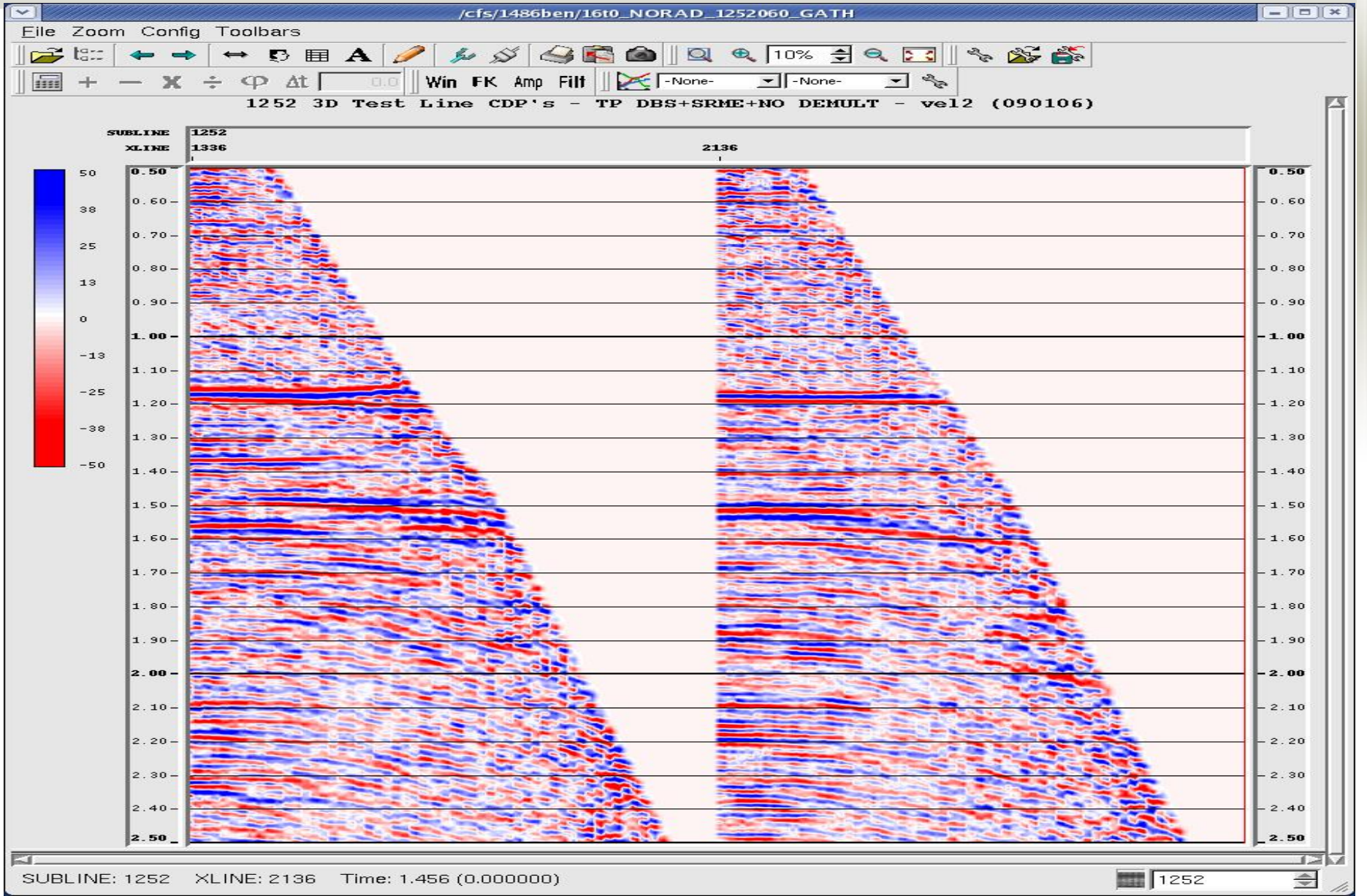
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



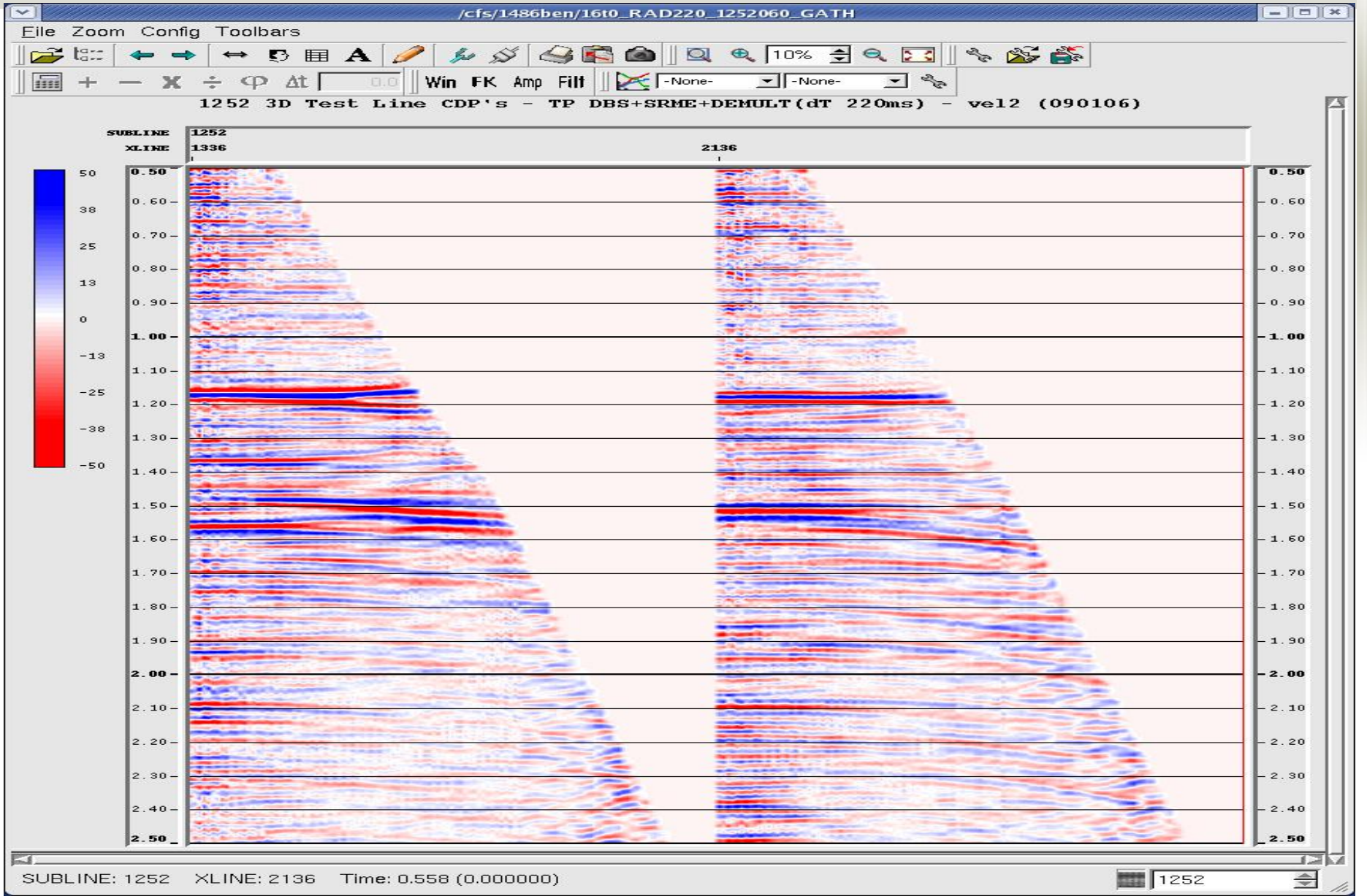
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



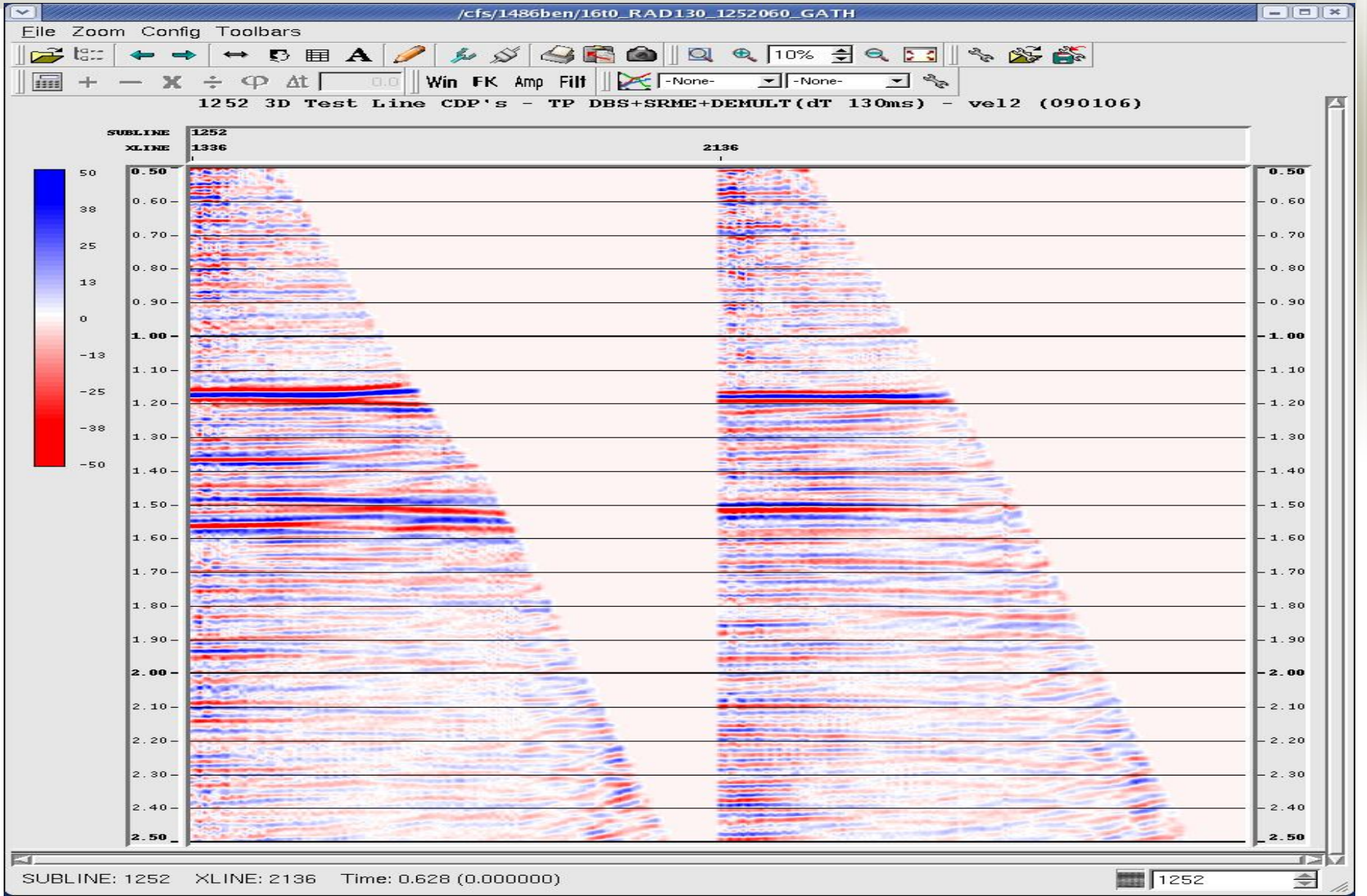
1252 3D Test Line with TP DBS+SRME- No Demult.



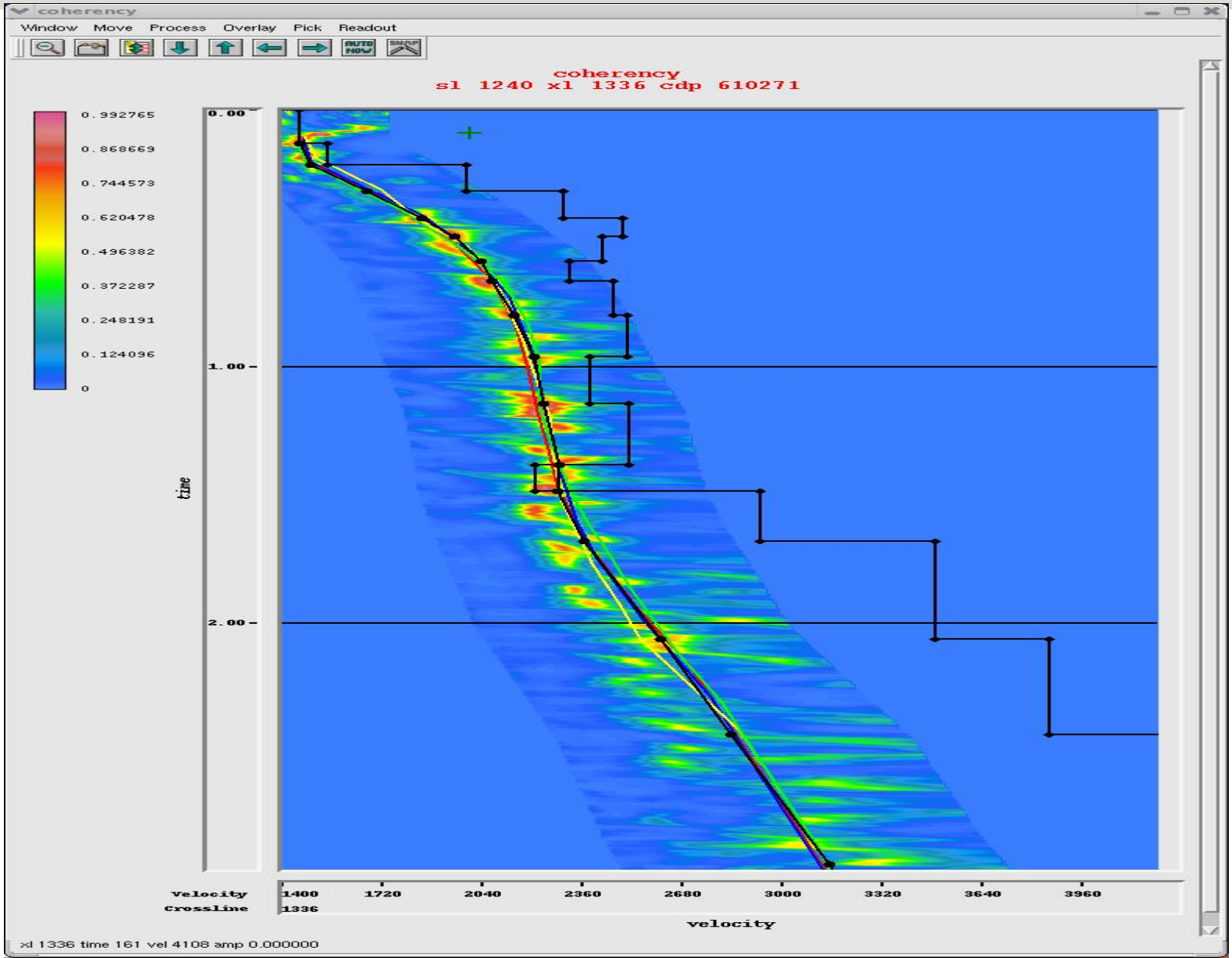
1252 3D Test Line with TP DBS+SRME- Demult.(dT 220ms)



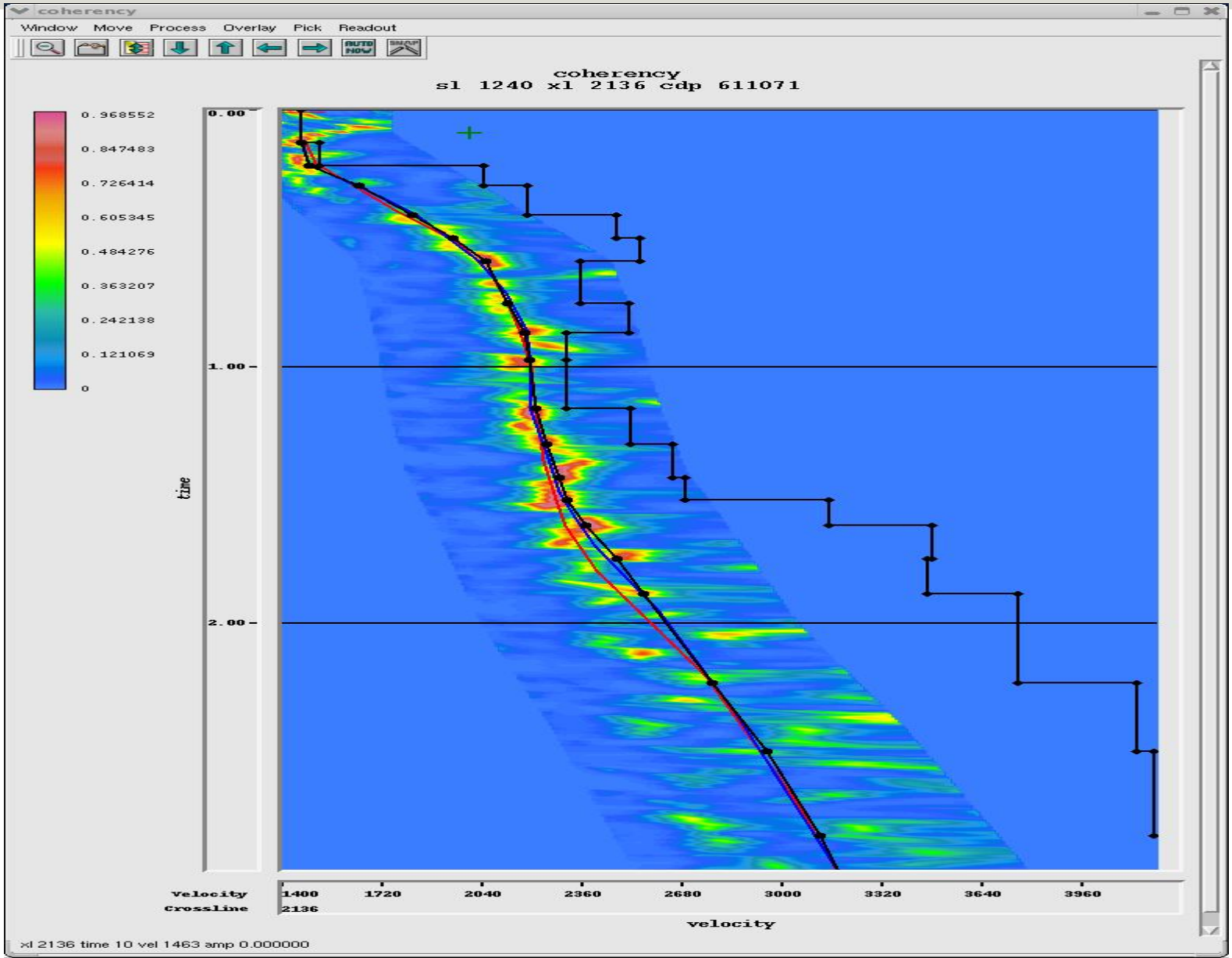
1252 3D Test Line with TP DBS+SRME- Demult.(dT 130ms)



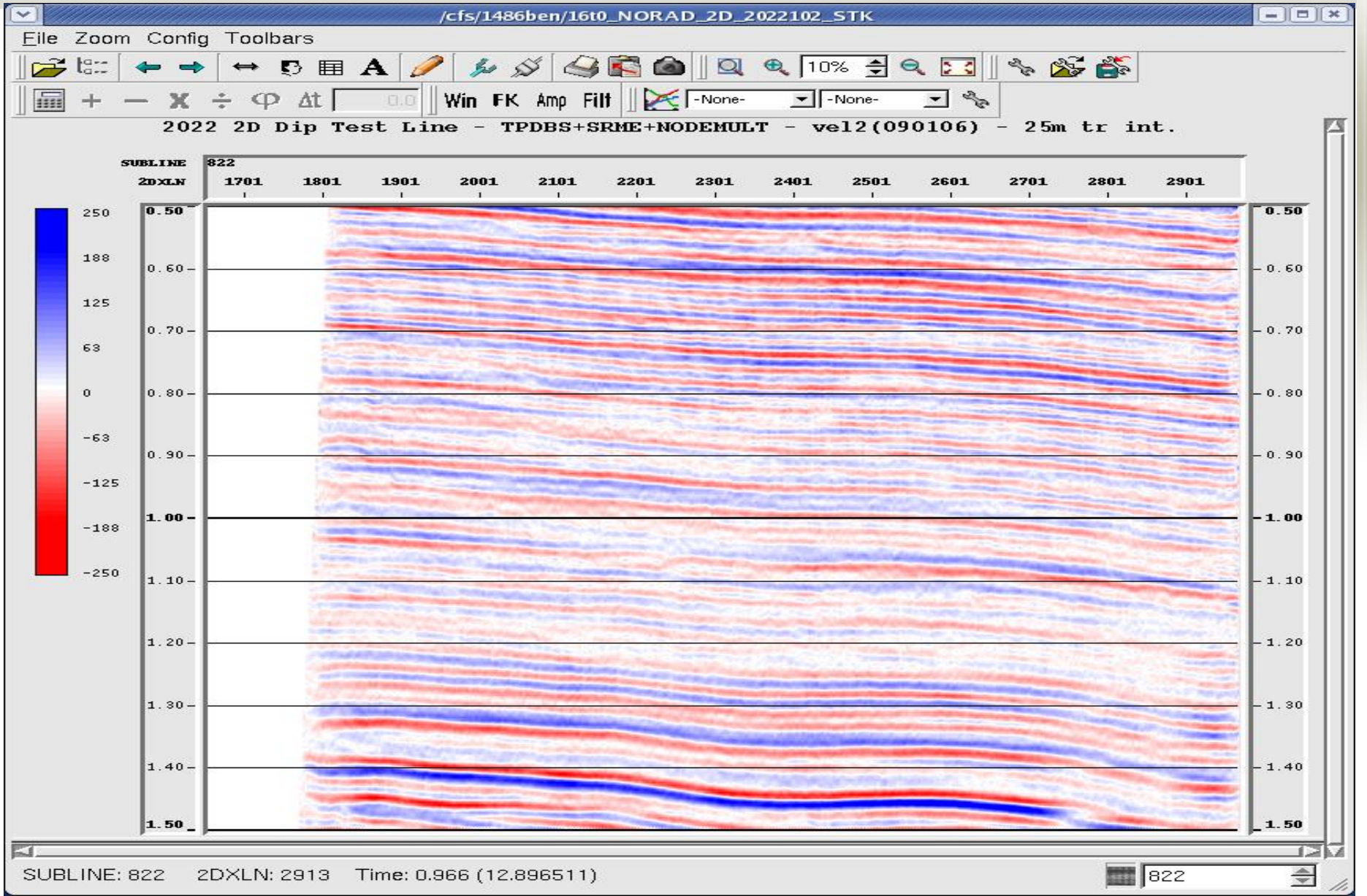
Vel2 semblance for example gather.



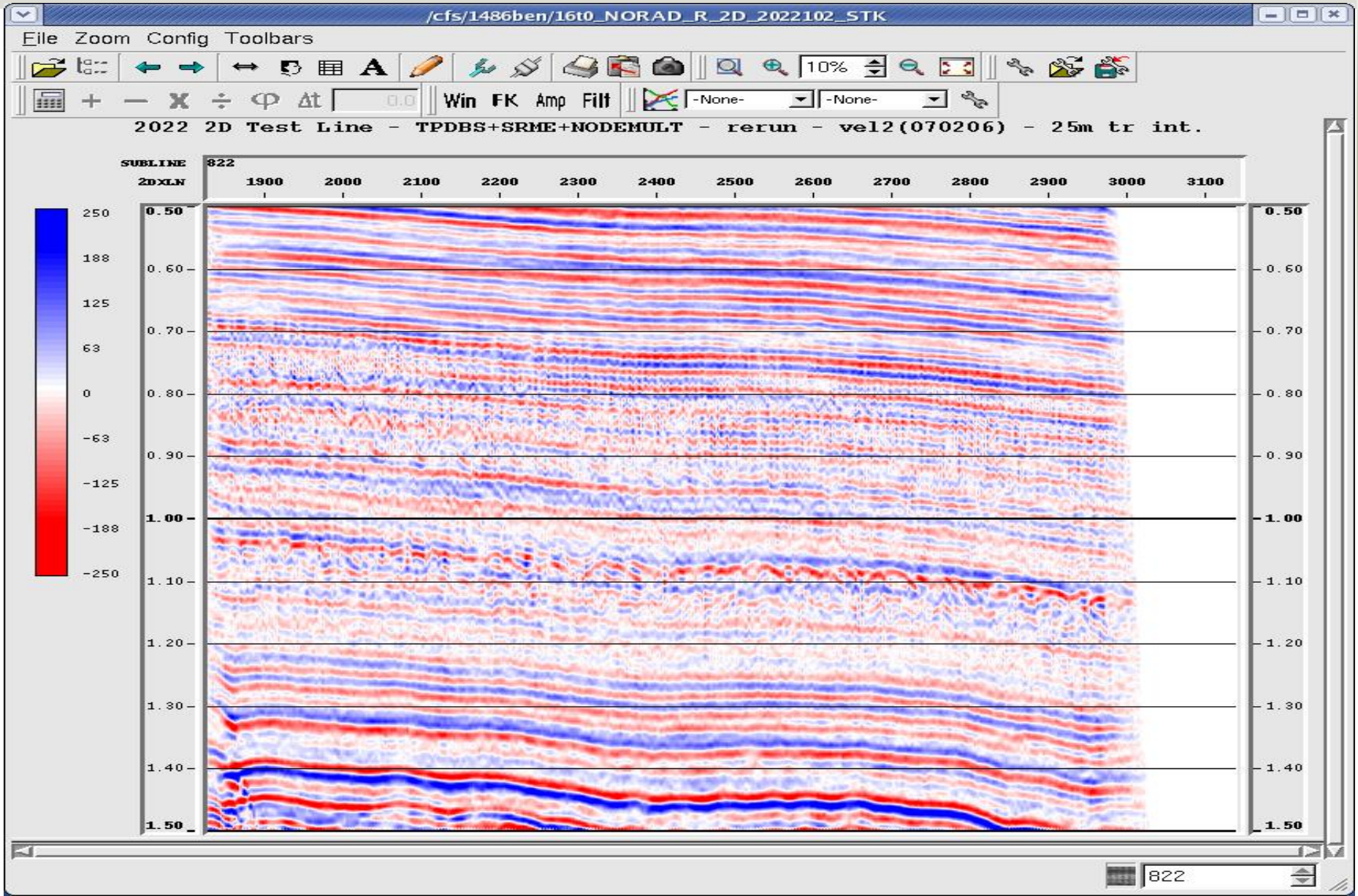
Vel2 semblance for example gather.



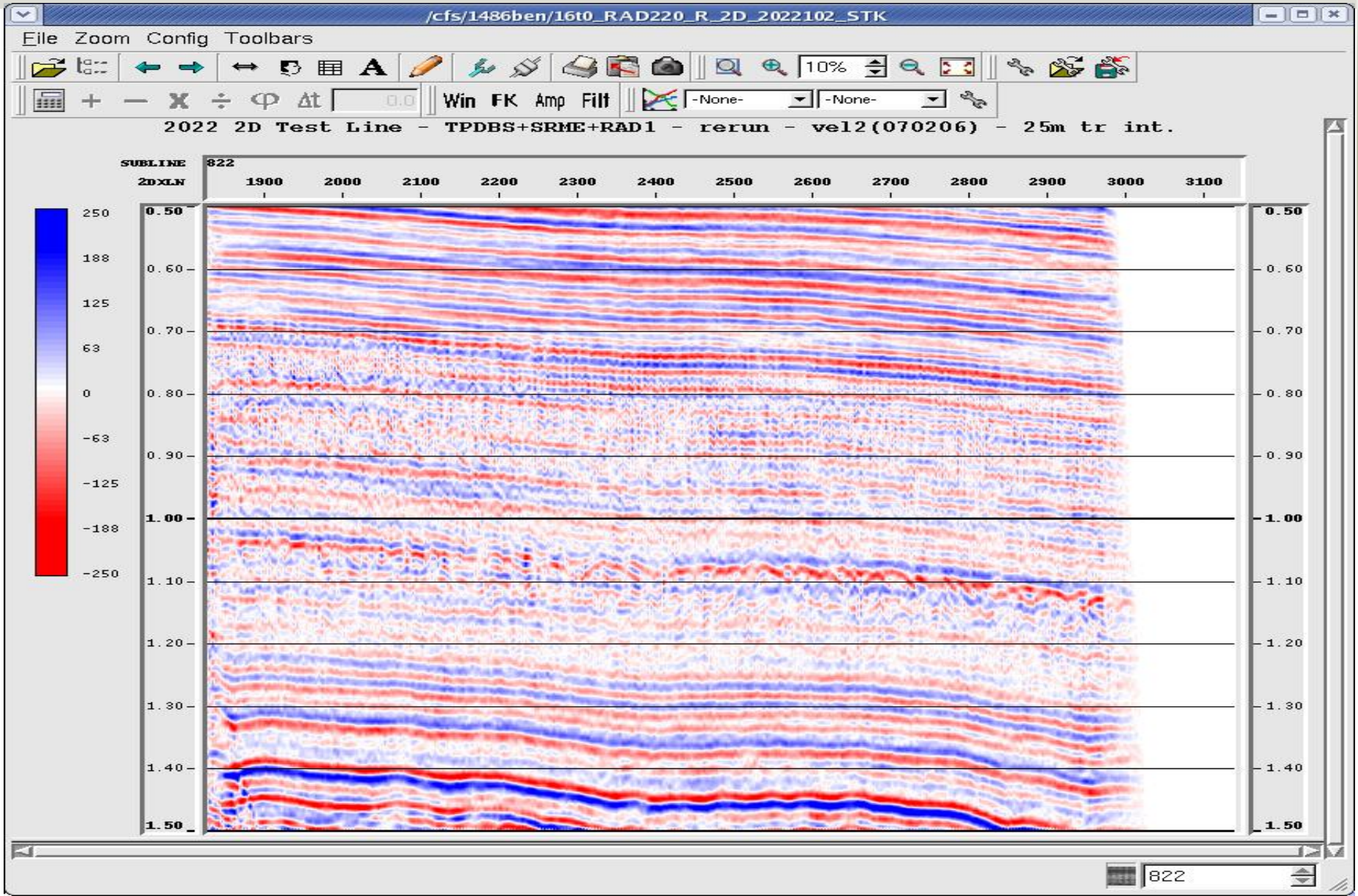
2022 2D Test Line with TP DBS+SRME- No Demult.



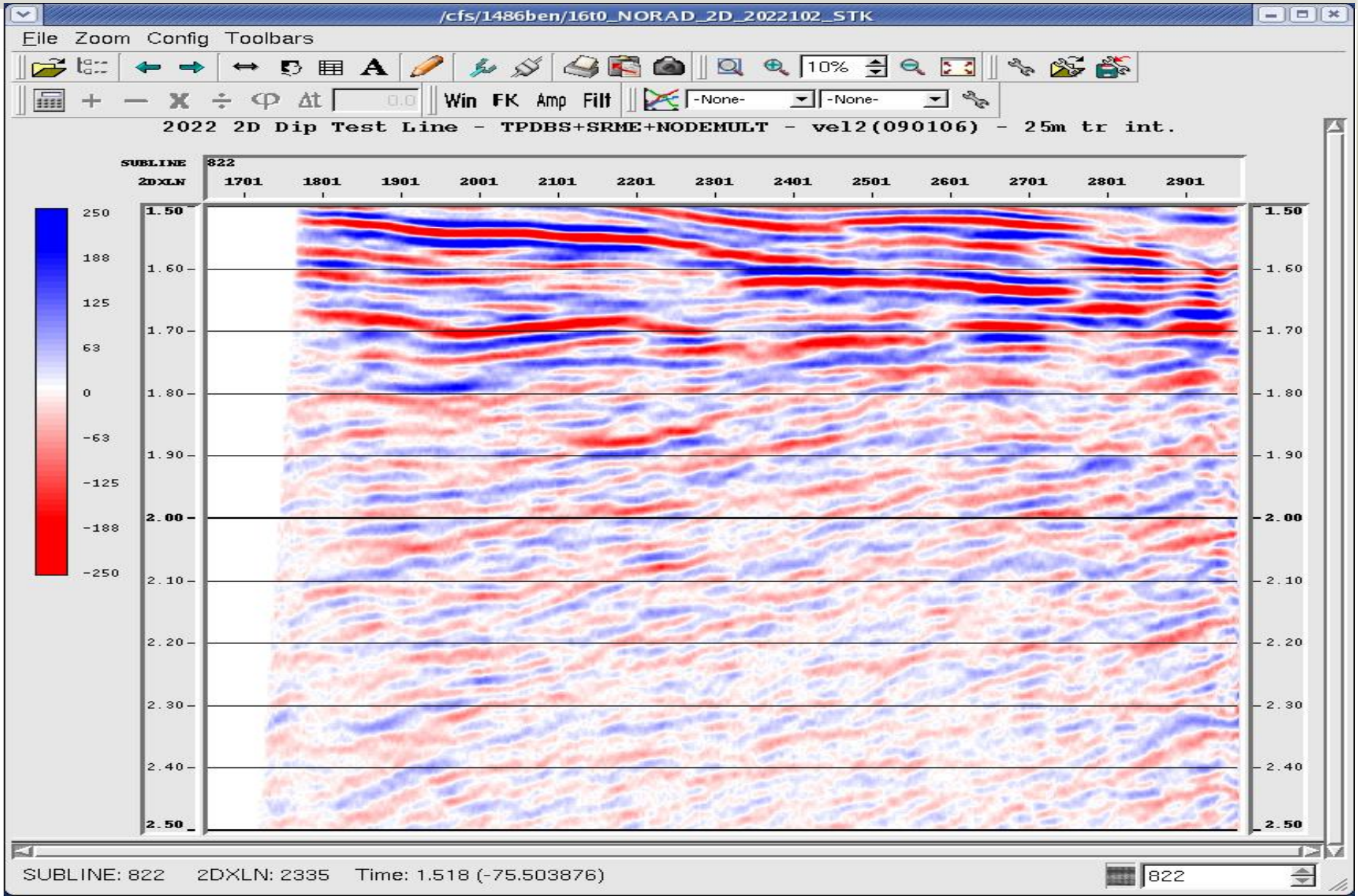
RE-RUN - 2022 2D Test Line with TP DBS+SRME- No Demult.



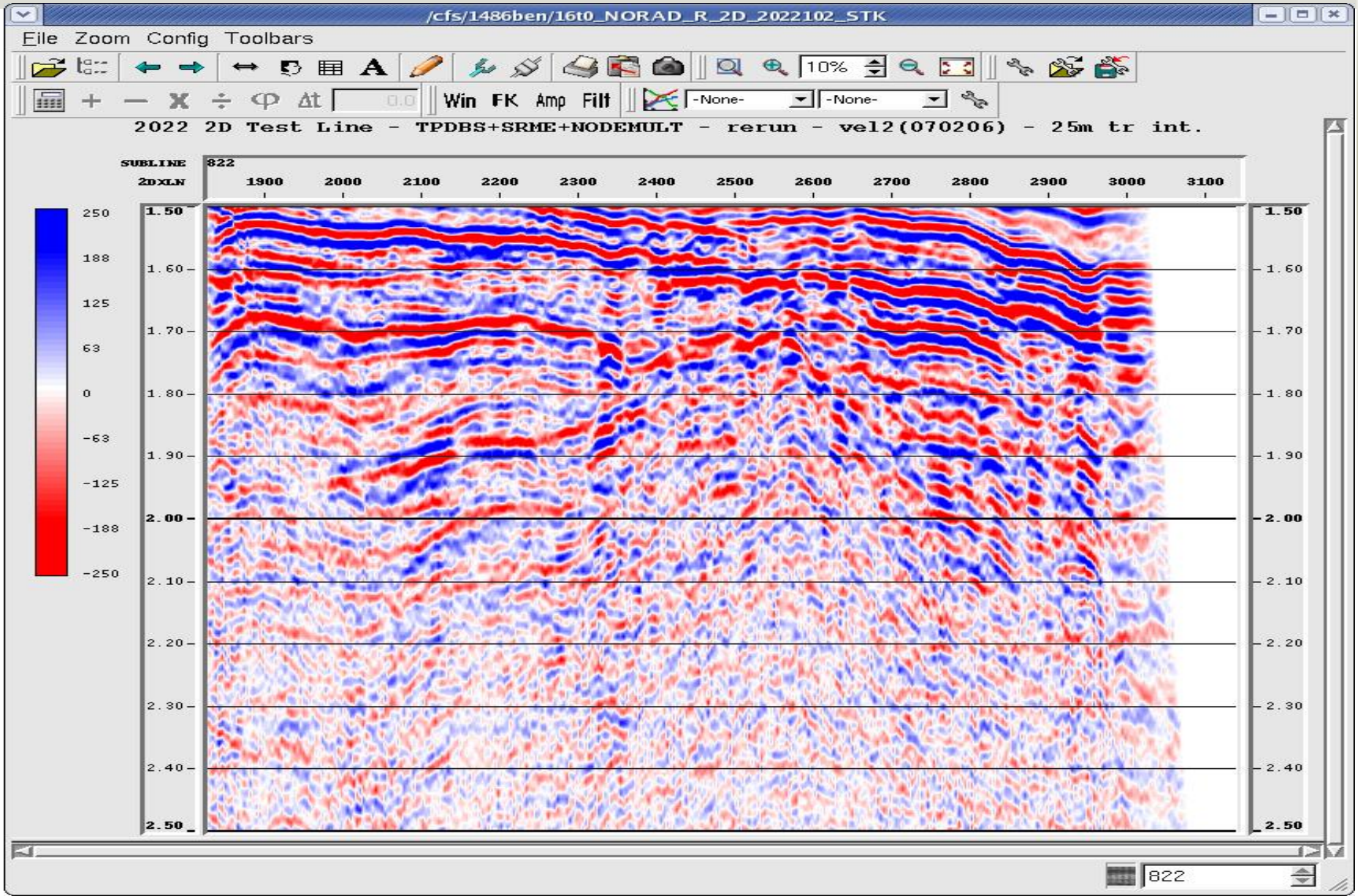
RE-RUN - 2022 2D Test Line with TP DBS+SRME- PROD RAD



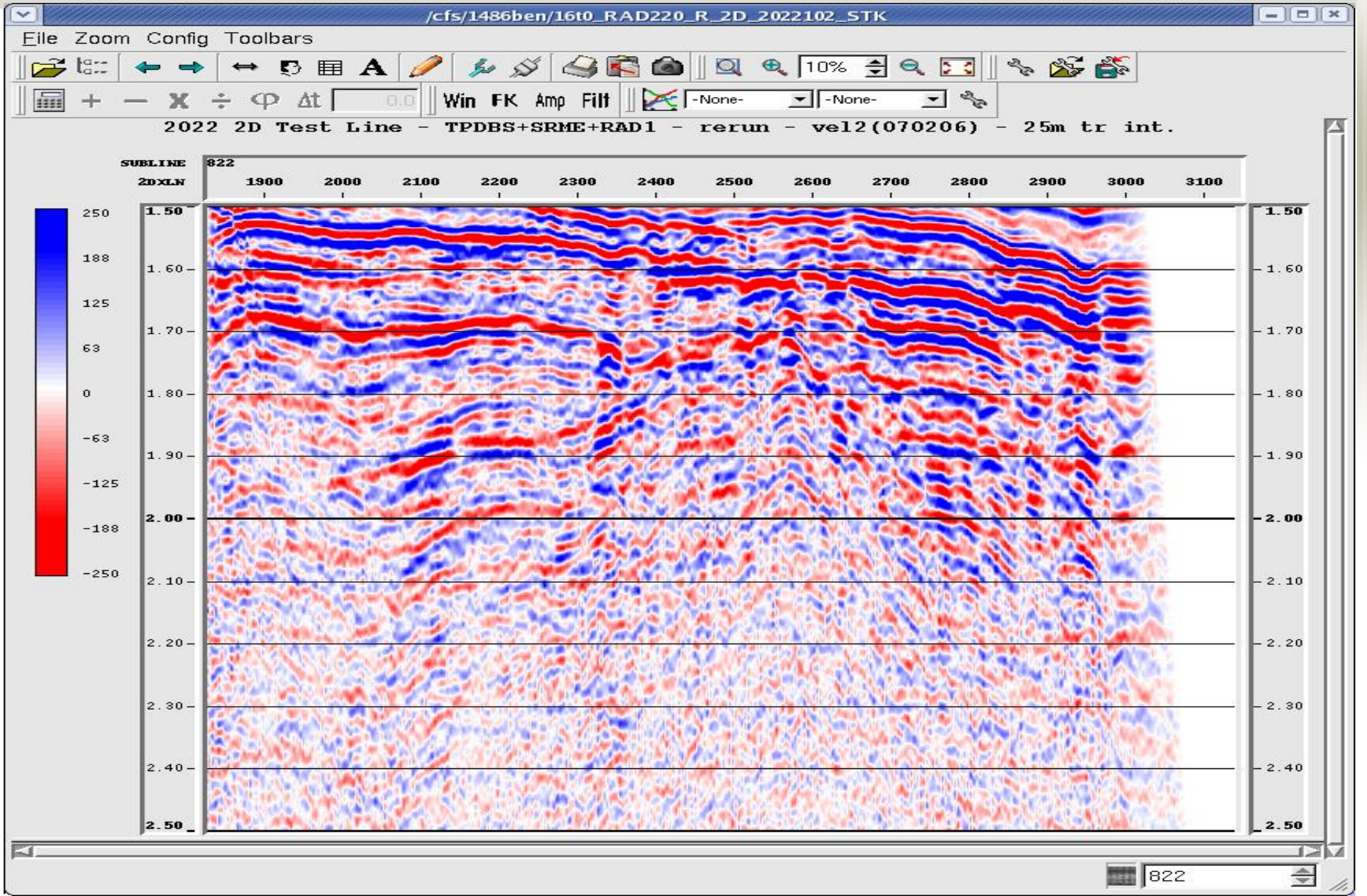
2022 2D Test Line with TP DBS+SRME- No Demult.



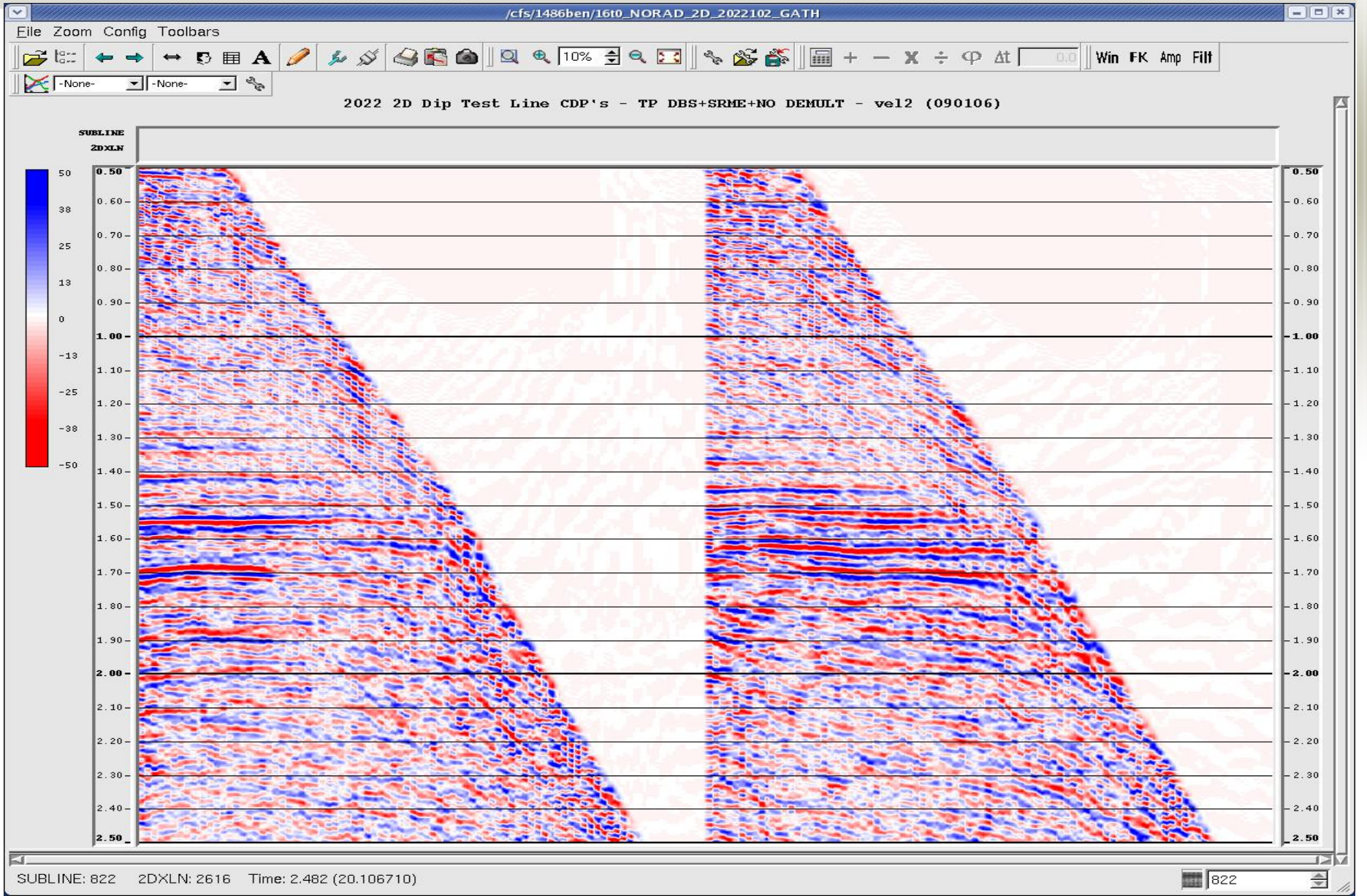
RE-RUN - 2022 2D Test Line with TP DBS+SRME- No Demult.



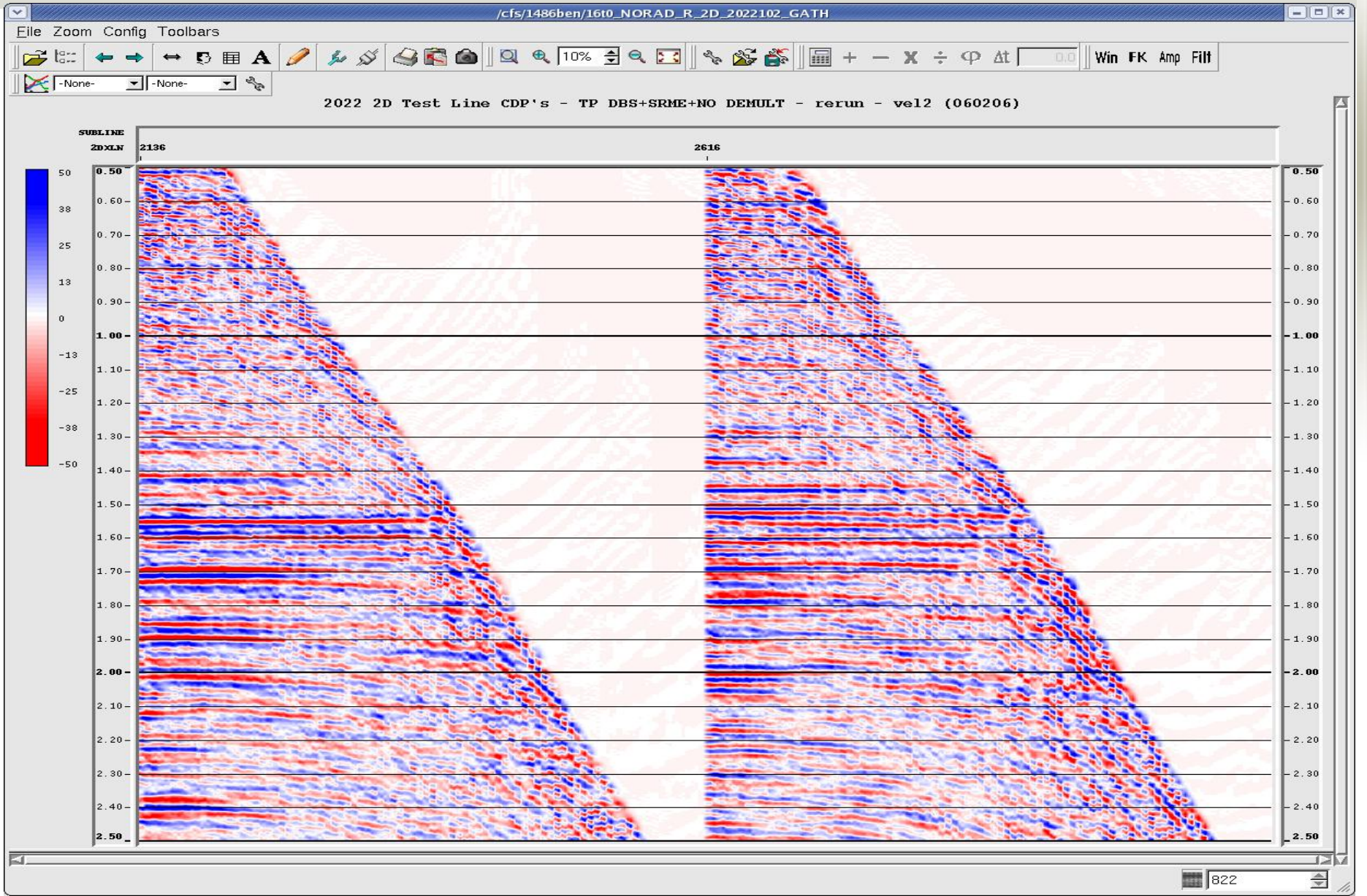
RE-RUN - 2022 2D Test Line with TP DBS+SRME- PROD RAD



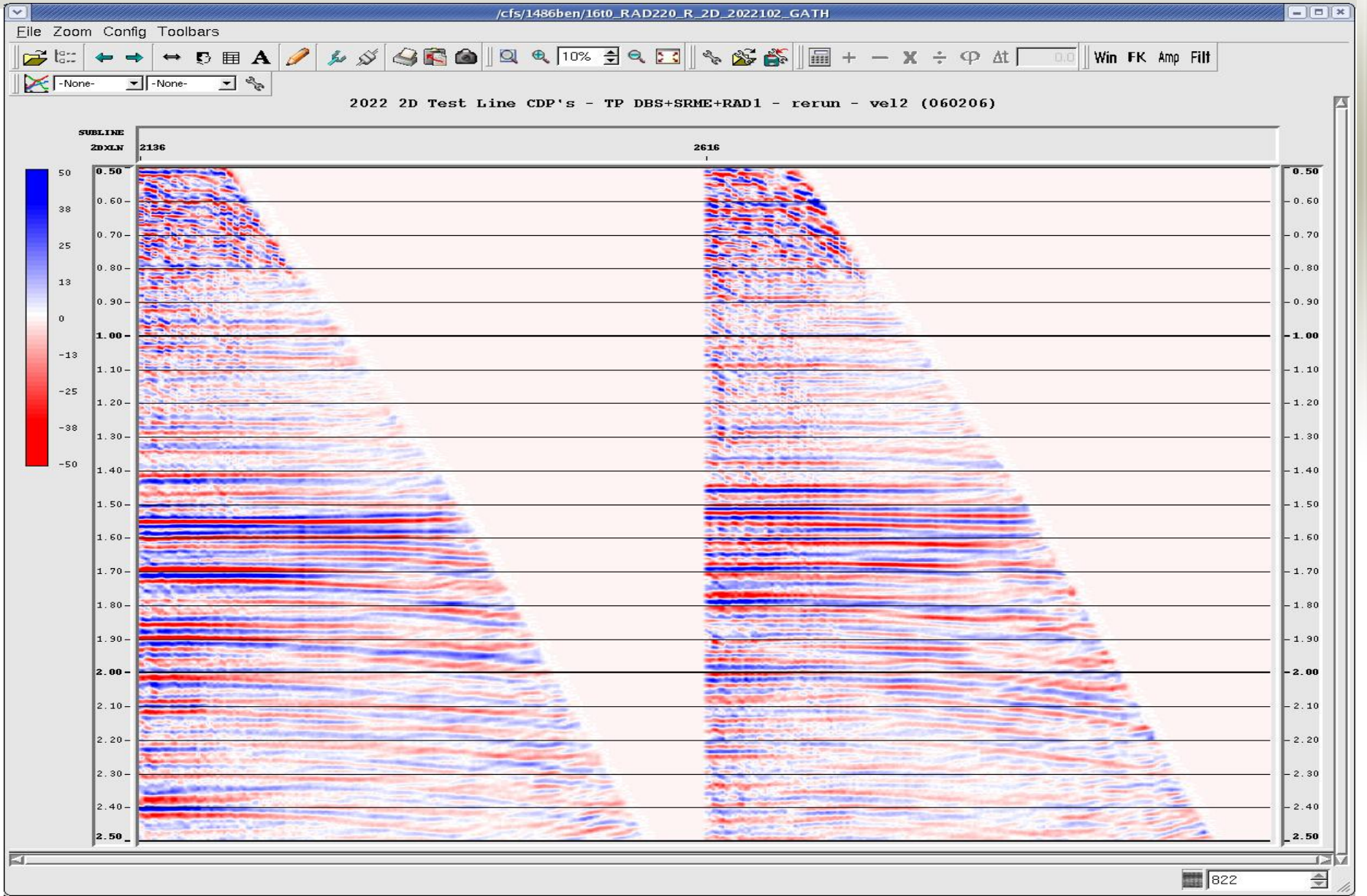
2022 2D Test Line with TP DBS+SRME- No Demult.



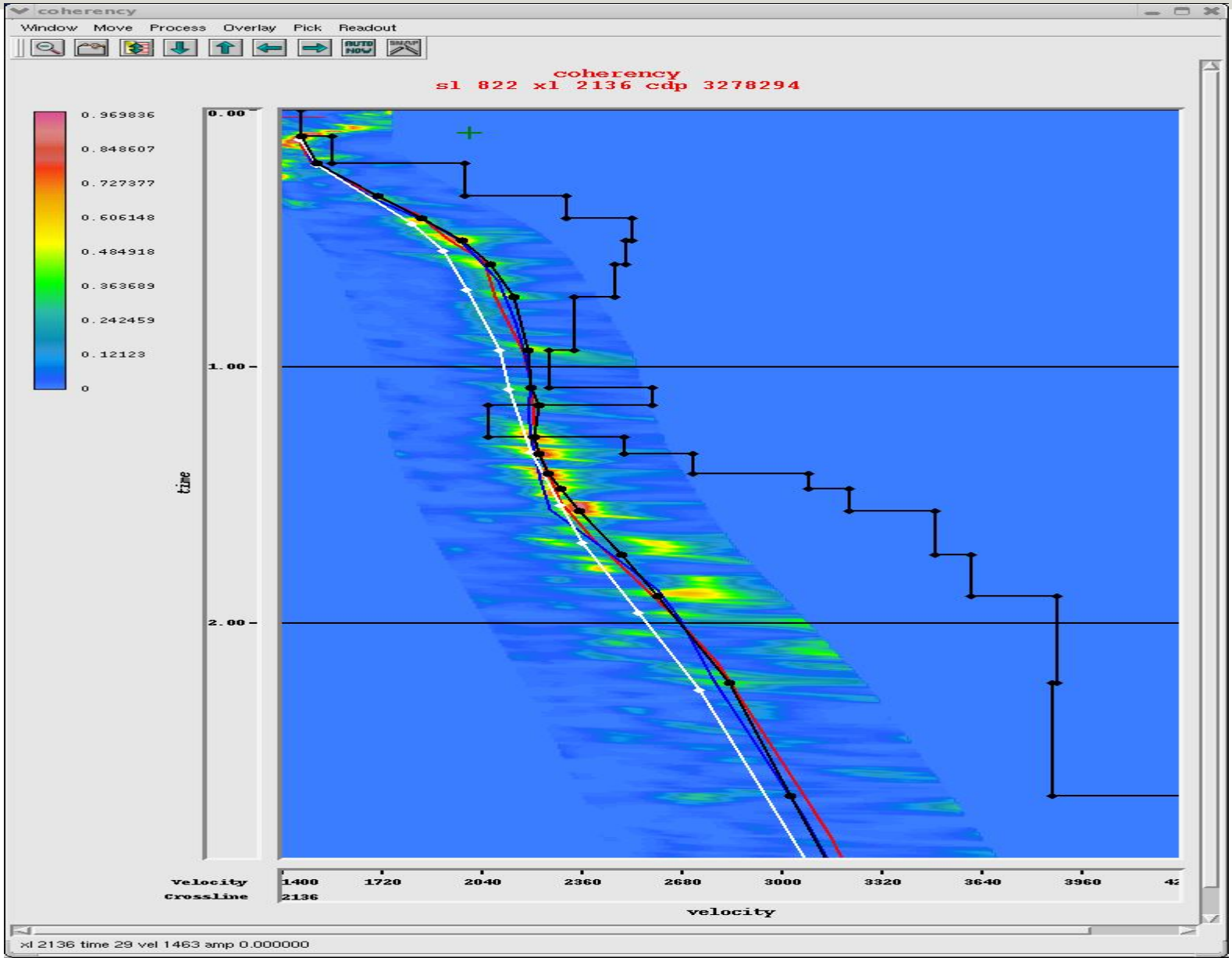
RE-RUN - 2022 2D Test Line with TP DBS+SRME- No Demult.



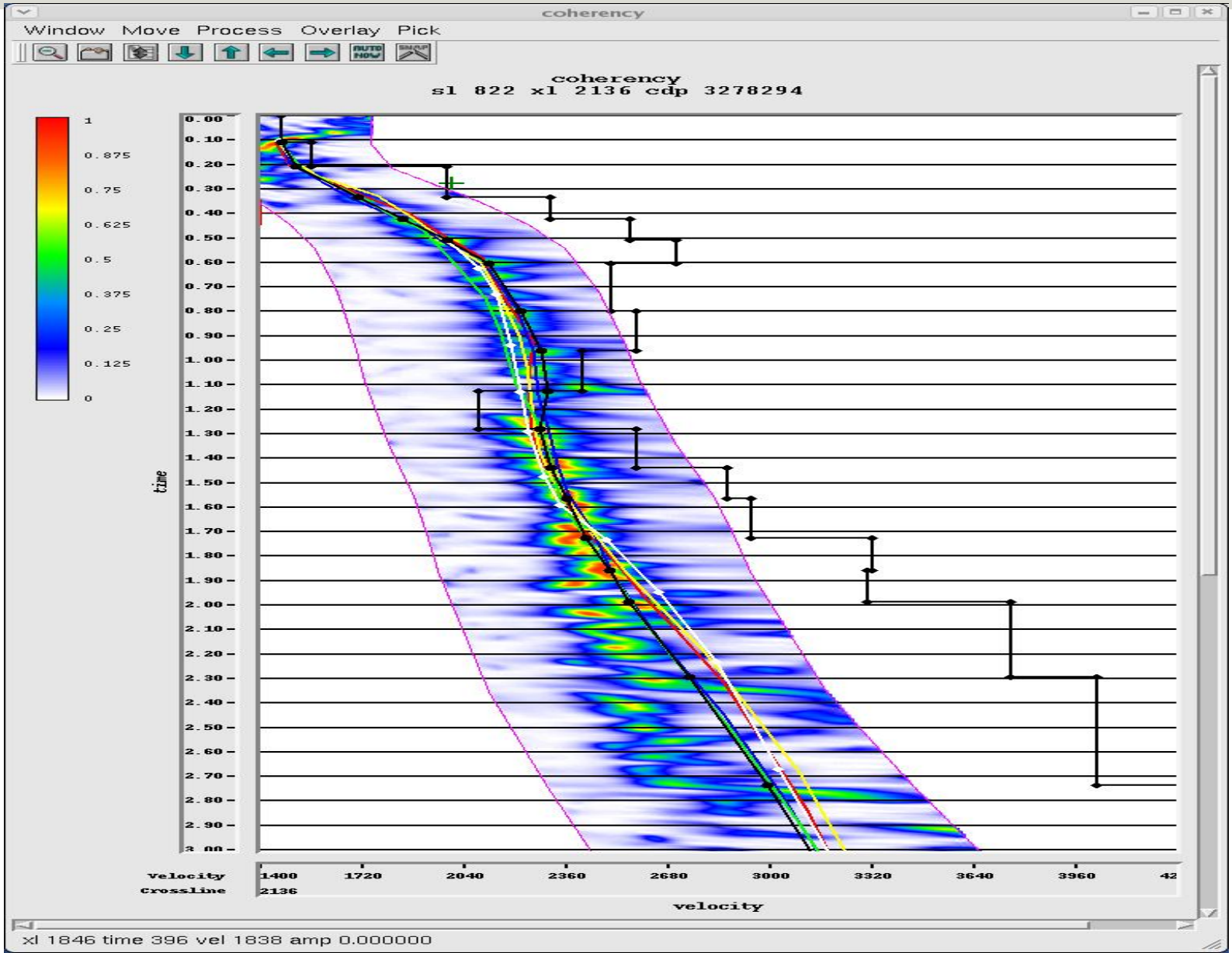
RE-RUN - 2022 2D Test Line with TP DBS+SRME- PROD RAD



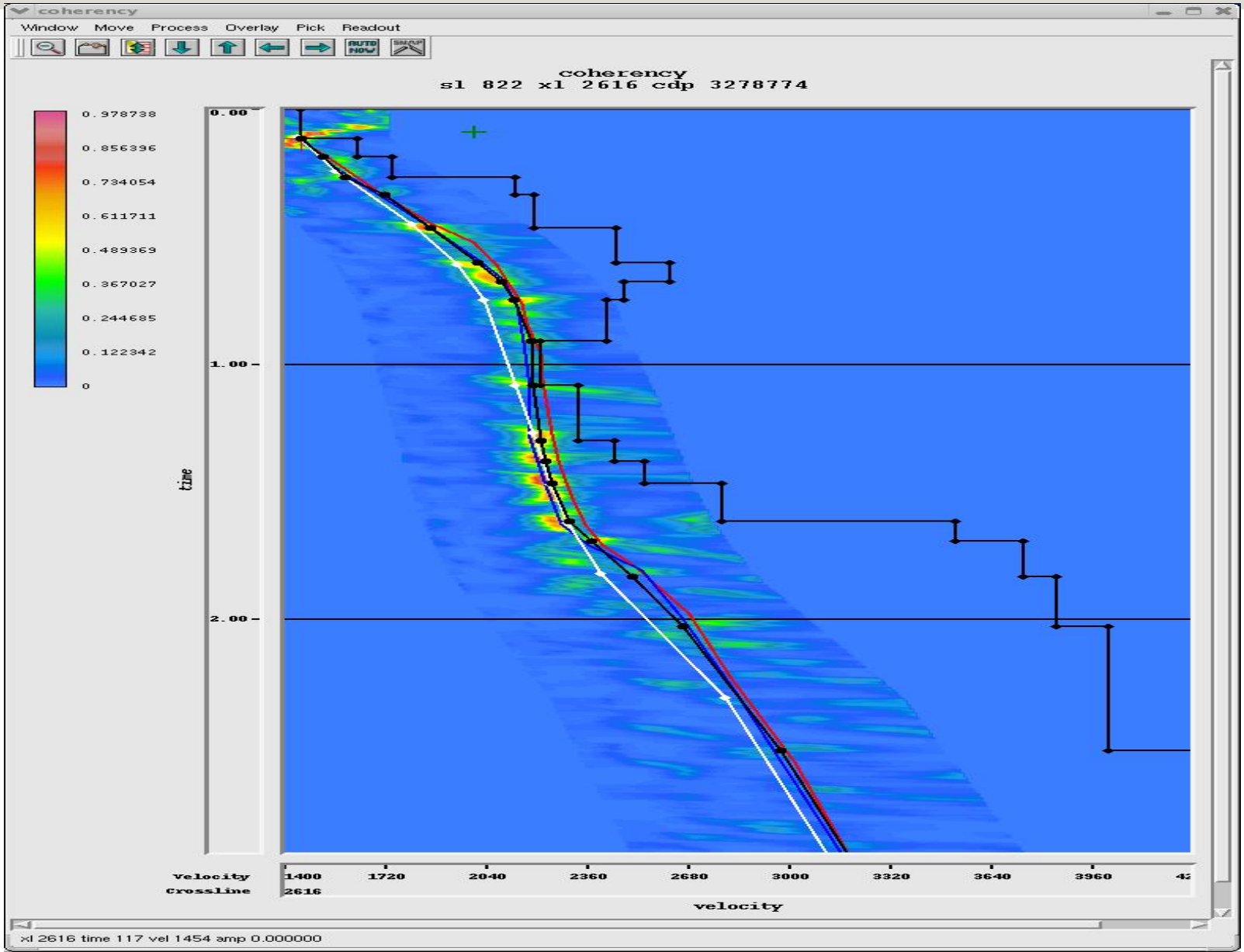
Nearest Vel2 semblance to example gather.



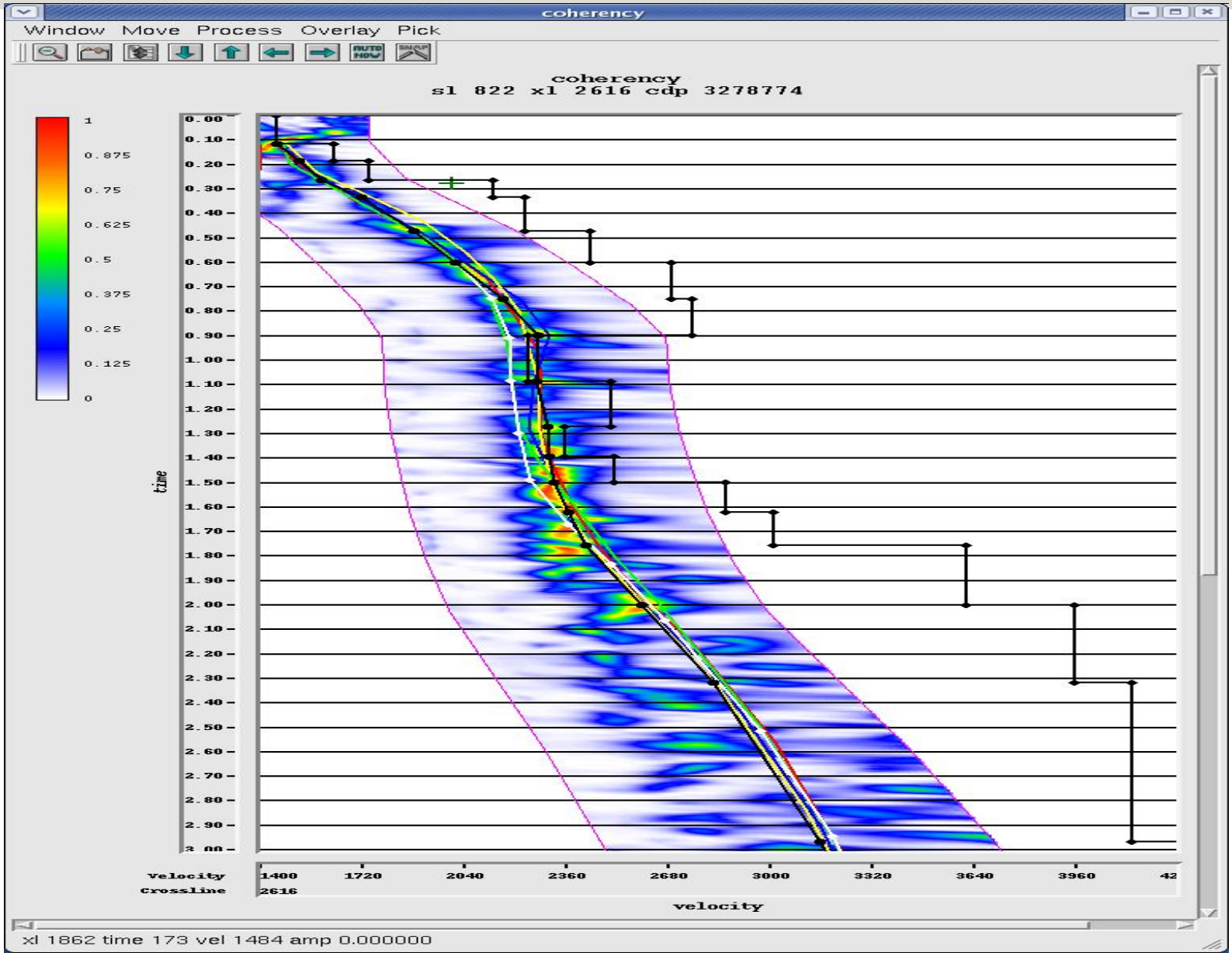
RE-RUN - Nearest Vel2 semblance to example gather.



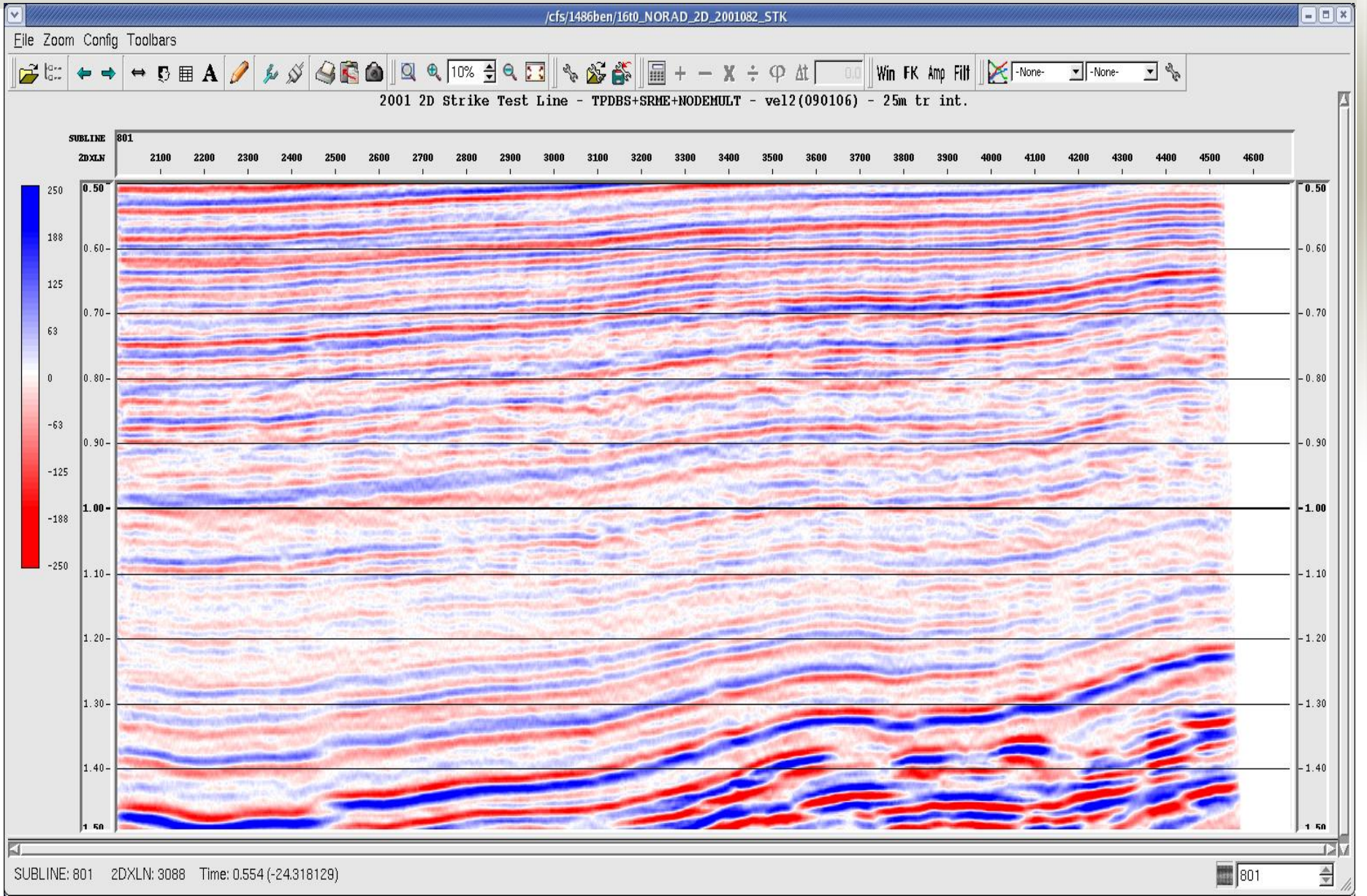
Nearest Vel2 semblance to example gather.



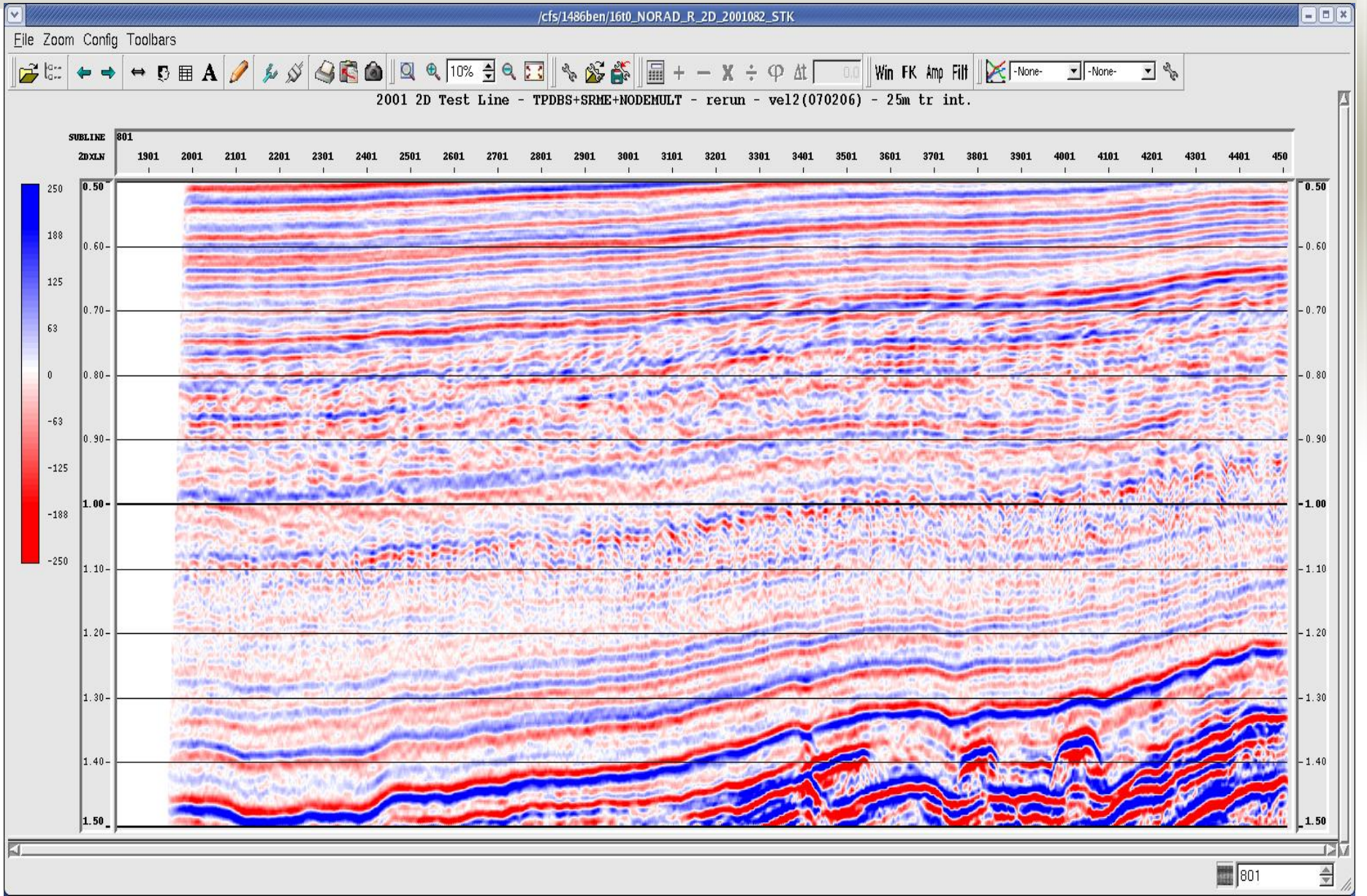
Nearest Vel2 semblance to example gather.



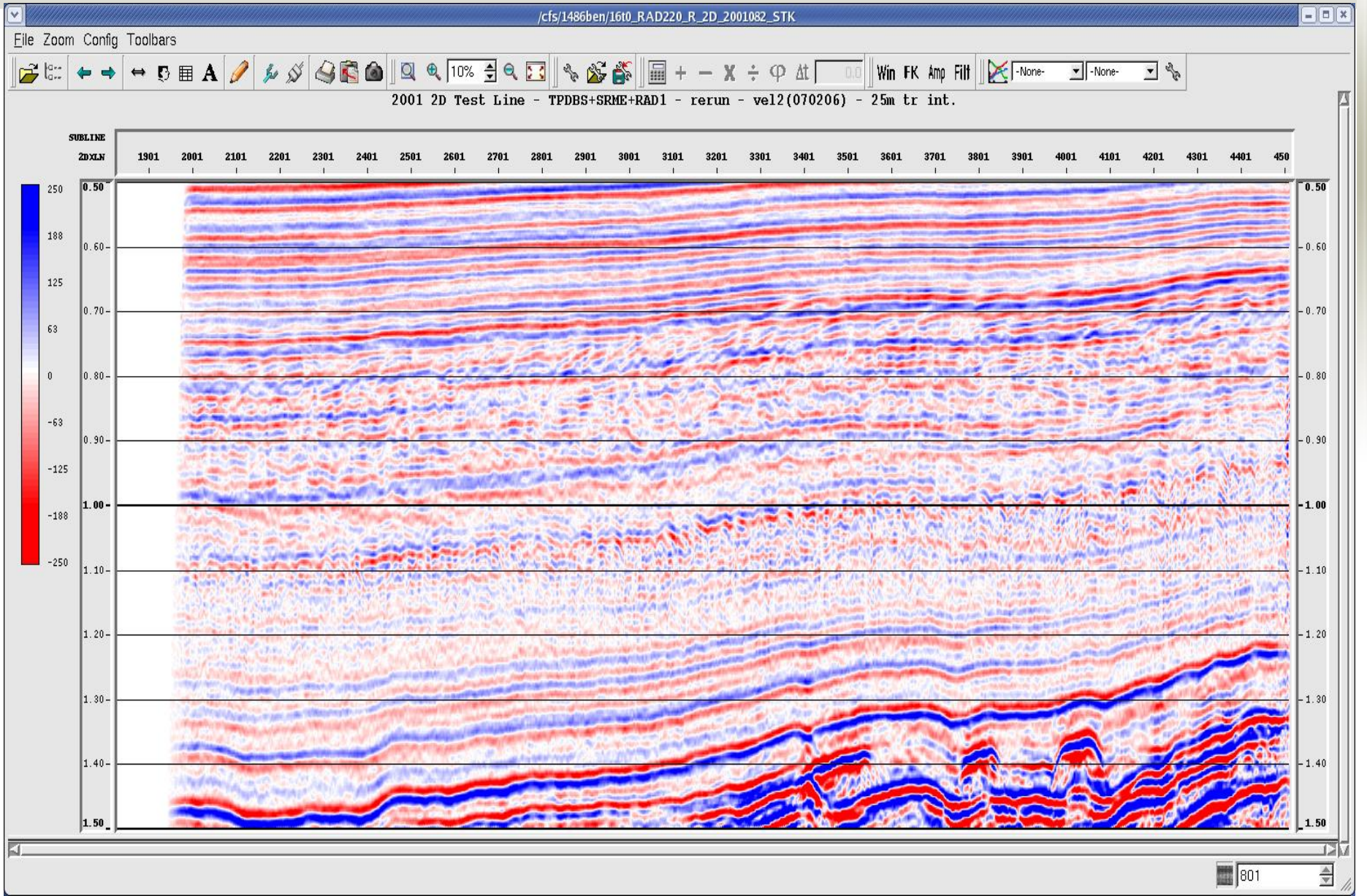
2001 2D Test Line with TP DBS+SRME- No Demult.



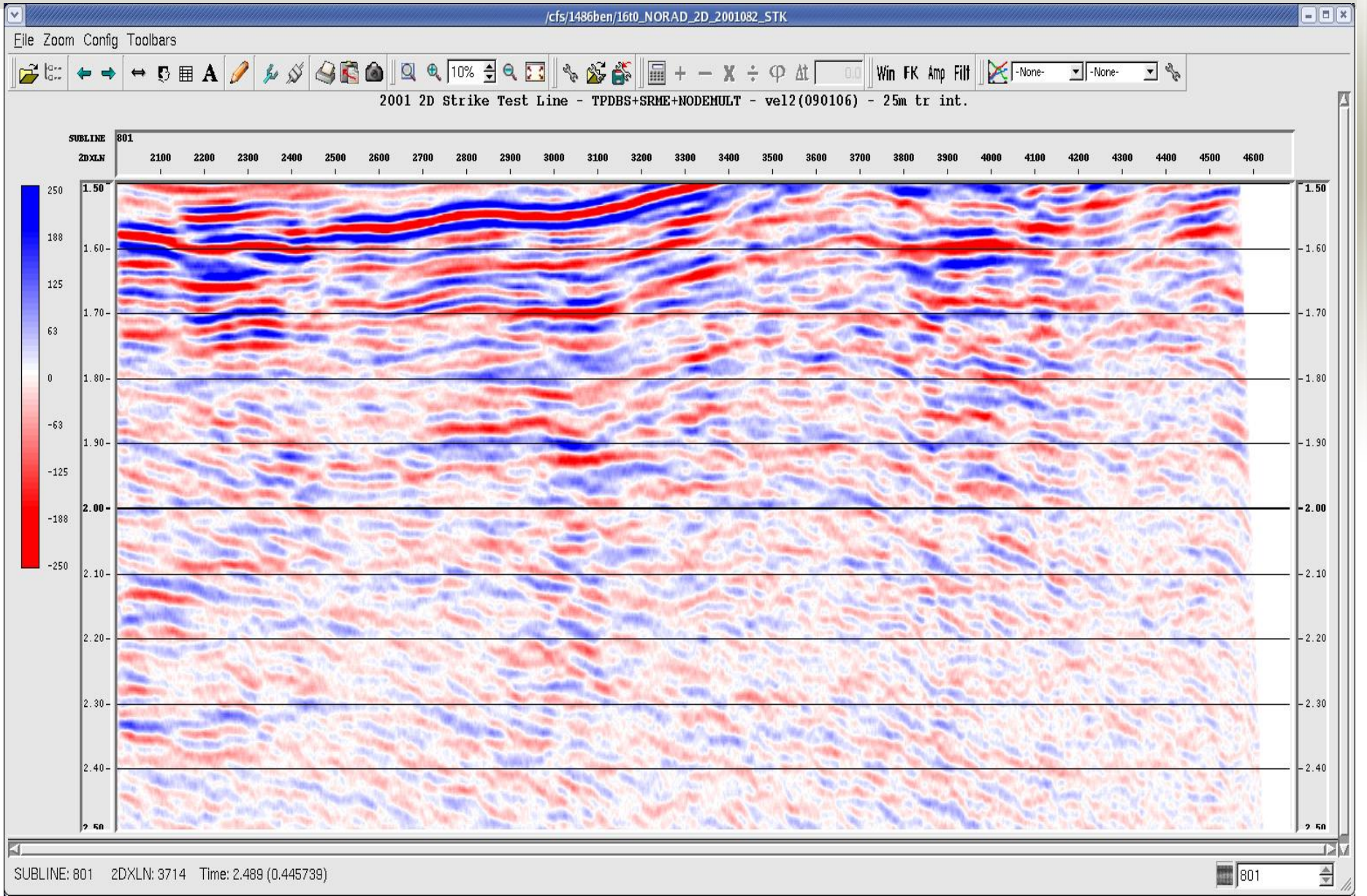
RE-RUN - 2001 2D Test Line with TP DBS+SRME- No Demult.



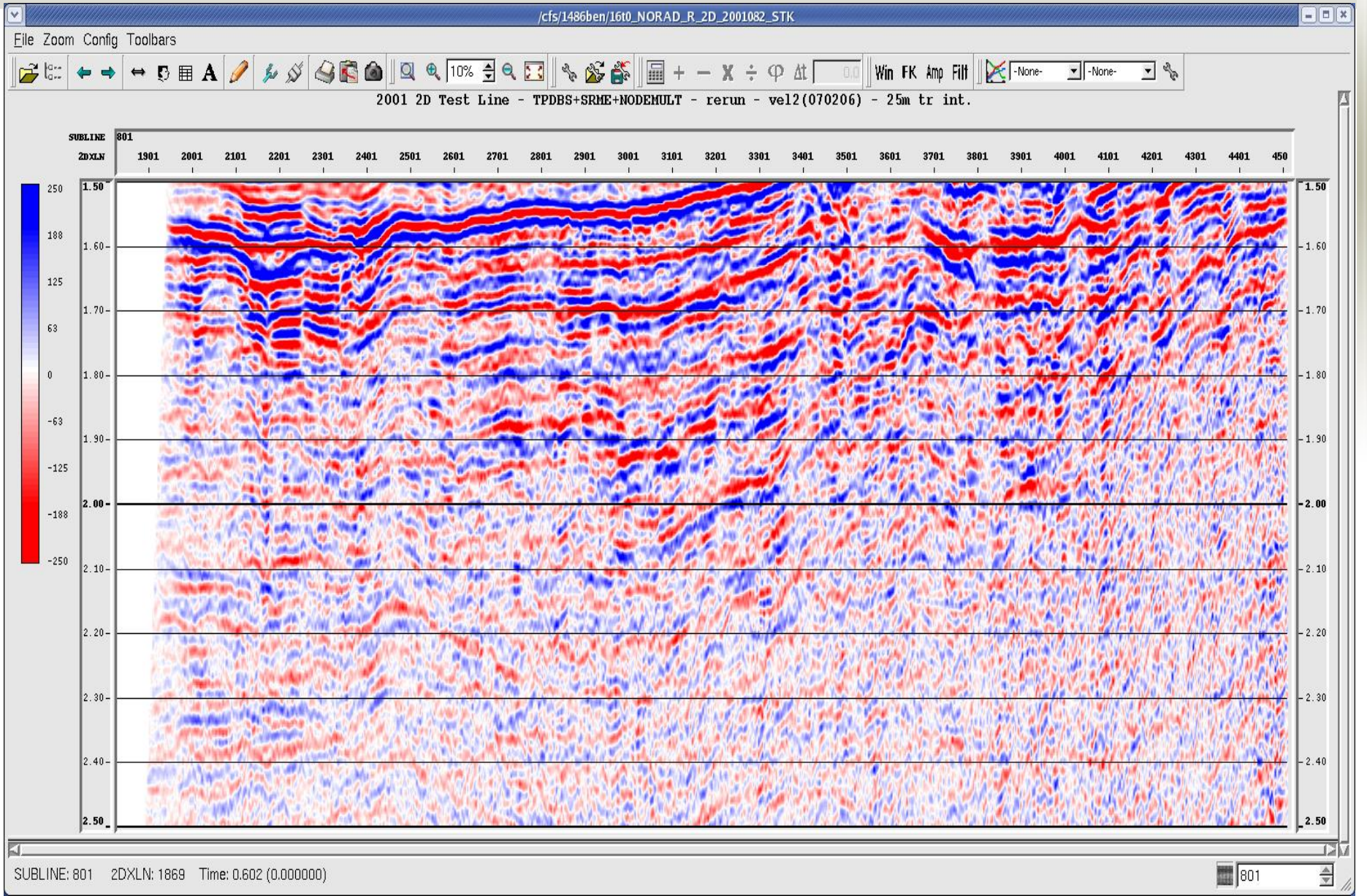
RE-RUN - 2001 2D Test Line with TP DBS+SRME- PROD RAD



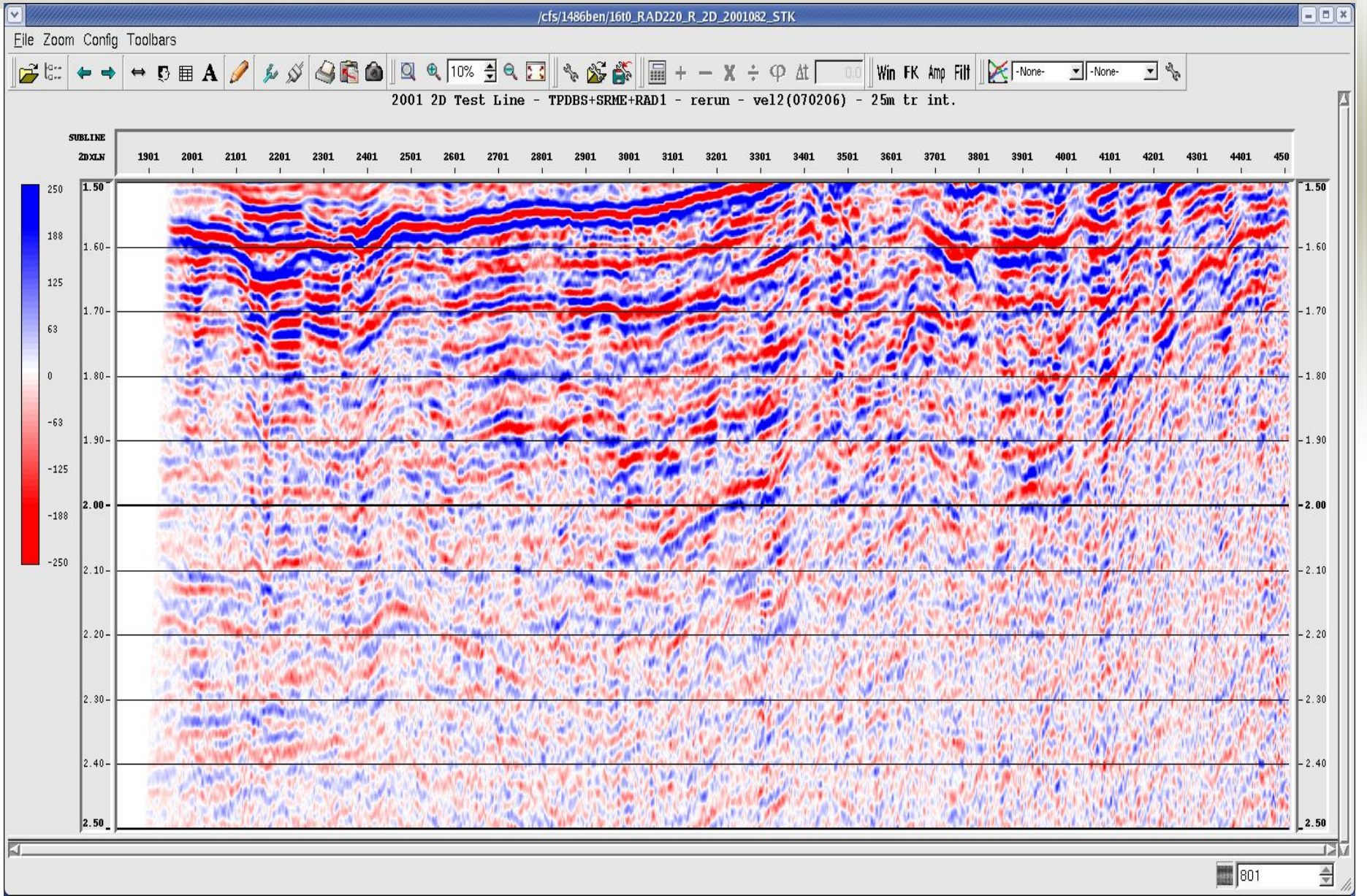
2001 2D Strike Test Line with TP DBS+SRME- No Demult.



RE-RUN - 2001 2D Test Line with TP DBS+SRME- No Demult.



RE-RUN - 2001 2D Test Line with TP DBS+SRME- PROD RAD



07_Shotcomp.ppt

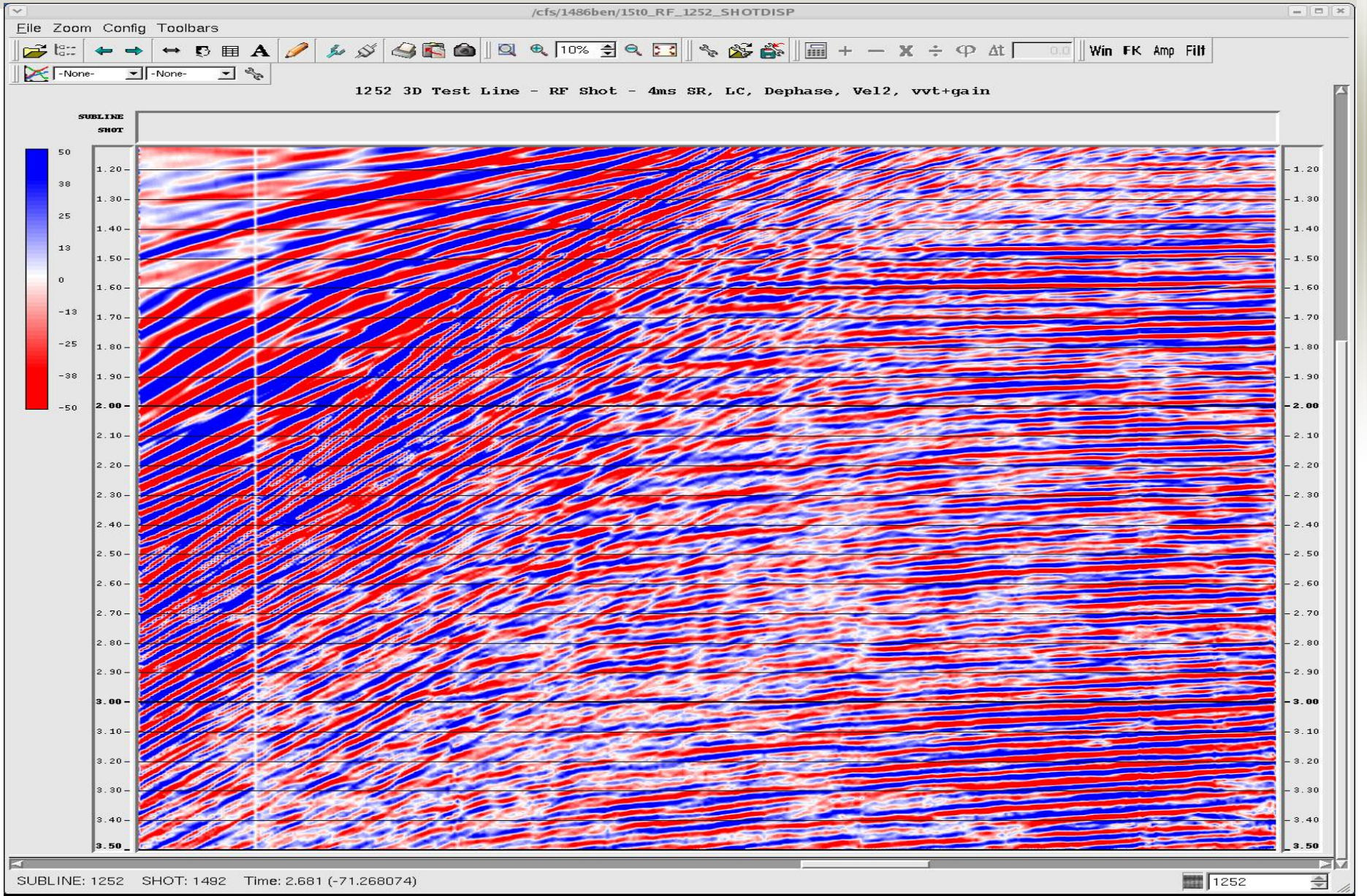
Benaris T/39 P 3D/2D
Shot comparisons on lines 1252060, 2022102 and 2001082 at pre-processing stages.
17/01/06

SUMMARY OF CONTENTS

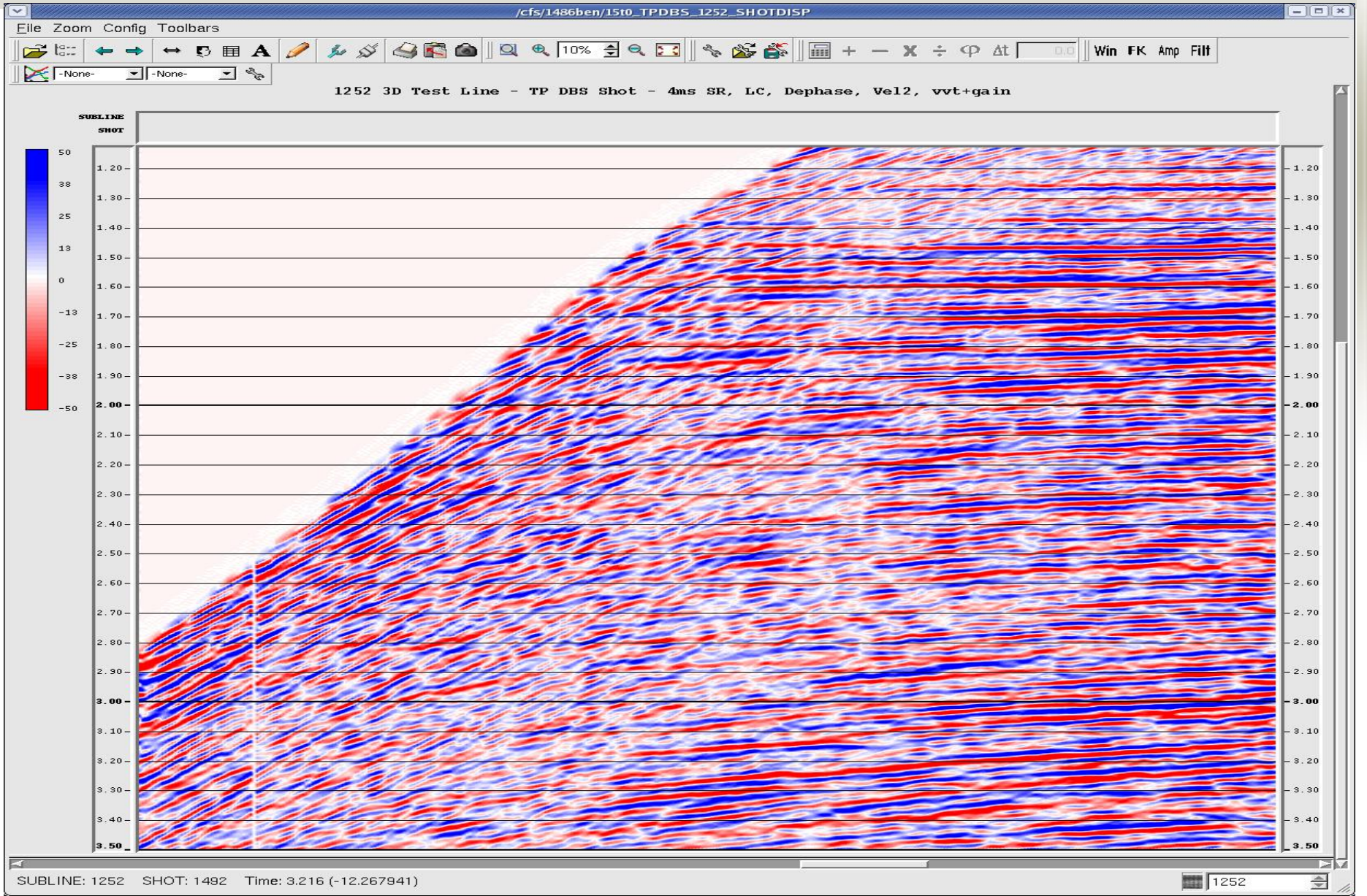
- Review of a single cable shot, from both the 3D test line 1252060 and the 2D test lines 2022102 and 2001082, at each of the pre-processing stages.

- The velocities used for NMO were the approved (09/01/06) second pass vels.
- The Low-cut, Resample and Dephase filter are applied to all displays.
- Sph. Div (vvt) and an exponential gain (0-3s, 0-9dB) are applied.

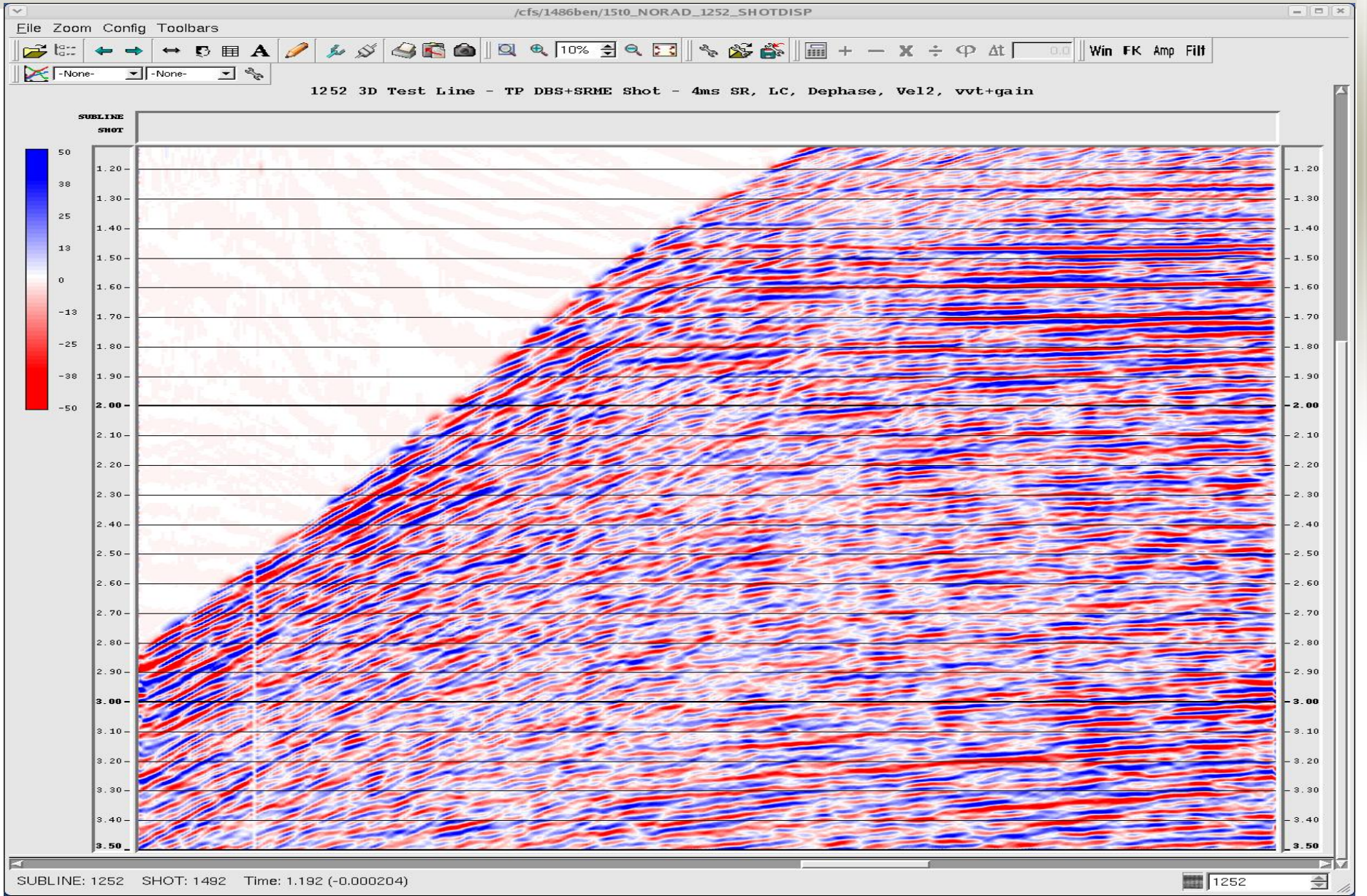
1252 3D Test Line - Reformat



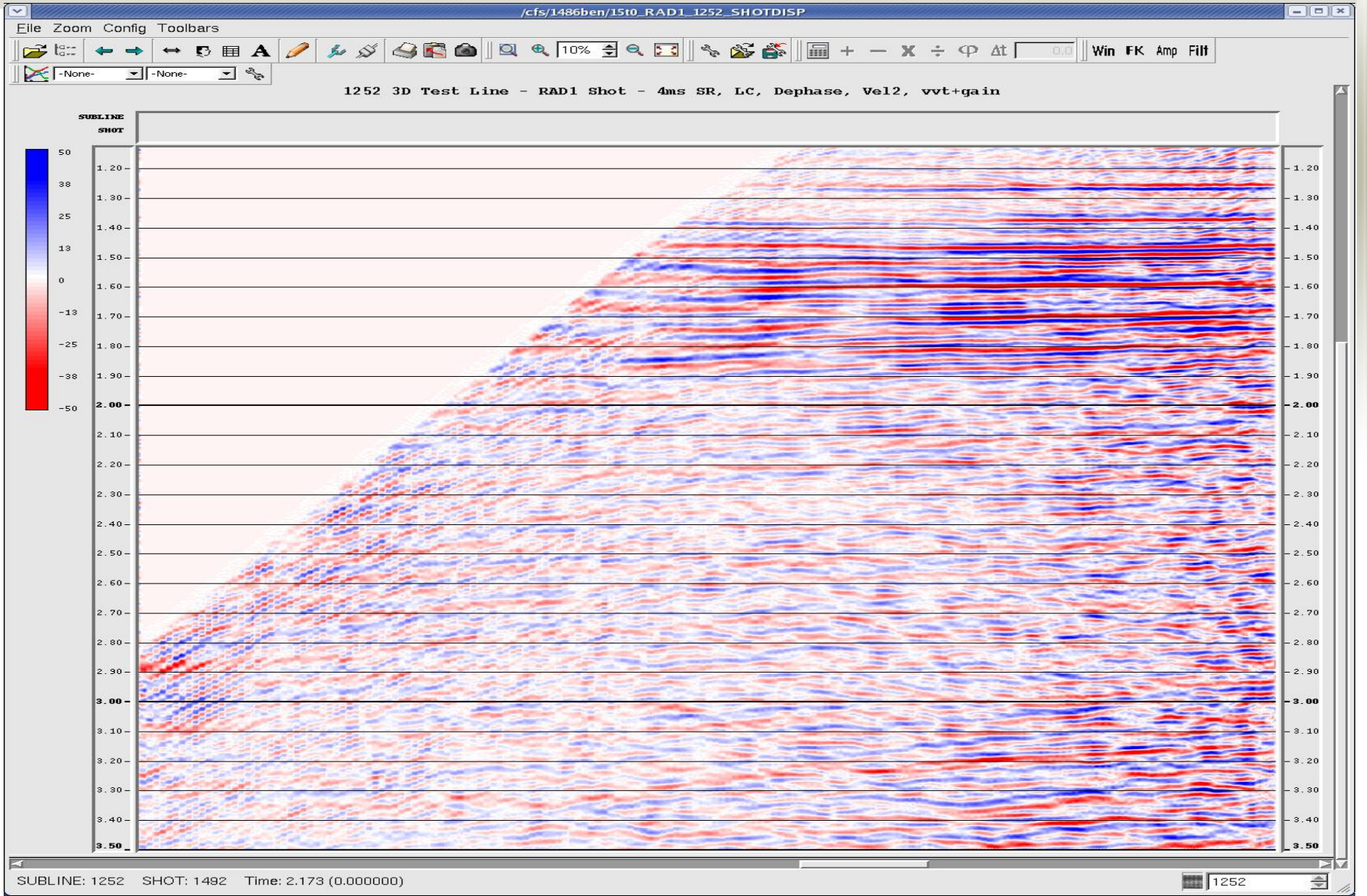
1252 3D Test Line – TauP DBS



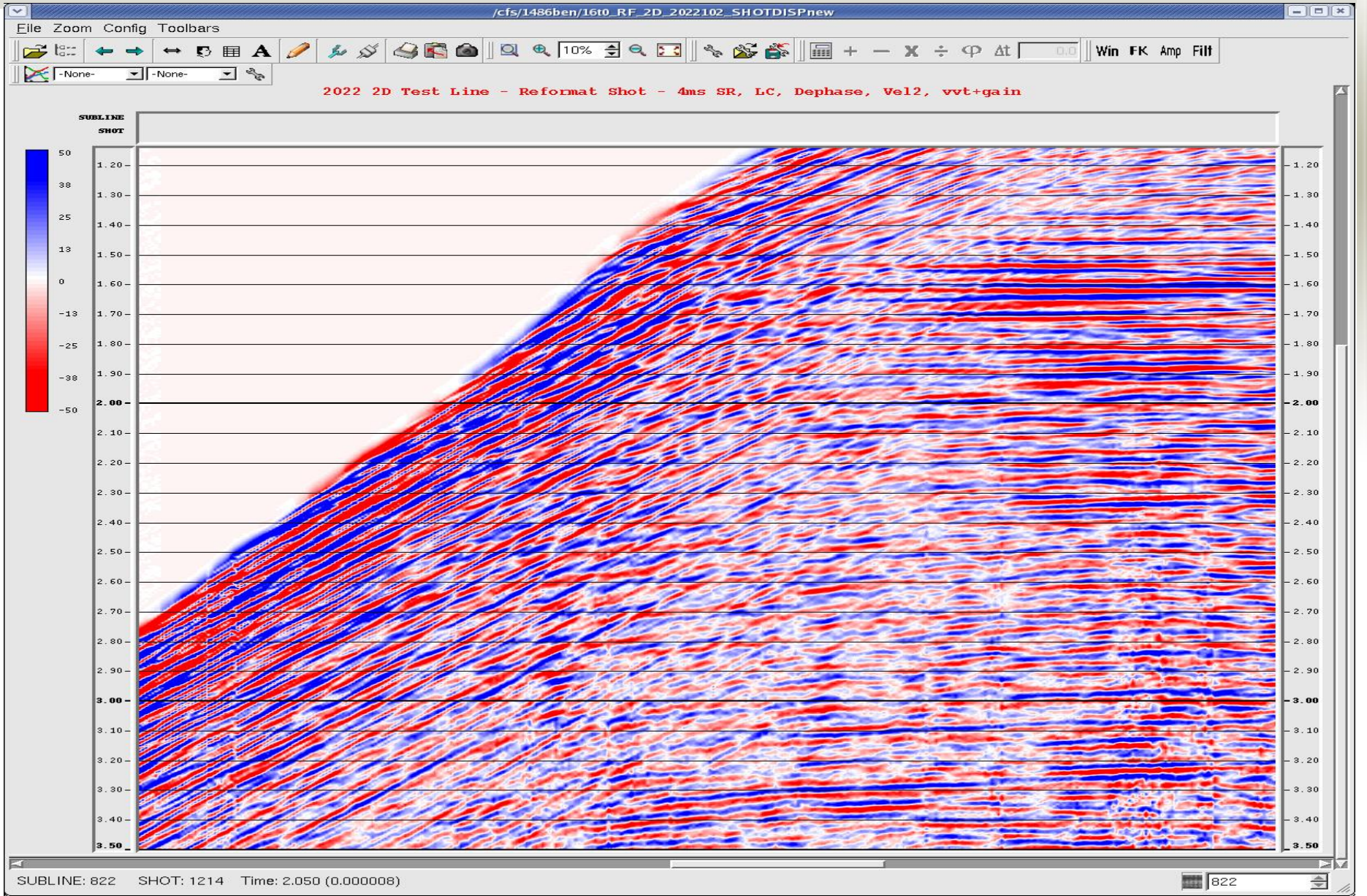
1252 3D Test Line – TauP DBS+SRME



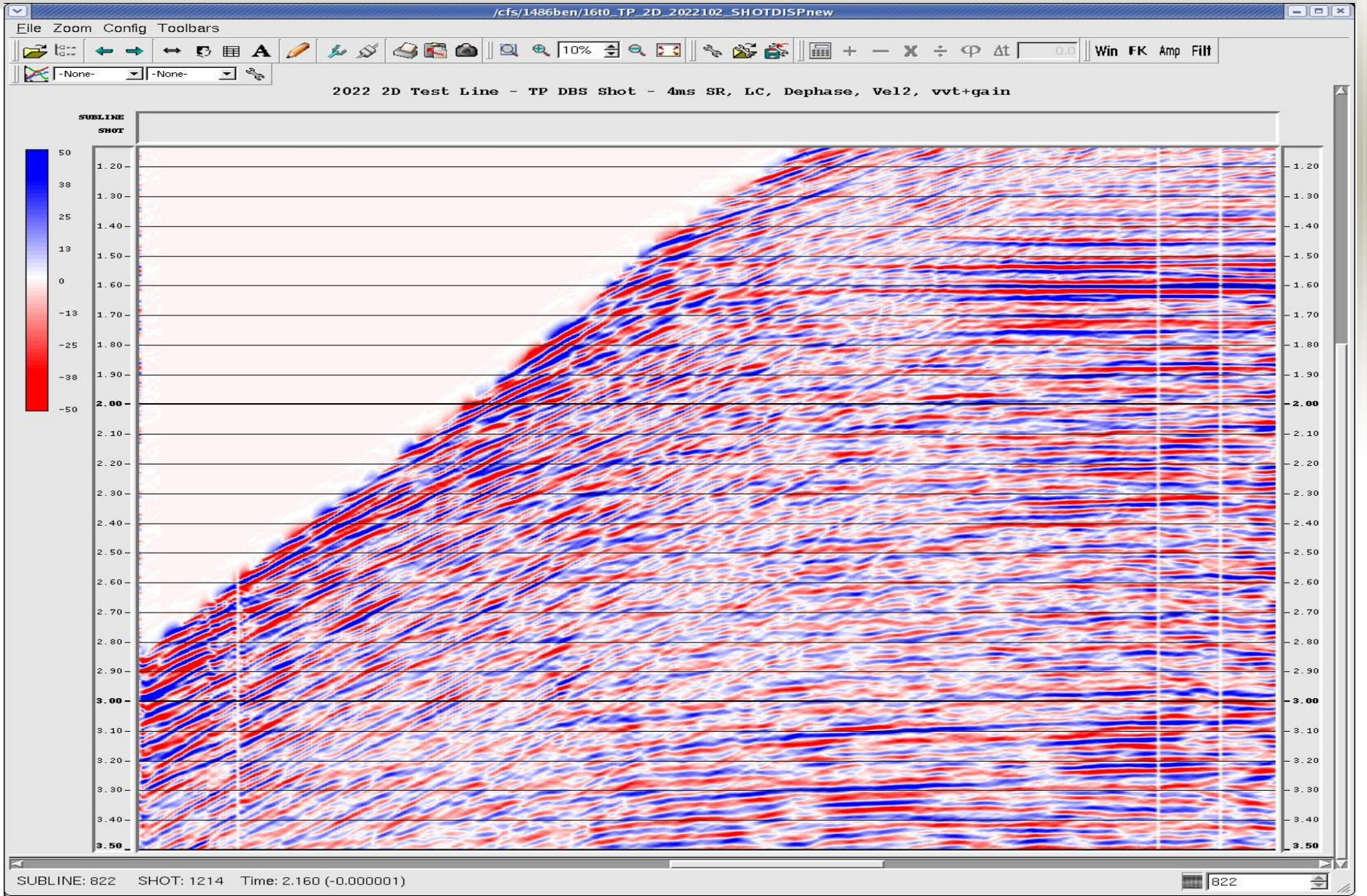
1252 3D Test Line – TauP DBS+SRME+RAD1



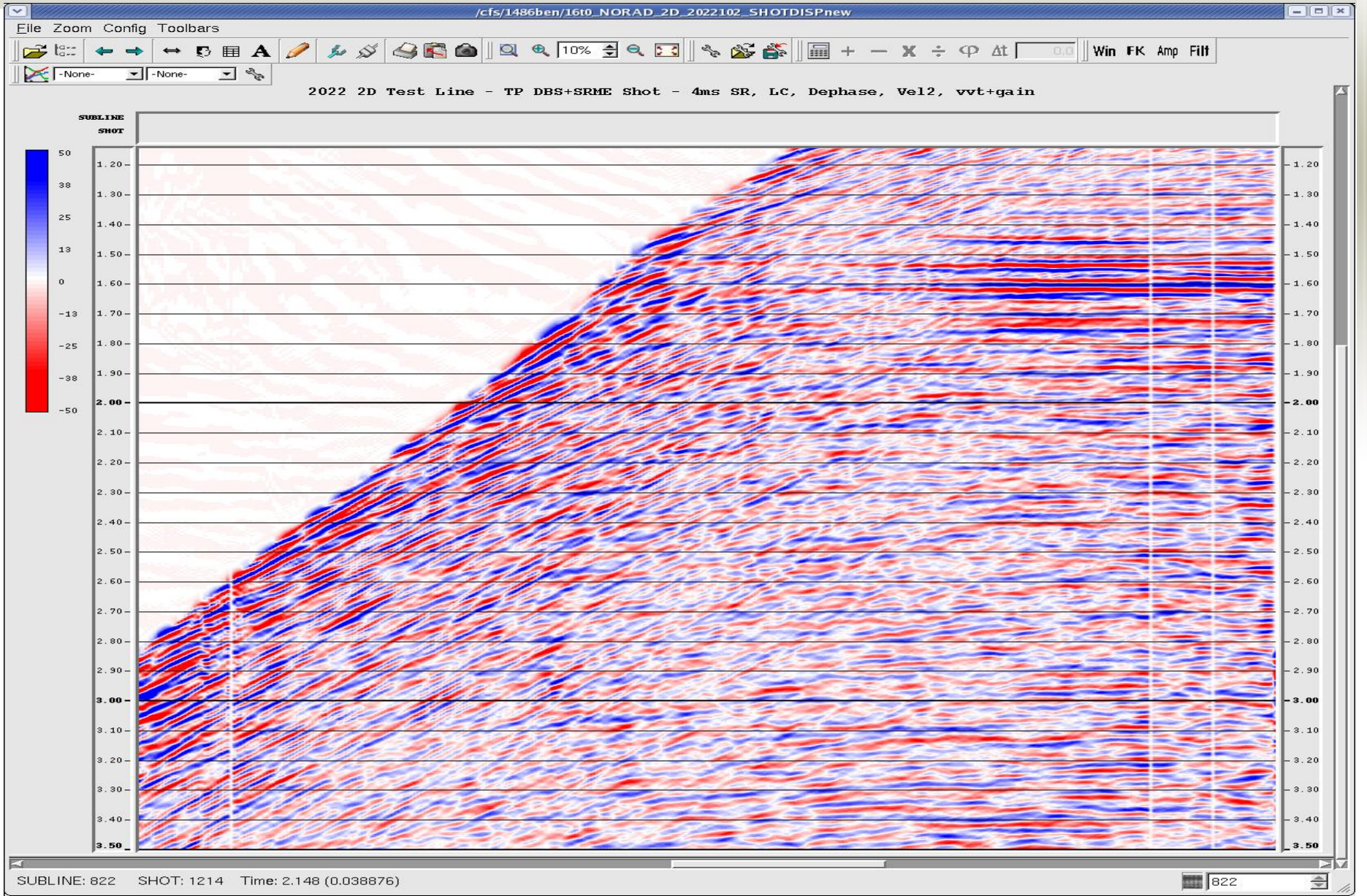
2022 2D Test Line - Reformat



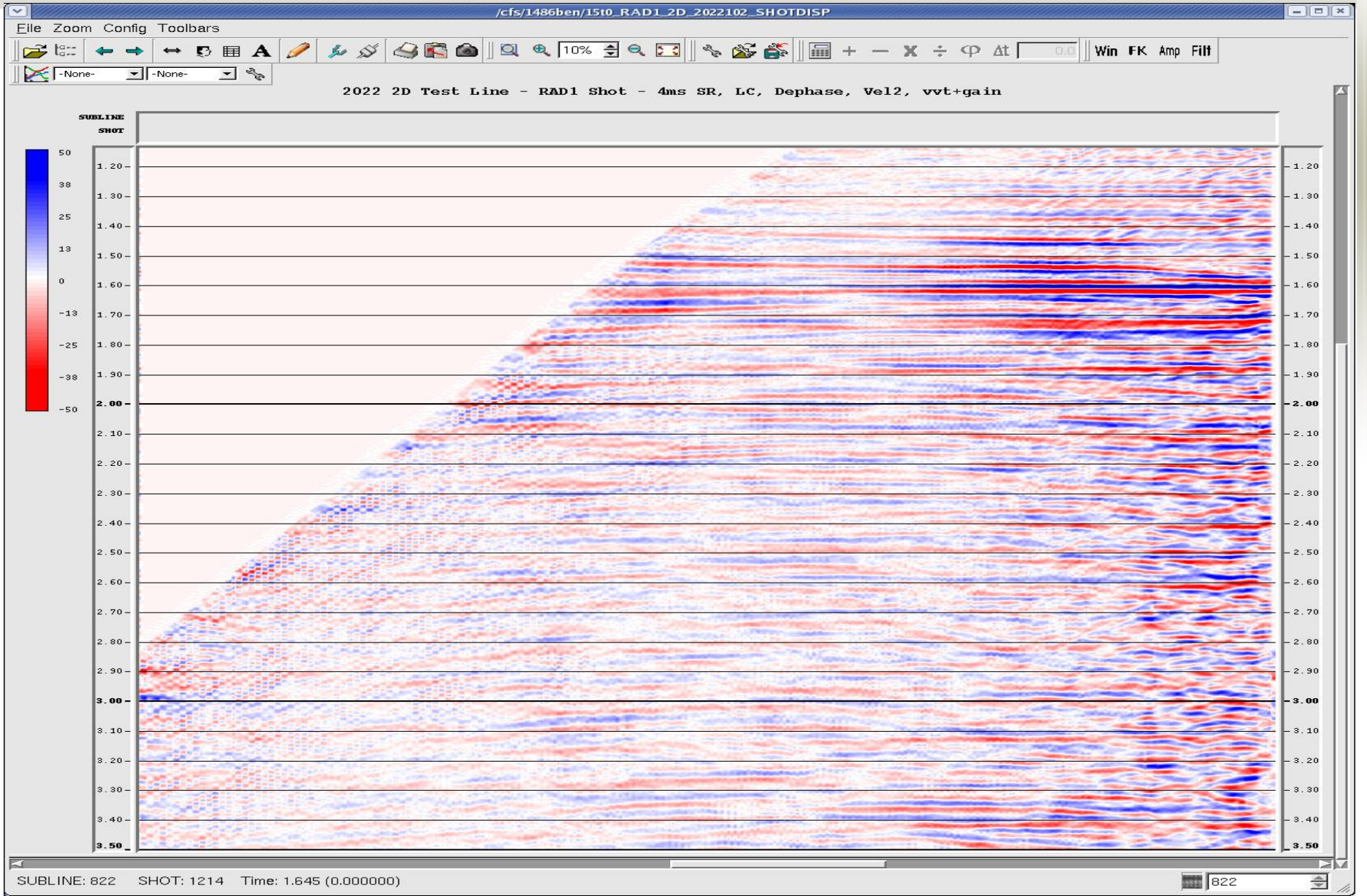
2022 2D Test Line – TauP DBS



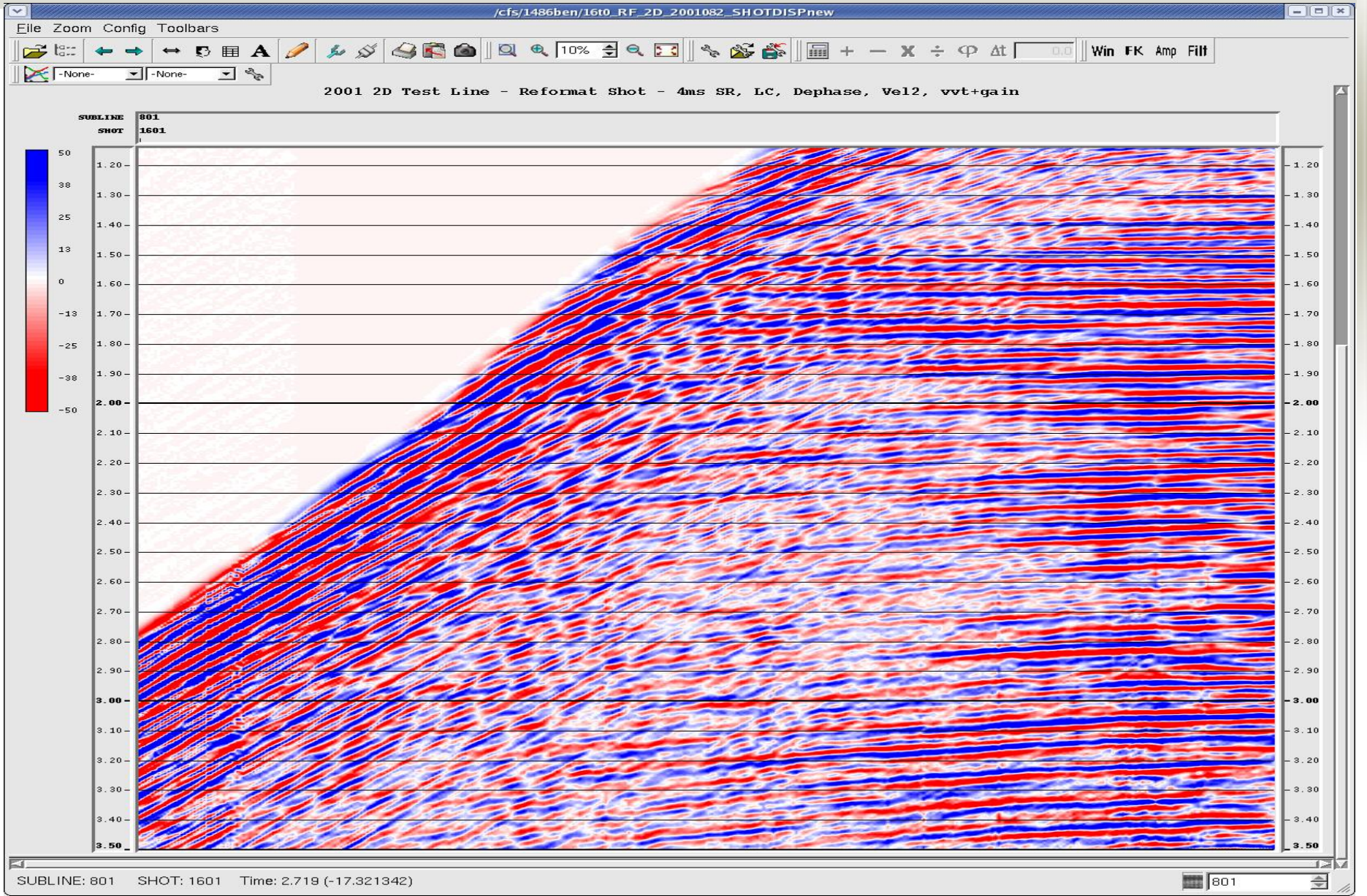
2022 2D Test Line – TauP DBS+SRME



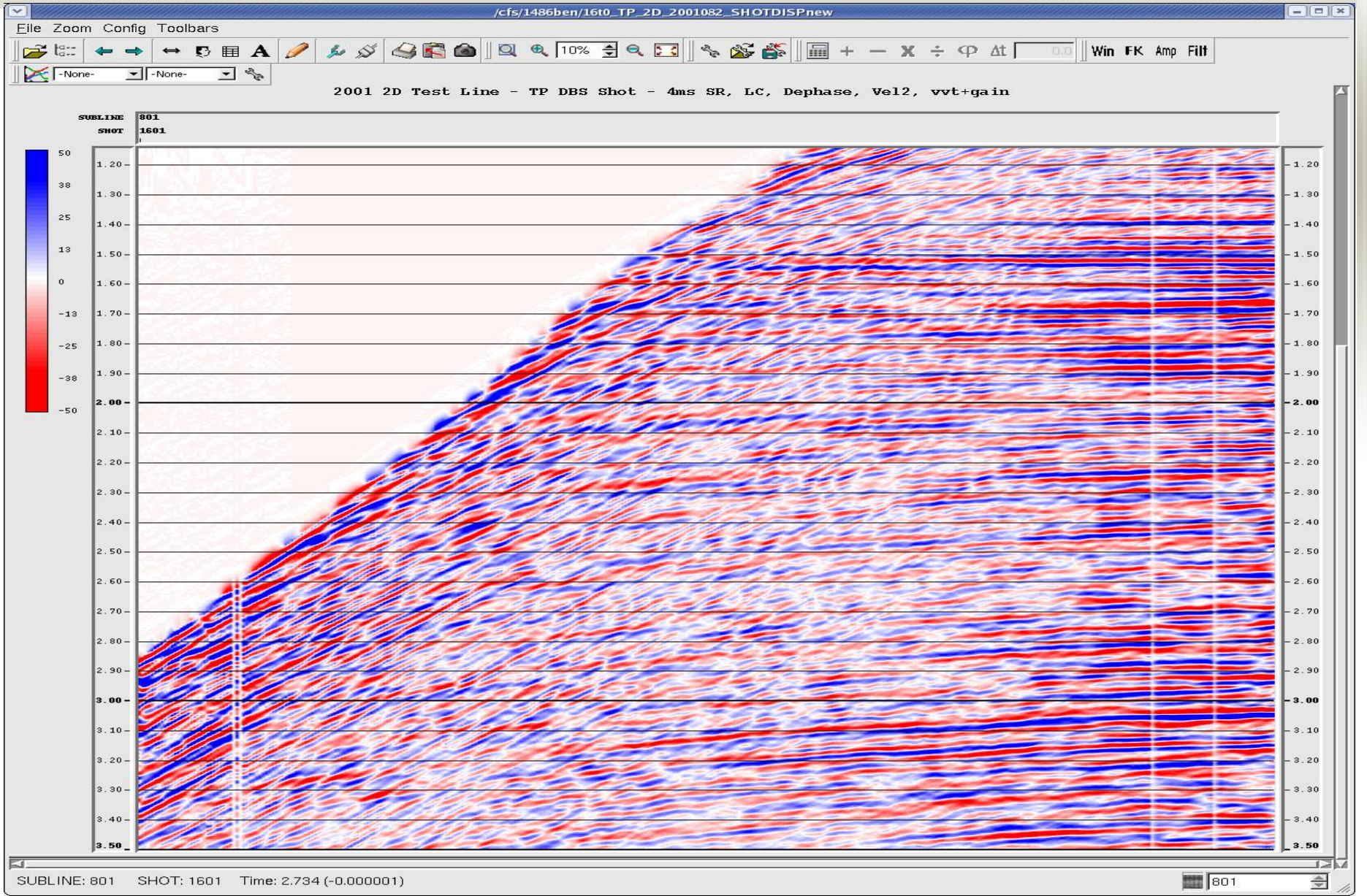
2022 2D Test Line – TauP DBS+SRME+RAD1



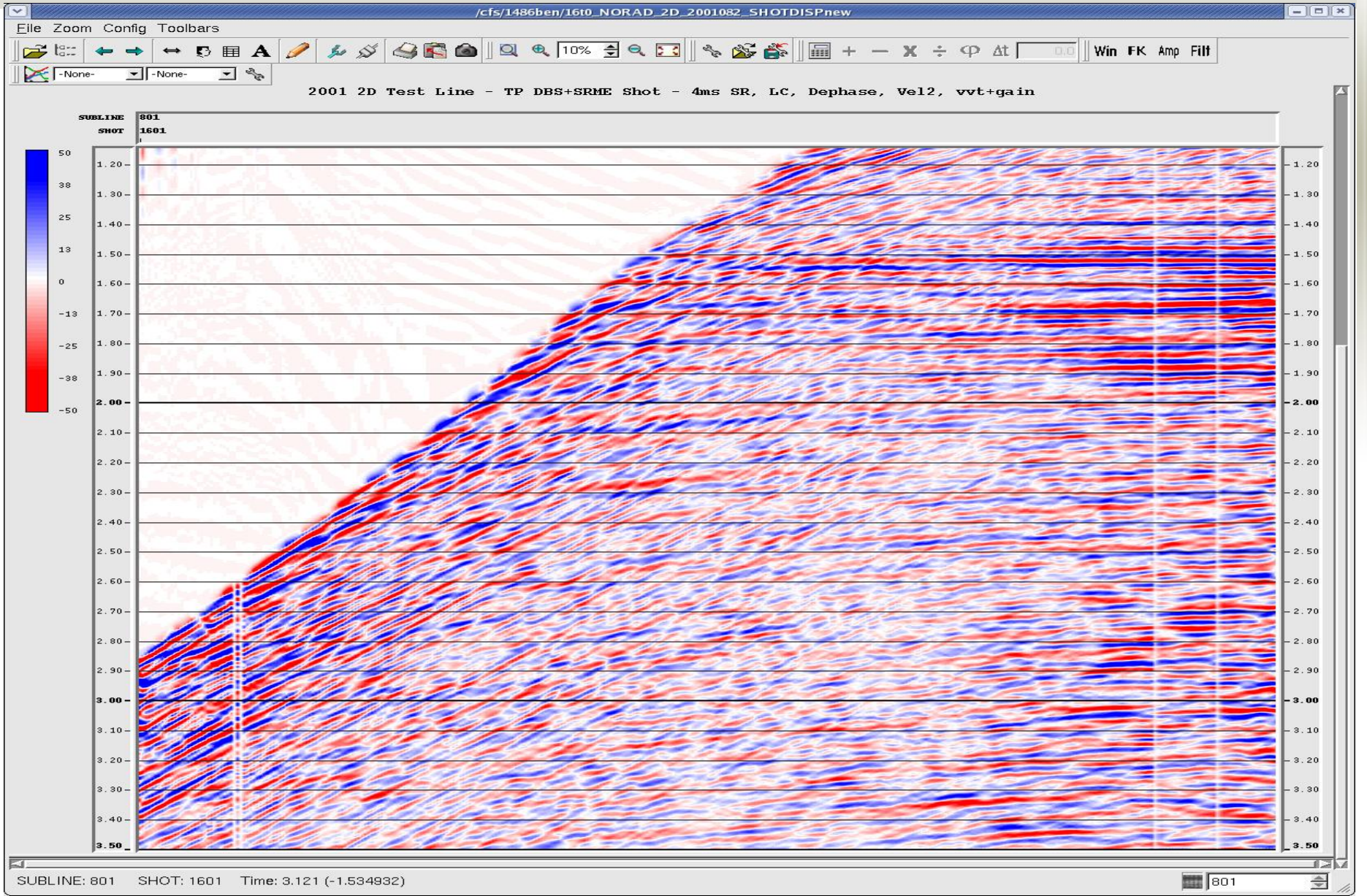
2001 2D Test Line - Reformat



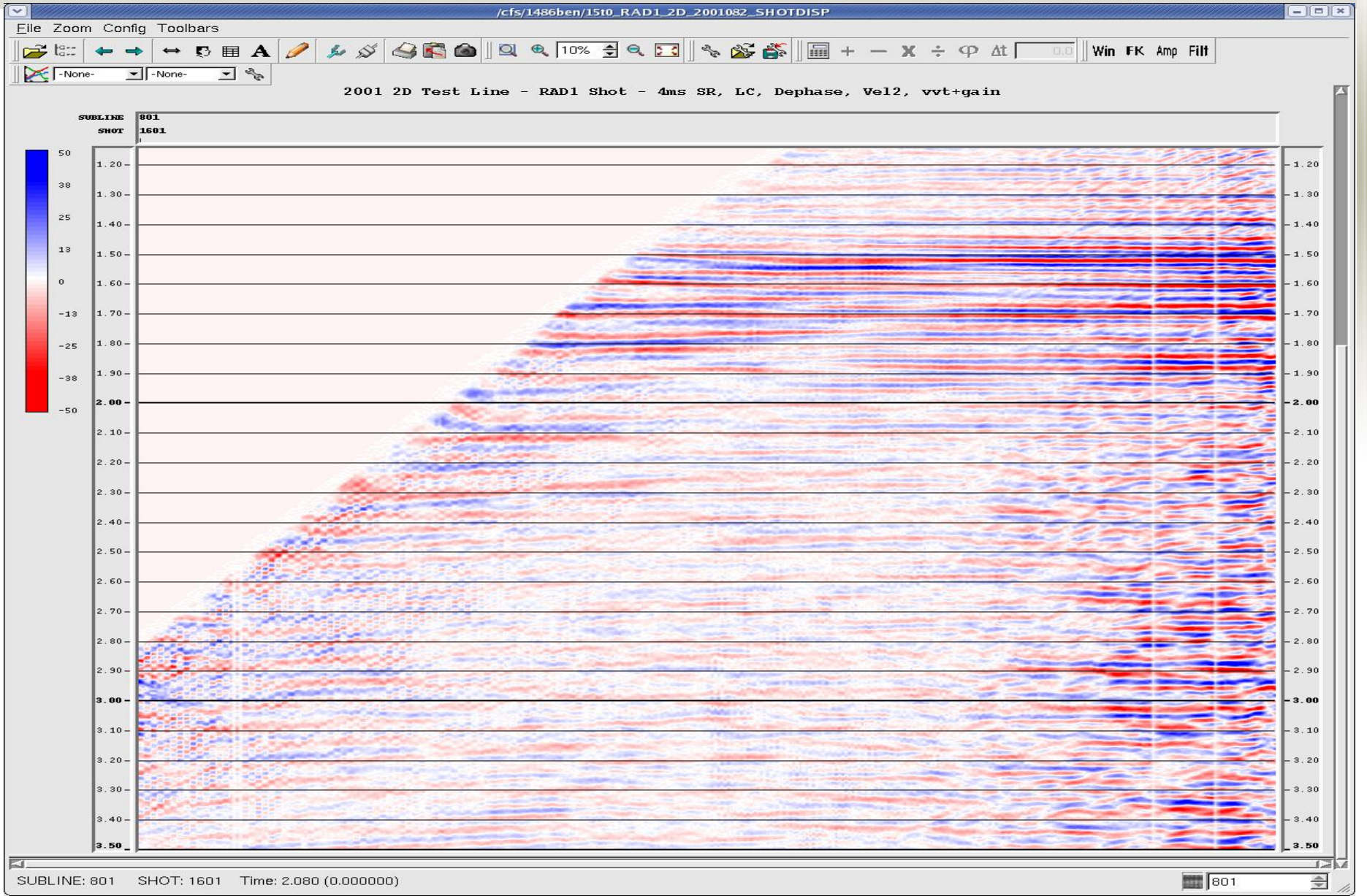
2001 2D Test Line – TauP DBS



2001 2D Test Line – TauP DBS+SRME



2001 2D Test Line – TauP DBS+SRME+RAD1



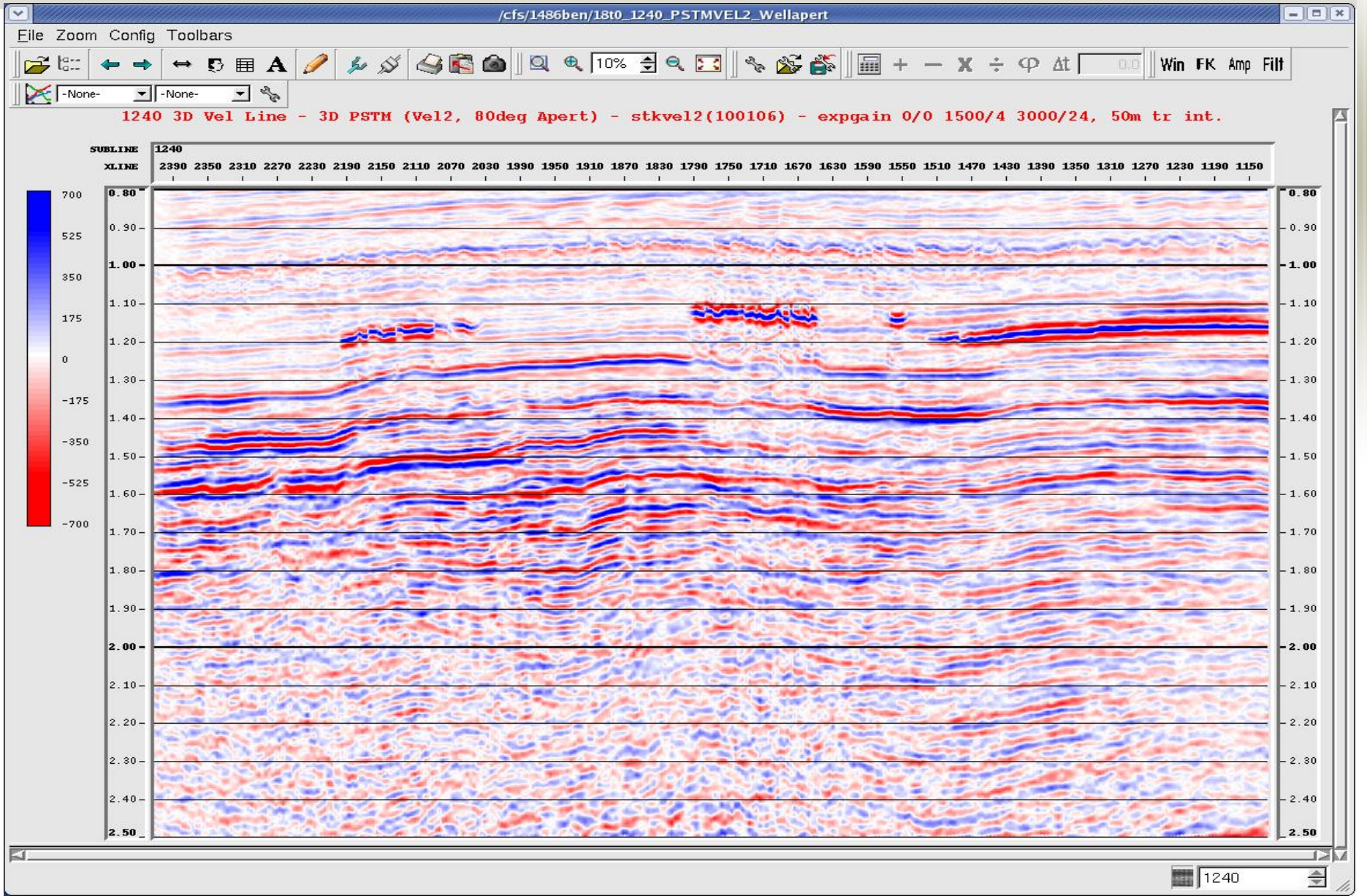
08_VEL2_3DPSTMQC.ppt

Benaris T/39 P 3D/2D
3D PSTM Stack and Vel Analysis for Pass 3 Picking
20/01/06

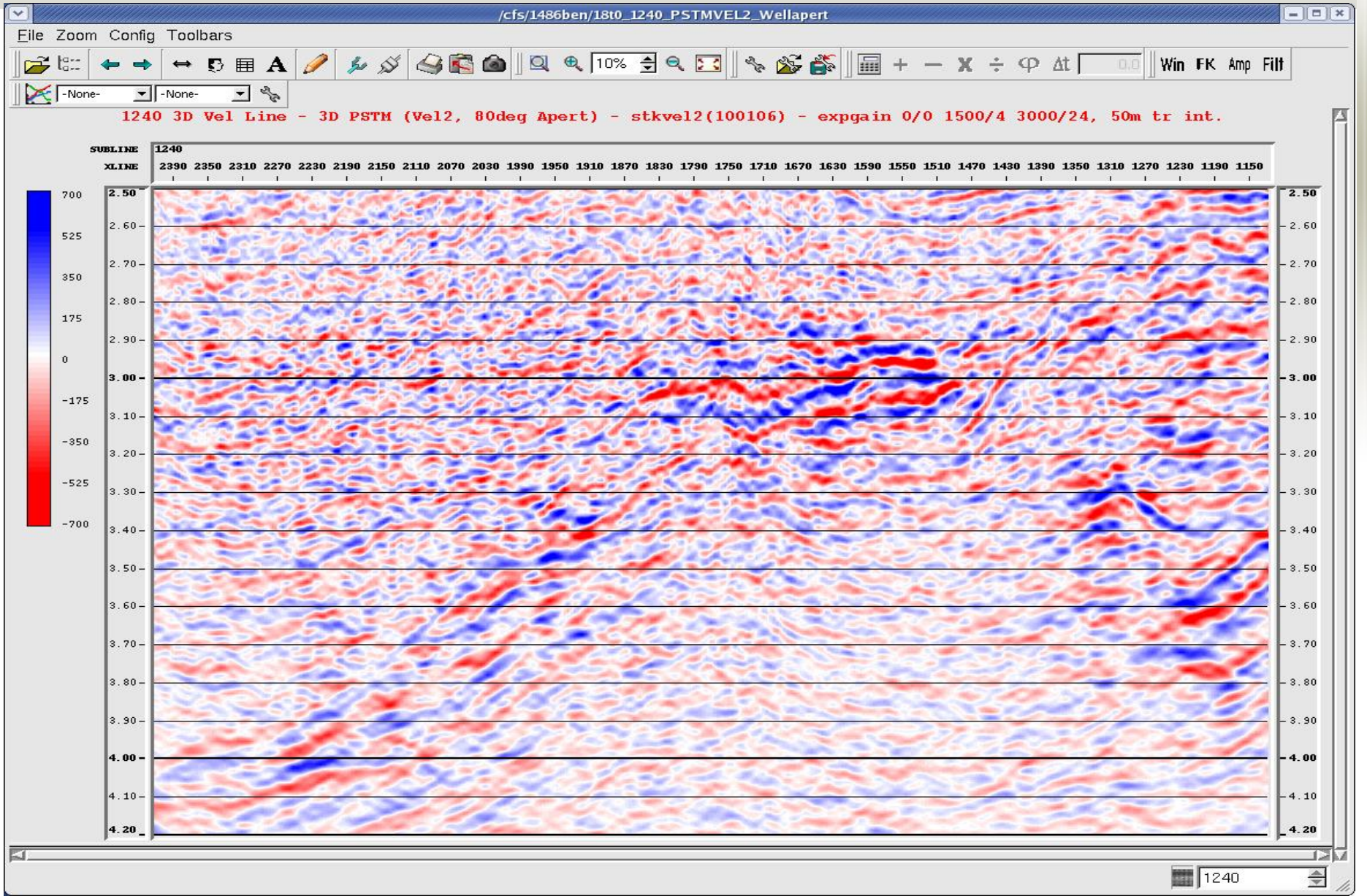
SUMMARY OF CONTENTS

- Review of stack and velocity analyses produced for the Pass 3 picking from 3D velocity line 1240, particularly in terms of the deeper data.

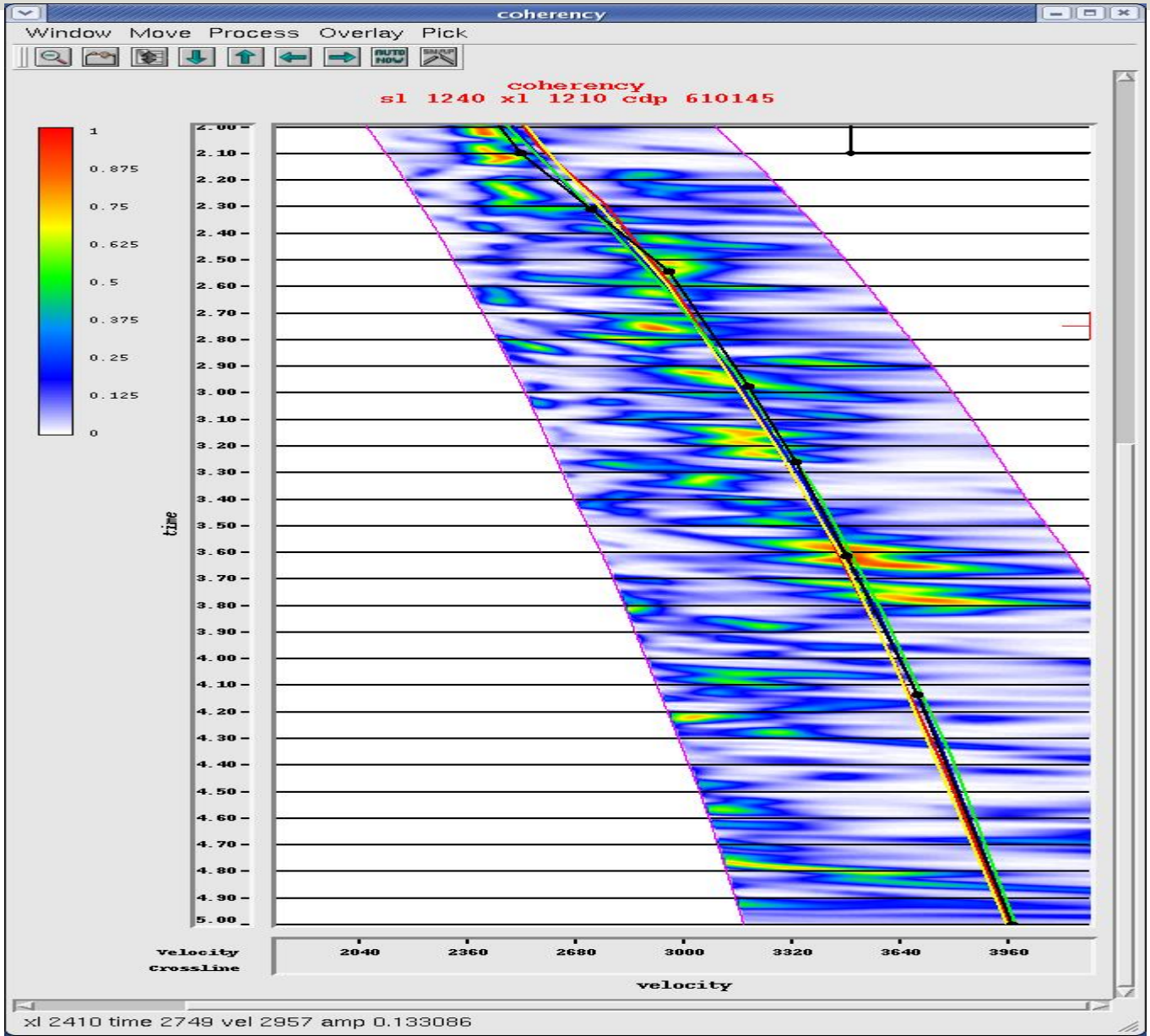
1240 Vel Ln 3D PSTM (produced from Pass 2 Vels)



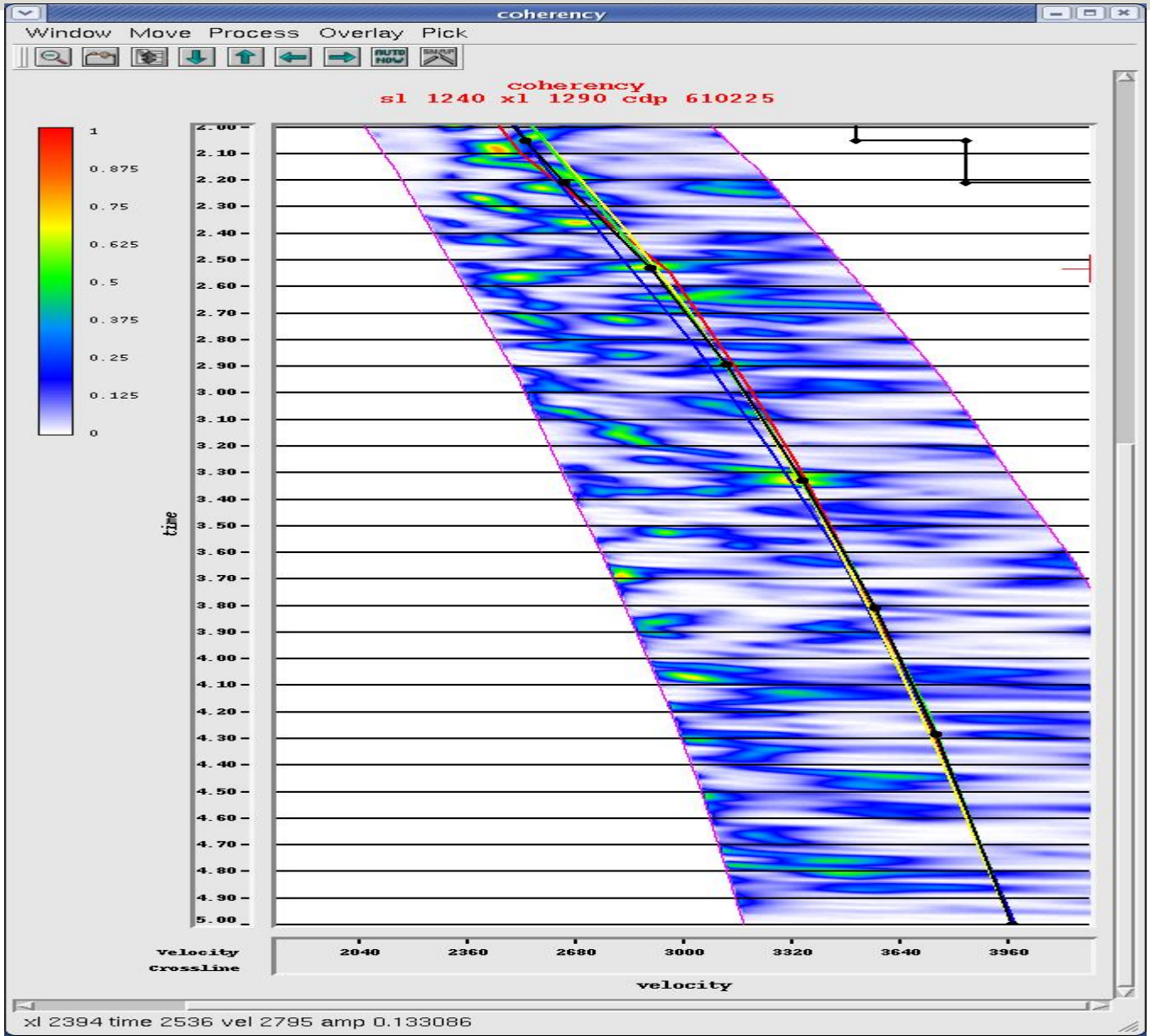
1240 Vel Ln 3D PSTM (produced from Pass 2 Vels)



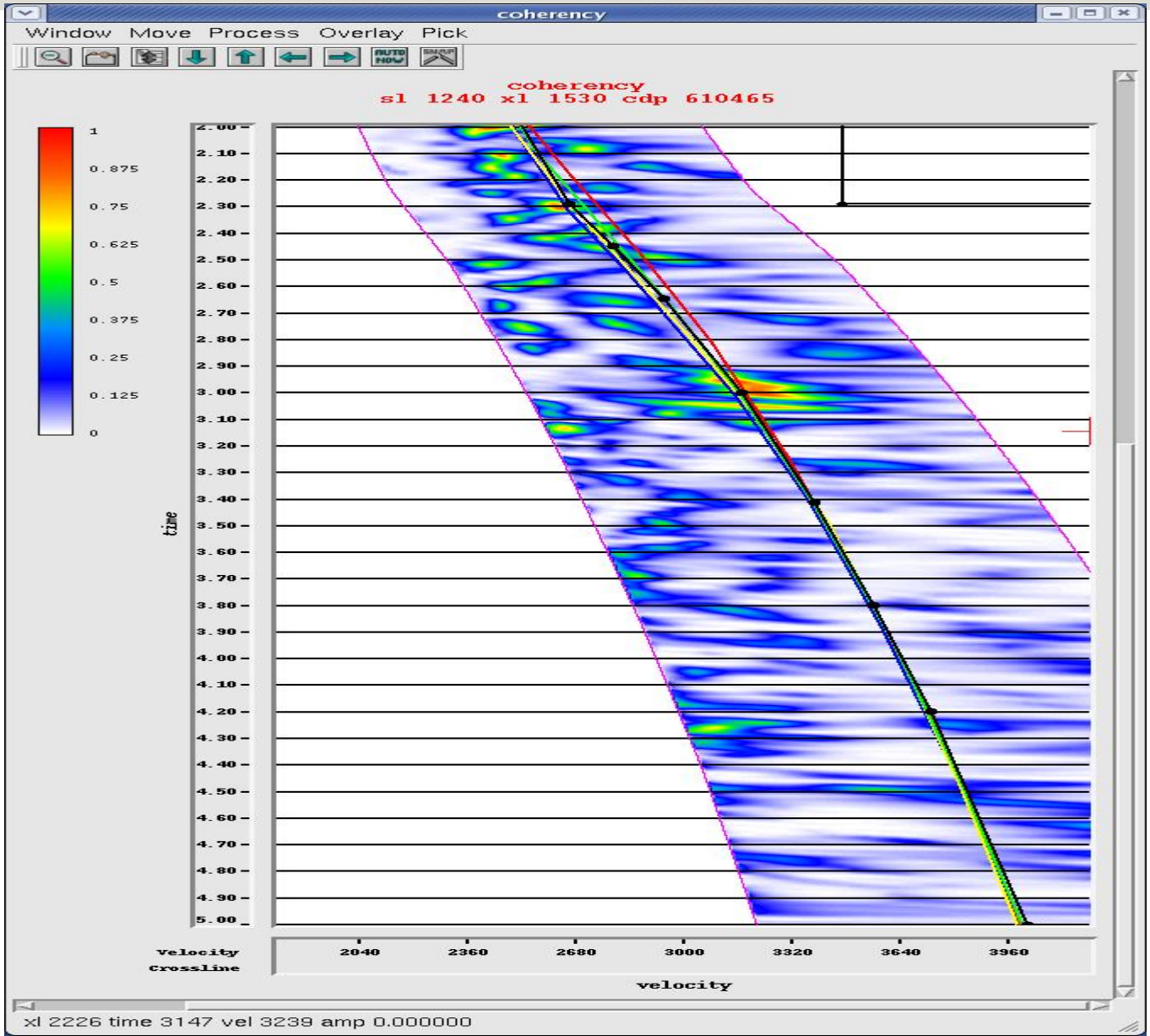
1240 Pass 3 Velocity Analysis



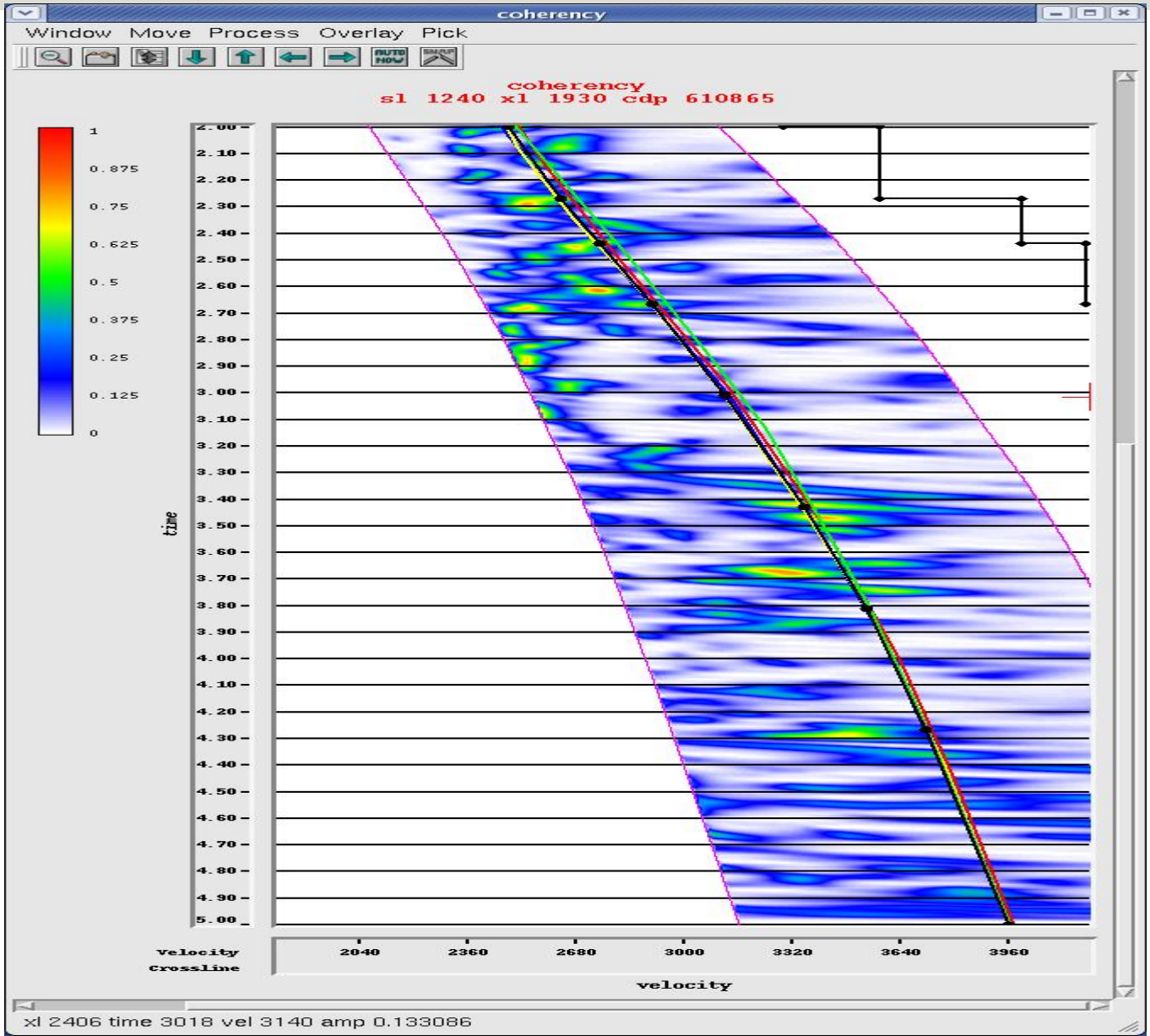
1240 Pass 3 Velocity Analysis



1240 Pass 3 Velocity Analysis



1240 Pass 3 Velocity Analysis



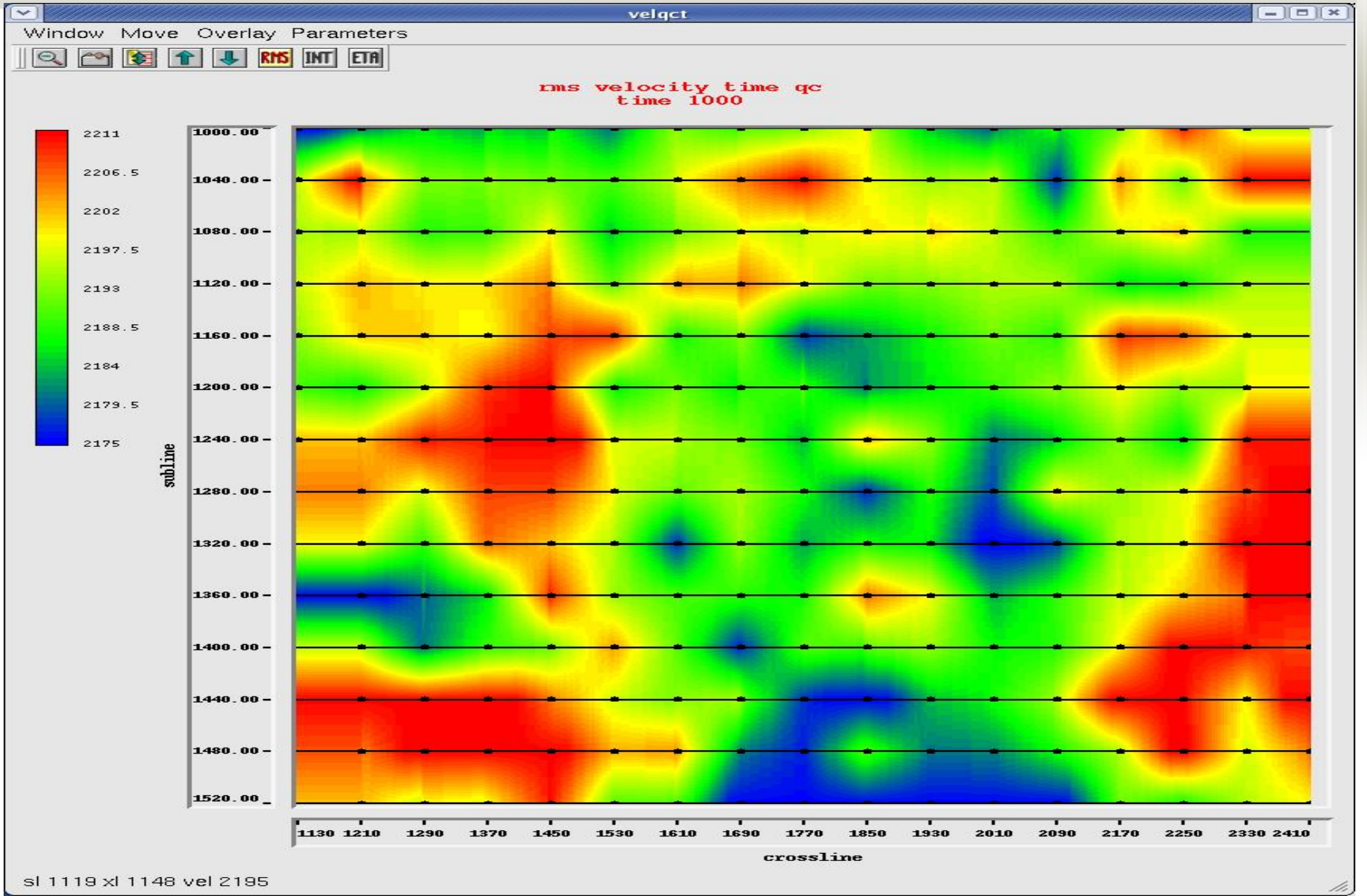
09_VEL3_slices.ppt

Benaris T/39 P 3D PSTM Vel3 Slices 30/01/06

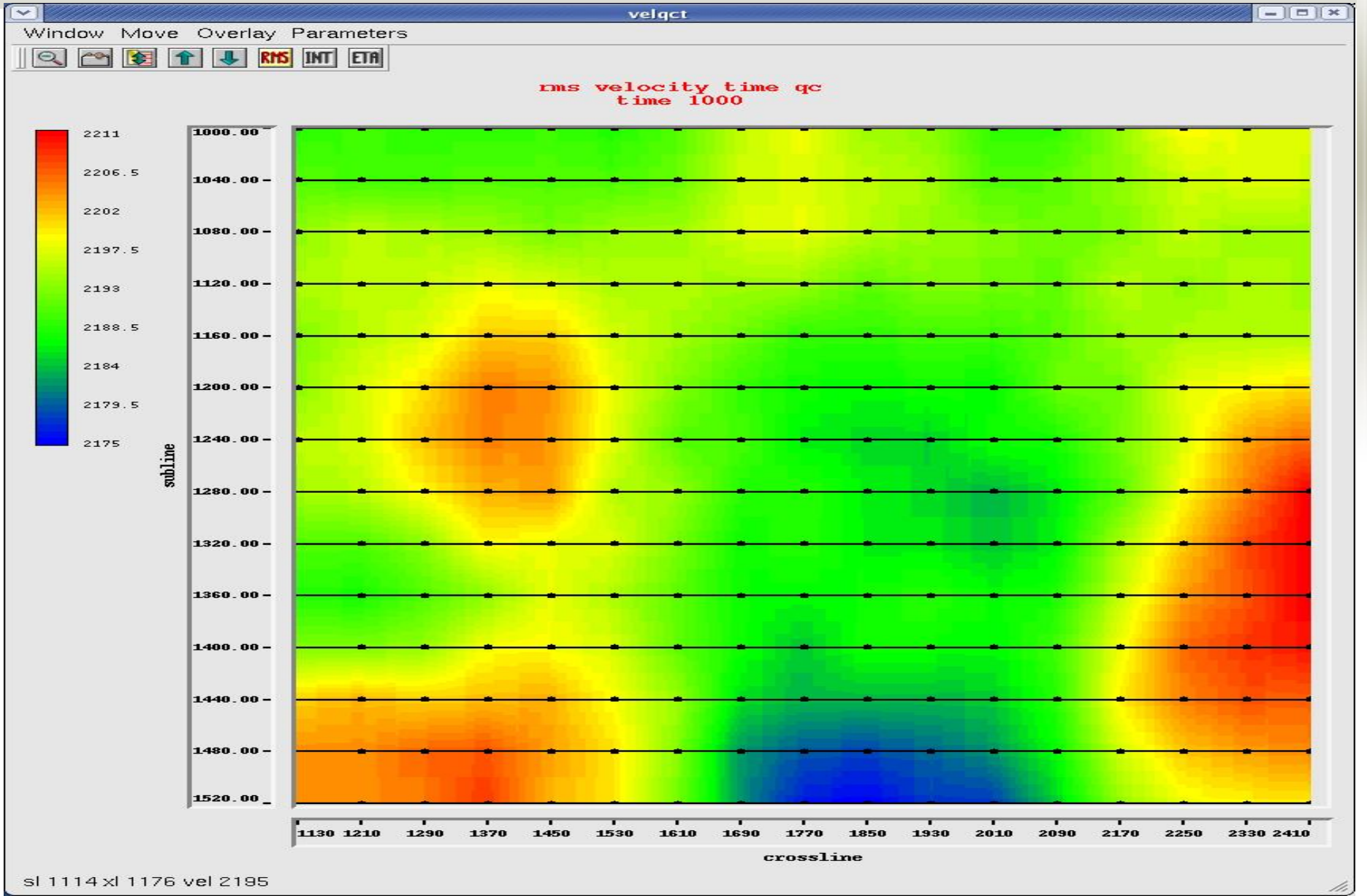
SUMMARY OF CONTENTS

- Review of 3D PSTM Vel3 timeslices.

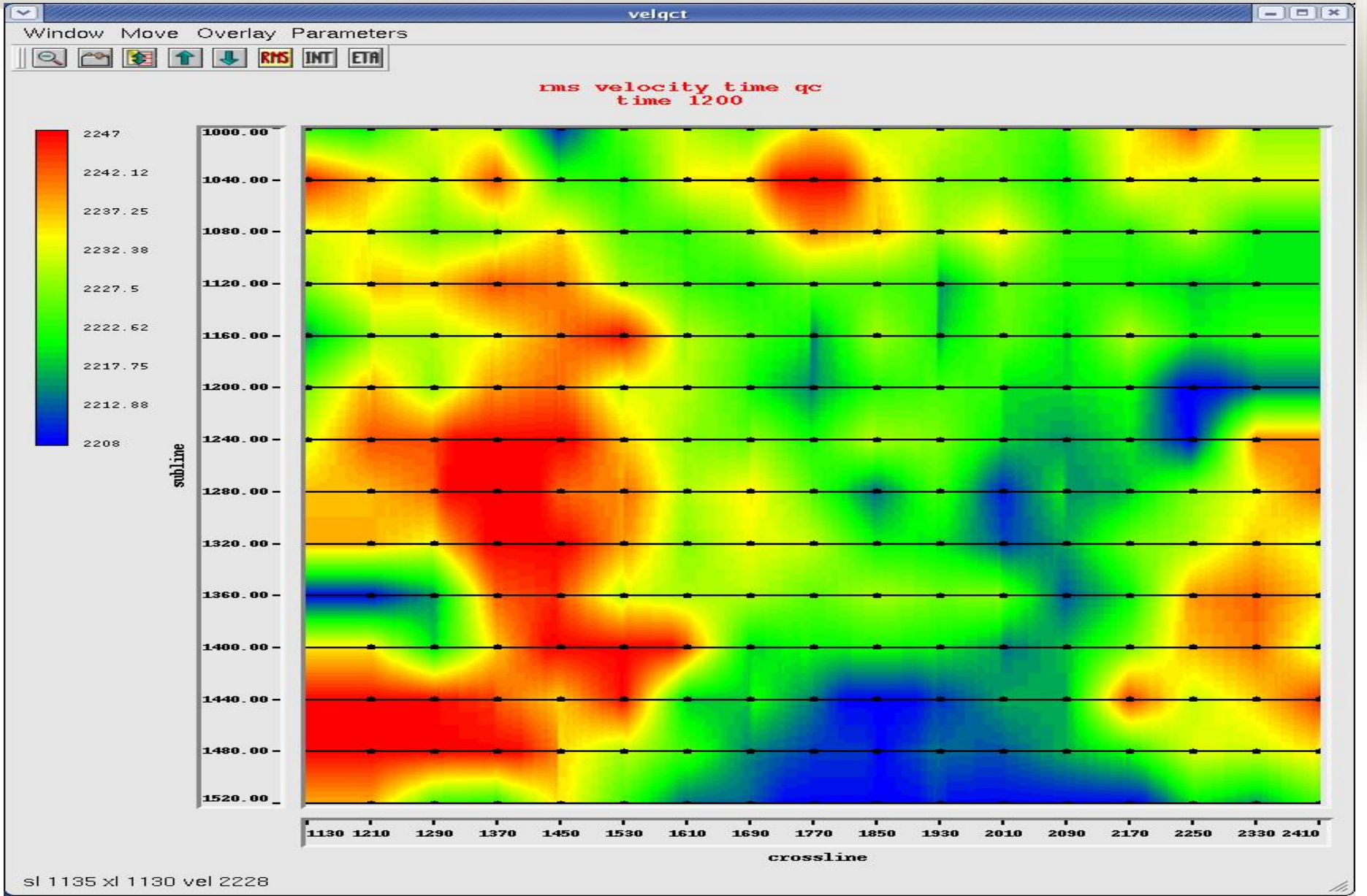
1000ms Slice from Approved Vel3 Velocity Field



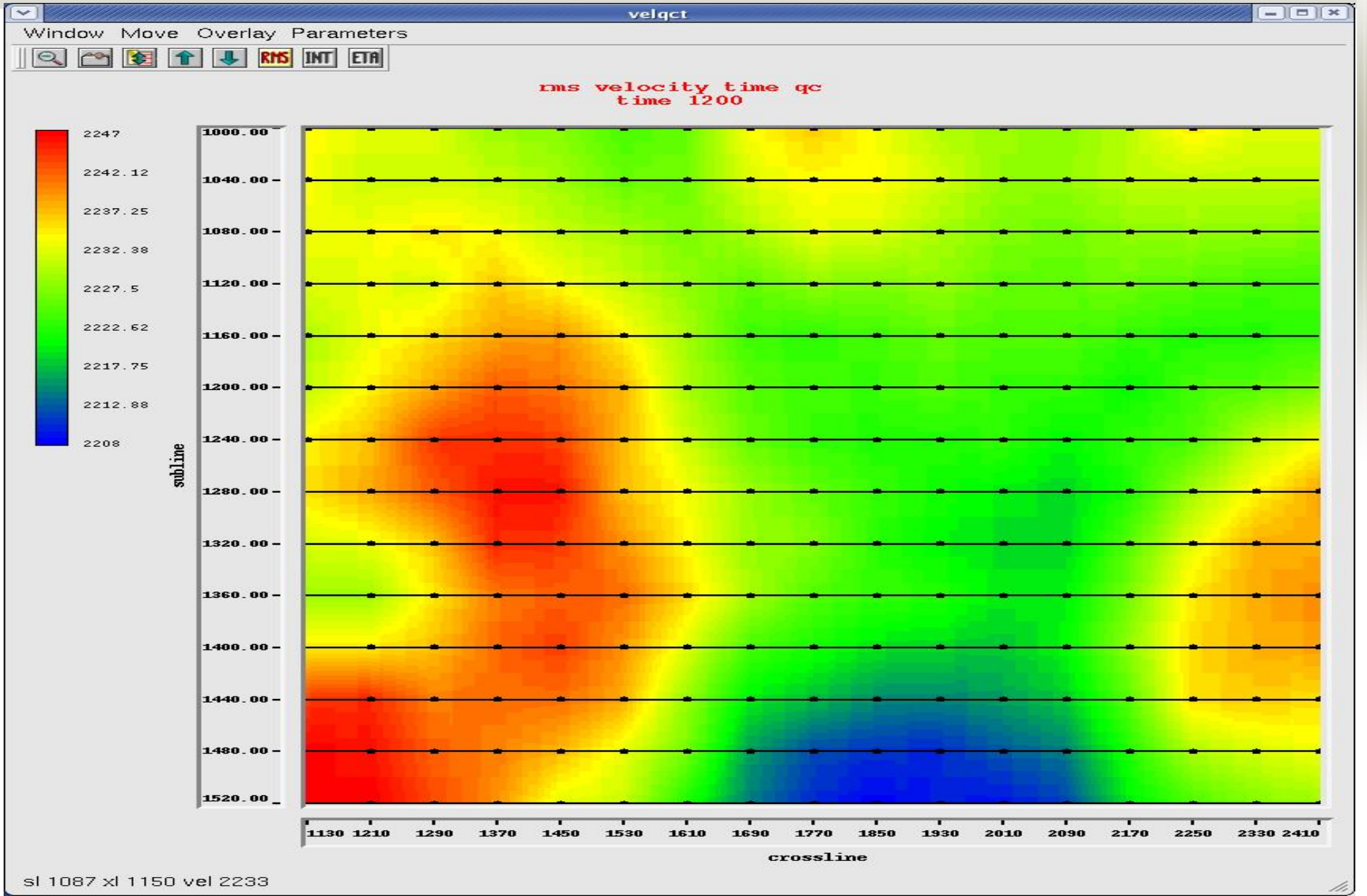
1000ms Slice from Smoothed Velocity Field used for PSTM



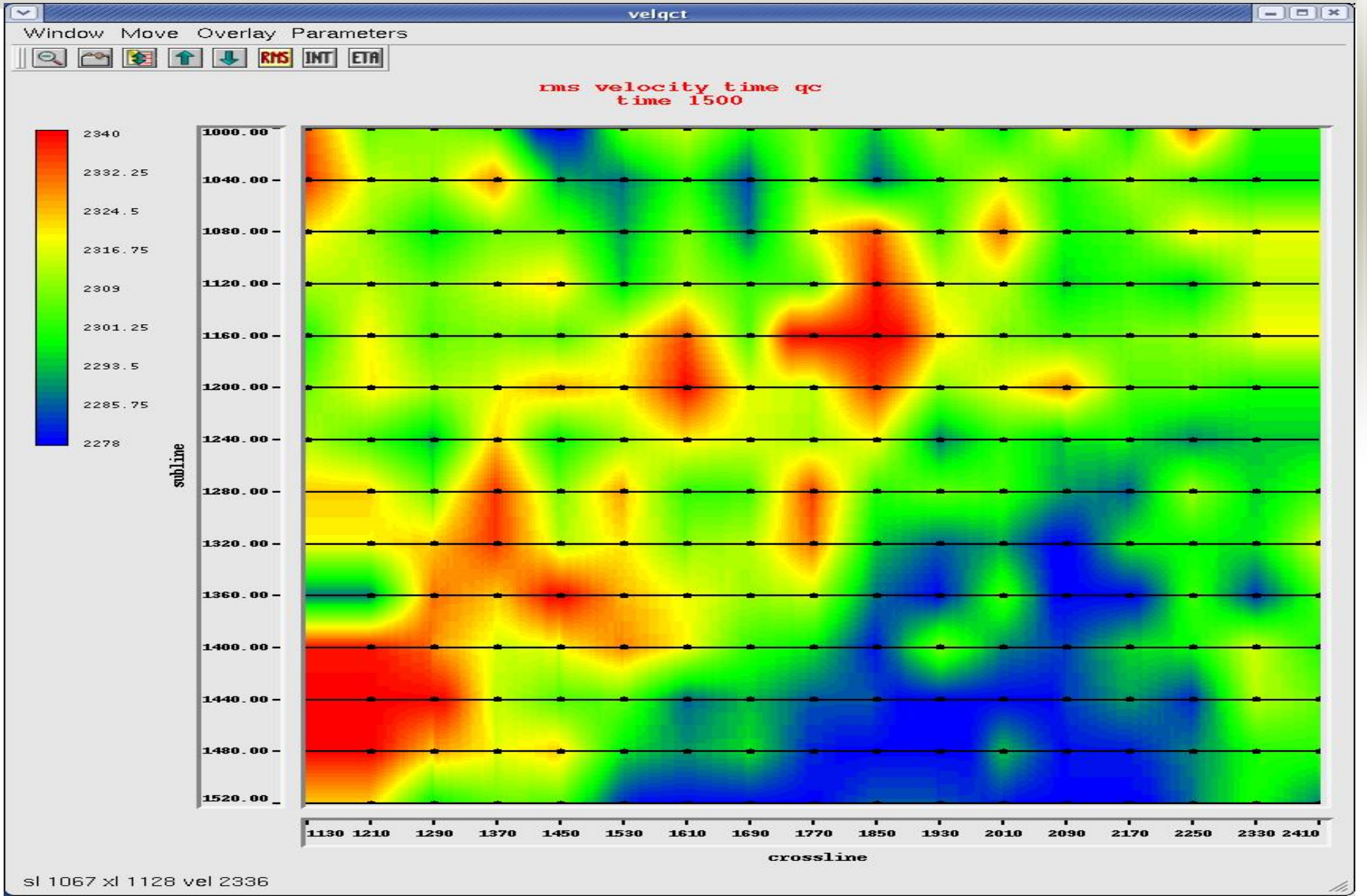
1200ms Slice from Approved Velocity Field



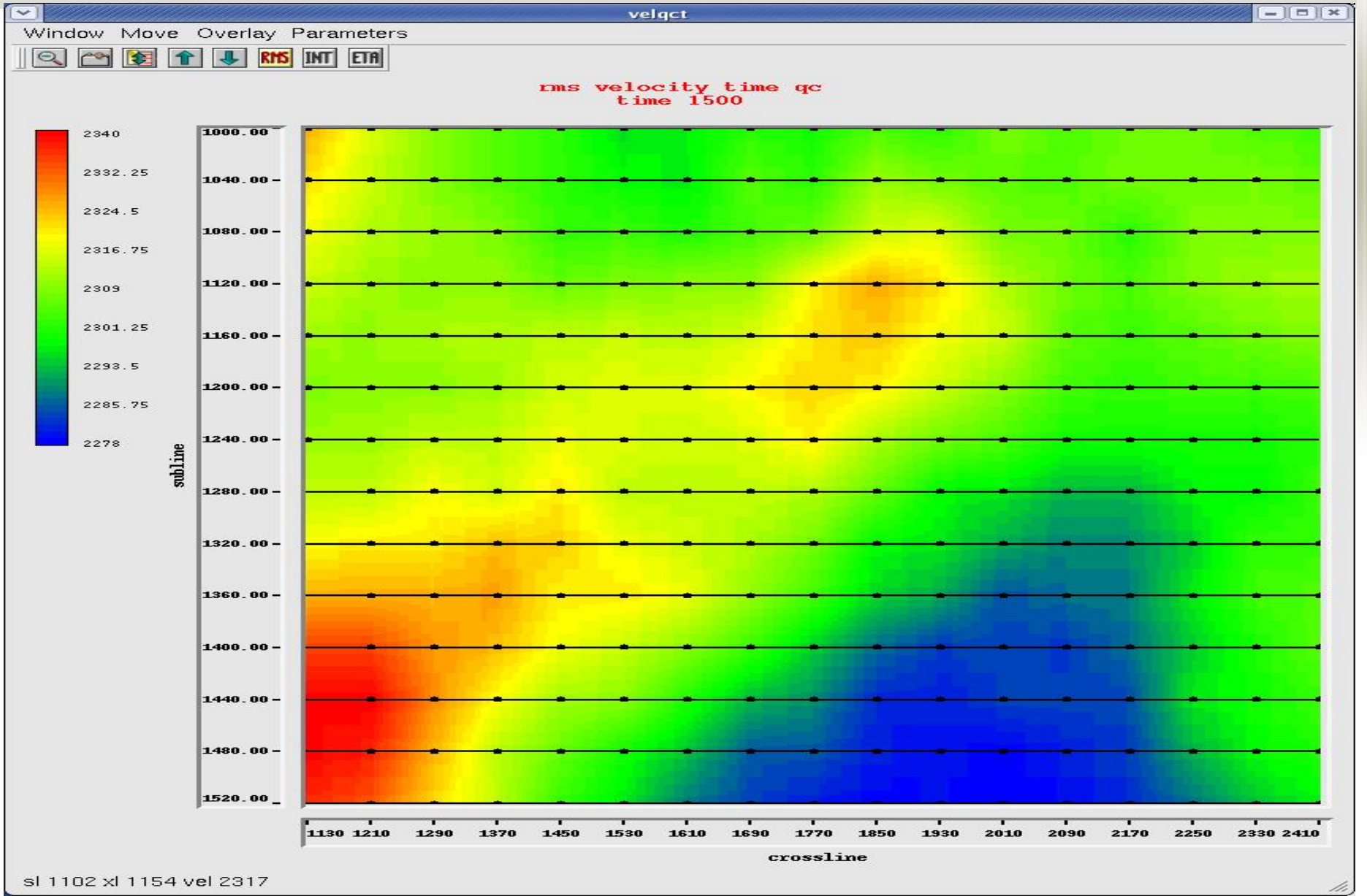
1200ms Slice from Smoothed Velocity Field used for PSTM



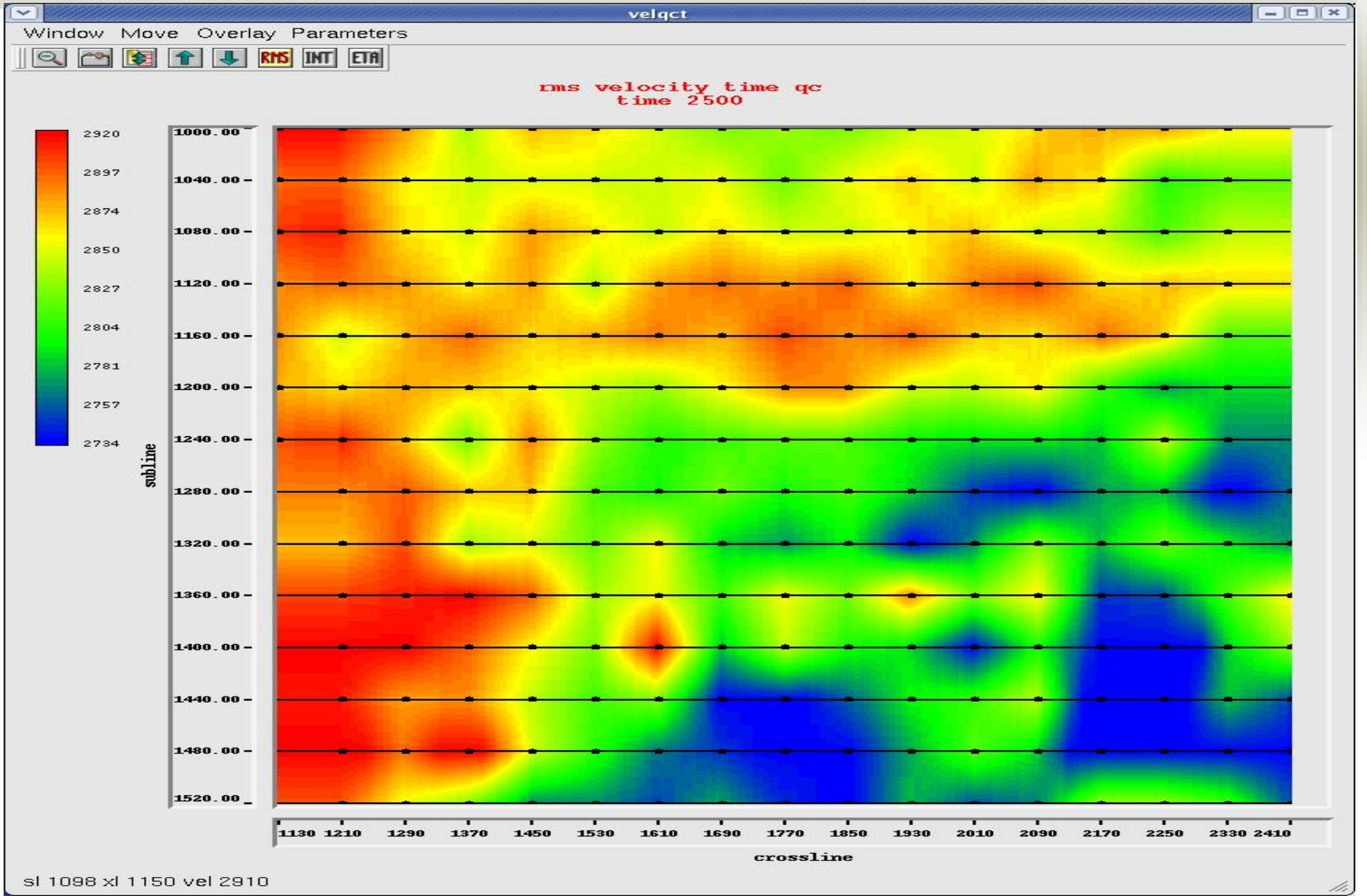
1500ms Slice from Approved Velocity Field



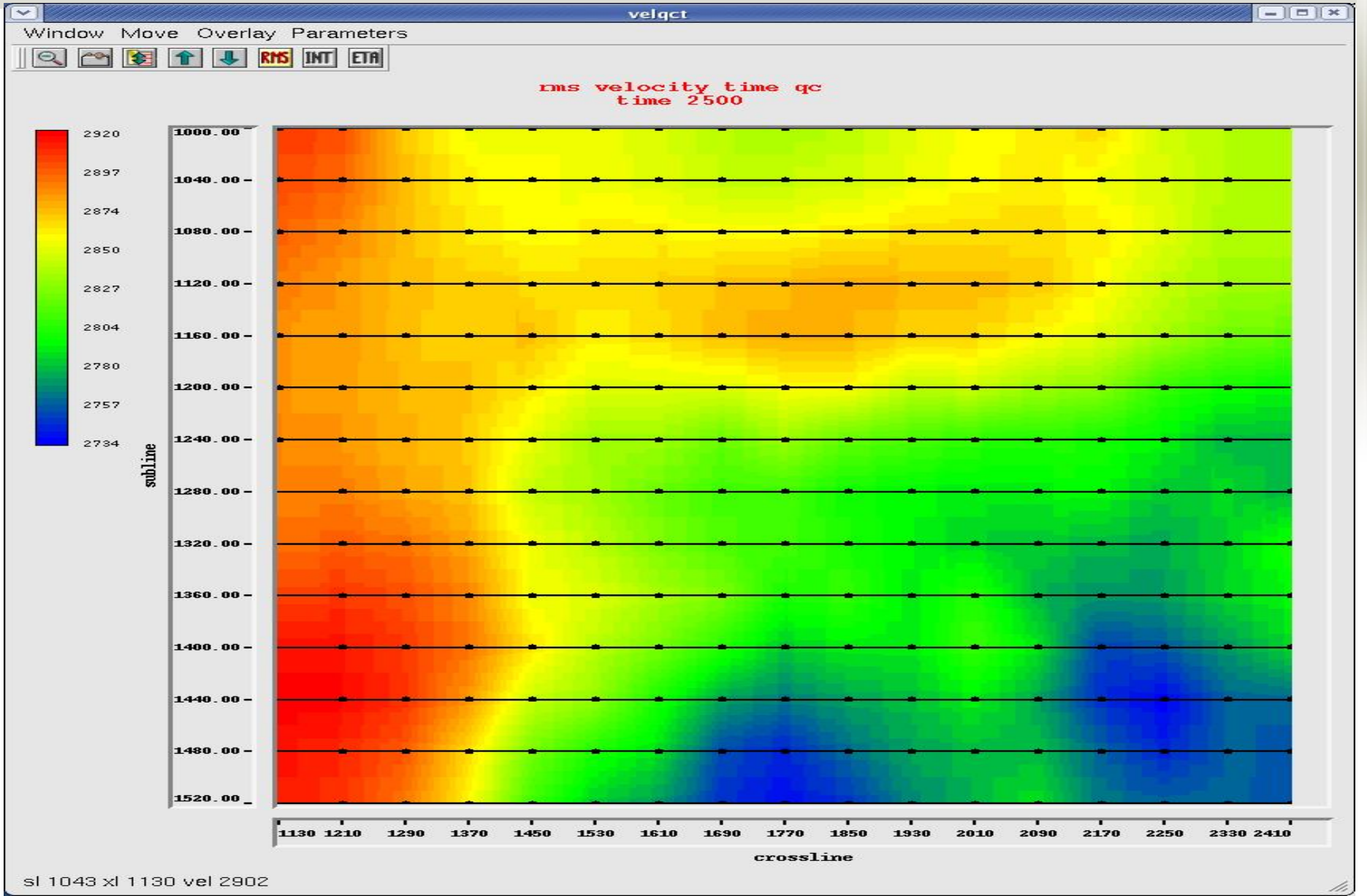
1500ms Slice from Smoothed Velocity Field used for PSTM



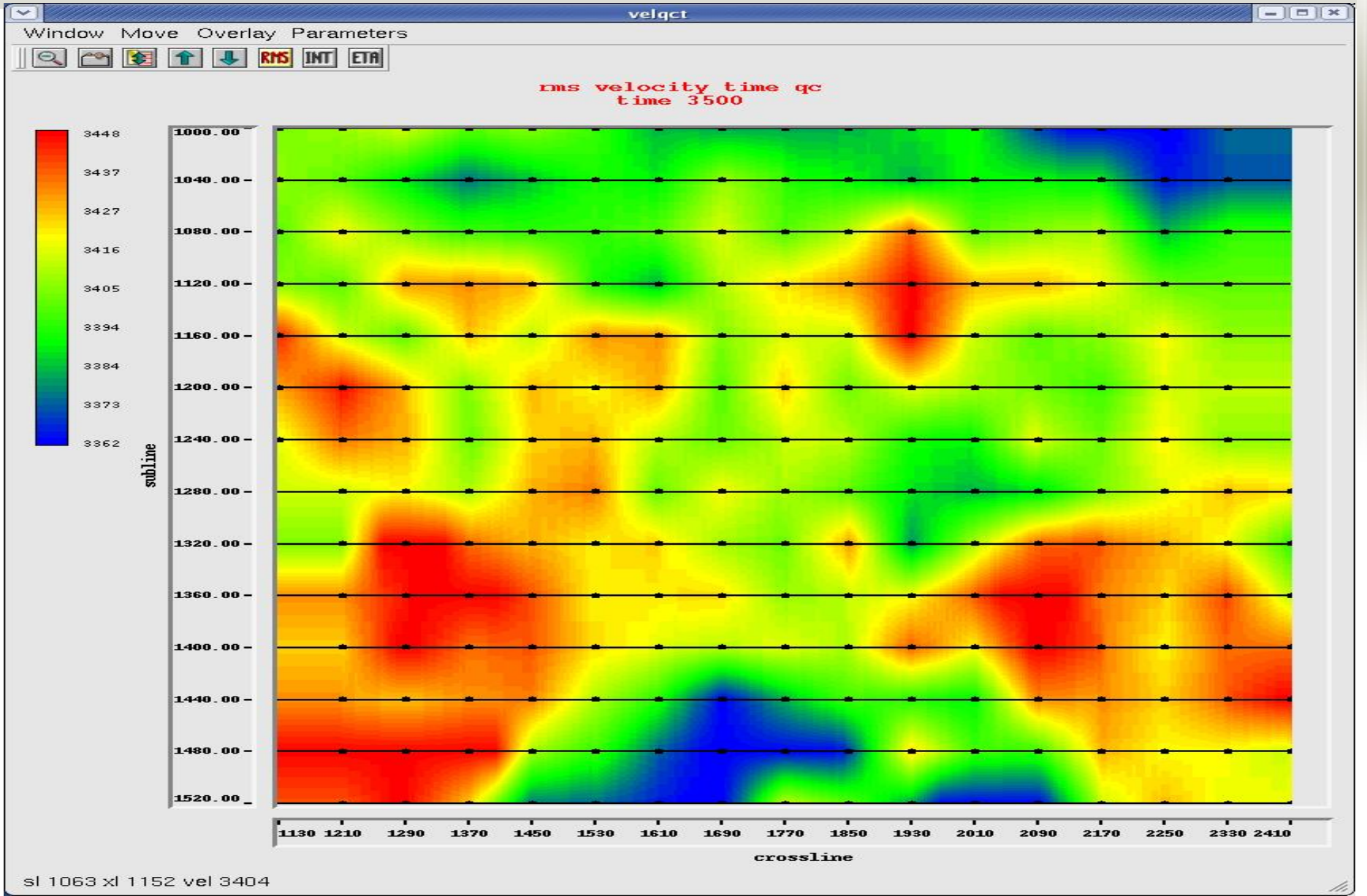
2500ms Slice from Approved Velocity Field



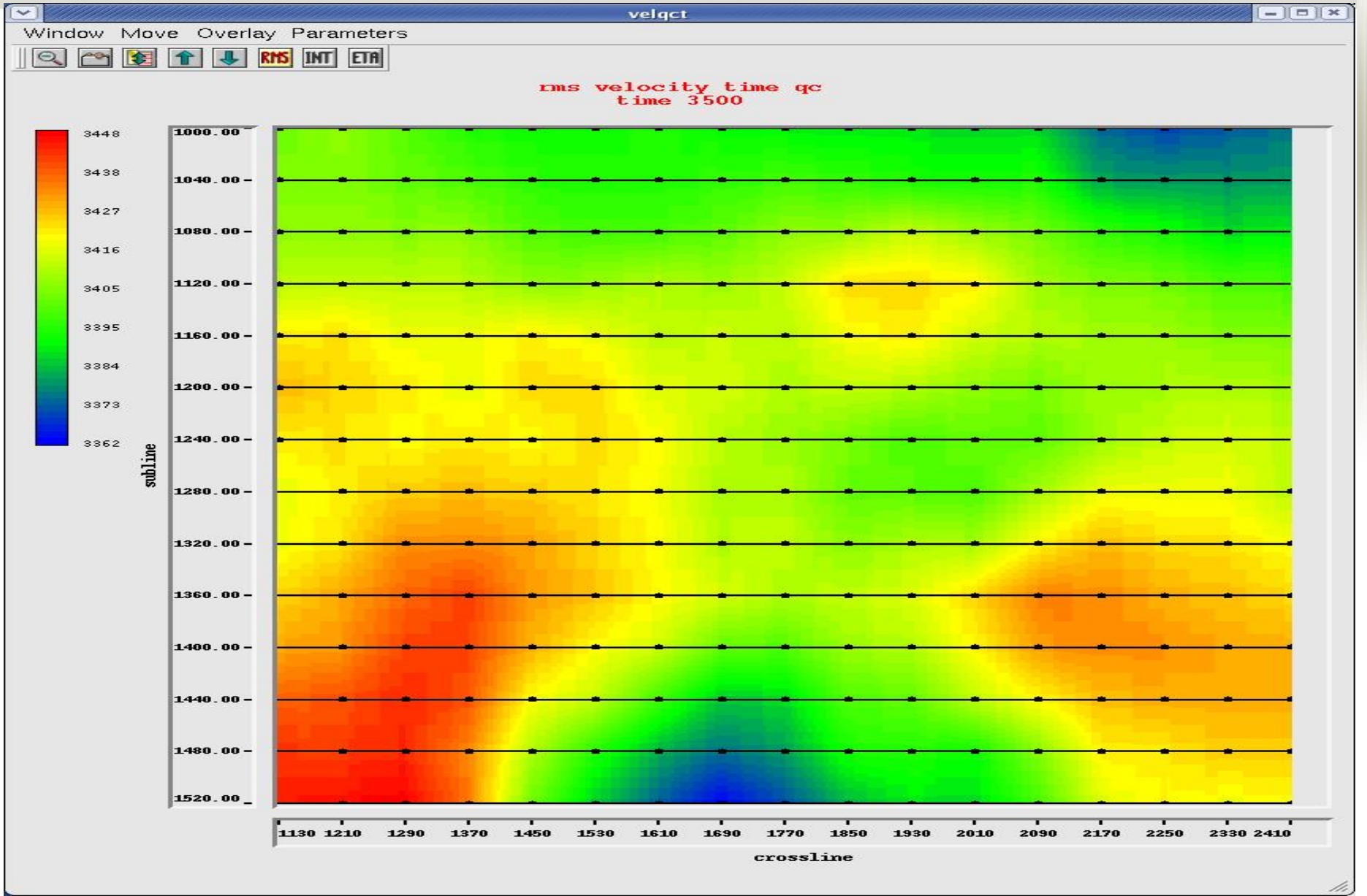
2500ms Slice from Smoothed Velocity Field used for PSTM



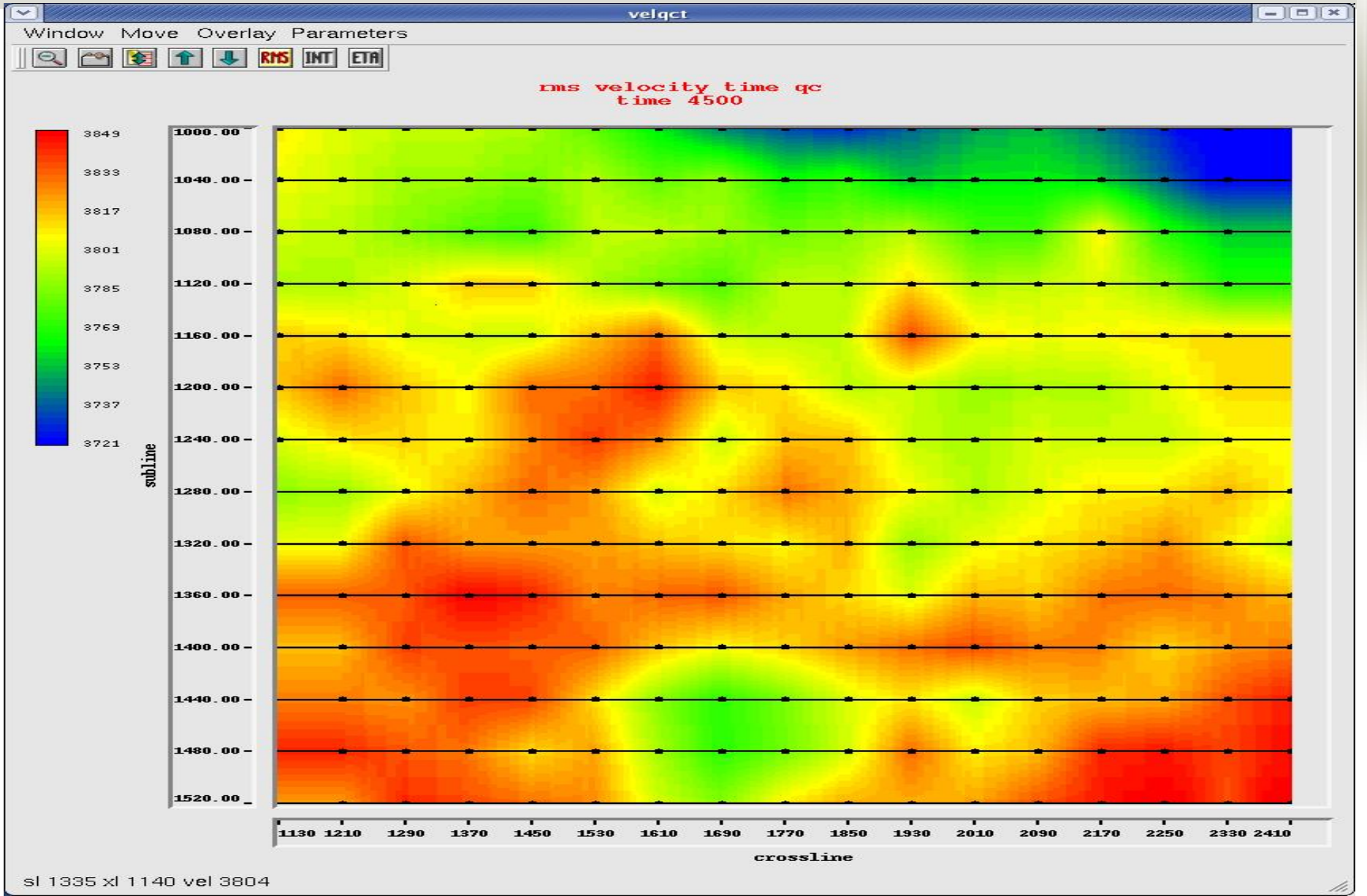
3500ms Slice from Approved Velocity Field



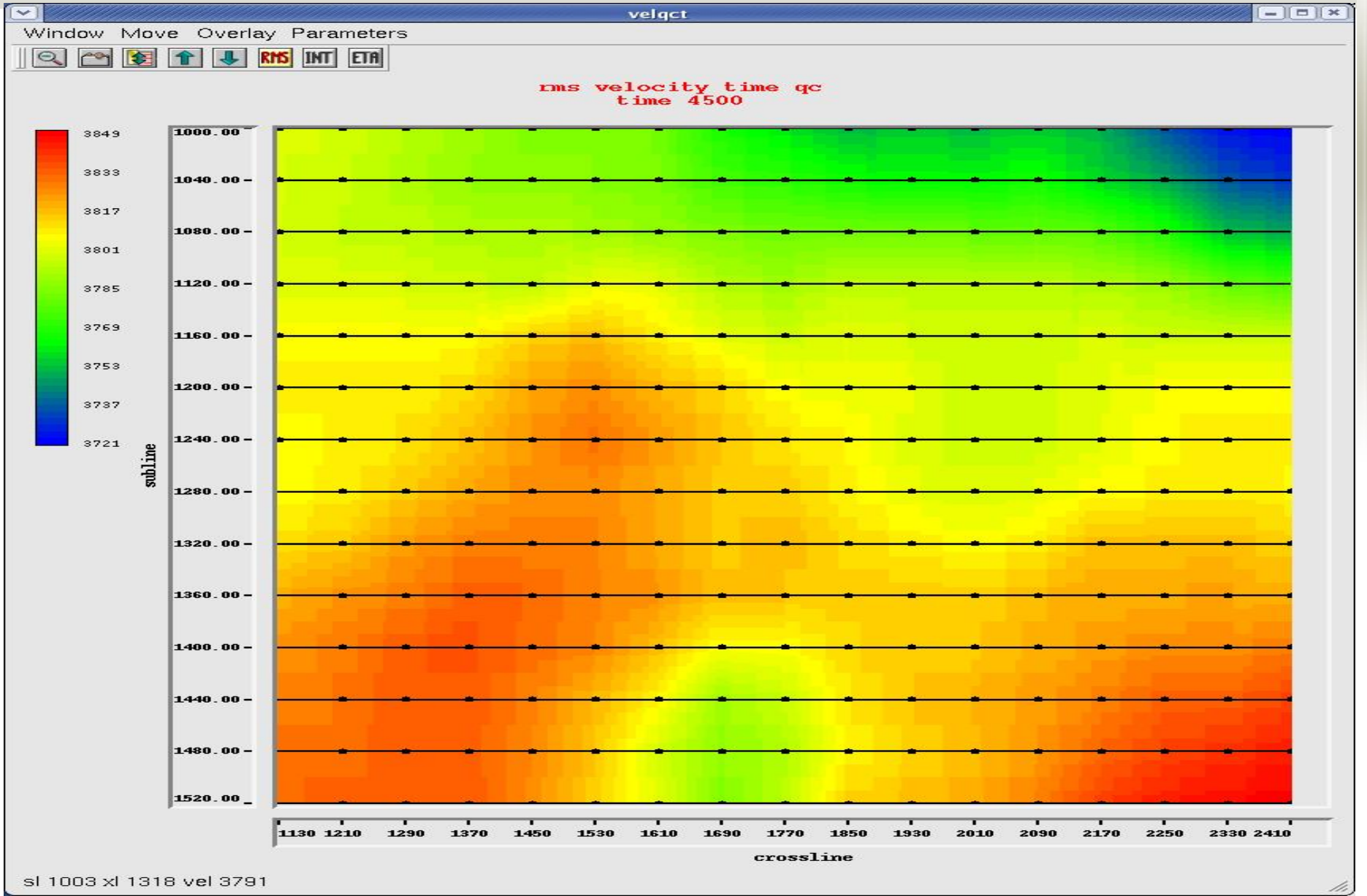
3500ms Slice from Smoothed Velocity Field used for PSTM



4500ms Slice from Approved Velocity Field



4500ms Slice from Smoothed Velocity Field used for PSTM



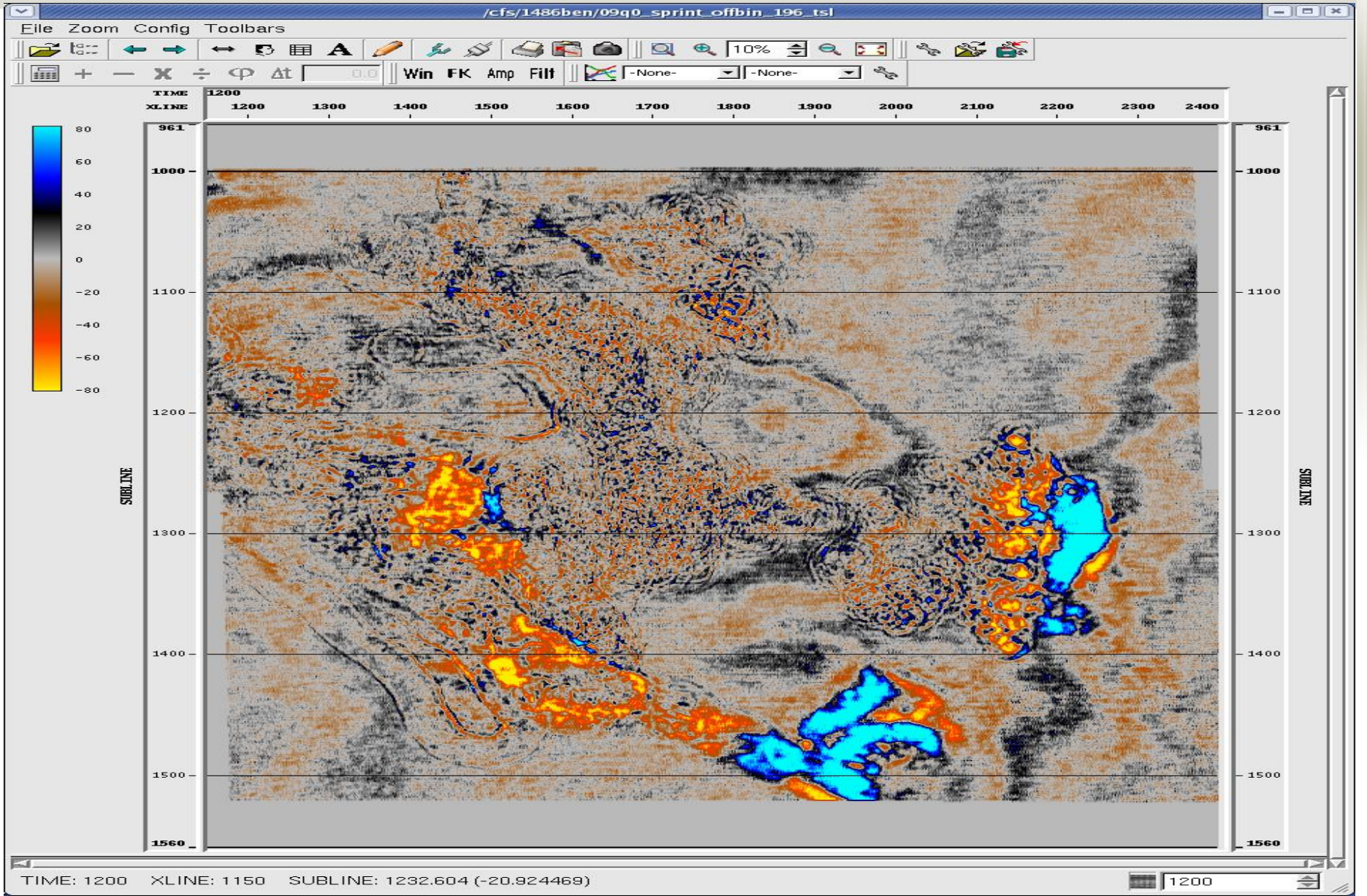
10_3DPSTMQC_slices.ppt

Benaris T/39 P 3D PSTM QC Slices 31/01/06

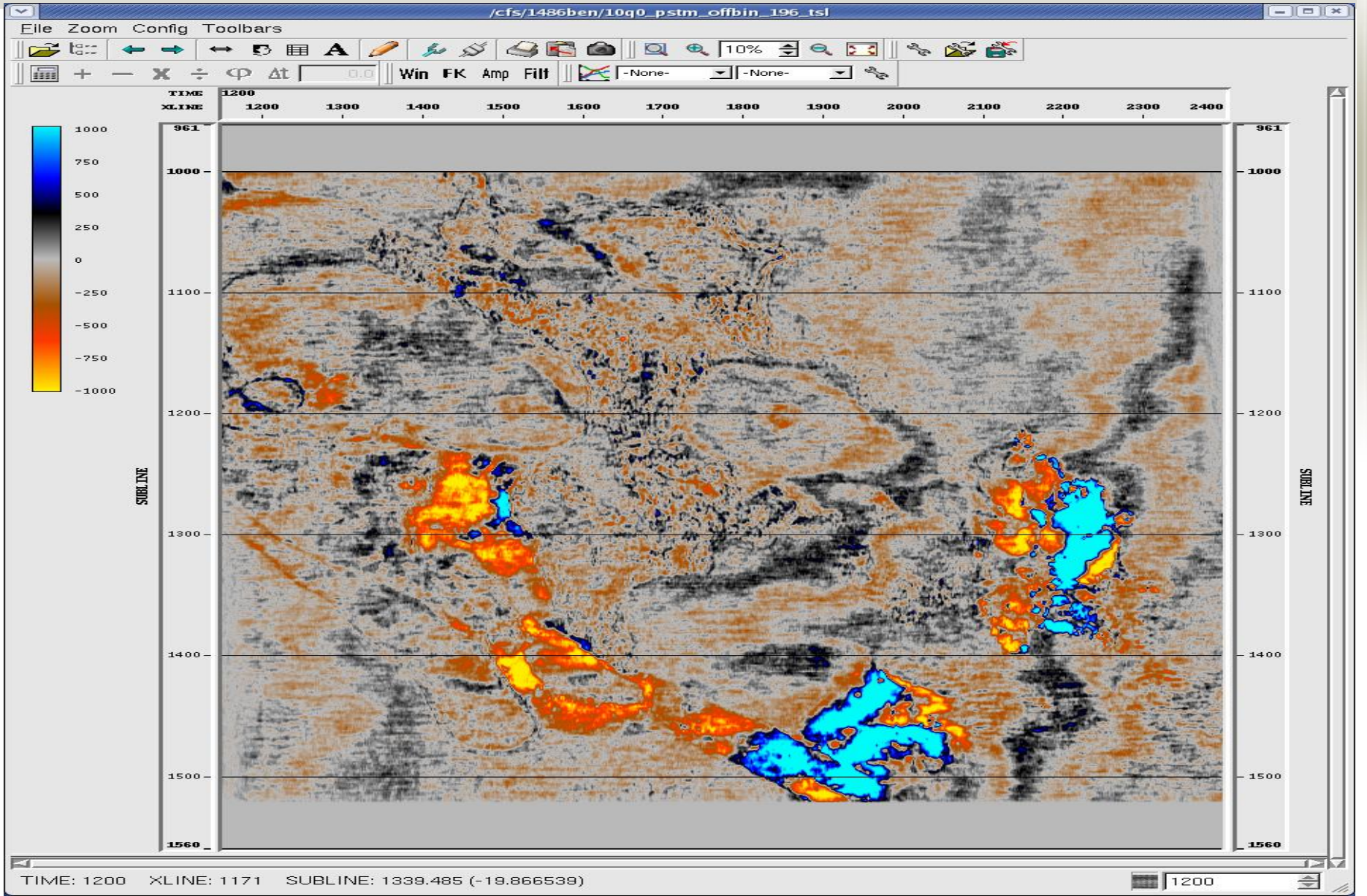
SUMMARY OF CONTENTS

- Review of 3D PSTM timeslices.

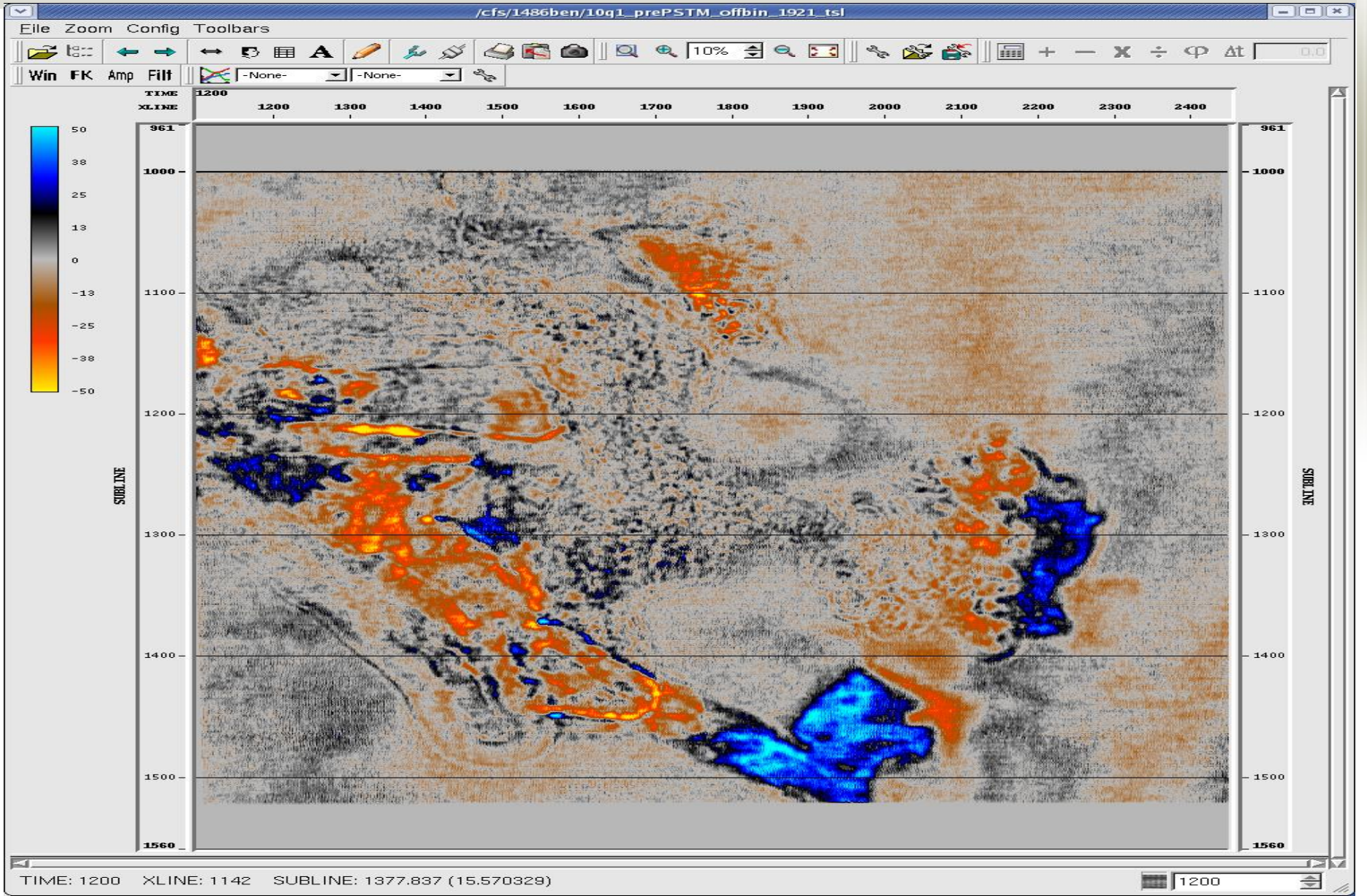
1200ms Slice of Non-migrated Data from Single Offset 196m



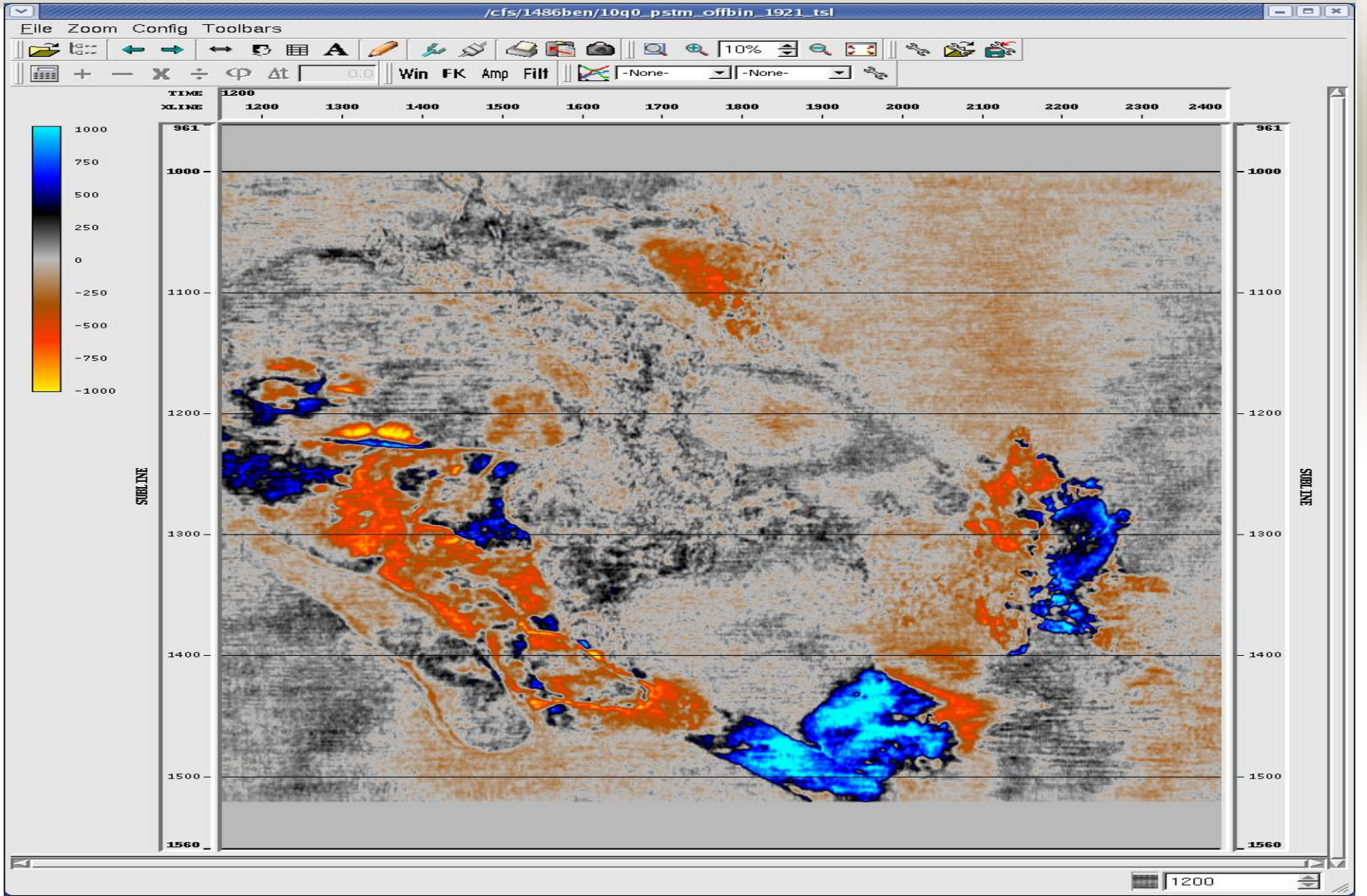
1200ms Slice of Migrated Data from Single Offset 196m



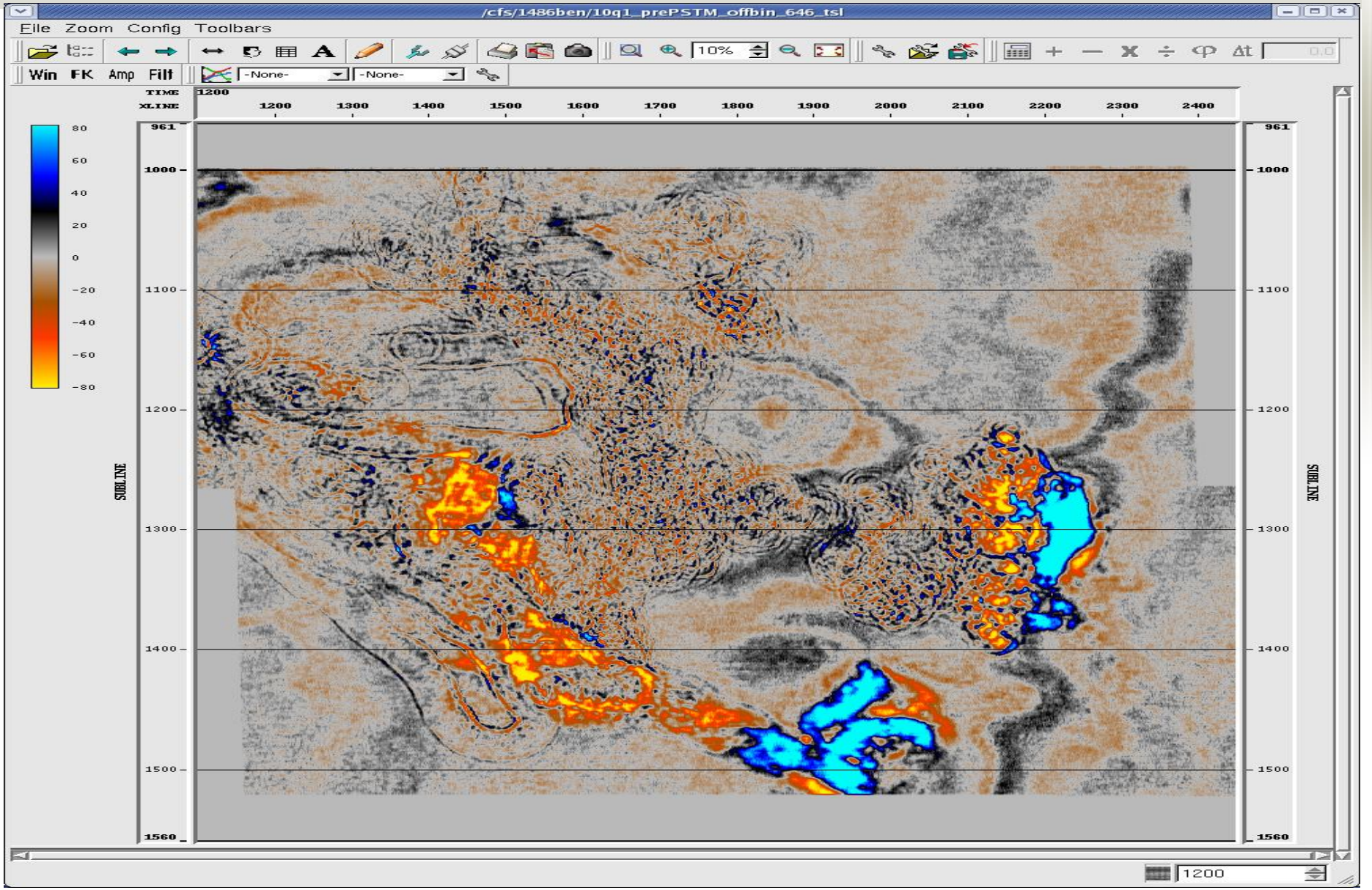
1200ms Slice of Non-migrated Data from Single Offset 1921m



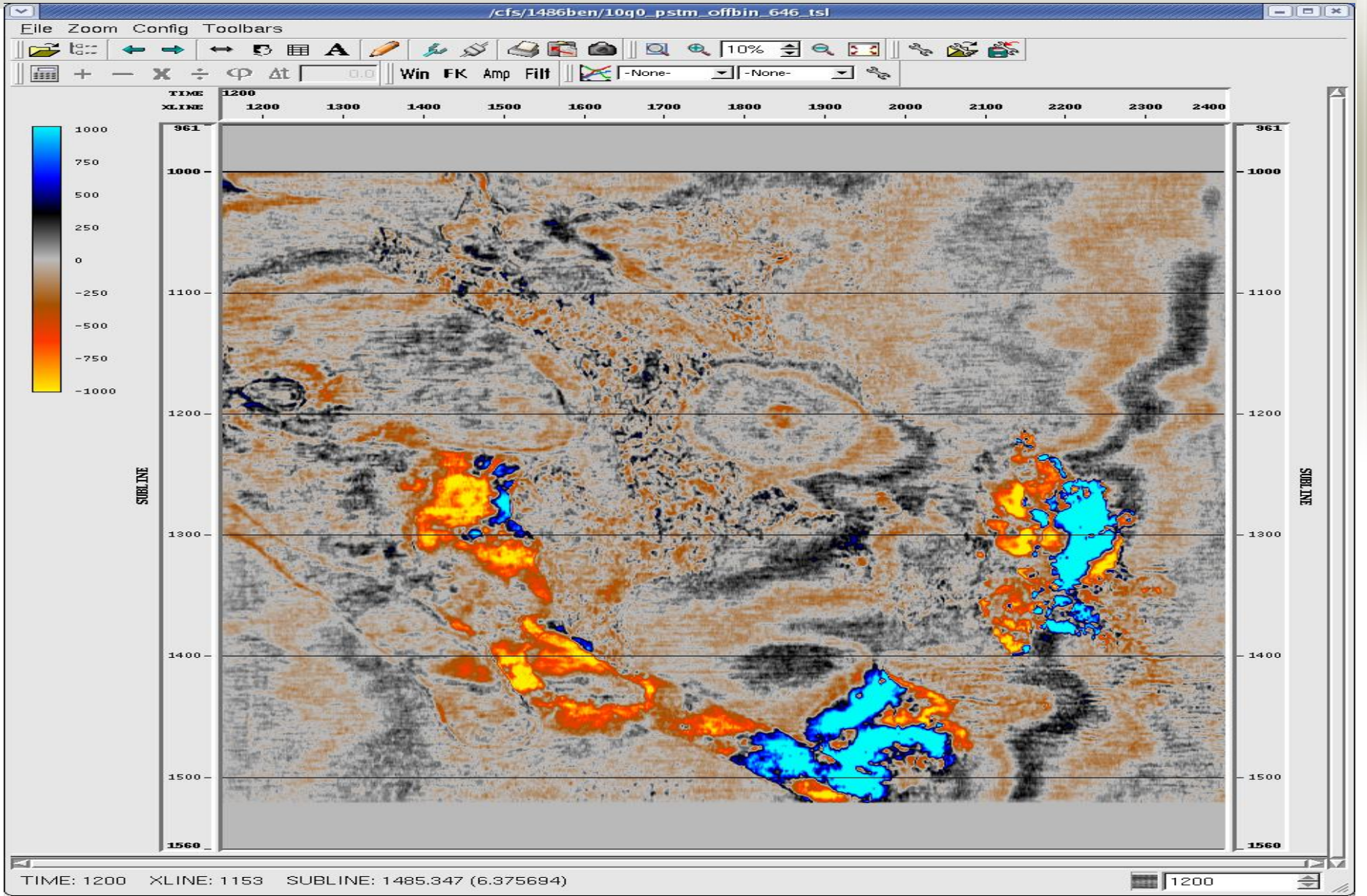
1200ms Slice of Migrated Data from Single Offset 1921m



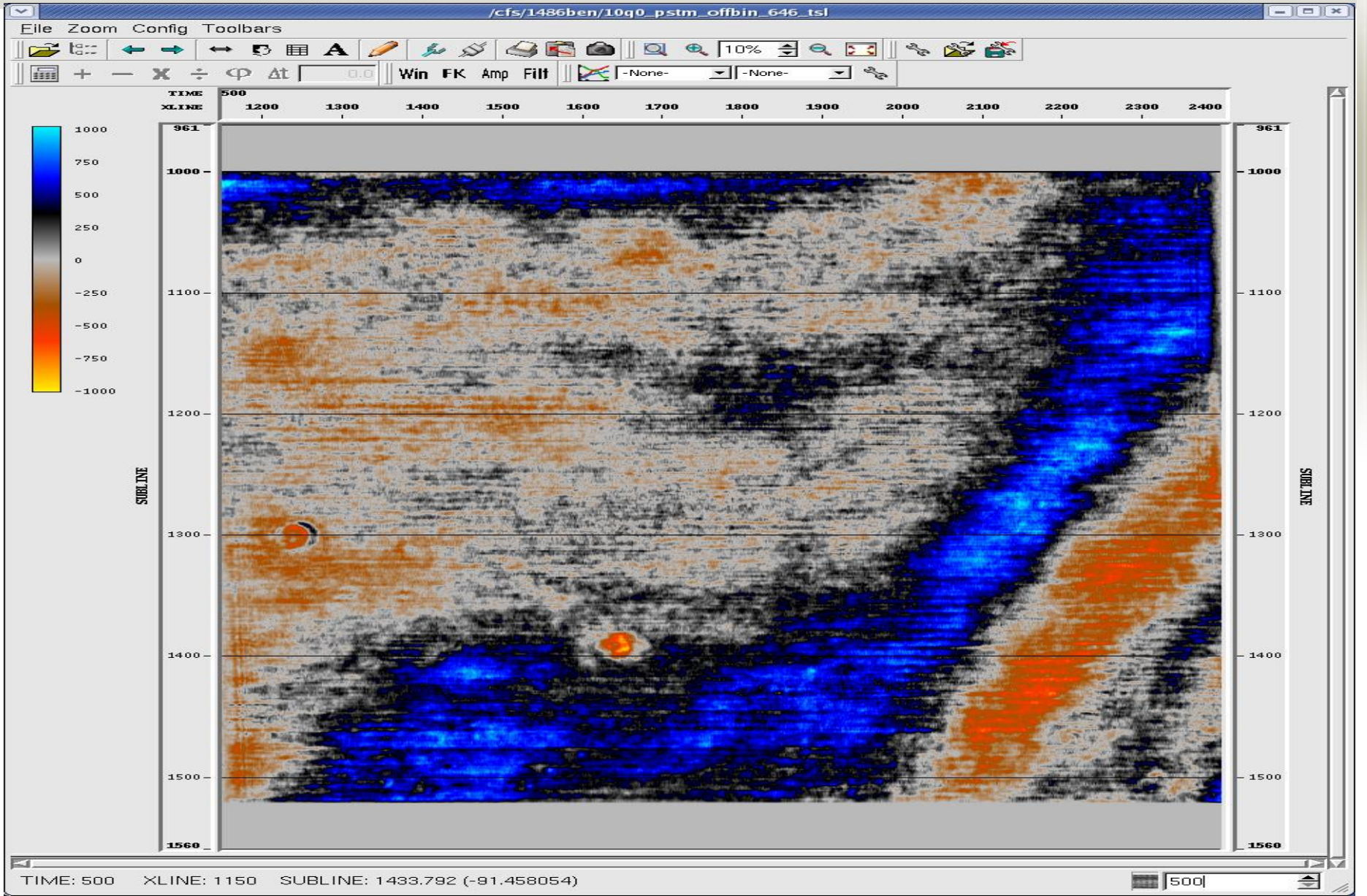
1200ms Slice of Non-migrated Data from Single Offset 646m



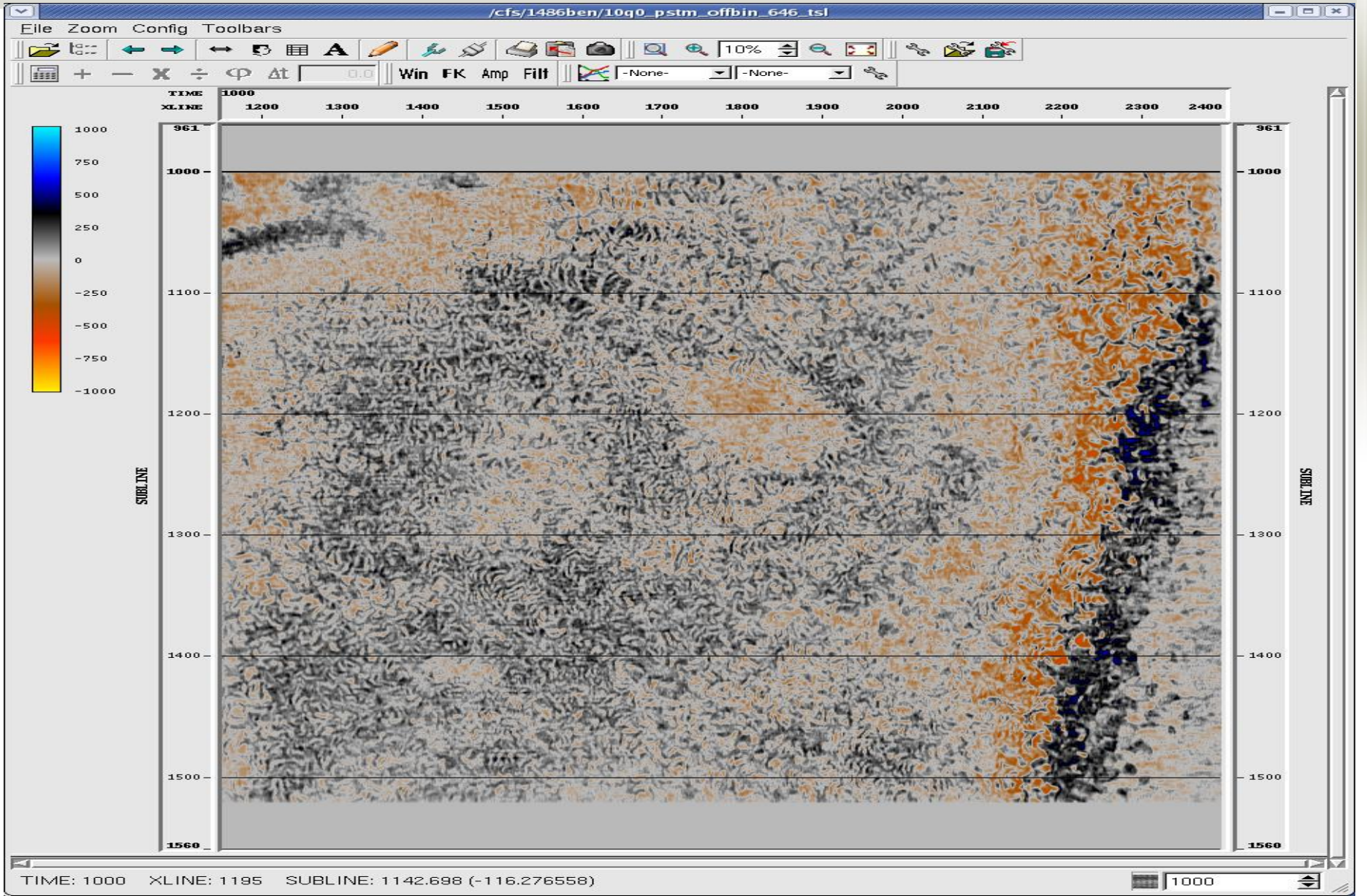
1200ms Slice of Migrated Data from Single Offset 646m



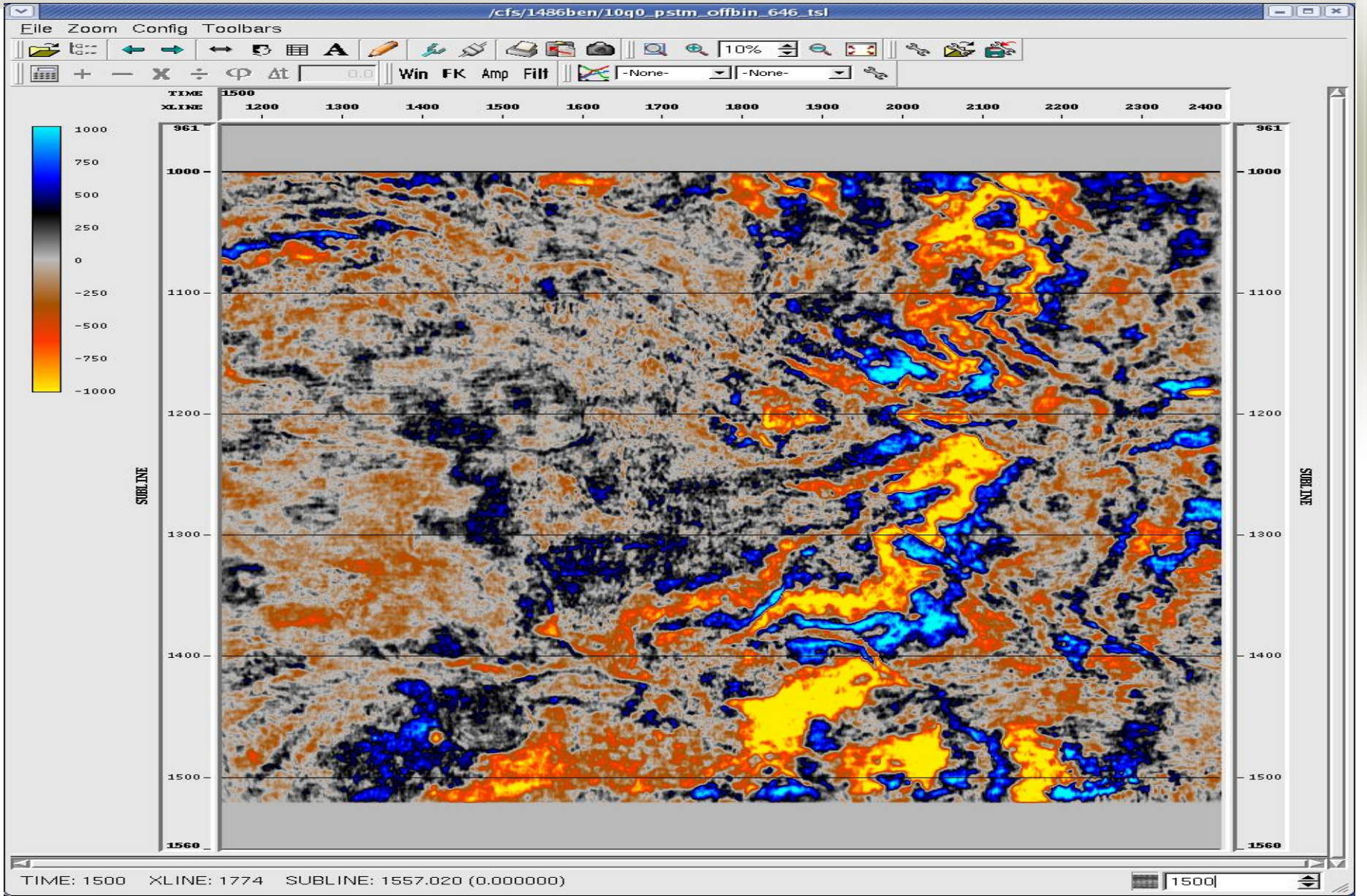
500ms Slice of Migrated Data from Single Offset 646m



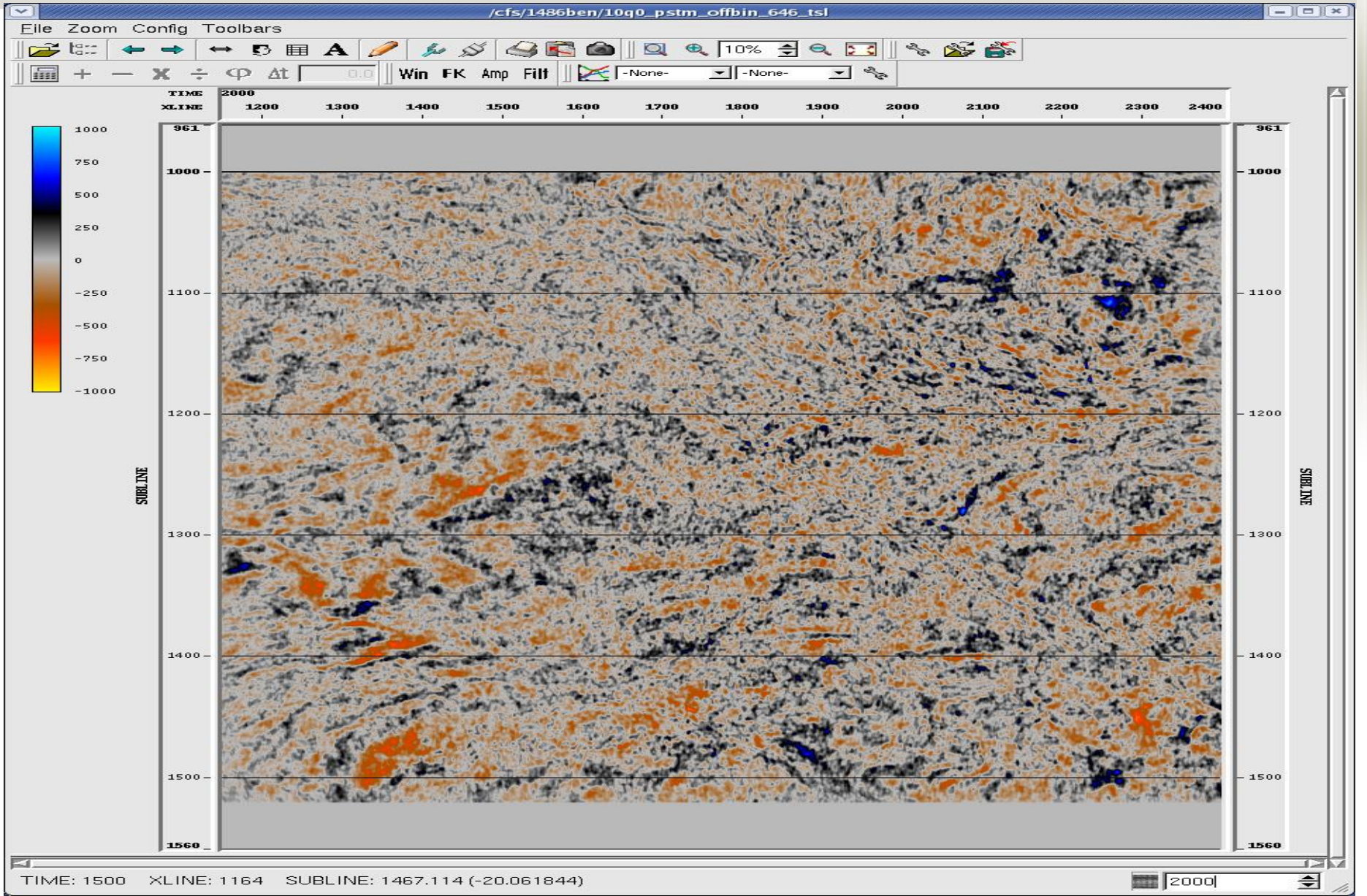
1000ms Slice of Migrated Data from Single Offset 646m



1500ms Slice of Migrated Data from Single Offset 646m



2000ms Slice of Migrated Data from Single Offset 646m



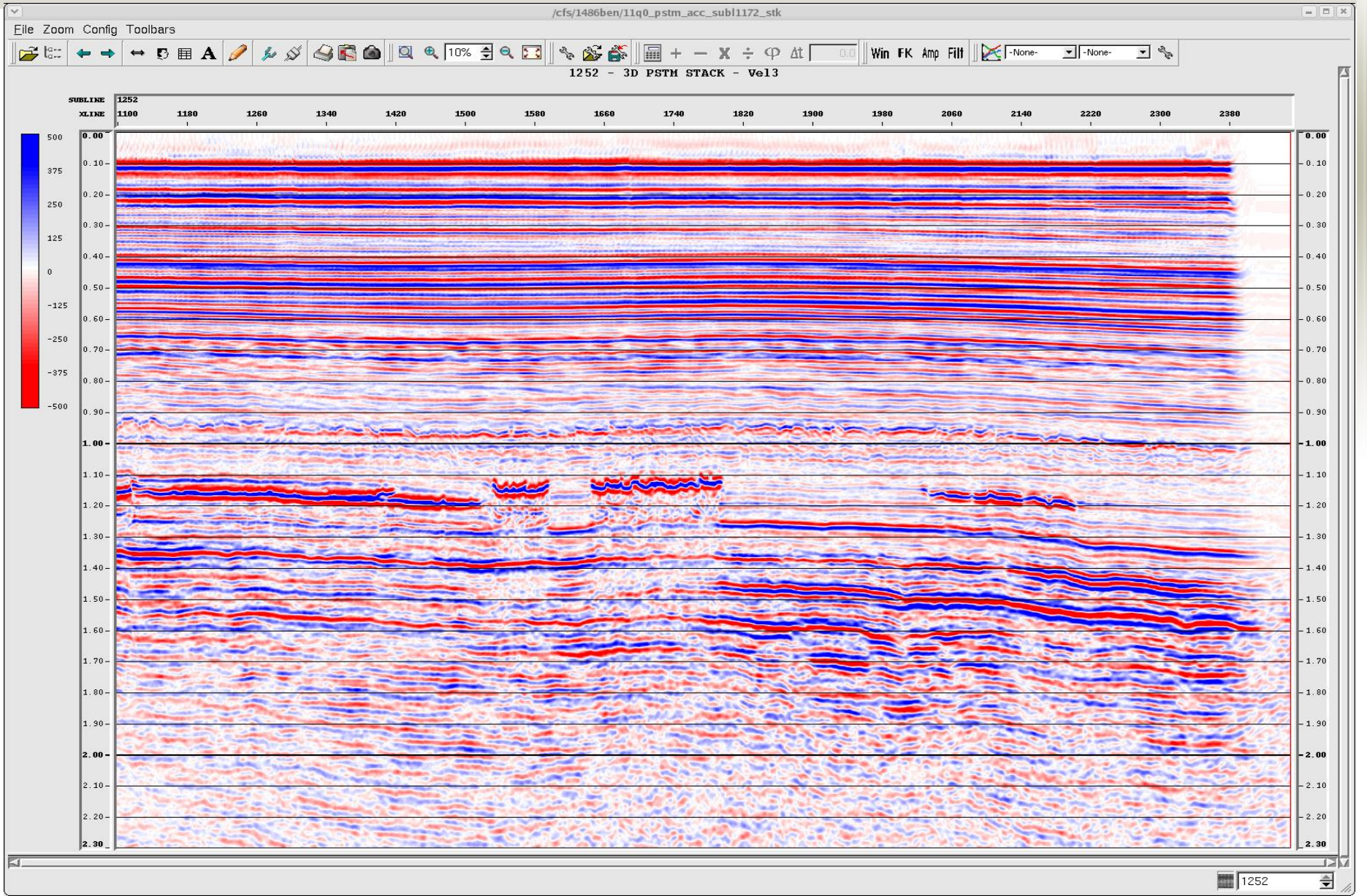
11_3DPSTMQC_stks.ppt

Benaris T/39 P 3D PSTM QC Stacks 01/02/06

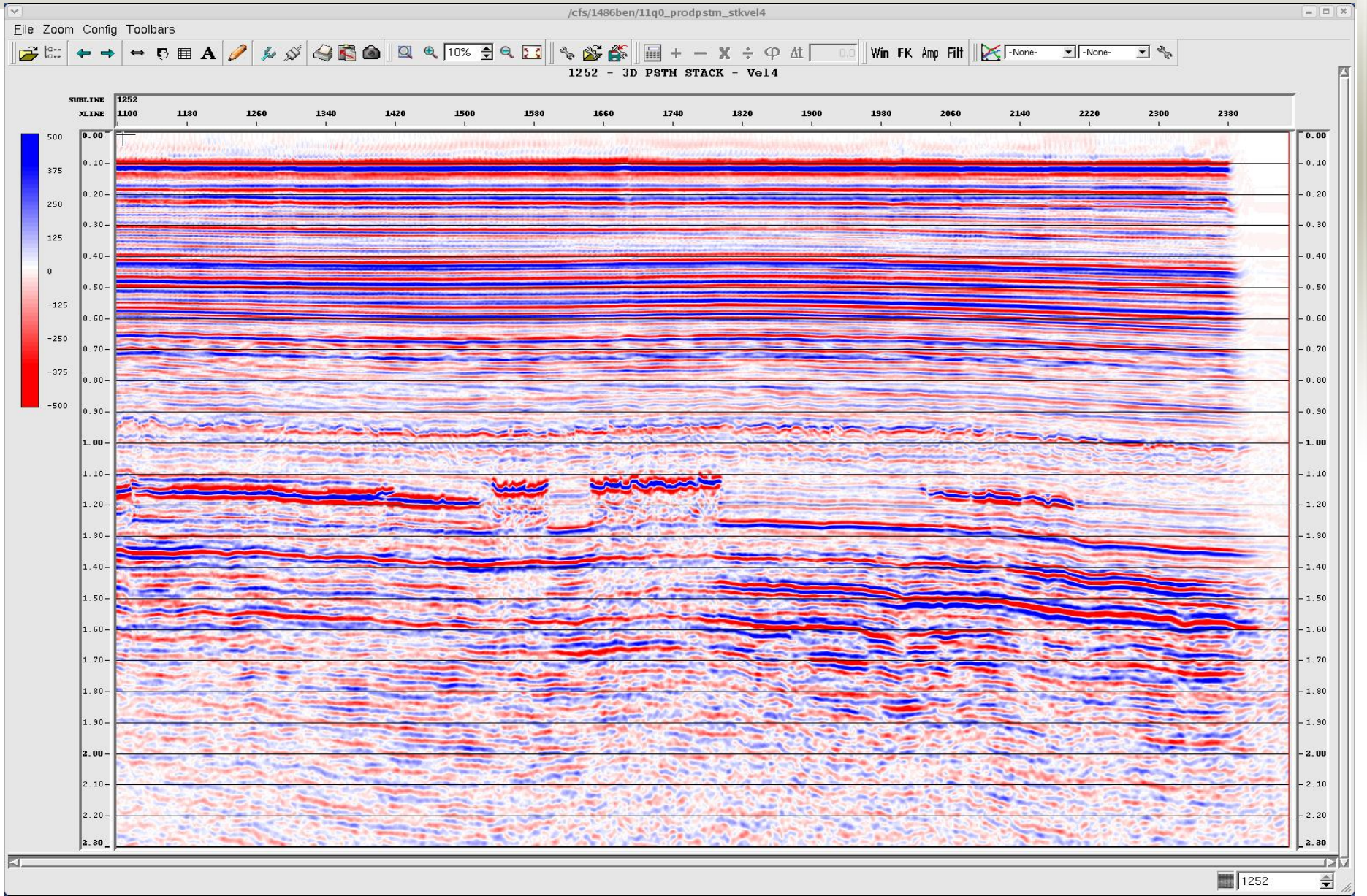
SUMMARY OF CONTENTS

- Review of 3D PSTM stacks (trace interval 25m).

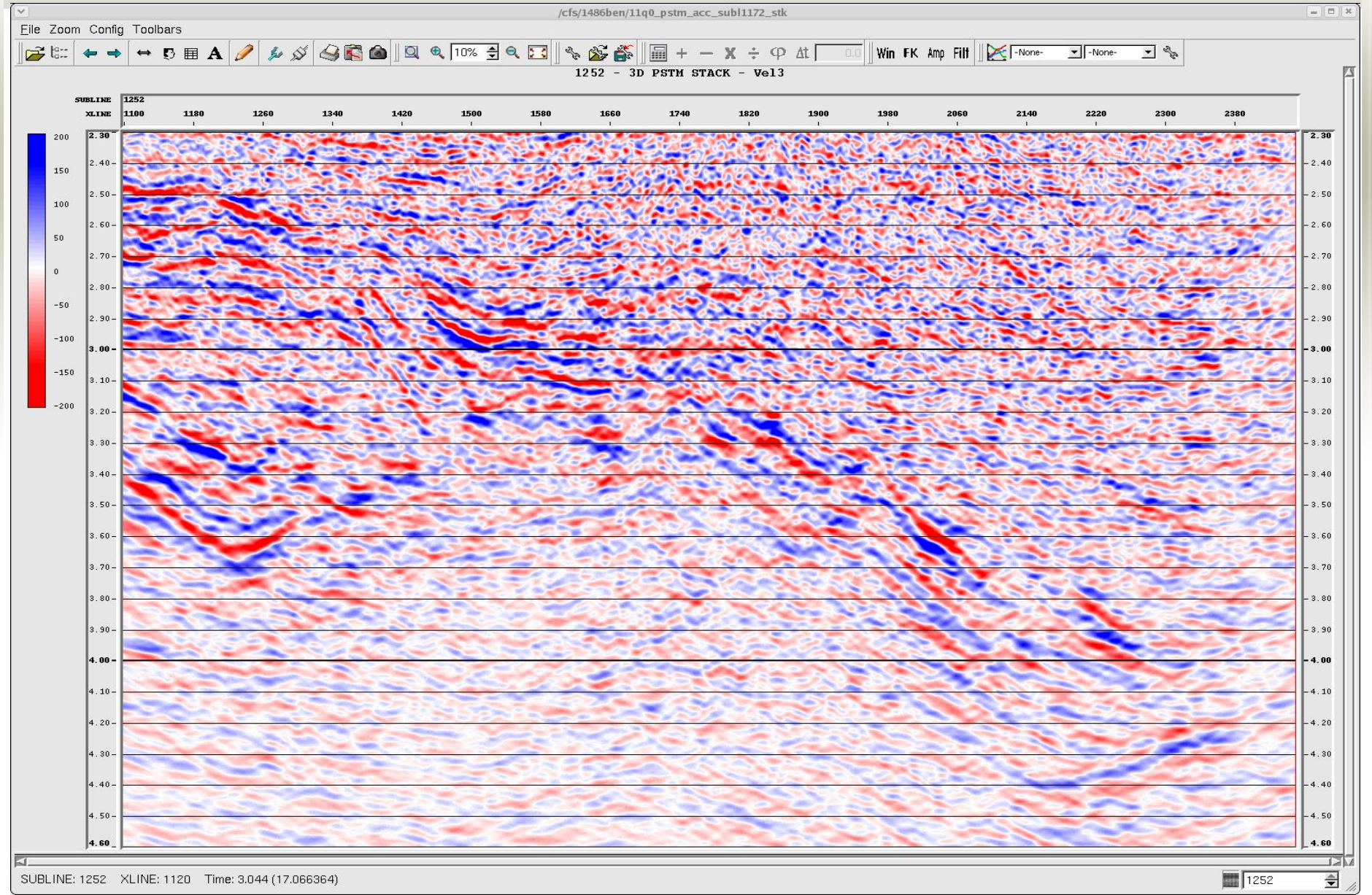
3D Test Line 1252 – 3D PSTM, Vel3 velocities



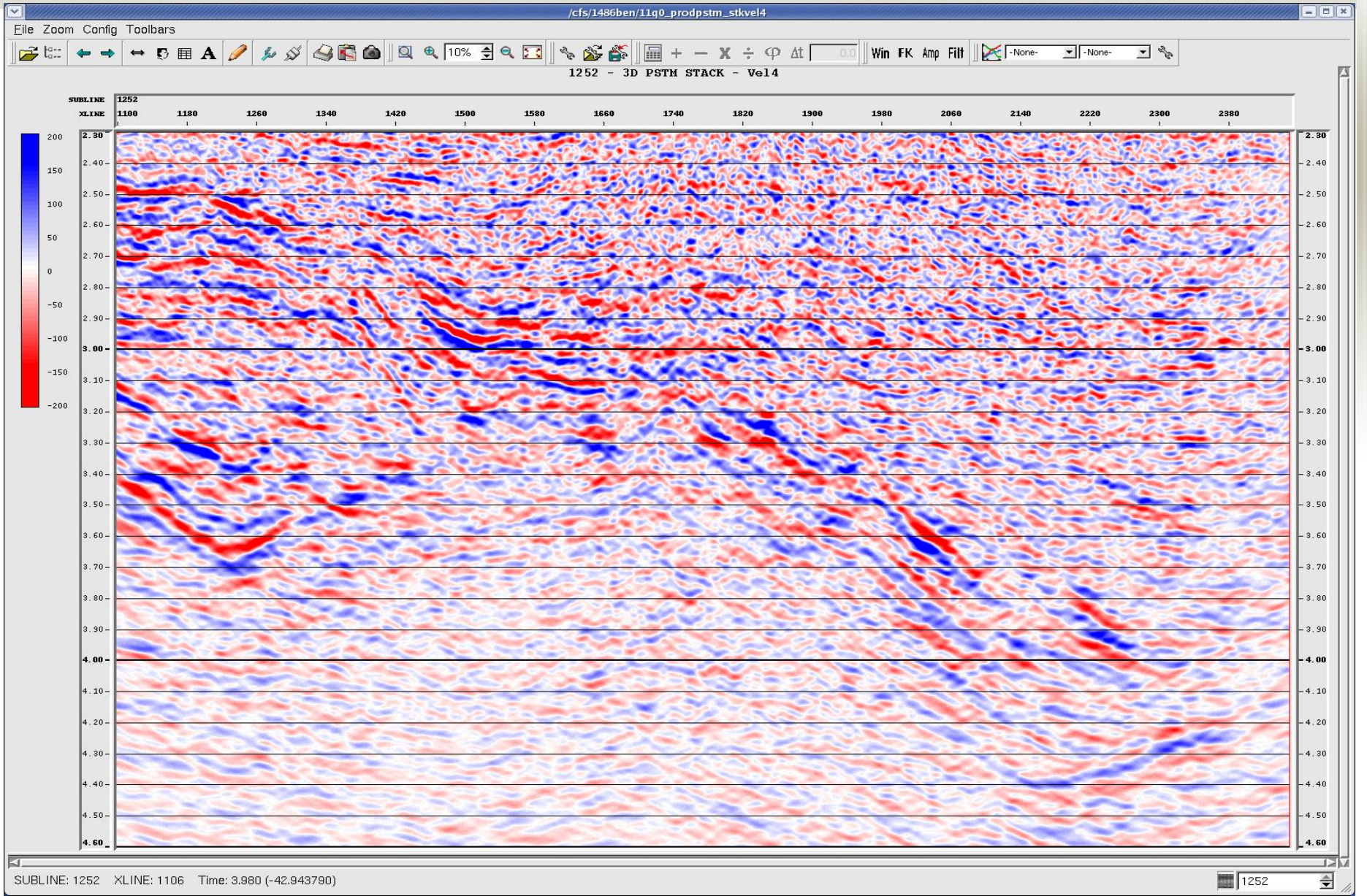
3D Test Line 1252 – 3D PSTM, Vel4 velocities



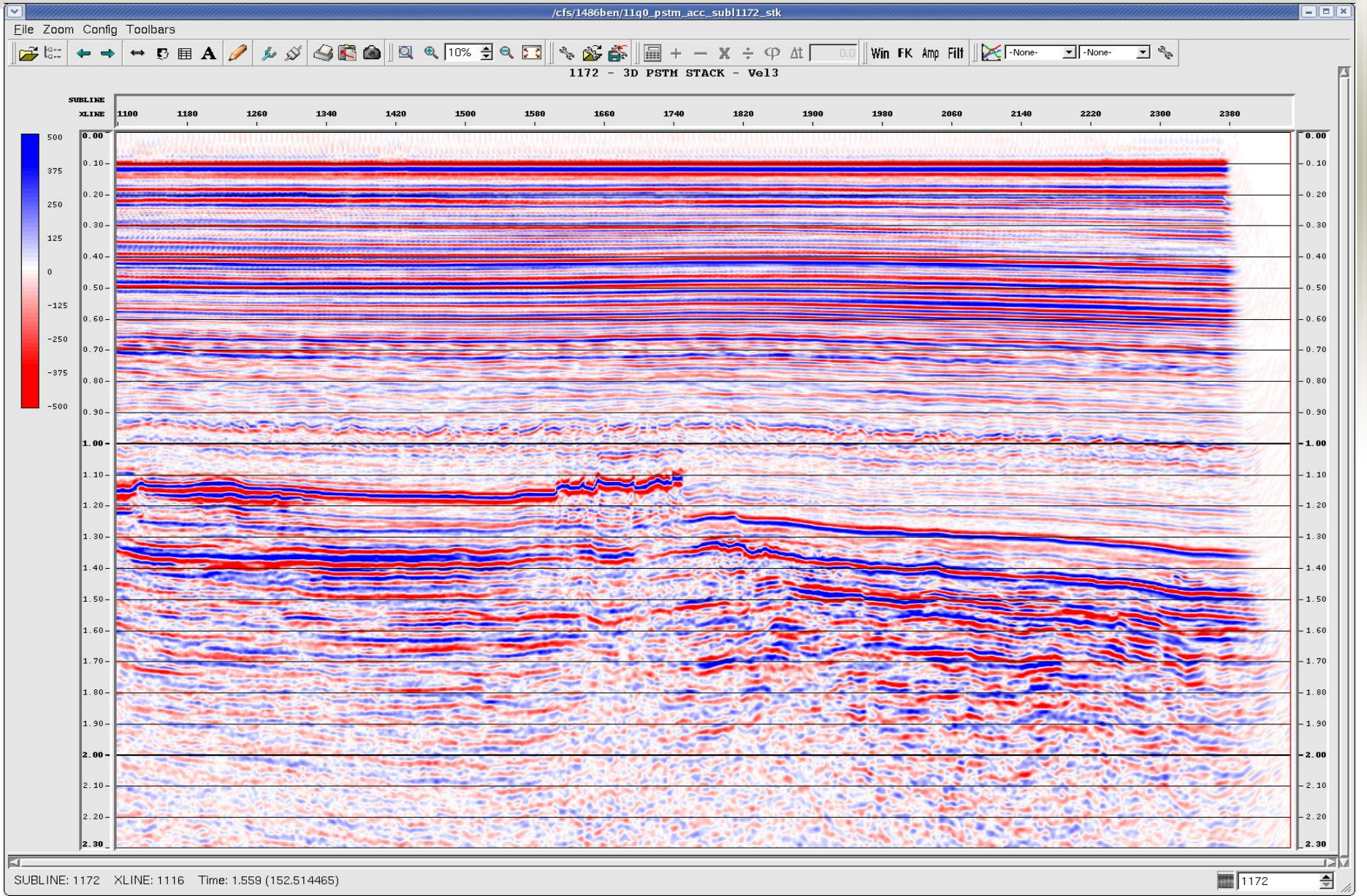
3D Test Line 1252 – 3D PSTM, Vel3 velocities



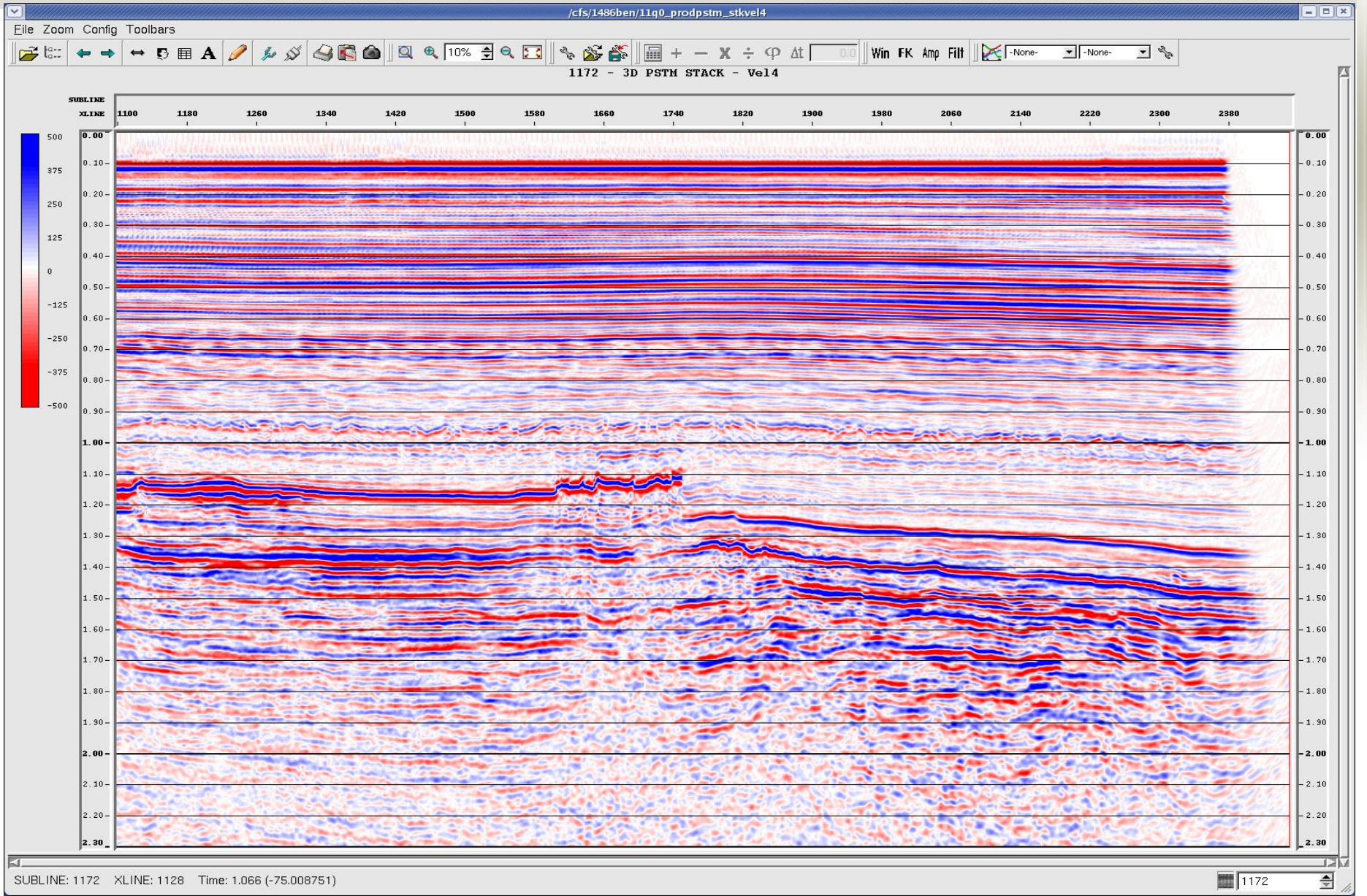
3D Test Line 1252 – 3D PSTM, Vel4 velocities



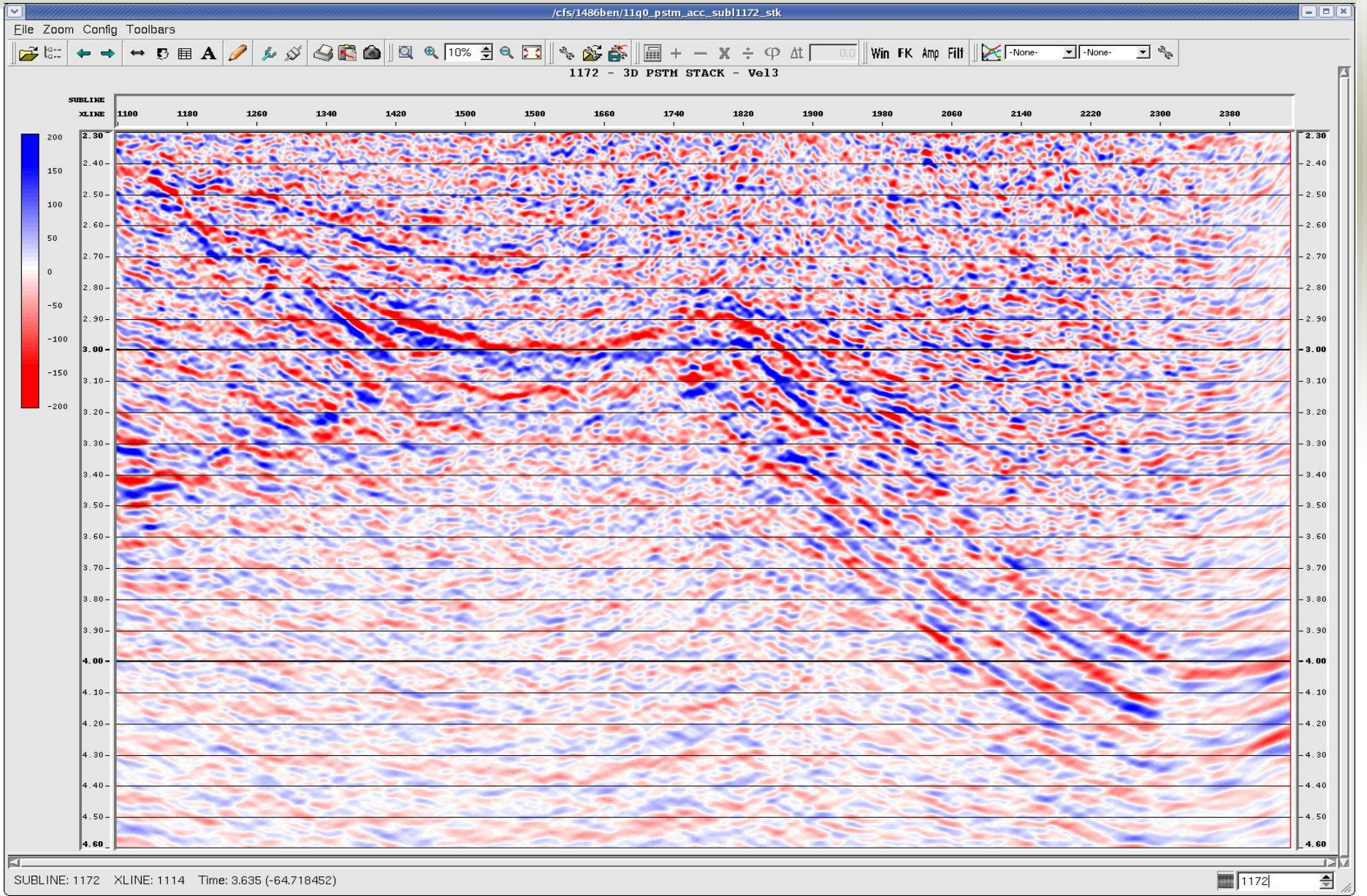
3D Line 1172 – 3D PSTM, Vel3 velocities



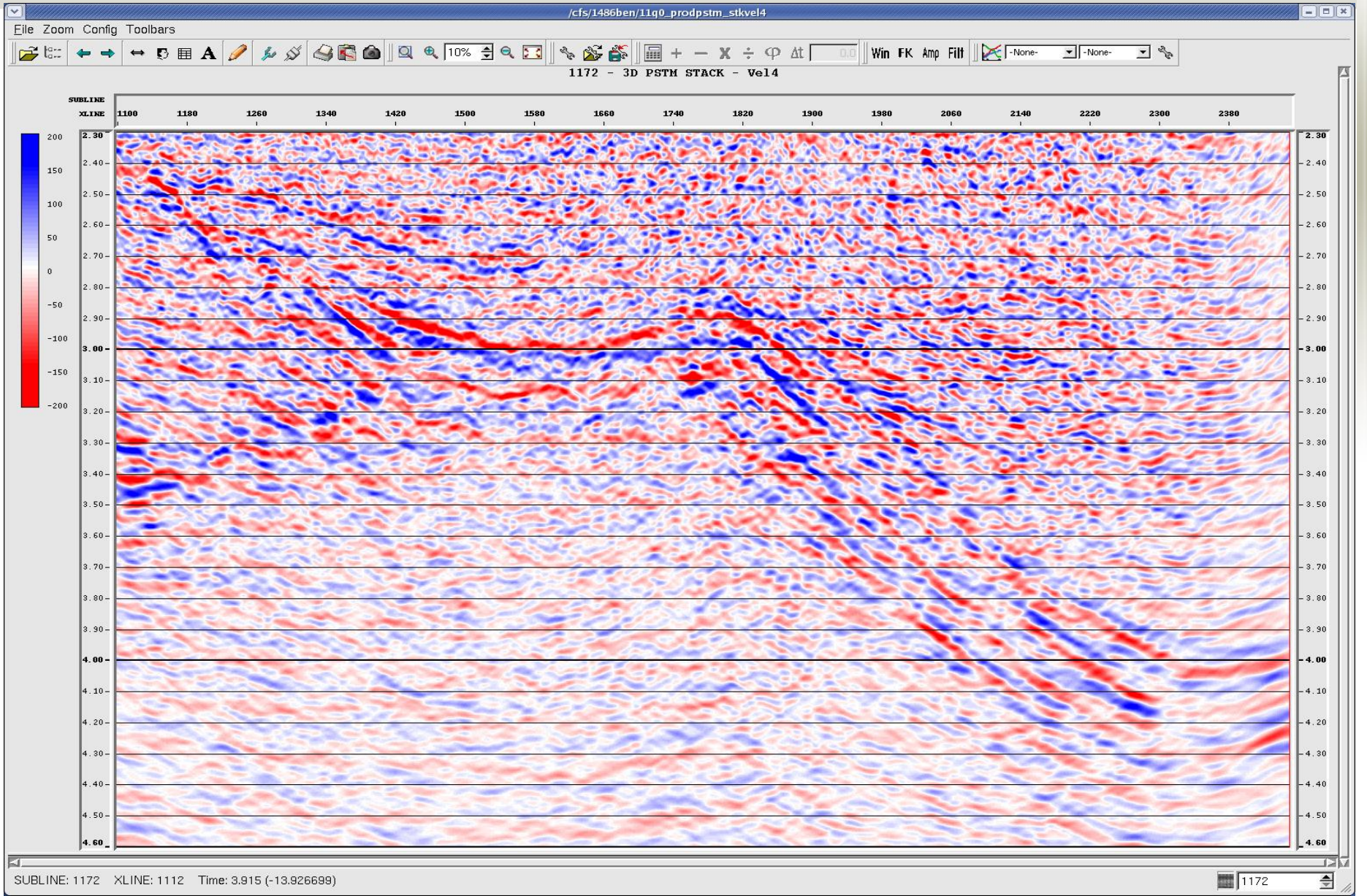
3D Line 1172 – 3D PSTM, Vel4 velocities



3D Line 1172 – 3D PSTM, Vel3 velocities



3D Line 1172 – 3D PSTM, Vel4 velocities



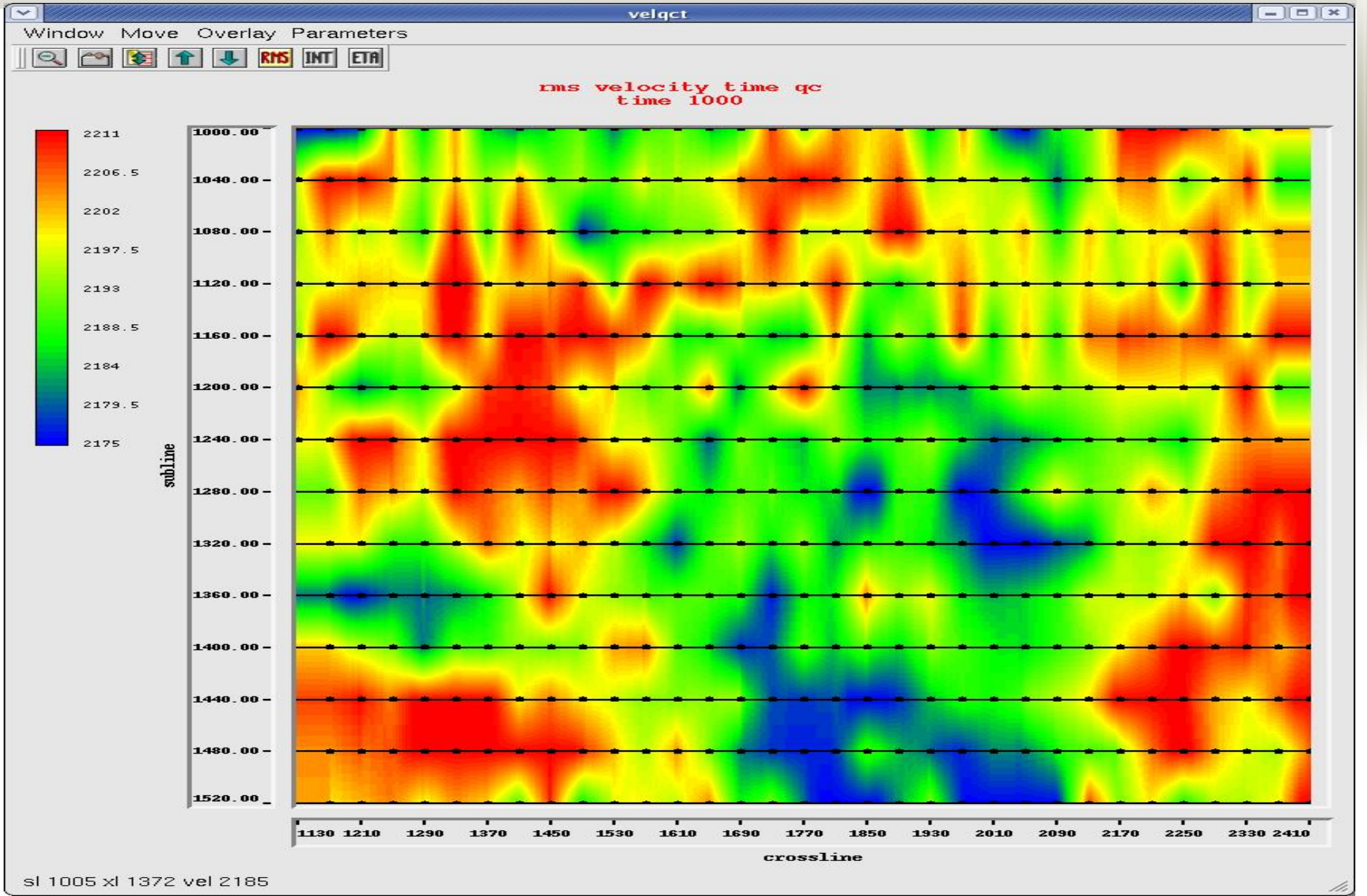
12_VEL4_slices.ppt

Benaris T/39 P 3D PSTM Vel4 Slices 09/02/06

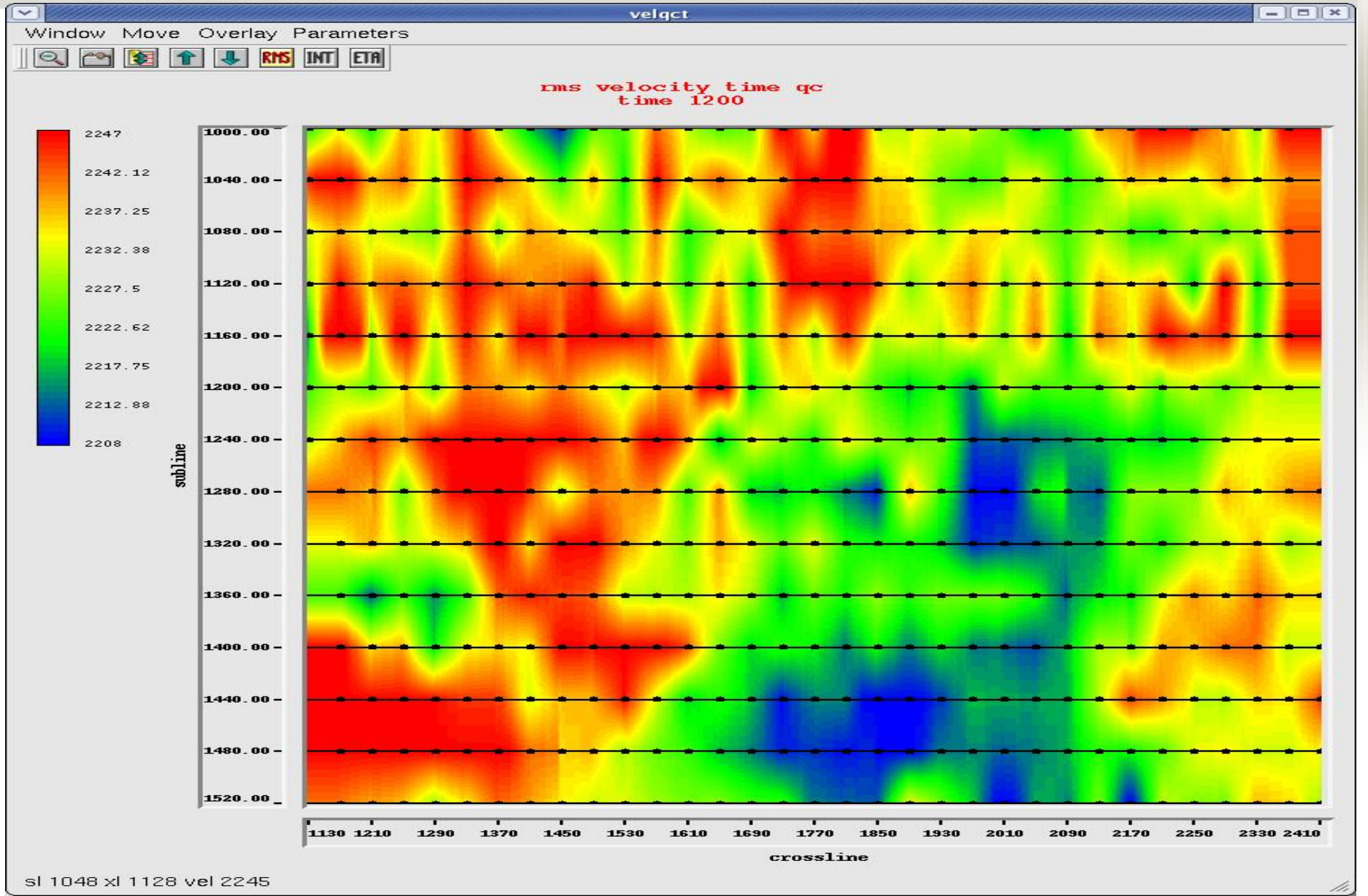
SUMMARY OF CONTENTS

- Review of 3D PSTM Vel4 timeslices.

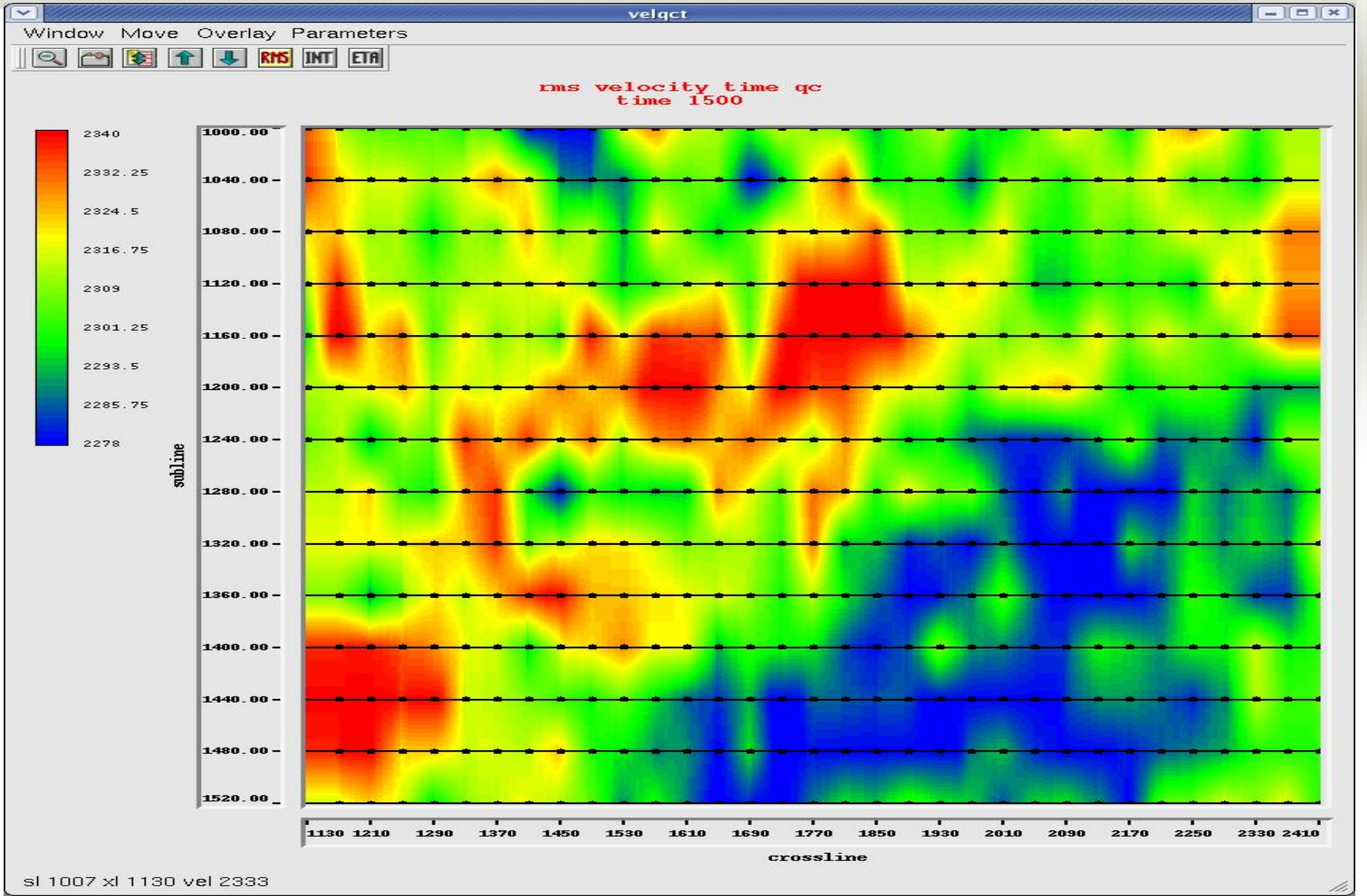
1000ms Slice from Approved Vel4 Velocity Field



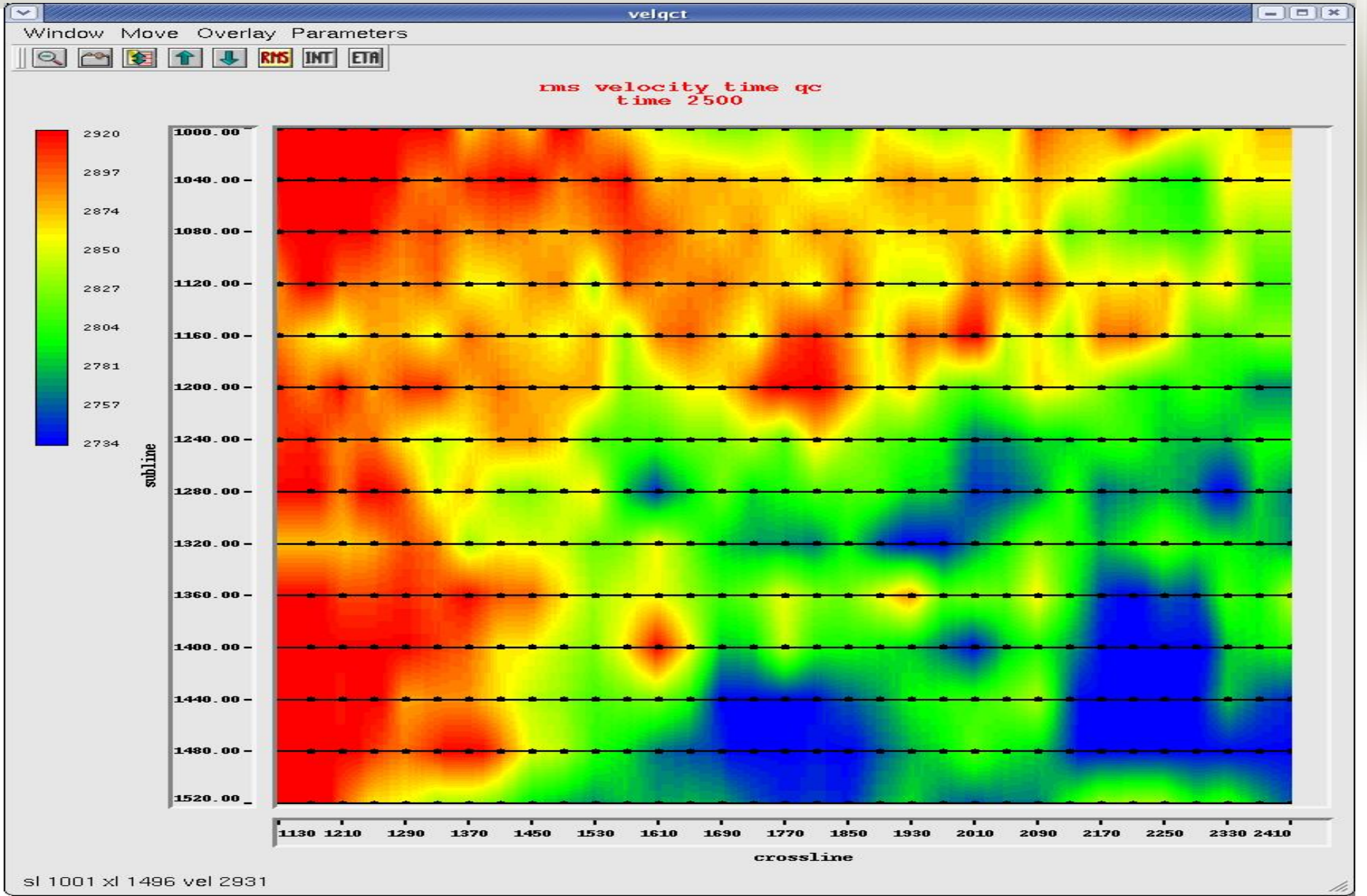
1200ms Slice from Approved Vel4 Velocity Field



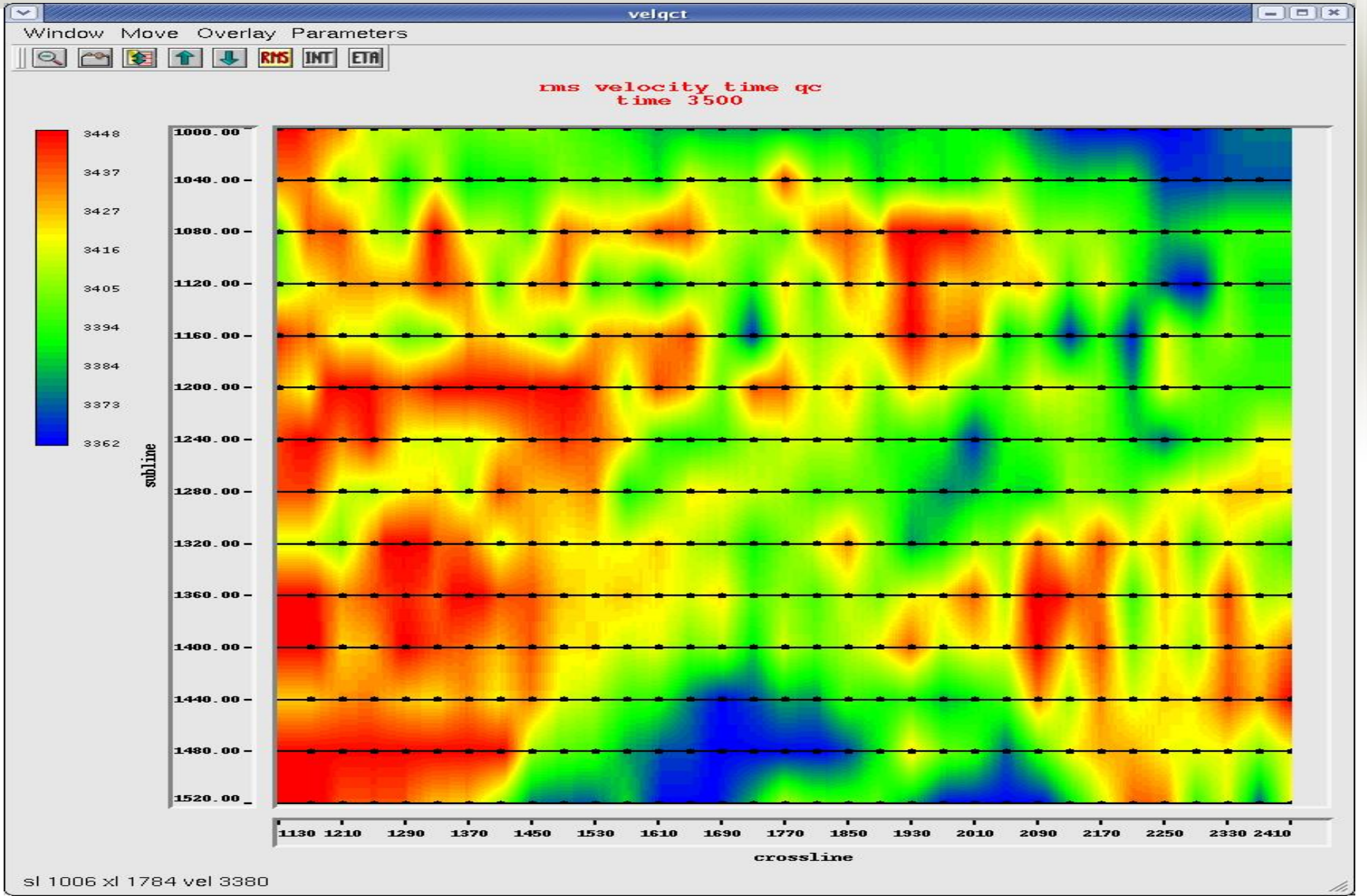
1500ms Slice from Approved Vel4 Velocity Field



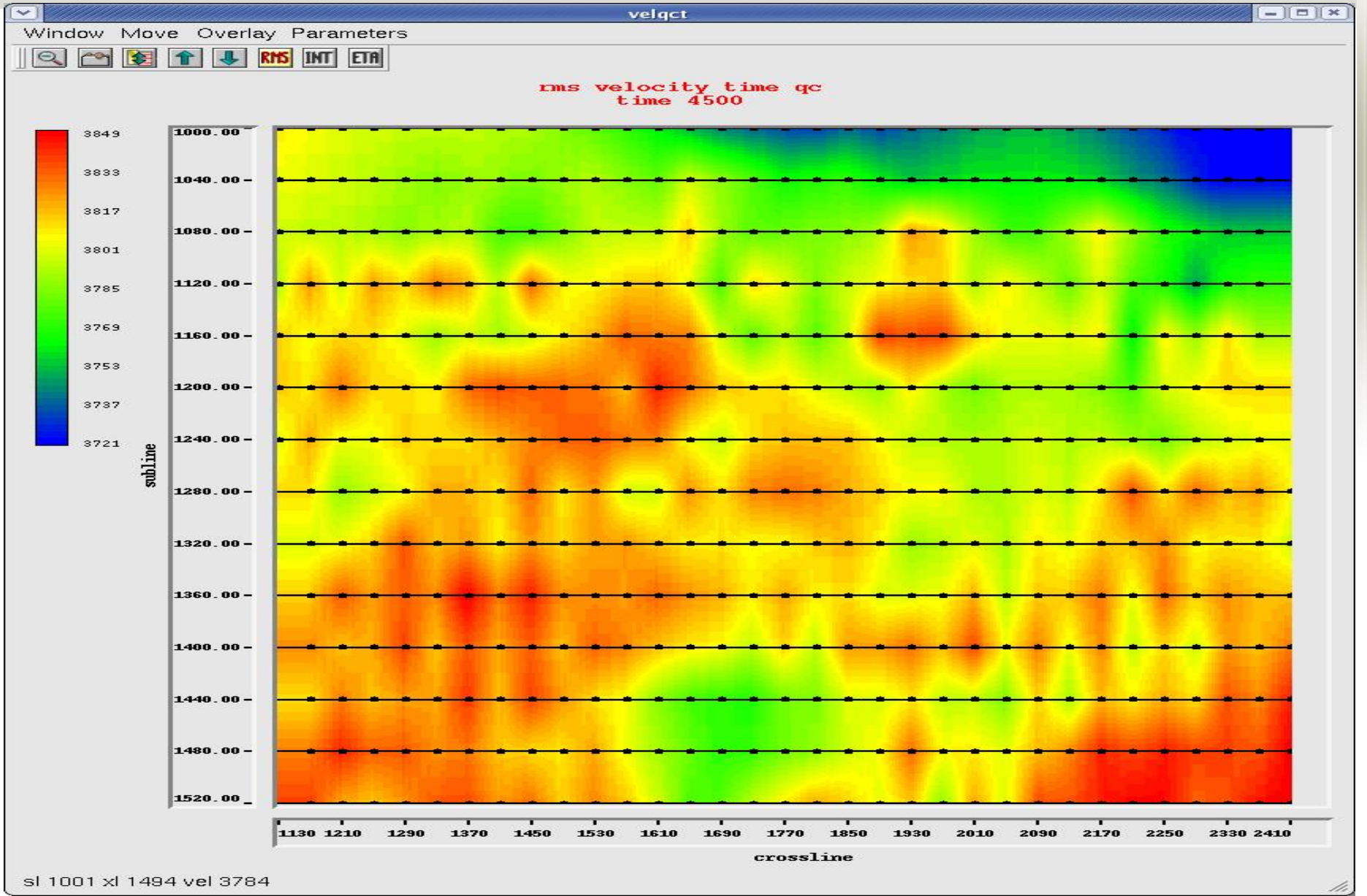
2500ms Slice from Approved Vel4 Velocity Field



3500ms Slice from Approved Vel4 Velocity Field



4500ms Slice from Approved Vel4 Velocity Field



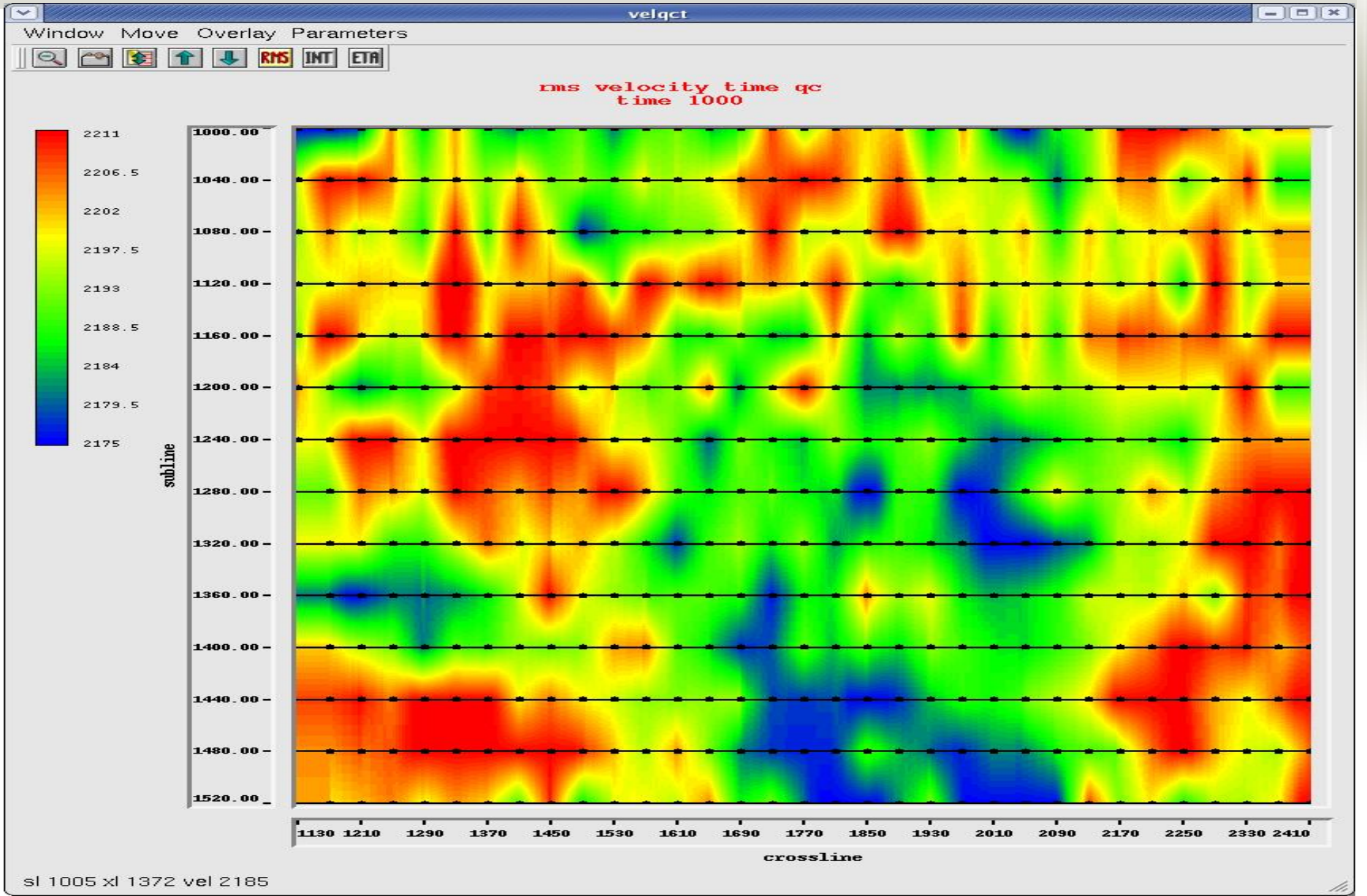
12a_VEL4_dense_slices.ppt

Benaris T/39 P 3D PSTM Vel4 and Dense Velocity Slices
16/02/06

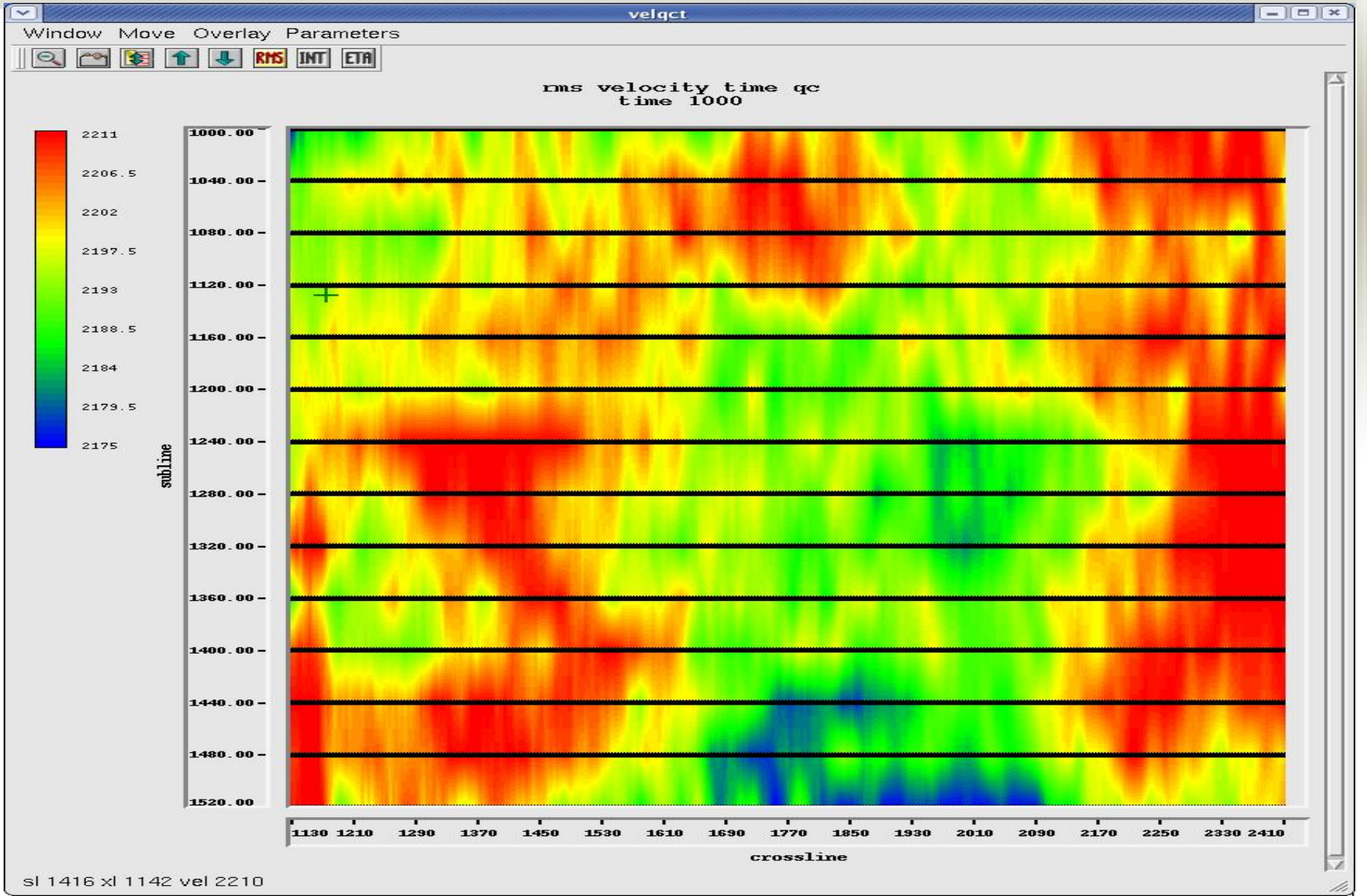
SUMMARY OF CONTENTS

- Review of 3D PSTM Vel4 (500m int.) and Dense Velocity (50m int.) timeslices. The Dense Velocities had a 200m radius trim-mean filter applied before display and application.

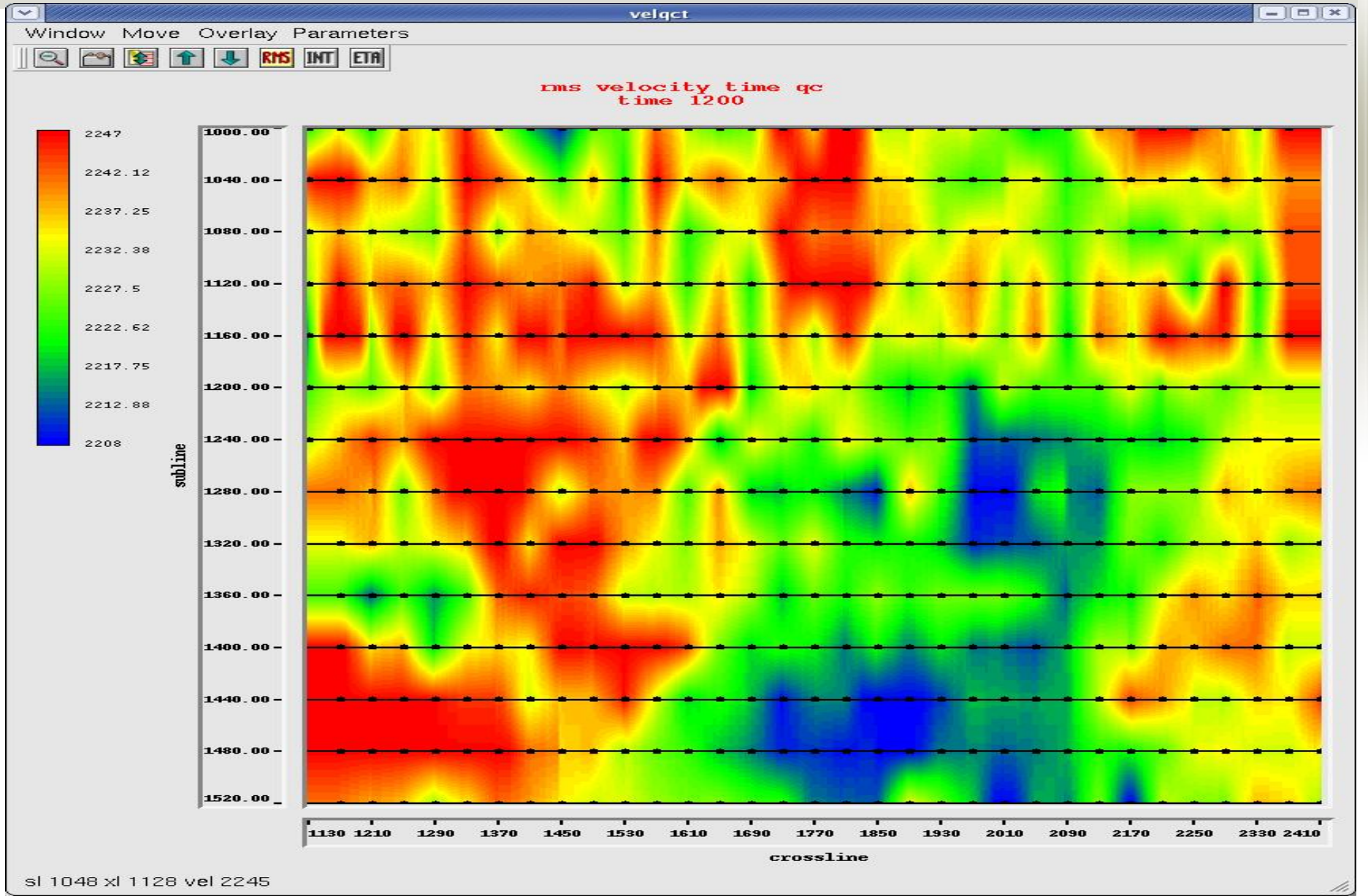
1000ms Slice from Approved Vel4 Velocity Field



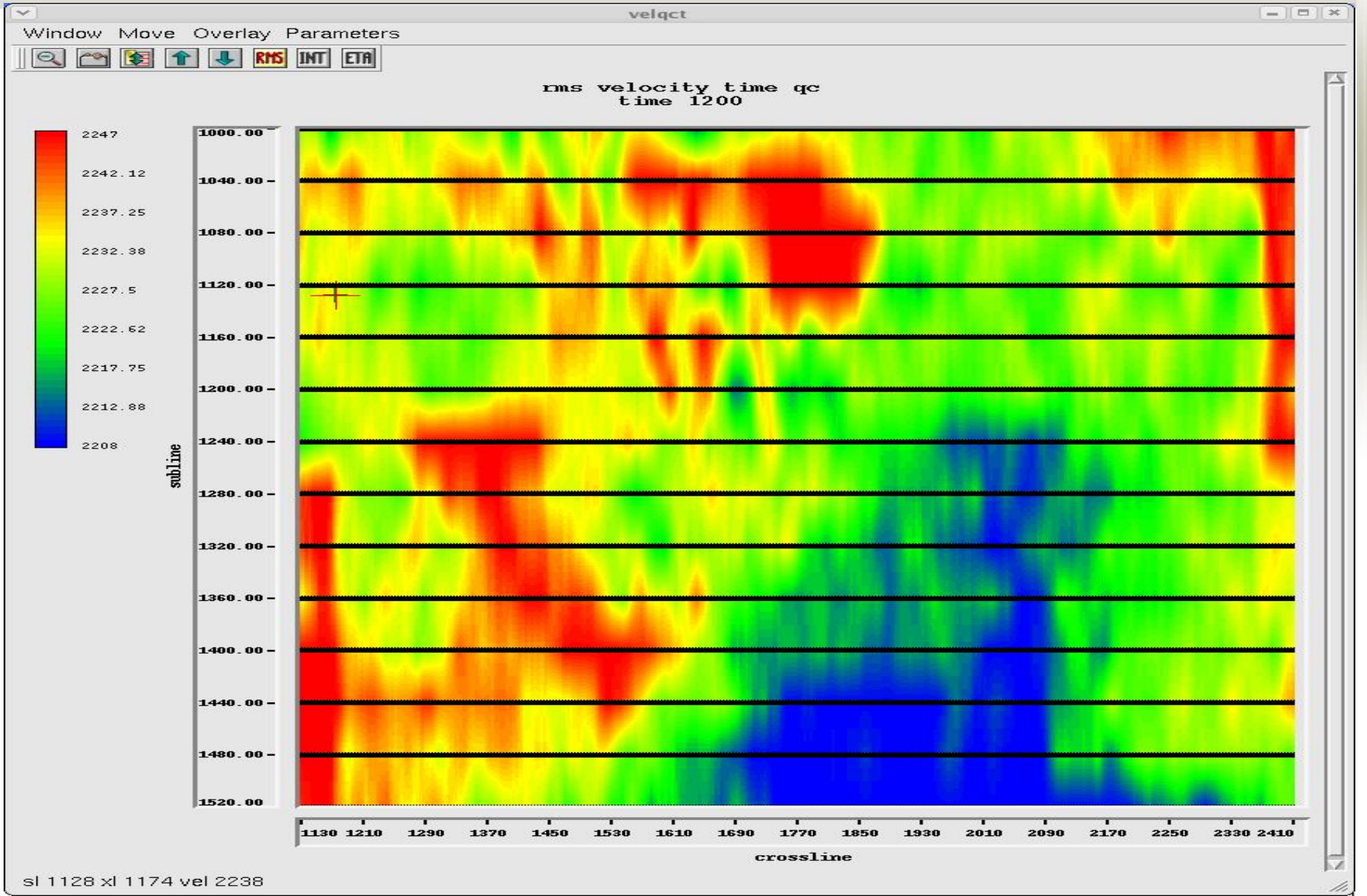
1000ms Slice from Approved Dense Velocity Field(smoothed)



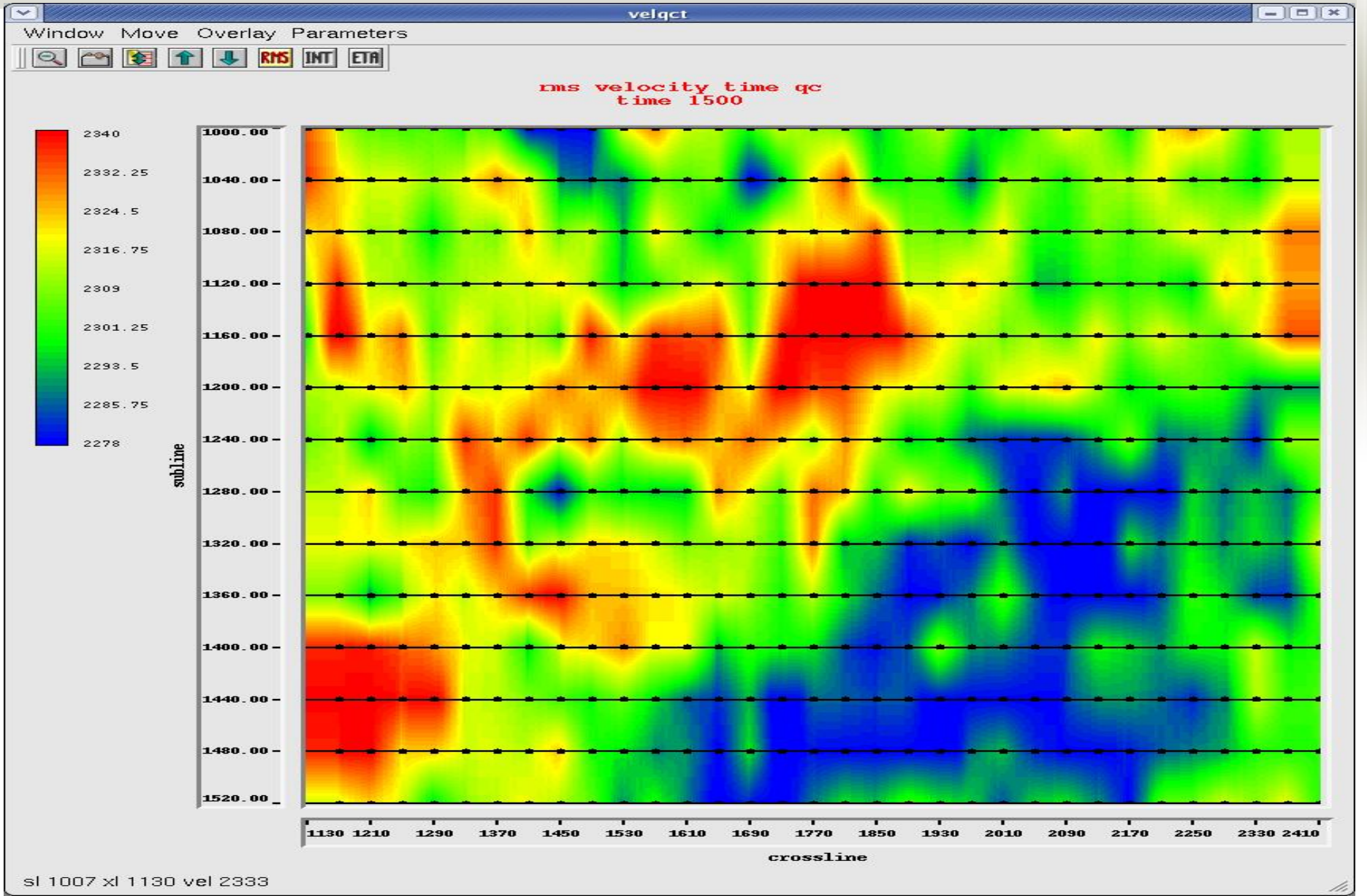
1200ms Slice from Approved Vel4 Velocity Field



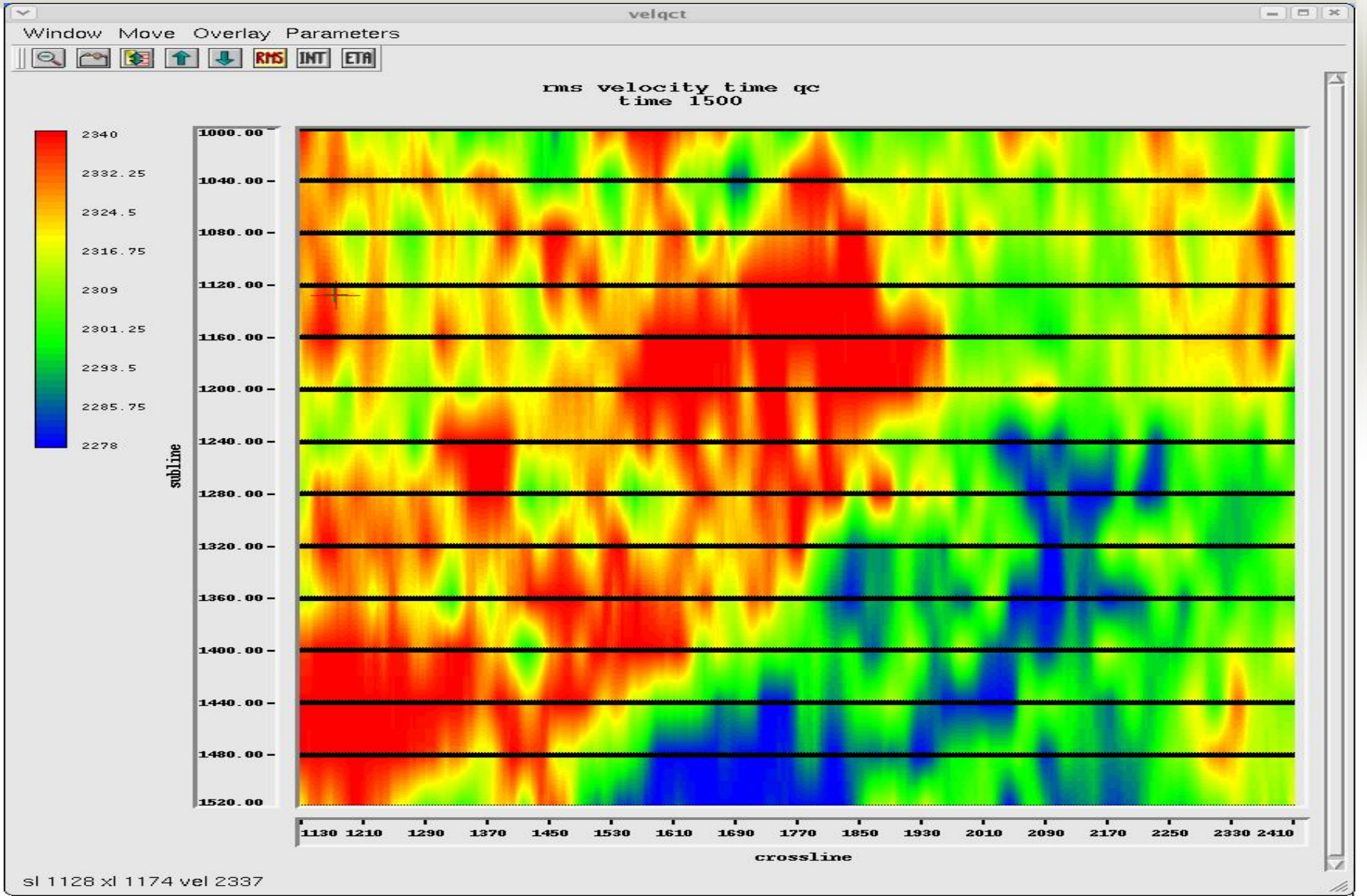
1200ms Slice from Approved Dense Velocity Field(smoothed)



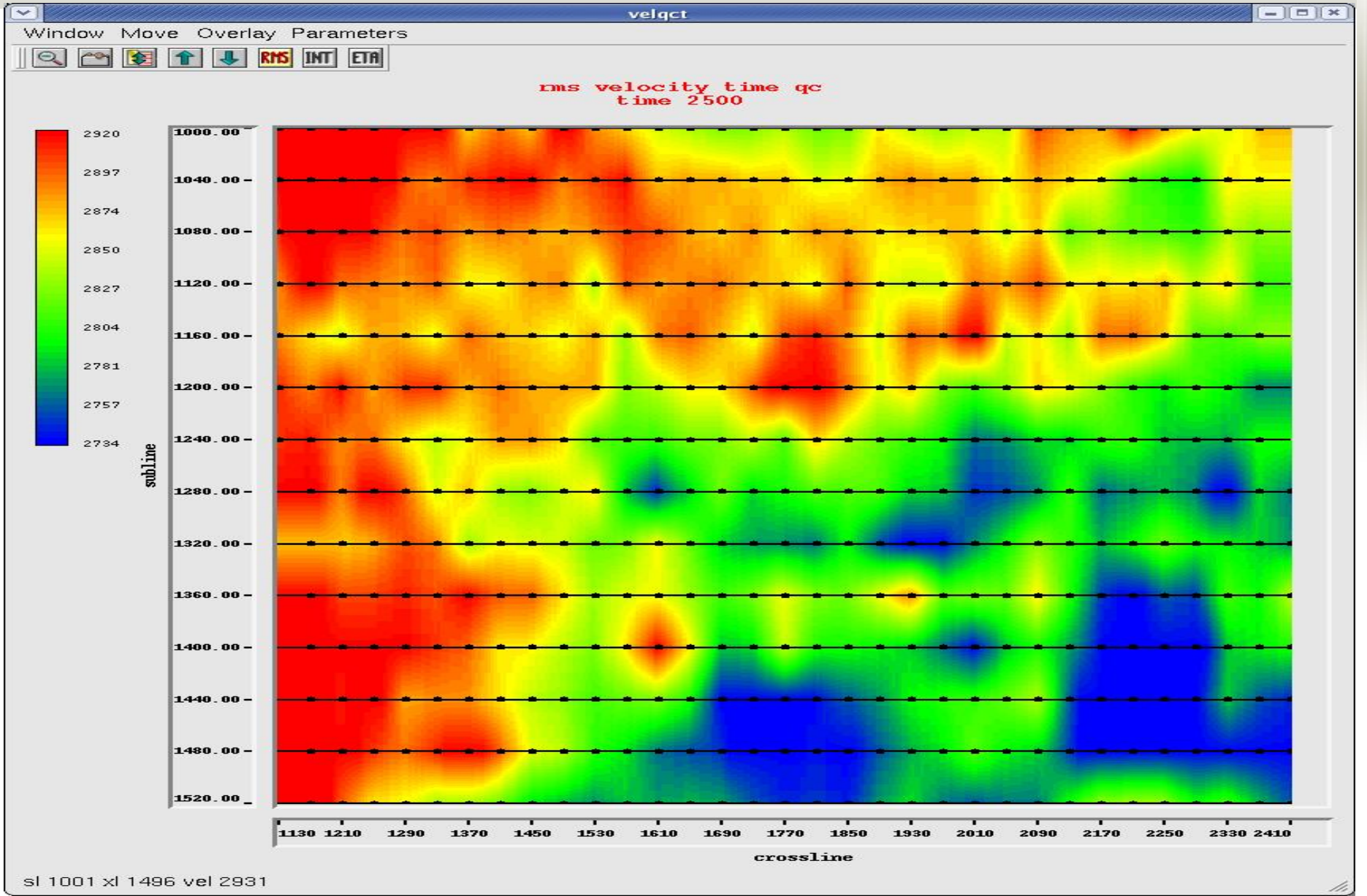
1500ms Slice from Approved Vel4 Velocity Field



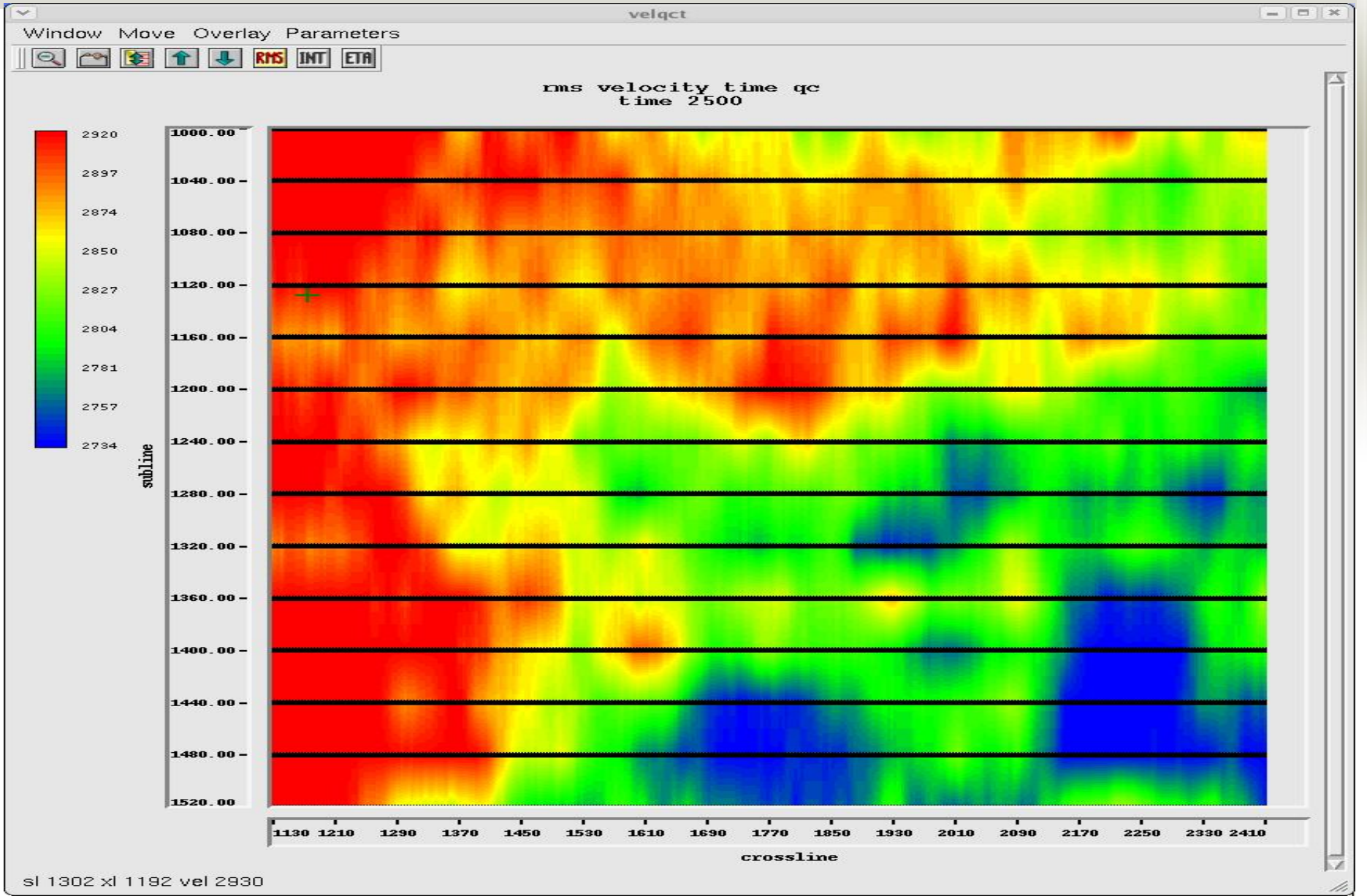
1500ms Slice from Approved Dense Velocity Field(smoothed)



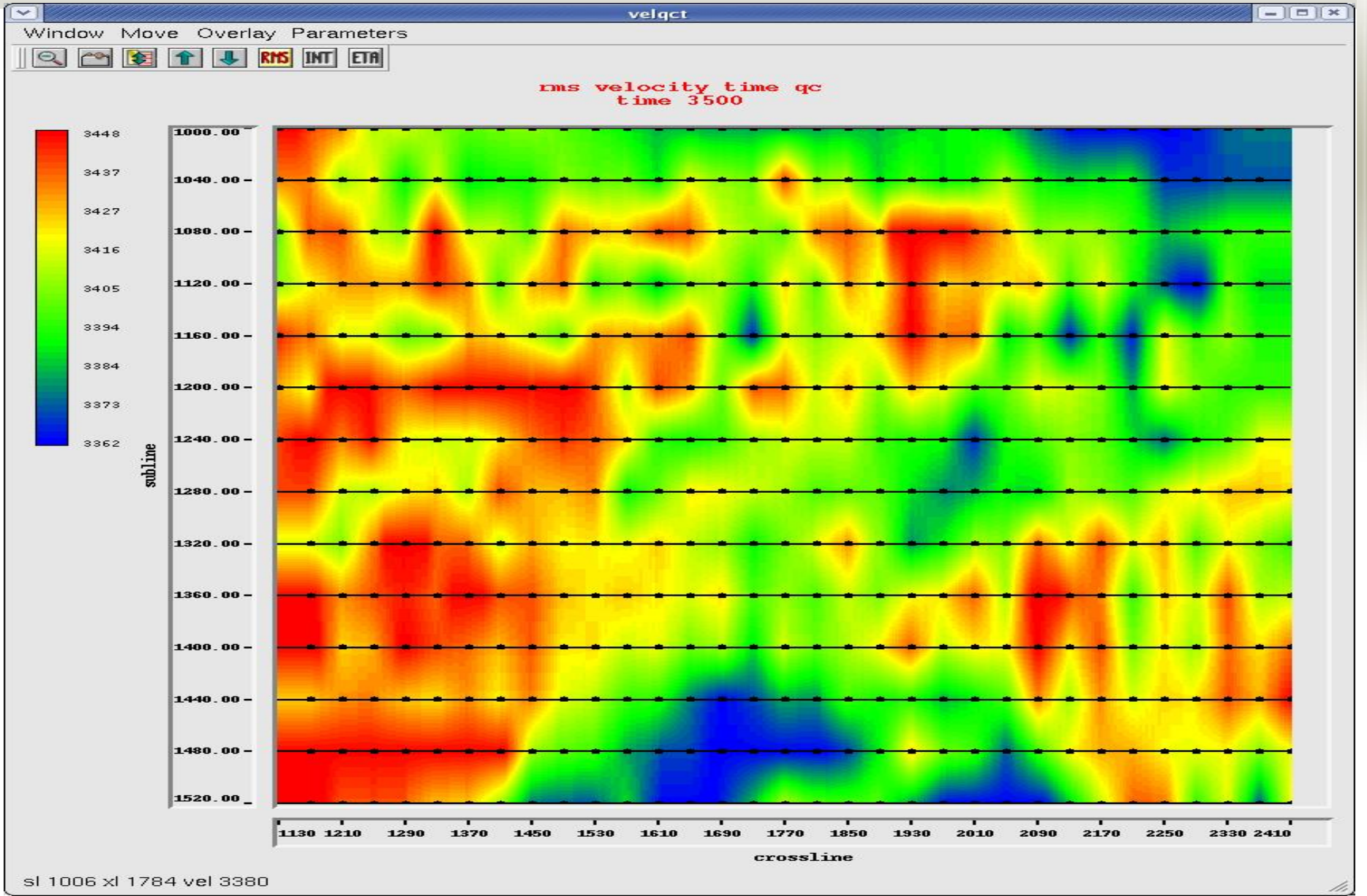
2500ms Slice from Approved Vel4 Velocity Field



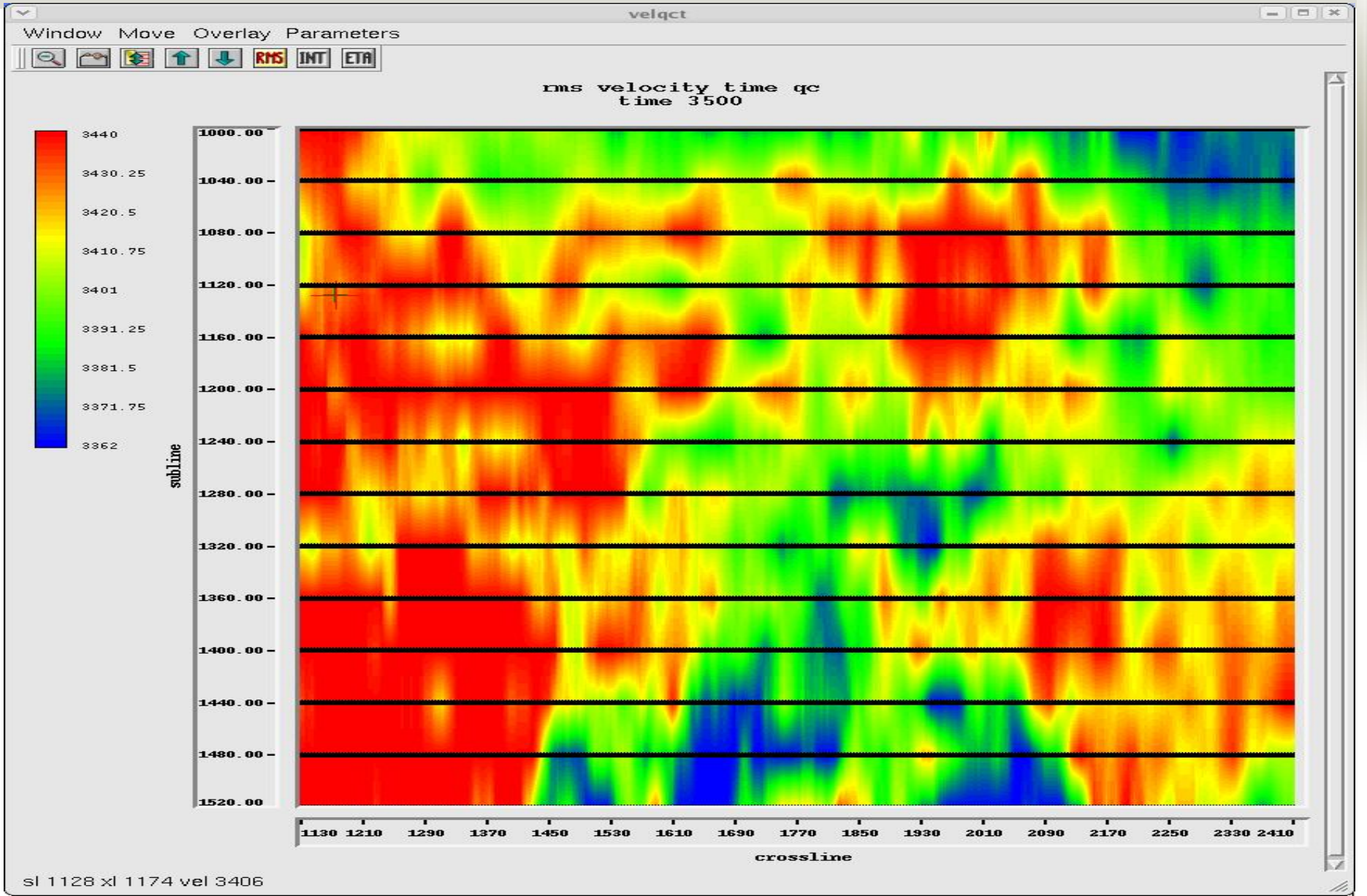
2500ms Slice from Approved Dense Velocity Field(smoothed)



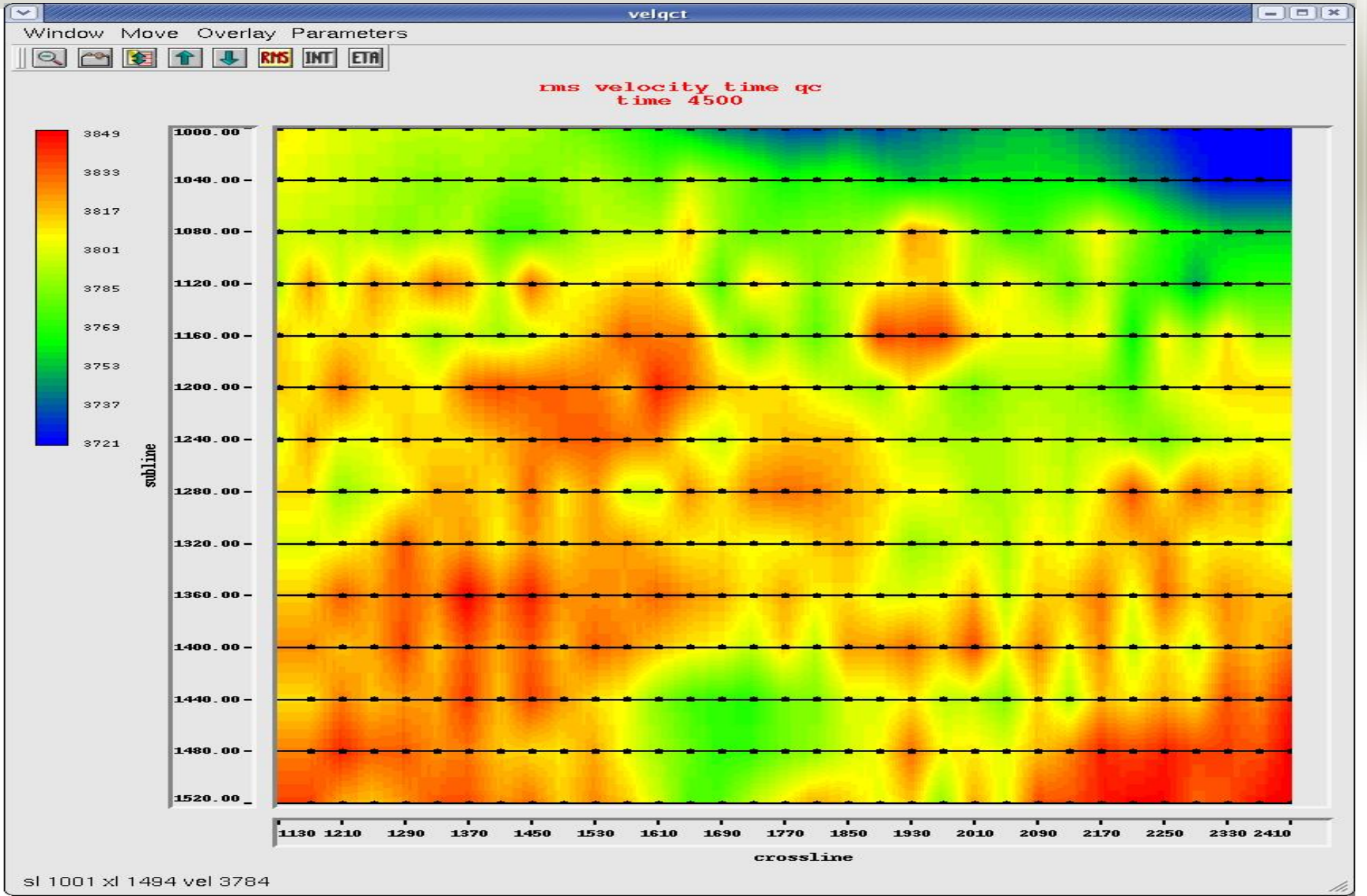
3500ms Slice from Approved Vel4 Velocity Field



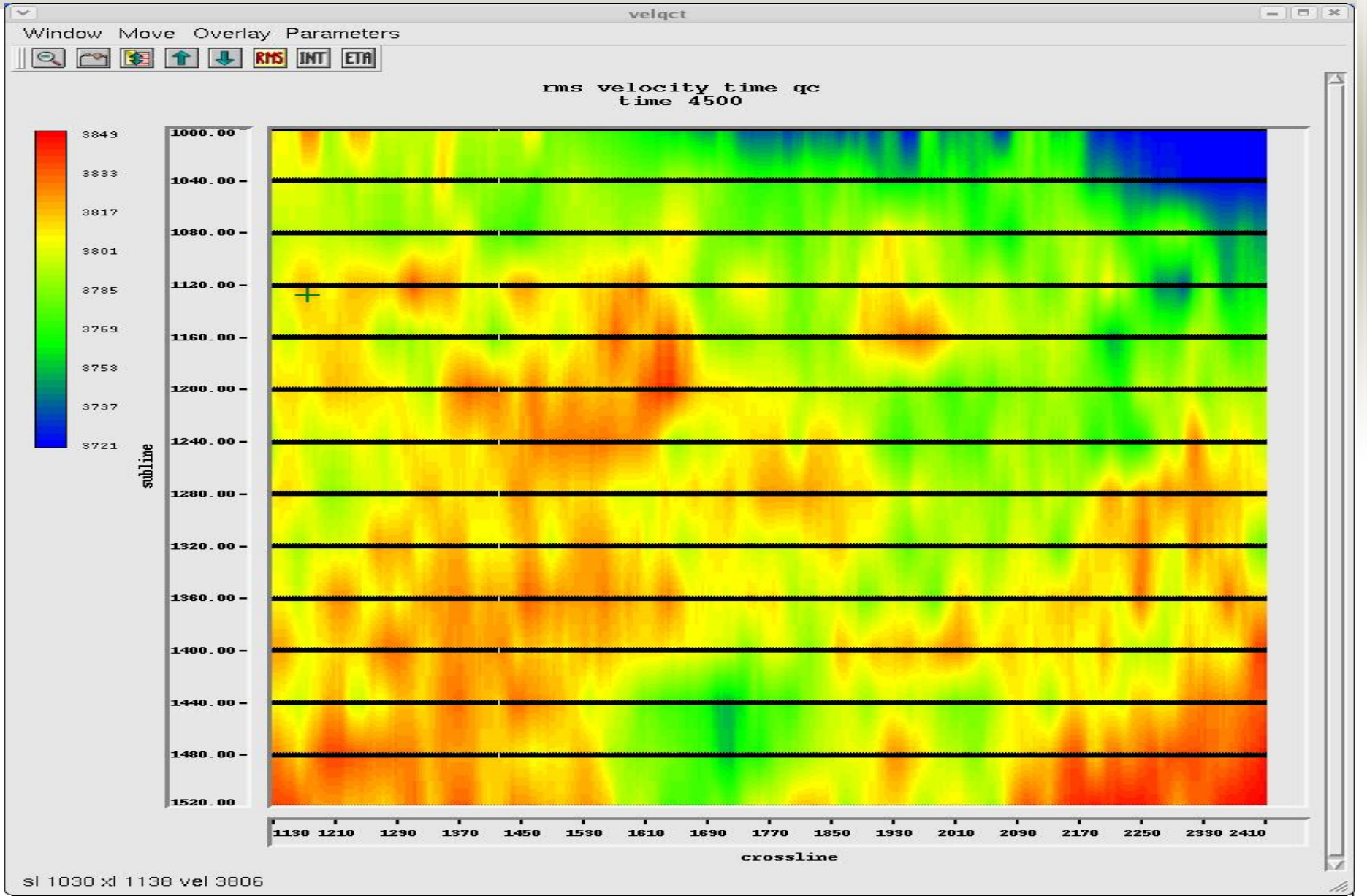
3500ms Slice from Approved Dense Velocity Field(smoothed)



4500ms Slice from Approved Vel4 Velocity Field



4500ms Slice from Approved Dense Velocity Field(smoothed)



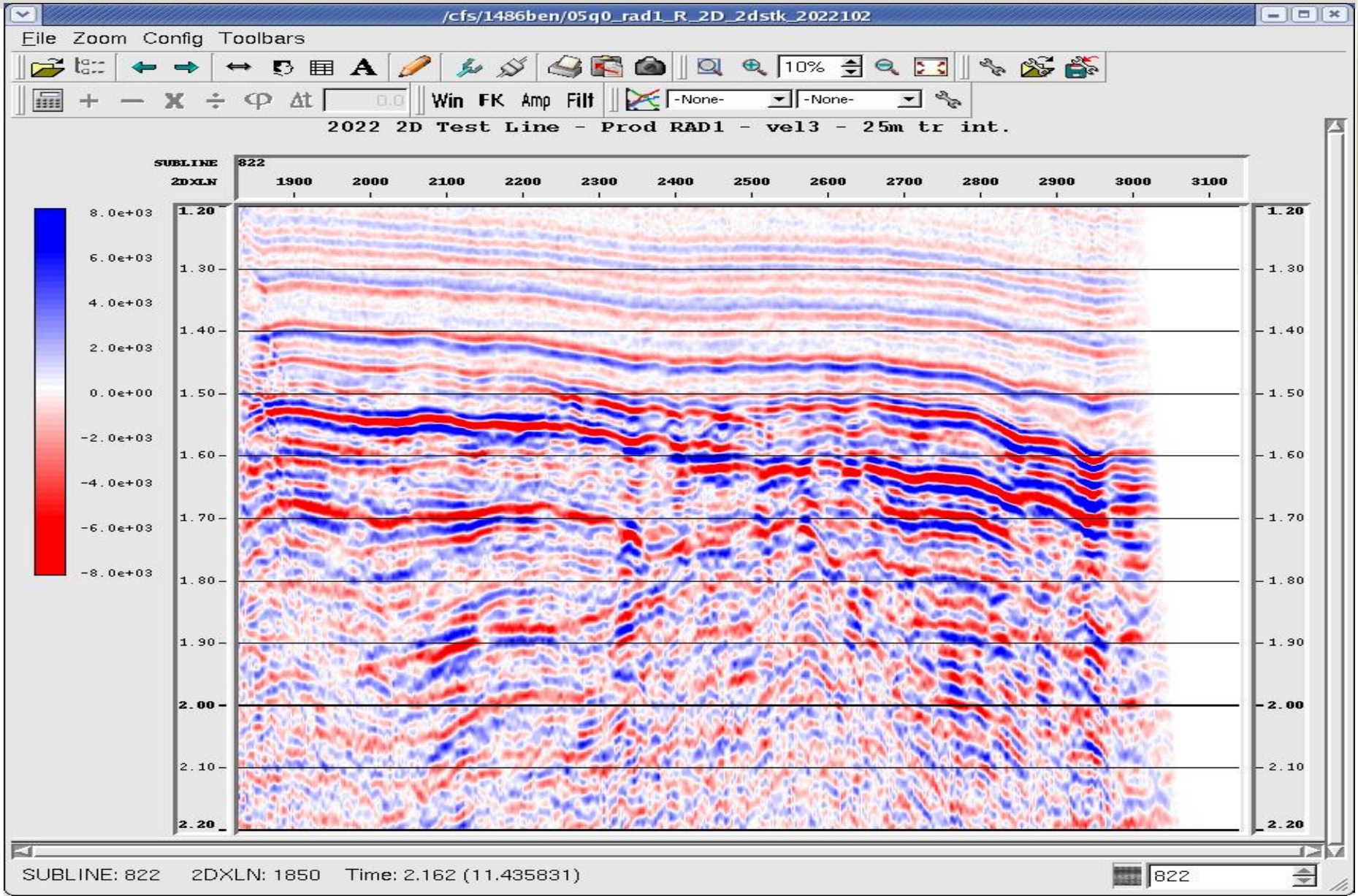
13_2DPSTMQC_stks.ppt

Benaris T/39 P 2D PSTM QC Stacks
09/02/06

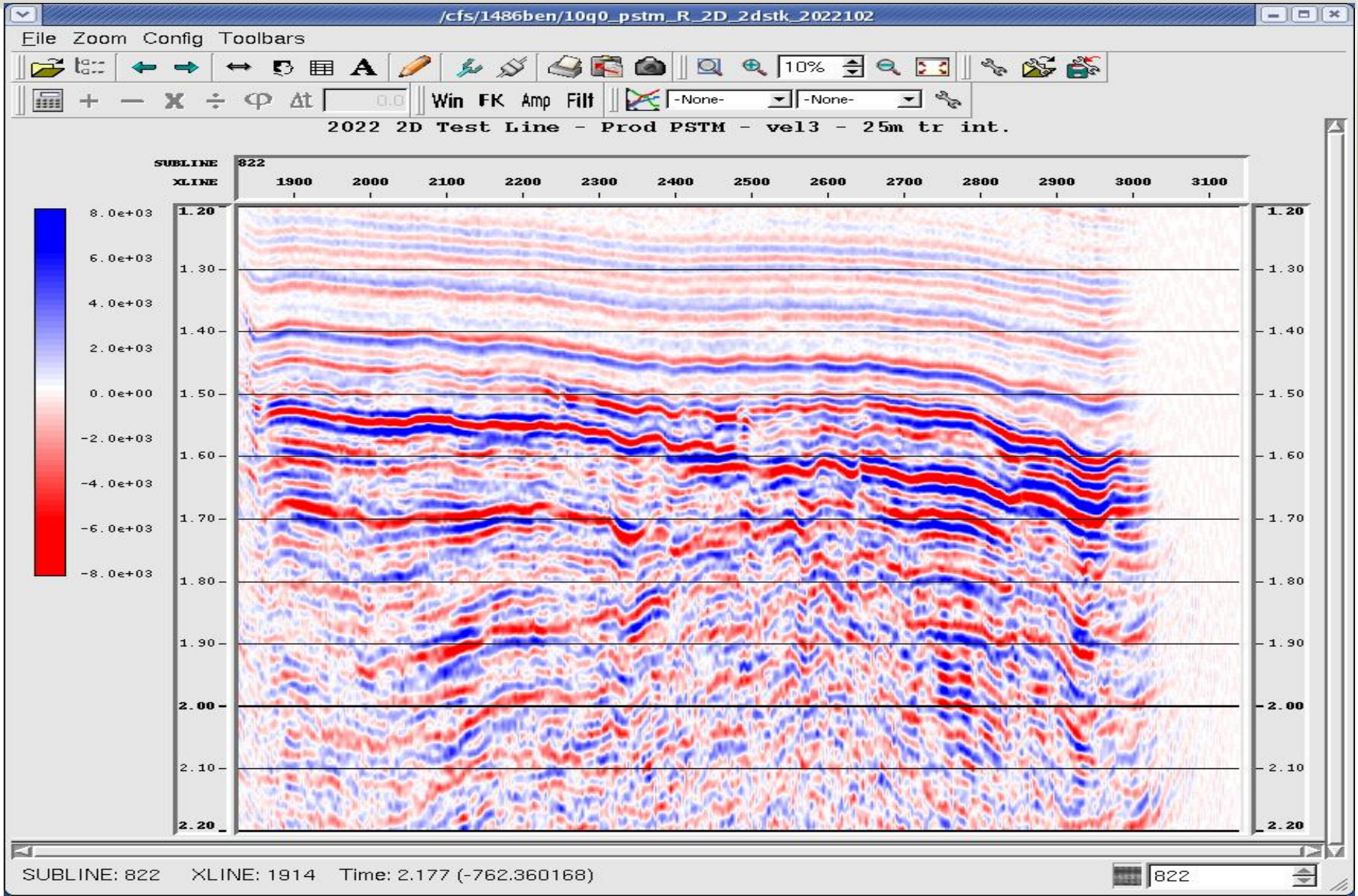
SUMMARY OF CONTENTS

- Review of 2D PSTM stacks (trace interval 25m).

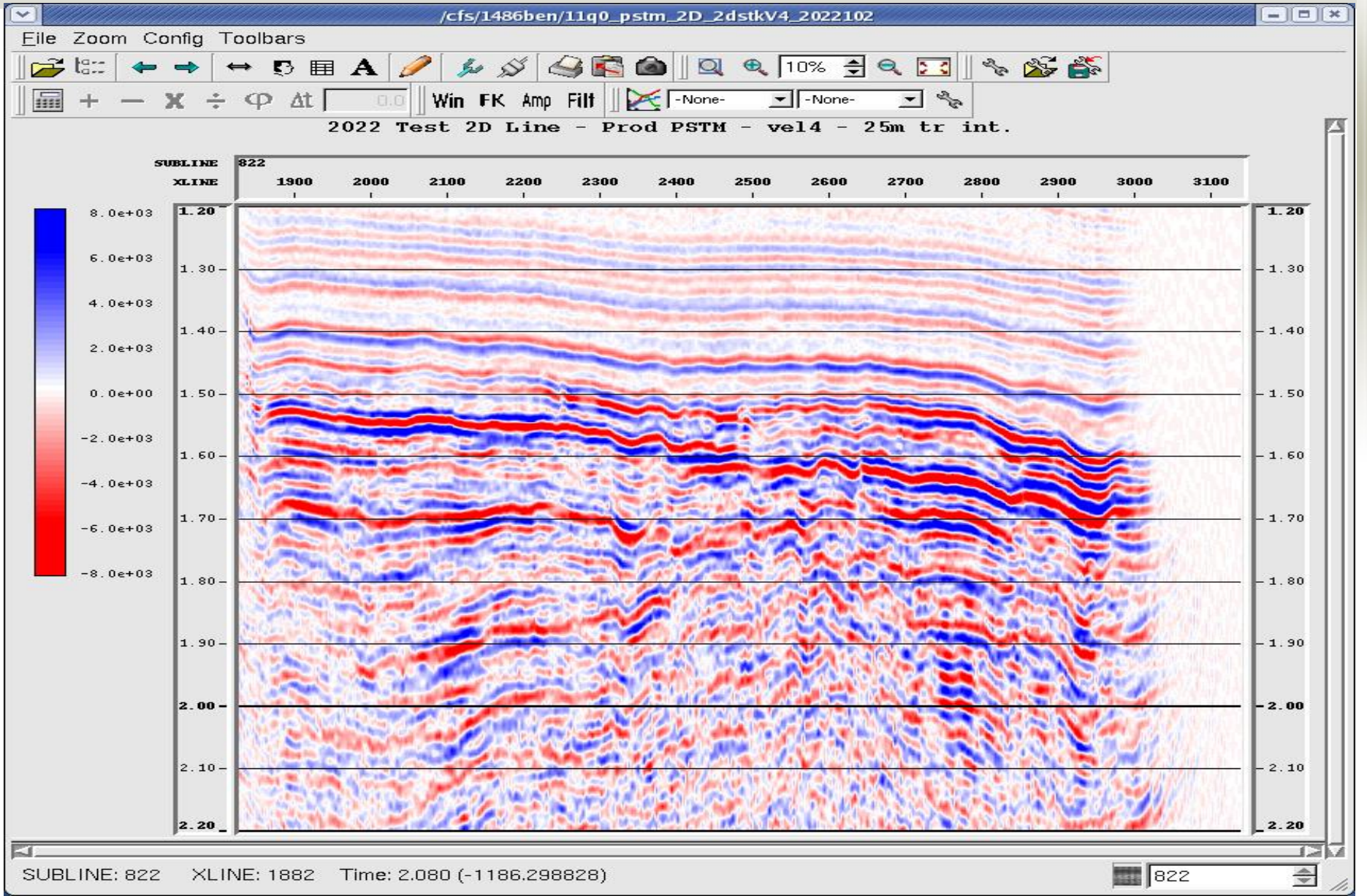
2D Test Line 2022 – RAD1, Vel3 velocities



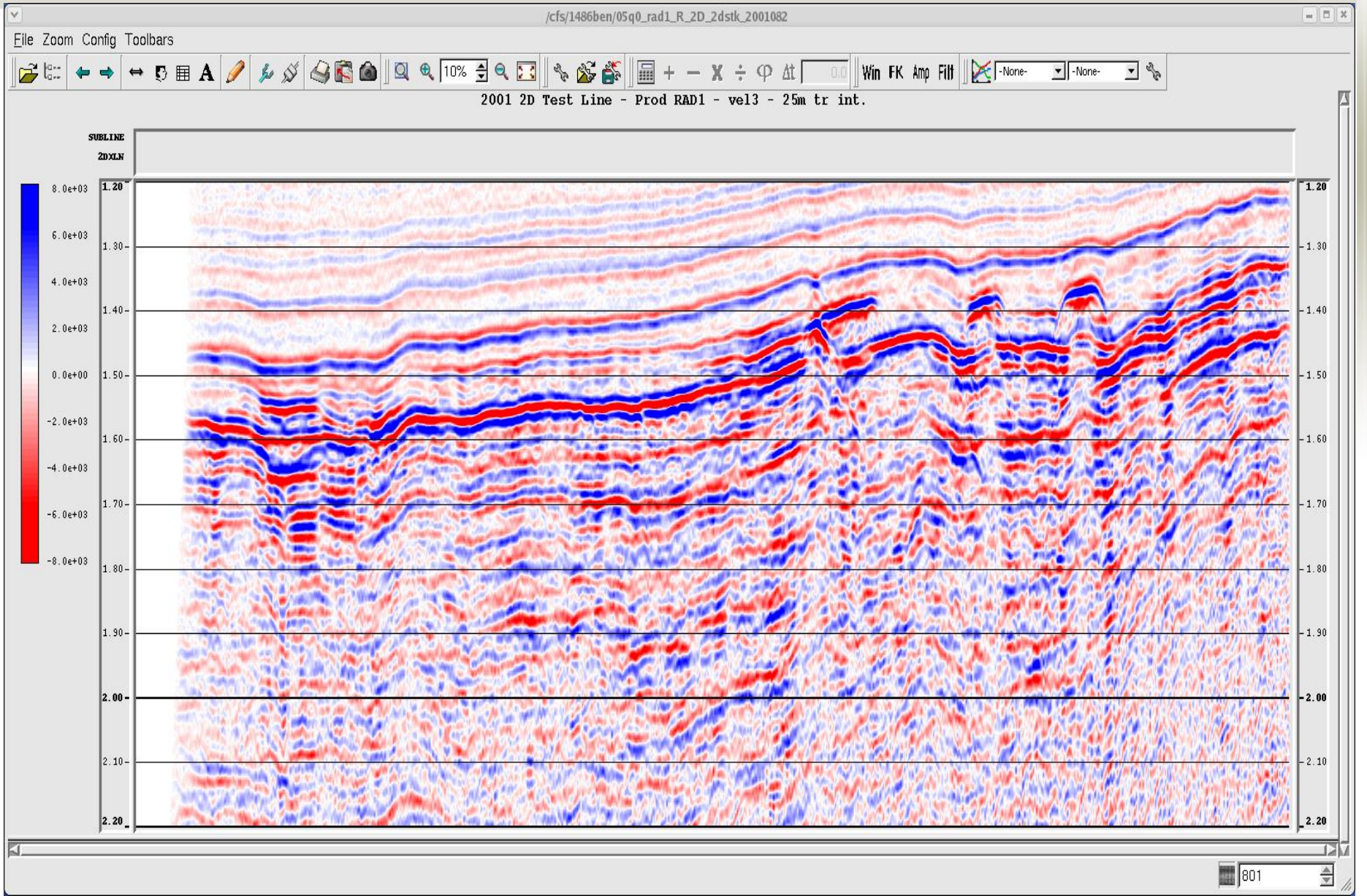
2D Test Line 2022 – PSTM, Vel3 velocities



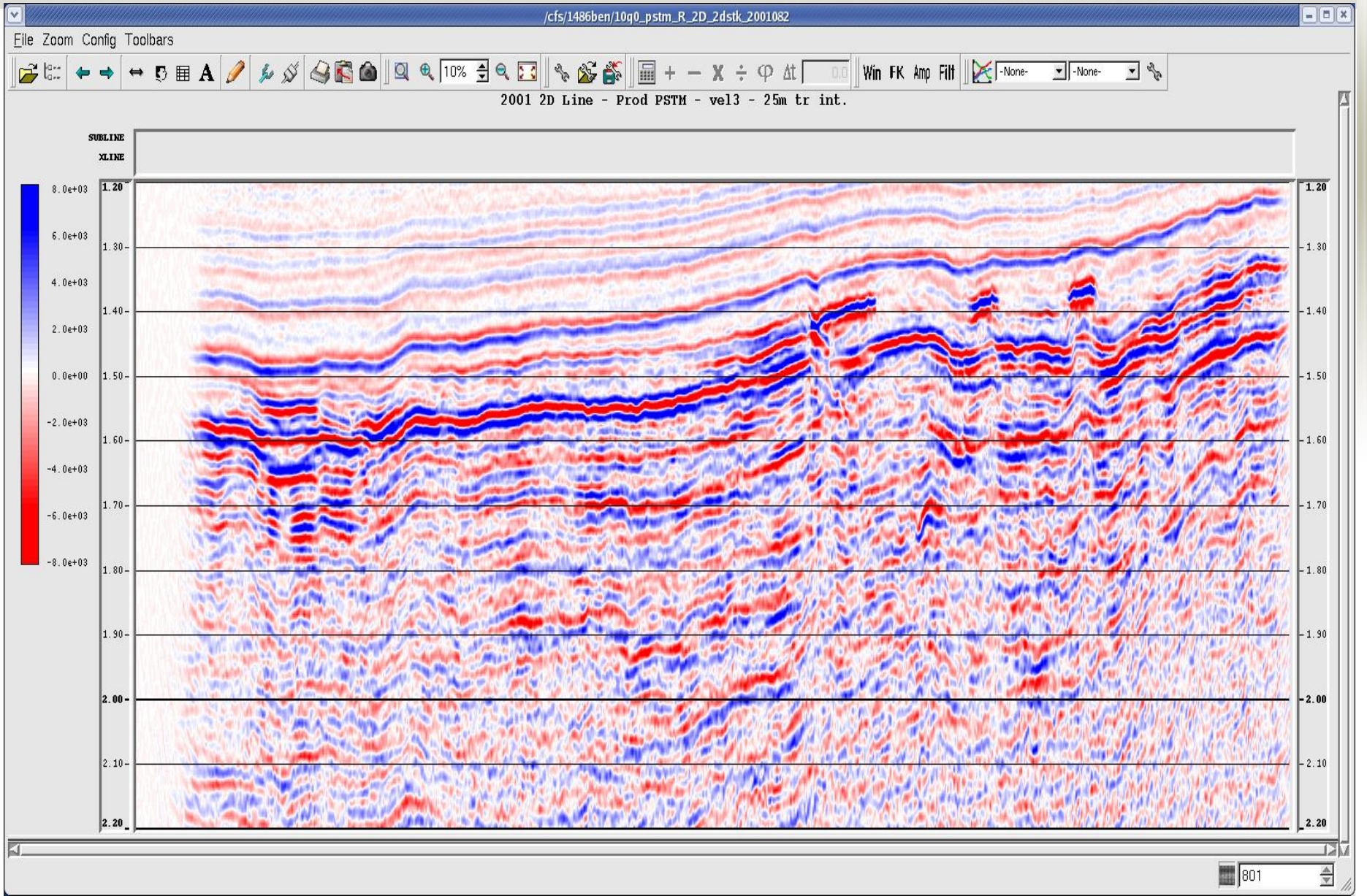
2D Test Line 2022 – PSTM, Vel4 velocities



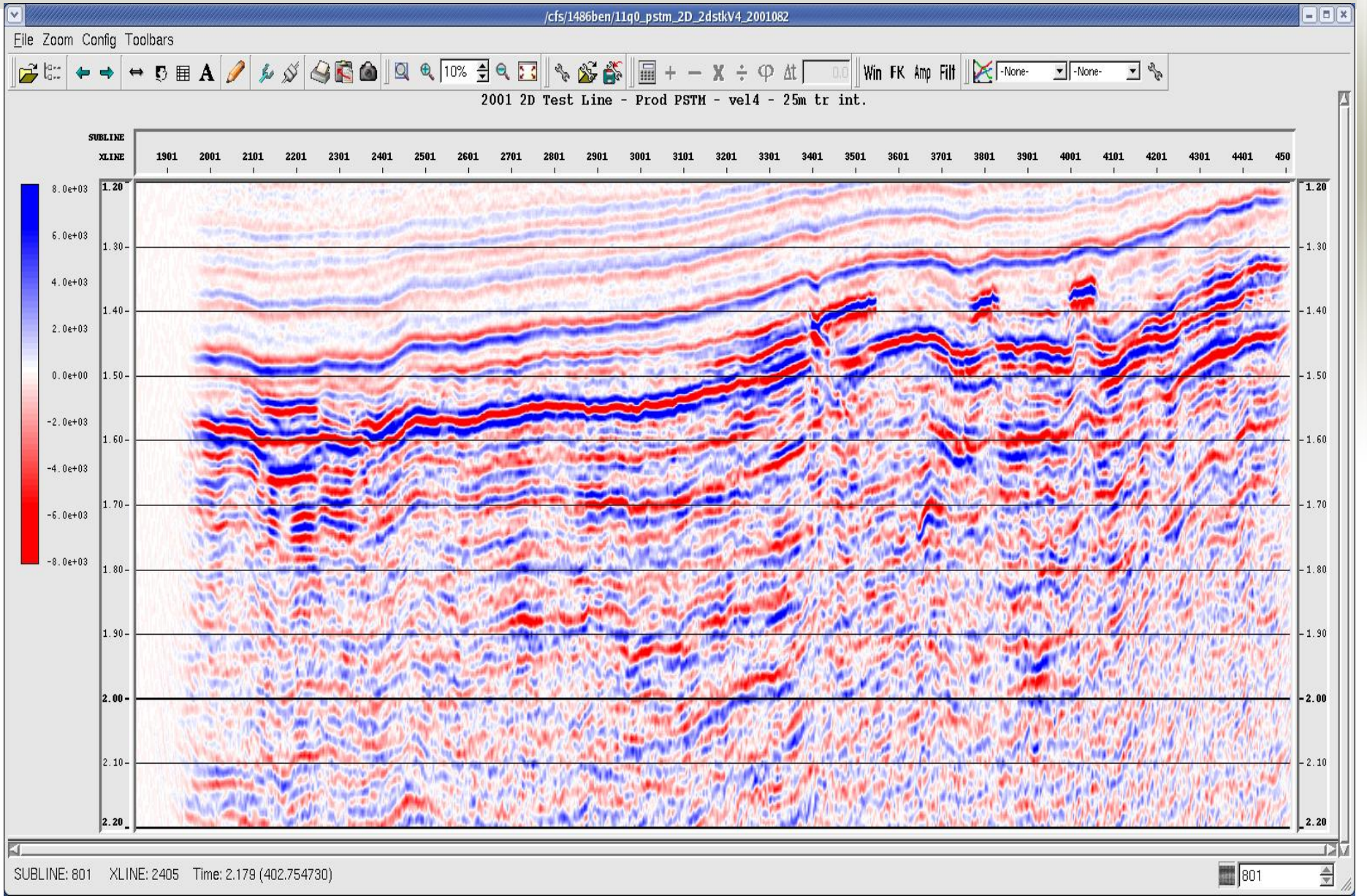
2D Test Line 2001 – RAD1, Vel3 velocities



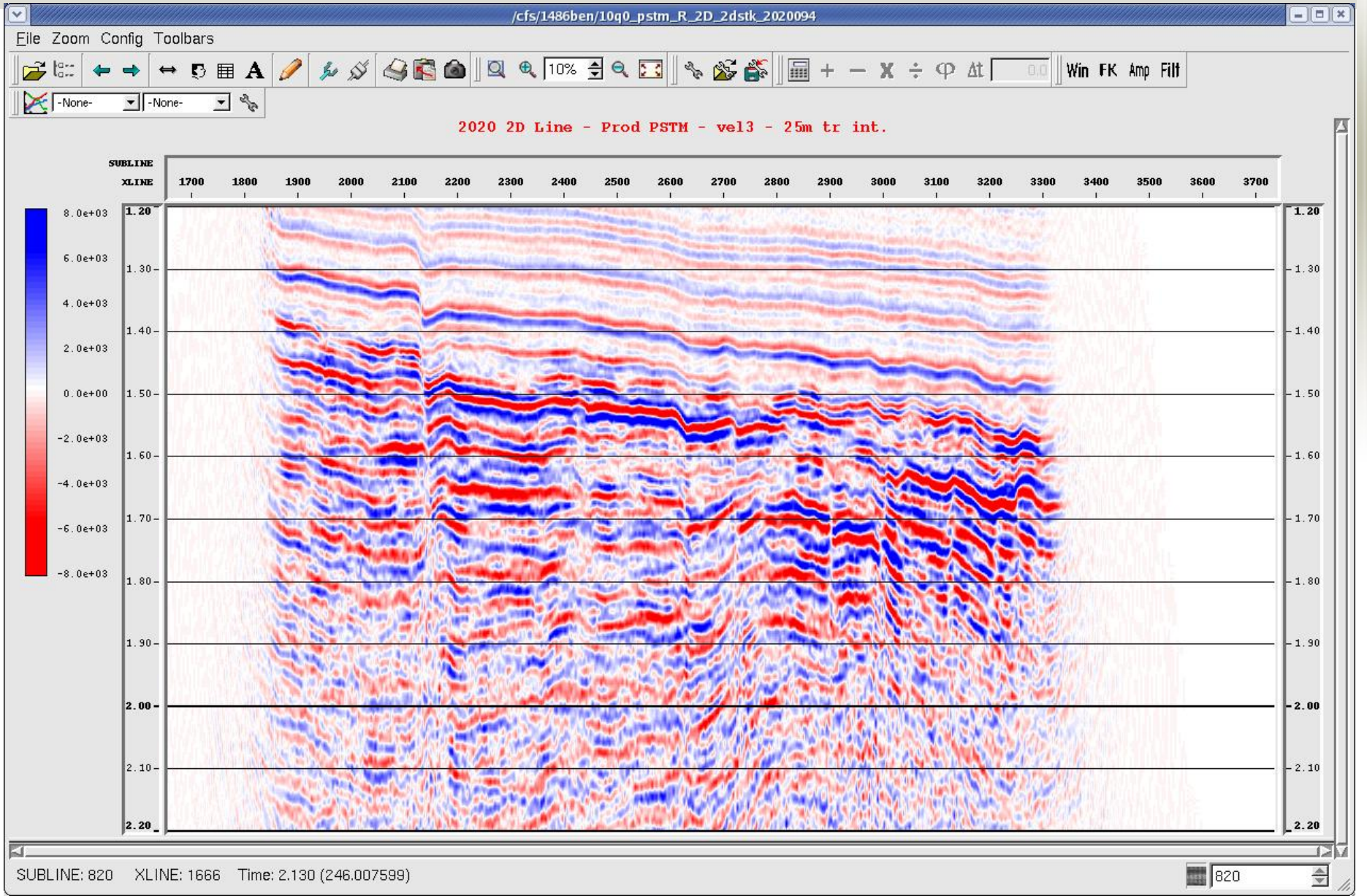
2D Test Line 2001 – PSTM, Vel3 velocities



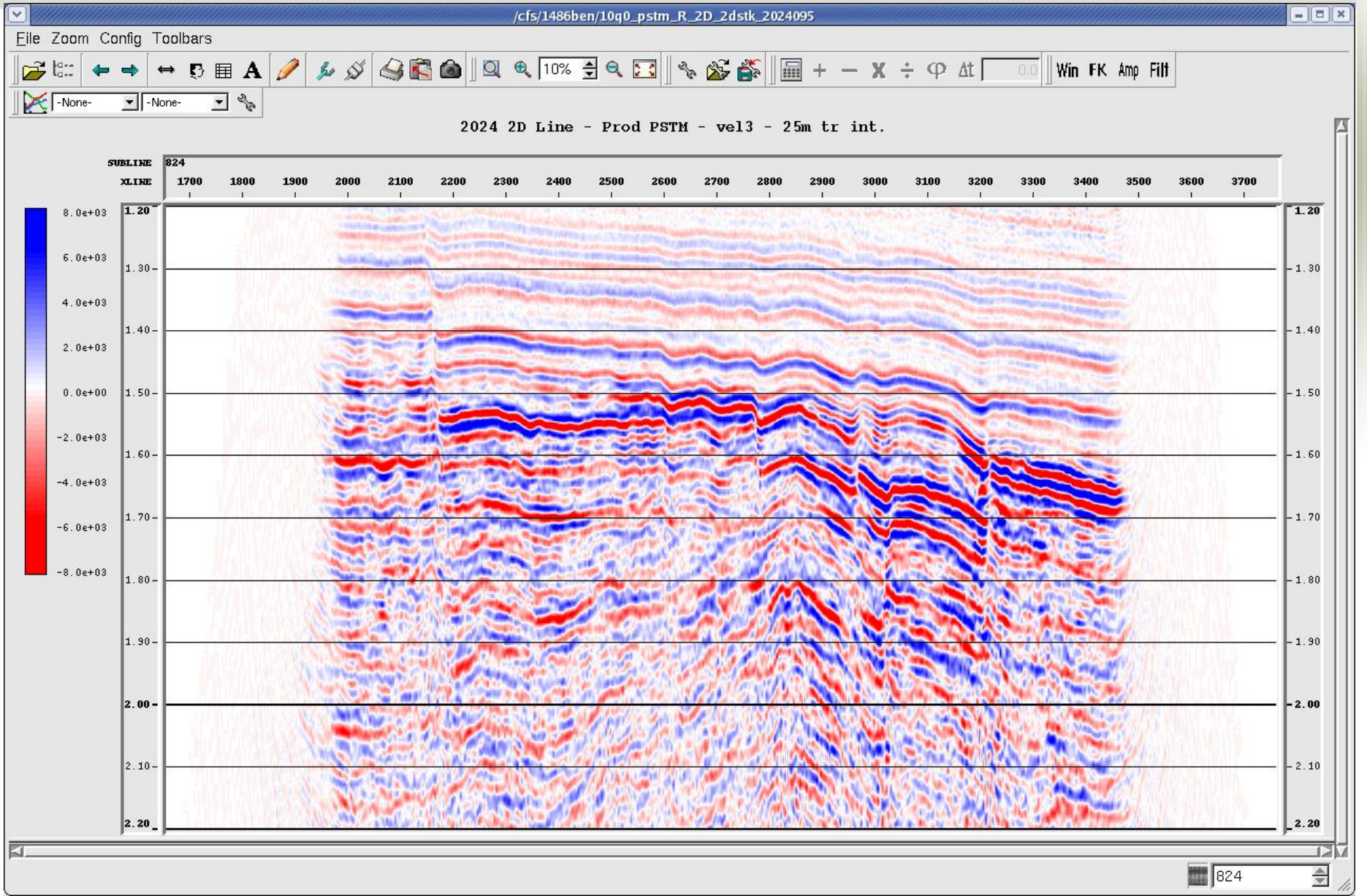
2D Test Line 2001 – PSTM, Vel4 velocities



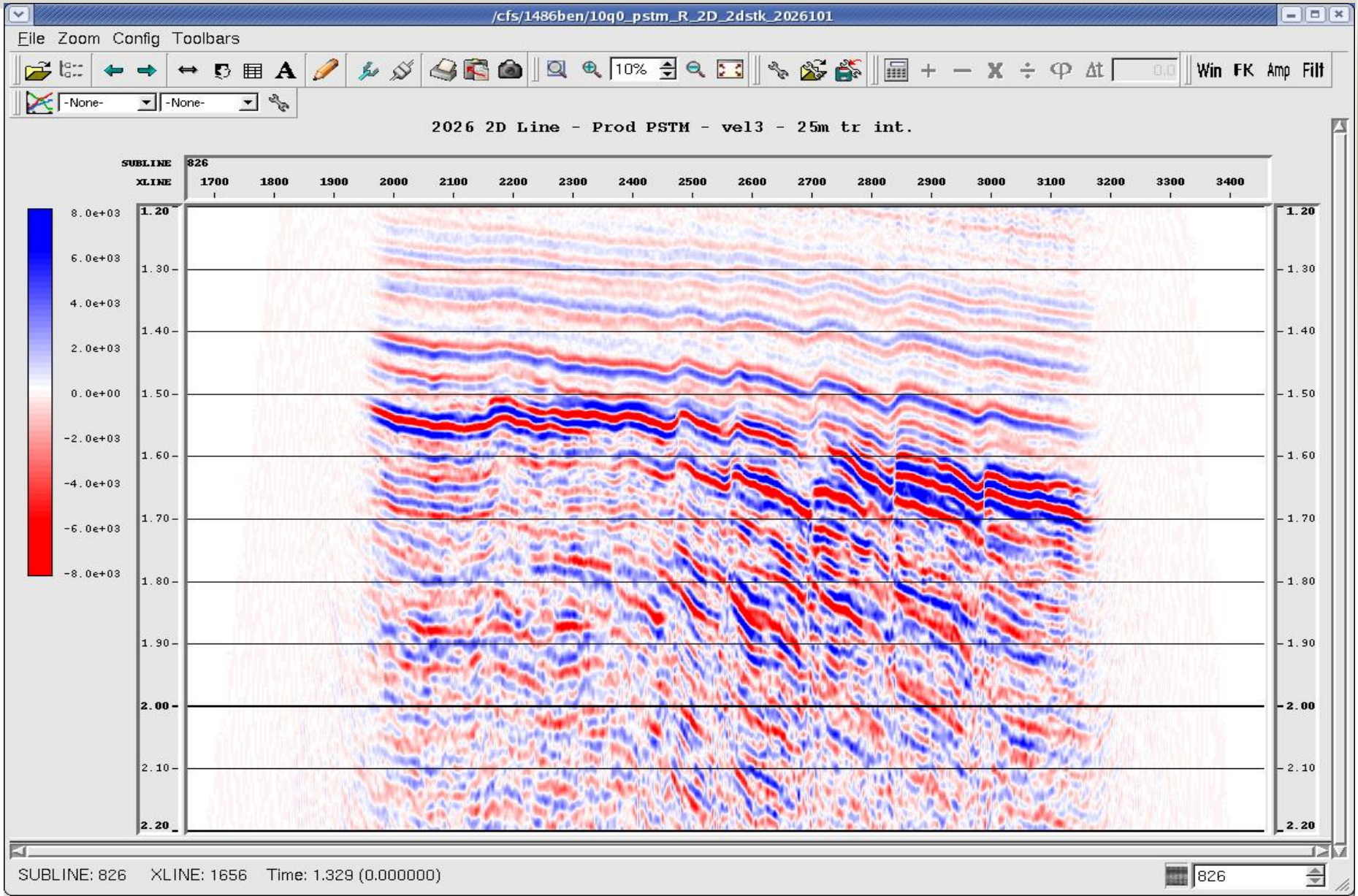
2D Line 2020 – PSTM, Vel3 velocities



2D Line 2024 – PSTM, Vel3 velocities



2D Line 2026 – PSTM, Vel3 velocities



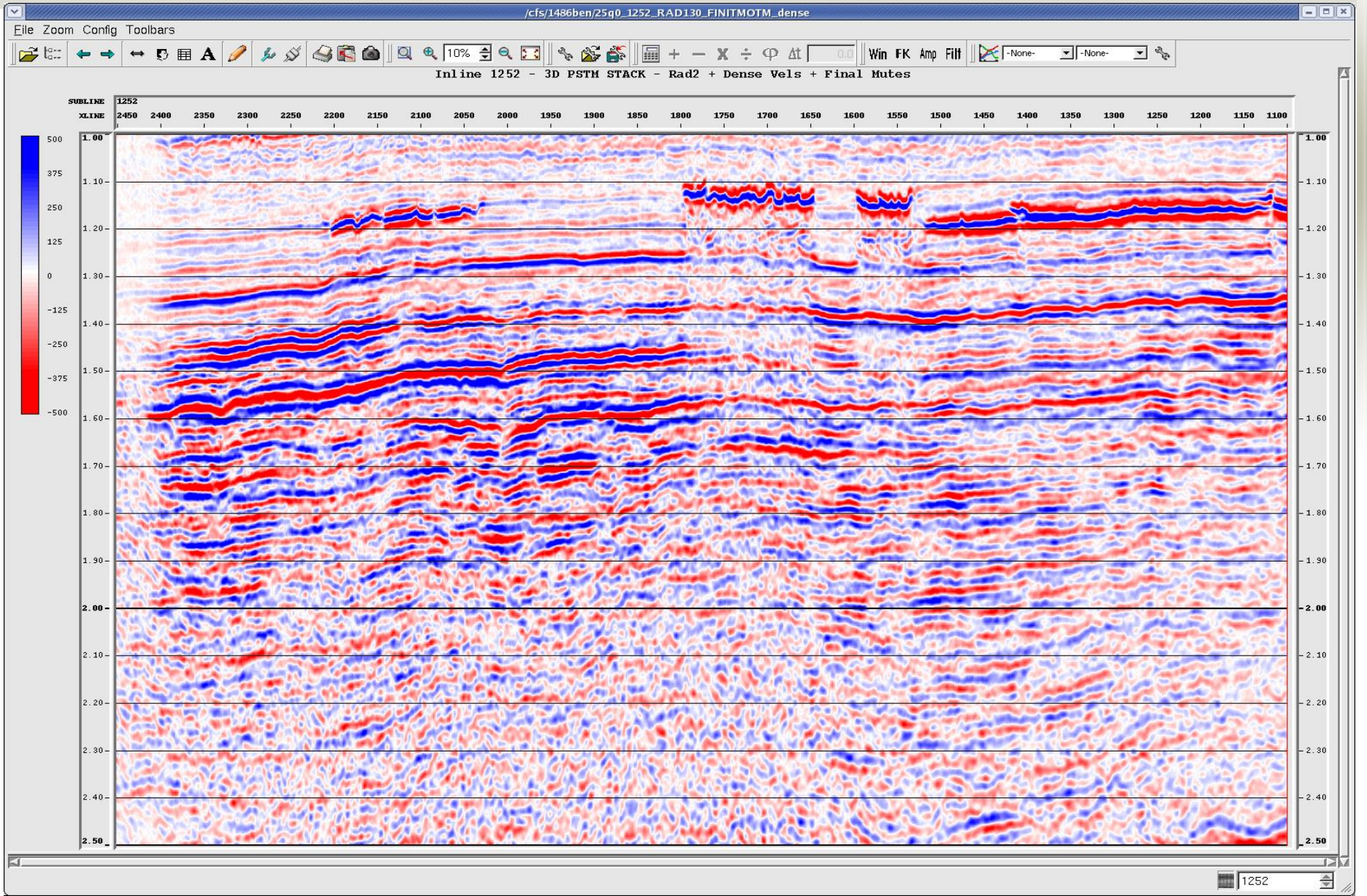
14_3DPSTM_anggaths.ppt

Benaris T/39 P 3D PSTM Angle Range Gathers 17/02/06

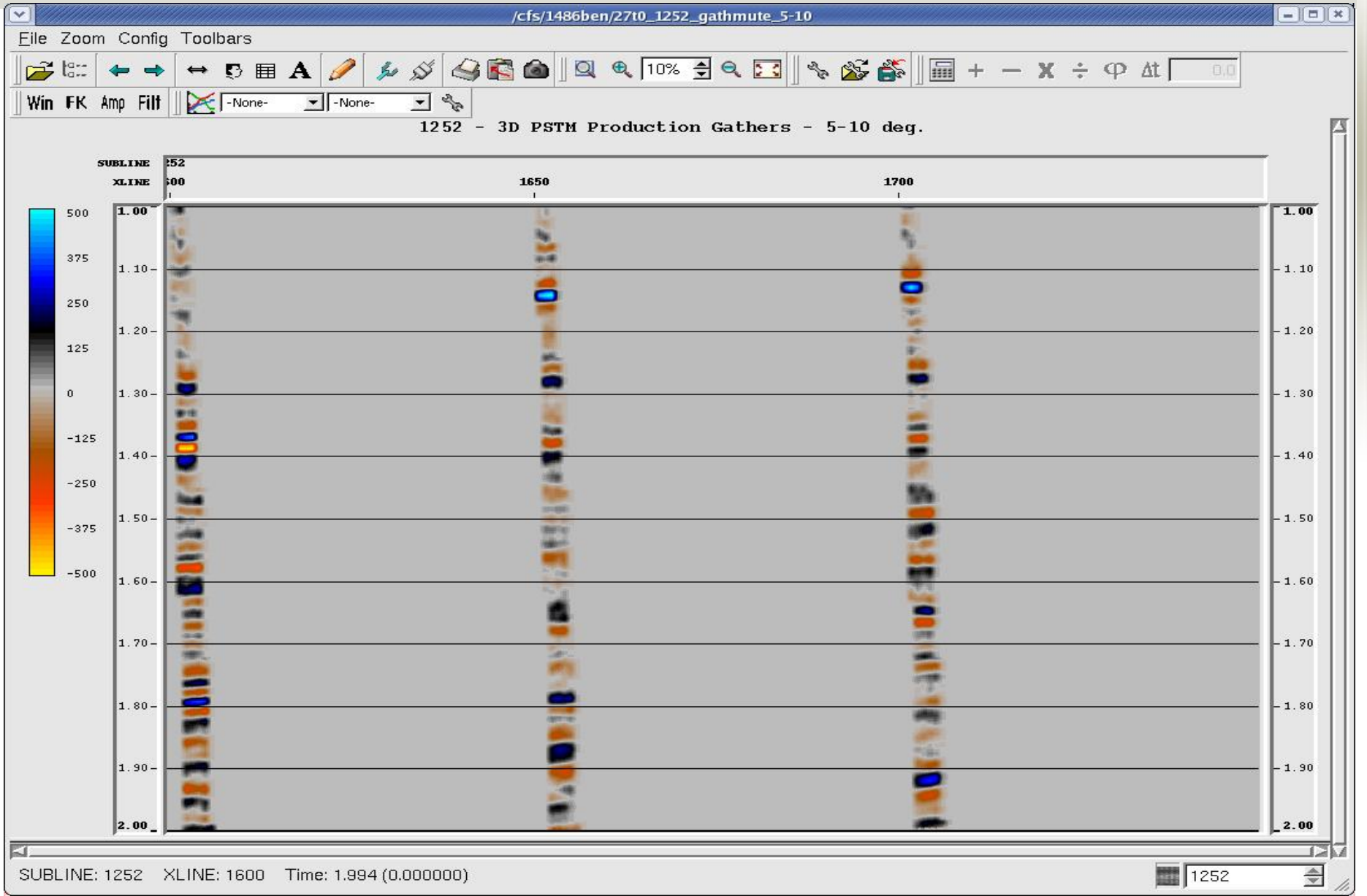
SUMMARY OF CONTENTS

- Review of angle ranges, on Final PSTM gathers, over target area on inline 1252.

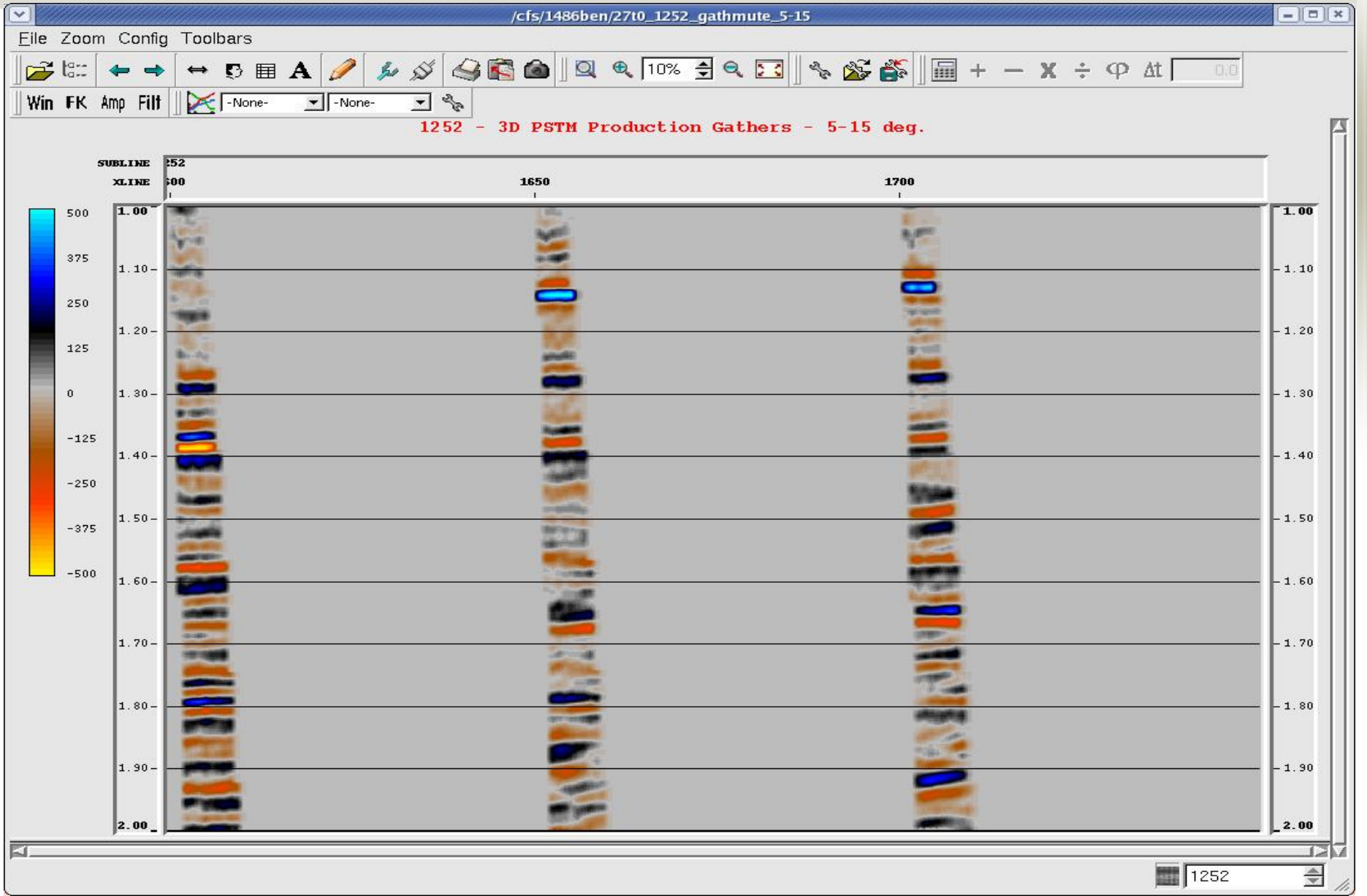
3D Test Line 1252 – 3D PSTM, RAD2, Final Mutes, Dense Velocities



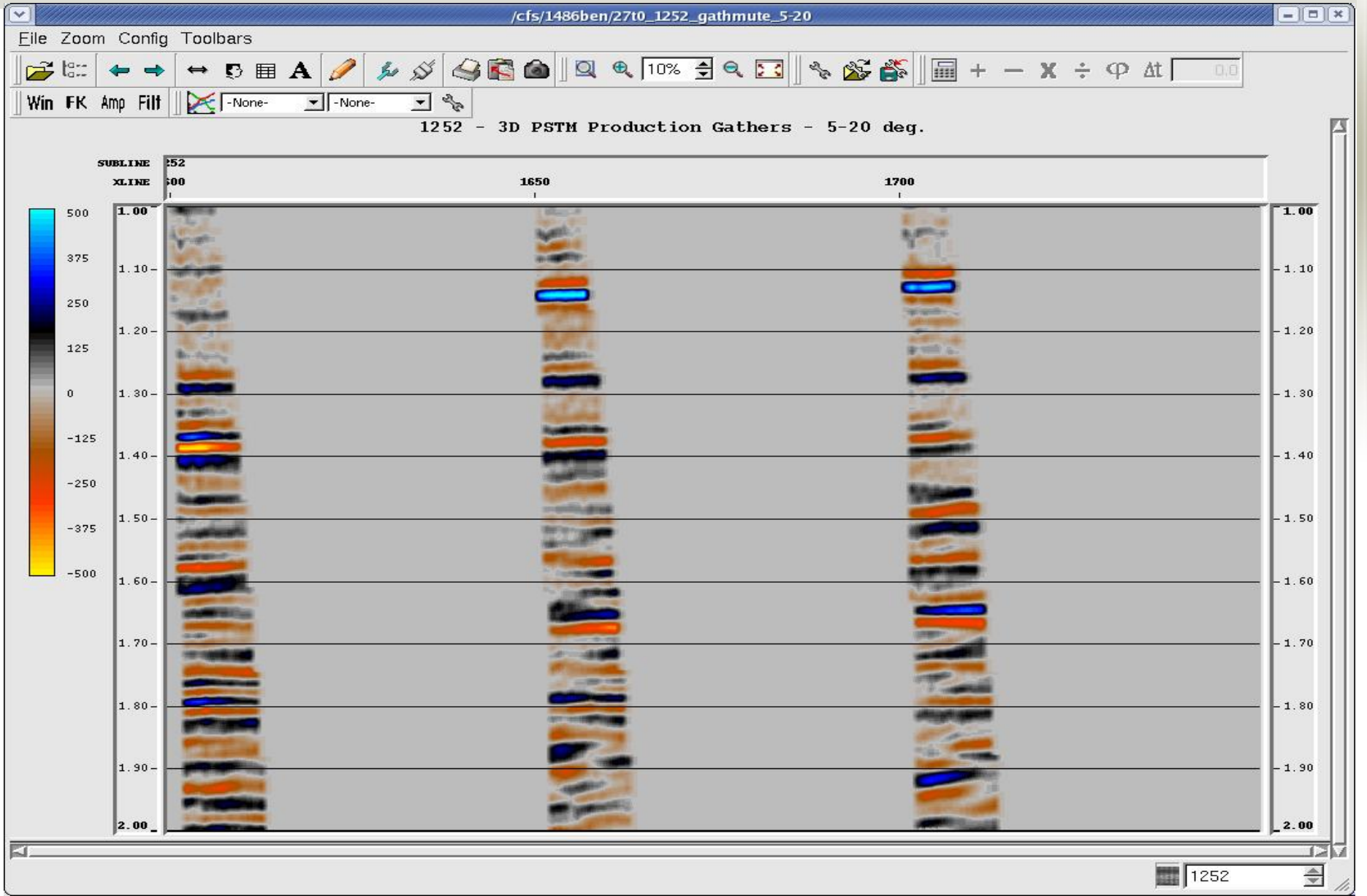
1252 – Angle Gathers (5- 10 deg).



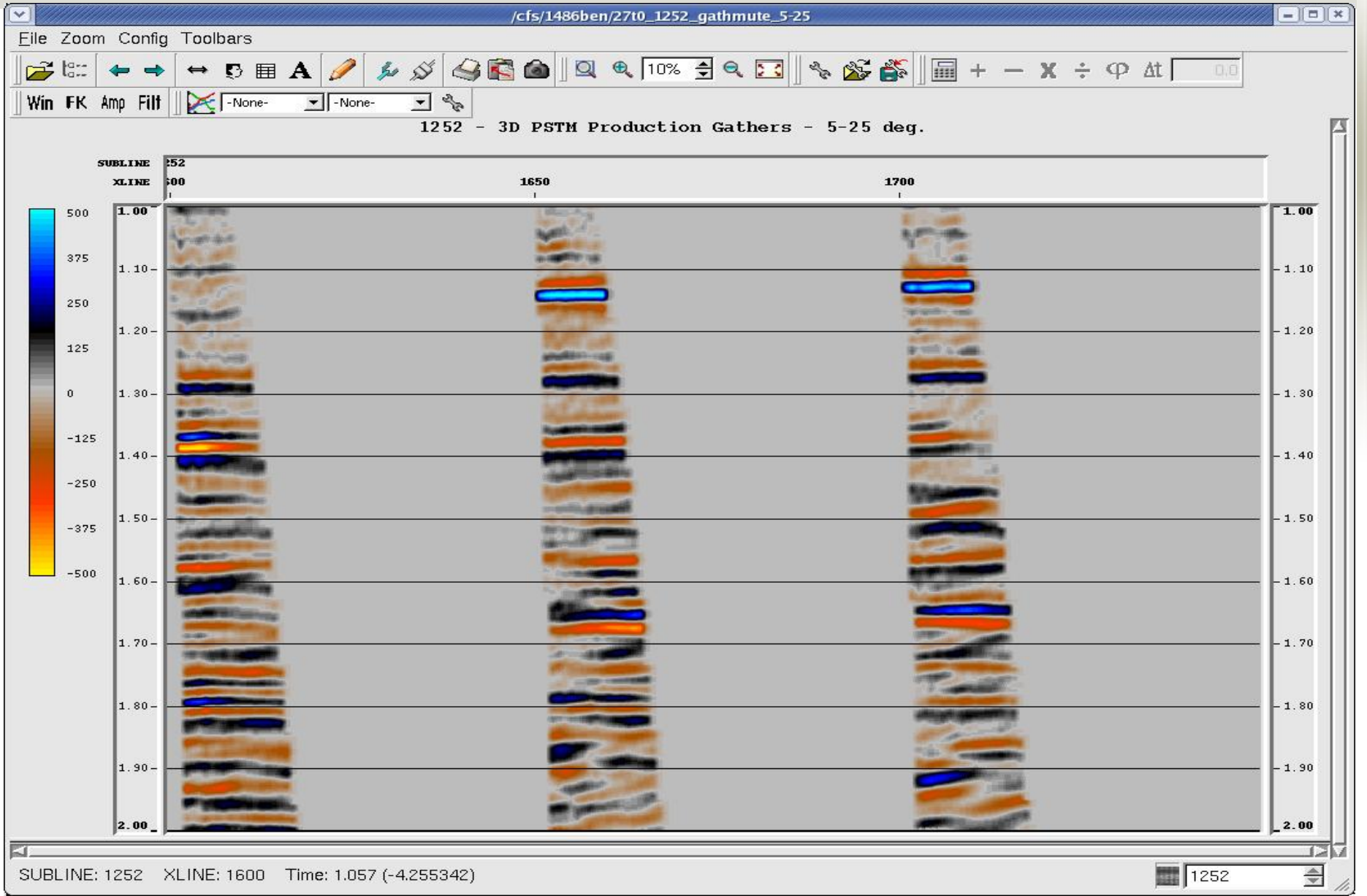
1252 – Angle Gathers (5- 15 deg).



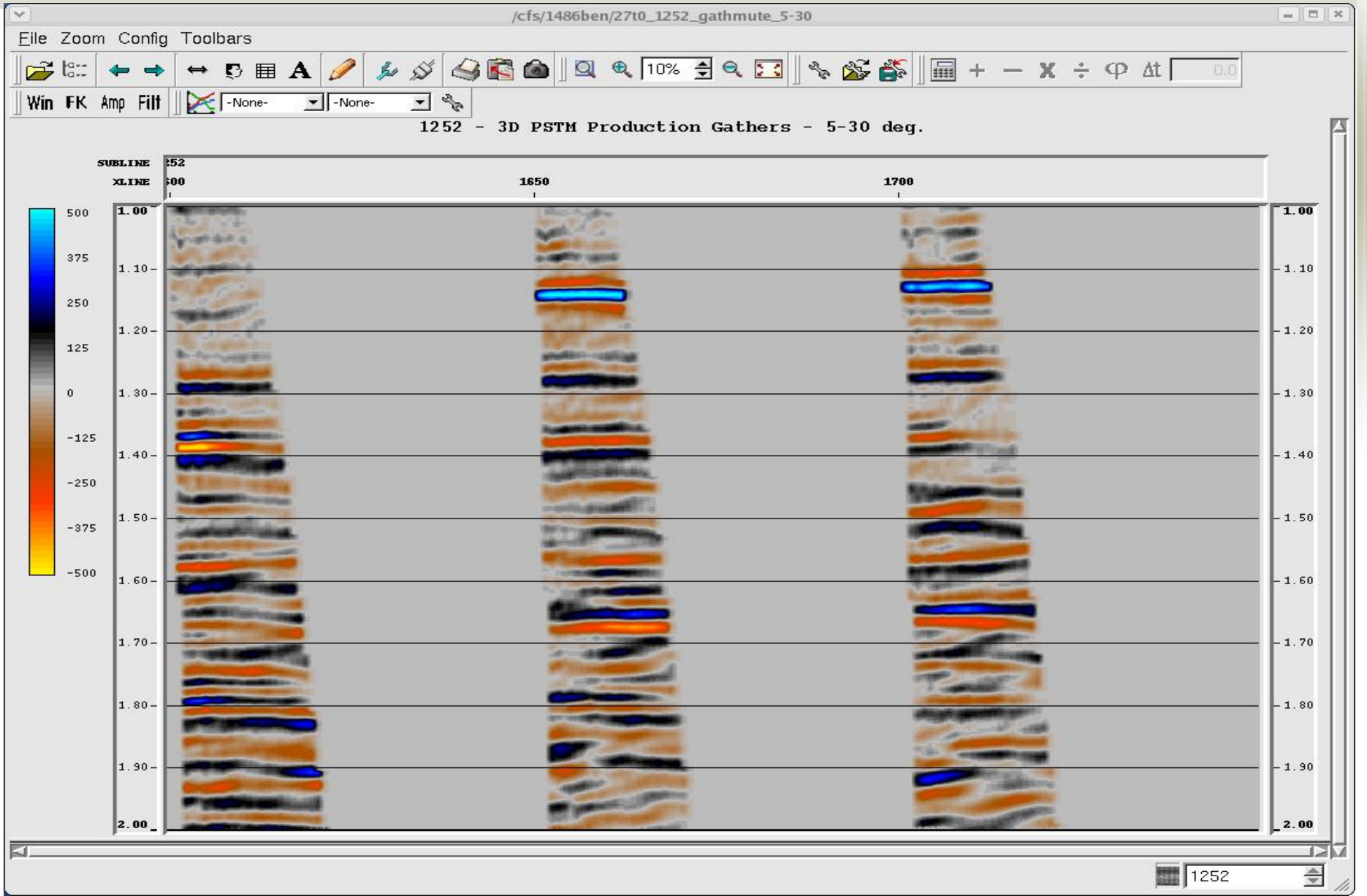
1252 – Angle Gathers (5- 20 deg).



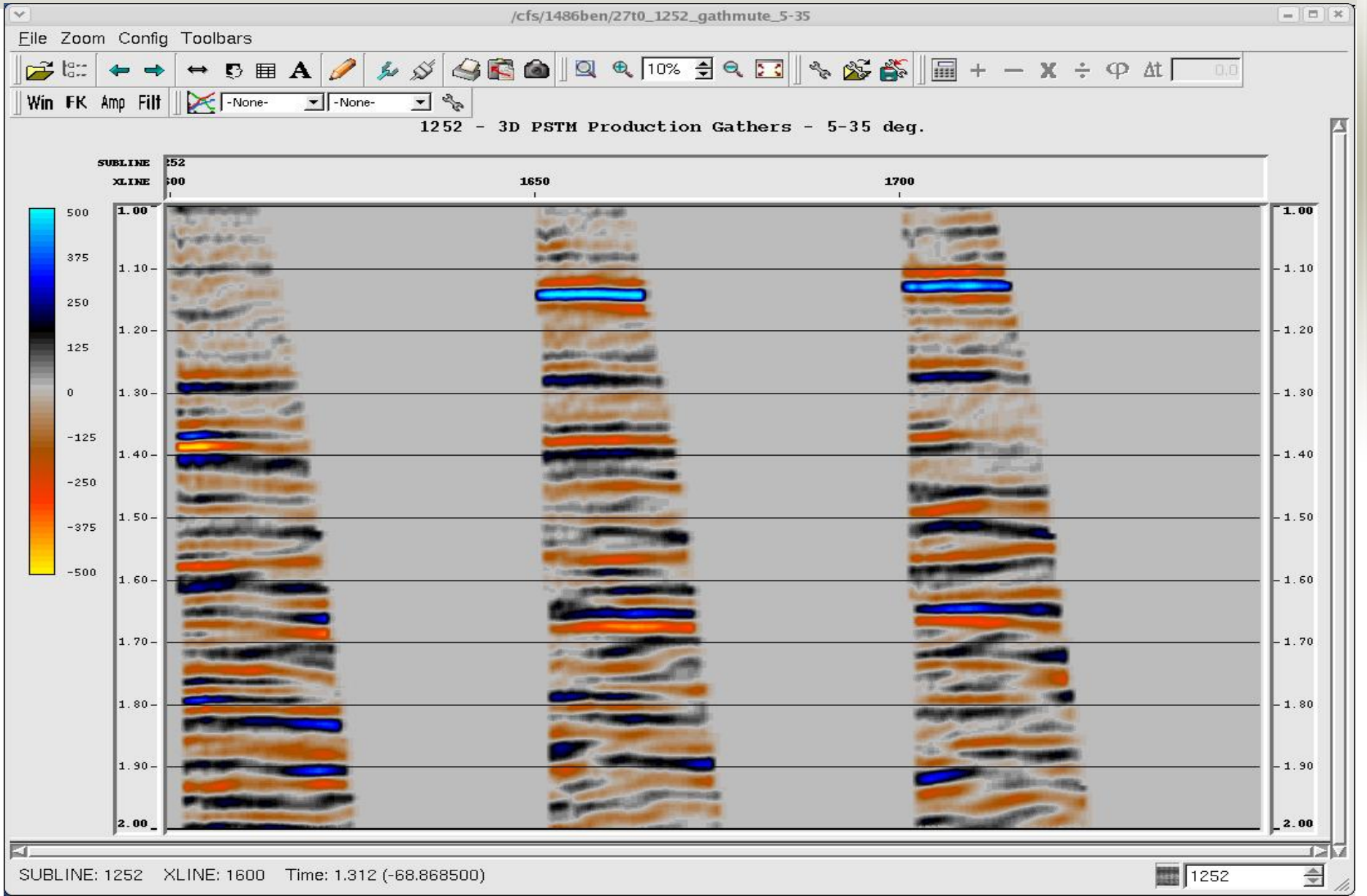
1252 – Angle Gathers (5- 25 deg).



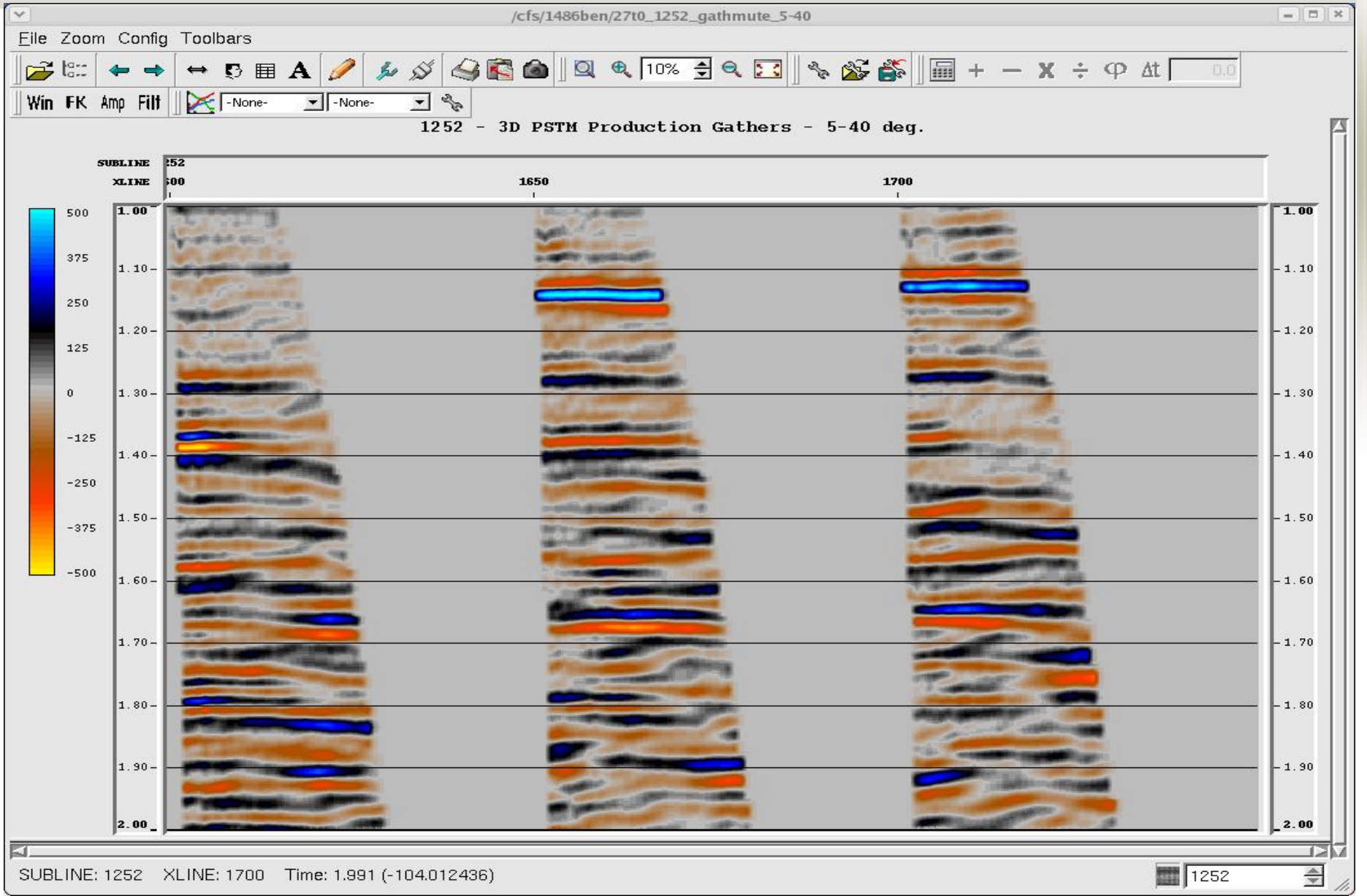
1252 – Angle Gathers (5- 30 deg).



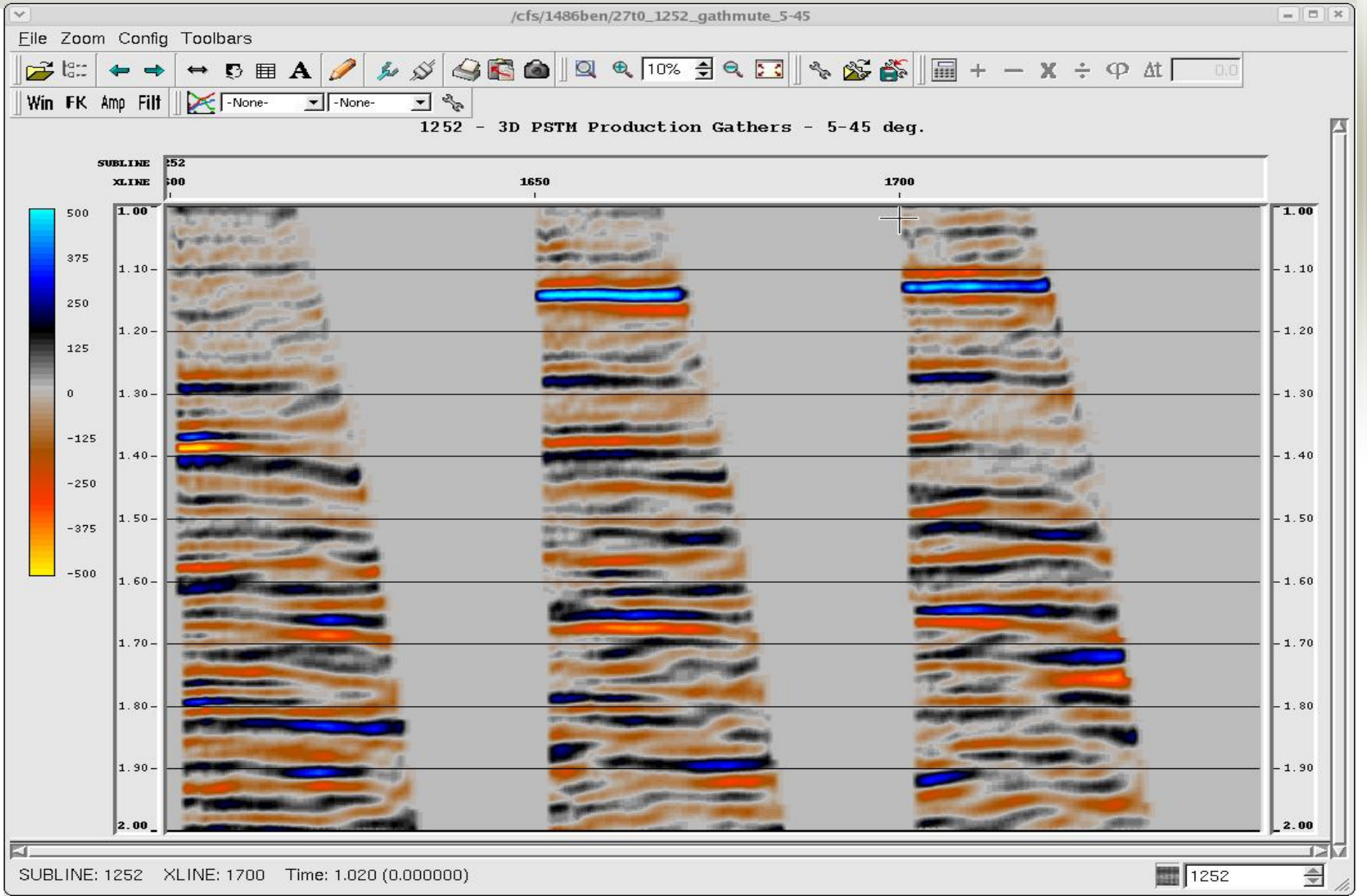
1252 – Angle Gathers (5- 35 deg).



1252 – Angle Gathers (5- 40 deg).



1252 – Angle Gathers (5- 45 deg).



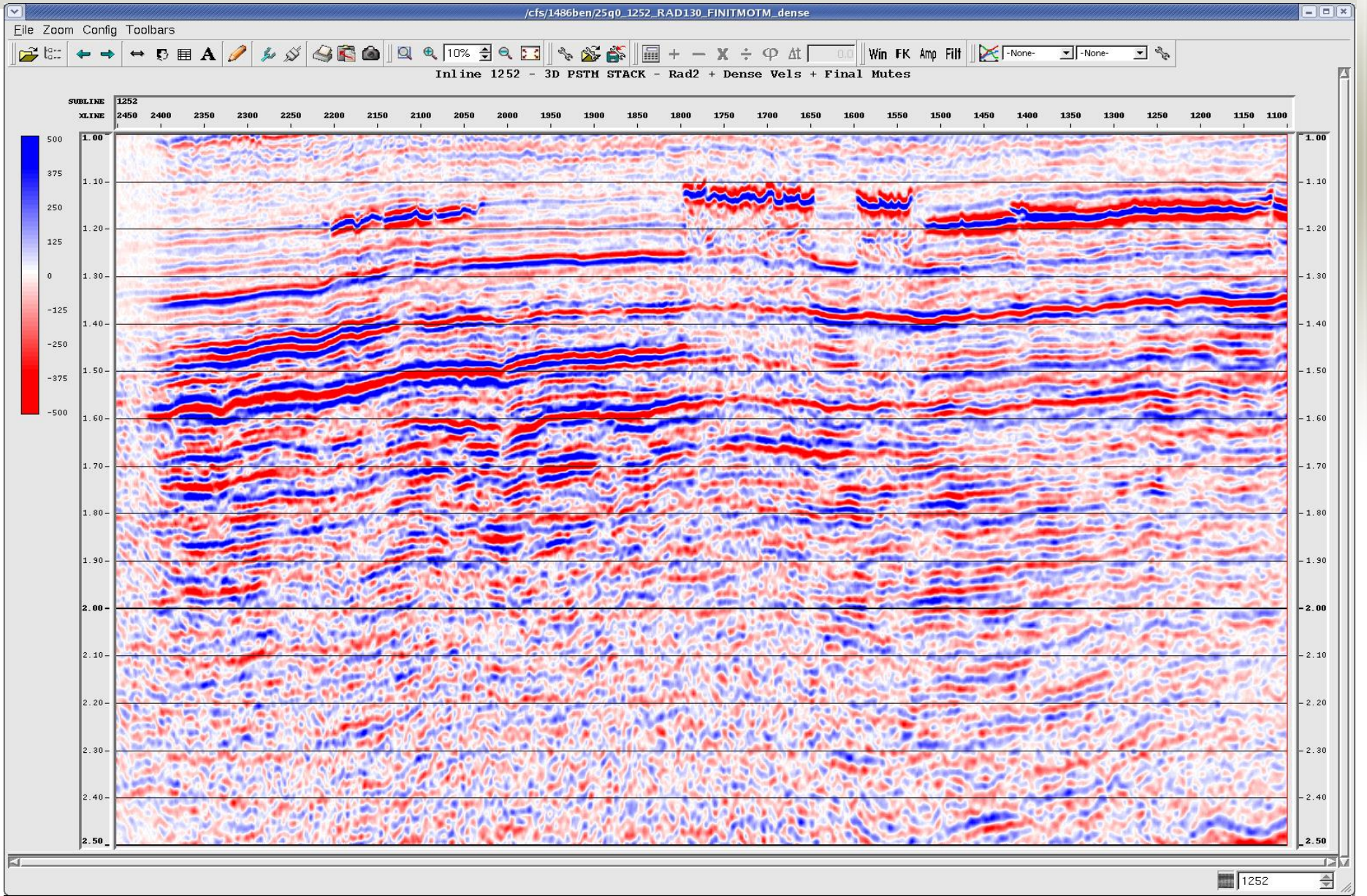
14a_3DPSTM_anggaths_revised.ppt

Benaris T/39 P 3D PSTM Angle Range Gathers
Revised XLines
22/02/06

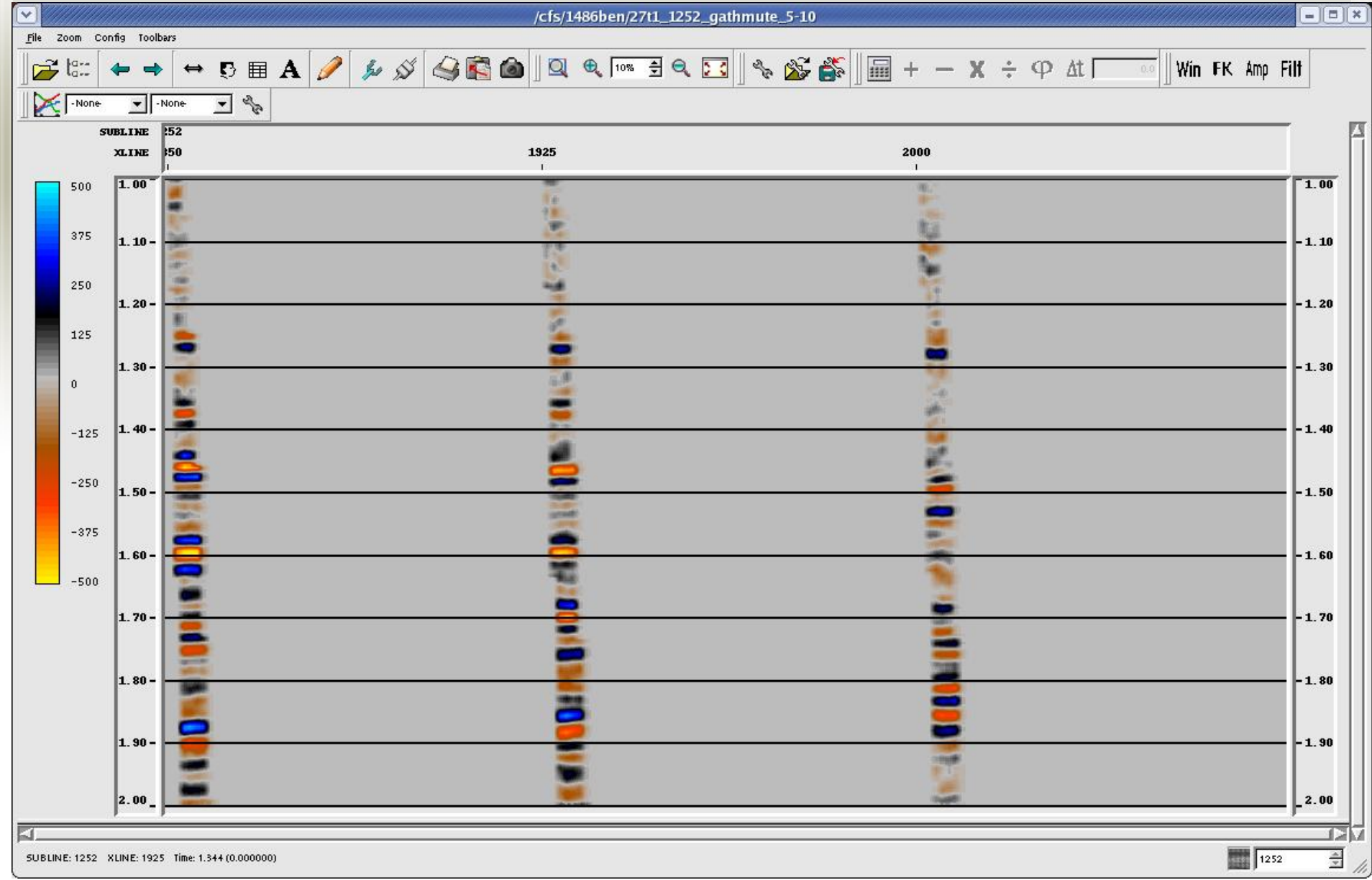
SUMMARY OF CONTENTS

- Review of angle ranges, on Final PSTM gathers, over target area on inline 1252.

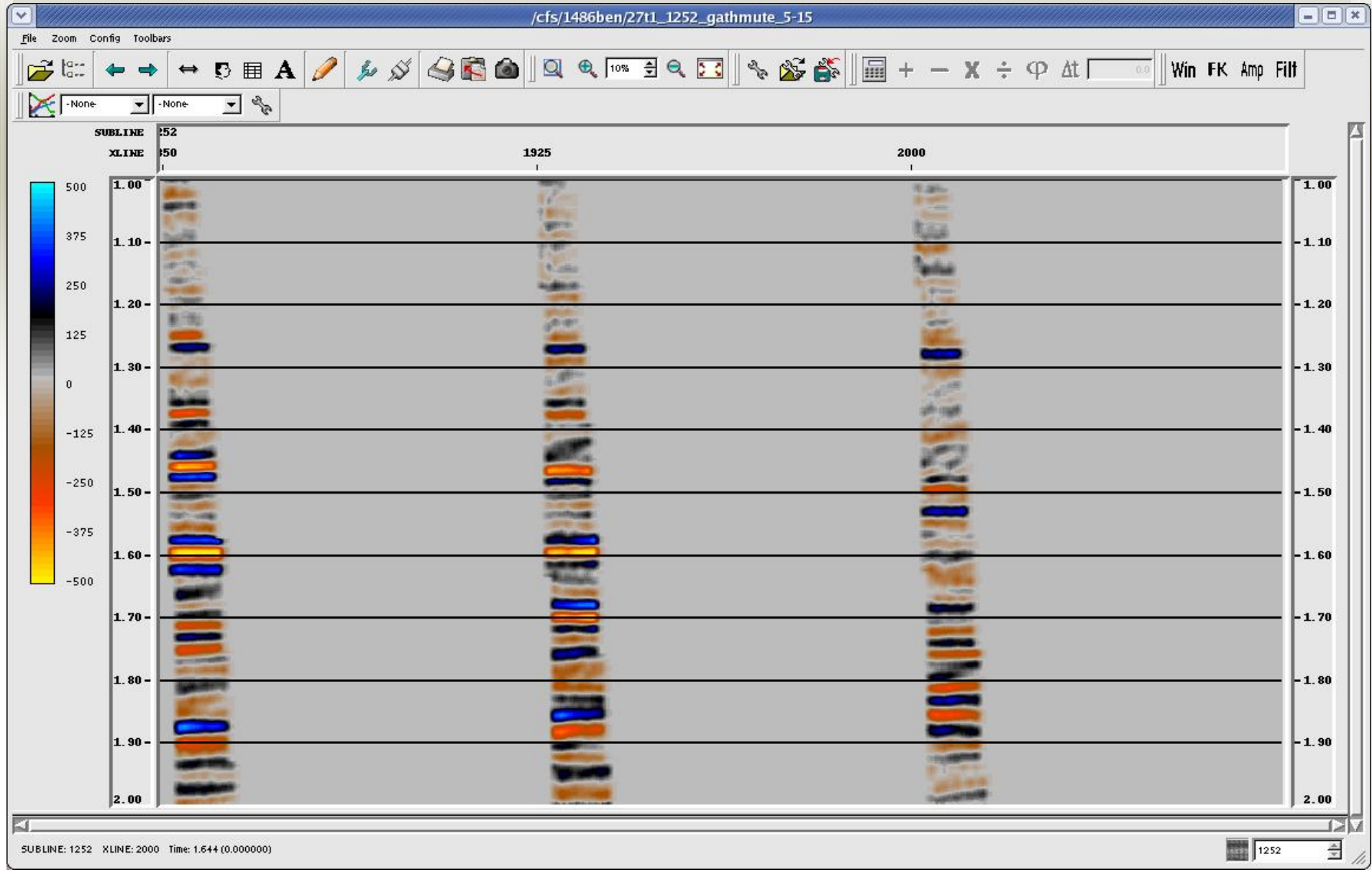
3D Test Line 1252 – 3D PSTM, RAD2, Final Mutes, Dense Velocities



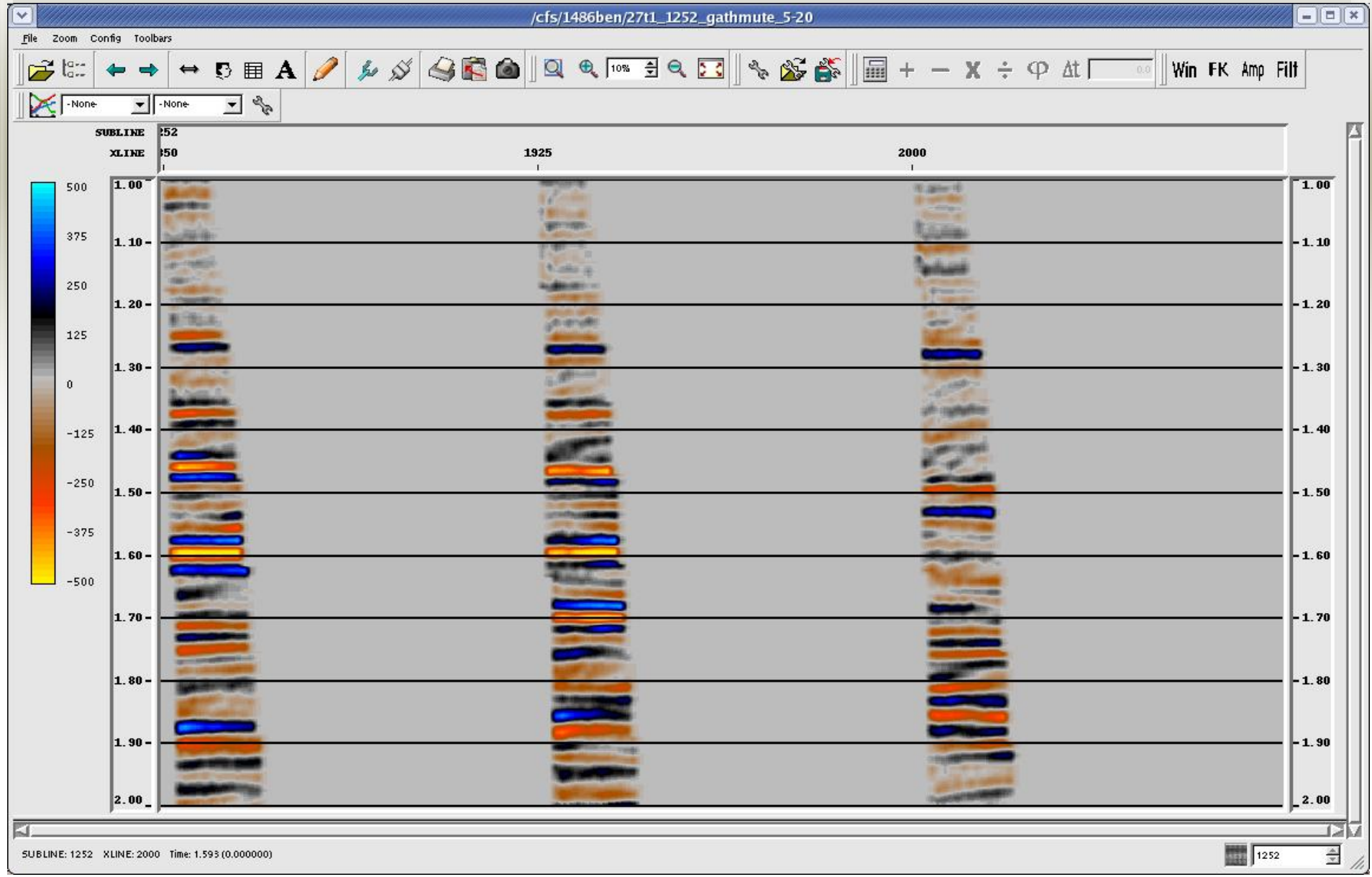
1252 – Angle Gathers (5- 10 deg).



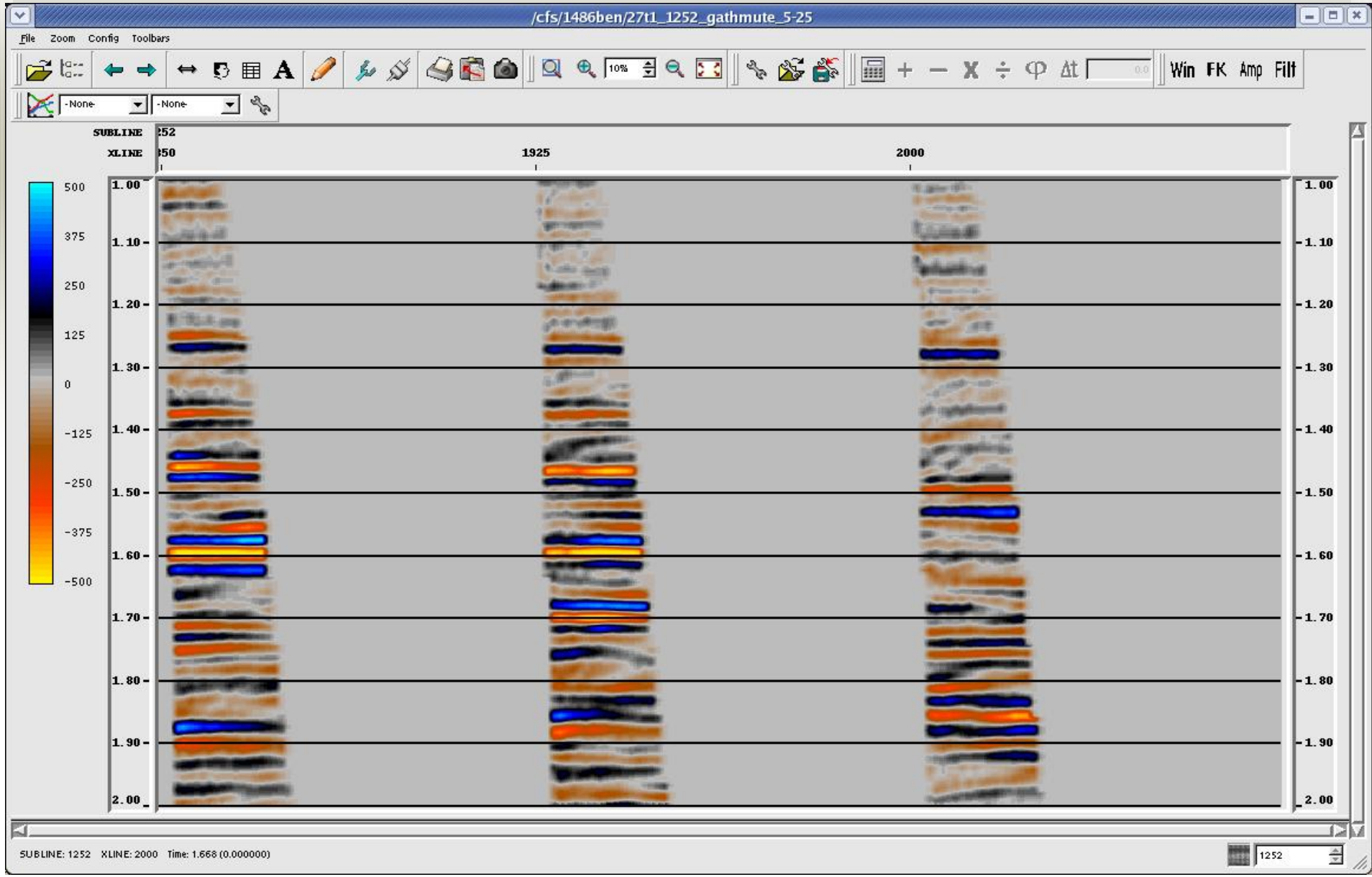
1252 – Angle Gathers (5- 15 deg).



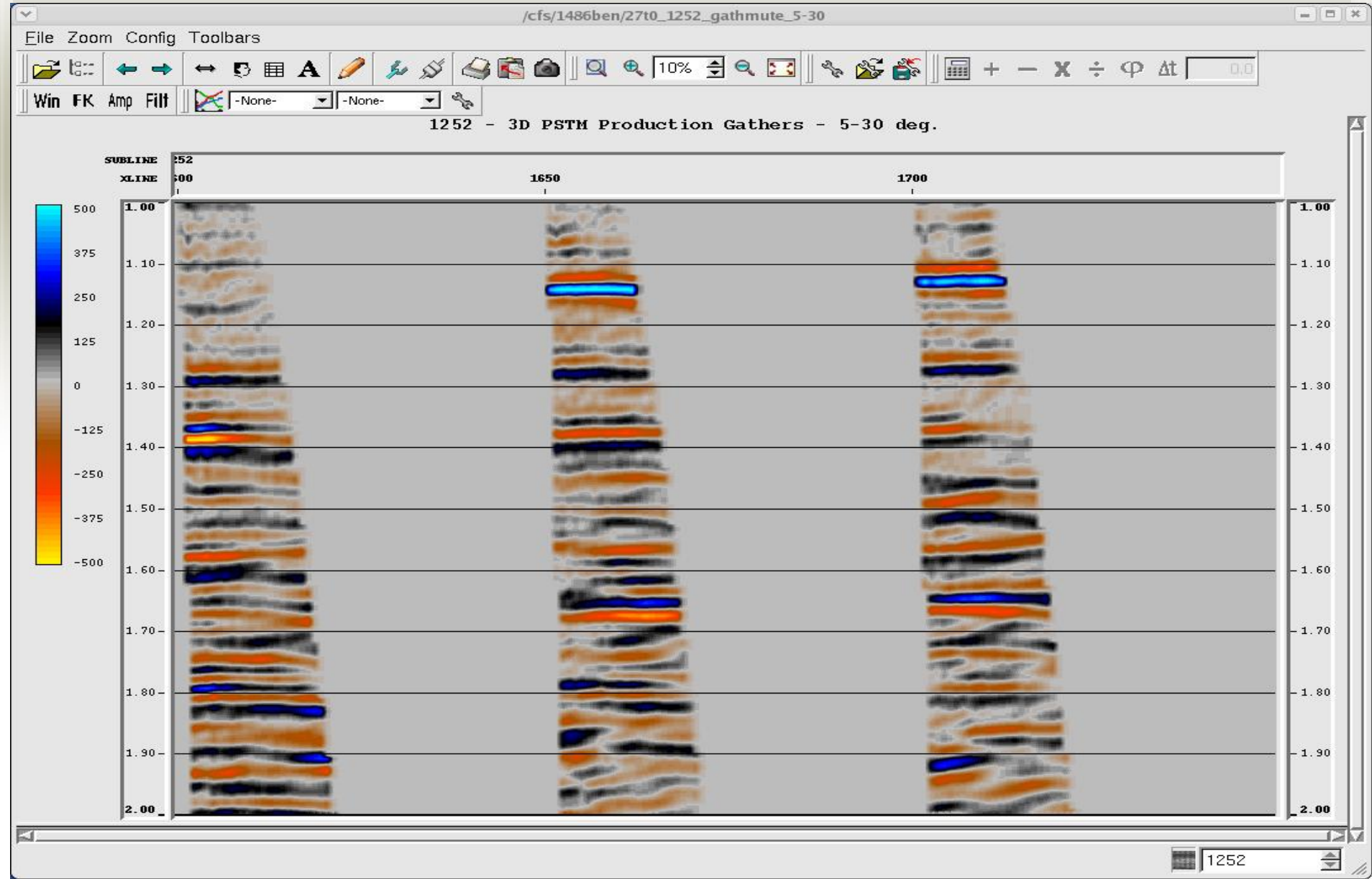
1252 – Angle Gathers (5- 20 deg).



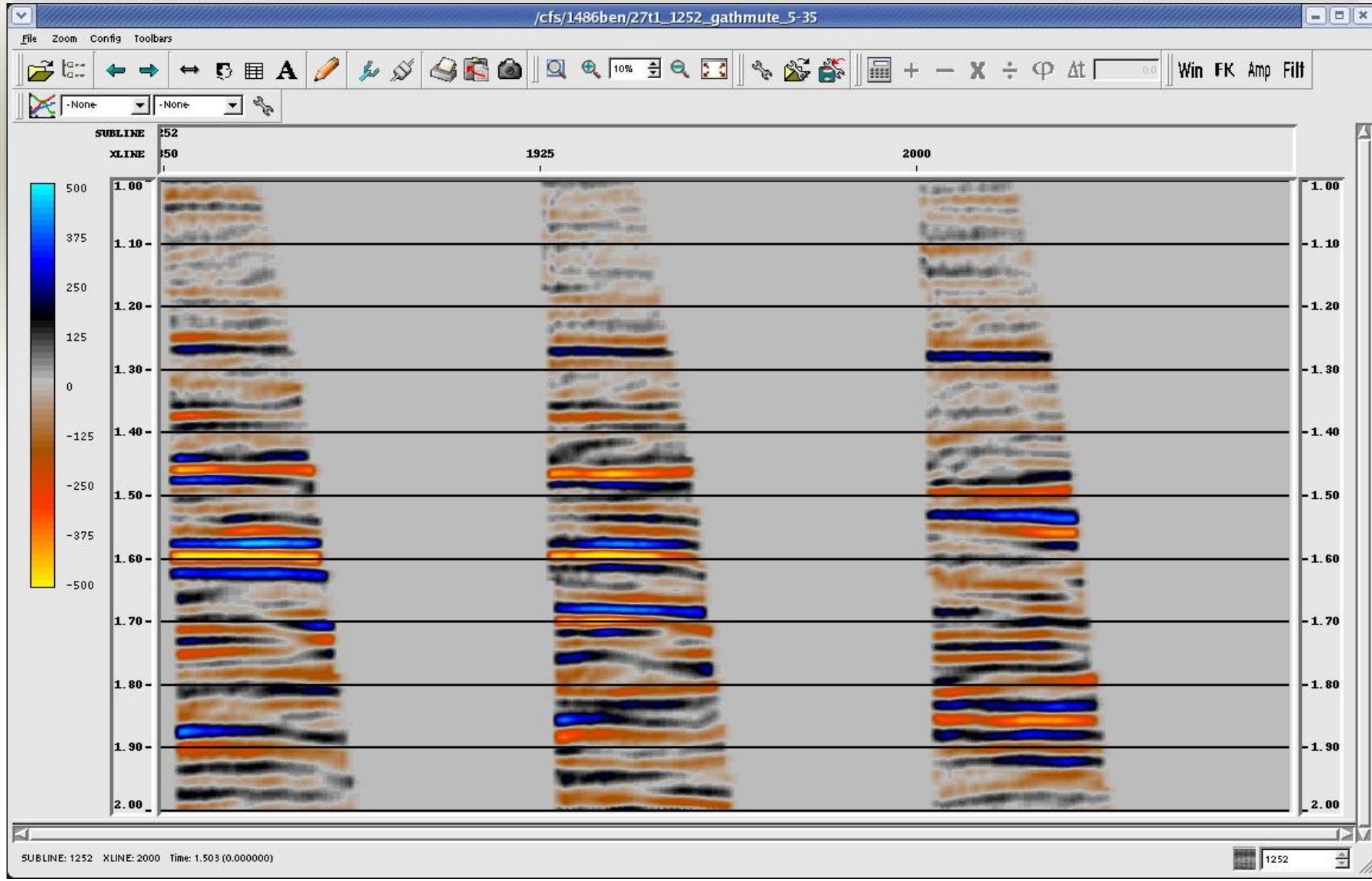
1252 – Angle Gathers (5- 25 deg).



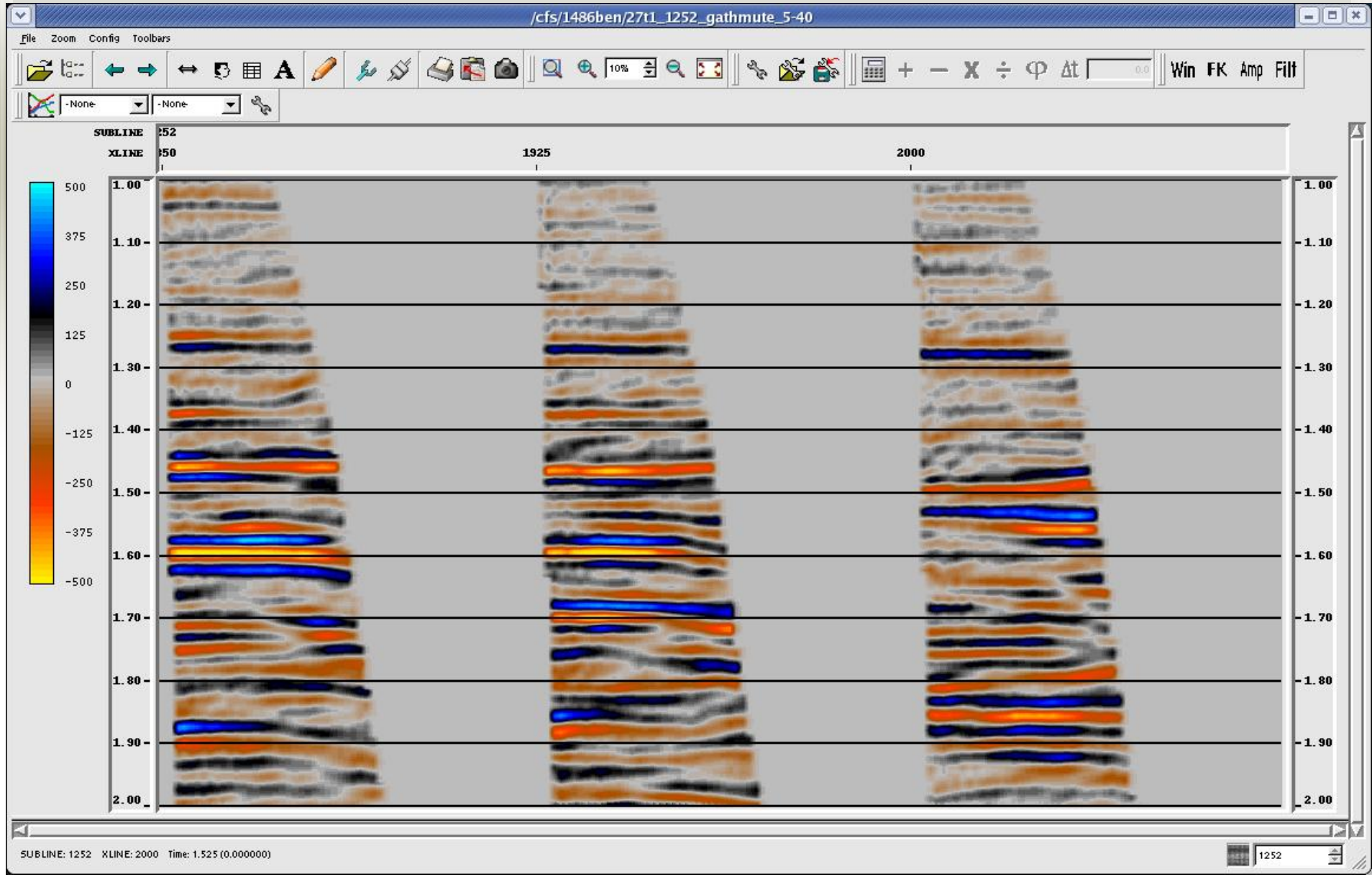
1252 – Angle Gathers (5- 30 deg).



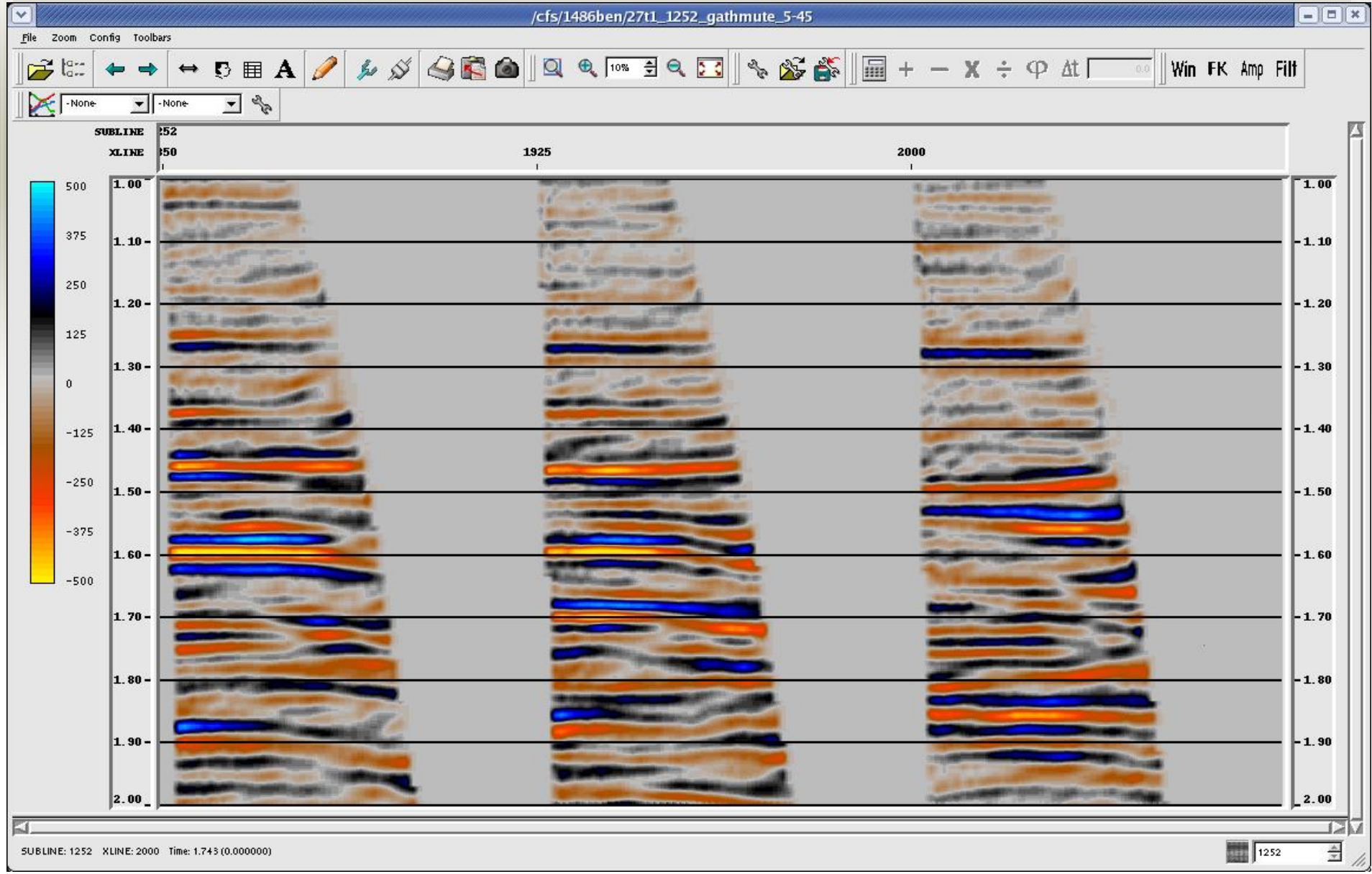
1252 – Angle Gathers (5- 35 deg).



1252 – Angle Gathers (5- 40 deg).



1252 – Angle Gathers (5- 45 deg).



15_Post-vel4comp_stks.ppt

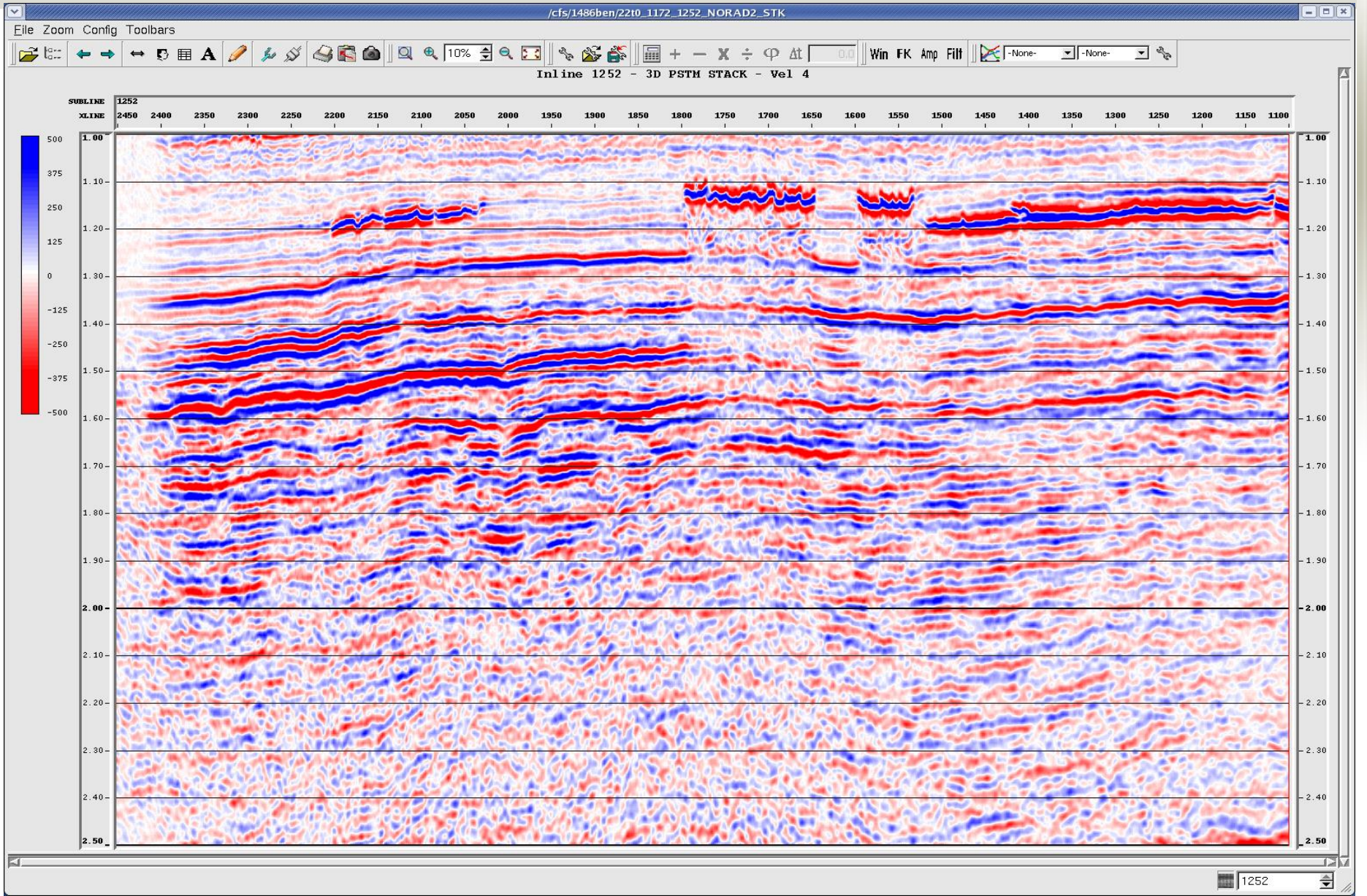
Benaris T/39 P 3D and 2D PSTM QC Stacks 17/02/06

SUMMARY OF CONTENTS

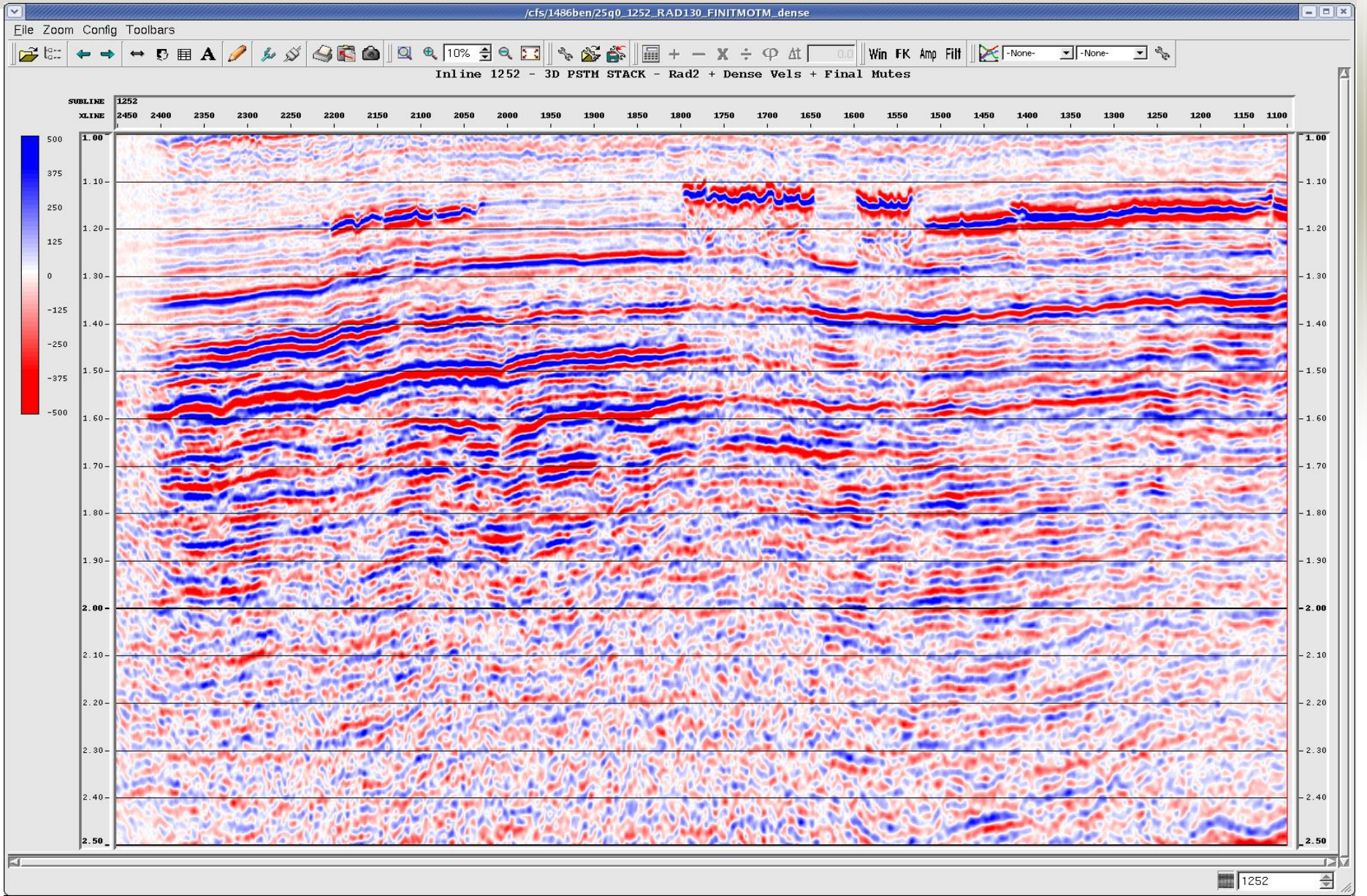
- Review of 3D and 2D PSTM stacks (trace interval 25m) from Vel4 stage to Final Stacking.

- A zero phased version of inline 1252 is included.

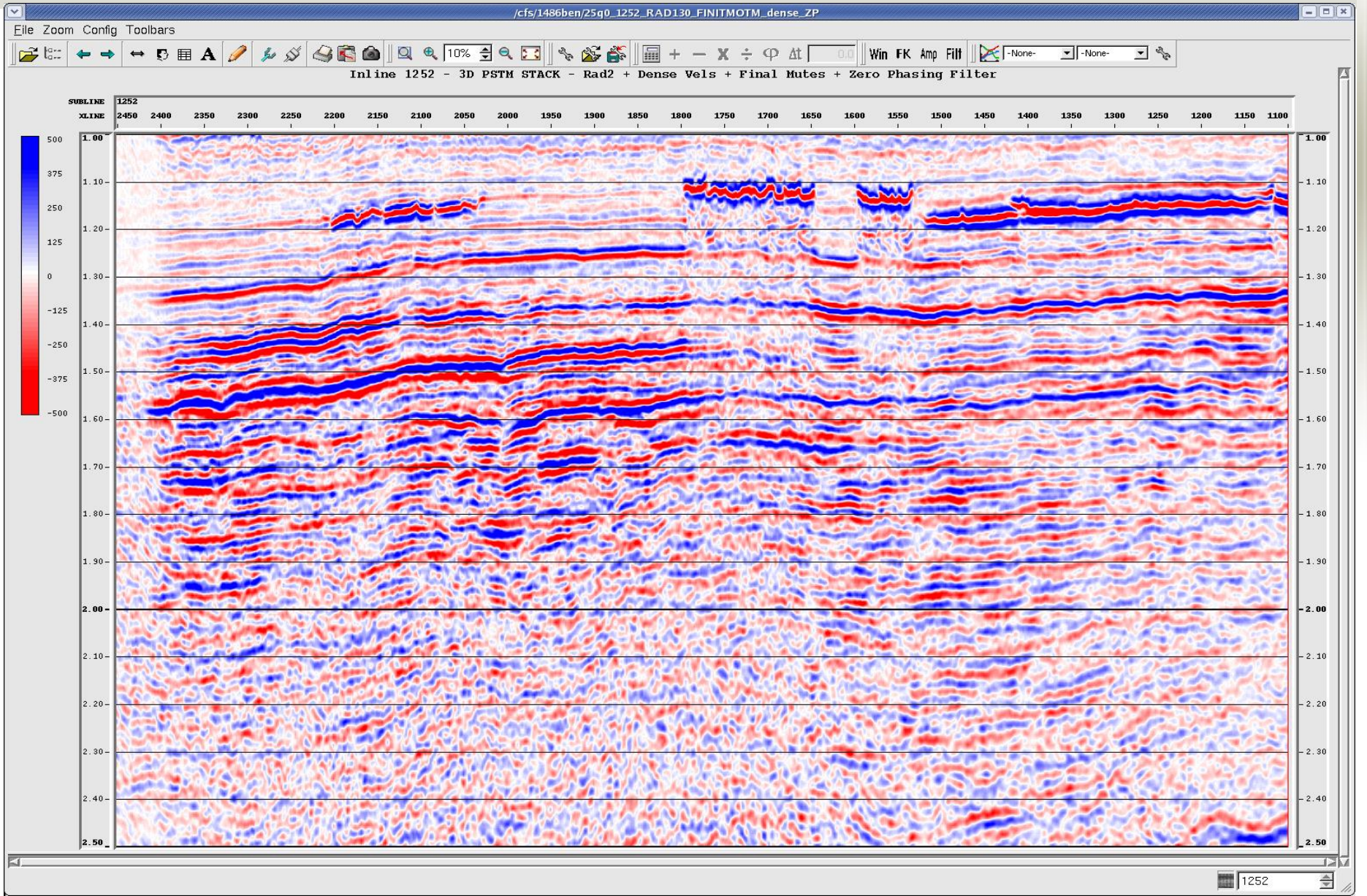
3D Test Inline 1252 – 3D PSTM, Vel4 velocities



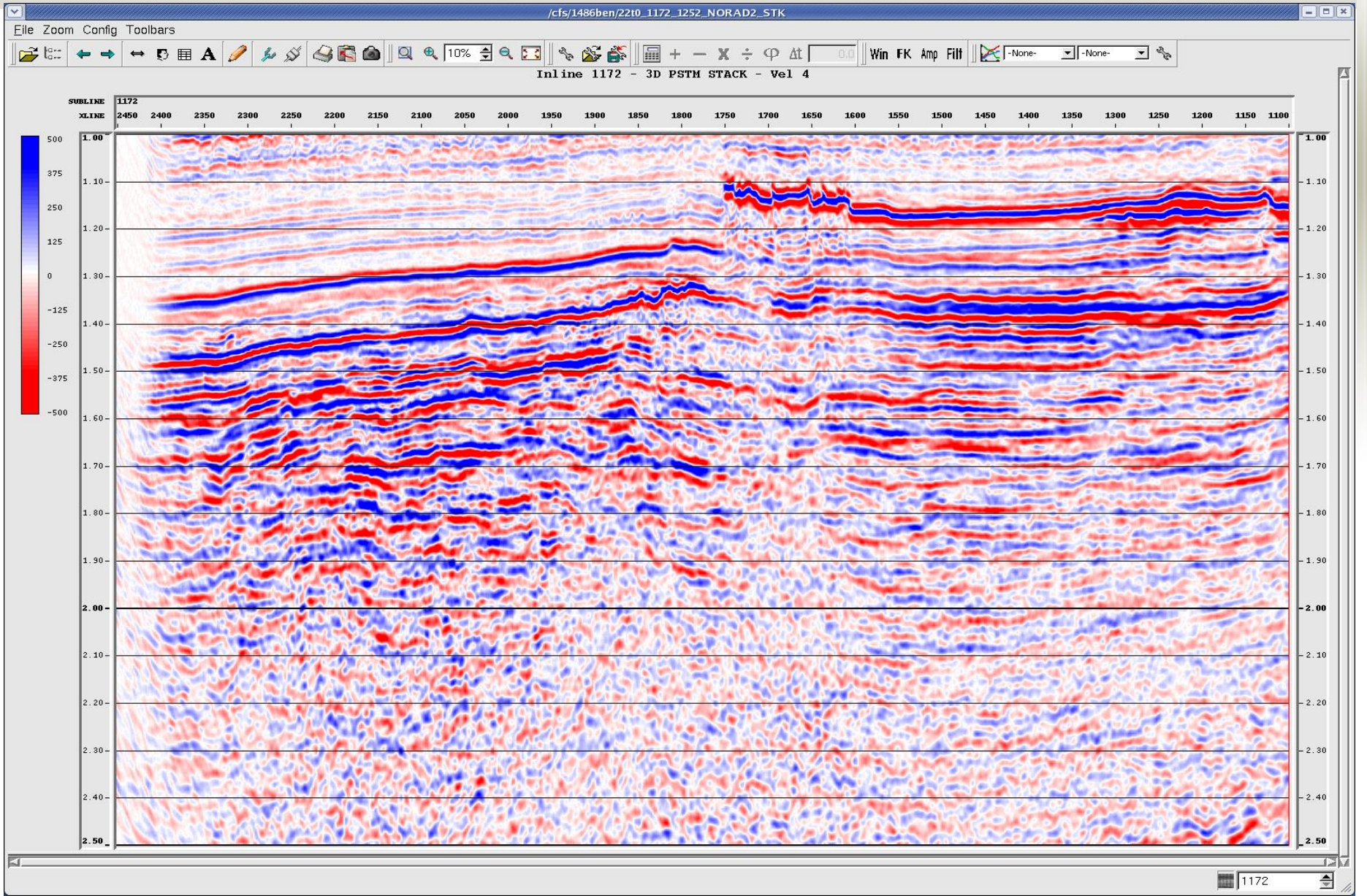
3D Test Inline 1252 – 3D PSTM, Dense velocities+RAD2+Final Mutes



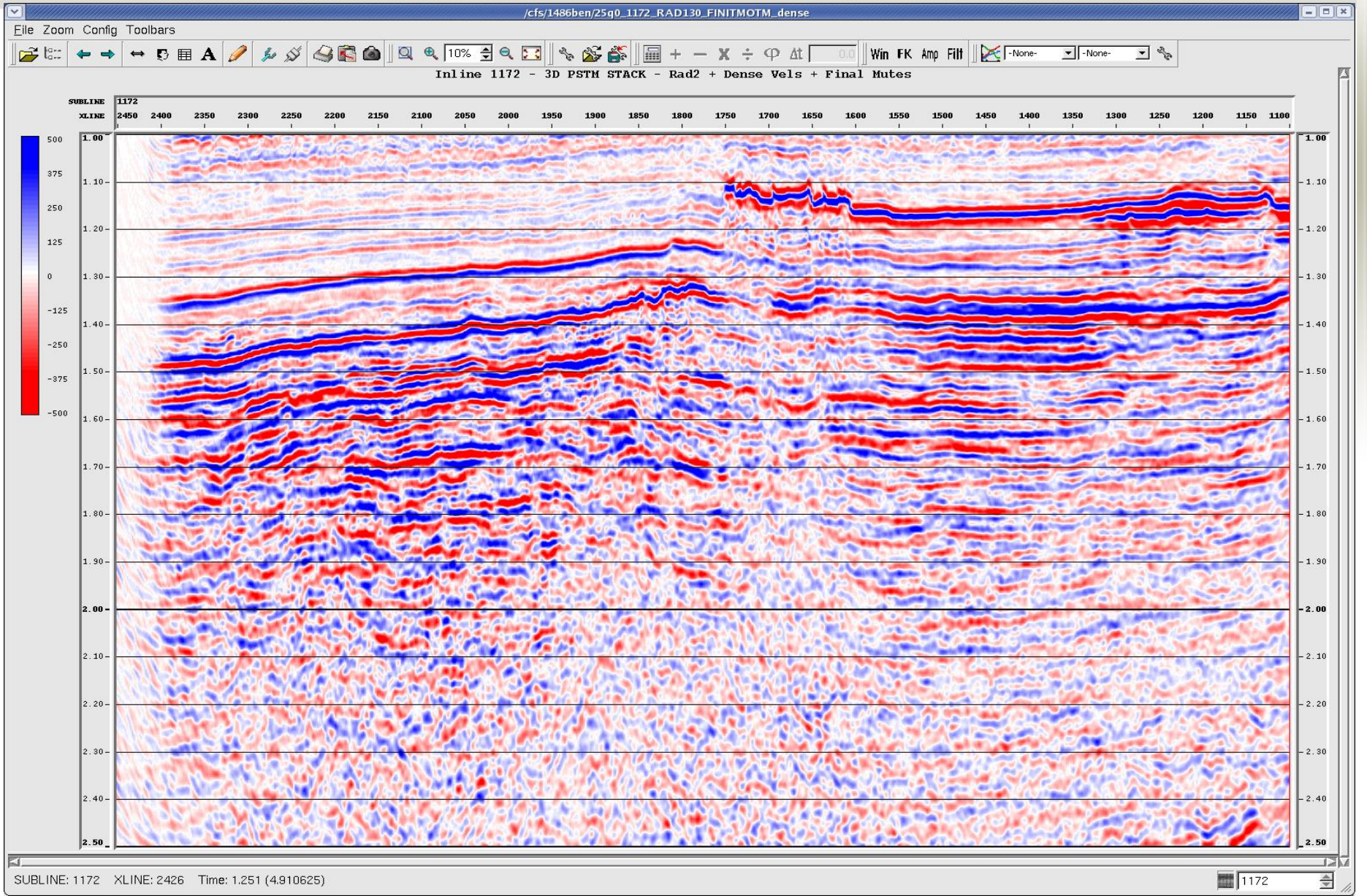
1252 – 3D PSTM, Dense velocities+RAD2+Final Mutes+ZP'ing Filter



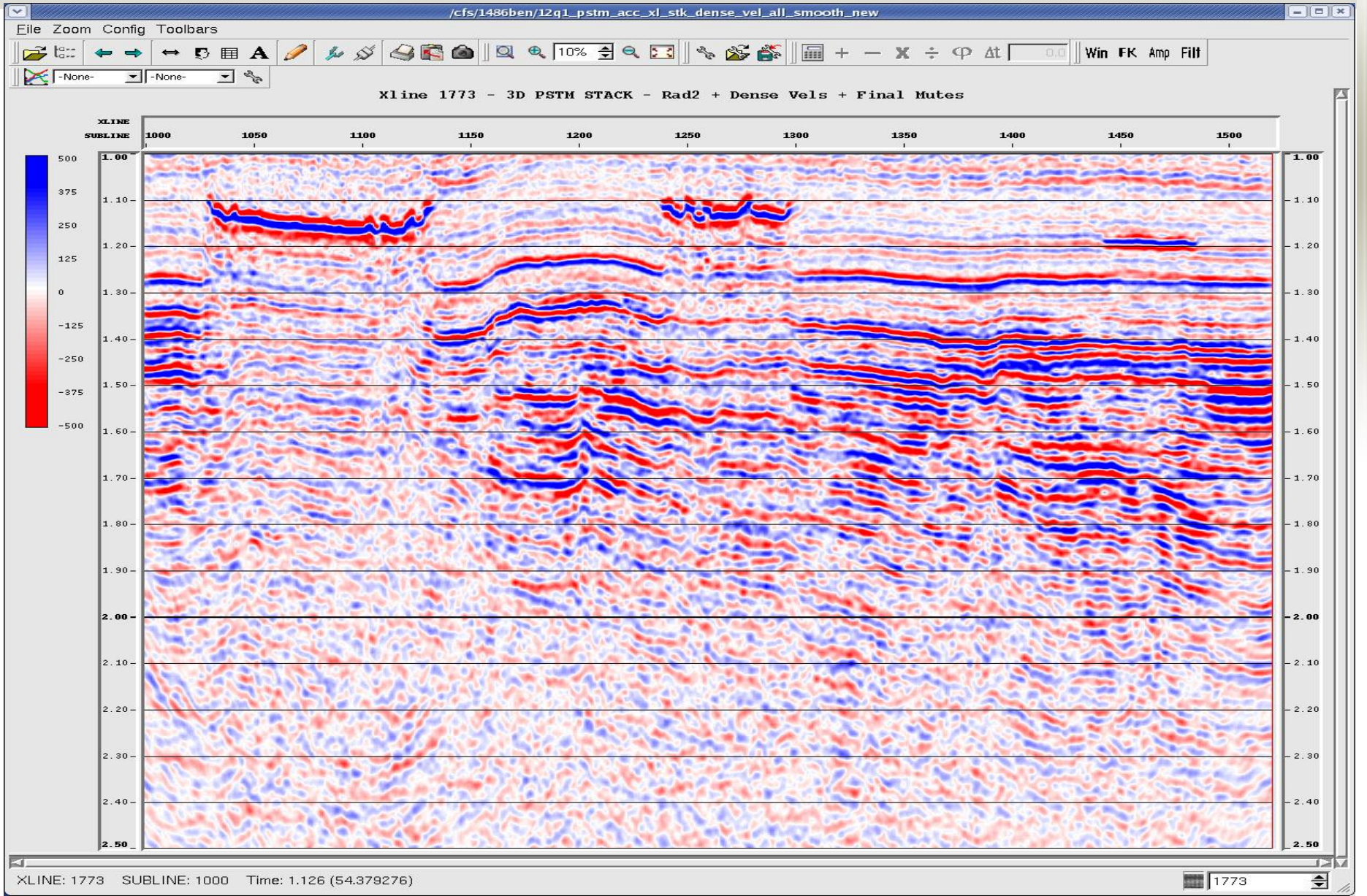
3D Inline 1172 – 3D PSTM, Vel4 velocities



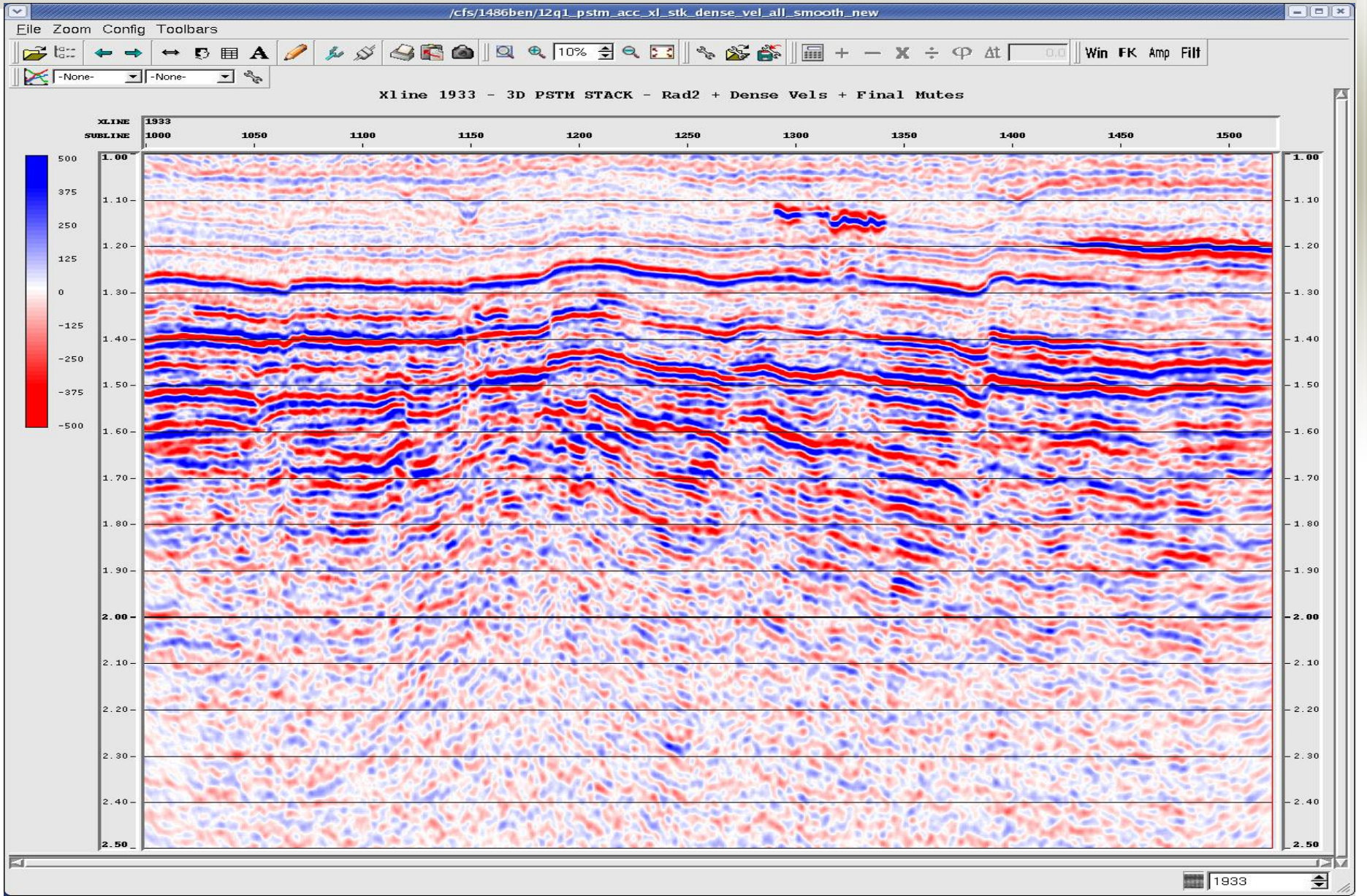
3D Inline 1172 – 3D PSTM, Dense velocities+RAD2+Final Mutes



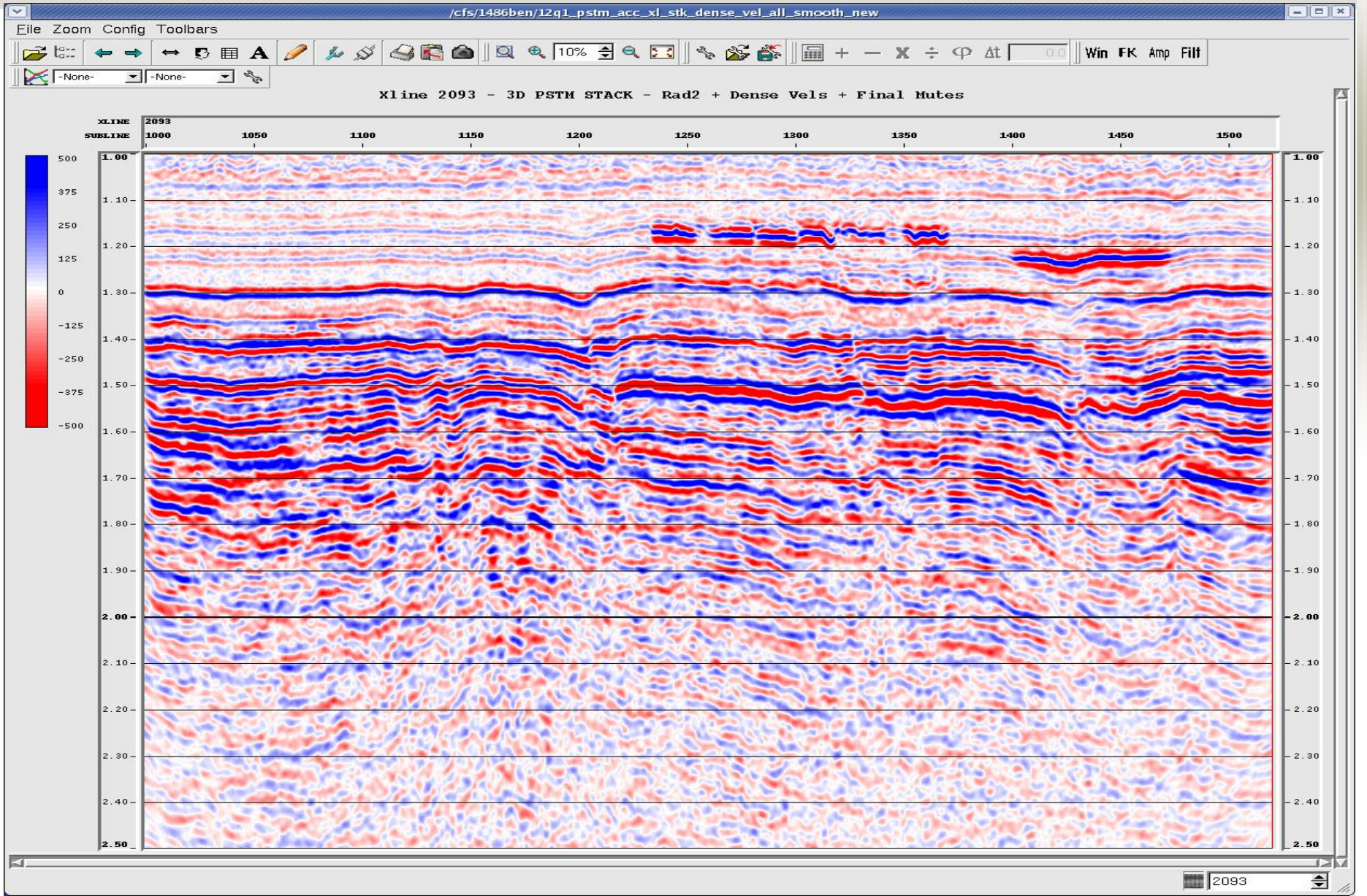
3D Xline 1773 – 3D PSTM, Dense velocities+RAD2+Final Mutes



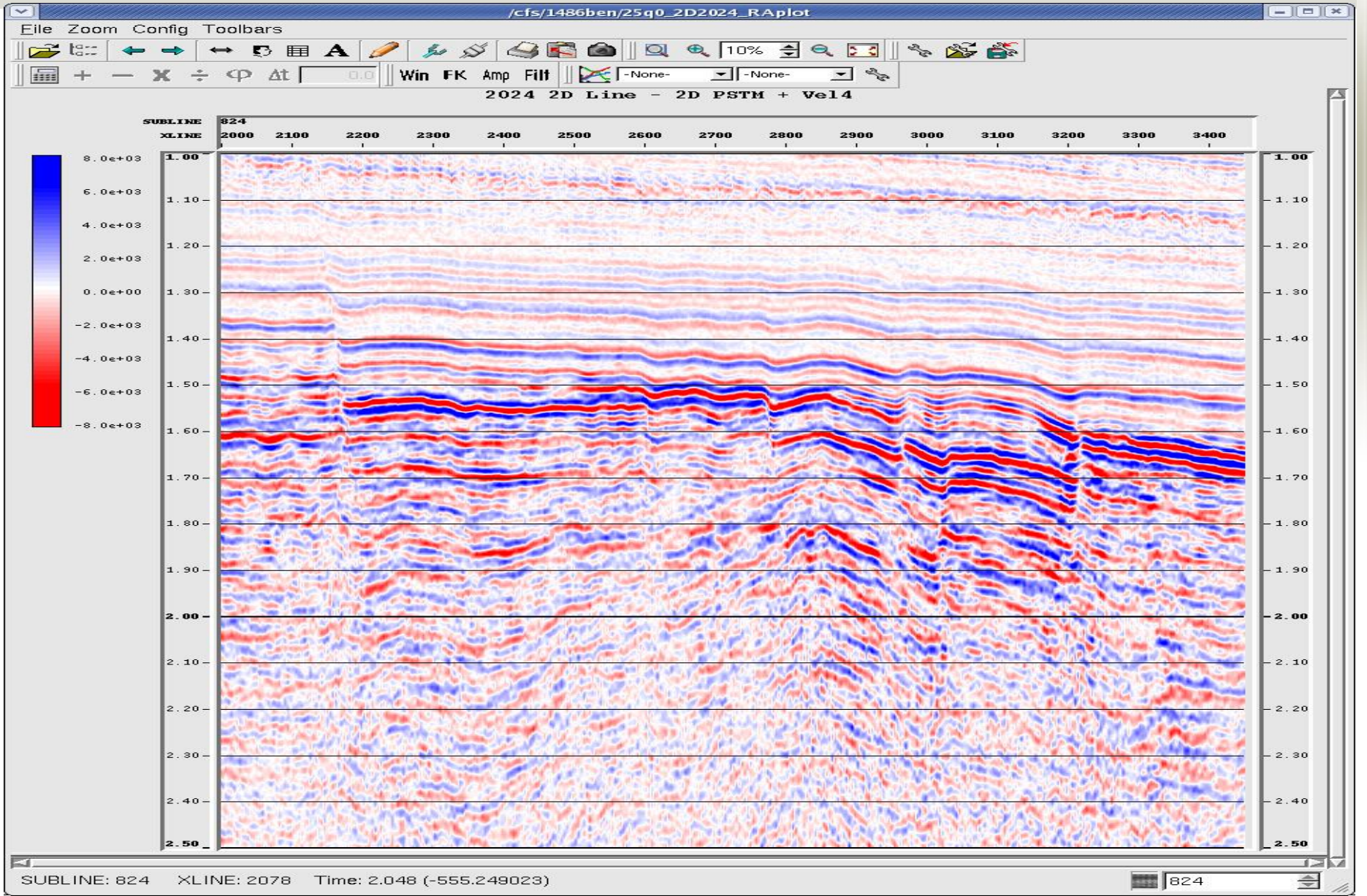
3D Xline 1933 – 3D PSTM, Dense velocities+RAD2+Final Mutes



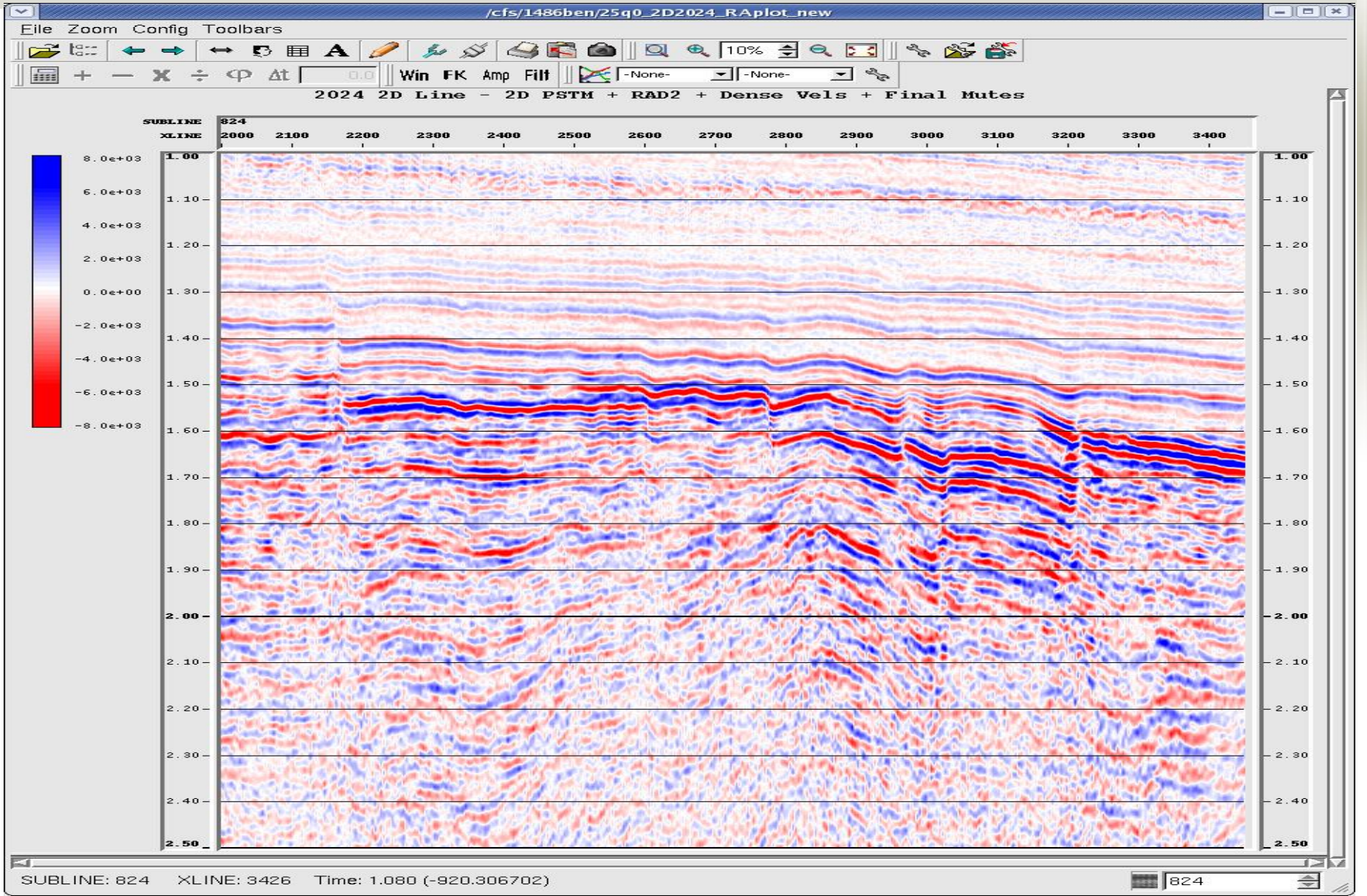
3D Xline 2093 – 3D PSTM, Dense velocities+RAD2+Final Mutes



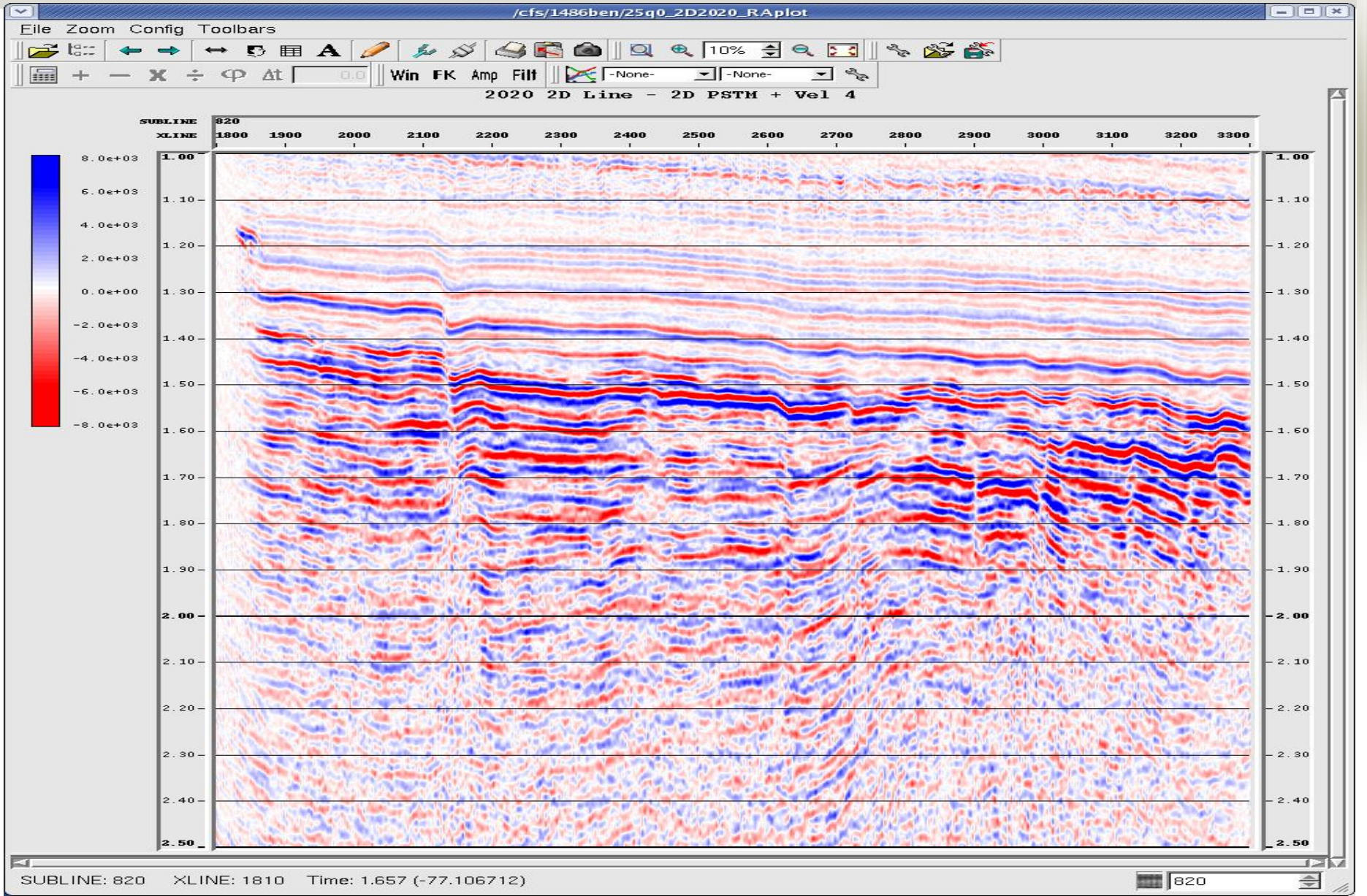
2D Line 2024 –PSTM, Vel4 velocities



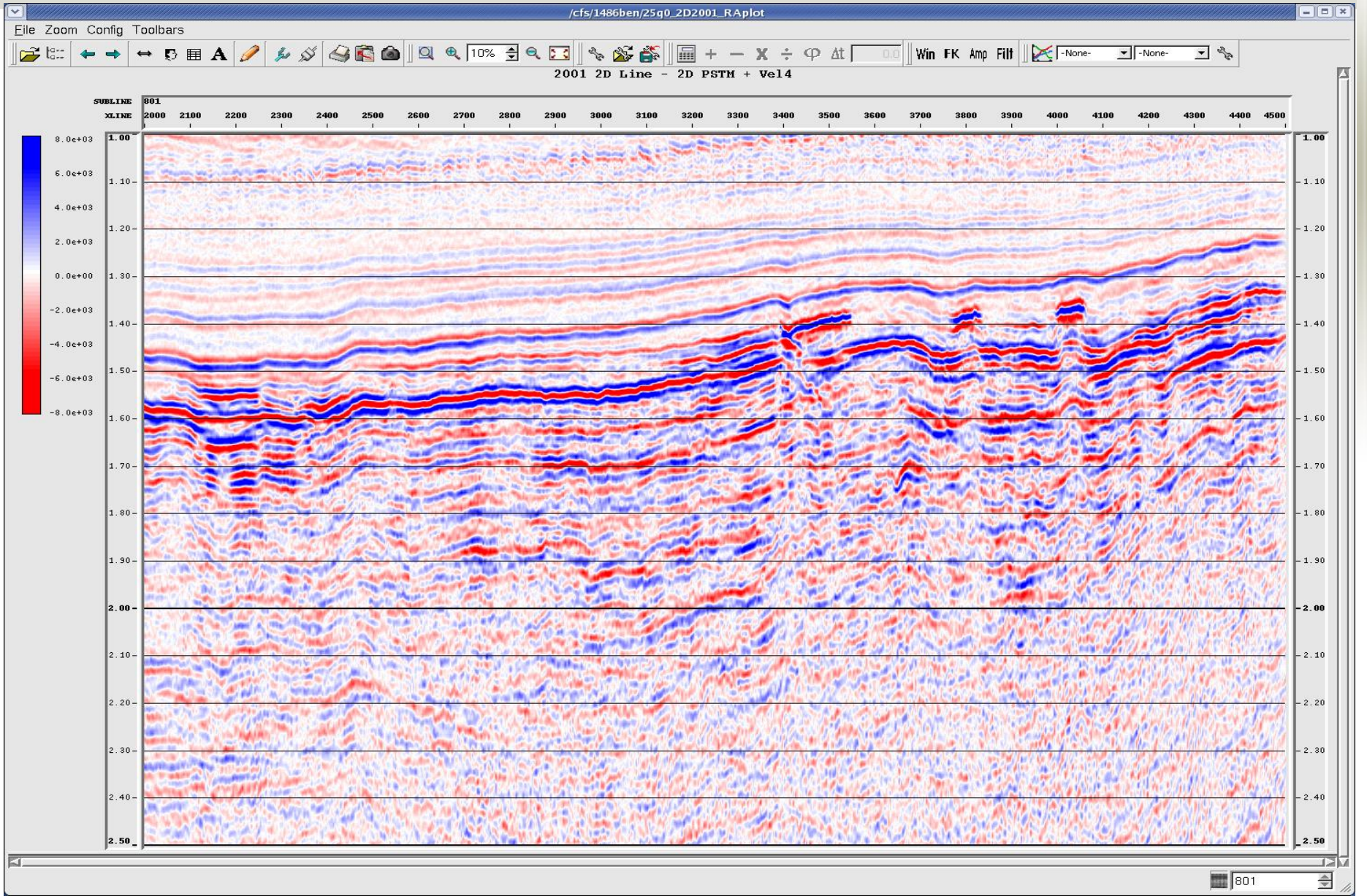
2D Line 2024 –PSTM, Vel4 velocities+RAD2+Final Mutes



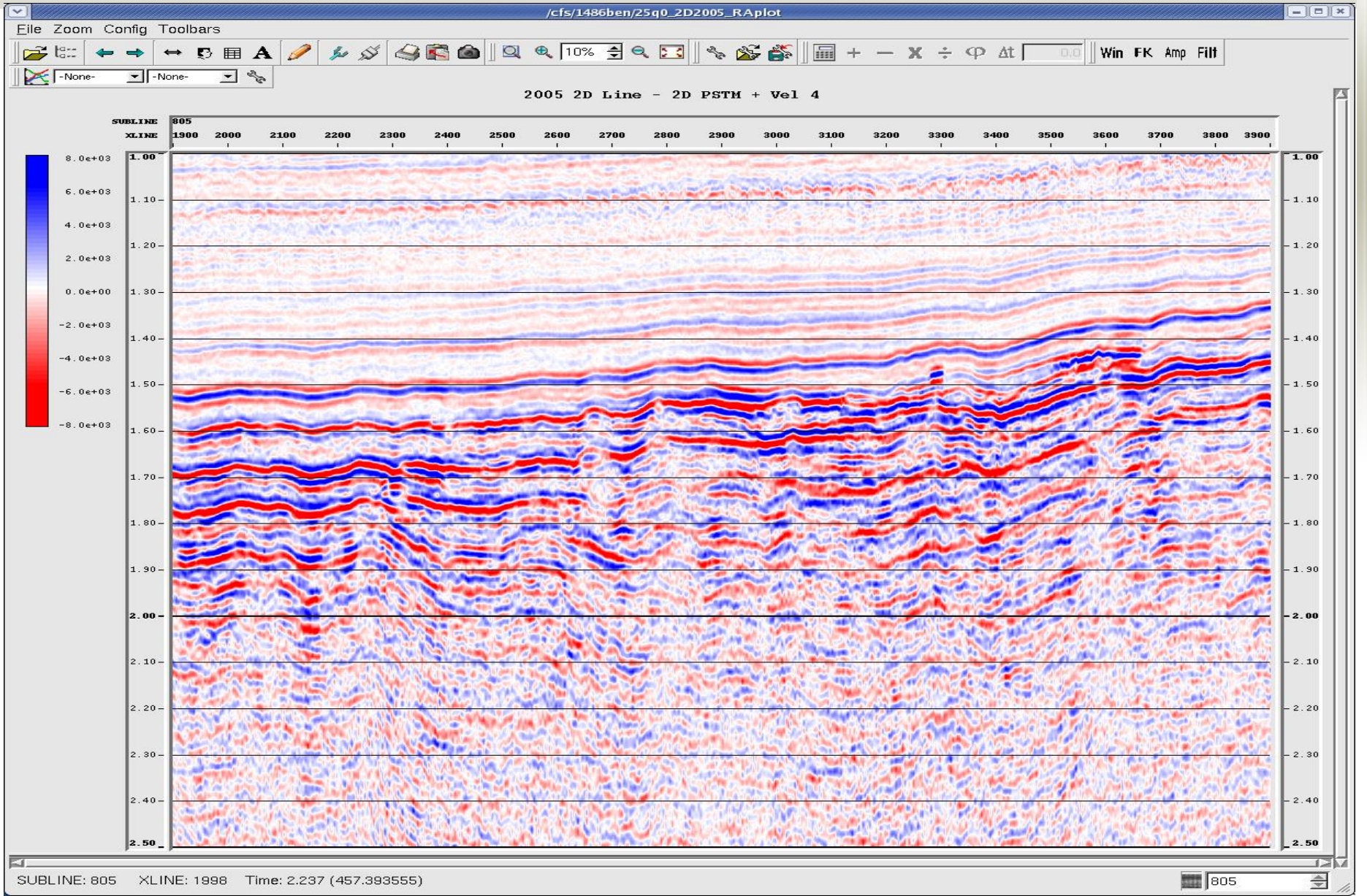
2D Line 2020 –PSTM, Vel4 velocities



2D Line 2001 –PSTM, Vel4 velocities



2D Line 2005 –PSTM, Vel4 velocities



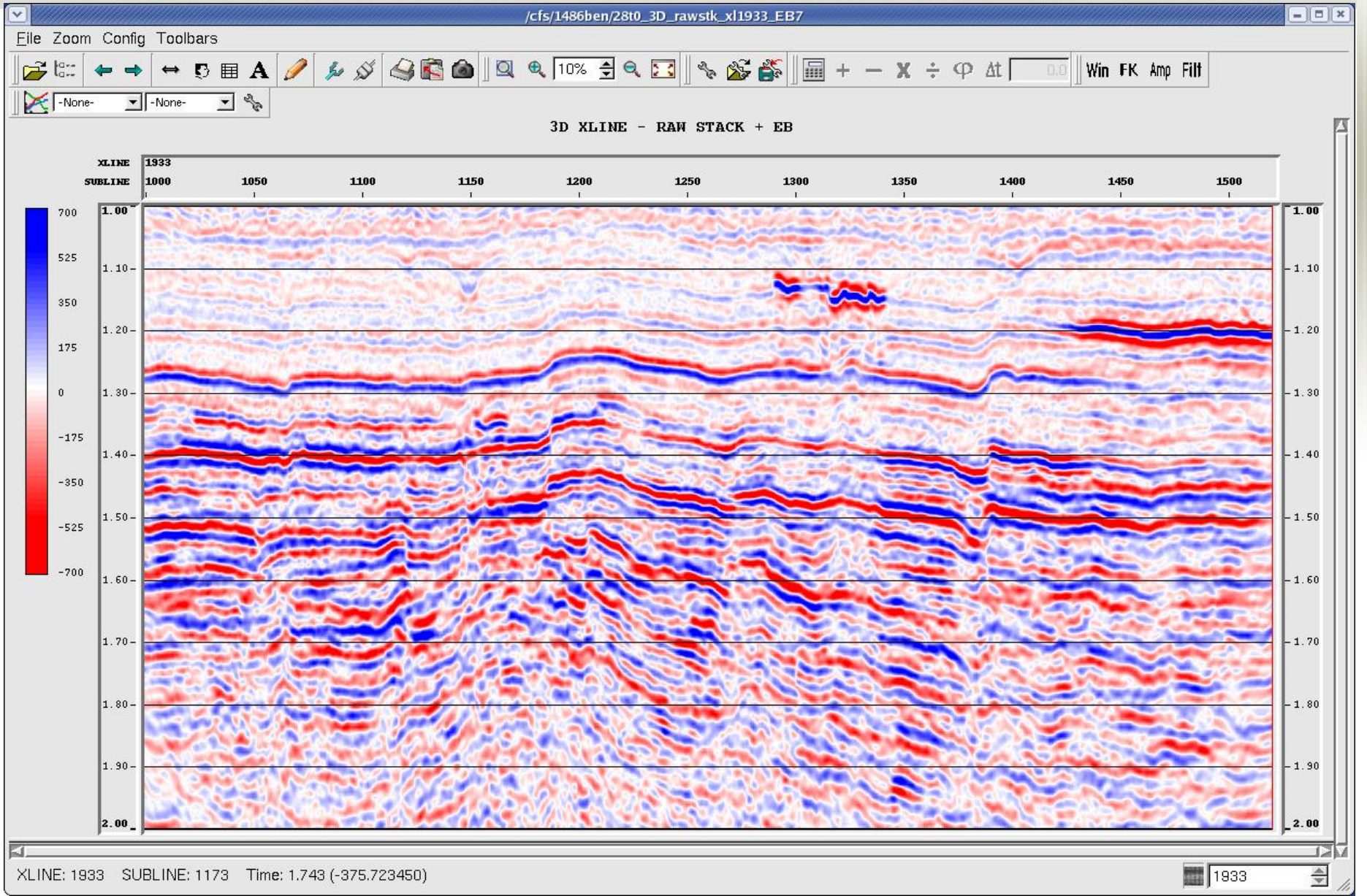
16_ZP_Q_comp.ppt

Benaris T/39 P 3D Post-stk Zero-phasing and Q compensation
01/03/06

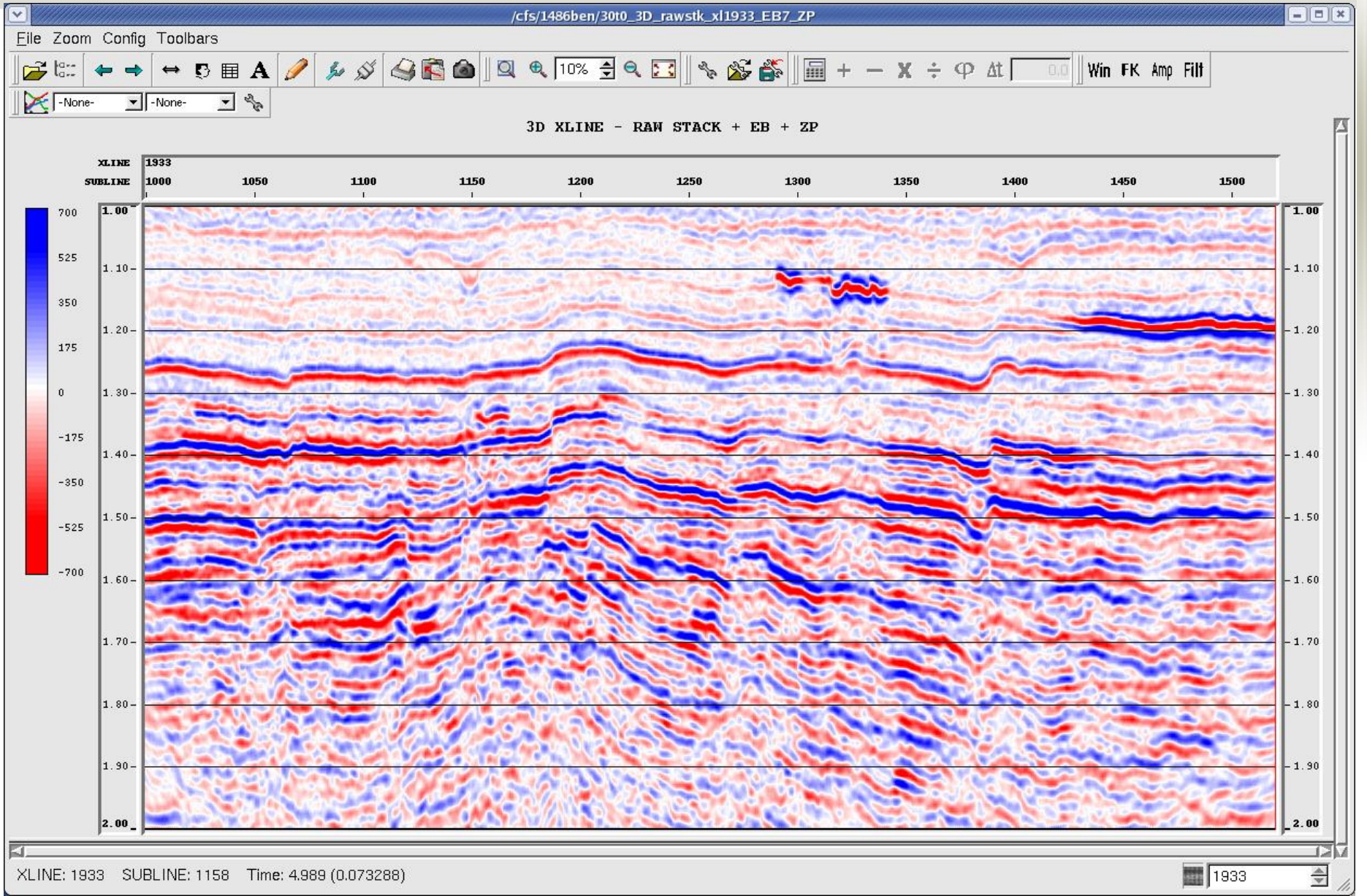
SUMMARY OF CONTENTS

- Test comparisons on xline 1933. The ‘EB’ (ensemble balance) applied is to deal with the acquisition footprint in the shallow part of the section.

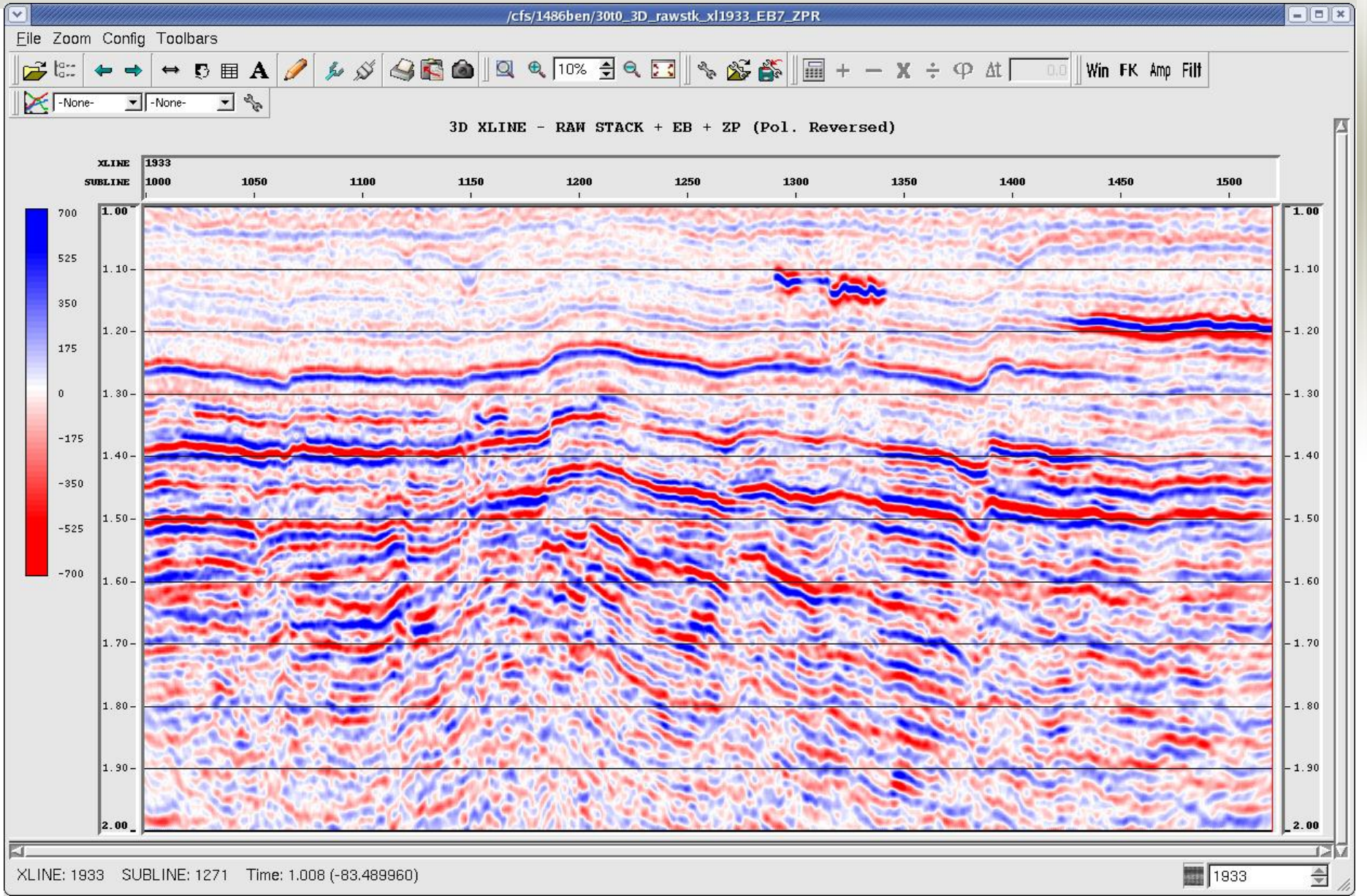
3D Xline 1933 – Raw Stack (MP)



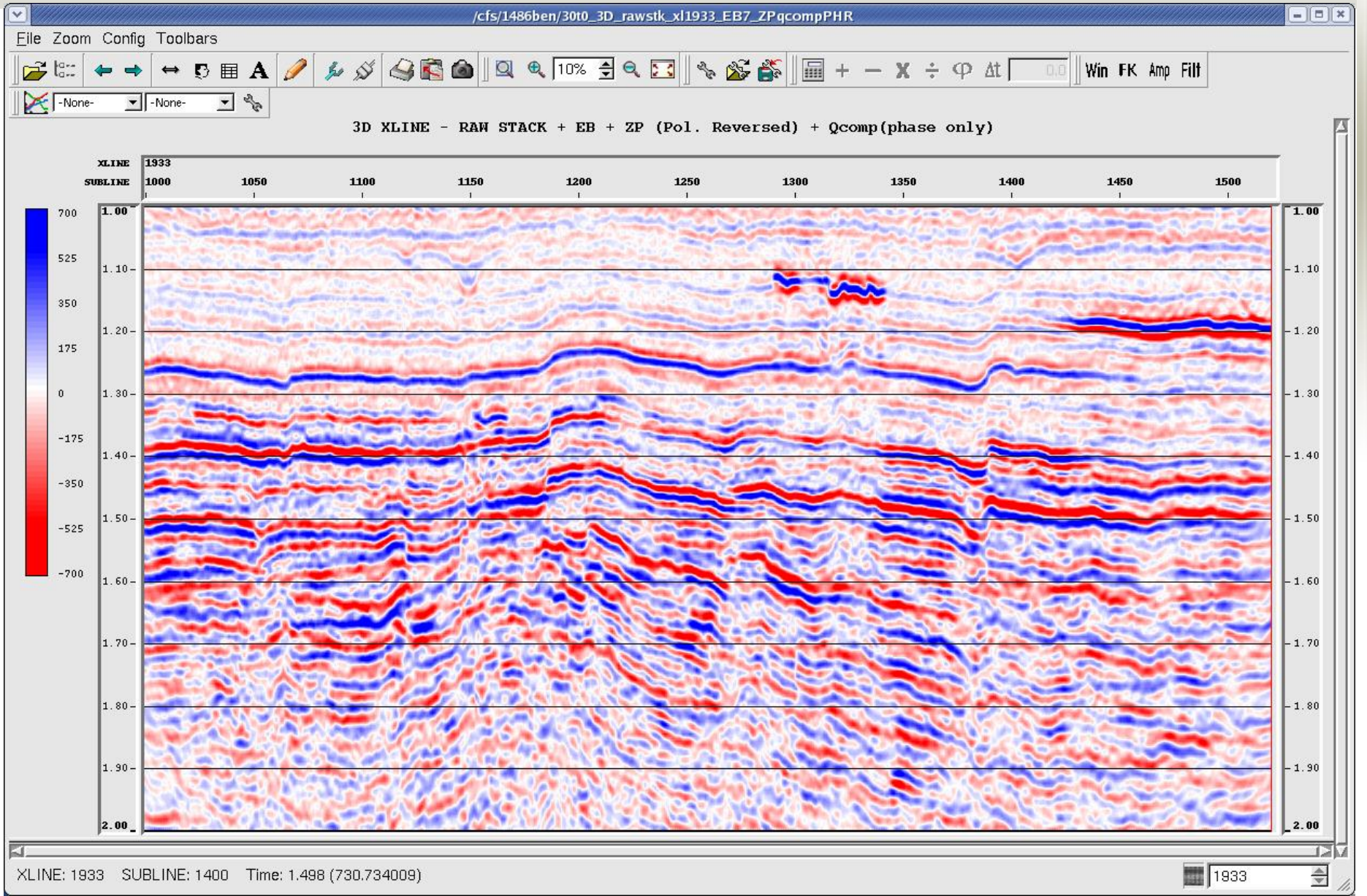
3D Xline 1933 – Raw Stack (ZP)



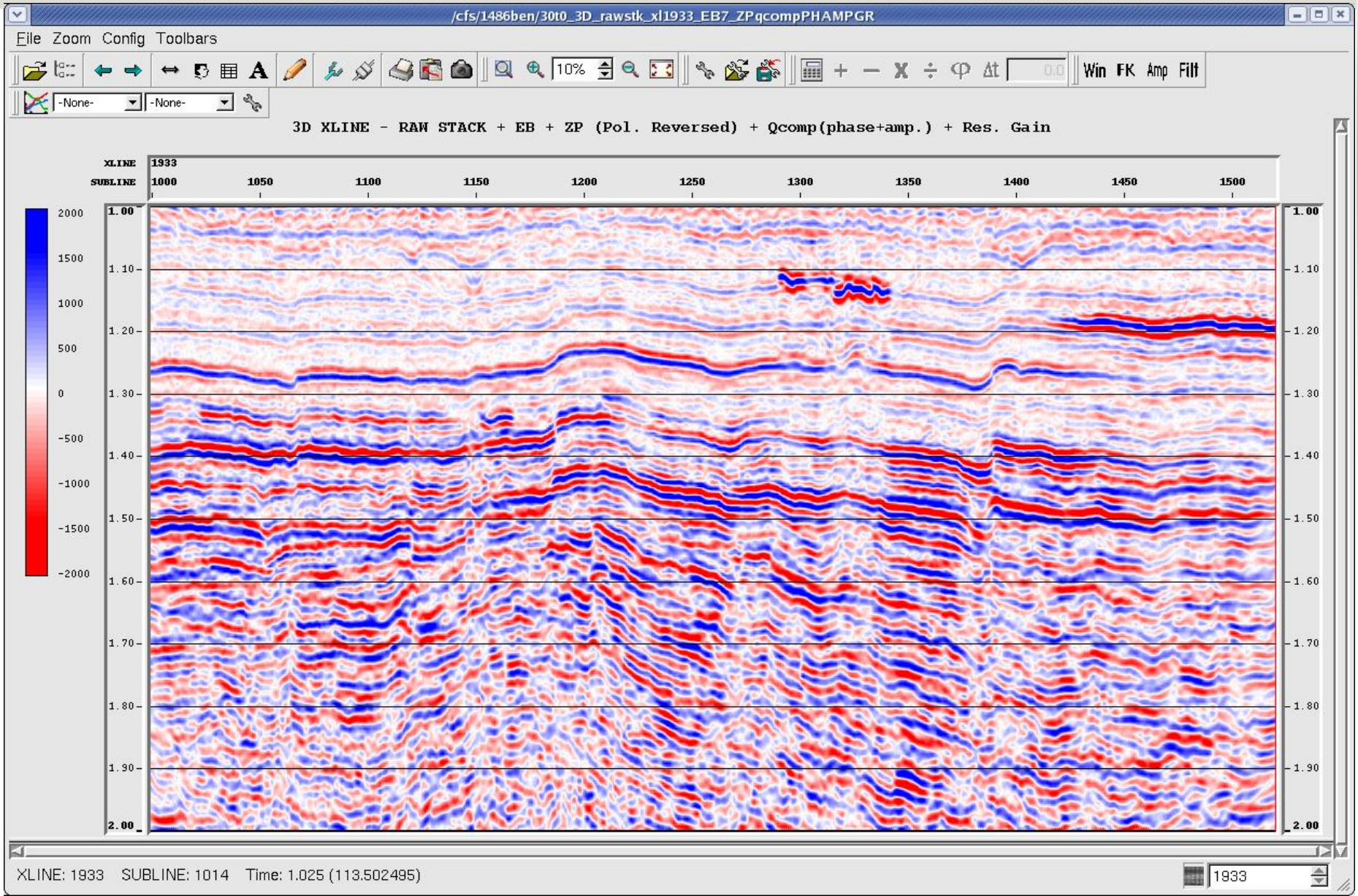
3D Xline 1933 – Raw Stack (ZP – Polarity Reversed)



3D Xline 1933 – Raw Stack (ZP – Polarity Reversed) + Q(Ph only)



3D Xline 1933 – Raw Stack (ZP – Polarity Reversed) + Q(Ph+Amp)



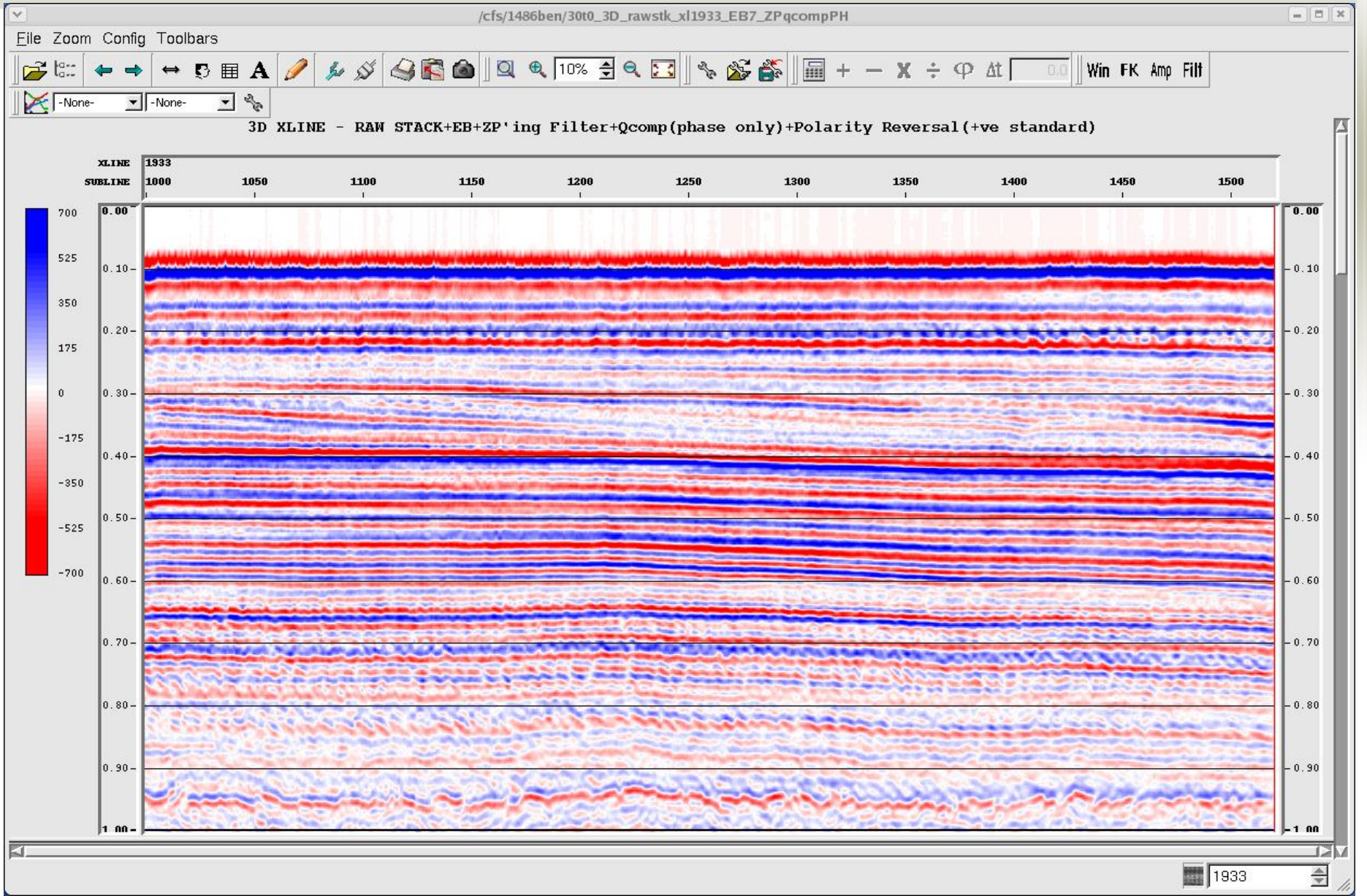
17_DAS.ppt

Benaris T/39 P 3D – DAS Conclusion 02/03/06

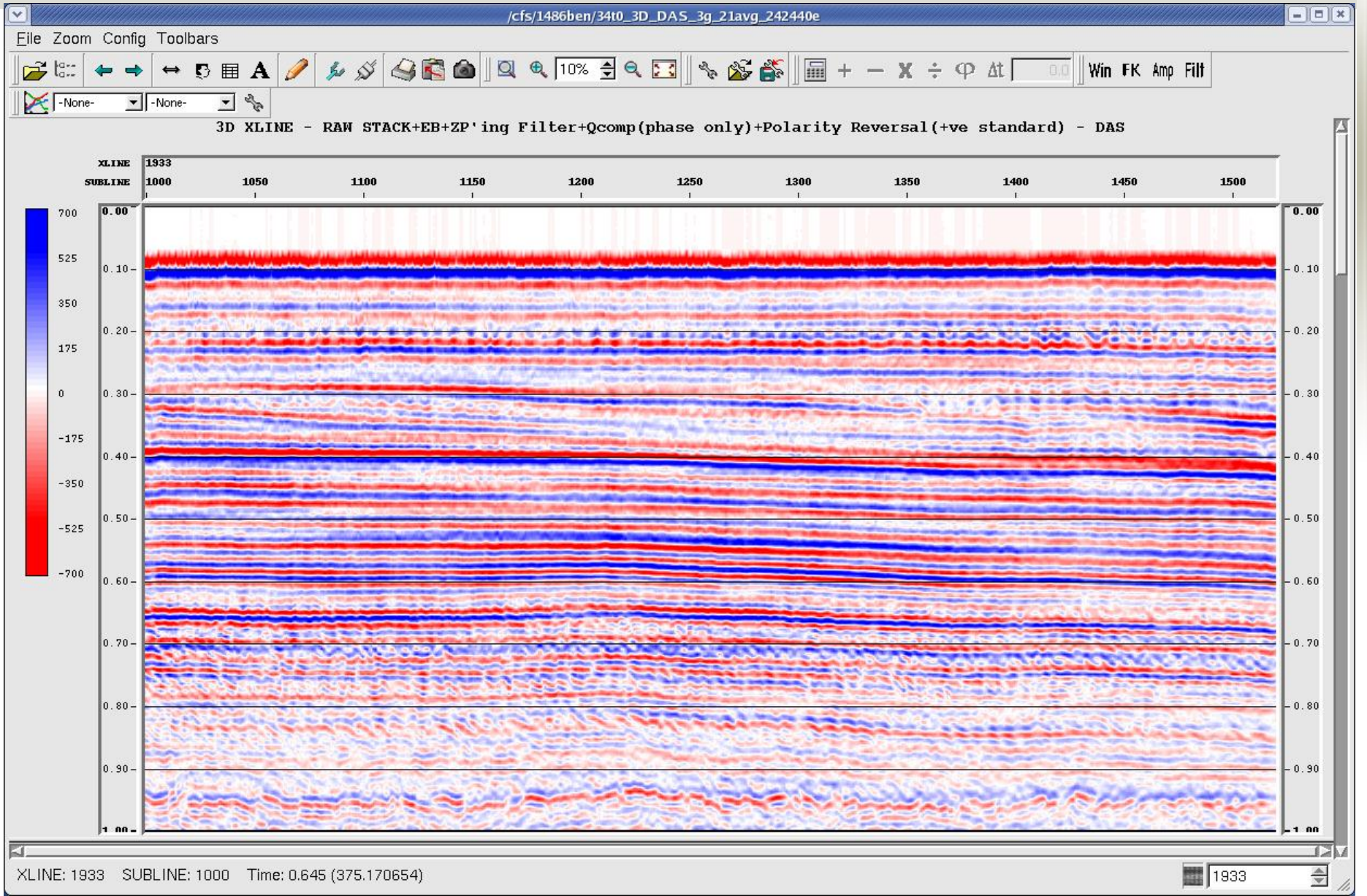
SUMMARY OF CONTENTS

- Summary of DAS Test comparisons on xline 1933. The preferred DAS was a 3-gate design/application (shallow, zone of interest, deep) with operators 24+100, 24+100 and 40+84 ms (gap+active length). The operator was an average over 21 traces.

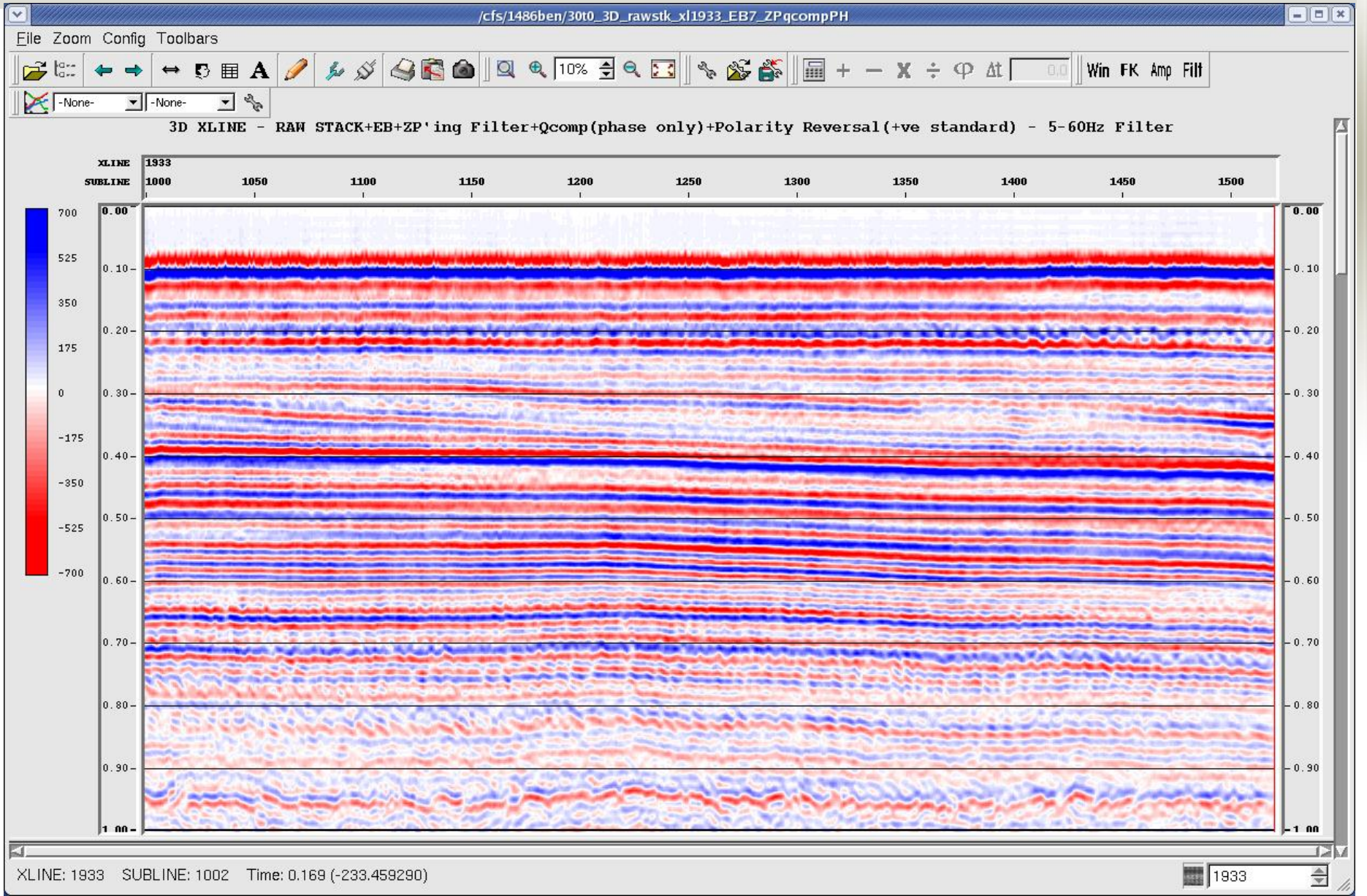
3D Xline 1933 – NO DAS



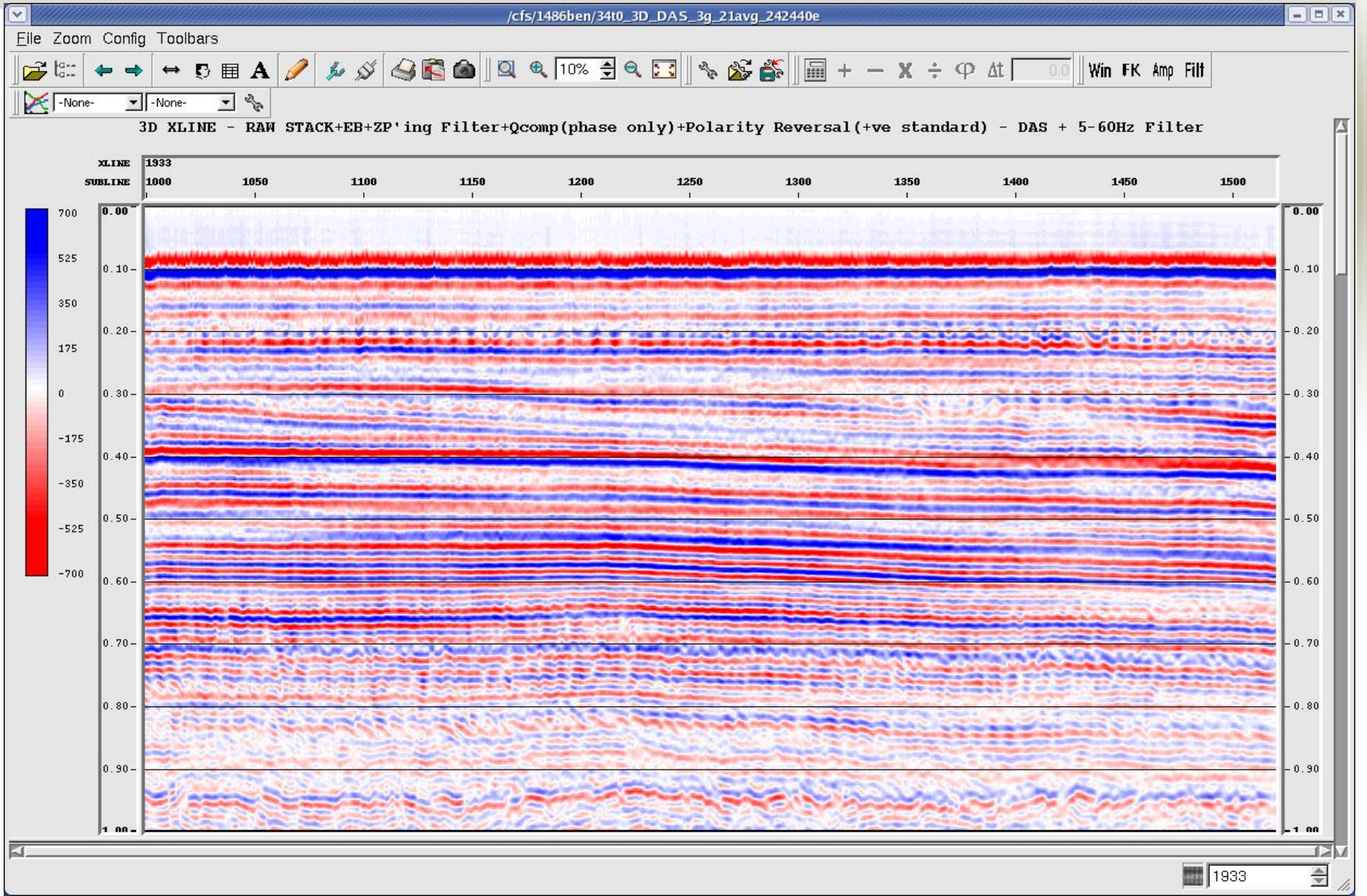
3D Xline 1933 – Preferred DAS



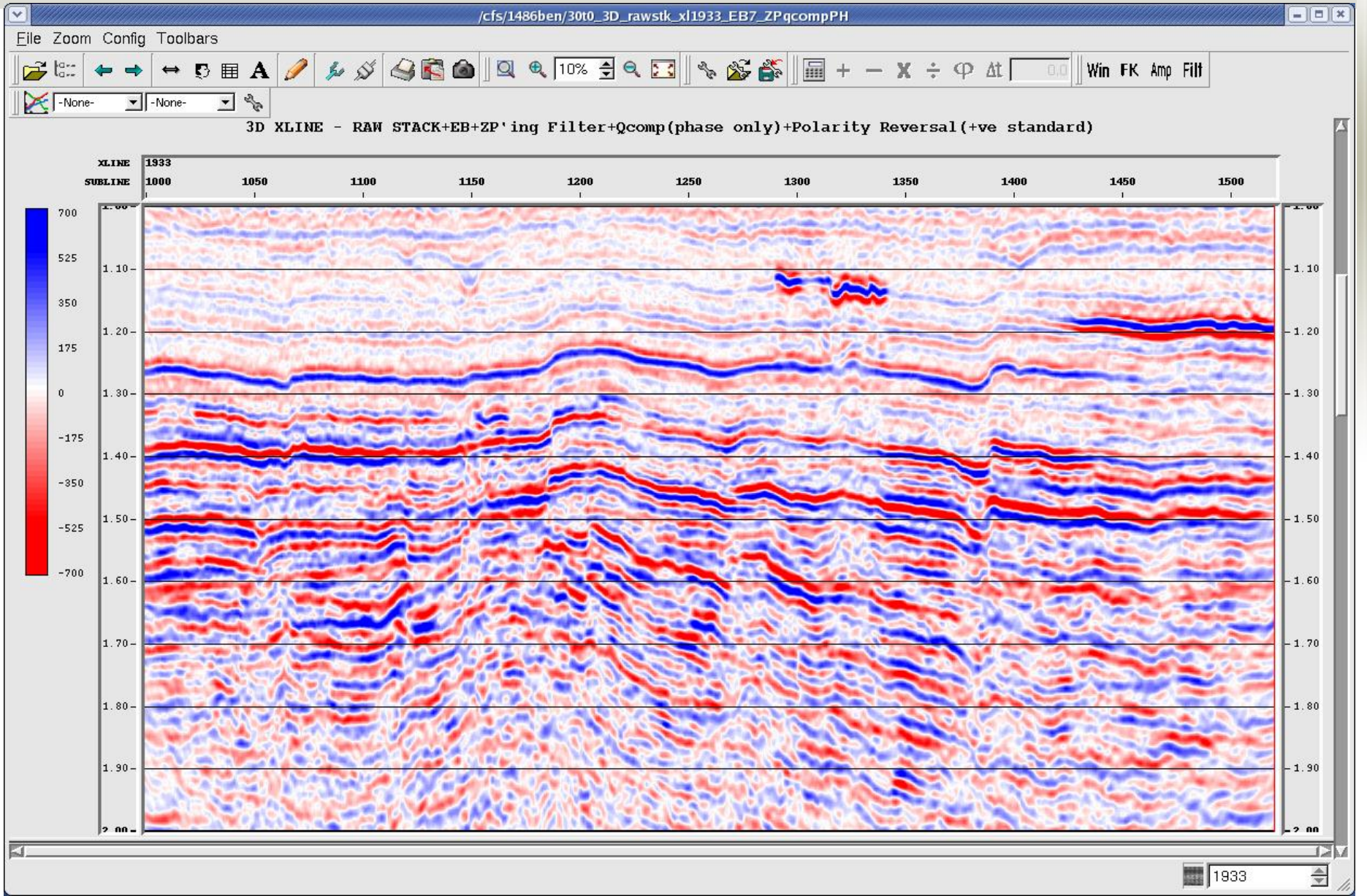
3D Xline 1933 – NO DAS + 5-60Hz filter



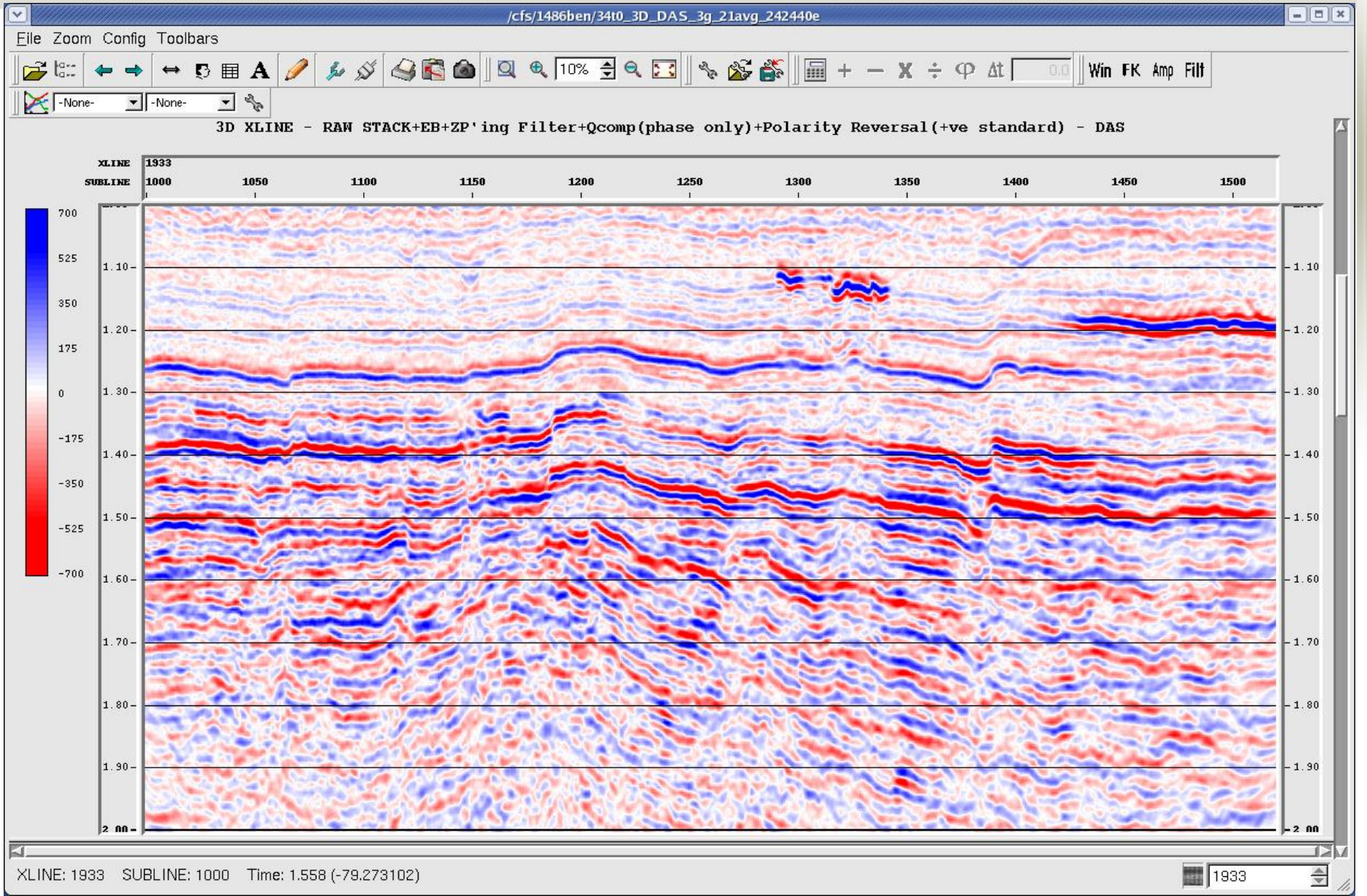
3D Xline 1933 – DAS + 5-60Hz filter



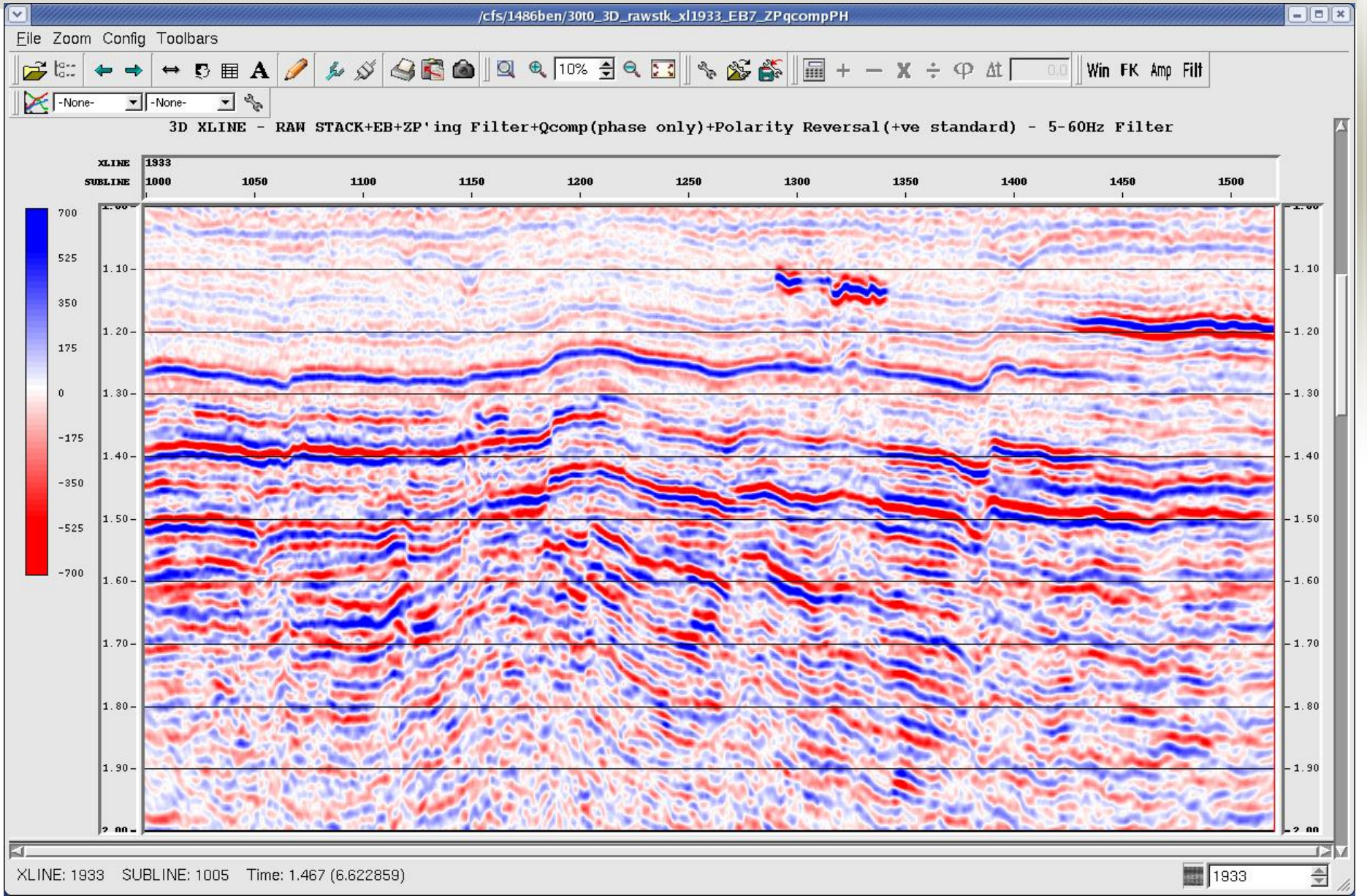
3D Xline 1933 – NO DAS



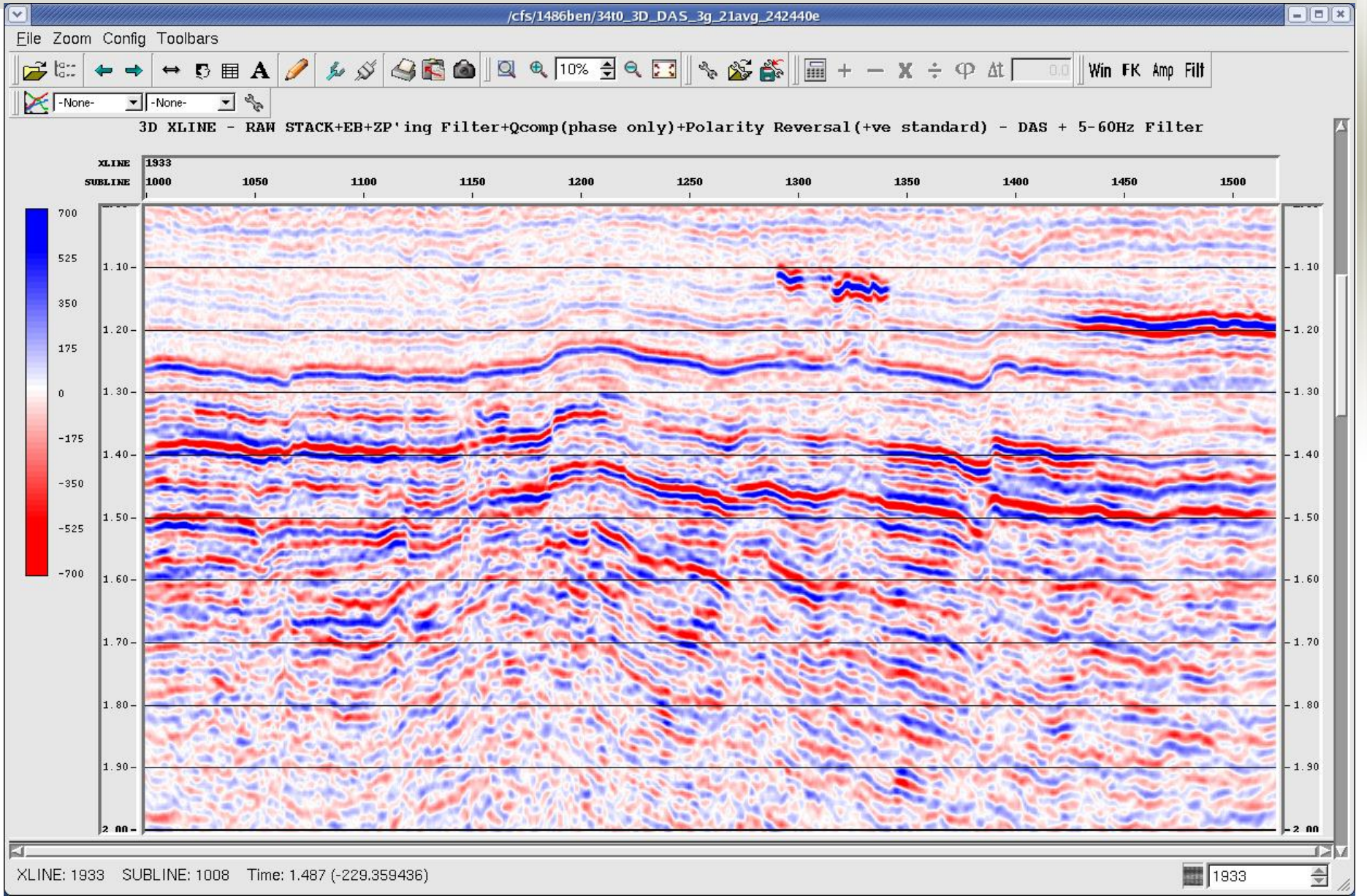
3D Xline 1933 – DAS



3D Xline 1933 – NO DAS + 5-60Hz filter



3D Xline 1933 – DAS + 5-60Hz filter



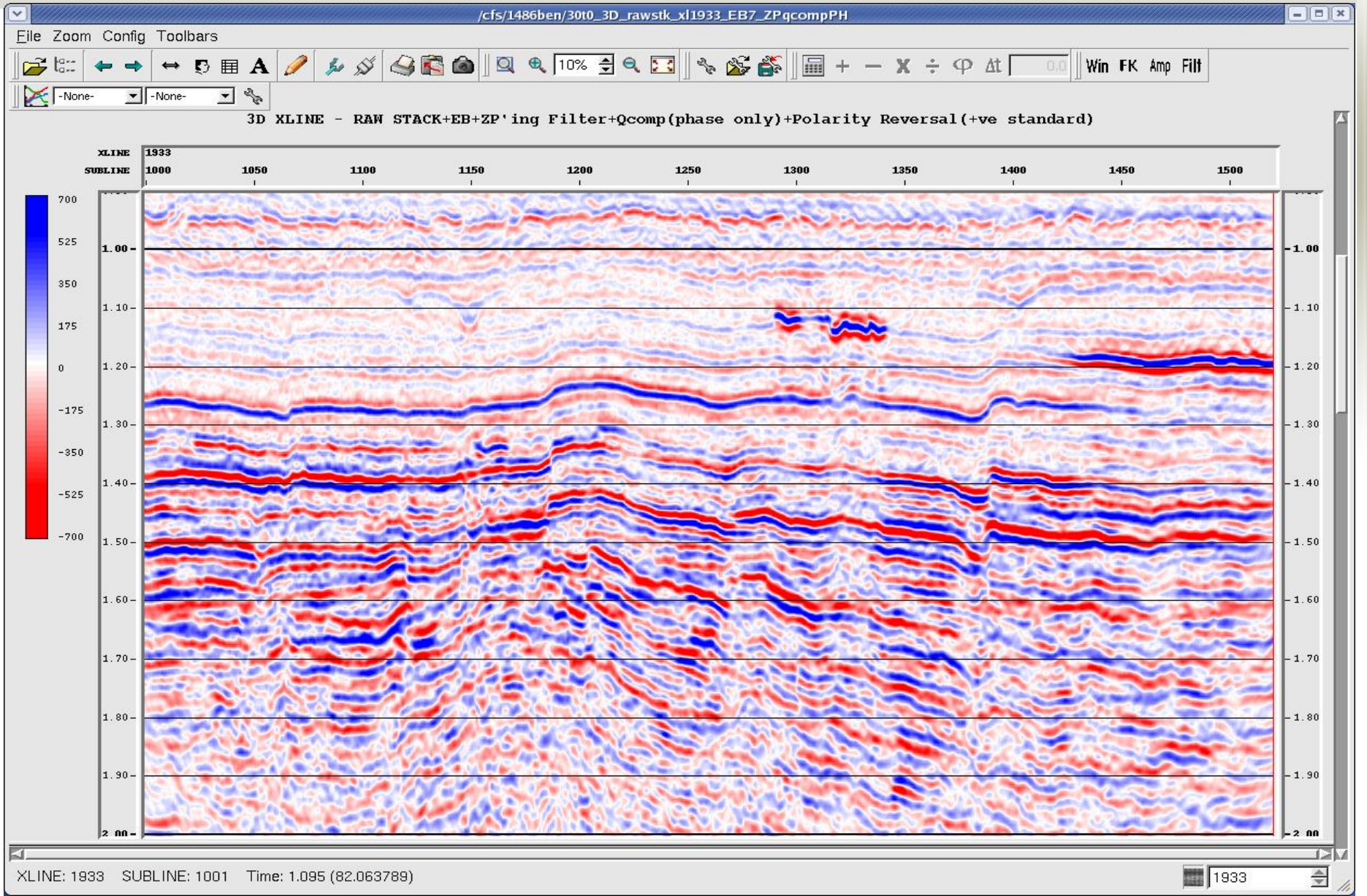
18_BIN_SIZE.ppt

Benaris T/39 P 3D – Confirmation of Bin dimensions for Final Stacks
02/03/06

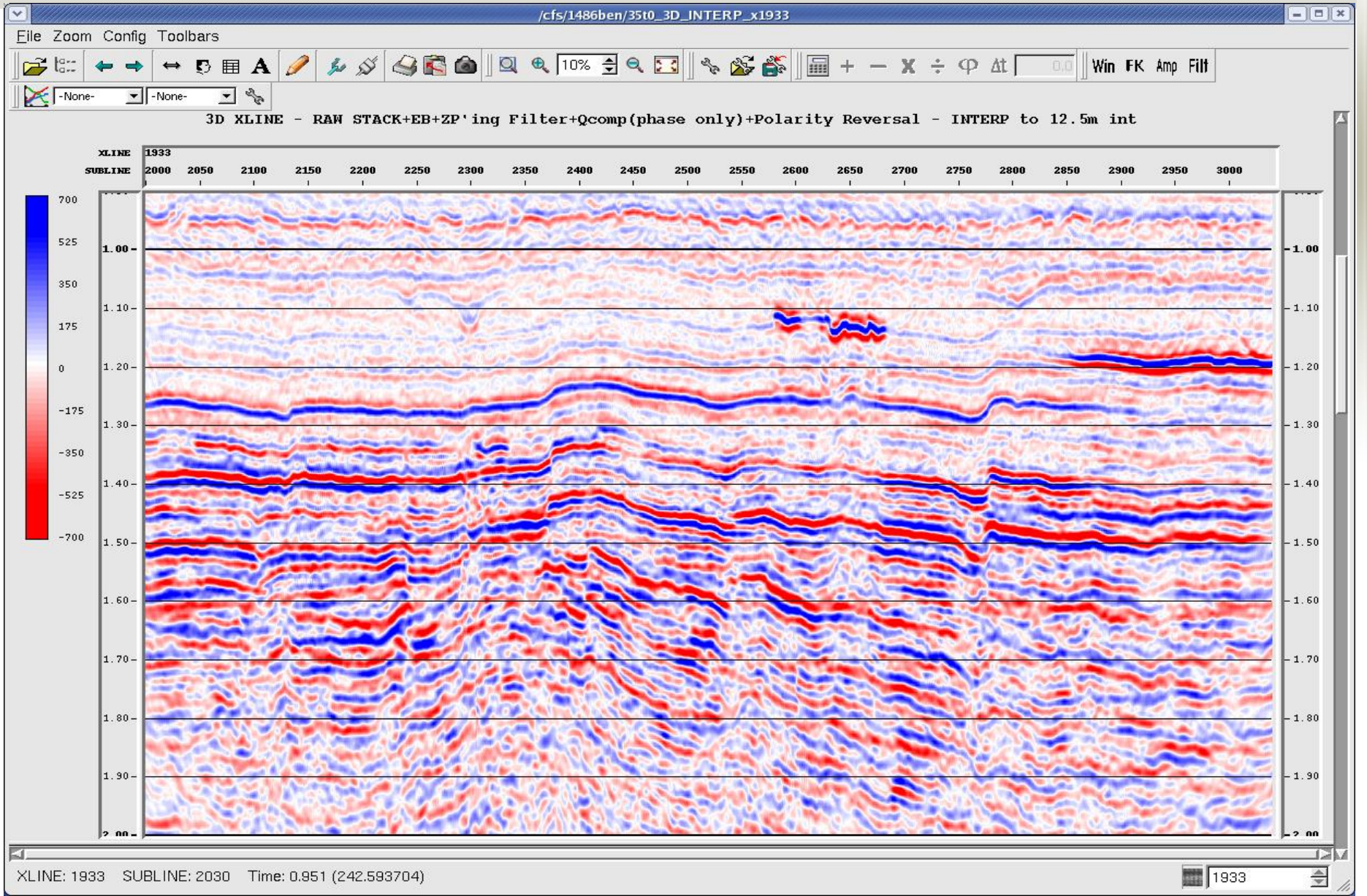
SUMMARY OF CONTENTS

- Interpolation along xline 1933 to determine whether to output at 25m (natural) or 12.5m trace interval.
- Summation along subline 1252 to determine whether to output at 12.5m (natural) or 25m trace interval.
-

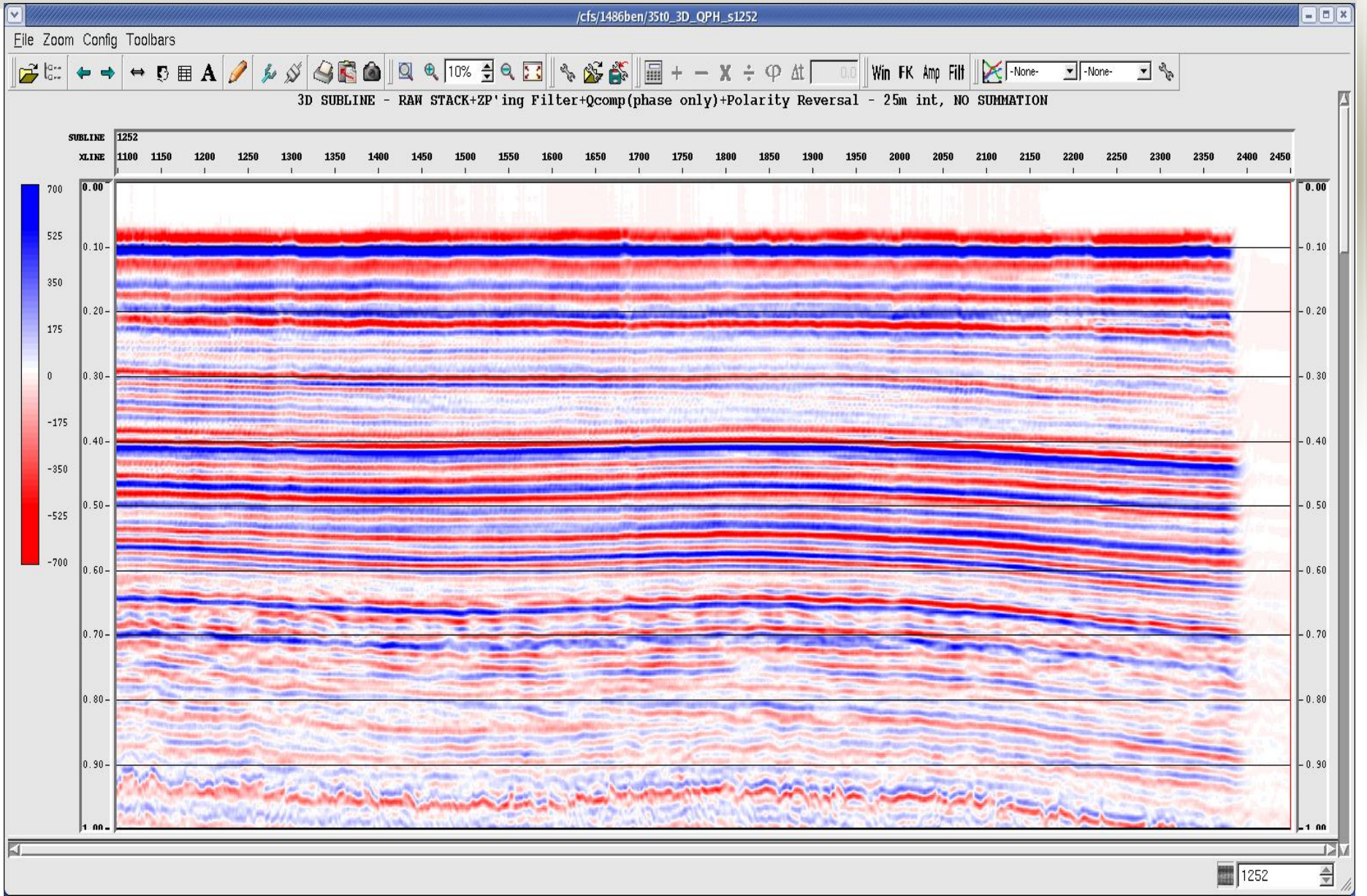
3D Xline 1933 – NO INTERP (25m interval)



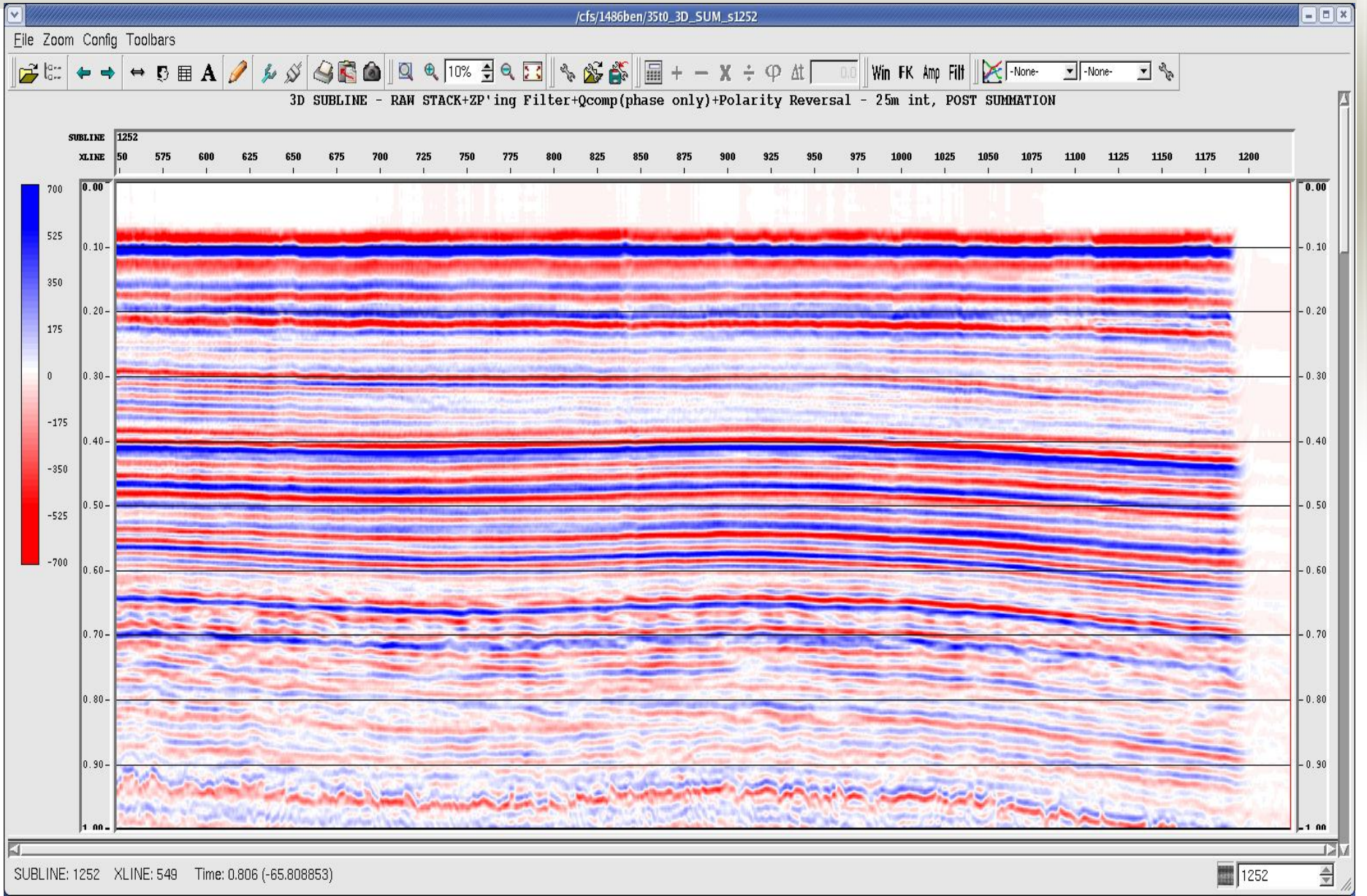
3D Xline 1933 – INTERP (12.5m interval)



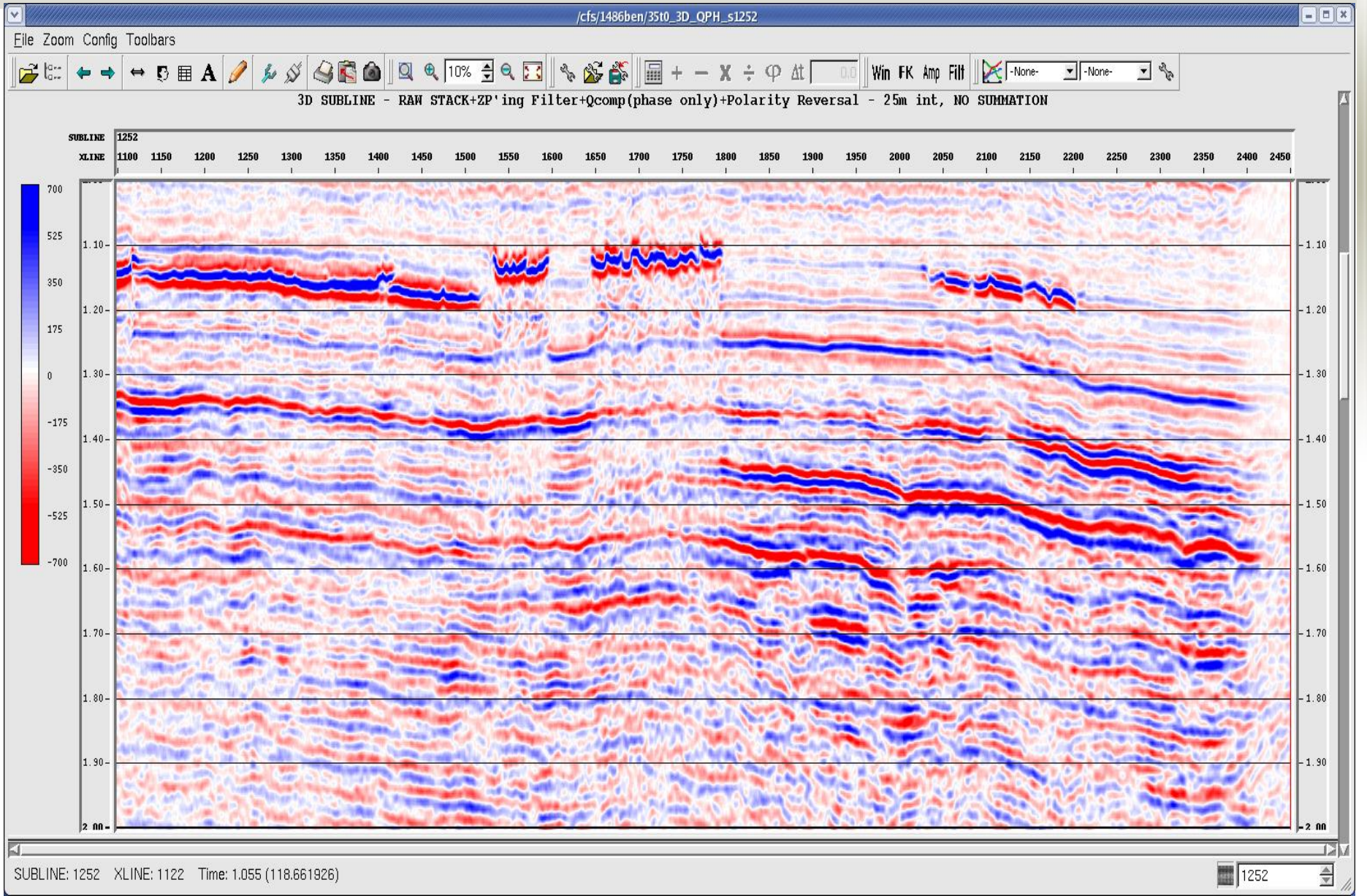
3D Subline 1252 – NO SUMMATION (every other trace, 25m int)



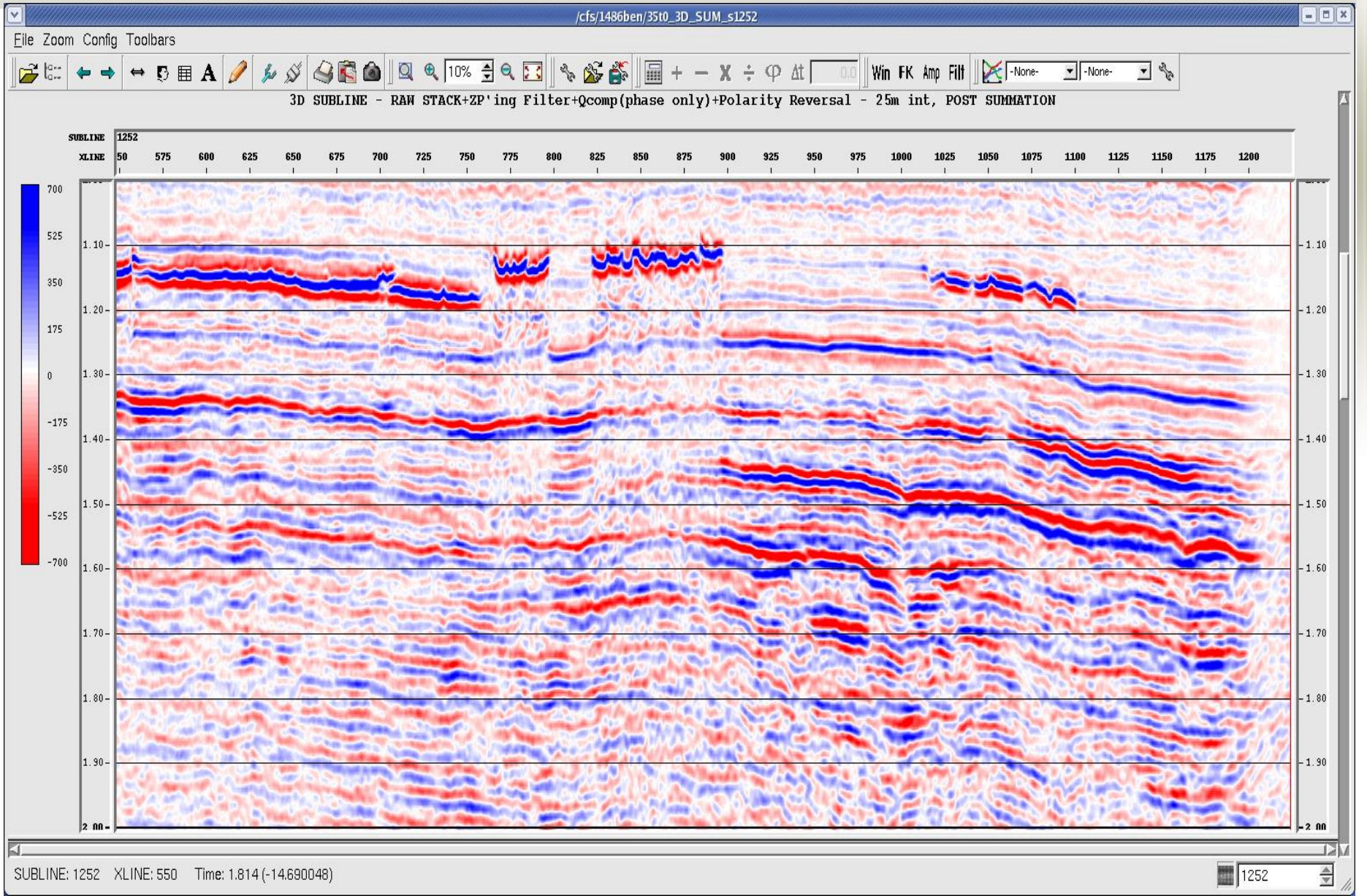
3D Subline 1252 – SUMMATION (25m int)



3D Subline 1252 – NO SUMMATION (every other trace, 25m int)



3D Subline 1252 – SUMMATION (25m int)



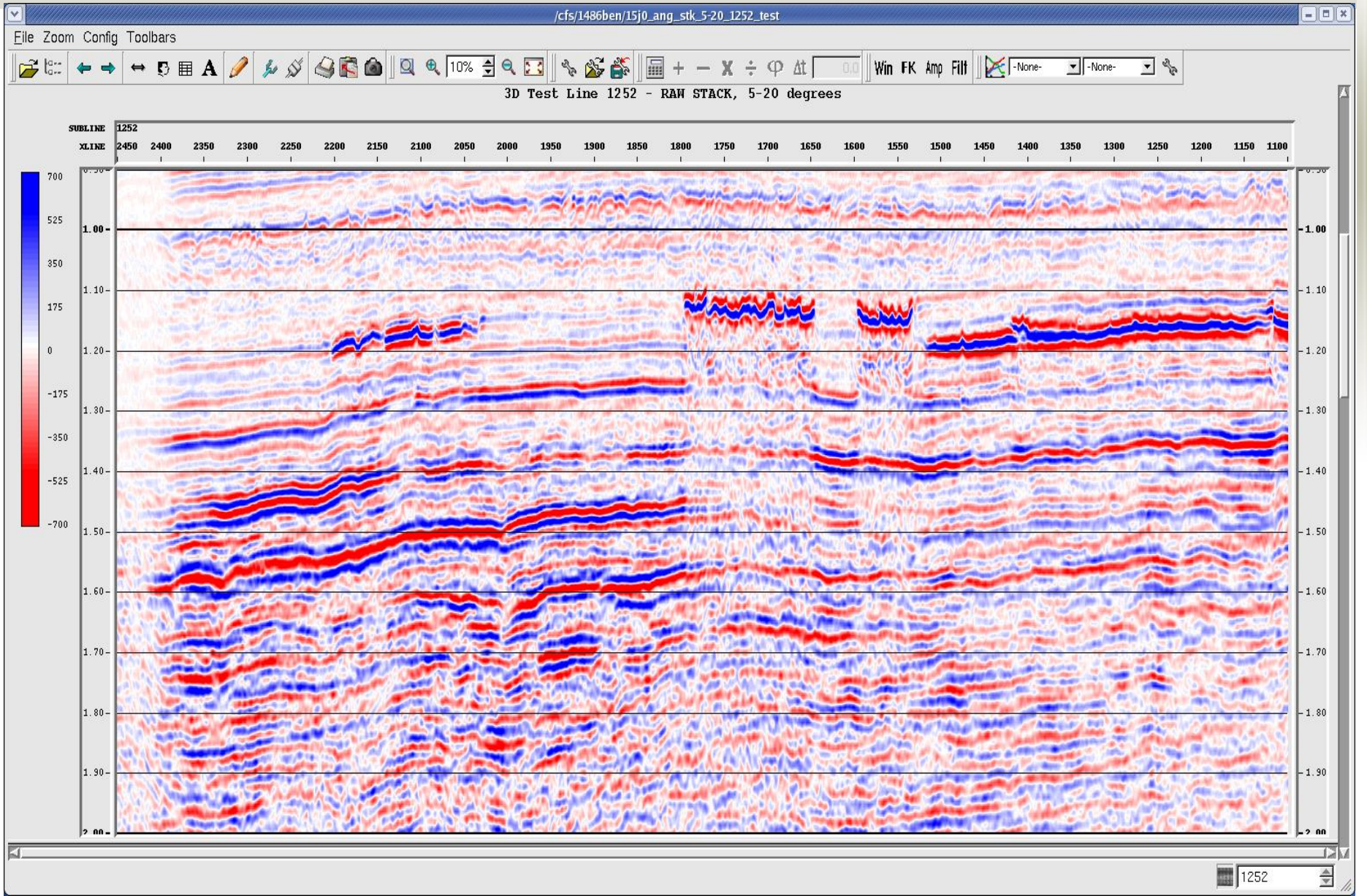
19_RAW_ANGSTK.ppt

Benaris T/39 P 3D – Raw Angle Stack QC – Test Line 1252 03/03/06

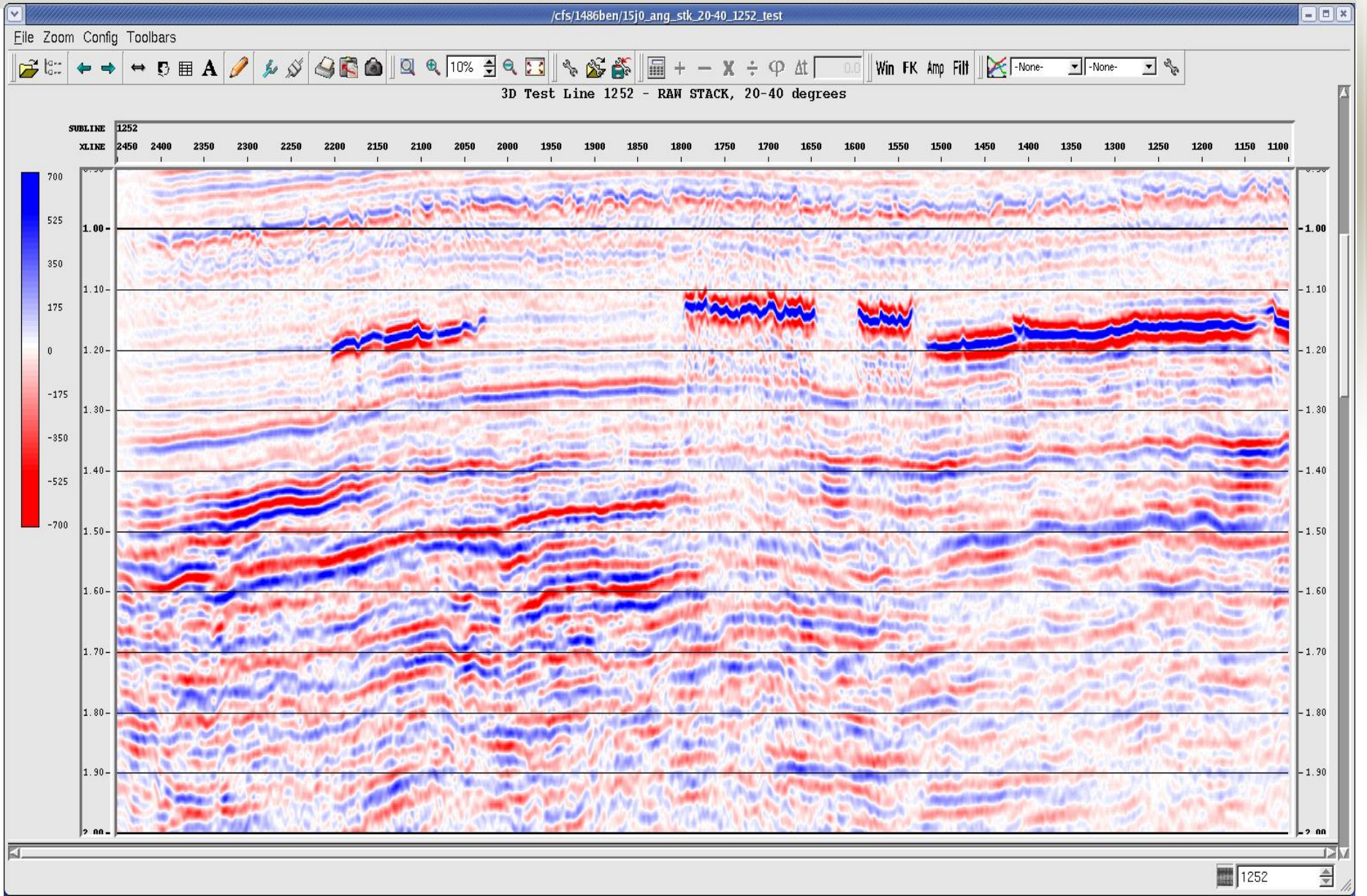
SUMMARY OF CONTENTS

- Review of Raw Angle Stacks for Nears(5-20deg) and Fars(20-40deg) for the Test Line 1252.

3D Test Inline 1252 – Raw Stack (5-20deg) – Min Phase.



3D Test Inline 1252 – Raw Stack (20-40deg) – Min Phase.



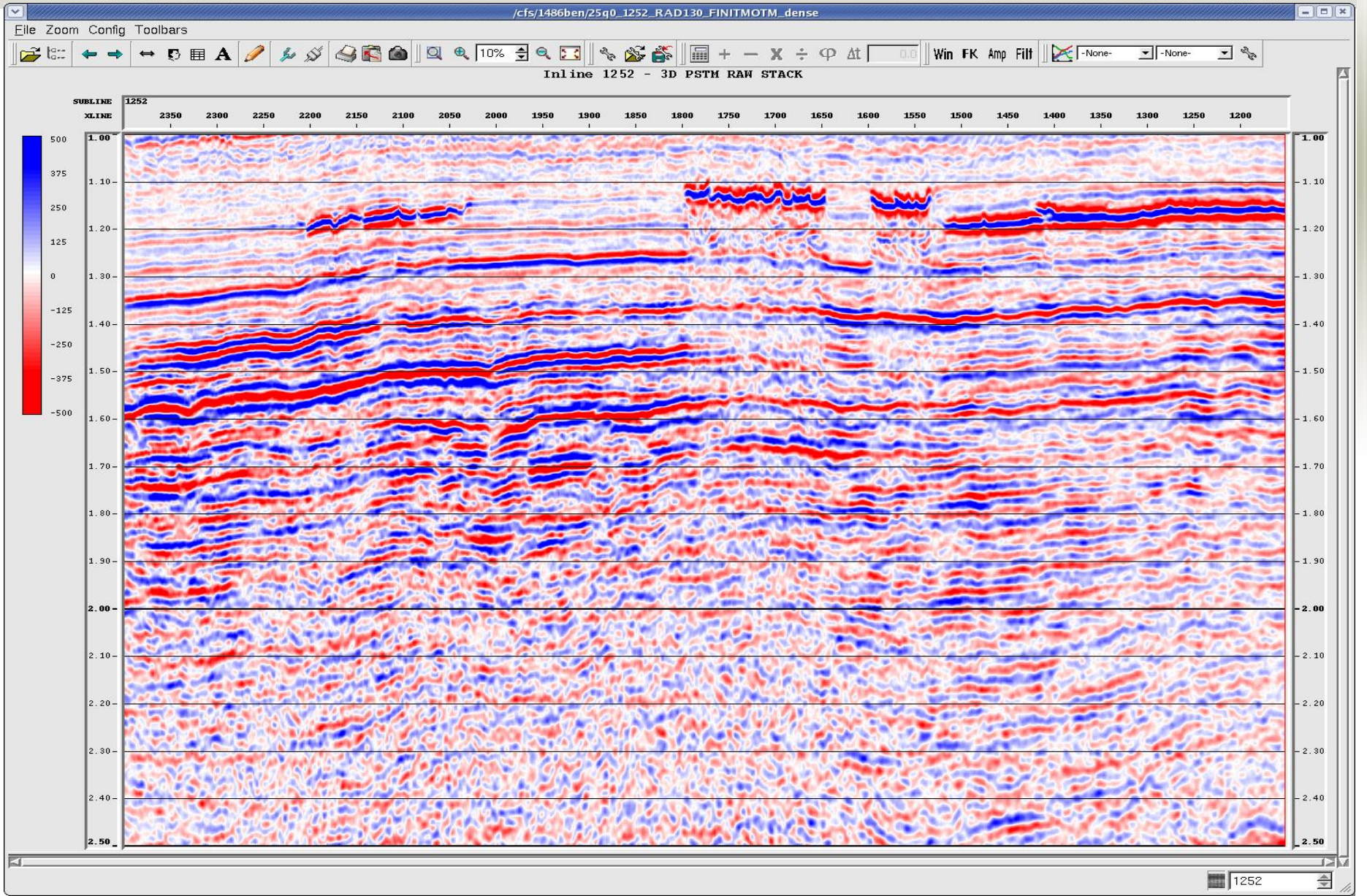
20_FINAL_stks.ppt

Benaris T/39 P 3D and 2D Final Stacks 28/03/06

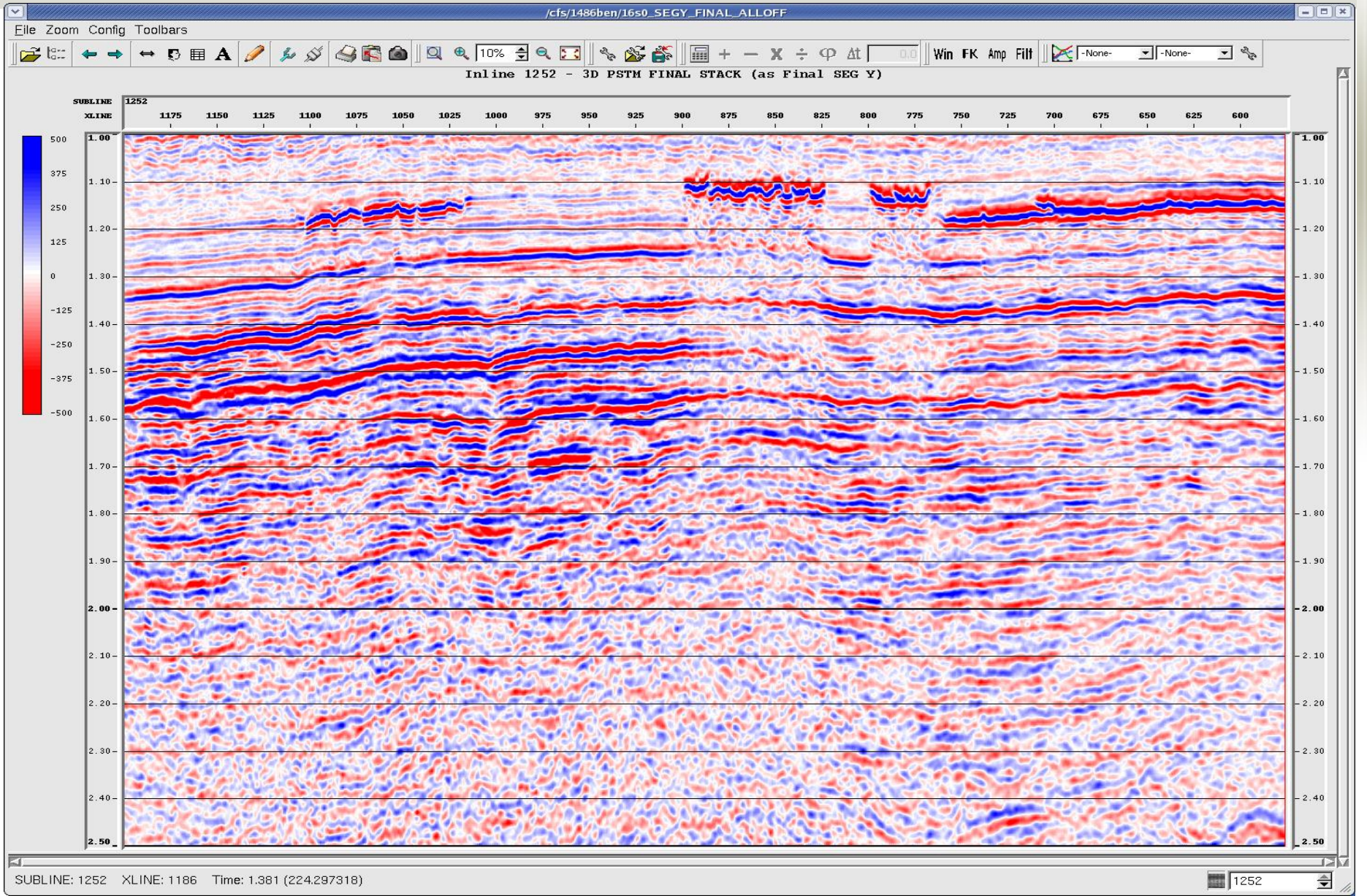
SUMMARY OF CONTENTS

- Comparison of Raw and Final PSTM stacks (trace interval 25m).

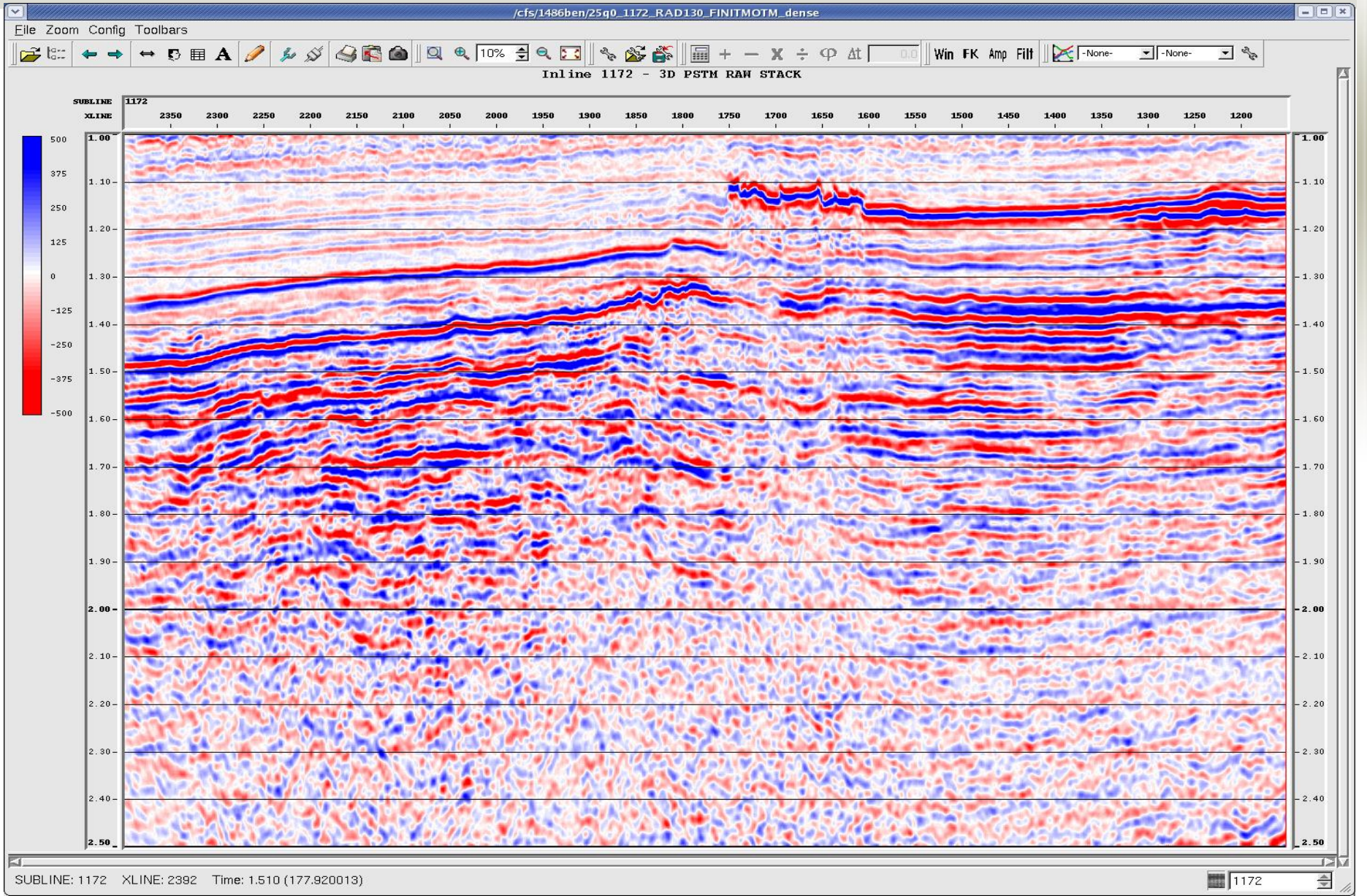
3D Inline 1252 – Raw Stack



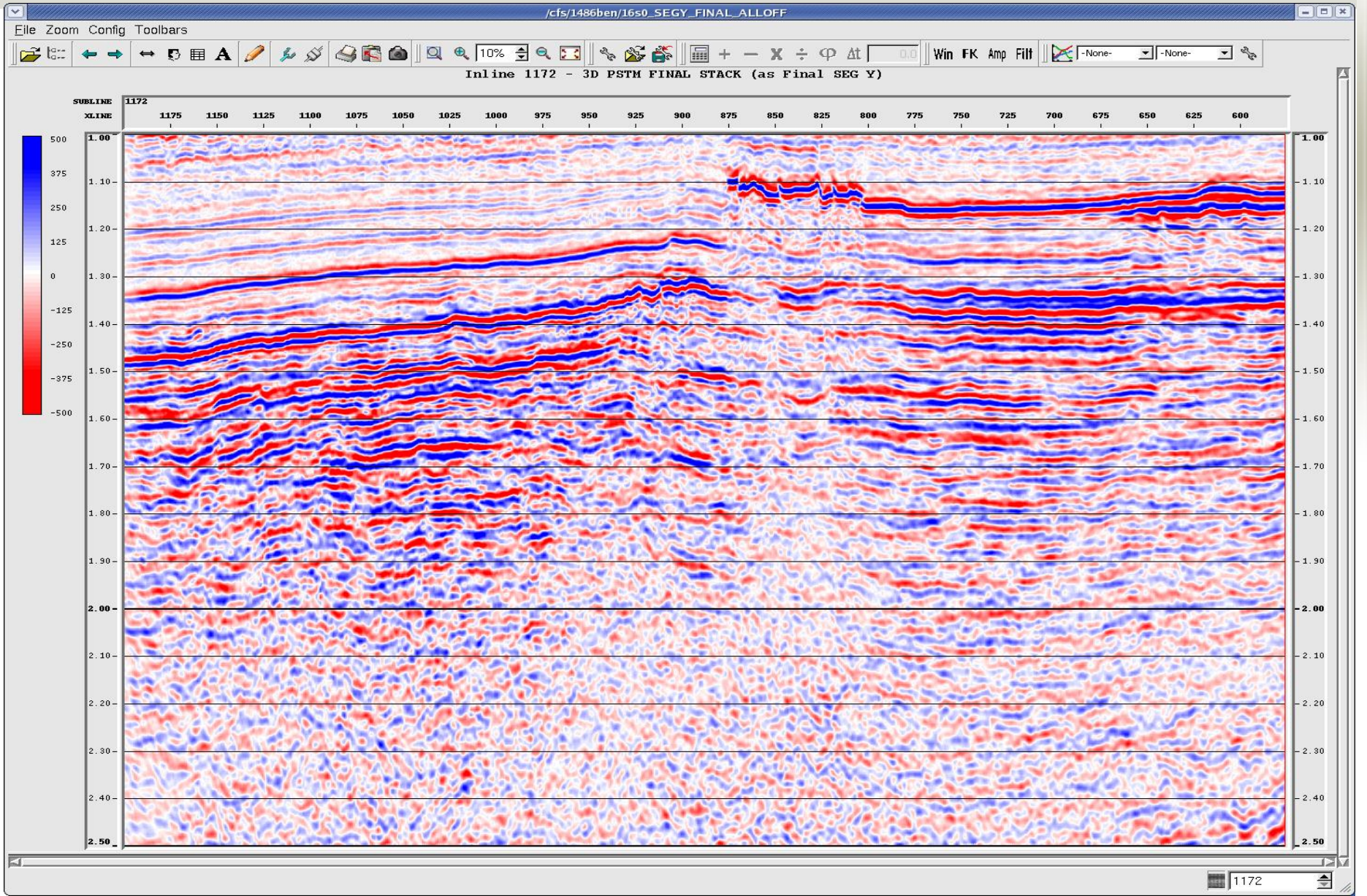
3D Inline 1252 – Final Stack



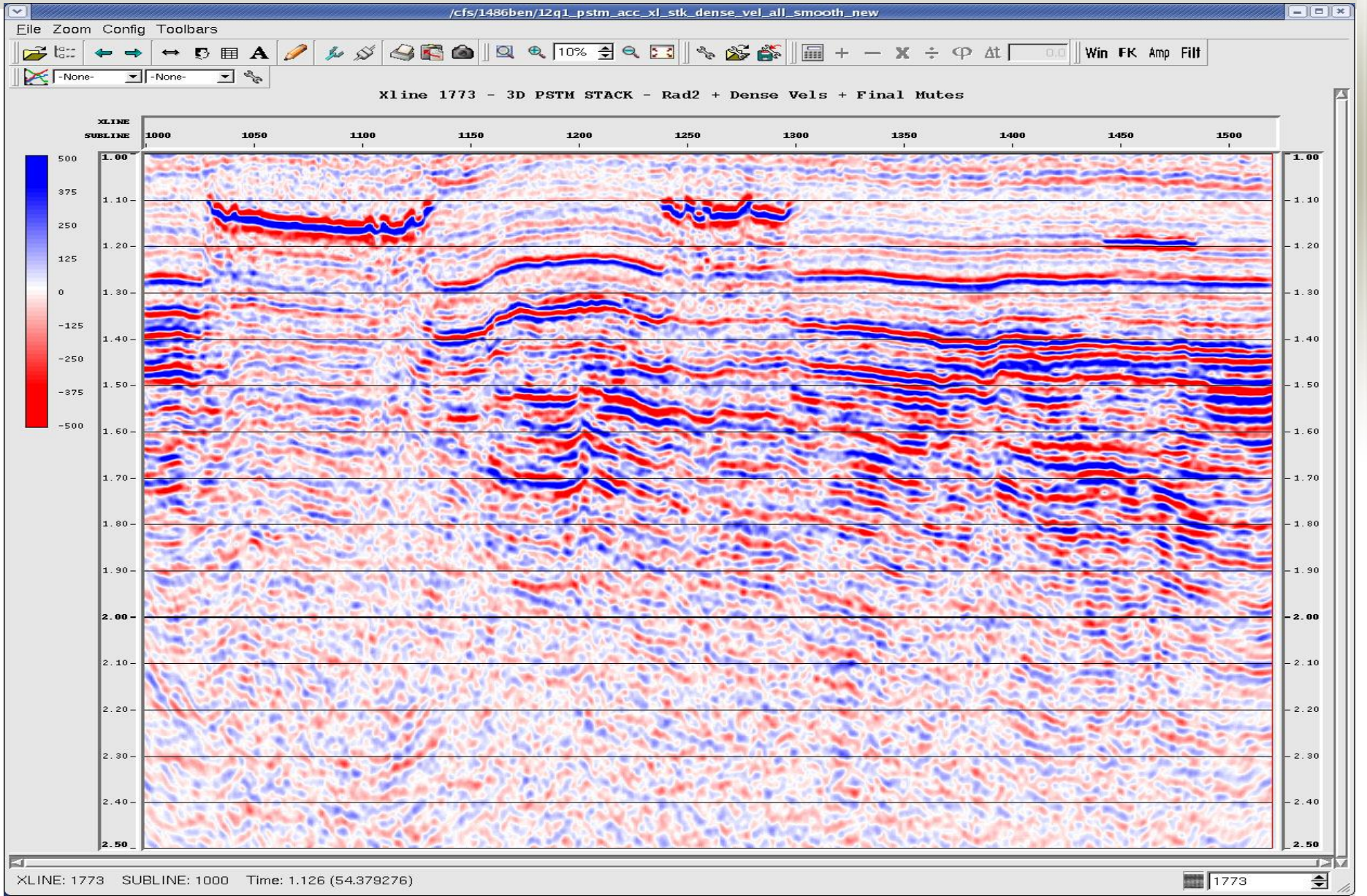
3D Inline 1172 – Raw Stack



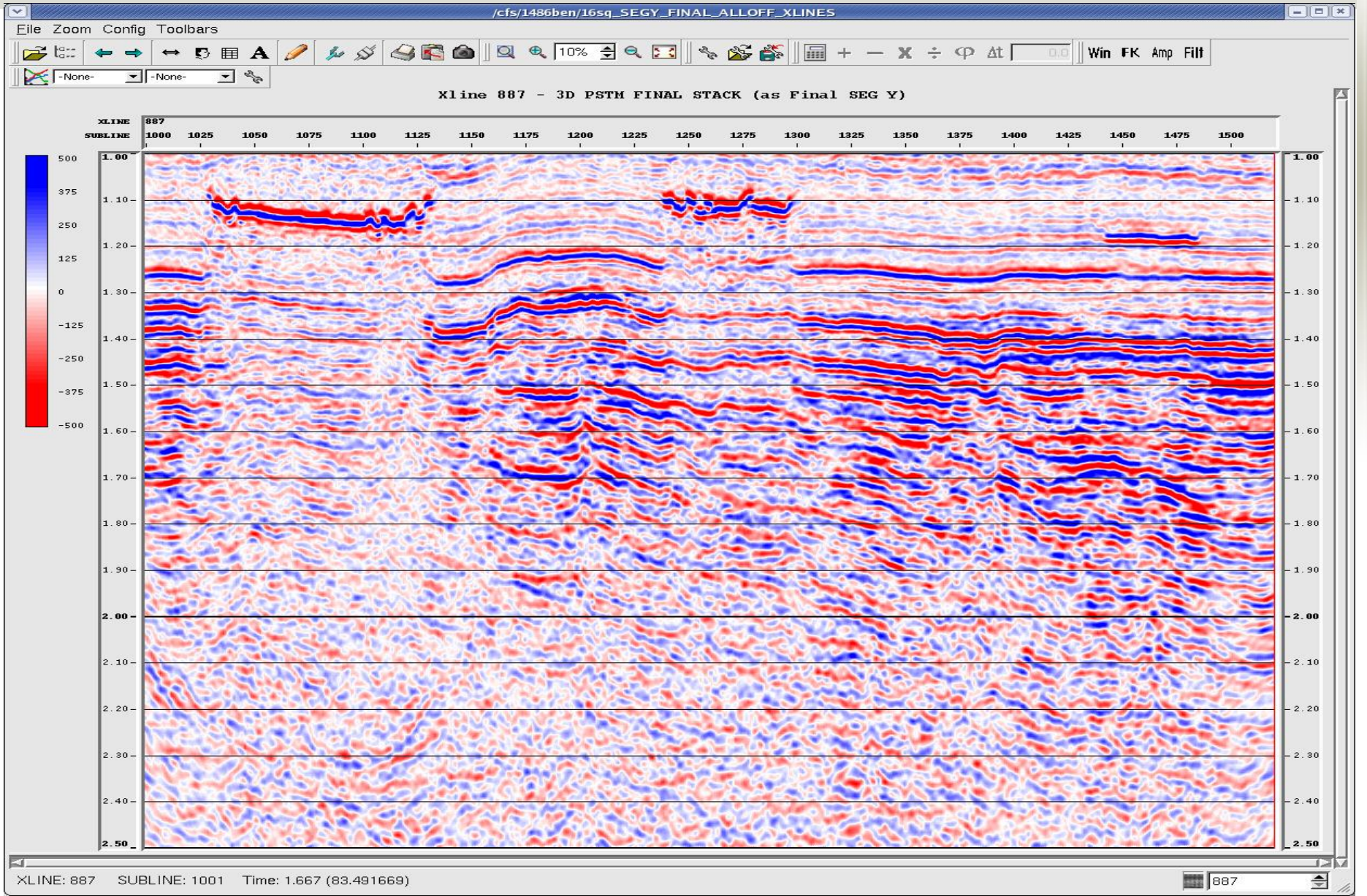
3D Inline 1172 – Final Stack



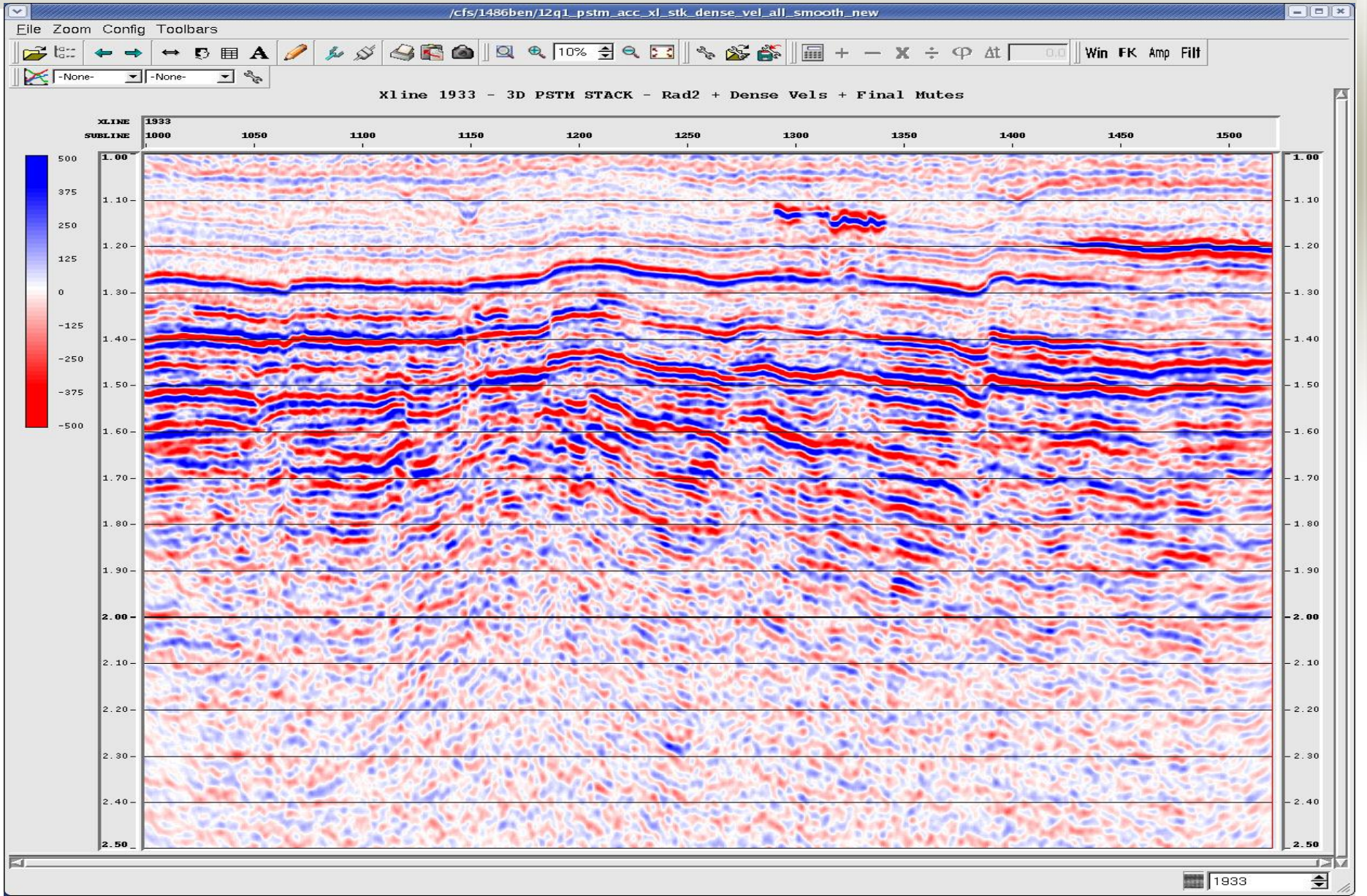
3D Xline 1773 – Raw Stack



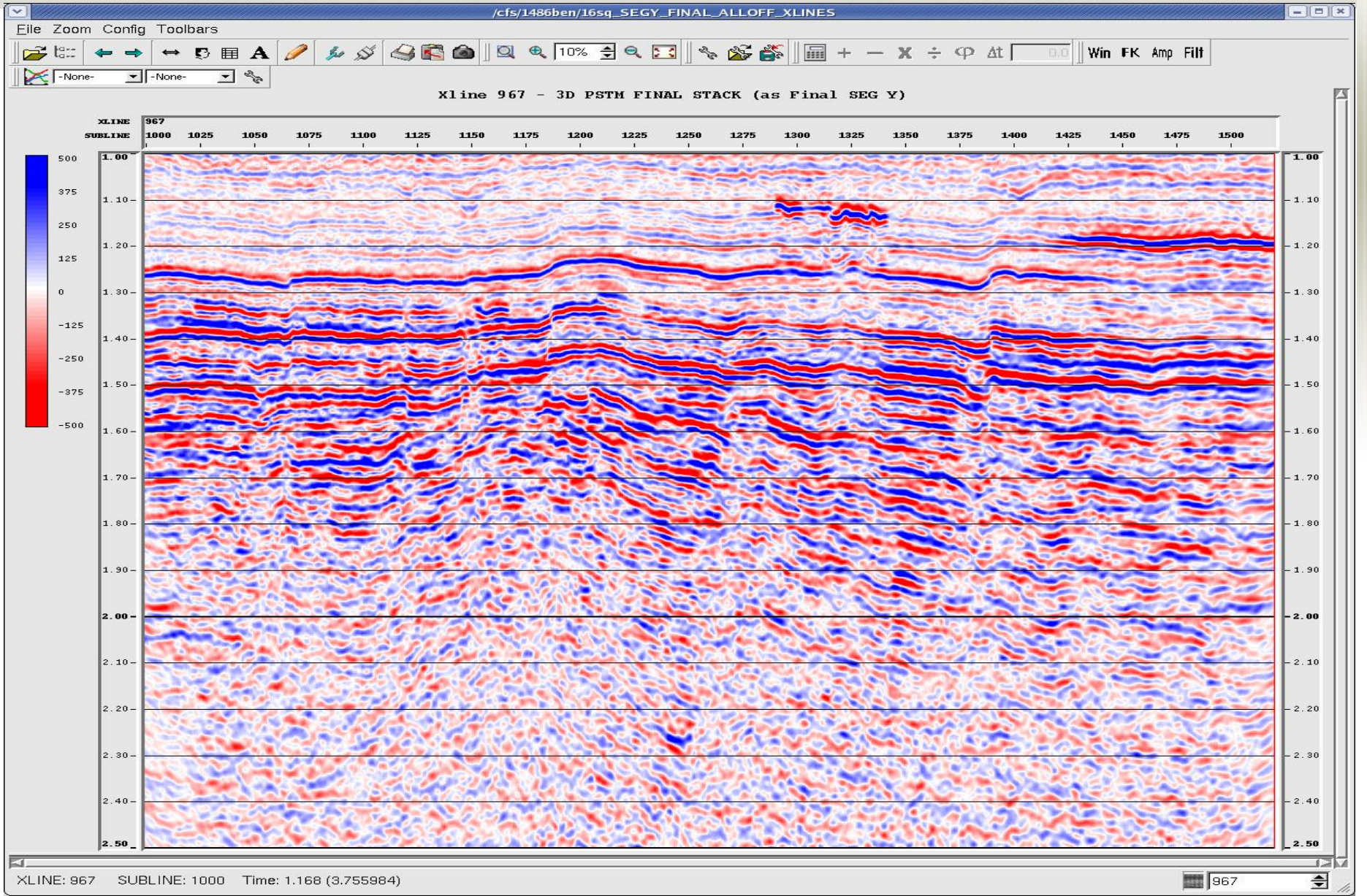
3D Xline 1773 – Final Stack



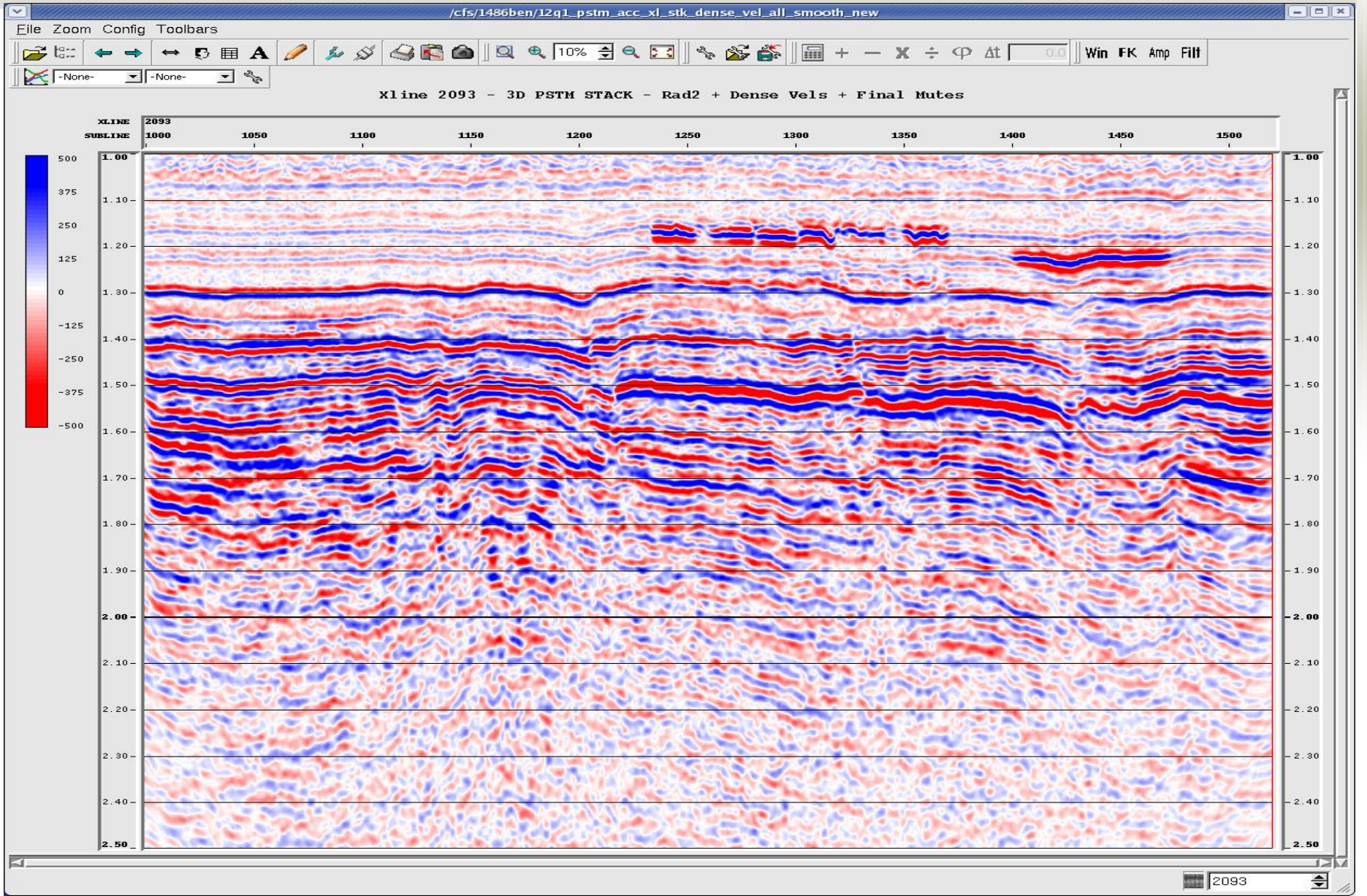
3D Xline 1933 – Raw Stack



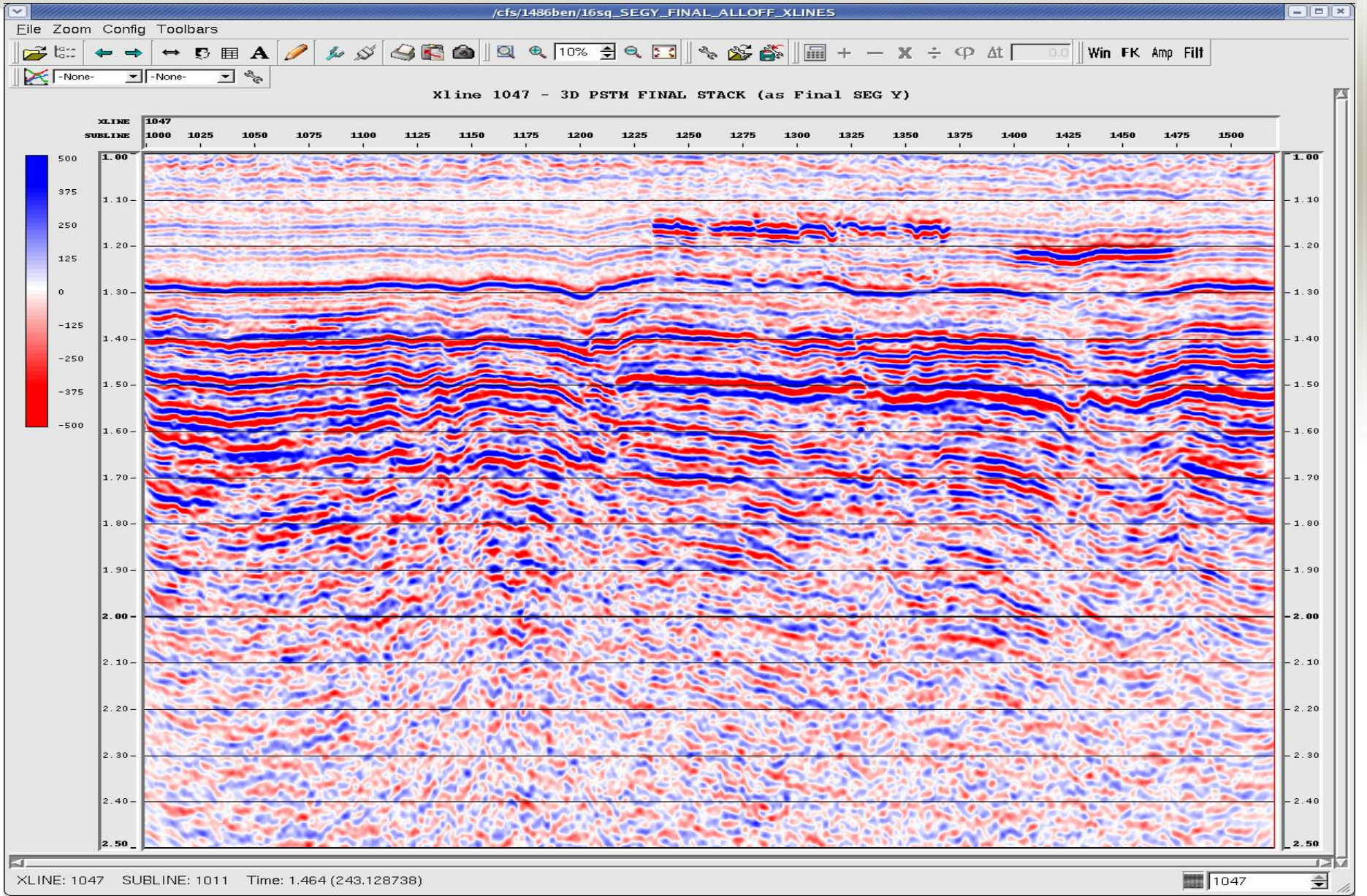
3D Xline 1933 – Final Stack



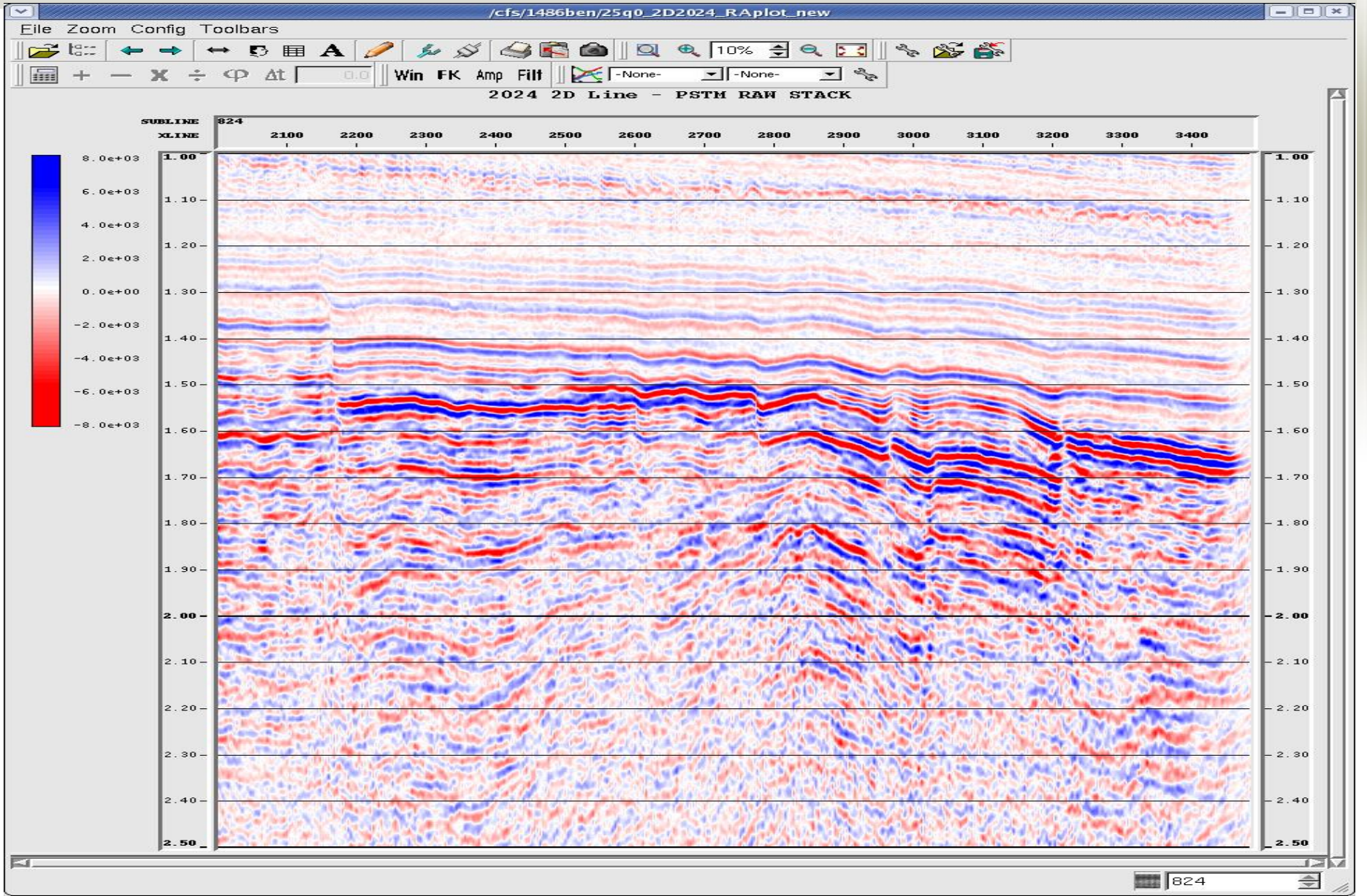
3D Xline 2093 – Raw Stack



3D Xline 2093 – Final Stack



2D Line 2024 – Raw Stack



2D Line 2024 – Final Stack