Tap Oil T/47P 3D PSTM

SRME AND TAU-P TEST
Sailline 1378P1002 (outer cable)
Stack display

Processing flow

- Reformat

- Navigation merge

- Trace edit

- Low cut filter 3Hz 18dB

- Deterministic de-phase filter to convert data to zero phase using far field signature

- Resample to 4ms using AA filter 110Hz 96dB

- System delay correction

- Spherical divergence correction V*V*T using regional velocity

- Swell noise attenuation, threshold 2.25 and despiking; threshold 2.0

- Linear noise attenuation, Velocity -2500m/s to 2500m/s

- SRME and Tau-P Test

Test Summary

- Following combination of tests have been conducted to decide which process, SRME or Tau-P to be applied first.

- Input to the test is xrlin dataset

  - Test 1: Input ⟶ Tau-P
  - Test 2: Input ⟶ SRME
  - Test 3: Input ⟶ SRME ⟶ Tau-P
  - Test 4: Input ⟶ Tau-P ⟶ SRME

  For Tau-P, Operator length is 240ms and gap is 24ms
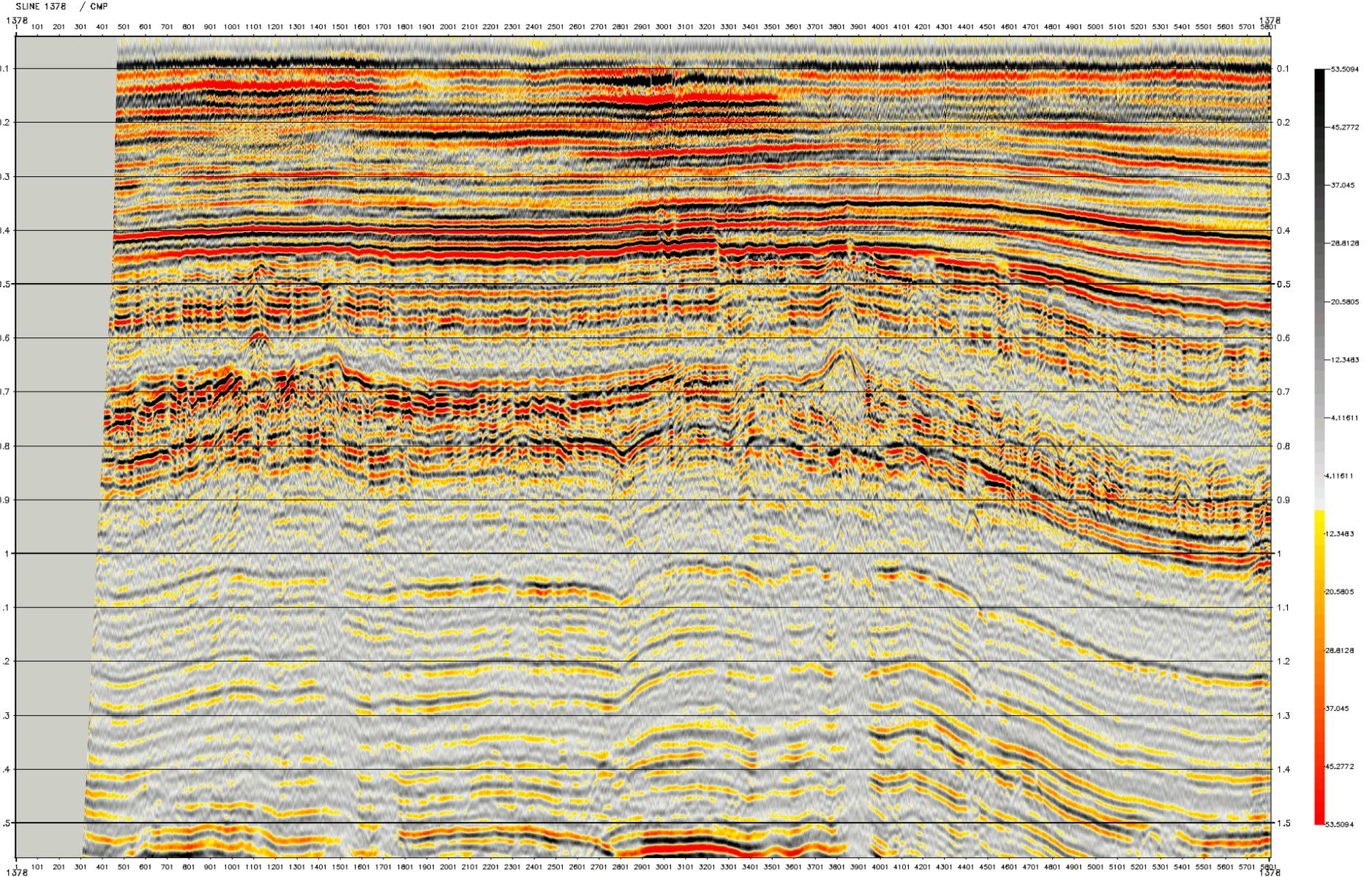
  For SRME, filter length 36ms and window length 512ms

CGGVERITAS

Input – Top View
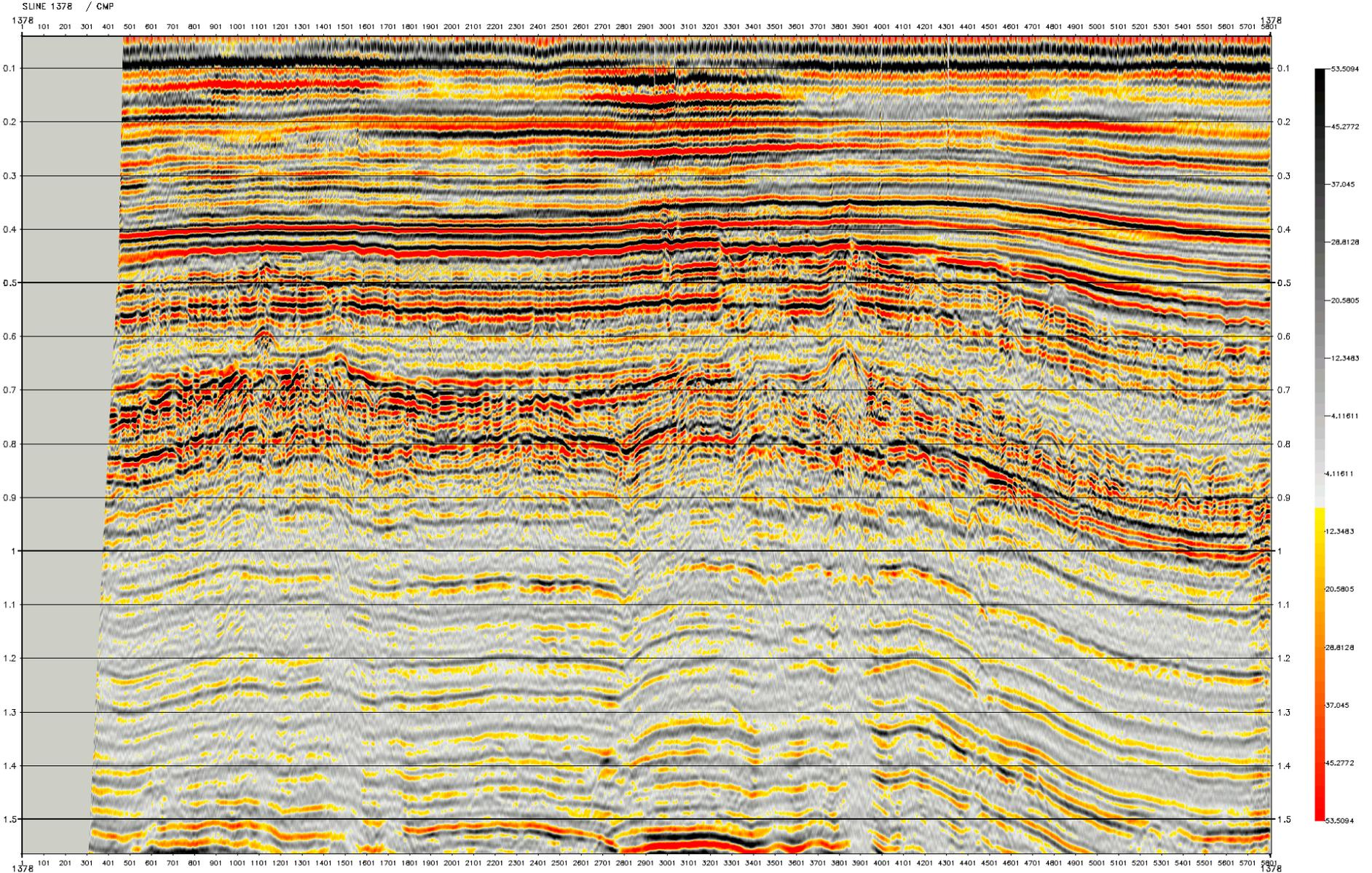
With Tau-P (test 1) – Top View

SLINE 1378 / CMP

Tango:vegas:spr224ws:s563tap:1378s11 taup stk.1

With SRME (test2) – Top View
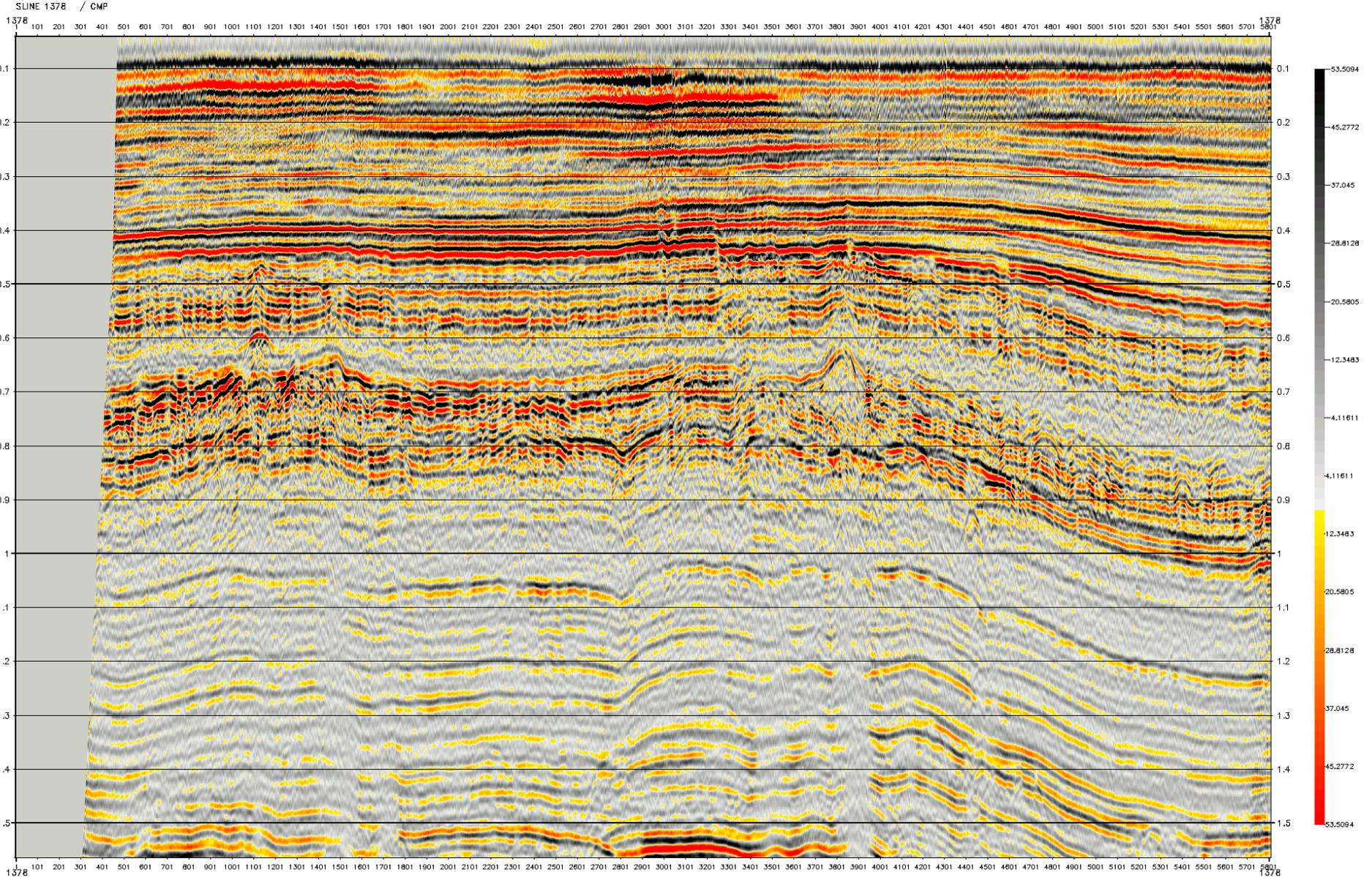

Tango:vegas:spr224ws:s563łap:1378s11 srme2 słk.1
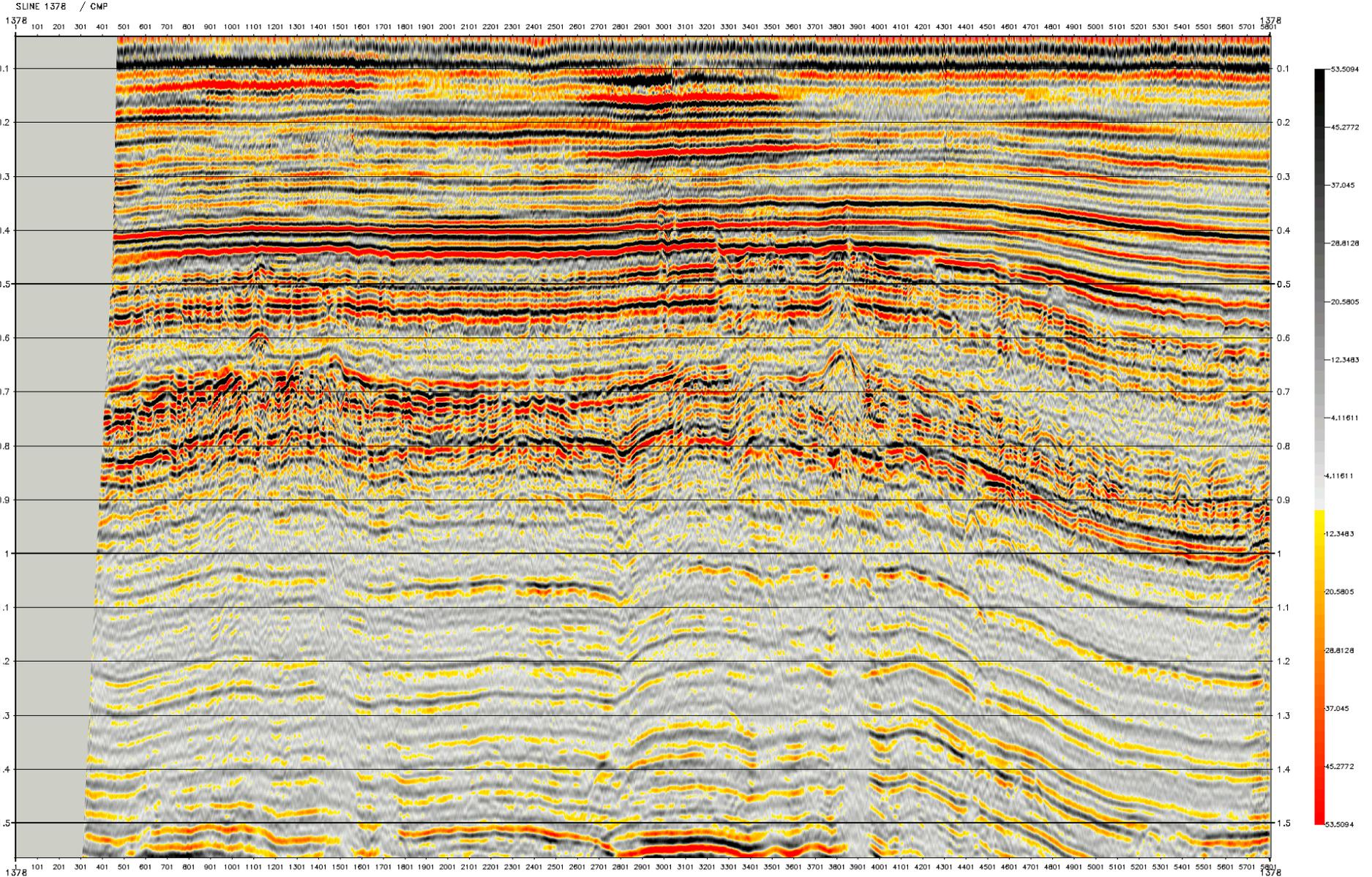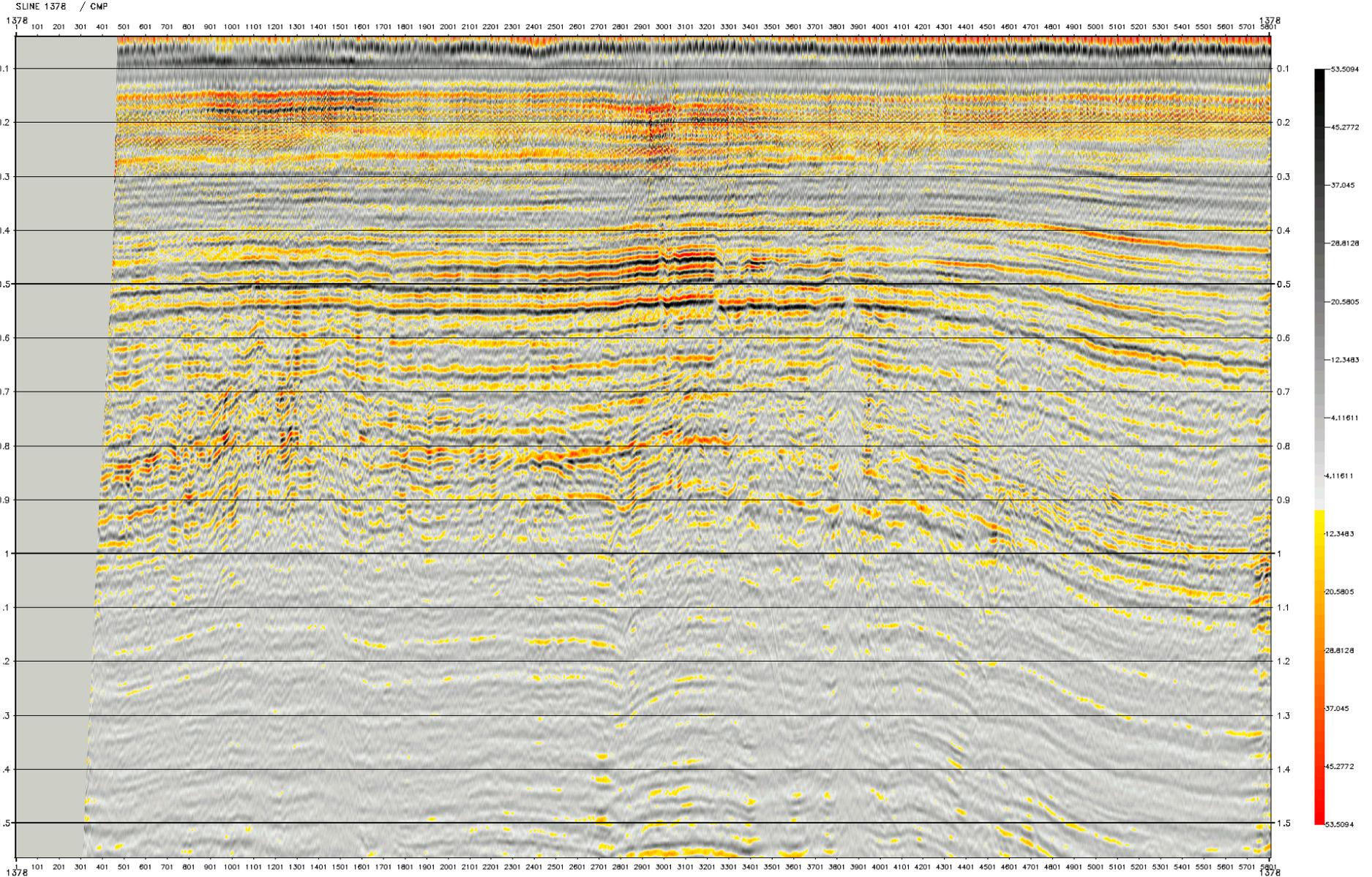
With SRME + Tau-P (test3) – Top View
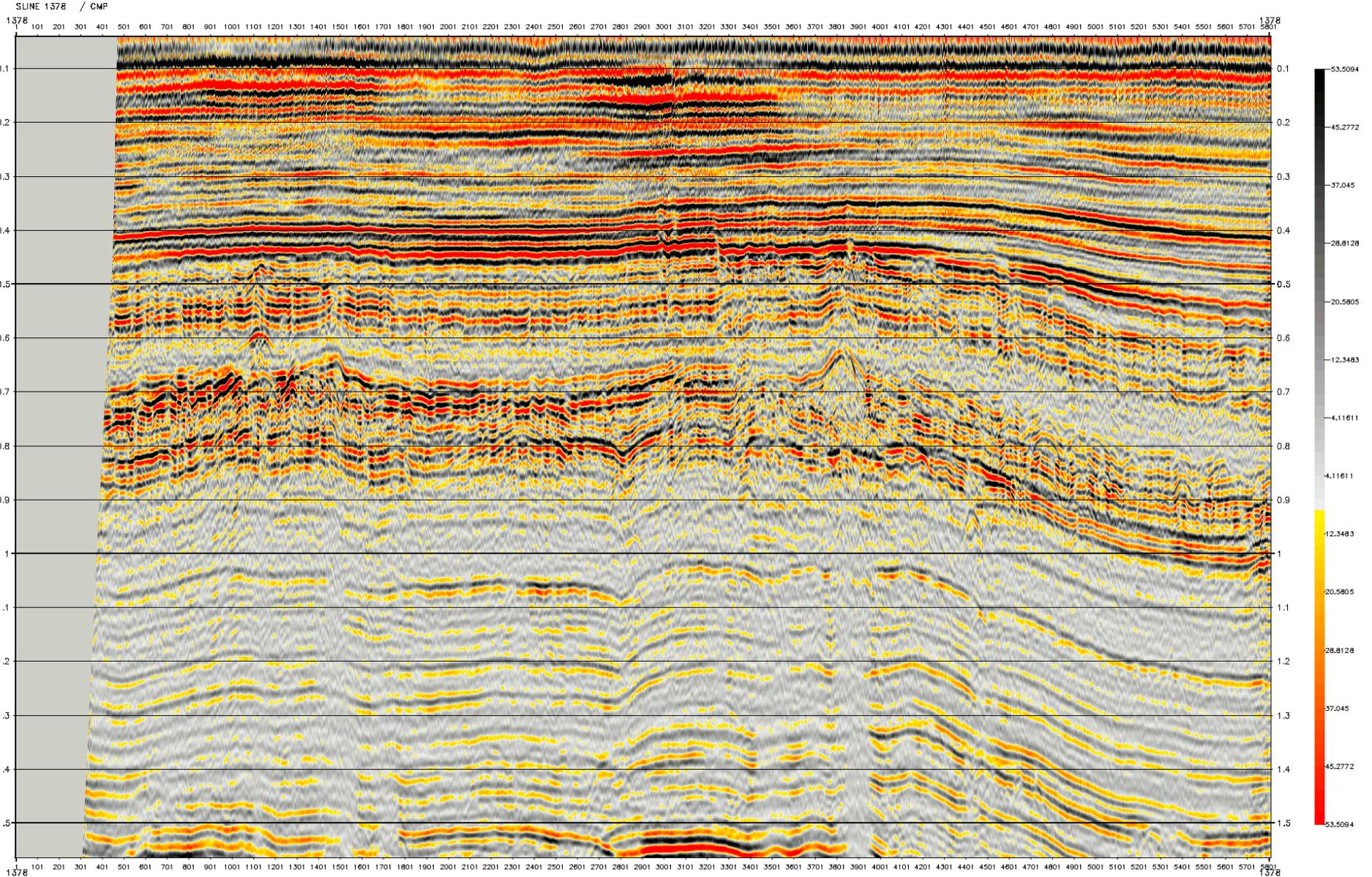
With Tau-P + SRME (test 4) – Top View

Tango:vegas:spr224ws:s563tap:1378s11 tpsr2 stk.1

Difference display – Tau-P (test 1) Top View

Difference display – SRME (test 2) Top View
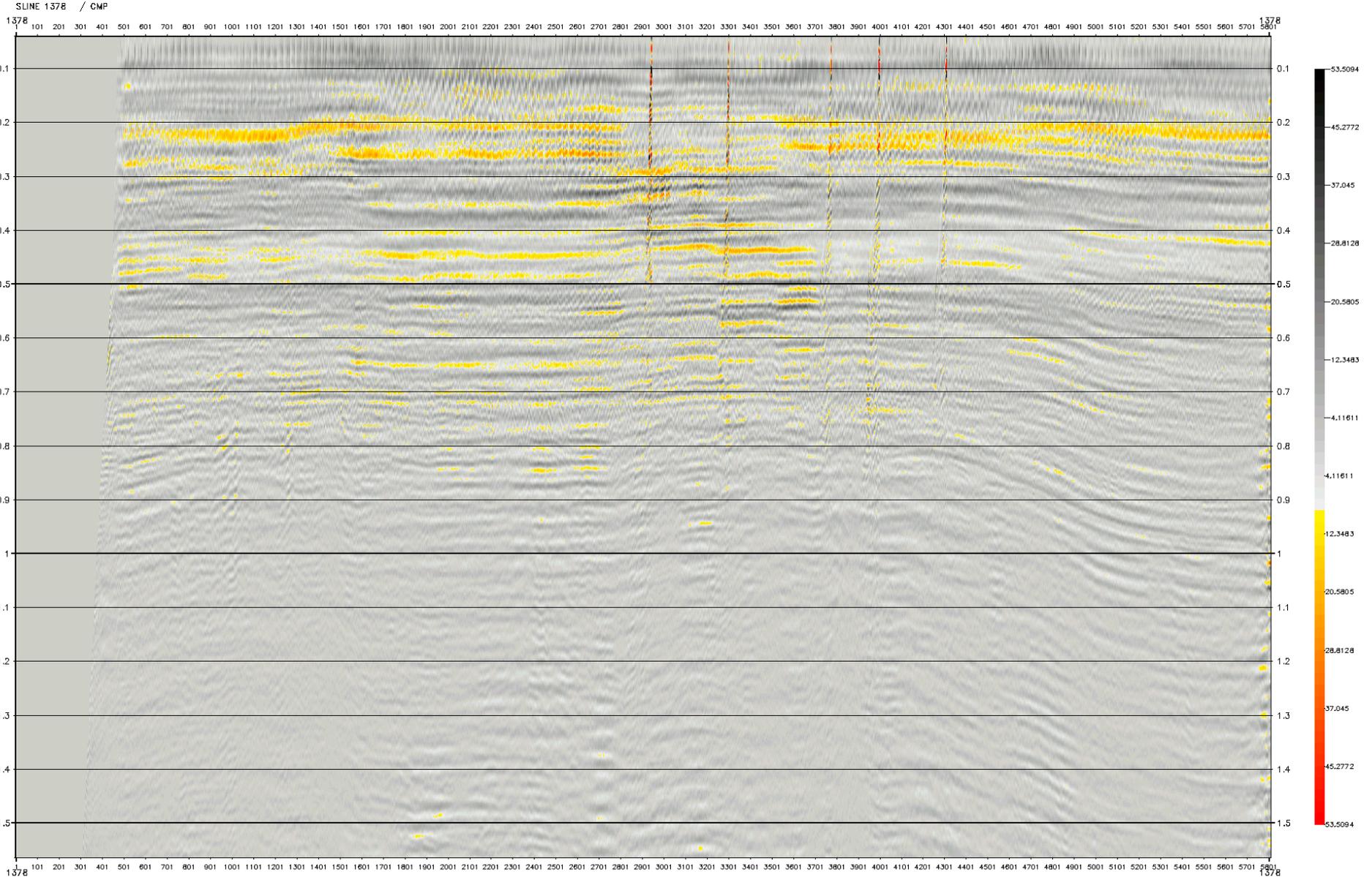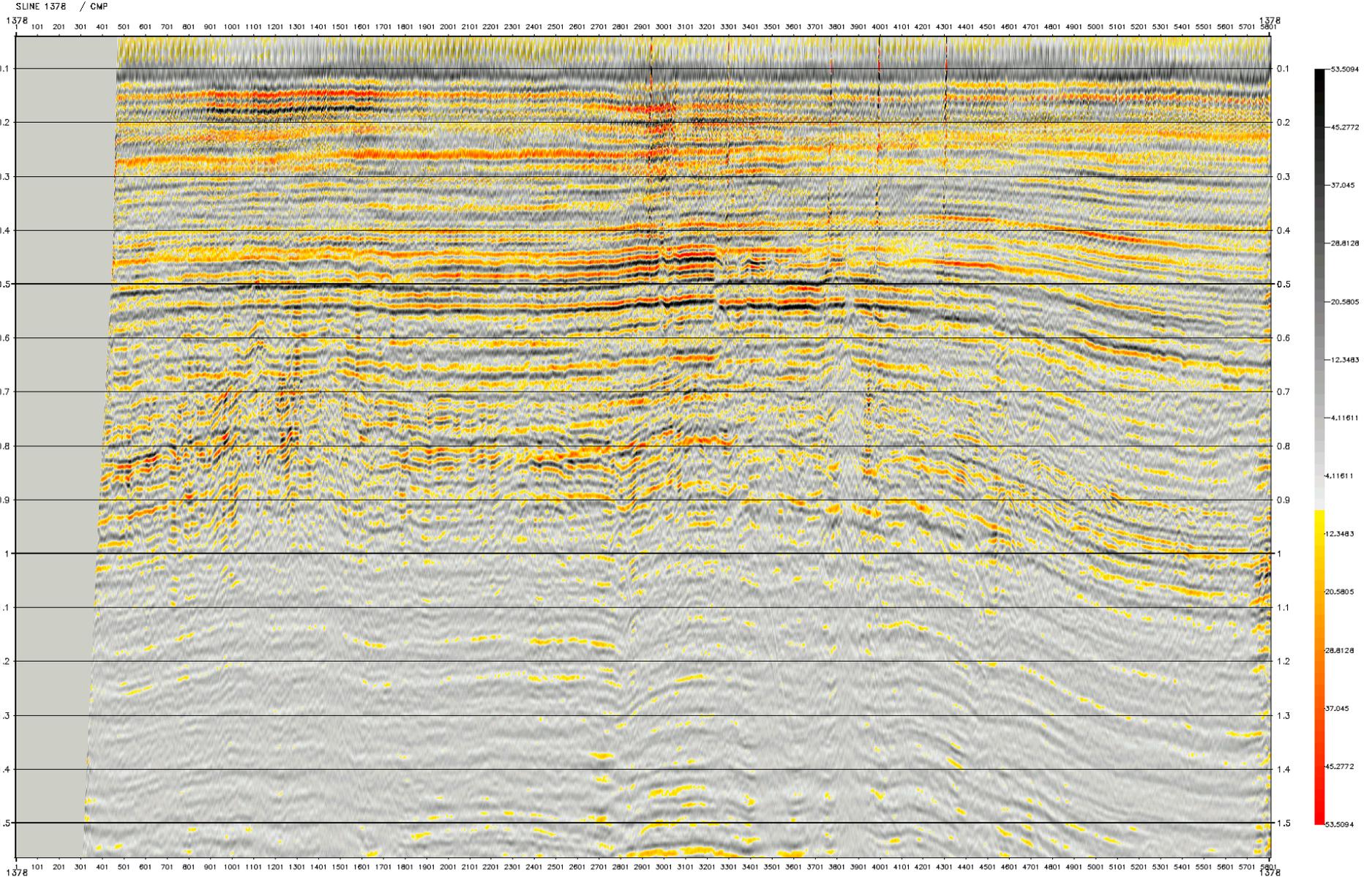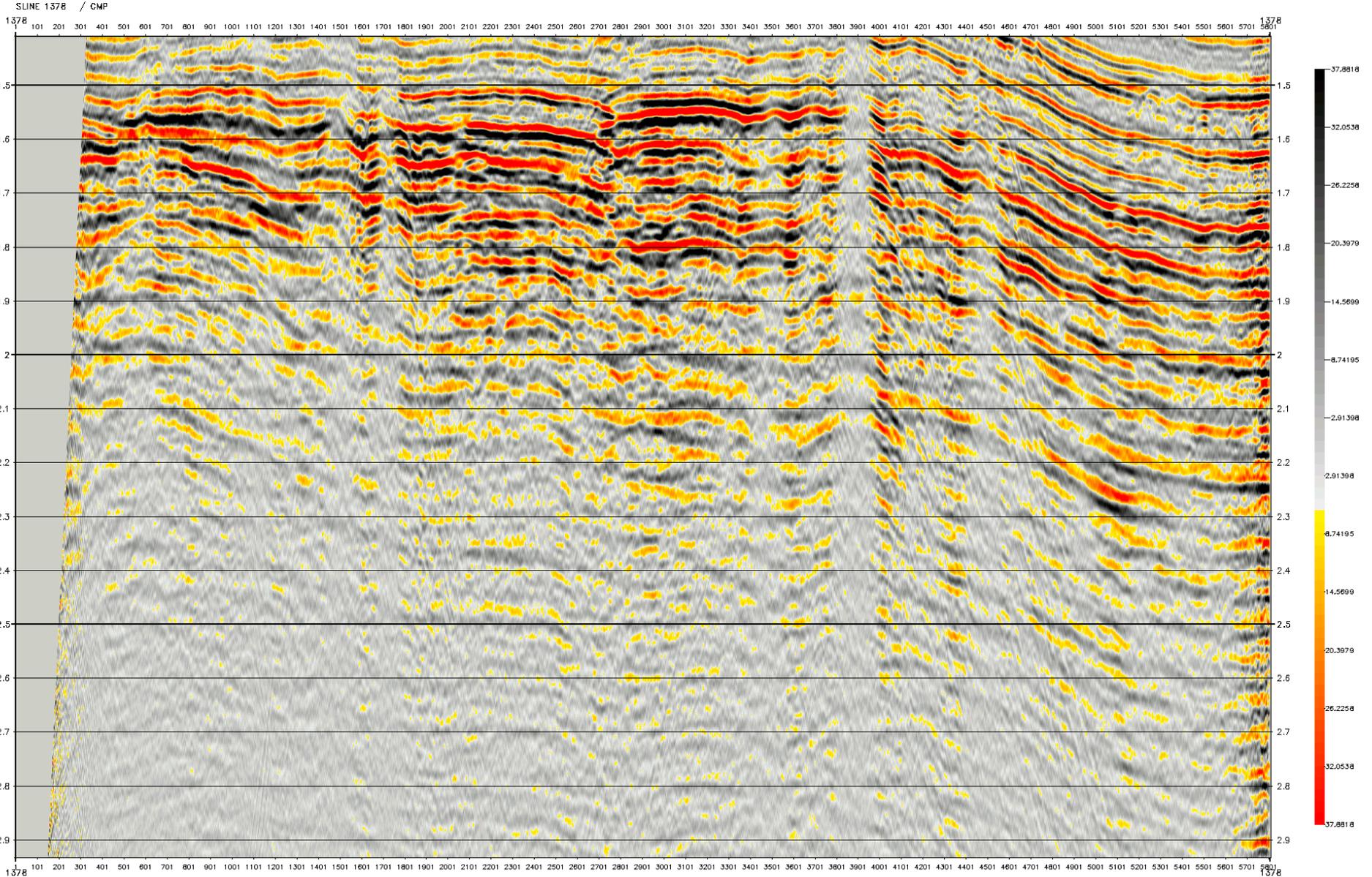
Difference display – SRME + Tau-P (test 3) Top View

Difference display – Tau-P + SRME (test 4) Top View
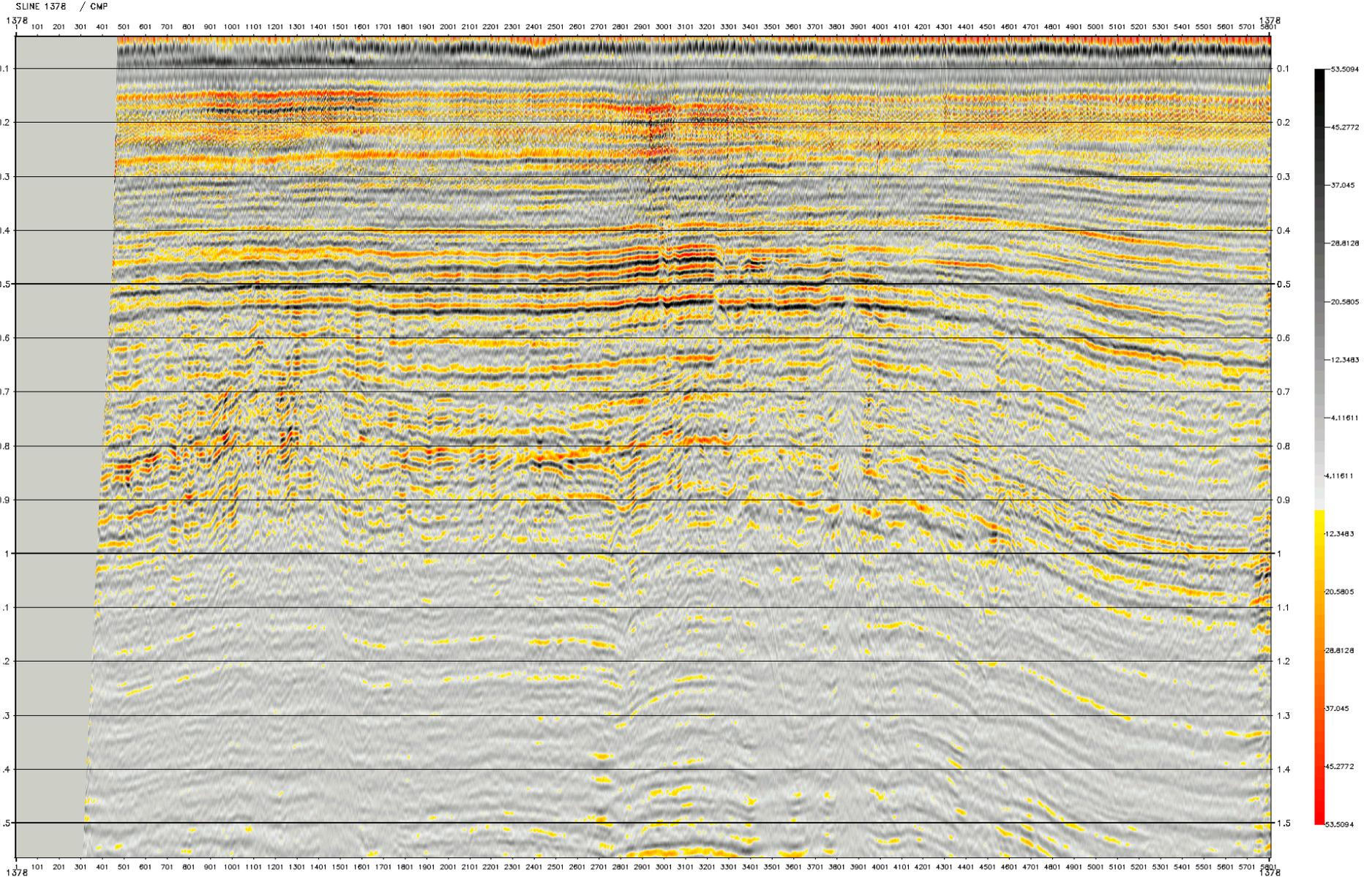
Input – Bottom View
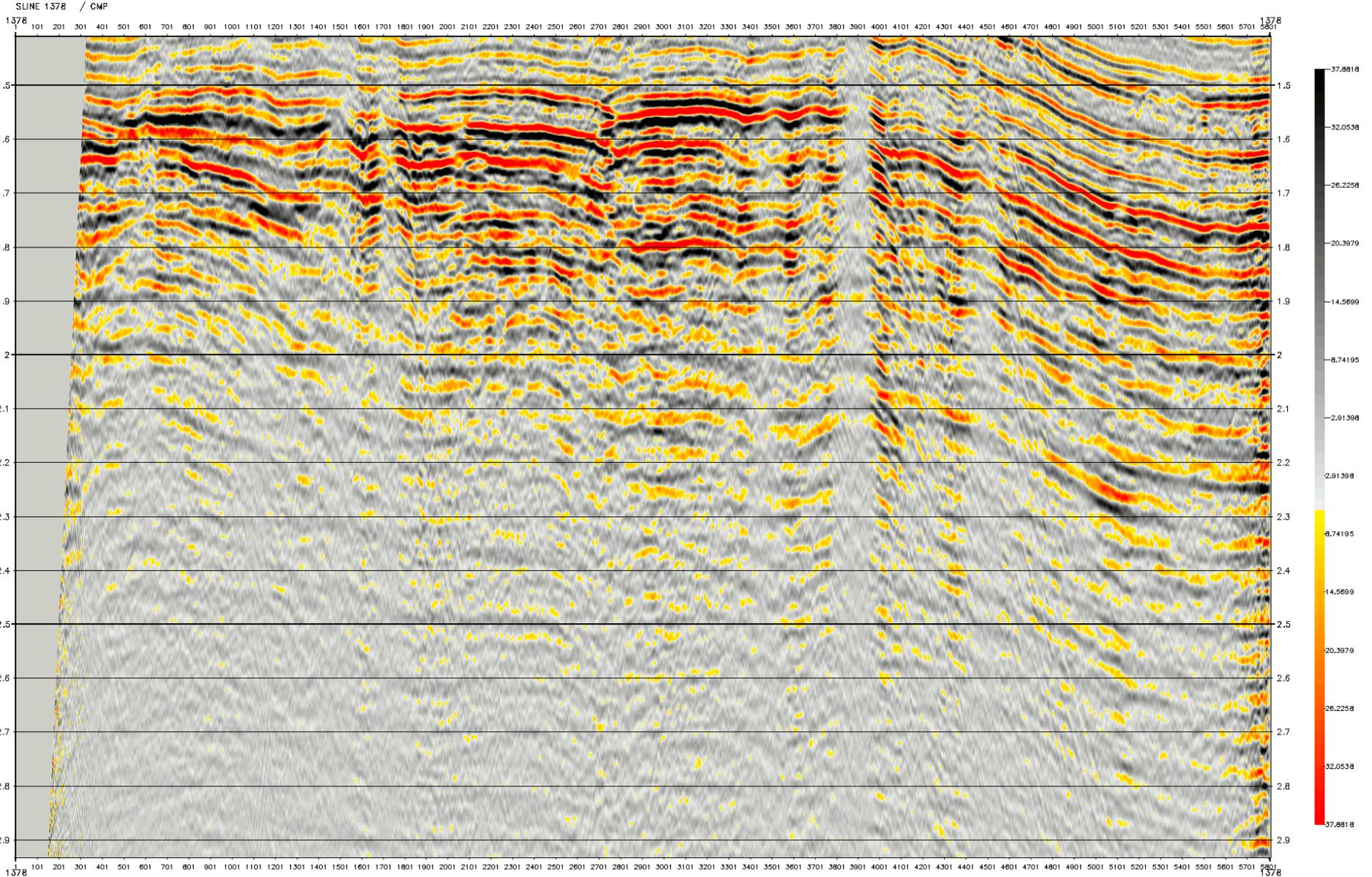

Tango:vegas:spr224ws:s563tap:1378s11 notp stk.1

With Tau-P (test 1) – Bottom View
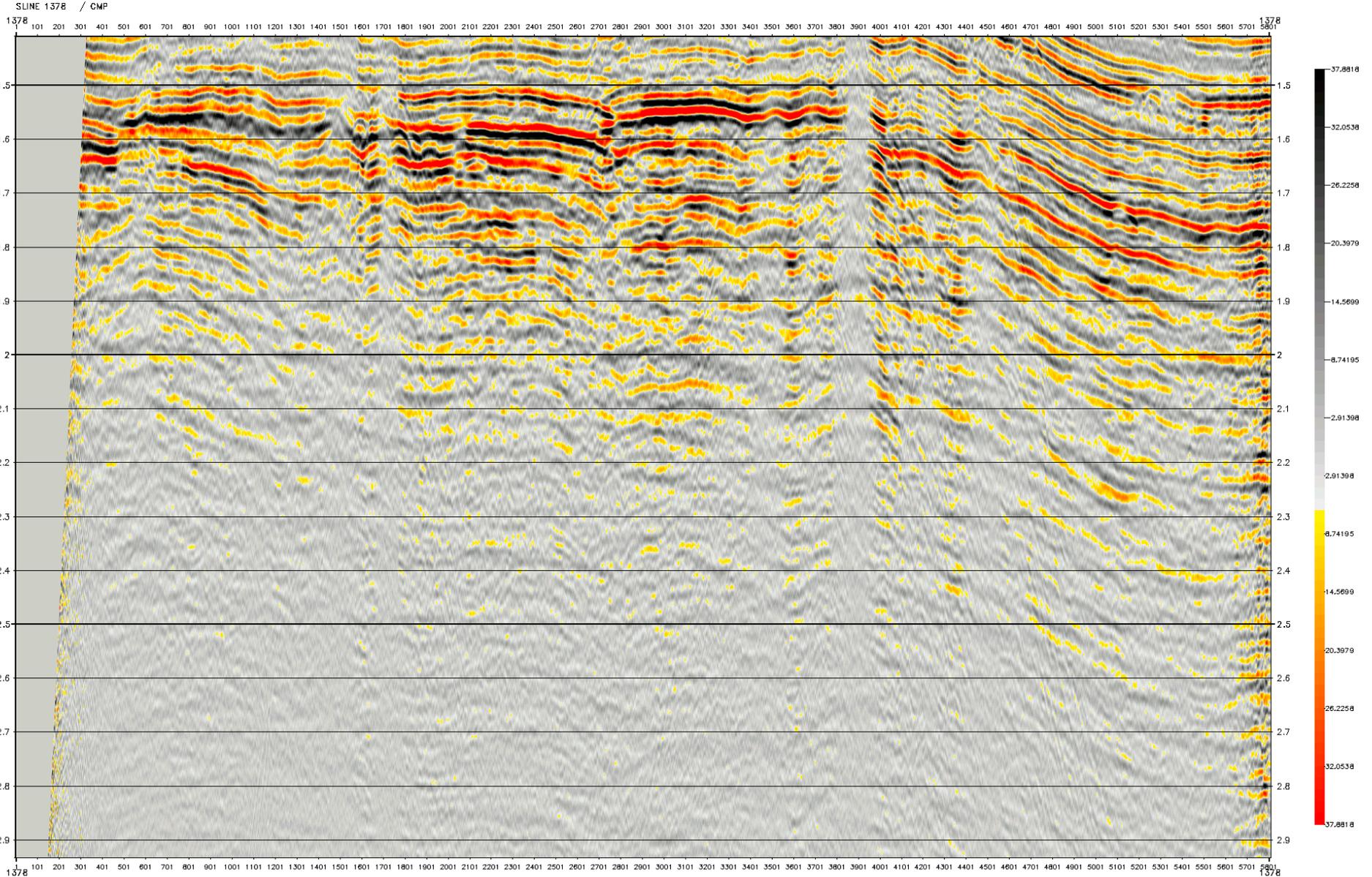
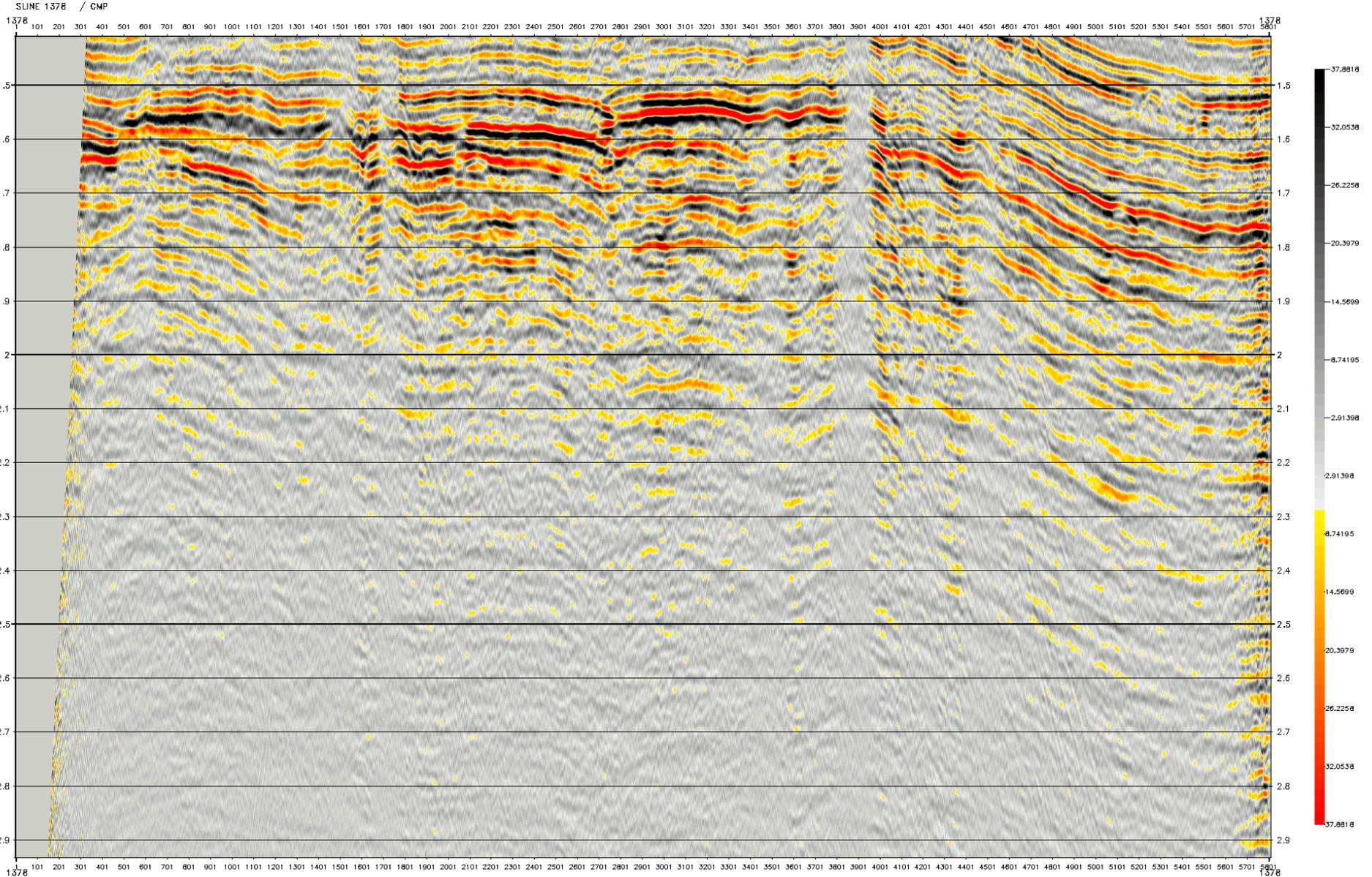# With SRME (test2) – Bottom View
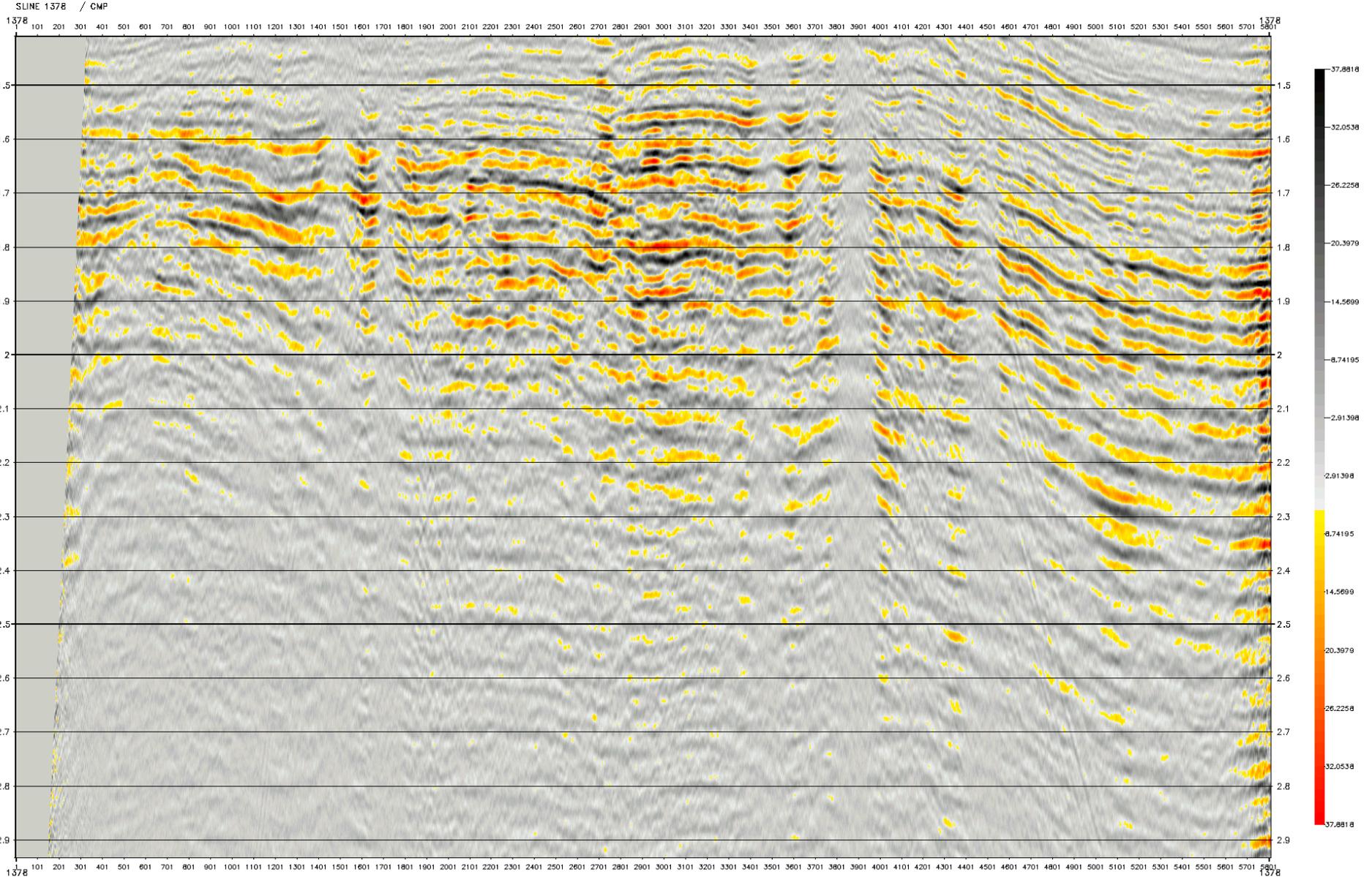

Tango:vegas:spr224ws:s563tap:1378s11 srme2 stk.1

With SRME + Tau-P (test3) – Bottom View

With Tau-P + SRME (test 4) – Bottom View
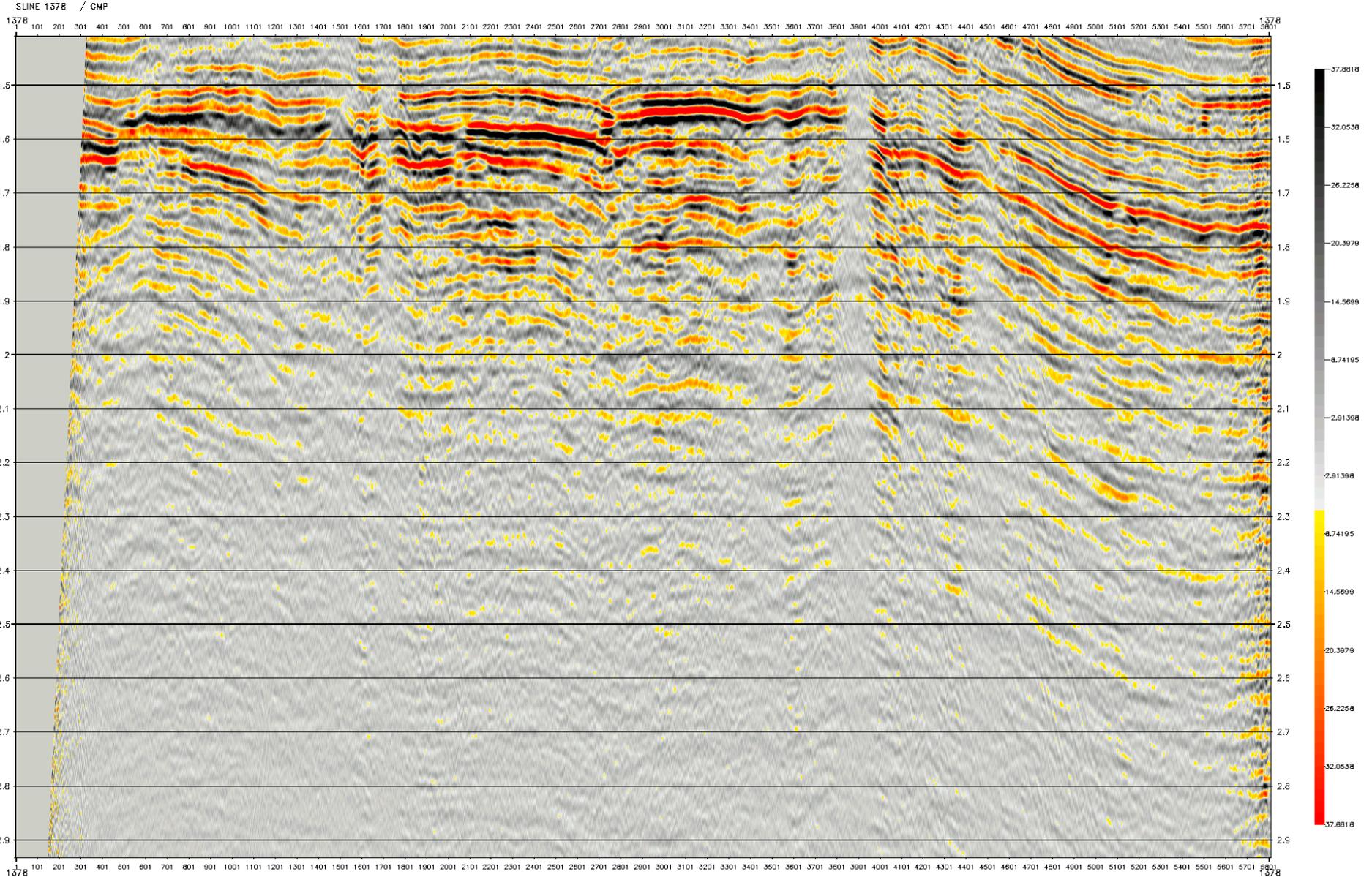
Difference display – Tau-P (test 1) Bottom View

Difference display – SRME (test 2) Bottom View
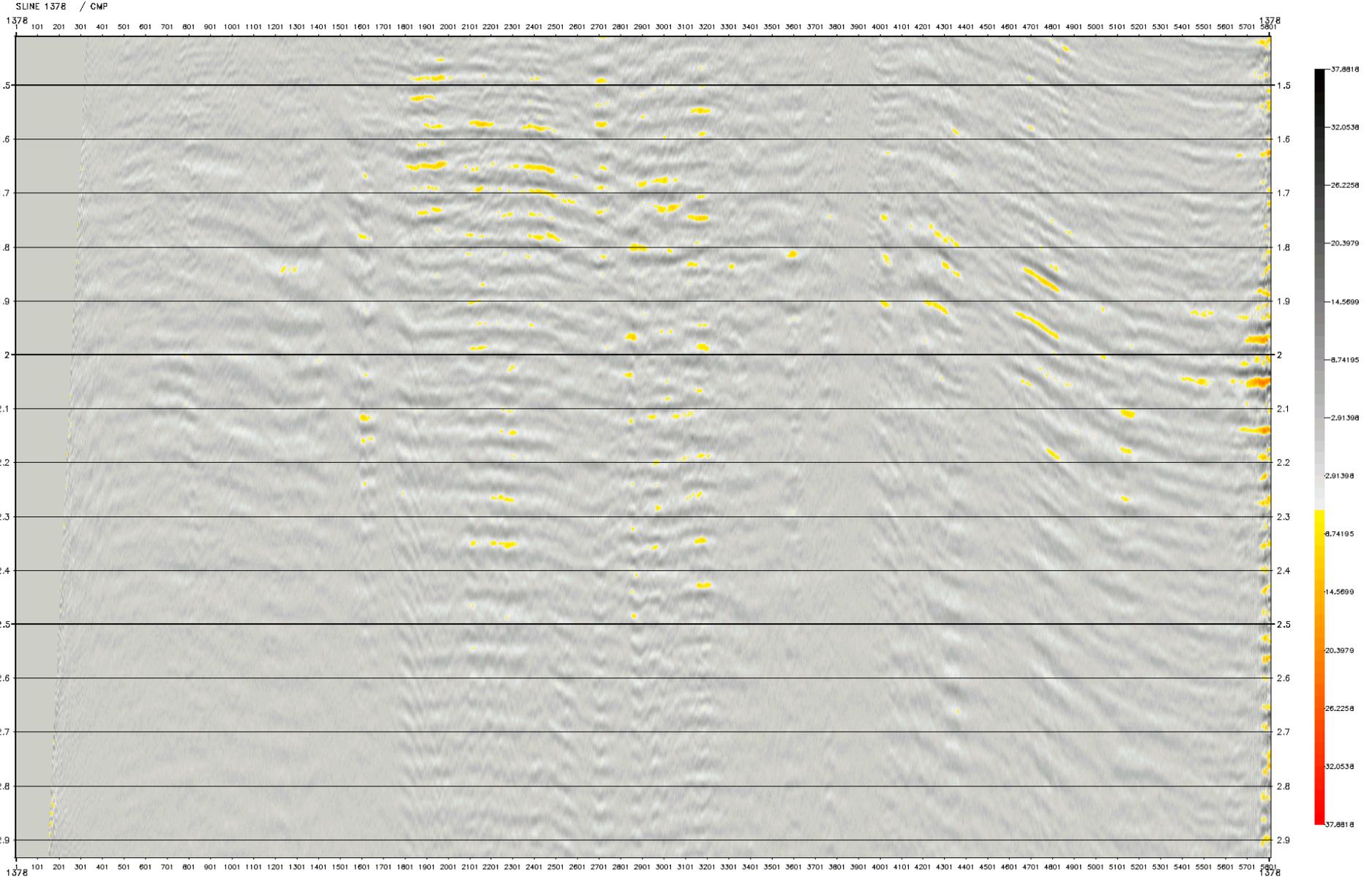
Difference display – SRME + Tau-P (test 3) Bottom View

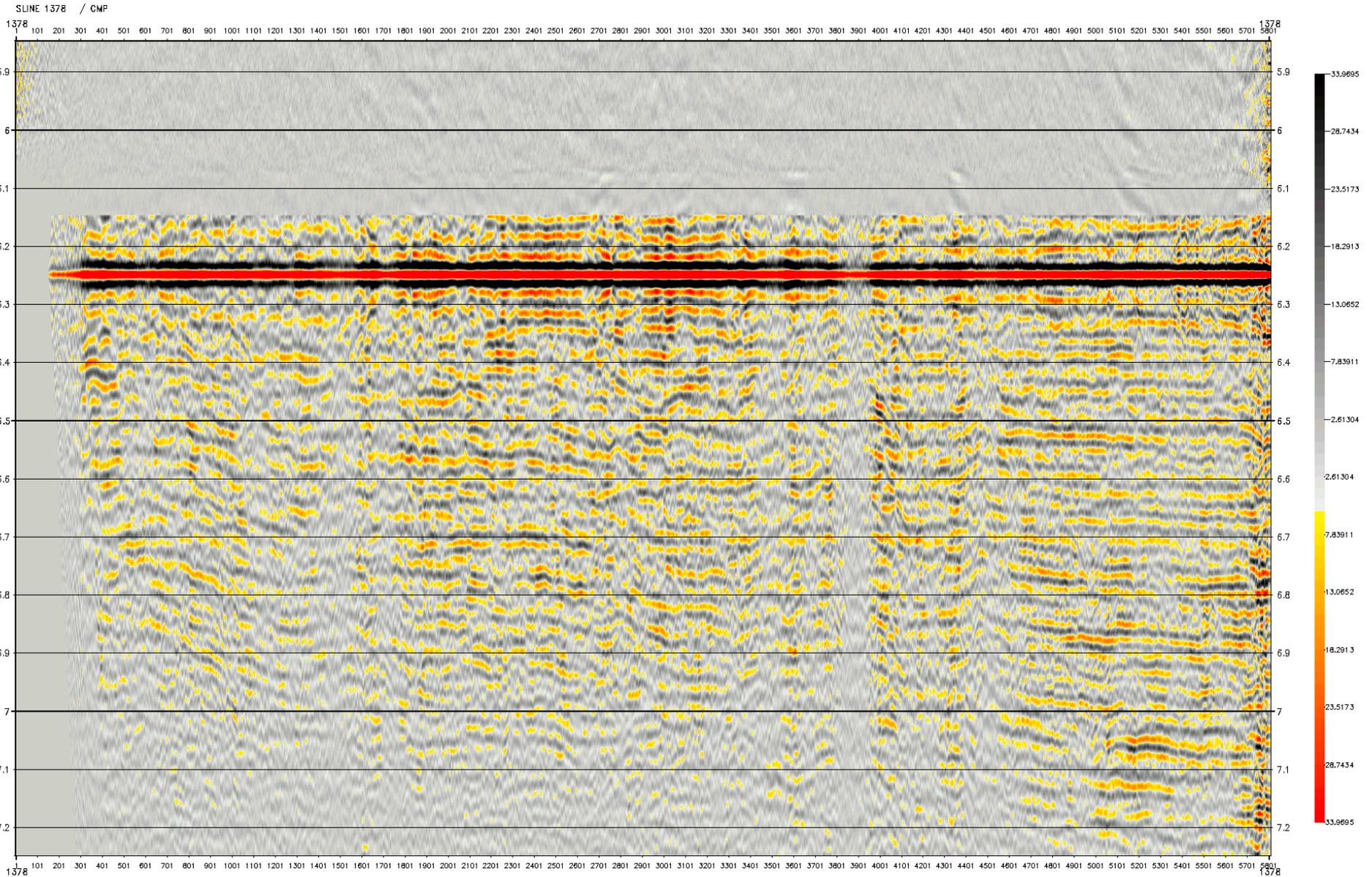# Difference display – Tau-P + SRME (test 4) Bottom View
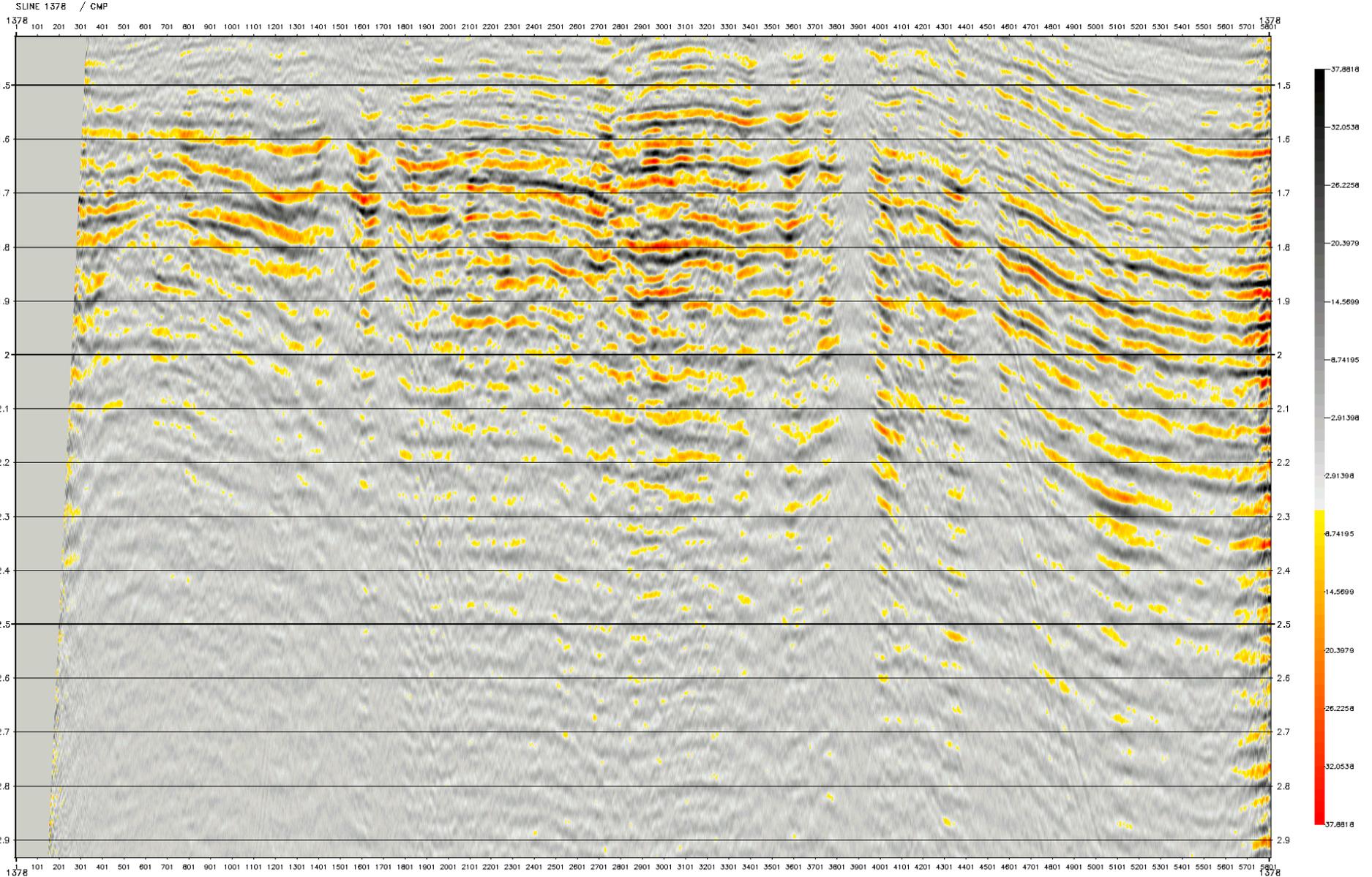
Input – Autocorrelation, window 1000 to 3000ms

Tango:vegas:spr224ws:s563tap:1378s11 notp stk.1
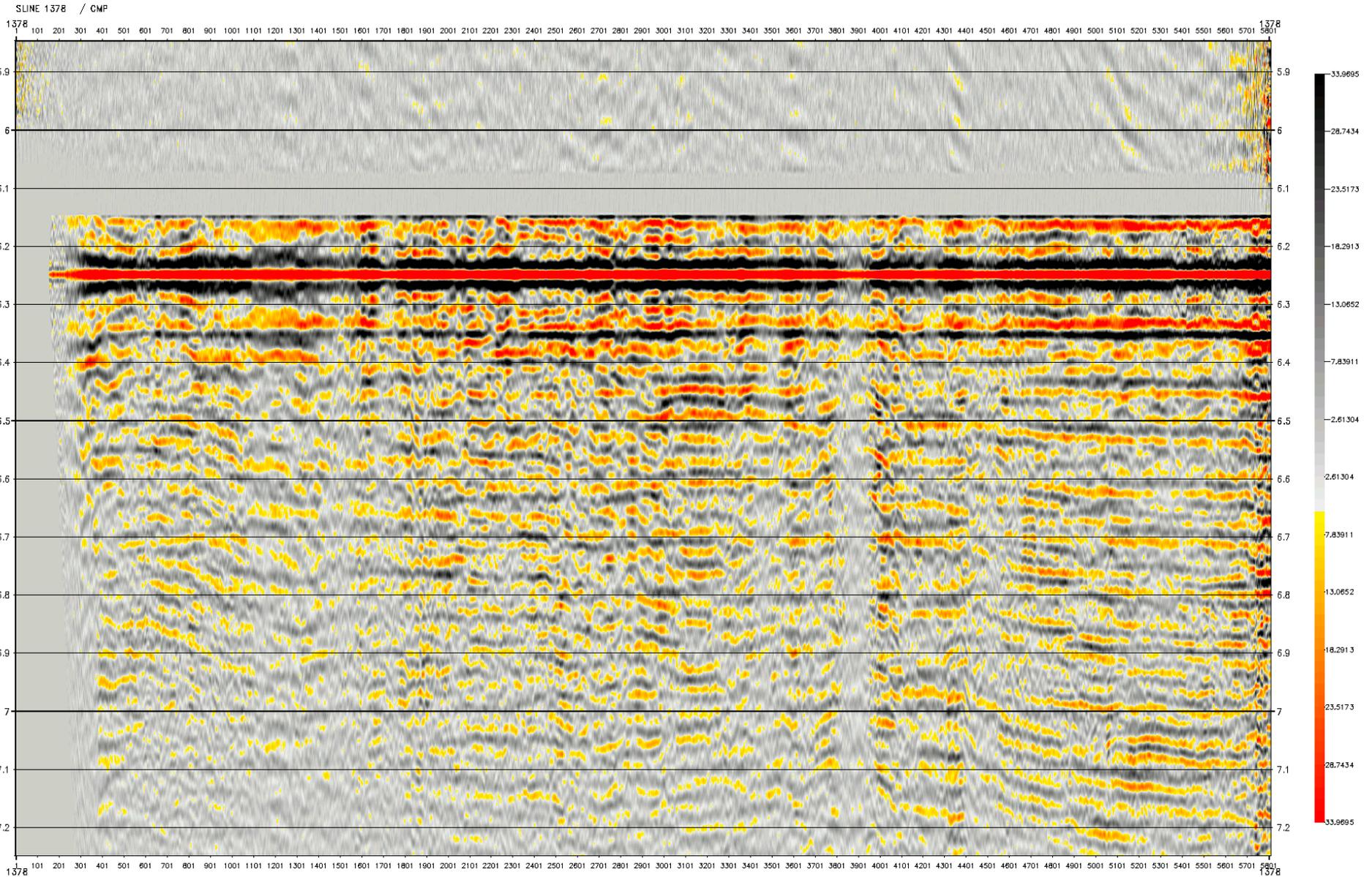
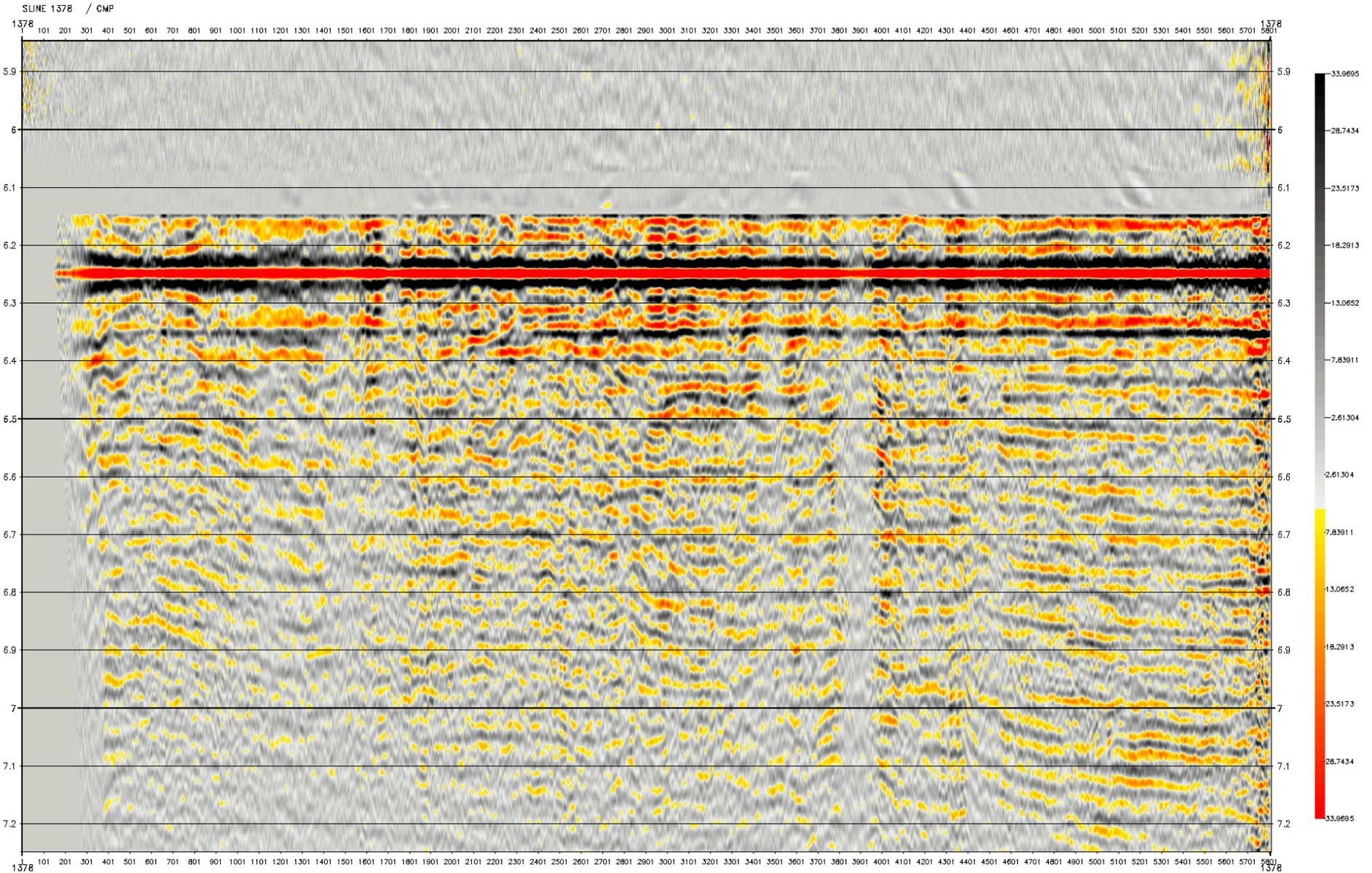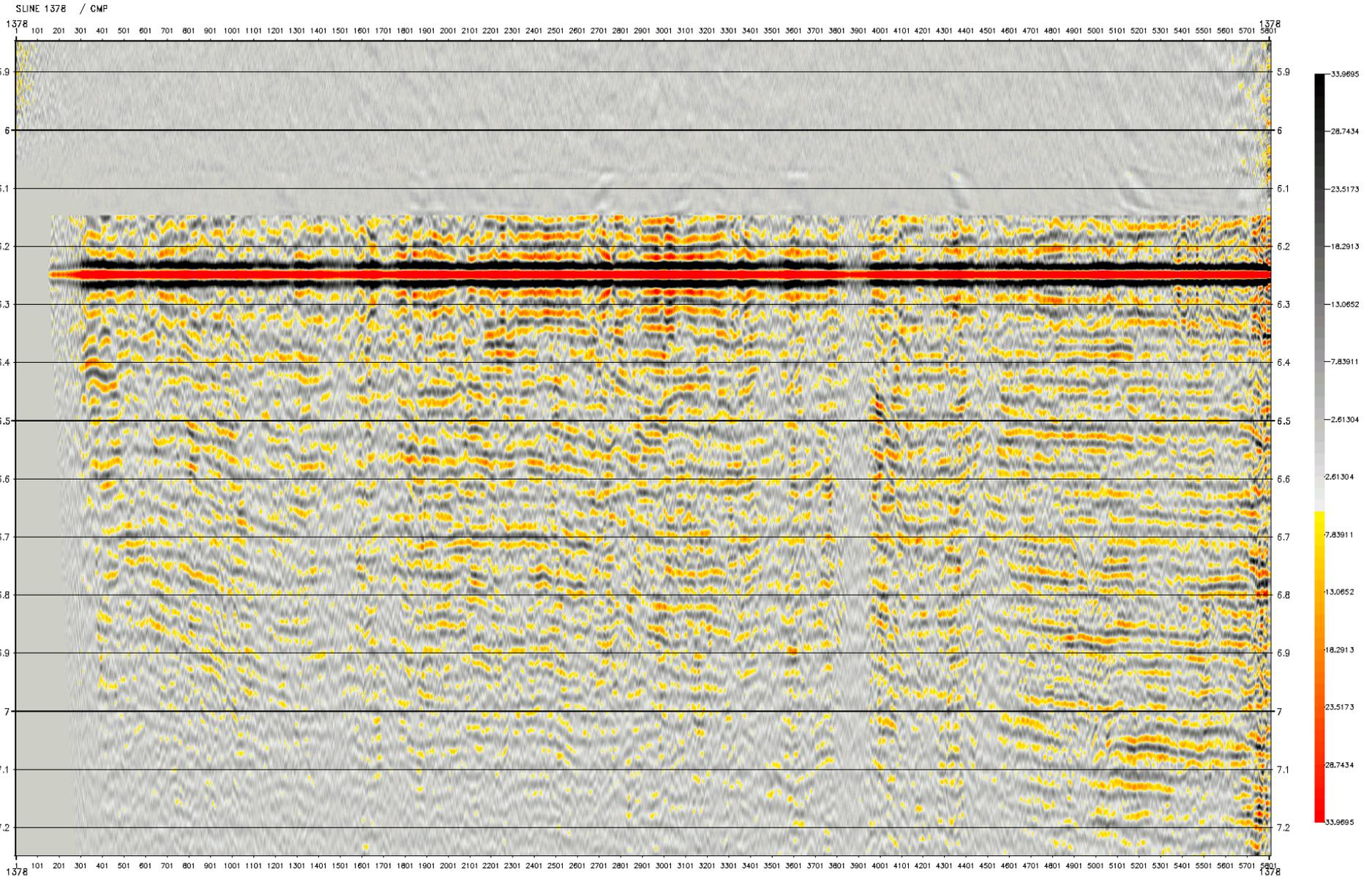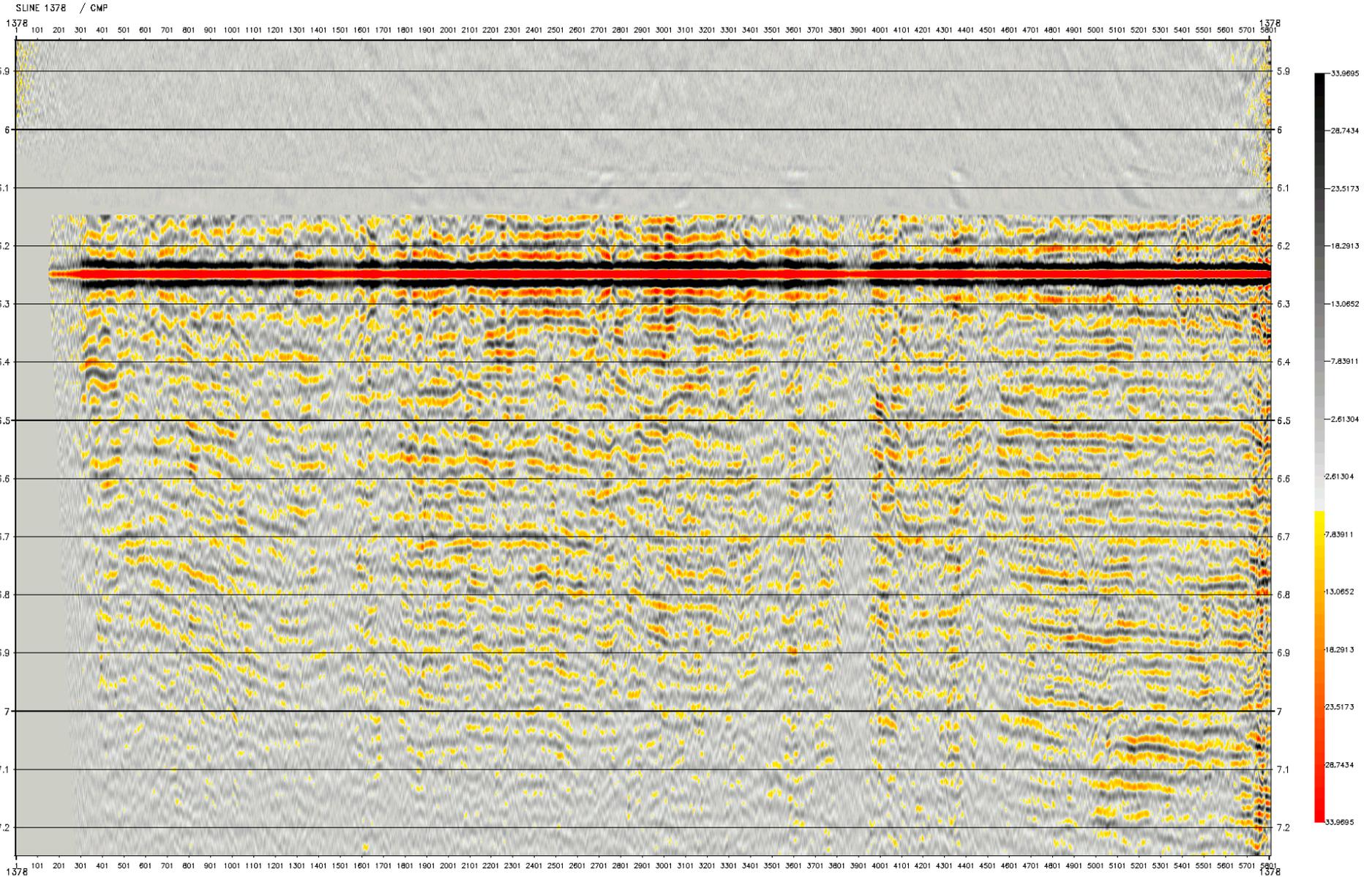# With Tau-P (test1) – Autocorrelation, window 1000 to 3000ms

With SRME (test2) – Autocorrelation, window 1000 to 3000ms

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With SRME + Tau-P (test3) − Autocorrelation, window 1000 to 3000ms

With Tau-P + SRME (test4) – Autocorrelation, window 1000 to 3000ms

Recommendation

- Among the 4 combinations, Test 1 (only taup) and test 4 (taup + srme) looks better. It looks like, there is not much advantage of applying SRME on the data.