

Tap Oil T/47P 3D PSTM



Swell Noise Attenuation Test
Sail line 1378P1002
Shots display

Processing Flow

- Reformat
- Navigation merge
- Low cut filter 3Hz 18dB
- De-signature
- Resample to 4ms using AA filter 110Hz 96dB
- Source and receiver correction
- Spherical divergence correction $V*V*T$
- Swell noise attenuation Test

Test Summary

- Four tests have been conducted:

- Test 1**

- The test is conducted in shot domain
- Parameters are:
- Frequency range: 0 to 20 Hz
- No. of traces : 101
- Window length: 0 to 6000ms

- Start time:

Time	channel
1160	1
1500	75
1750	115
2000	160
4700	480

- Threshold tested: 2.0, 2.25 and 2.5

Test Summary

- **Test 2**

- The test is conducted in Channel domain
- Parameters are:
 - Frequency range: 0 to 20 Hz
 - No. of traces : 101
 - Window length: 0 to 6000ms
 - Start time: 1300ms
 - Threshold tested: 1.25, 1.5 and 1.75

Test Summary

- **Test 3**

- The test is conducted in Channel domain + Shot domain
- First pass of swell noise attenuation is done in channel domain and second pass in shot domain

- **Parameters are:**

- Frequency range: 0 to 20 Hz
- No. of traces : 101
- Window length: 0 to 6000ms
- Start time for 1st pass is 1300ms
- Start time for 2nd pass is

Time	channel
1160	1
1500	75
1750	115
2000	160
4700	480

- **Threshold used: 1.5 for 1st pass and 2.25 for 2nd pass**

Test Summary

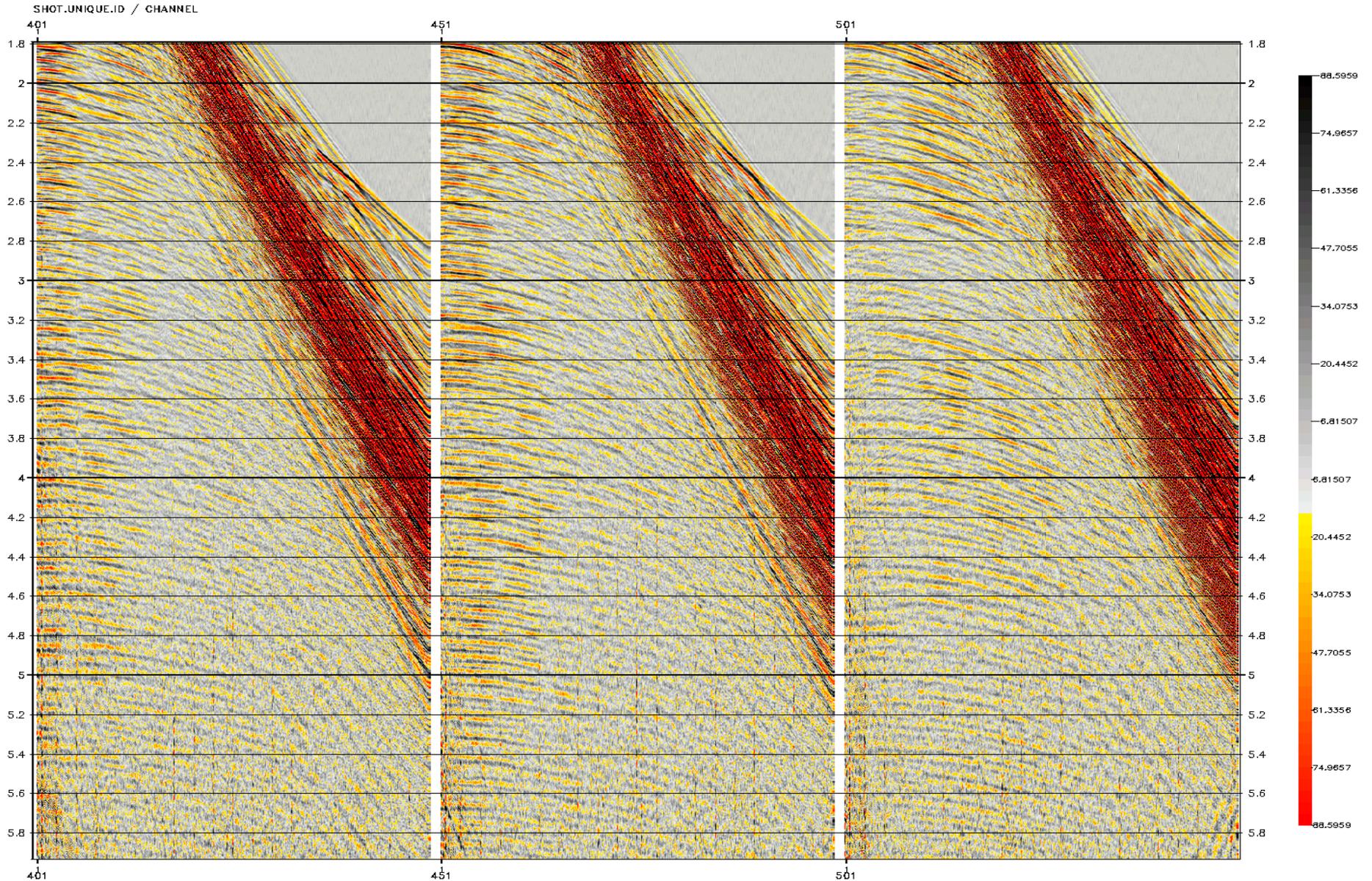
- **Test 4**

- The test is conducted in shot domain
- Two passes of swell noise attenuation is done – 1st pass is for swell noise attenuation and 2nd pass is for despiking
- Parameters for 1st pass are:
 - Frequency range: 0 to 20 Hz
 - No. of traces : 101
 - Window length: 0 to 6000ms
 - Threshold used: 2.25
- Parameters for 2nd pass are:
 - Frequency range: 0 to 70 Hz
 - No. of traces: 31
 - Window length: 500ms
 - Threshold tested: 1.75, 2.0 and 2.25
- Start time is same for both passes:

Time	channel
1160	1
1500	75
1750	115
2000	160
4700	480

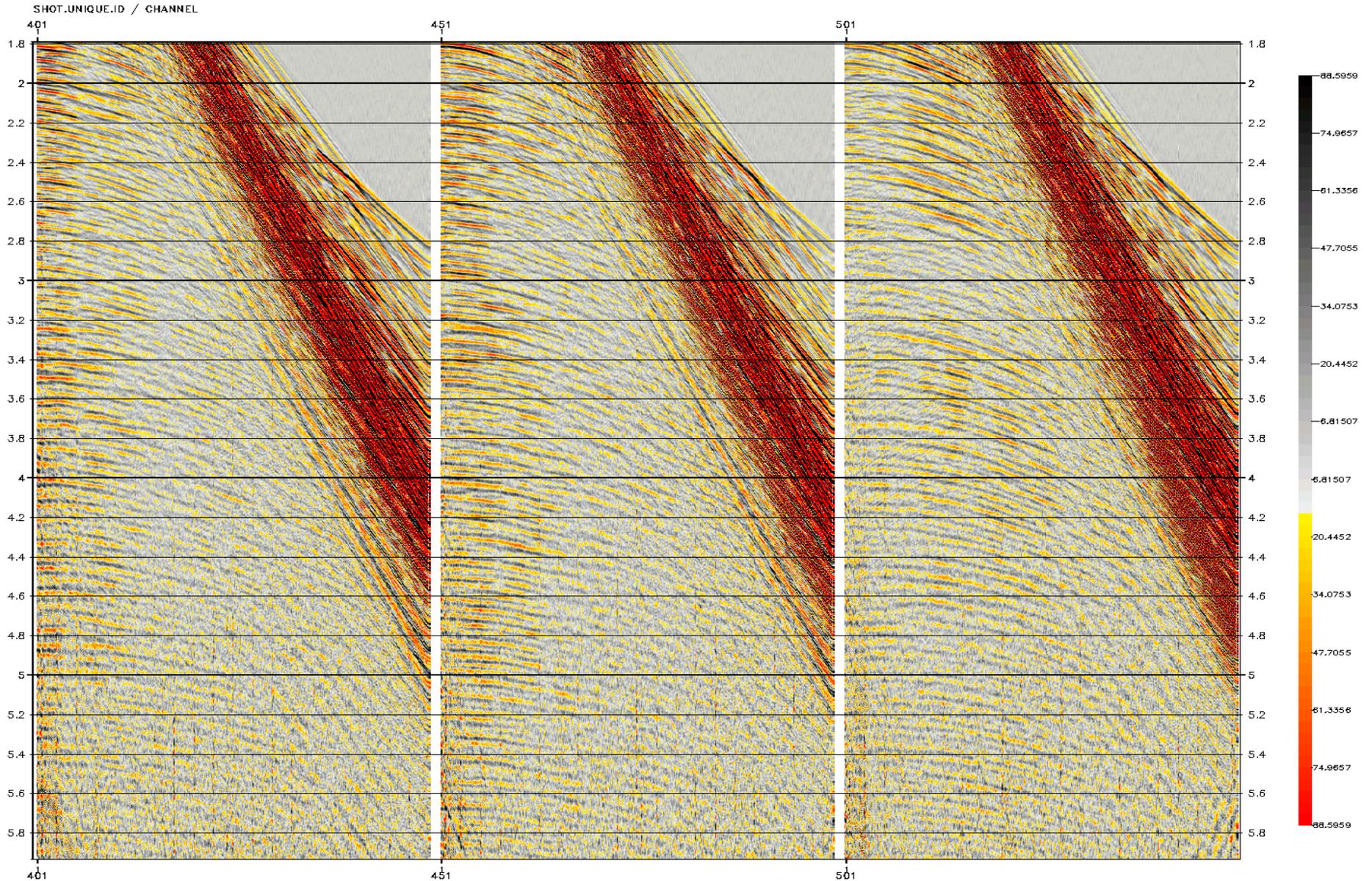
Input

Tango:vegas:spr224ws:s563lap:1378 div v2f sht.1



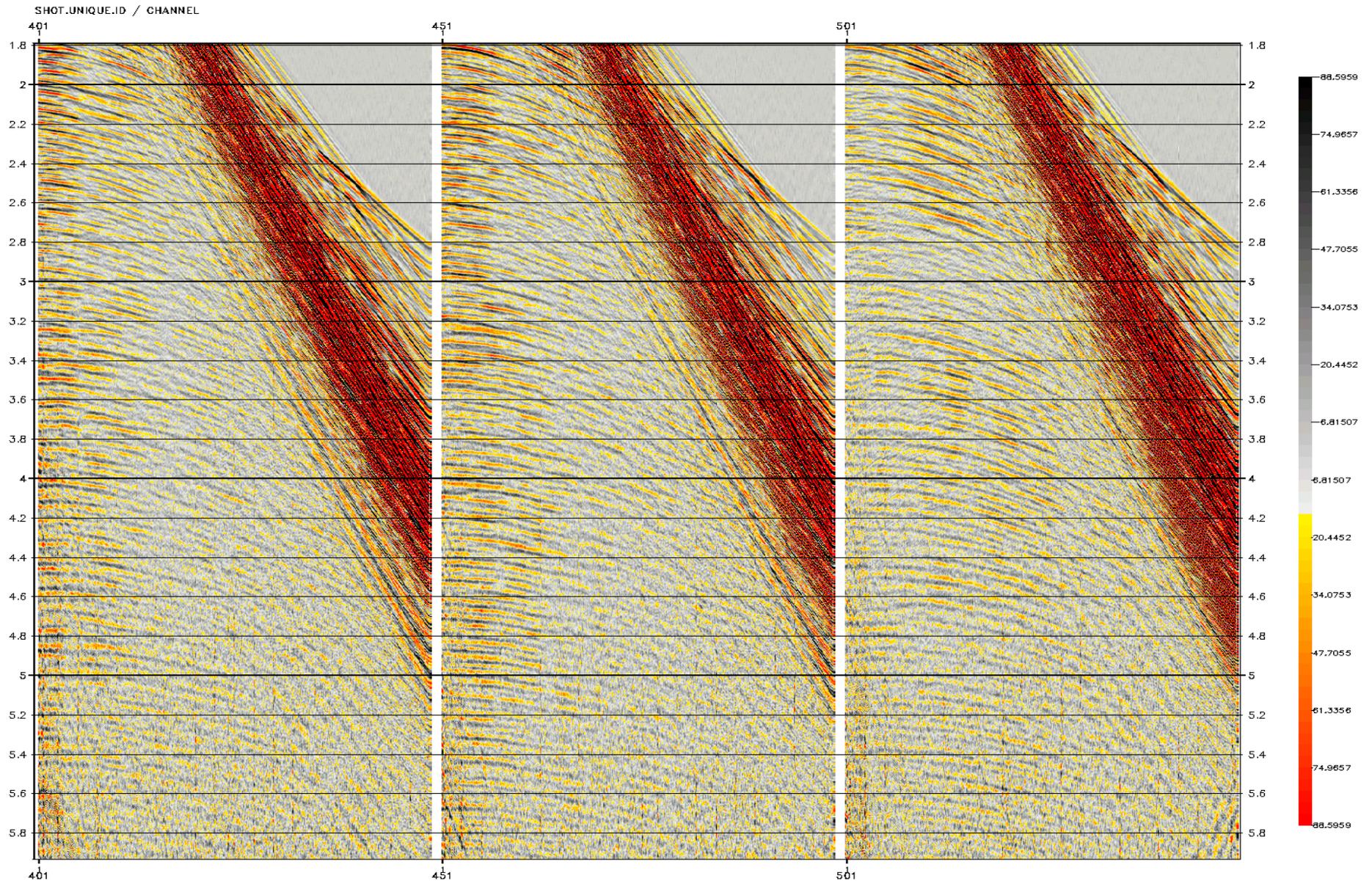
Test 1: Threshold 2.5

Tango:vegas:spr224ws:s563lap:1378 fx1p 25i.1



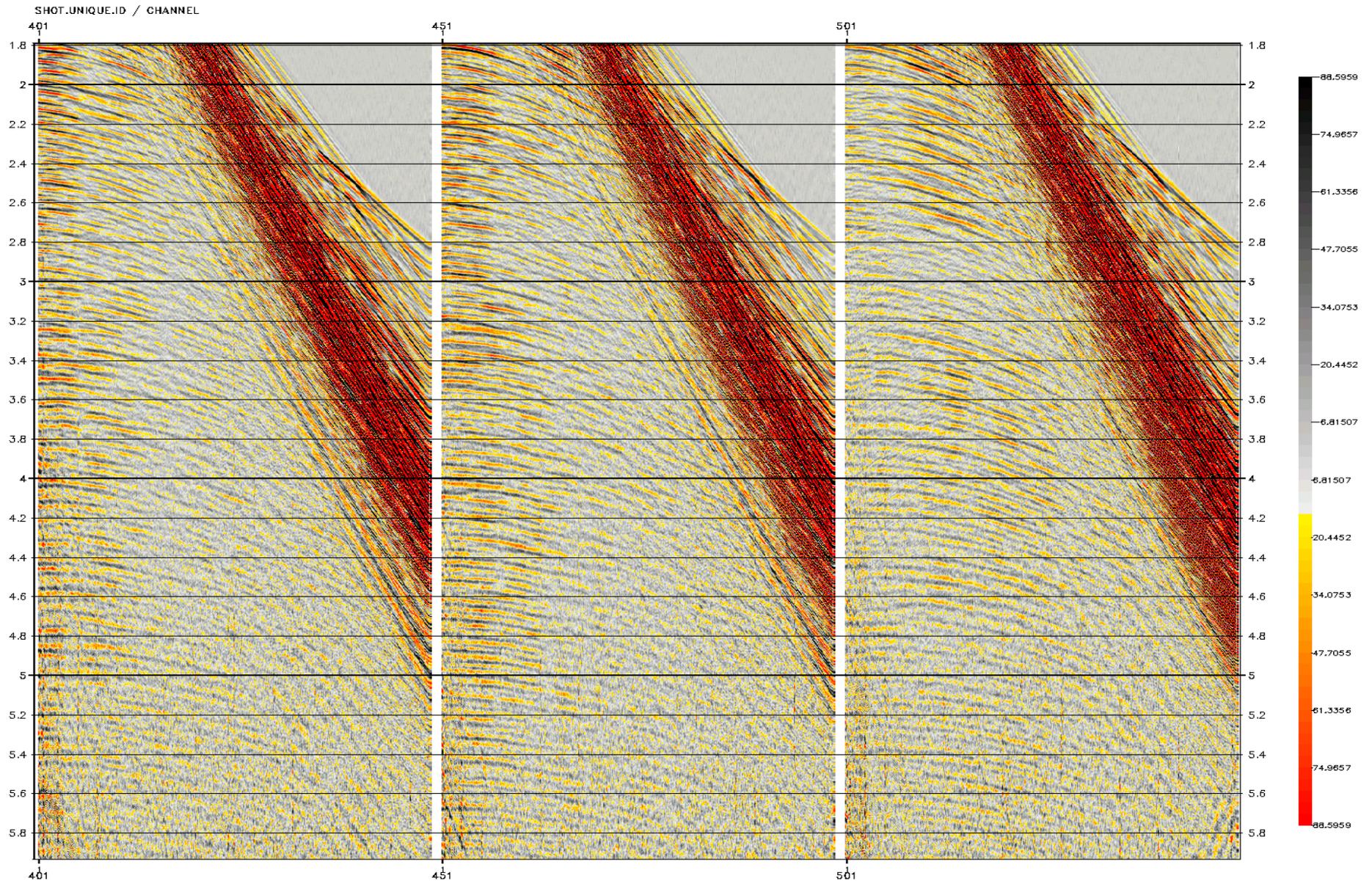
Test 1: Threshold 2.25

Tango:vegas:spr224ws:s563top:1378 fx1p 225i.1



Test 1: Threshold 2.0

Tango:vegas:spr224ws:s563lap:1378 fx1p 20i.1



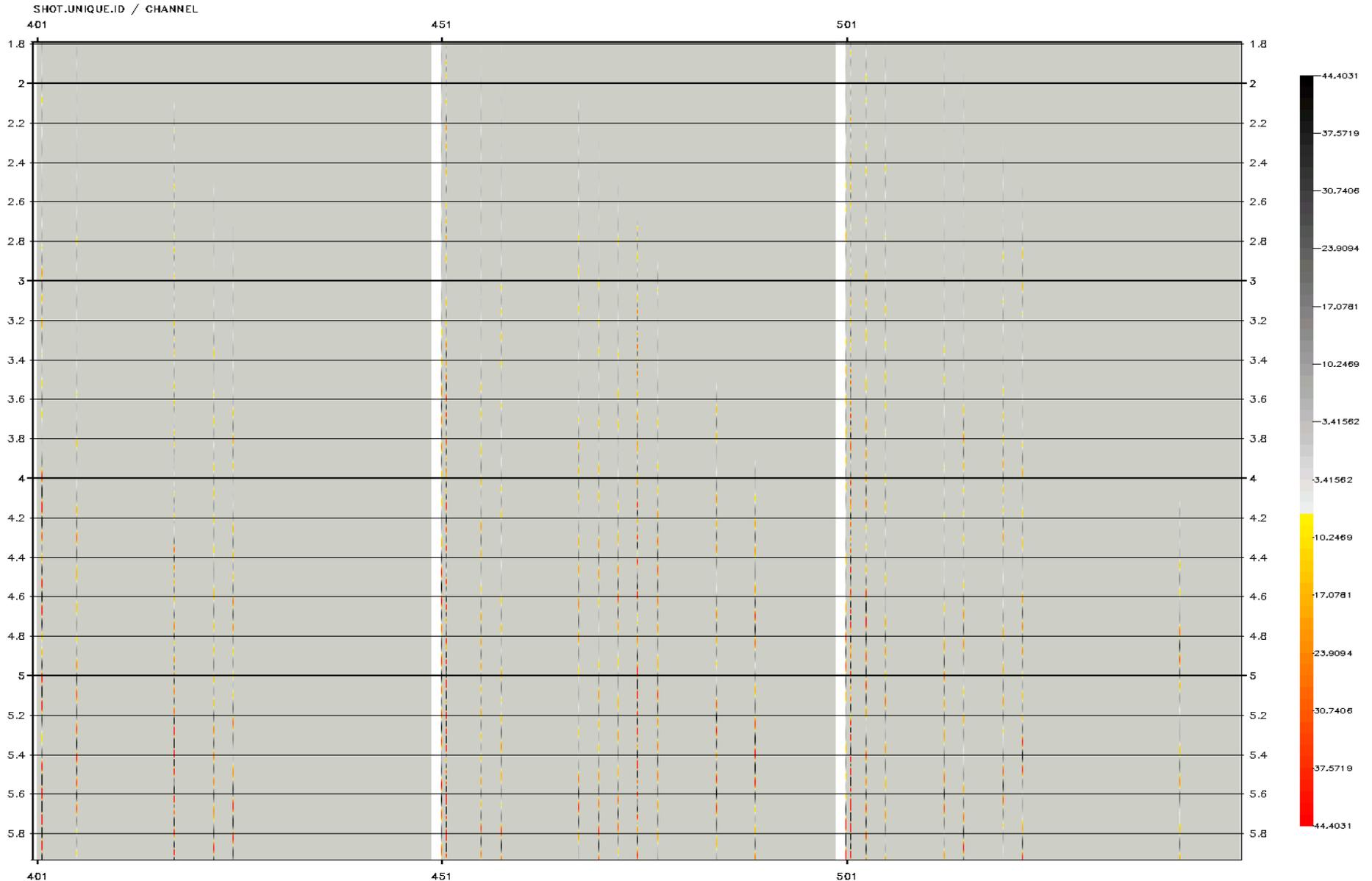
Test 1: Difference display (display gain 9dB) Threshold 2.5

1378 div v2f sht-1378 fx1p 25i



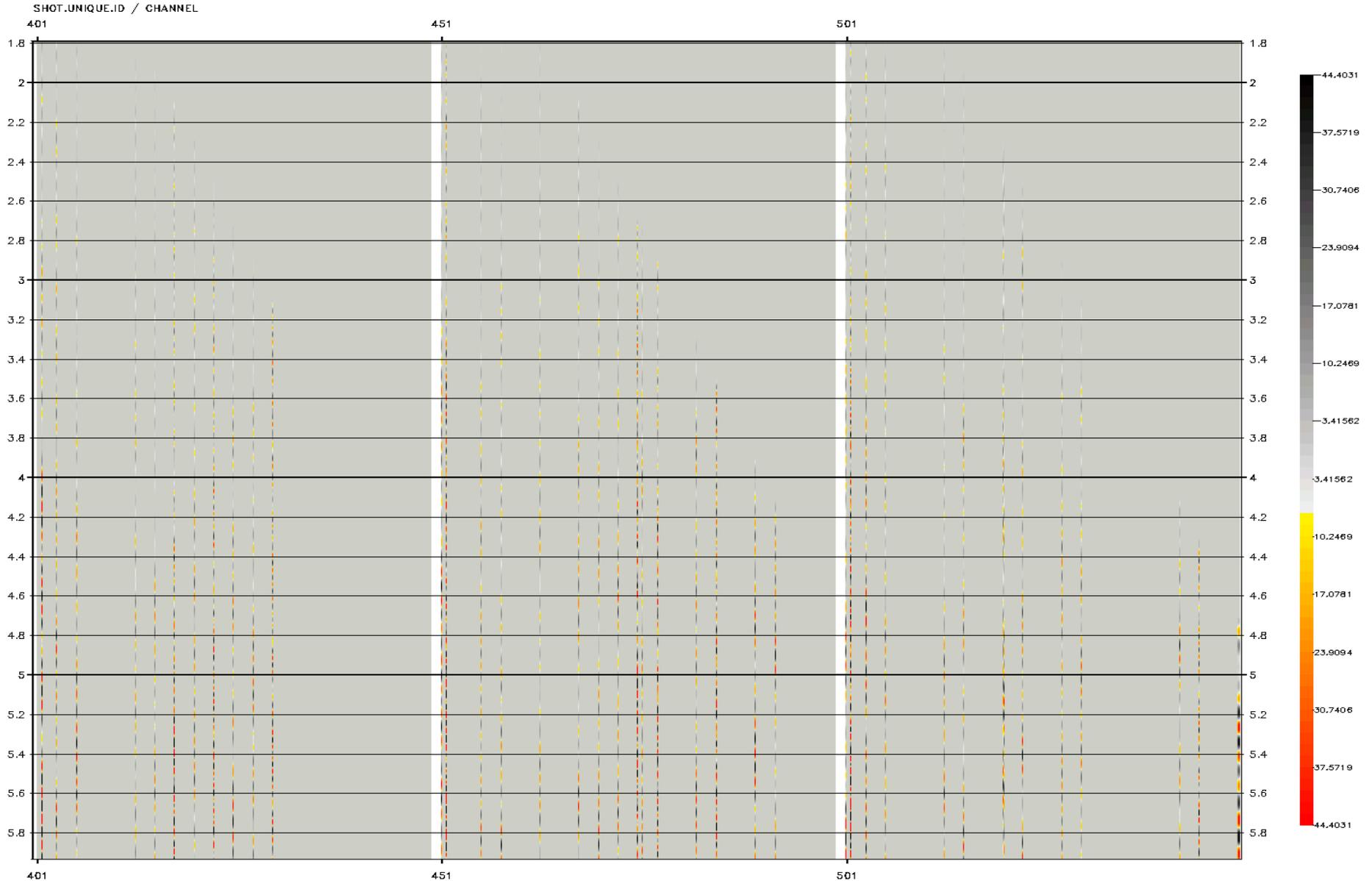
Test 1: Difference display (display gain 9dB) Threshold 2.25

1378 div v2f sht-1378 fx1 p 225i



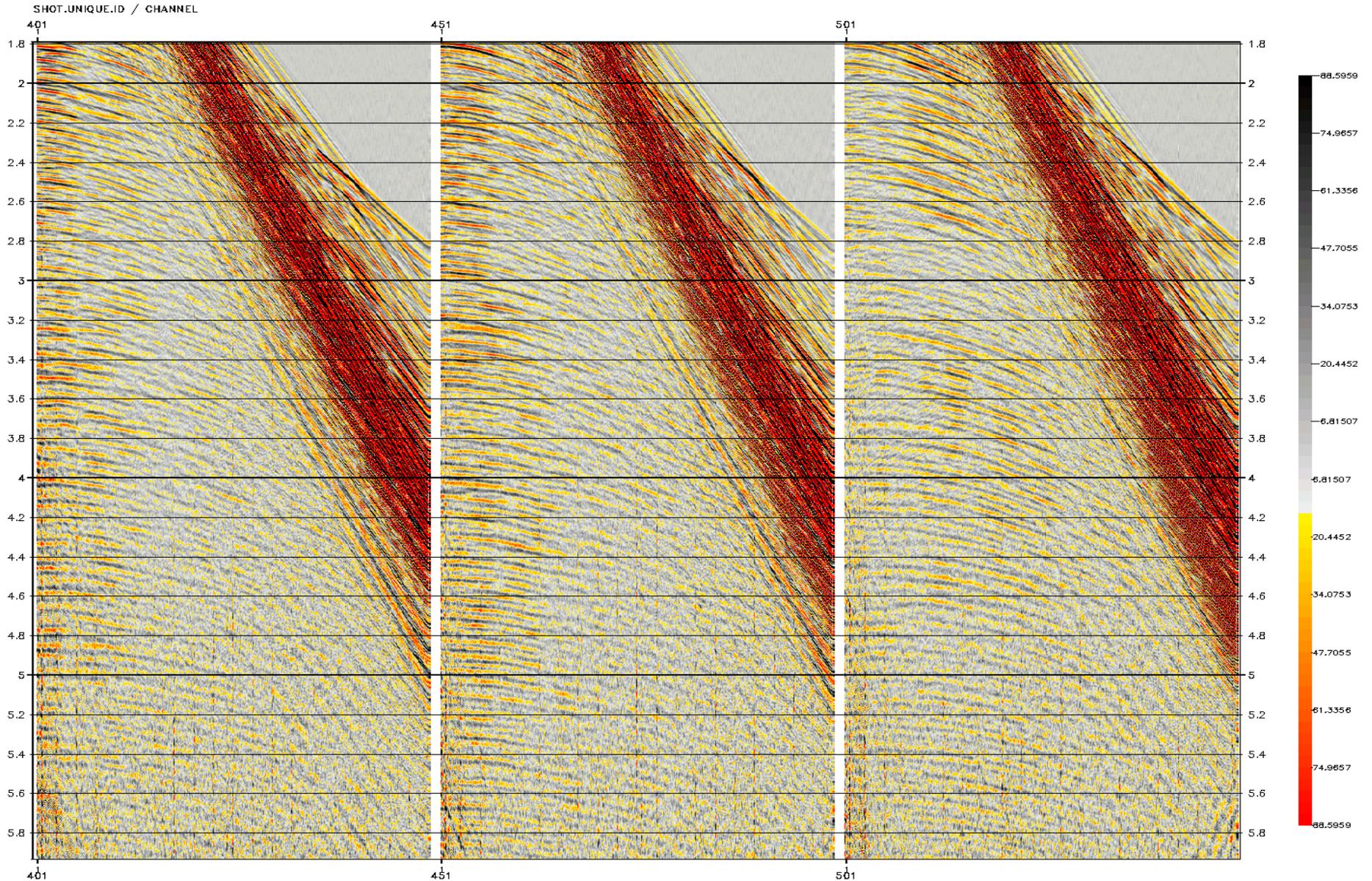
Test 1: Difference display (display gain 9dB) Threshold 2.0

1378 div v2i sht-1378 fx1p 20i



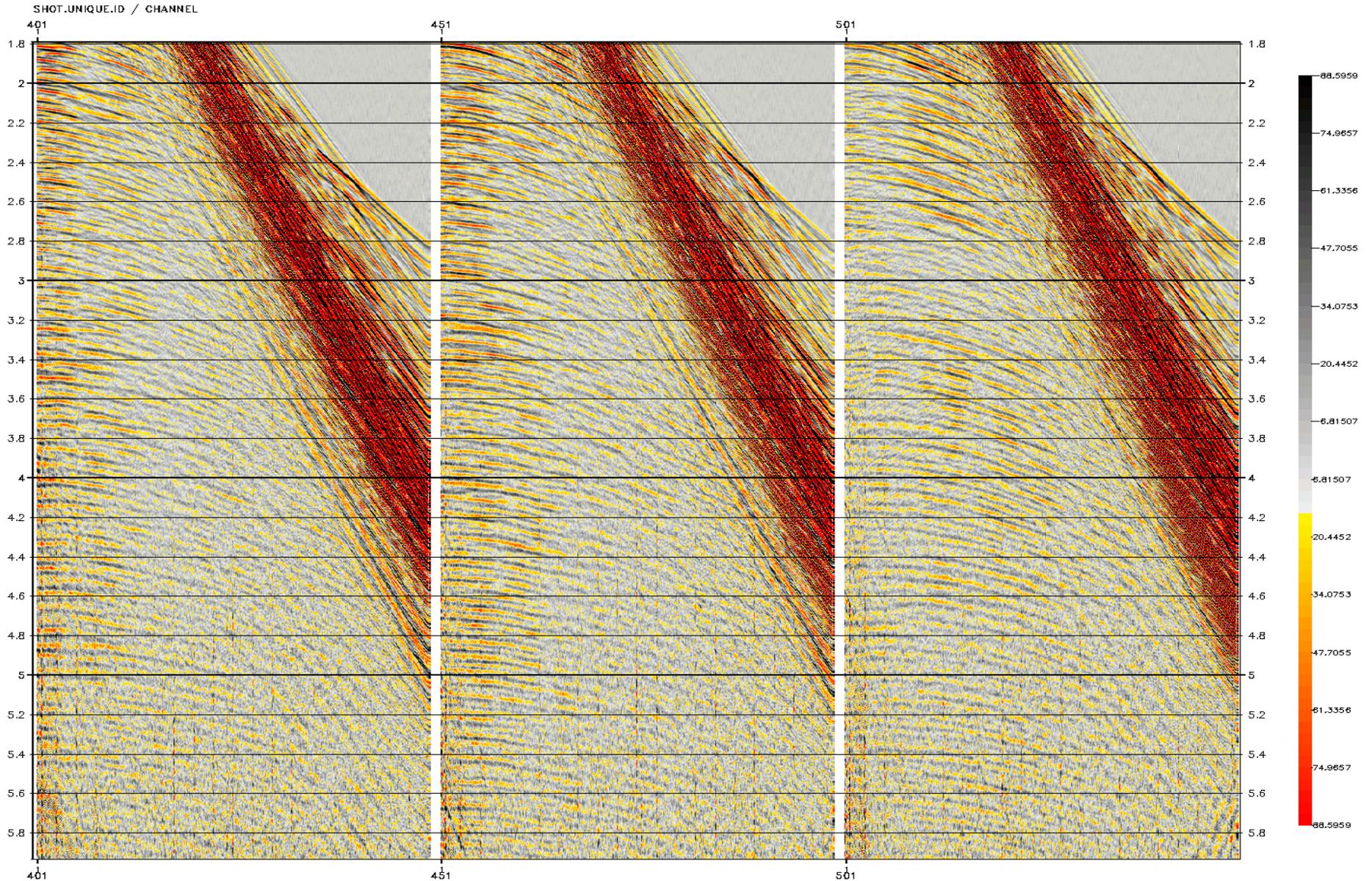
Test 2: Threshold 1.75

Tango:vegas:spr224ws:s563lap:1378 fxch 175b.1



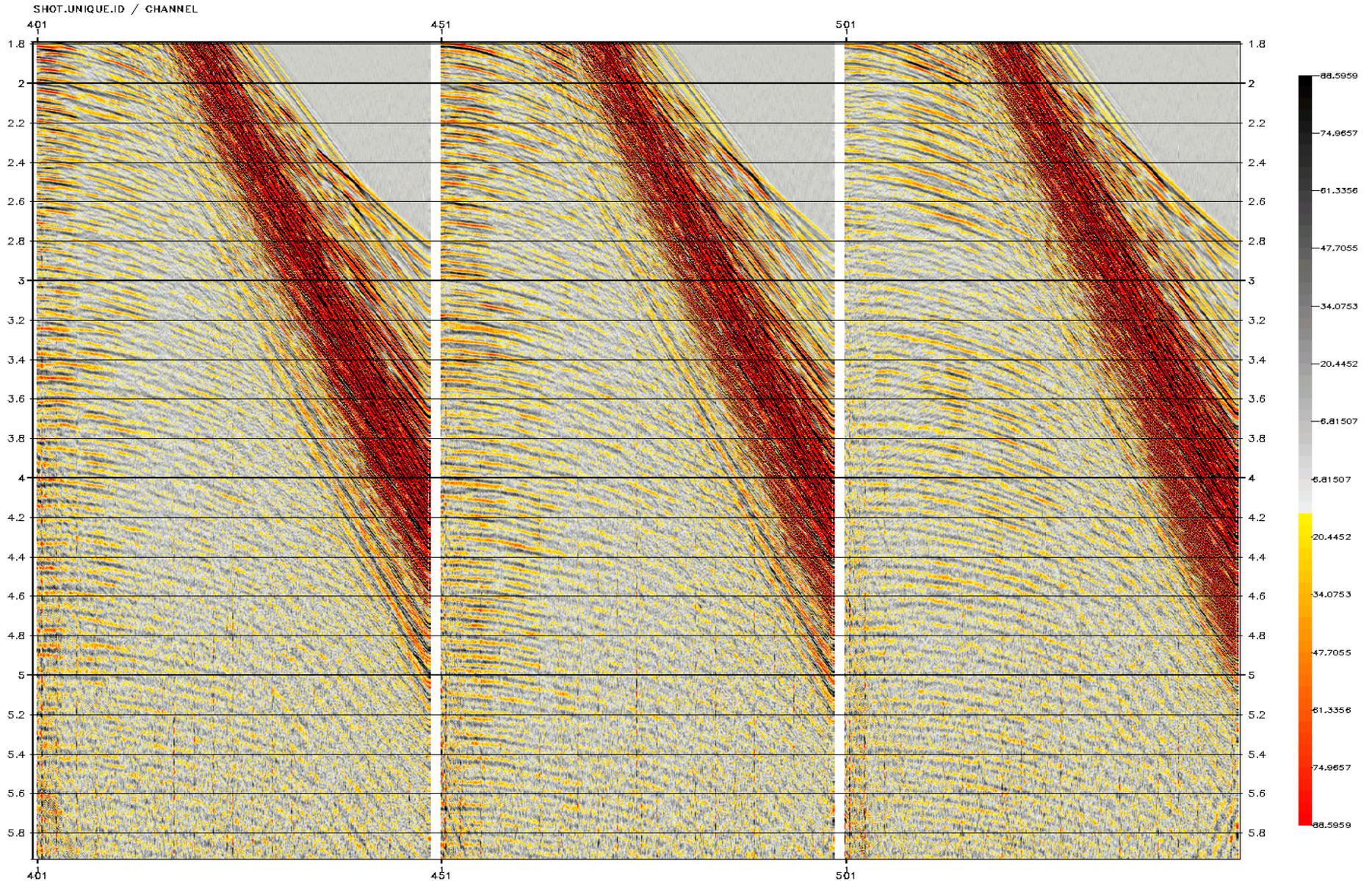
Test 2: Threshold 1.5

Tango:vegas:spr224ws:s563tap:1378 fxch 15b.1



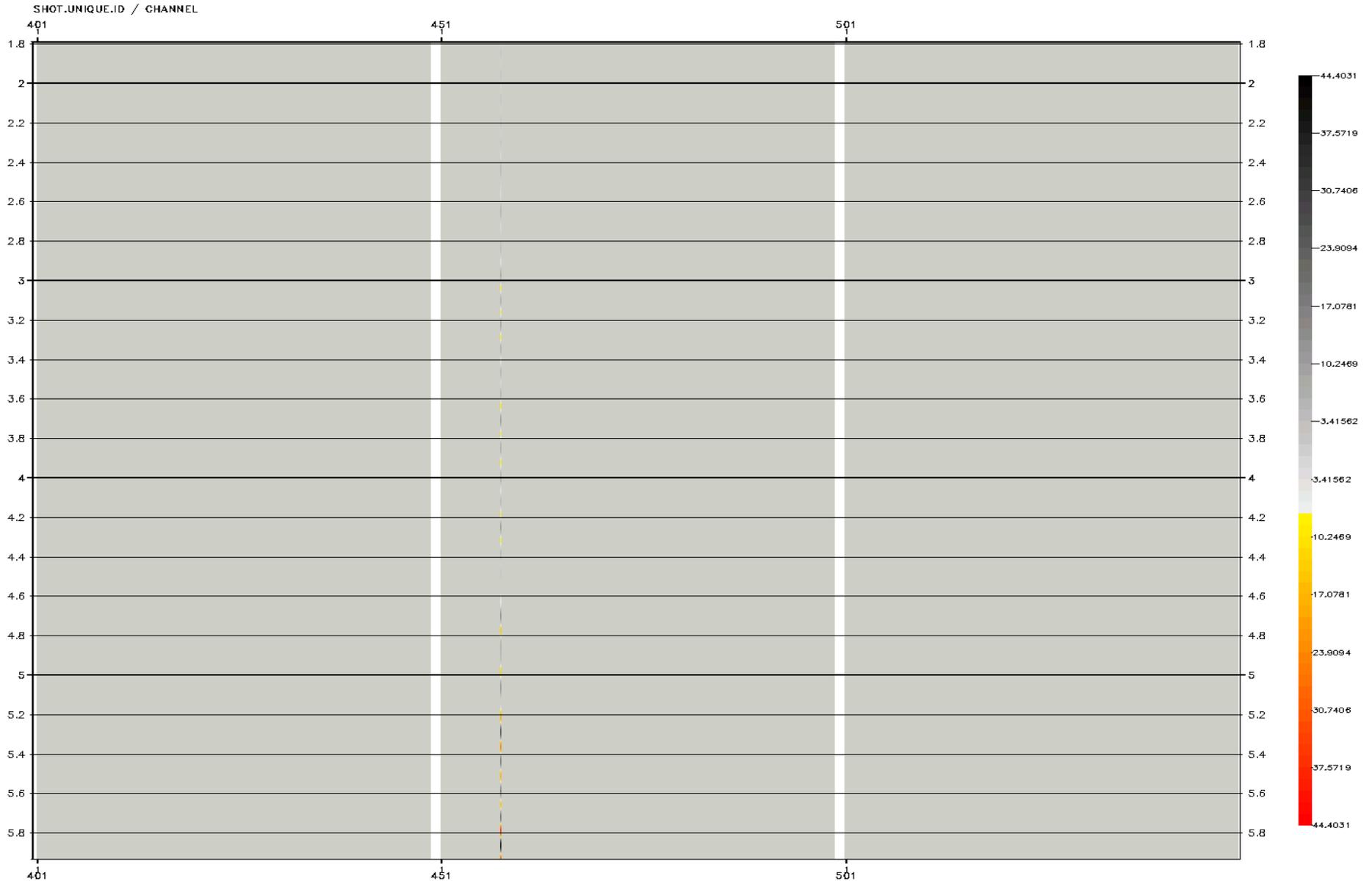
Test 2: Threshold 1.25

Tango:vegas:spr224ws:s563lap:1378 fxch 125b.1



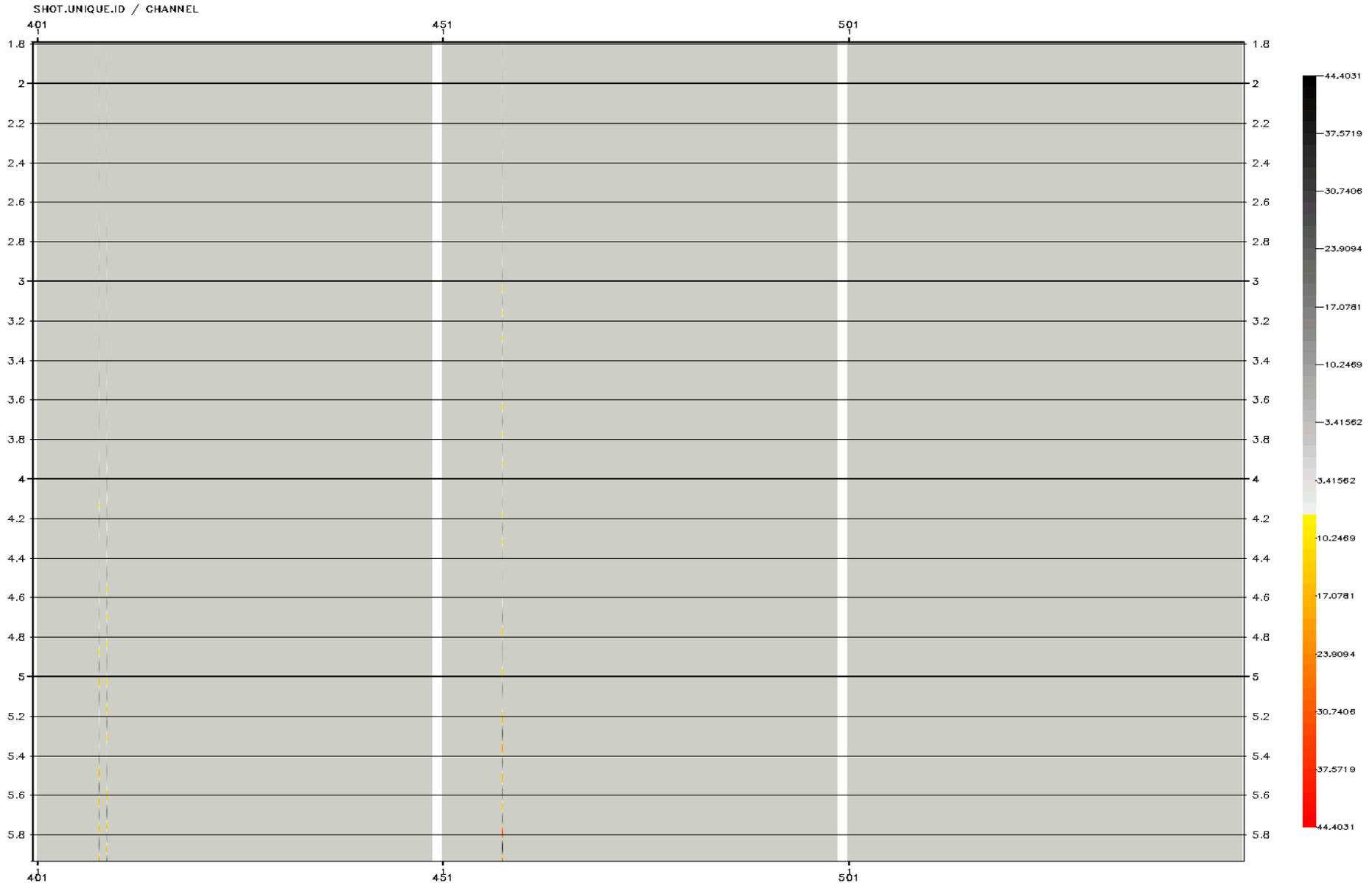
Test 2: Difference display (display gain 9dB) Threshold 1.75

1378 div v2t sht-1378 fxch 175b



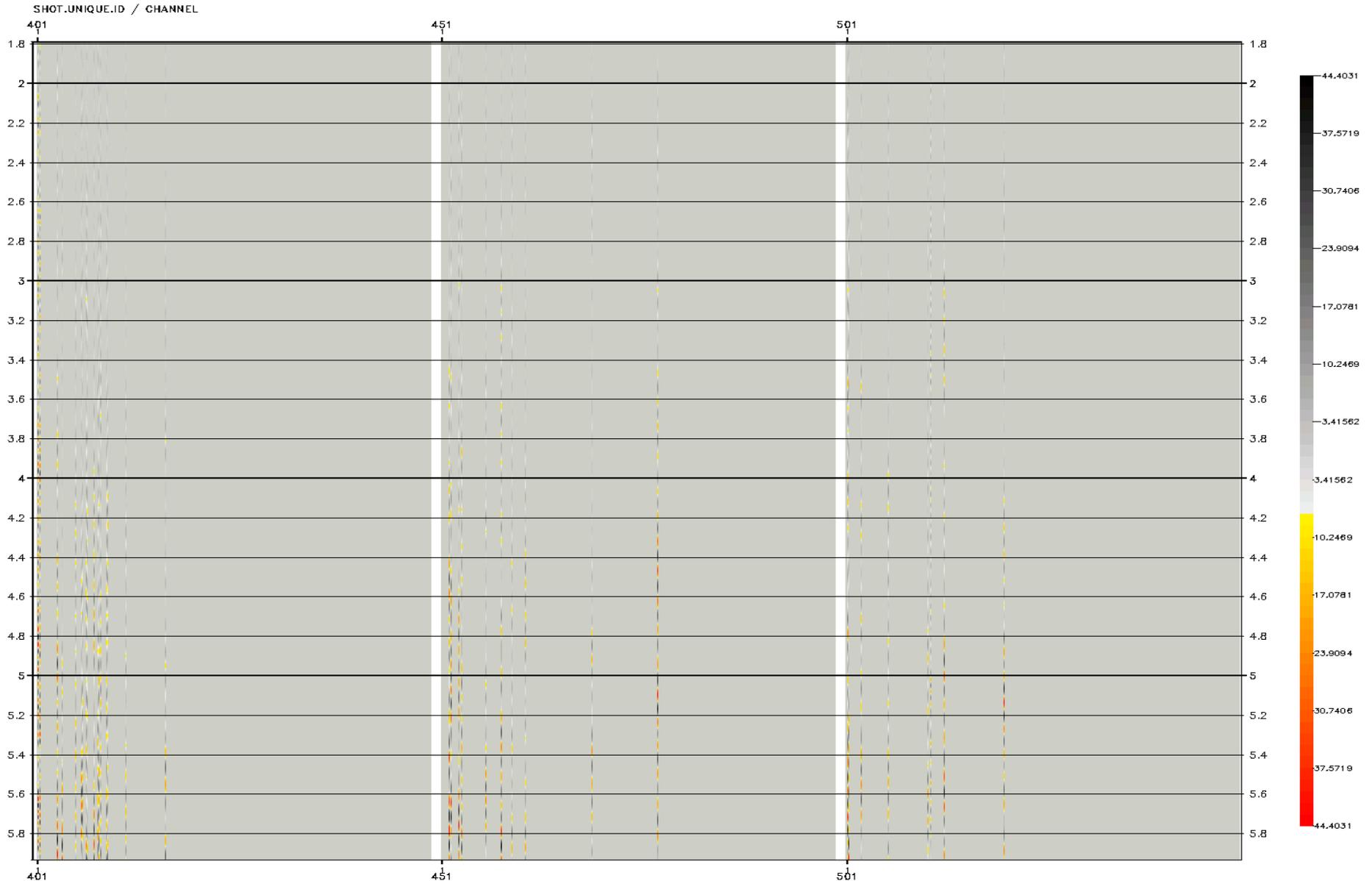
Test 2: Difference display (display gain 9dB) Threshold 1.5

1378 div v2f sht-1378 fxch 15b



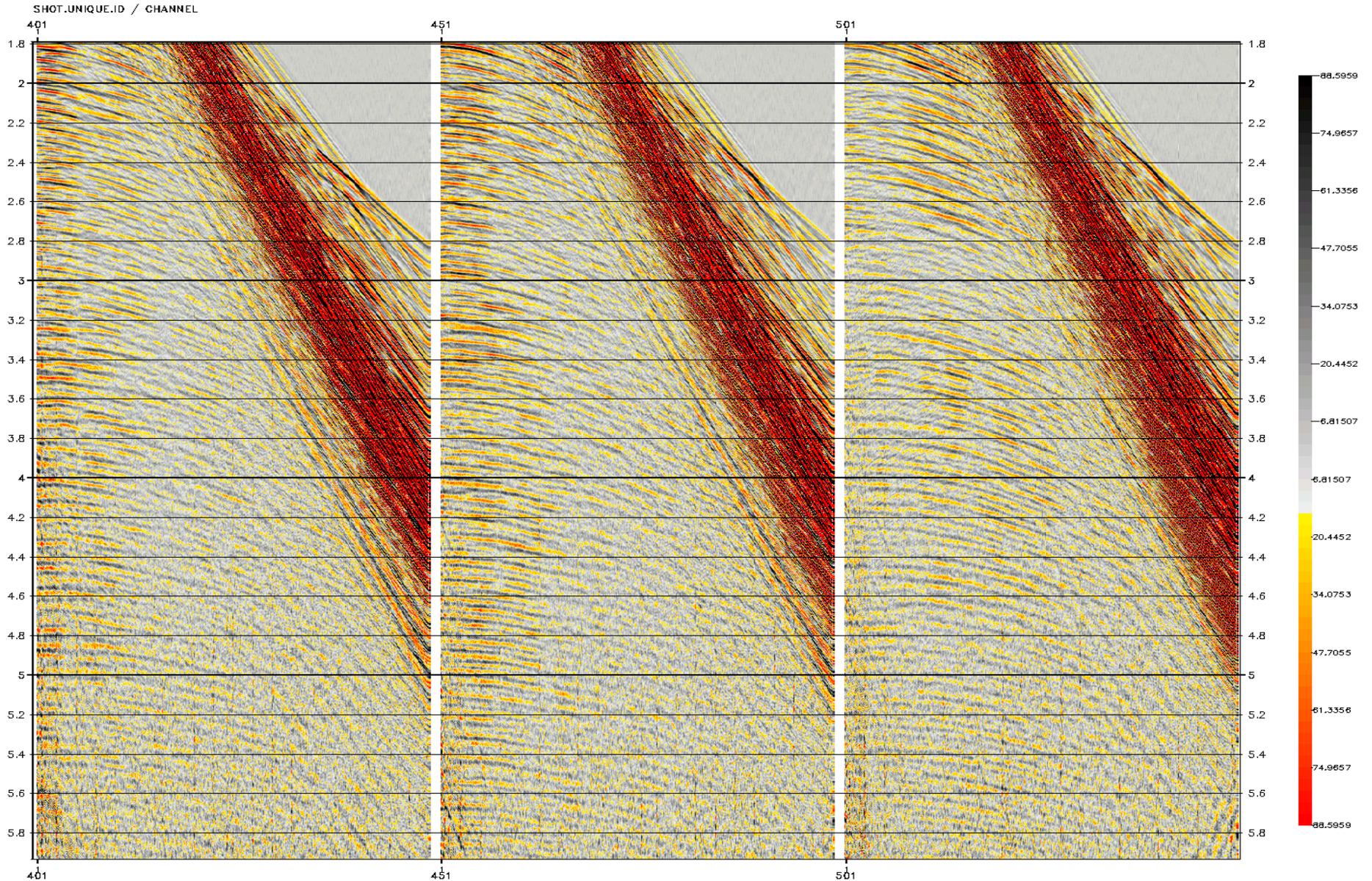
Test 2: Difference display (display gain 9dB) Threshold 1.25

1378 div v2t sht-1378 fxch 125b



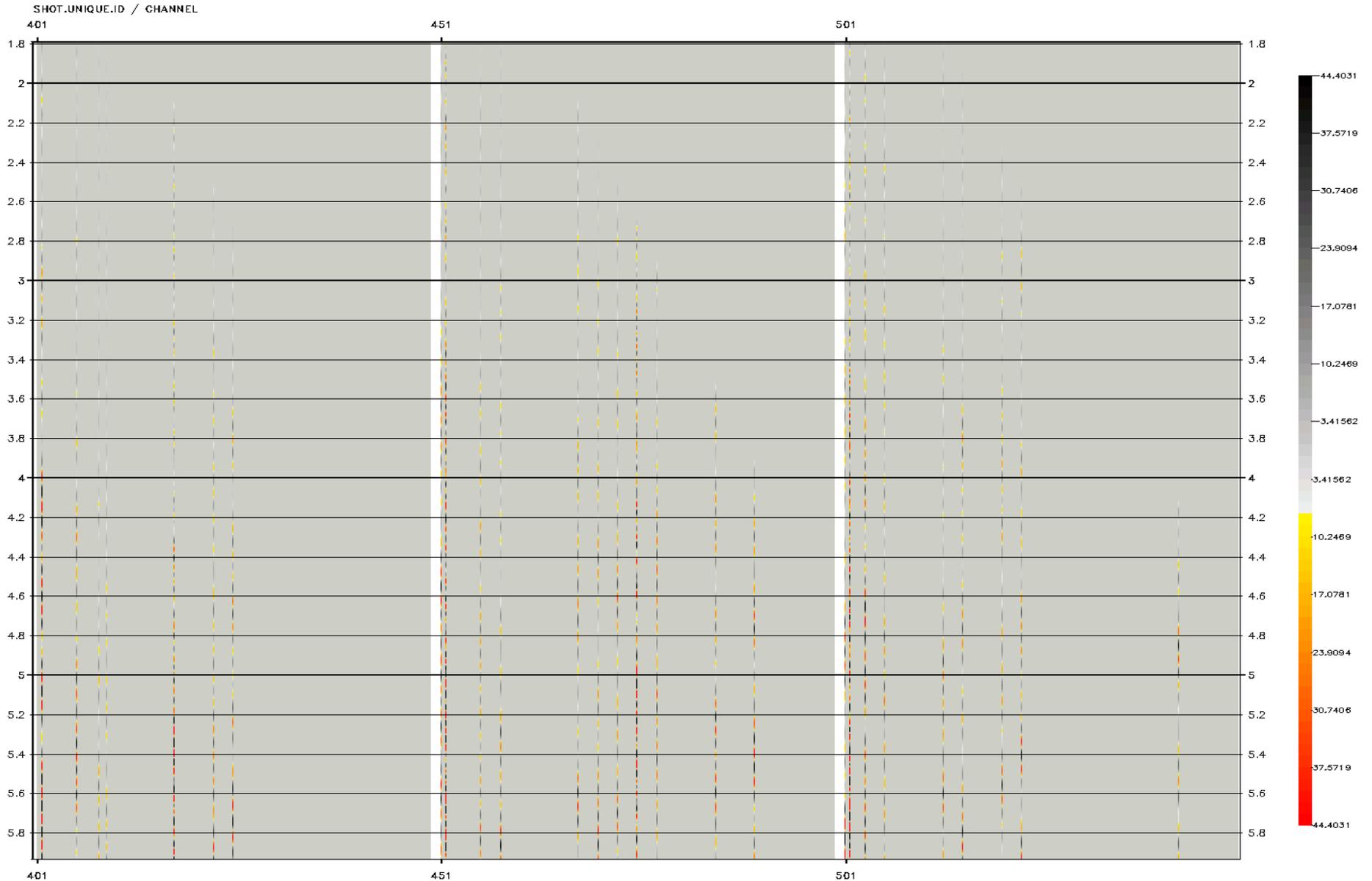
Test 3

Tango:vegas:spr224ws:s563top:1378 fxch sh b.1



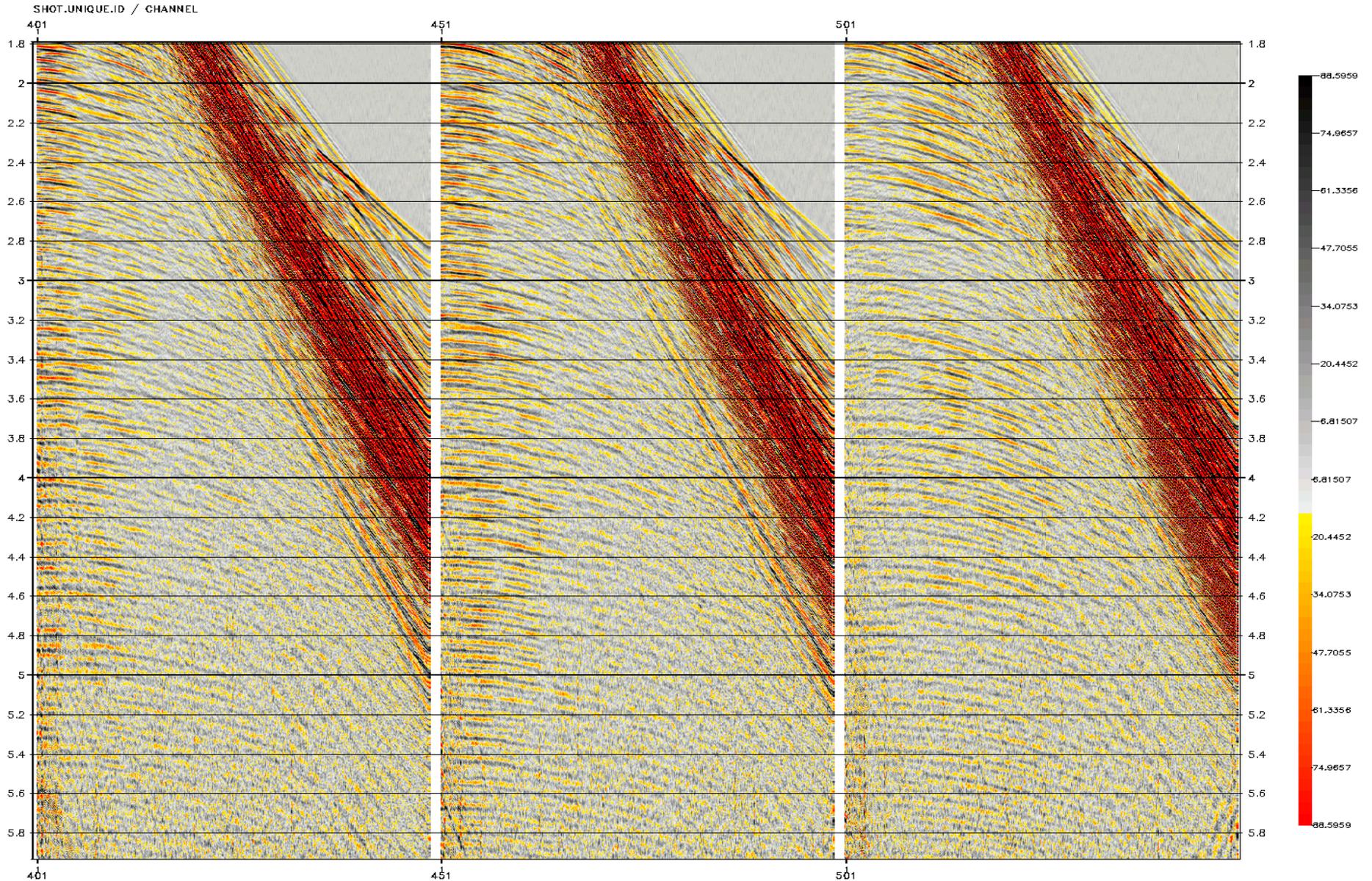
Test 3: Difference display (display gain 9dB)

1378 div v2t sht-1378 fxch sh b



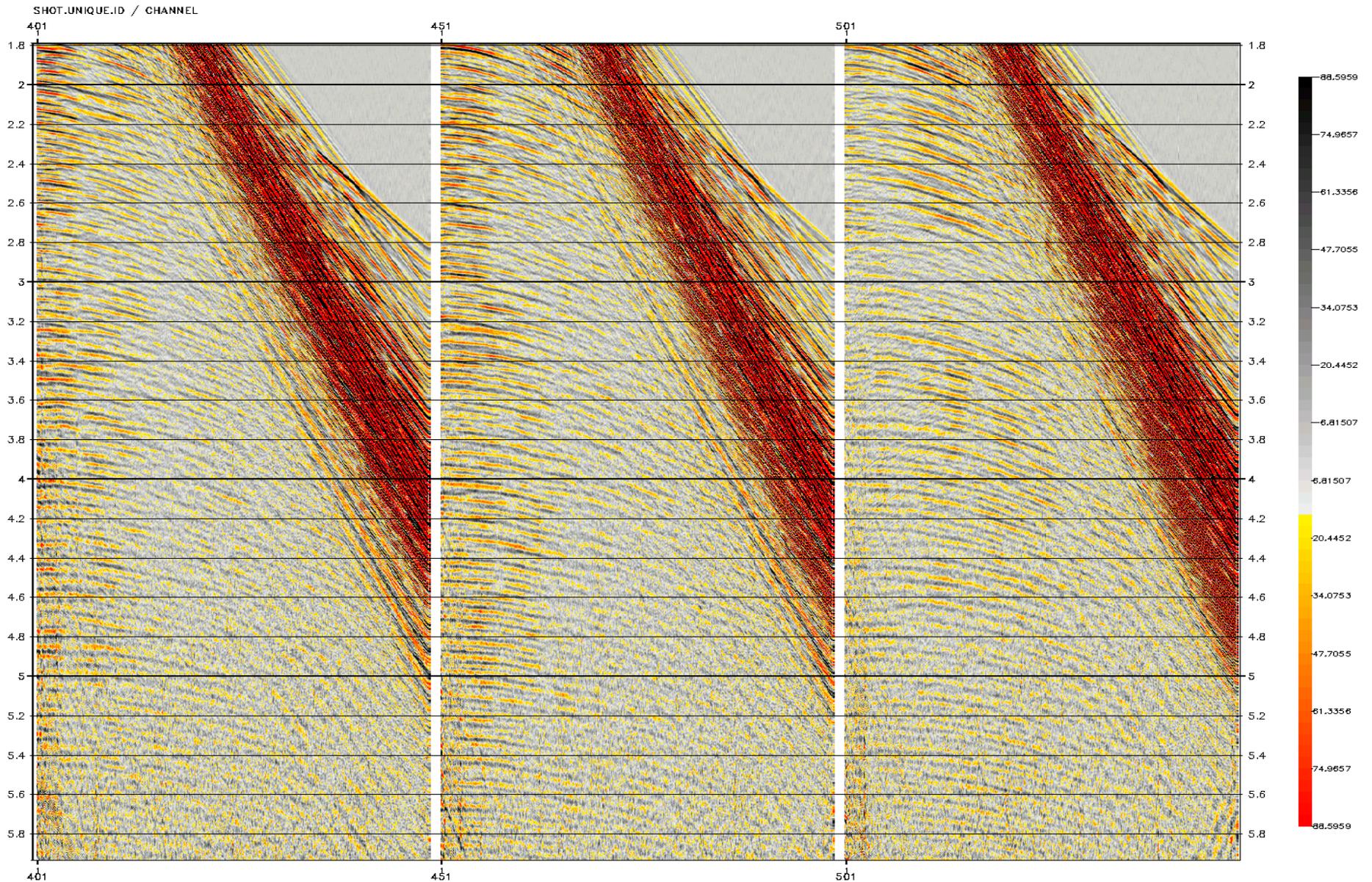
Test 4: Threshold 2.25

Tango:vegas:spr224ws:s563tap:1378 fxsh2p 225g.1



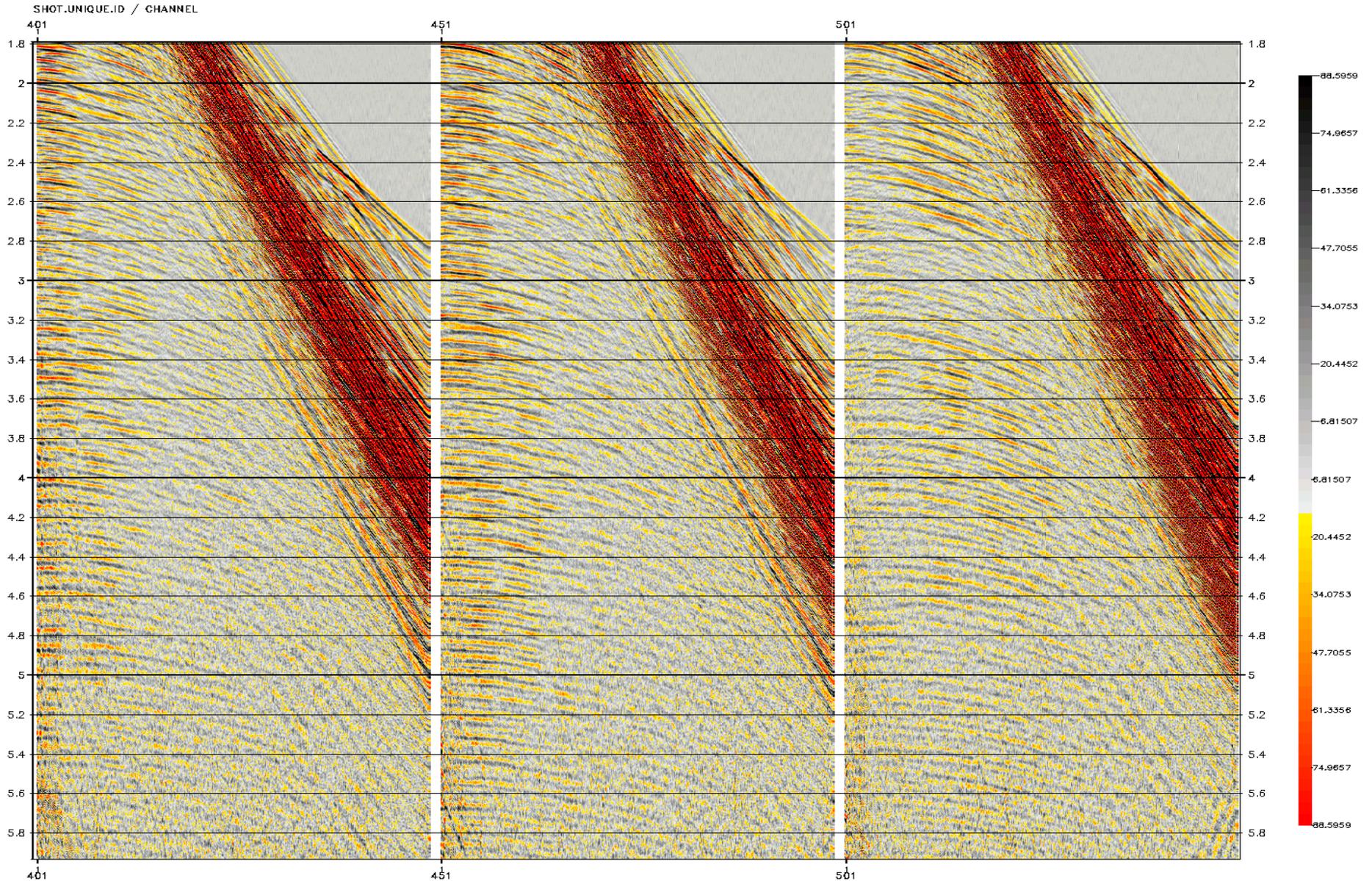
Test 4: Threshold 2.0

Tango:vegas:spr224ws:s563lap:1378 fxsh2p 20g.1



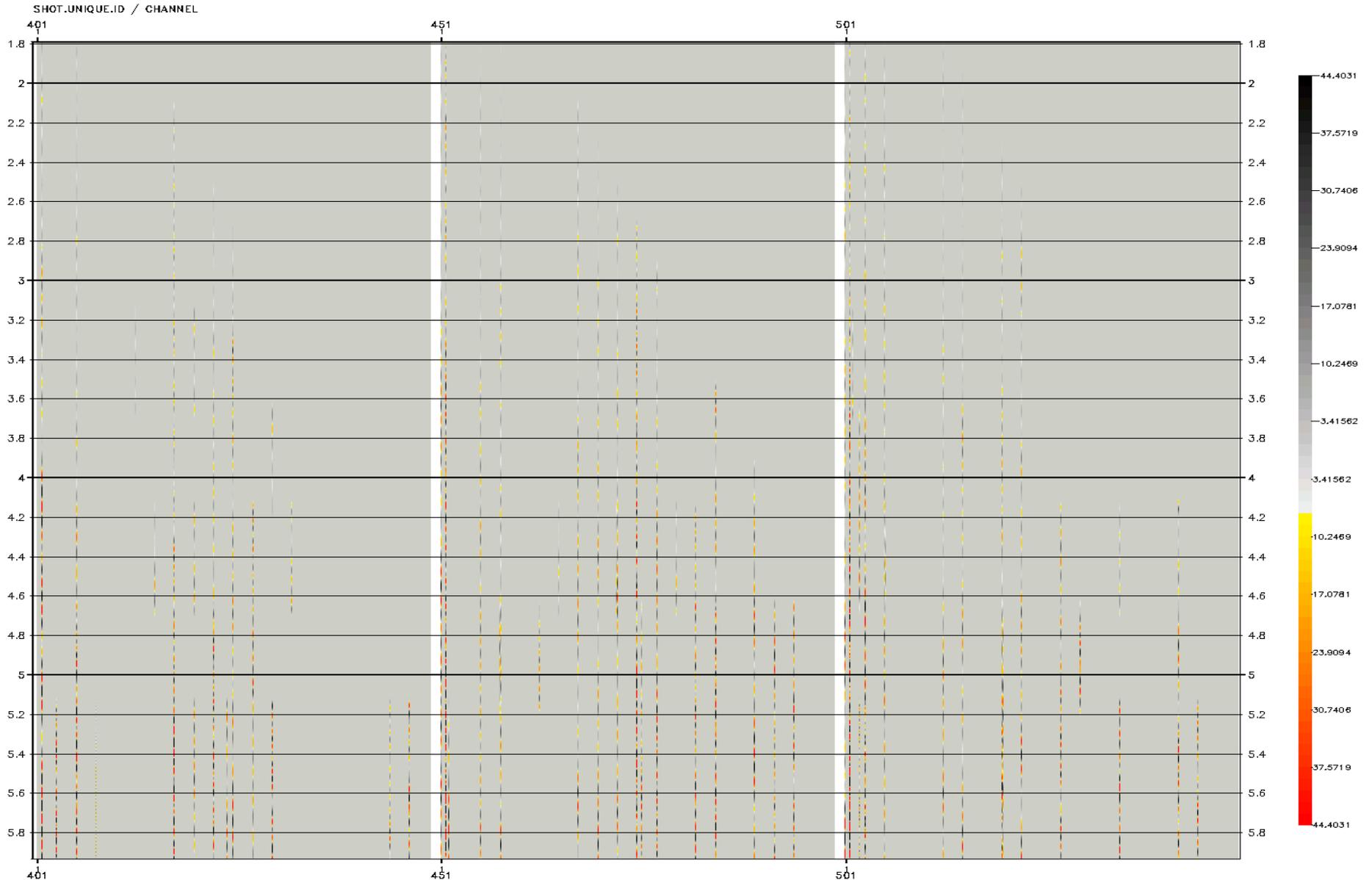
Test 4: Threshold 1.75

Tango:vegas:spr224ws:s563tap:1378 fxsh2p 175g.1



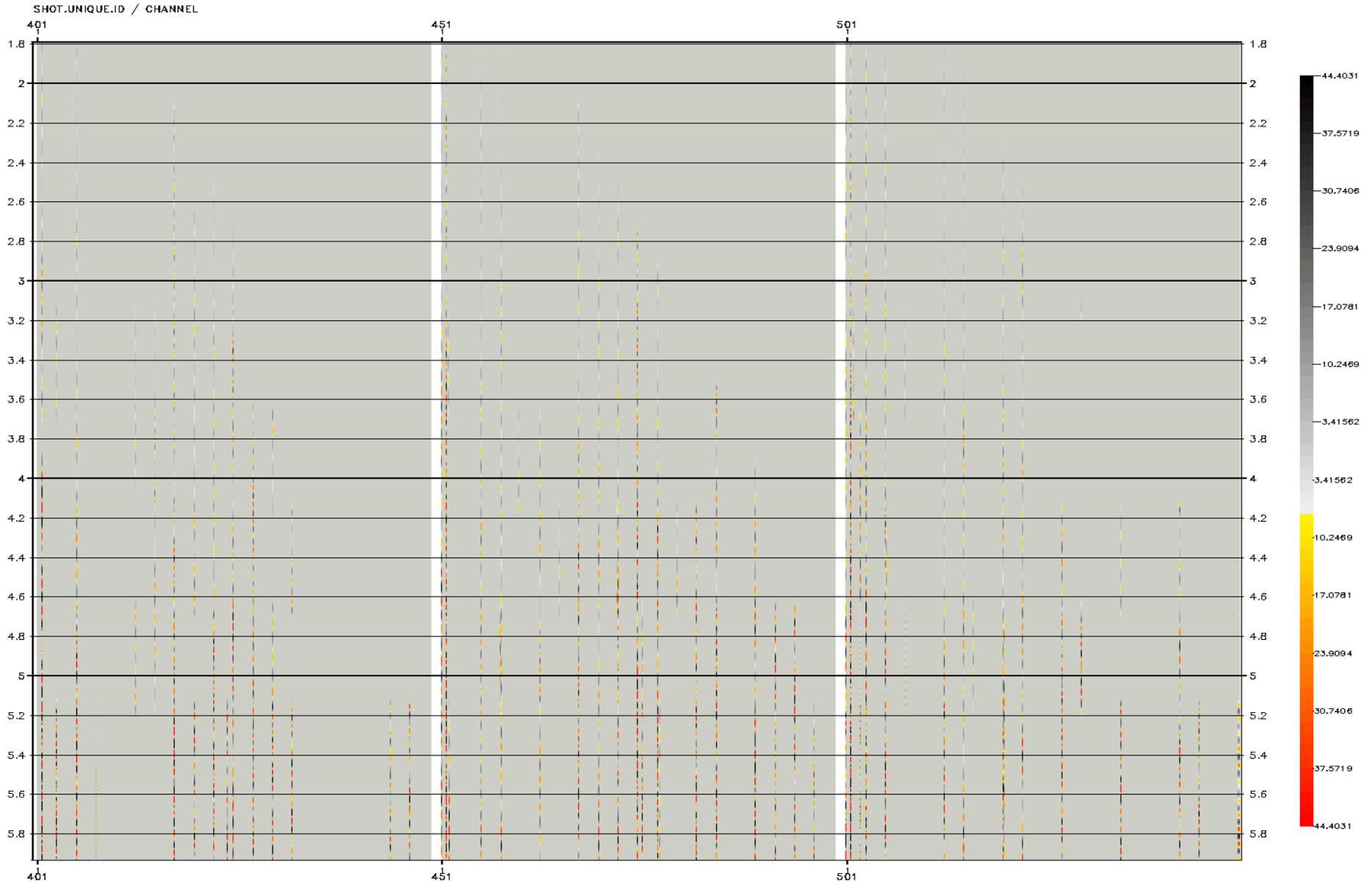
Test 2: Difference display (display gain 9dB) Threshold 2.25

1378 div v2f sht-1378 fxsh2p 225g



Test 2: Difference display (display gain 9dB) Threshold 2.0

1378 div v2t sht-1378 fxsh2p 20g



Test 4: Difference display (display gain 9dB) Threshold 1.75

1378 div v2f sht-1378 fxsh2p 175g

