

UGOU022-SCAN023 Refraction Statics Report

GTO-19-C031-02 SCAN Acquisition Seismic Processing Order #2

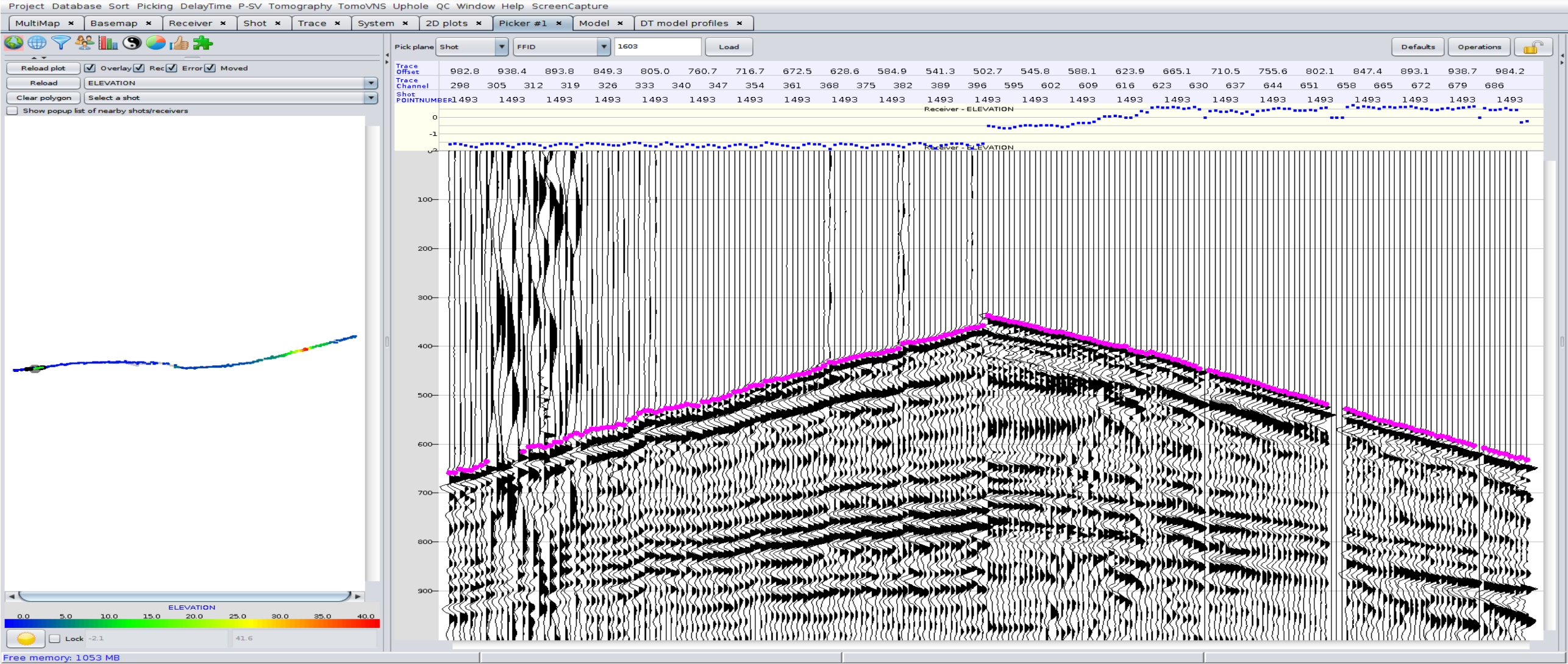
5 NOVEMBER 2020

Energie Beheer Nederland B.V.

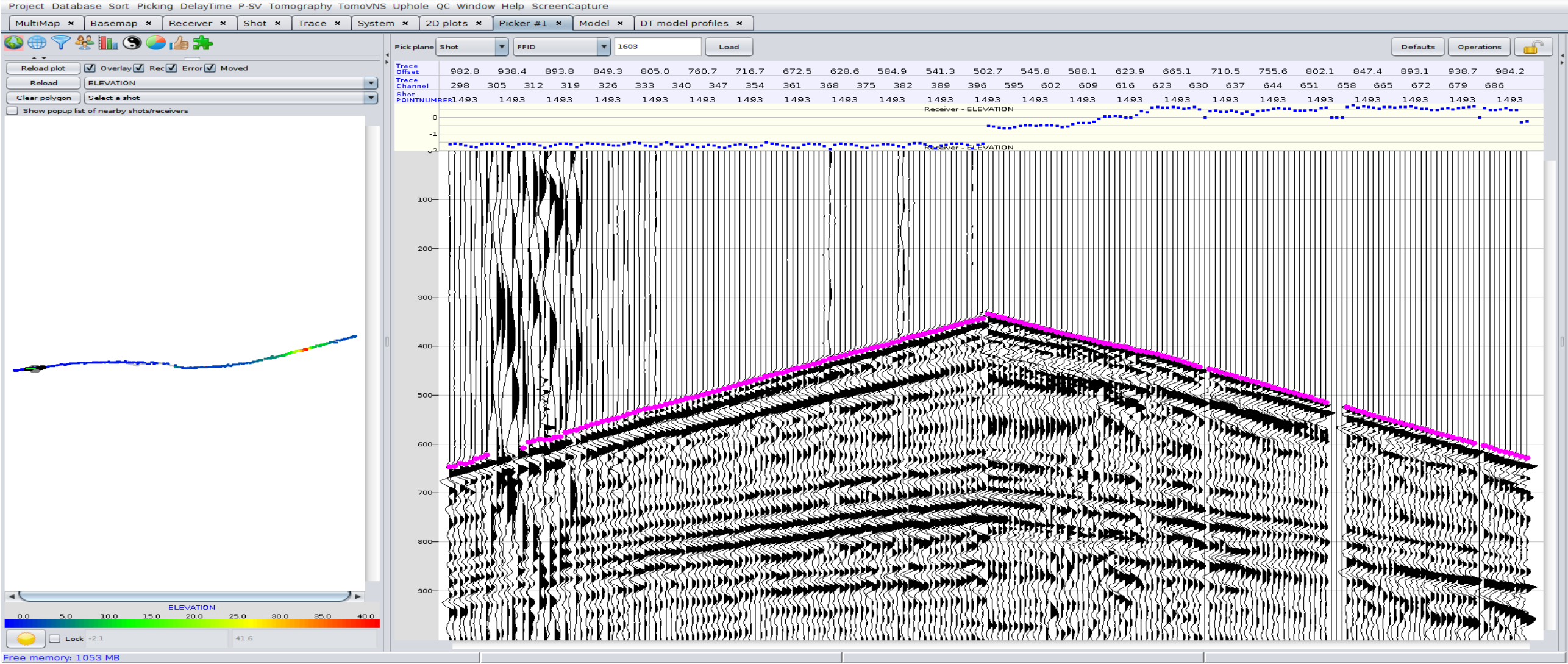
2D Seismic PreSTM Processing, Onshore Netherlands

- This report shows examples for the refraction statics on the combined line UGOU022-SCAN023.
- This line was shot as one continuous survey and will be split as separate lines before producing SEGYS.
 - Parameters used for the delay time solution:
 - Centre of the first trough of the wavelet picked
 - $V_0=1000$ m/s
 - $V_r=1700$ m/s
 - Datum=MSL
 - Single refractor analysed over 500-1000 m offsets
 - Refractor elevation smoothed using 2 km smoother

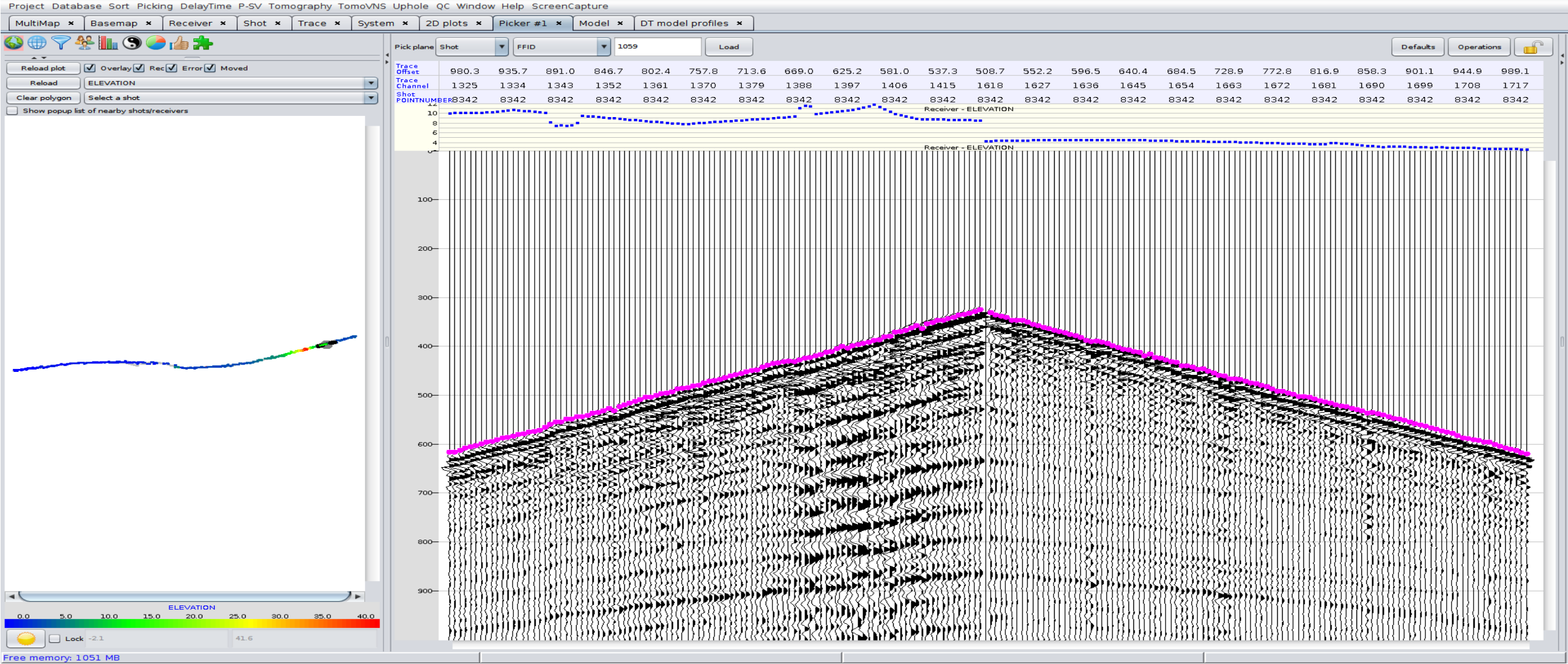
Line UGOU021 SP 1505 no refraction statics



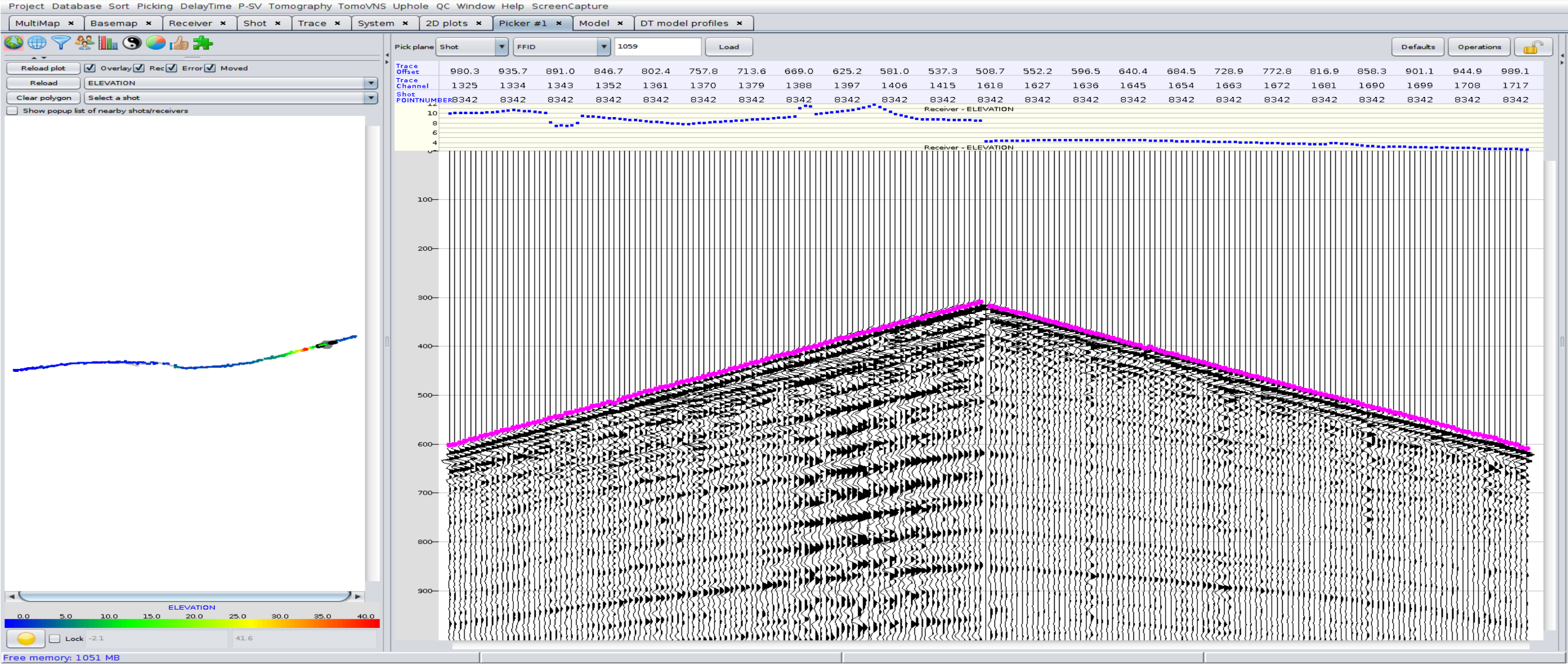
Line UGOU021 SP 1505 with refraction statics



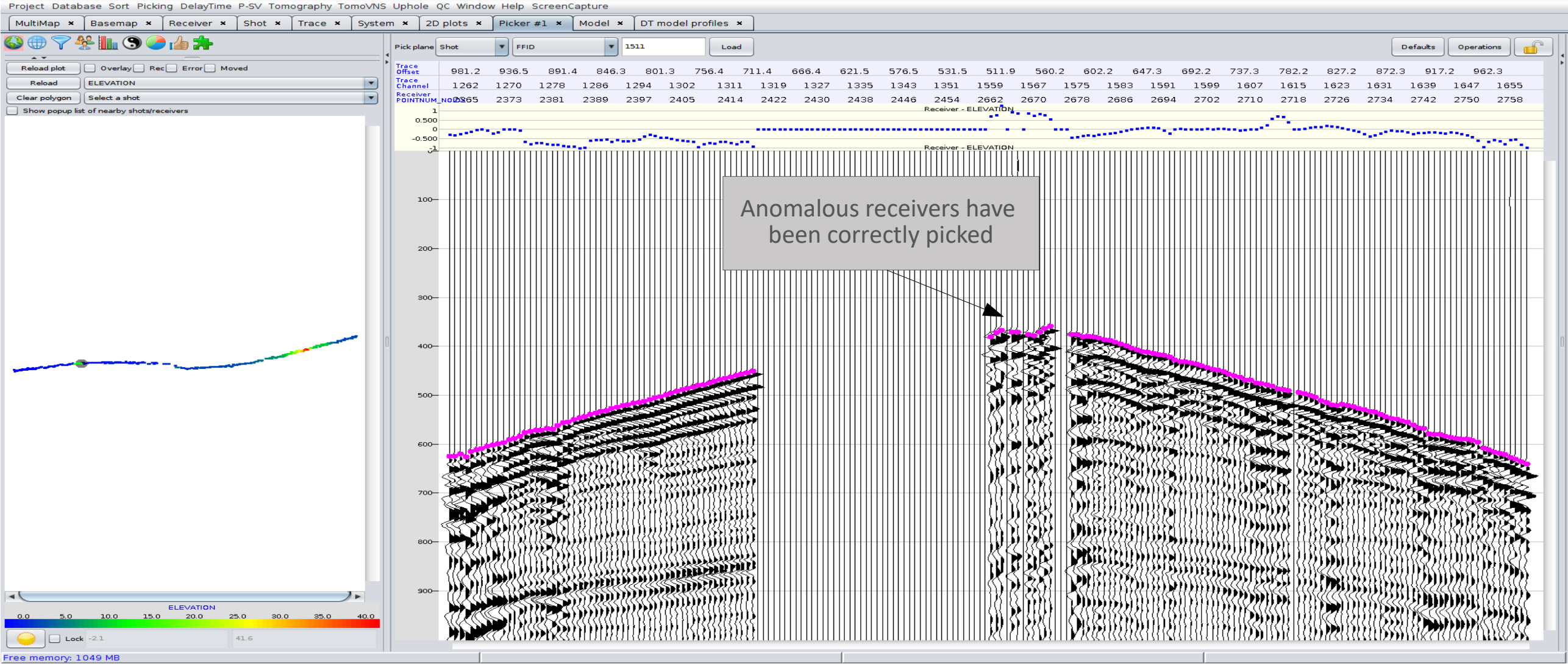
Line UGOU021 SP 8342 no refraction statics



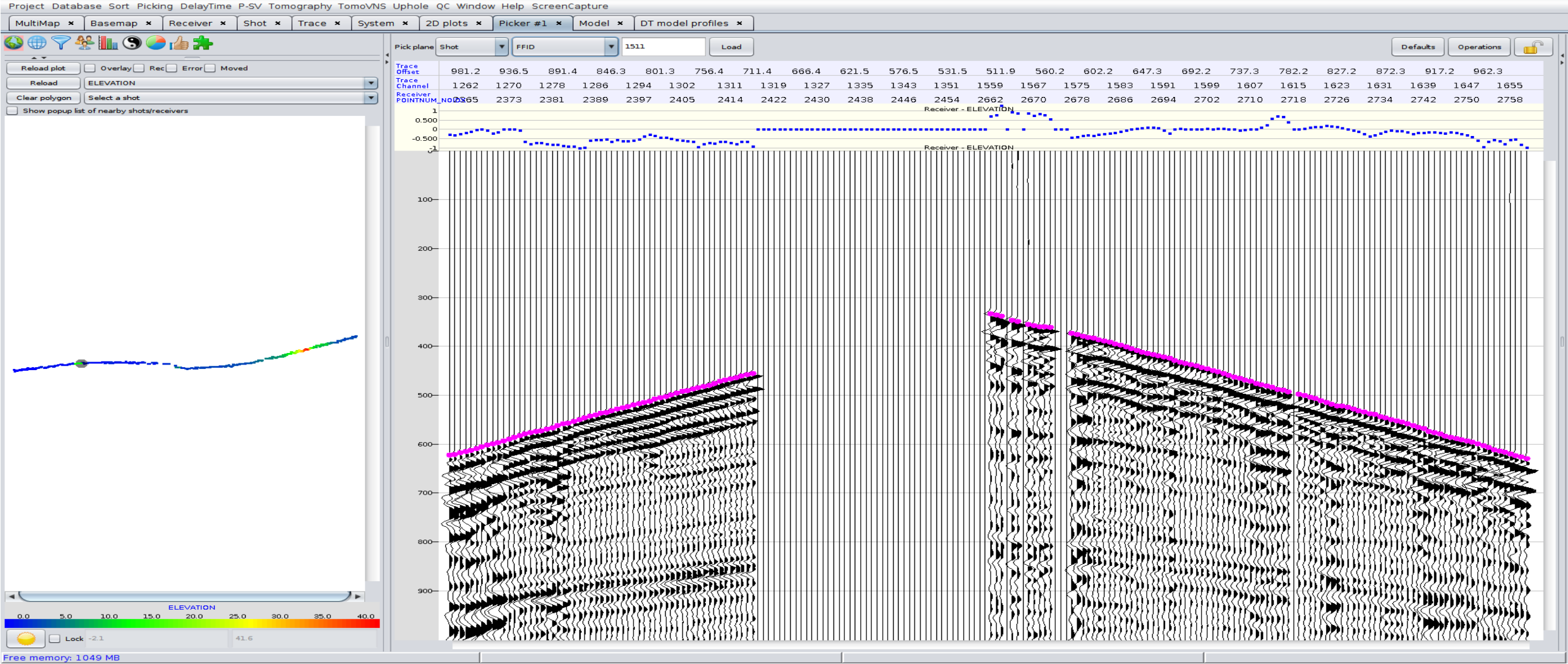
Line UGOU021 SP 8342 with refraction statics



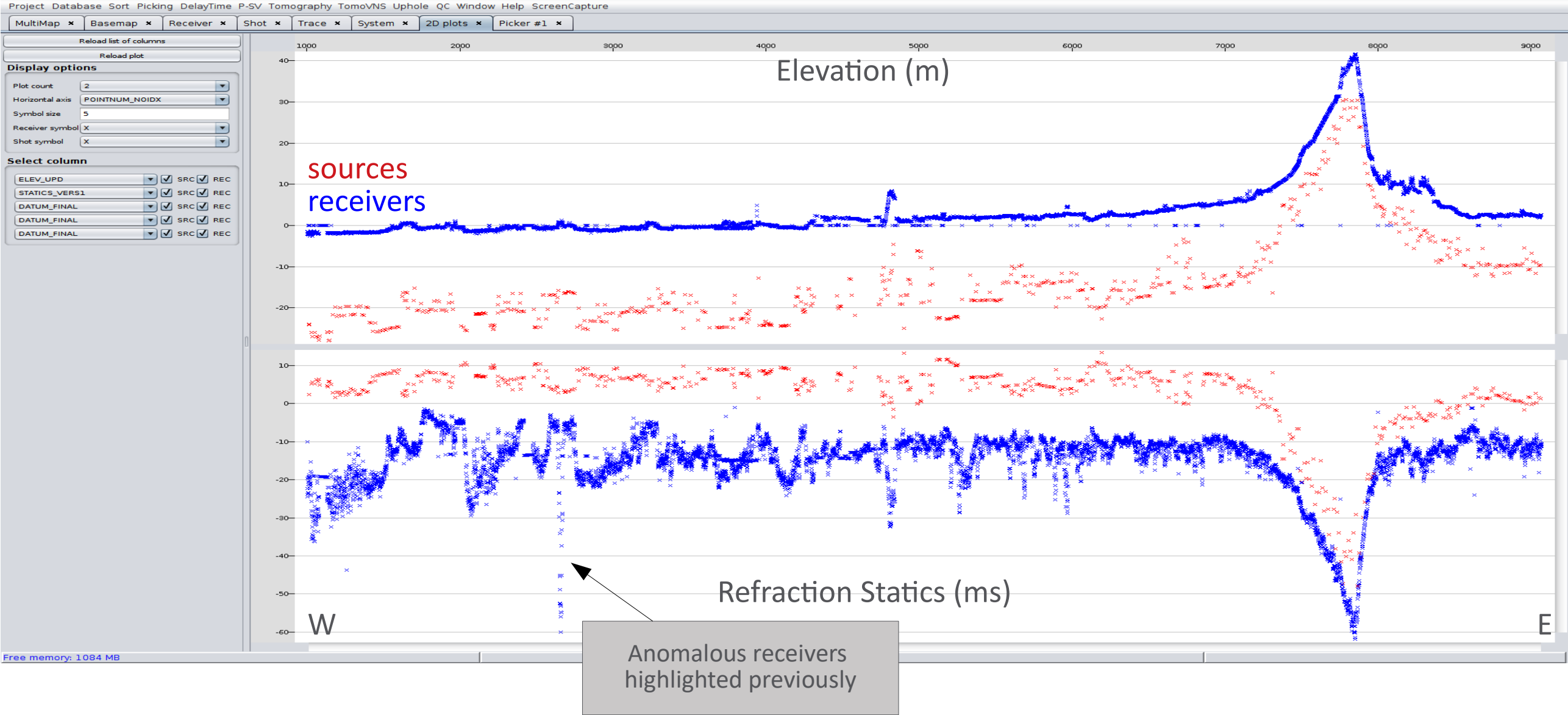
Line UGOU021 SP 2561 no refraction statics



Line UGOU021 SP 2561 with refraction statics



Line UGOU022-SCAN023 elevation and refraction statics profiles



Line UGOU022-SCAN023 refraction statics velocity model profile



Processing sequence applied to stacks

- Data reformat: SEGY to internal format
- Geometry: Crooked line with 2.5 m CDP interval
- Weak shots: 0-500 m offsets only
- Spherical divergence correction: T
- Geophone response correction:
- Statics: Elevation (1700 m/s) or delay time using $V_0=1000$ m/s $V_R=1700$ m/s $SRD=NAP$
- Edits: Kill invalid shots and receivers
- DBS: Trace-by-trace with 160 ms operator length with 16 ms predictive gap
0.1% white noise stabilisation - Design window: 200-3000 ms
- Velocity analysis: Initial 1 km interval
- Scaling: 500 ms AGC
- Stack: $1/\sqrt{N}$ with 55° mute
- Static: Static to shift from floating to final datum (NAP)
- Bandpass filter: 8-12-120-150 Hz

UGOU022-SCAN023 elevation statics stack

