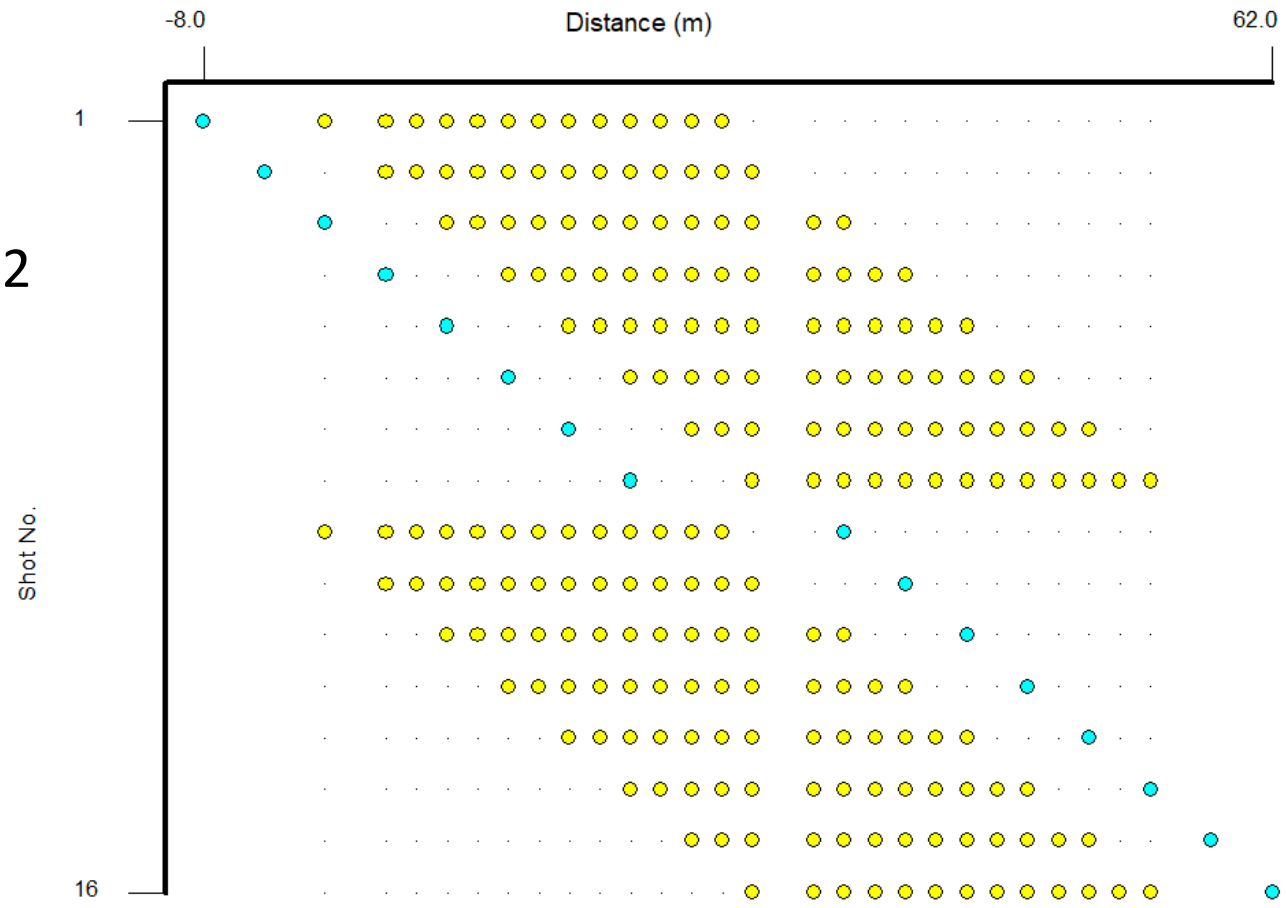
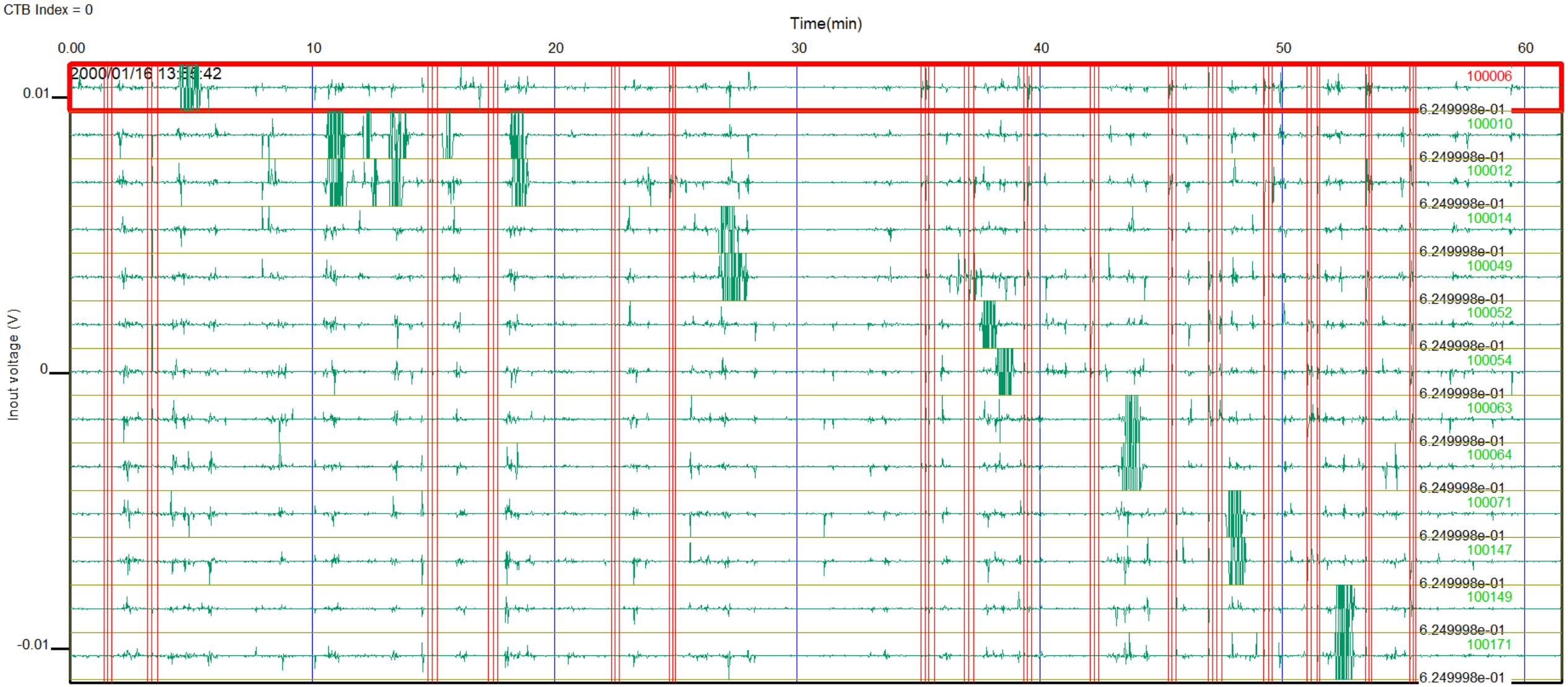
2D MASW using Atom

- Used 13 Atoms
- Shot several times both ends

1. Detect events
2. Cut out shot gathers and save them as SEG2 files
3. Stack shot gathers
4. Setup geometry
5. Apply CMPC-CC processing

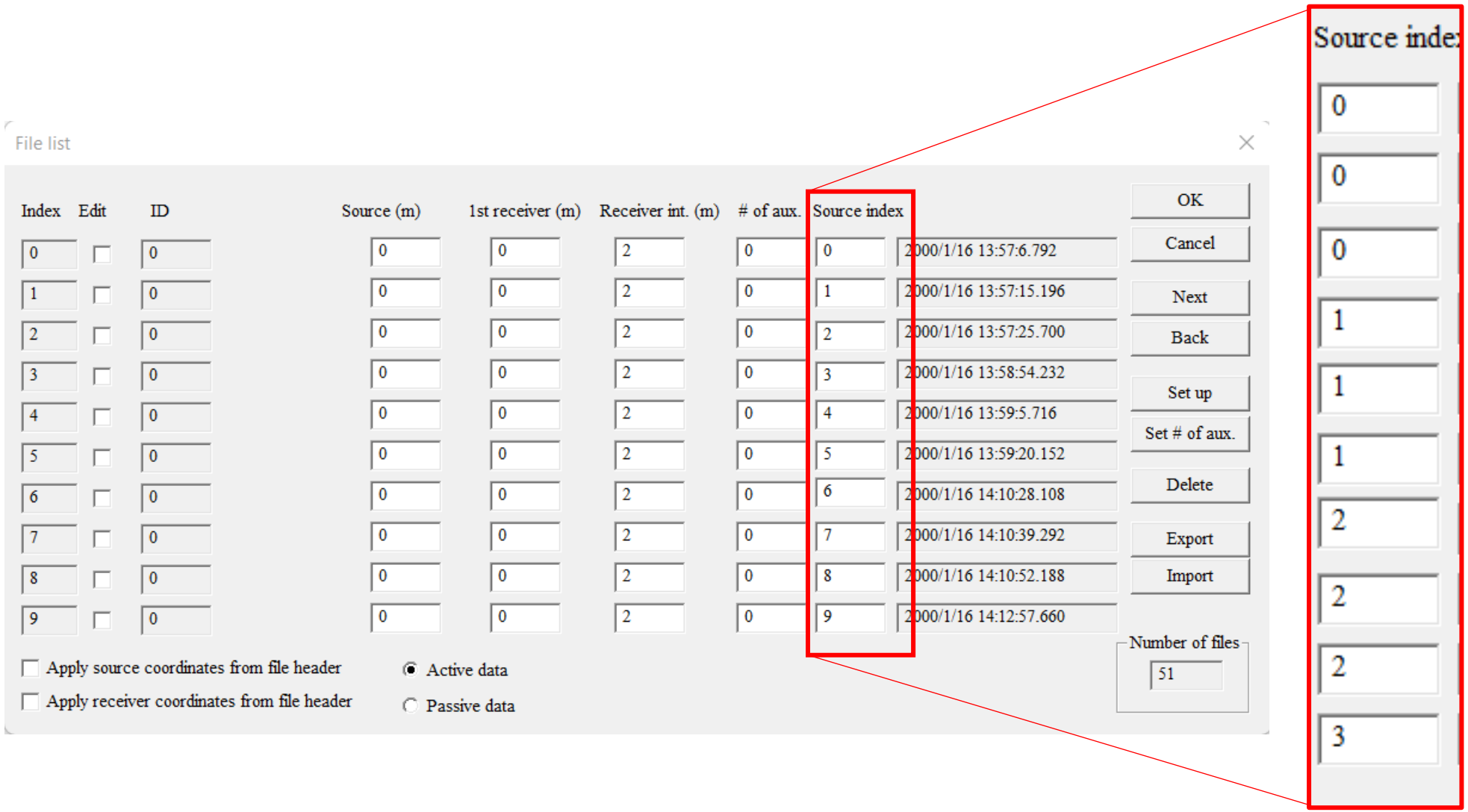


Detected events



Set up source index

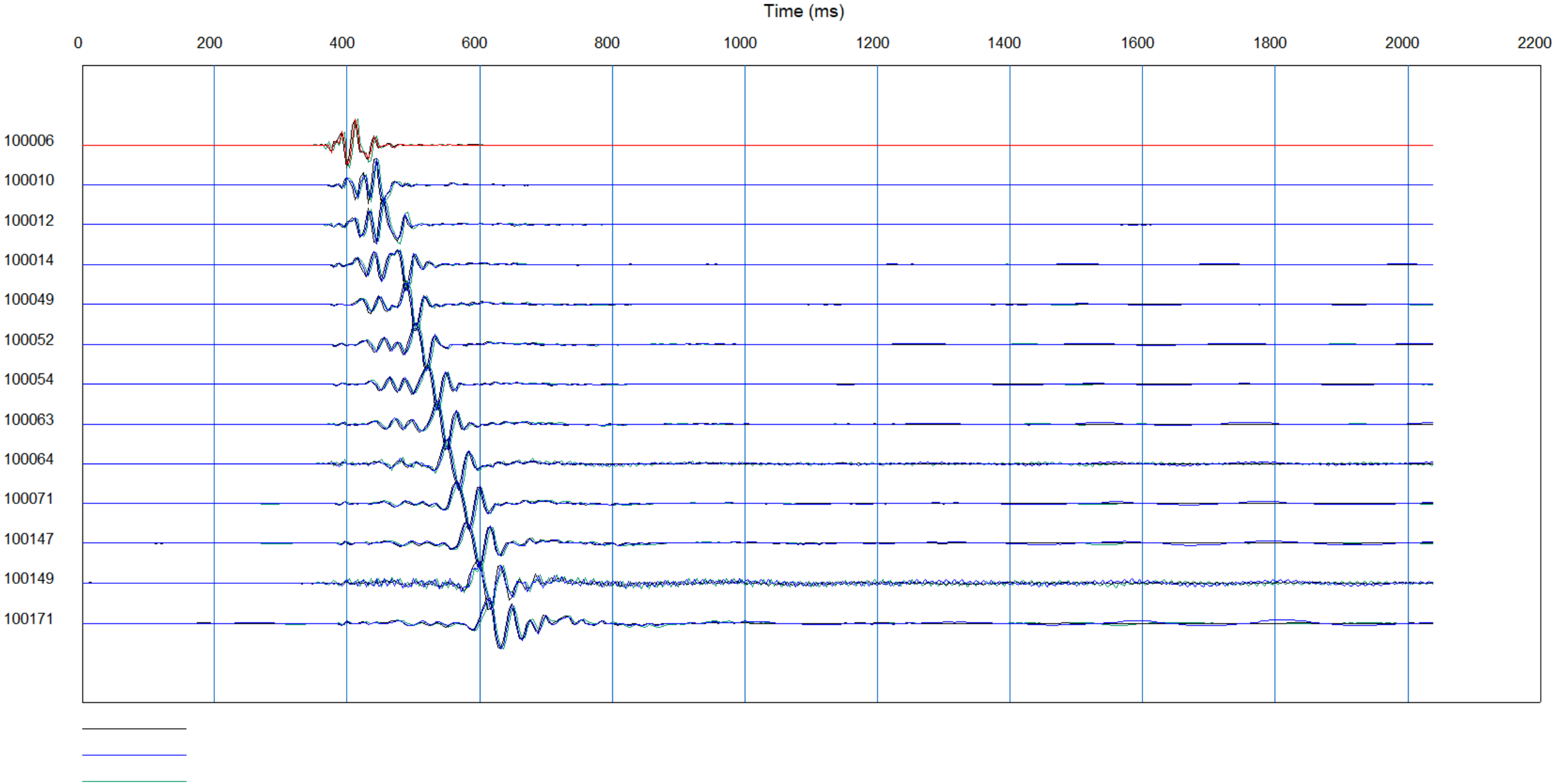
Assign the same index to files to be stacked.



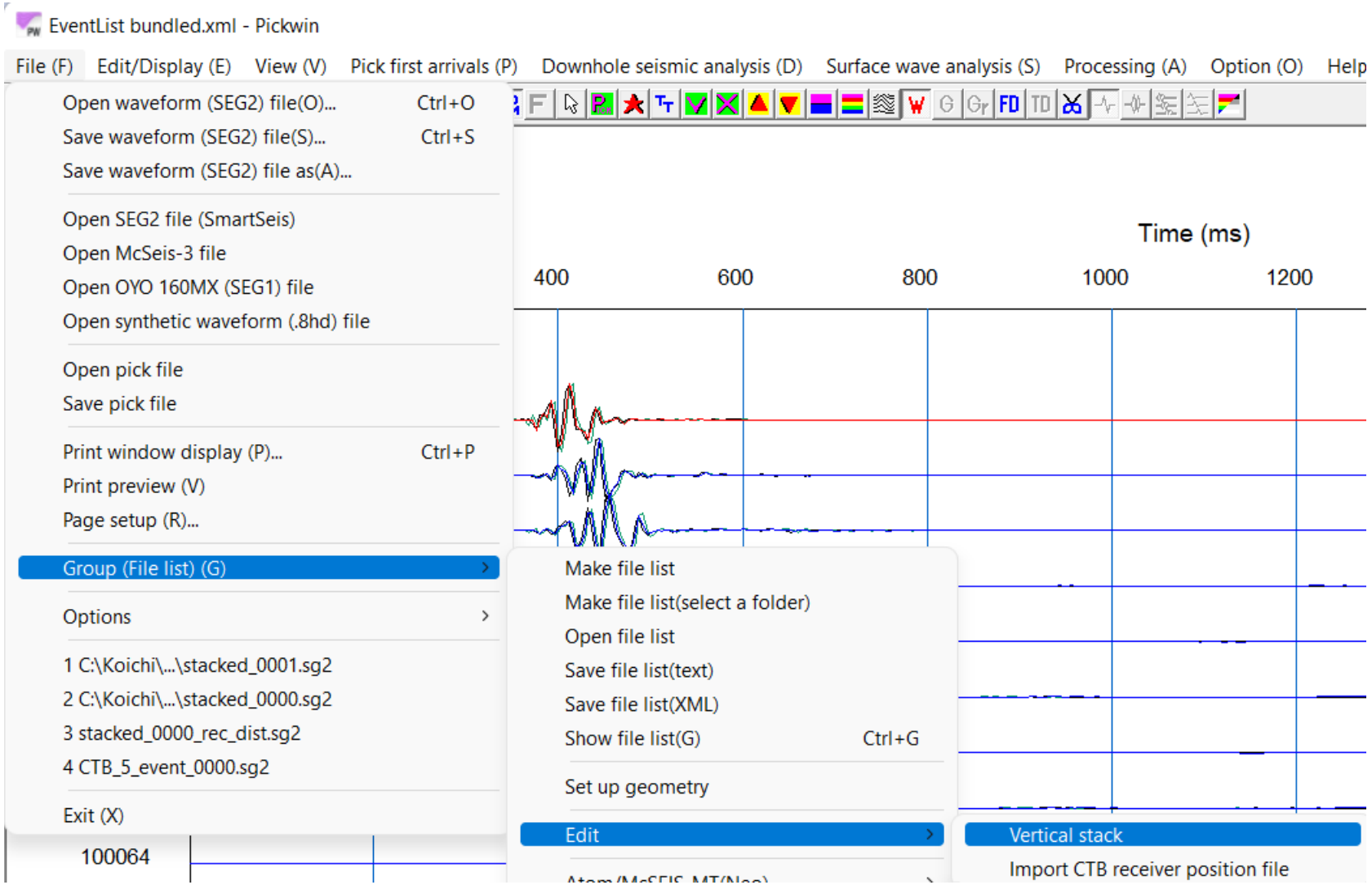
1st shot location

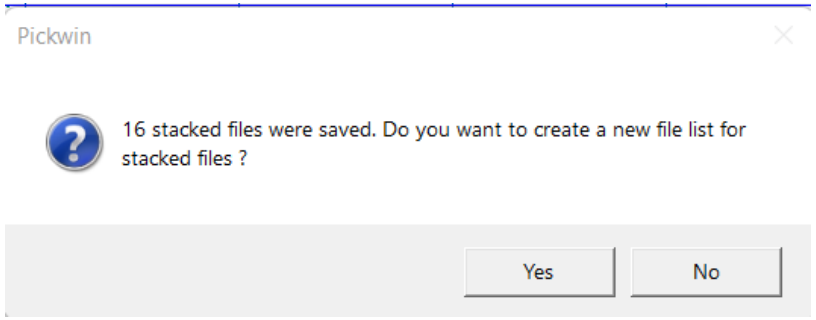
2nd shot location

Files to be stacked

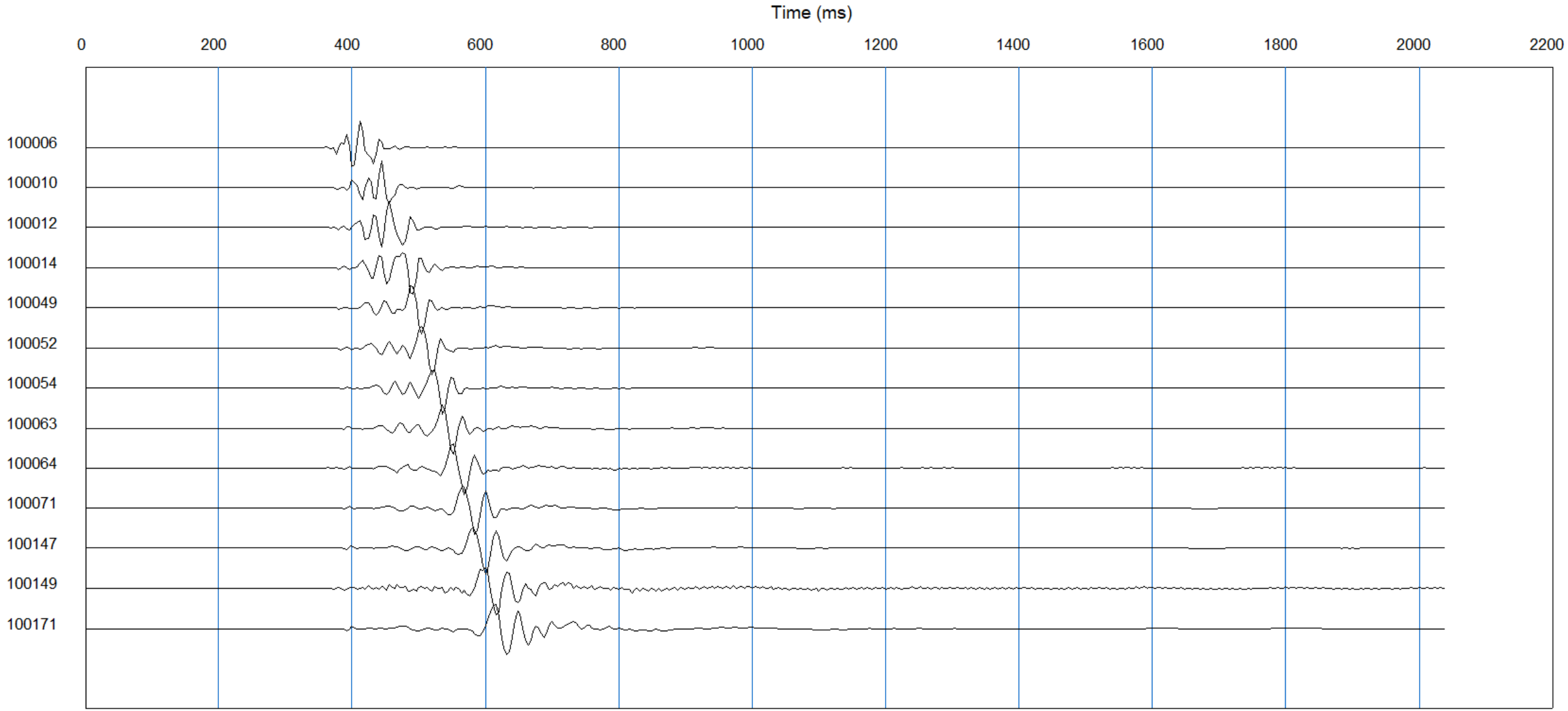


Stack files for each shot locations





Stacked shot gather

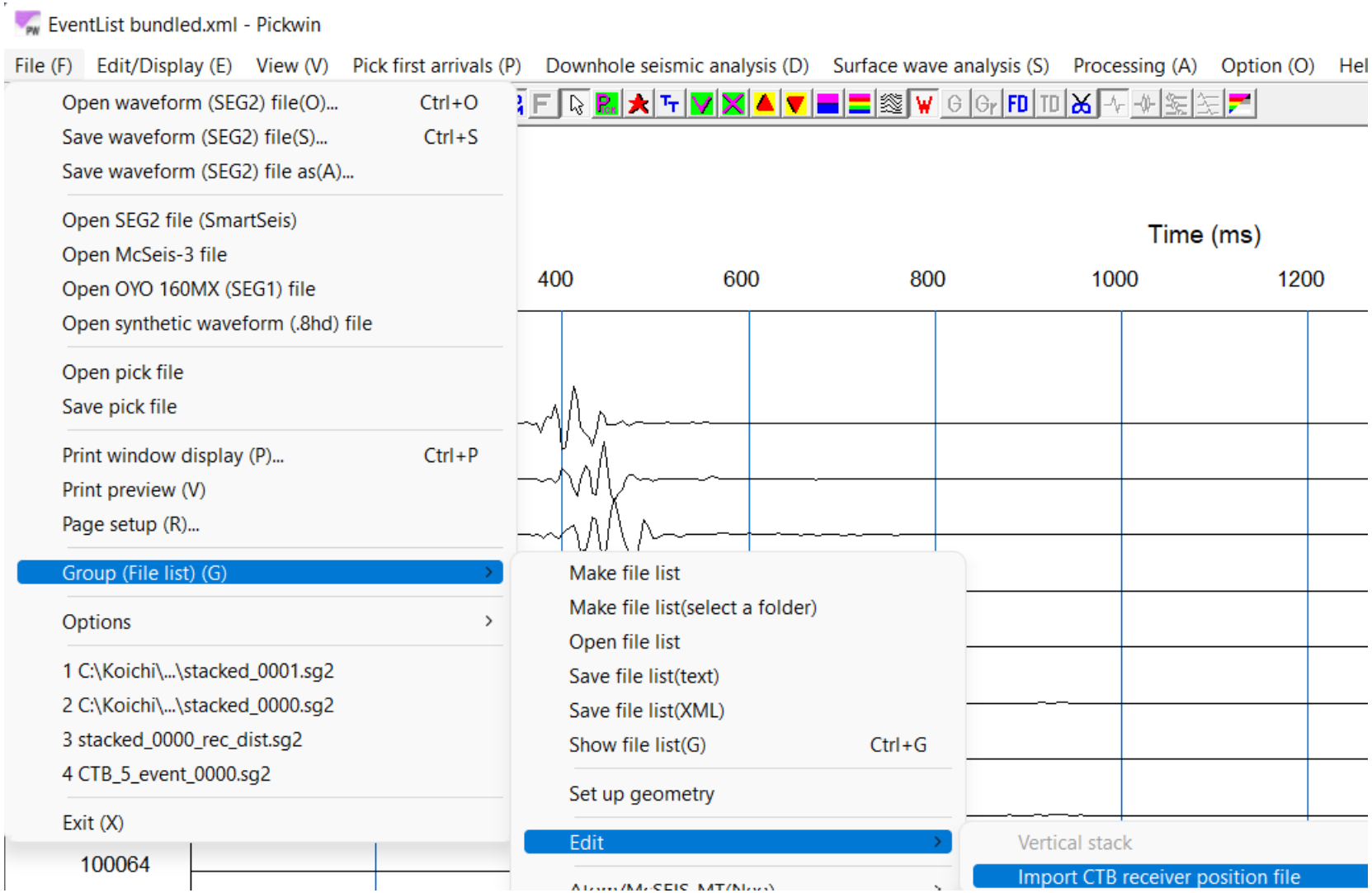


C:\Koichi\Request\Robin Glas(2021.12.10)\stacked_0000.sg2

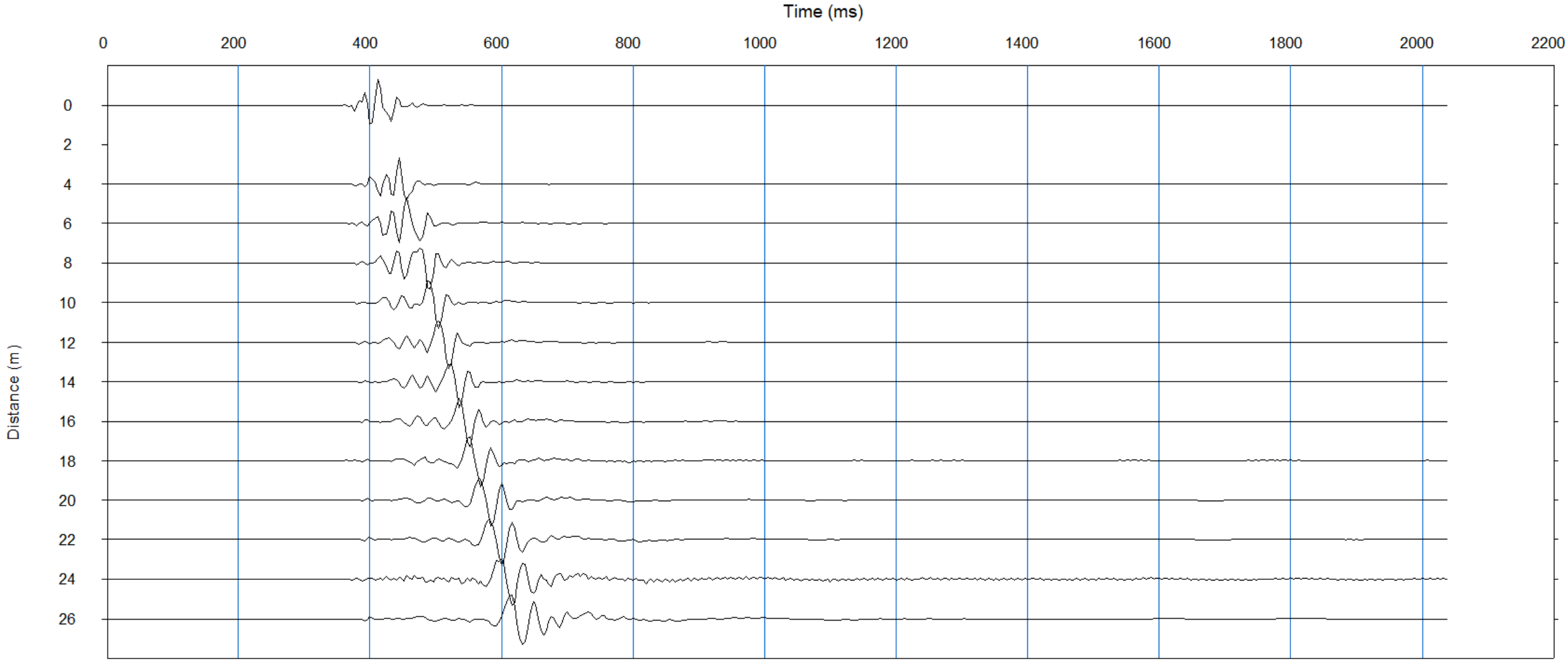
Prepare geometry file

Shot index	Atom ID	Receiver dist. (m)										
0	100006	0	0	2	100006	28	0		14	100006	28	0
0	100010	4	0	2	100010	4	0		14	100010	32	0
0	100012	6	0	2	100012	6	0		14	100012	34	0
0	100014	8	0	2	100014	8	0		14	100014	36	0
0	100049	10	0	2	100049	10	0		14	100049	38	0
0	100052	12	0	2	100052	12	0		14	100052	40	0
0	100054	14	0	2	100054	14	0		14	100054	42	0
0	100063	16	0	2	100063	16	0		14	100063	44	0
0	100064	18	0	2	100064	18	0		14	100064	46	0
0	100071	20	0	2	100071	20	0		14	100071	48	0
0	100147	22	0	2	100147	22	0		14	100147	50	0
0	100149	24	0	2	100149	24	0	. . . . .	14	100149	52	0
0	100171	26	0	2	100171	26	0		14	100171	54	0
1	100006	0	0	3	100006	28	0		15	100006	28	0
1	100010	4	0	3	100010	4	0		15	100010	32	0
1	100012	6	0	3	100012	6	0		15	100012	34	0
1	100014	8	0	3	100014	8	0		15	100014	36	0
1	100049	10	0	3	100049	10	0		15	100049	38	0
1	100052	12	0	3	100052	12	0		15	100052	40	0
1	100054	14	0	3	100054	14	0		15	100054	42	0
1	100063	16	0	3	100063	16	0		15	100063	44	0
1	100064	18	0	3	100064	18	0		15	100064	46	0
1	100071	20	0	3	100071	20	0		15	100071	48	0
1	100147	22	0	3	100147	22	0		15	100147	50	0
1	100149	24	0	3	100149	24	0		15	100149	52	0
1	100171	26	0	3	100171	26	0		15	100171	54	0

Set up receiver geometry



Stacked shot gather with receiver locations

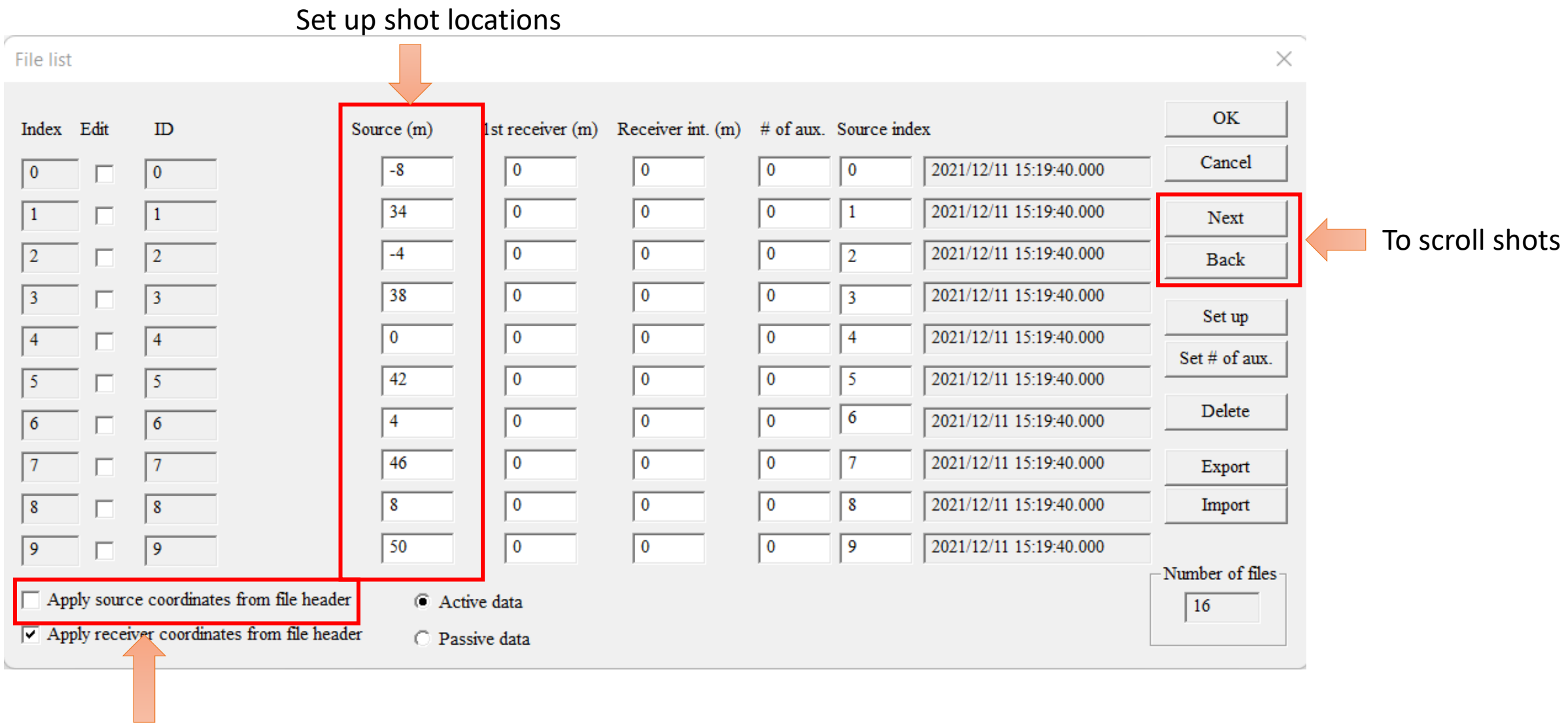


C:\Koichi\Request\Robin Glas(2021.12.10)\stacked_0000_rec_dist.sg2

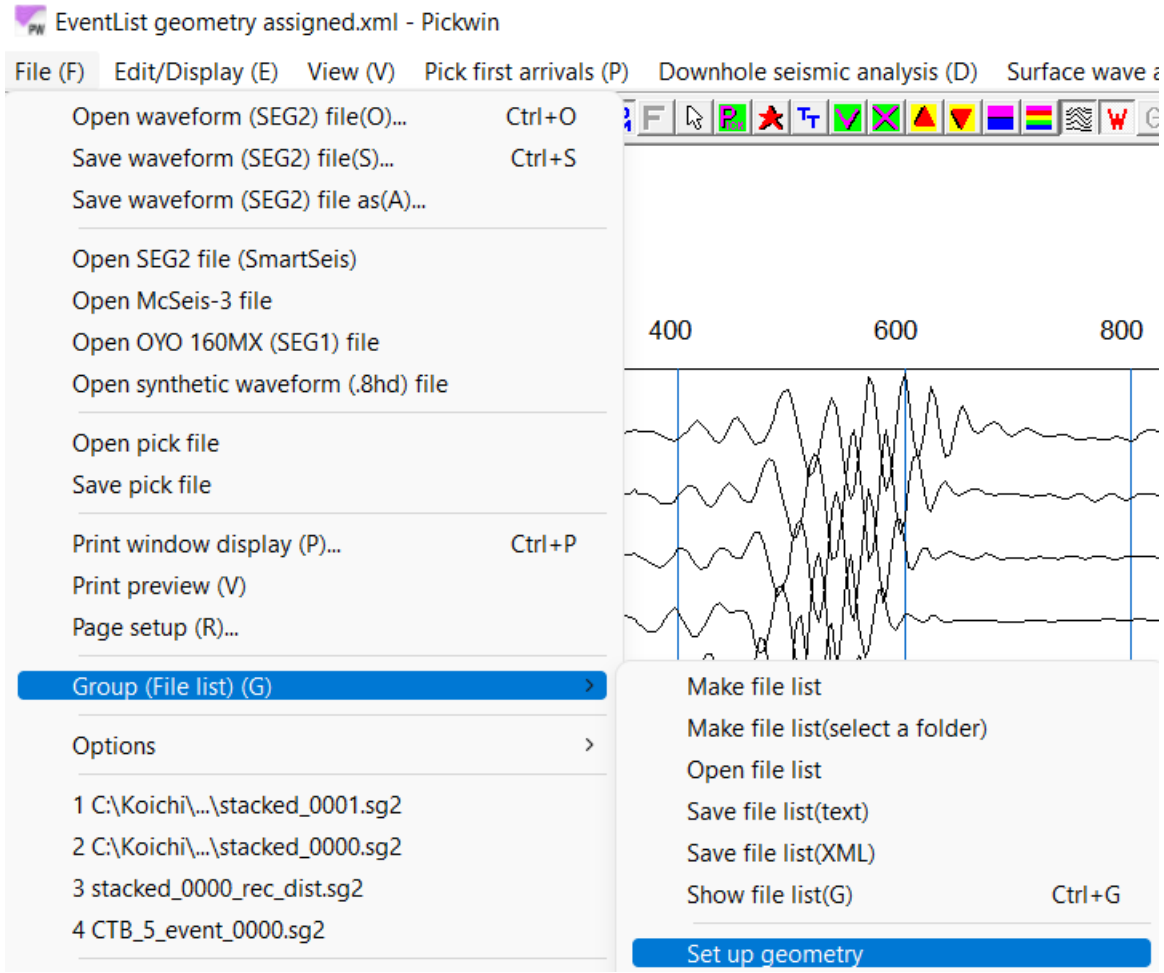
CTB0_event_0000.sg2-CTB0_event_0050.sg2

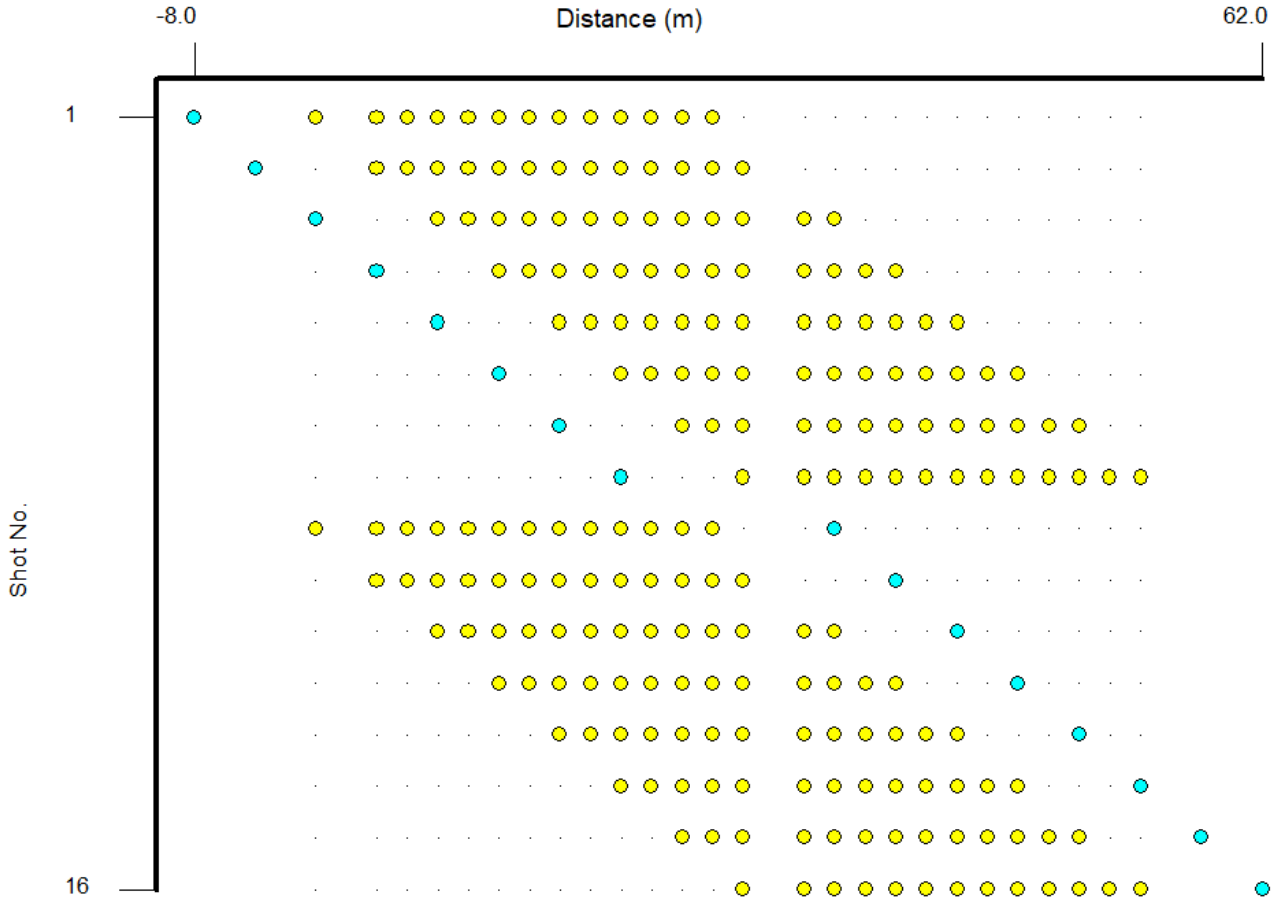
Set up shot locations

Select “File”, “Group”, “Show file list” or press “Ctrl+G” to edit source locations.



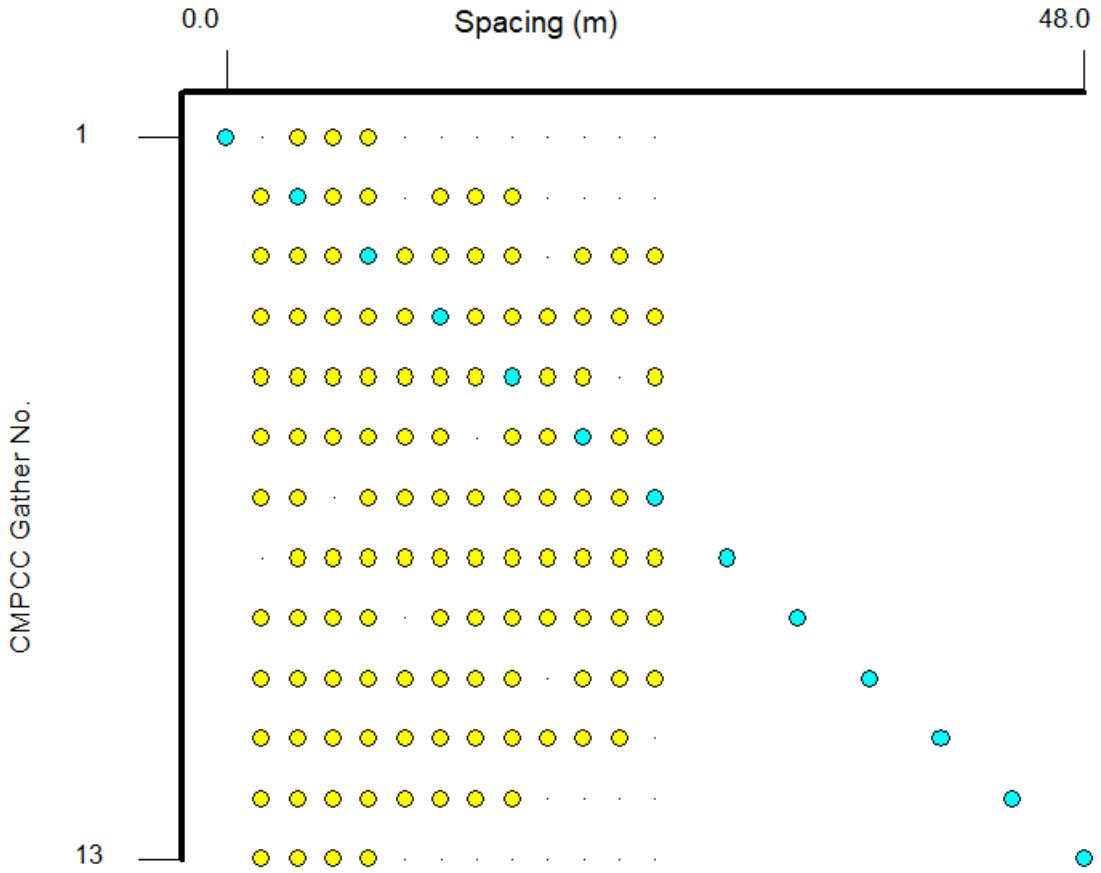
Set up geometry



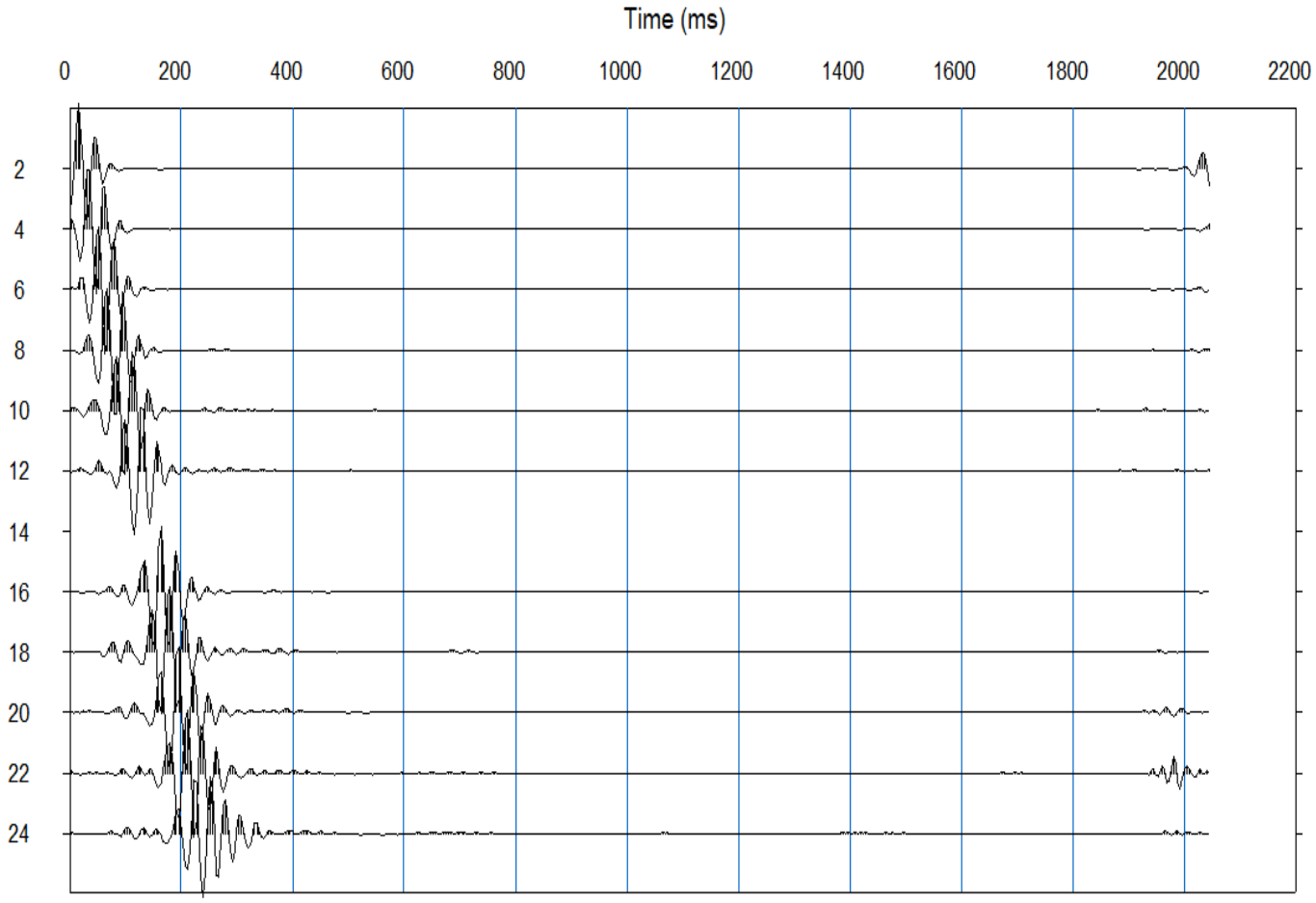


CMP-CC gathers

Geometry

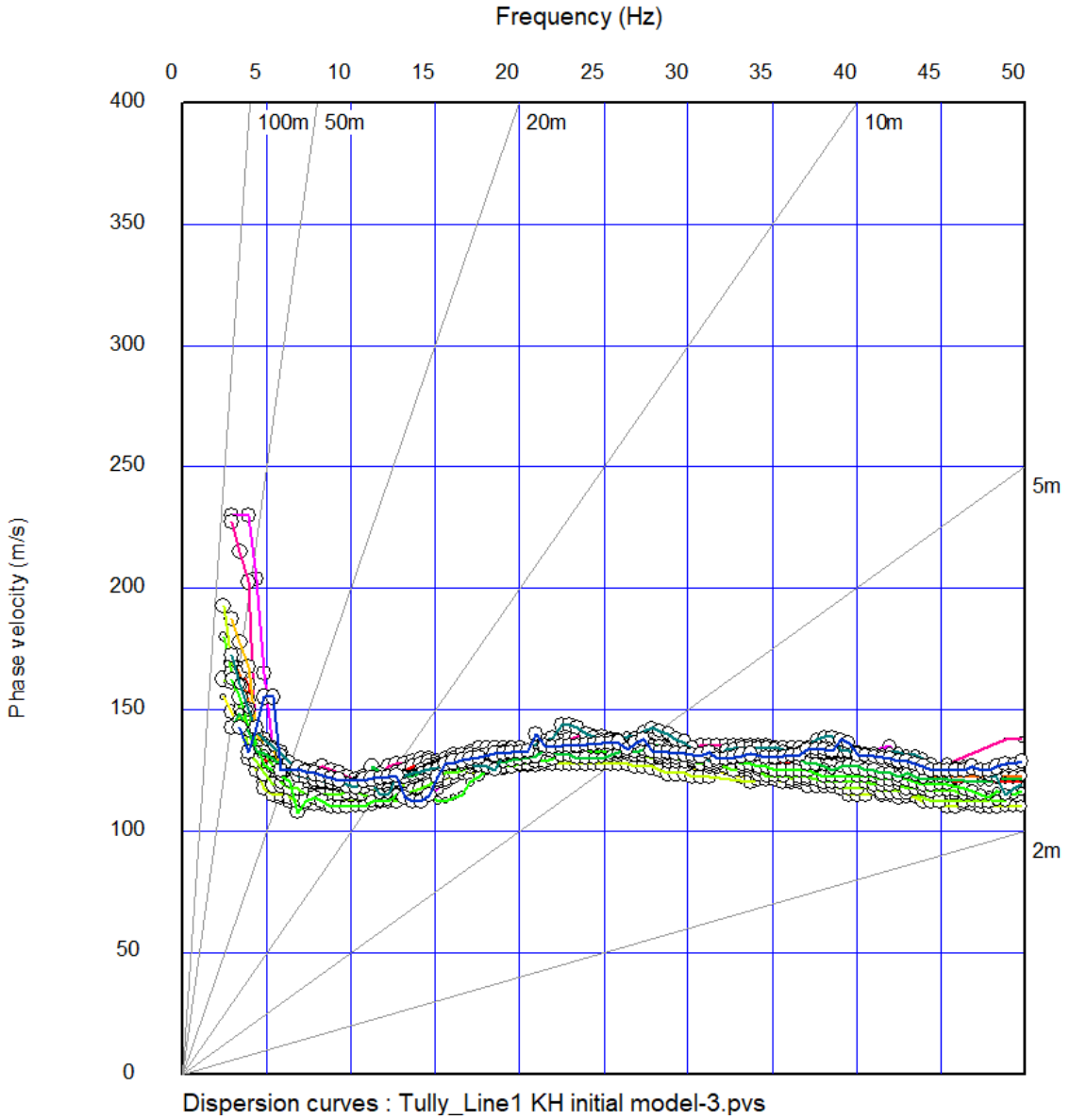
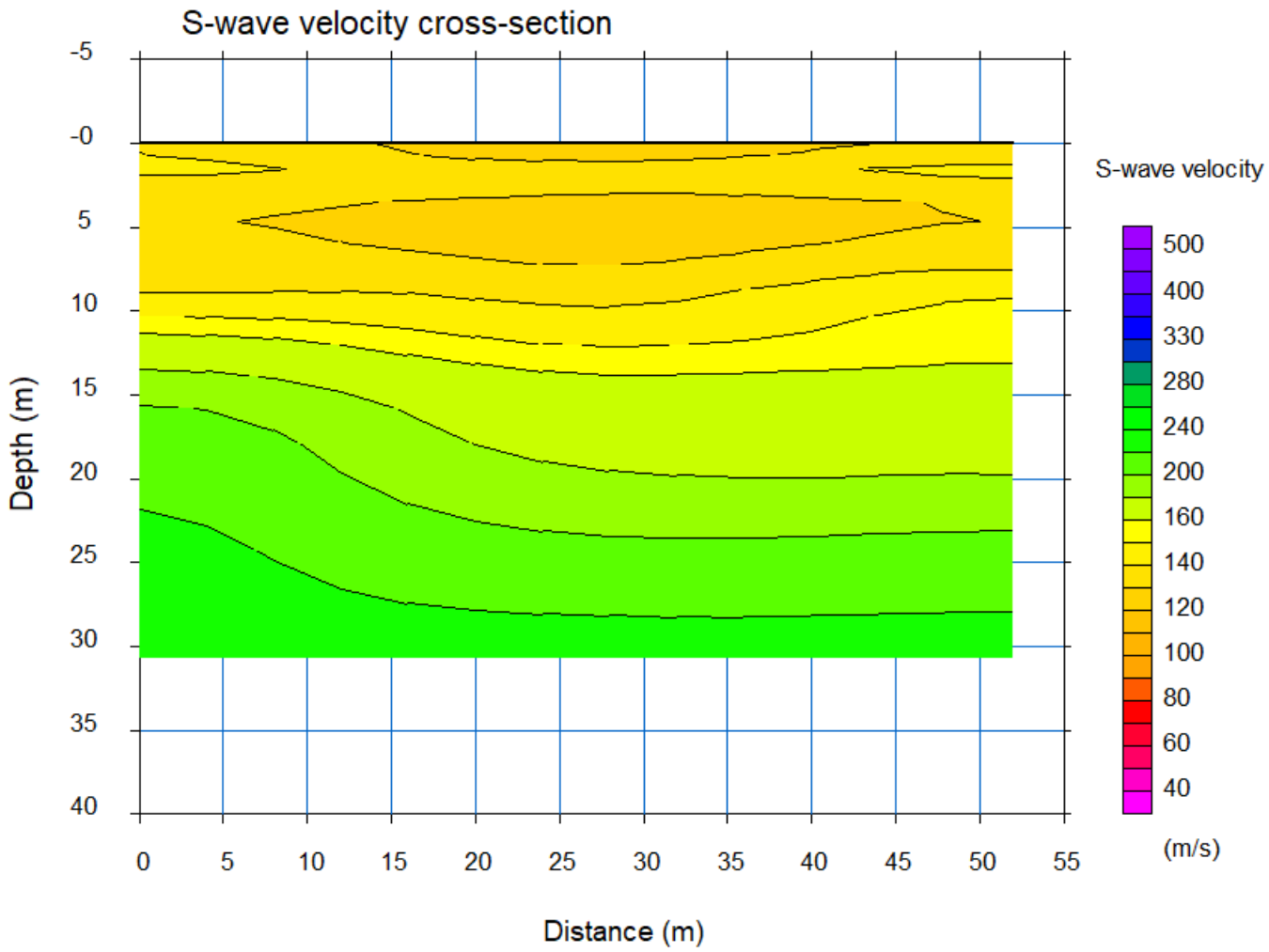


Example of CMP-CC gather



Dispersion curves and velocity model

All dispersion curves



Initial velocity model