

Data report, experiment "201454: SWELLS"

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This experiment was in support of a project grant proposal. We performed a simple refraction profile across the back-dune area at Kure Beach, NC (see the map Figure 1). The approximate center of the line is at 33.971053N, -77.91719W. The data were recorded on a 24-channel Geometrics Geode and the sensors were three component L-28s, however, we only recorded the vertical-component. The data were recorded with a sample rate of 4,000samp/sec, for a total of a 3-second record length. Channel 1 is located at the northwestern end of the line (x=0m) and Channel 24 is at the southeast part of the line, closest to the beach (x=57.5m). The station interval is 2.5 meters. For a source, we used sledge hammer hitting a metal plate, and our source interval was 2.5 meters, located between each station (shot 1 was located at x=1.25m, shot 2 was located at 3.75m, etc). We used a trigger switch set to begin recording at t=0 when the hammer hit the plate. See the following table for the geometry and file naming convention. Note that there is no geometry information in the SEG Y trace headers.

Sample rate: 4000samps/sec

Record length: 3.0 seconds

Trigger switch set to t=0

station coordinates			shot coordinates			file name
station	x coord	y coord	shot	x coord	y coord	
1	0	0	1	1.25	0.5	1.sgy
2	2.5	0	2	3.75	0.5	2.sgy
3	5	0	3	6.25	0.5	3.sgy
4	7.5	0	4	8.75	0.5	4.sgy
5	10	0	5	11.25	0.5	5.sgy
6	12.5	0	6	13.75	0.5	6.sgy
7	15	0	7	16.25	0.5	7.sgy
8	17.5	0	8	18.75	0.5	8.sgy
9	20	0	9	21.25	0.5	9.sgy
10	22.5	0	10	23.75	0.5	10.sgy
11	25	0	11	26.25	0.5	11.sgy
12	27.5	0	12	28.75	0.5	12.sgy
13	30	0	13	31.25	0.5	13.sgy
14	32.5	0	14	33.75	0.5	14.sgy
15	35	0	15	36.25	0.5	15.sgy
16	37.5	0	16	38.75	0.5	16.sgy
17	40	0	17	41.25	0.5	17.sgy
18	42.5	0	18	43.75	0.5	18.sgy
19	45	0	19	46.25	0.5	19.sgy
20	47.5	0	20	48.75	0.5	20.sgy
21	50	0	21	51.25	0.5	21.sgy
22	52.5	0	22	53.75	0.5	22.sgy
23	55	0	23	56.25	0.5	23.sgy
24	57.5	0	24	58.75	0.5	24.sgy

Figure 1. Map of the experiment area.

