

# **Propagation Characteristics of High-Frequency Sounds Emitted During High-Resolution Geophysical Surveys: Acoustic Modeling Effort**

## **Appendix A Calibration Report**

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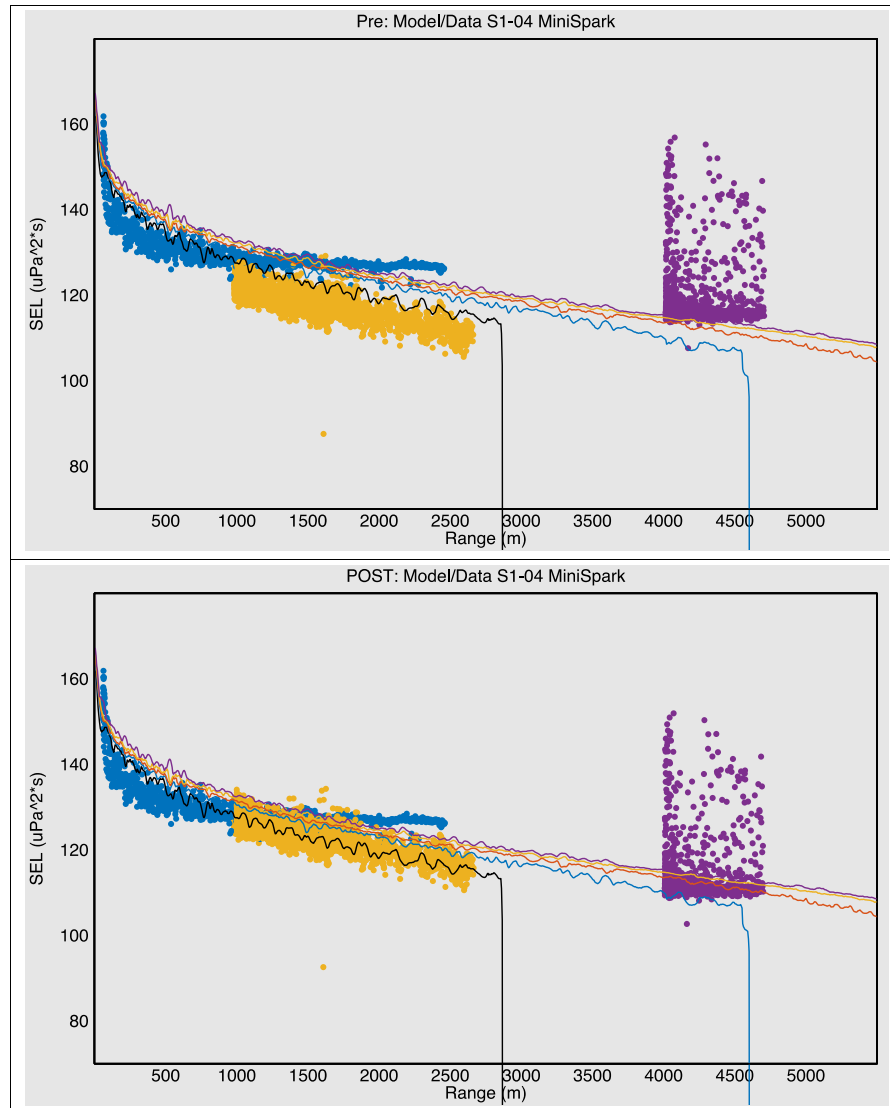
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## A.1 Appendix A: Low-Frequency Results

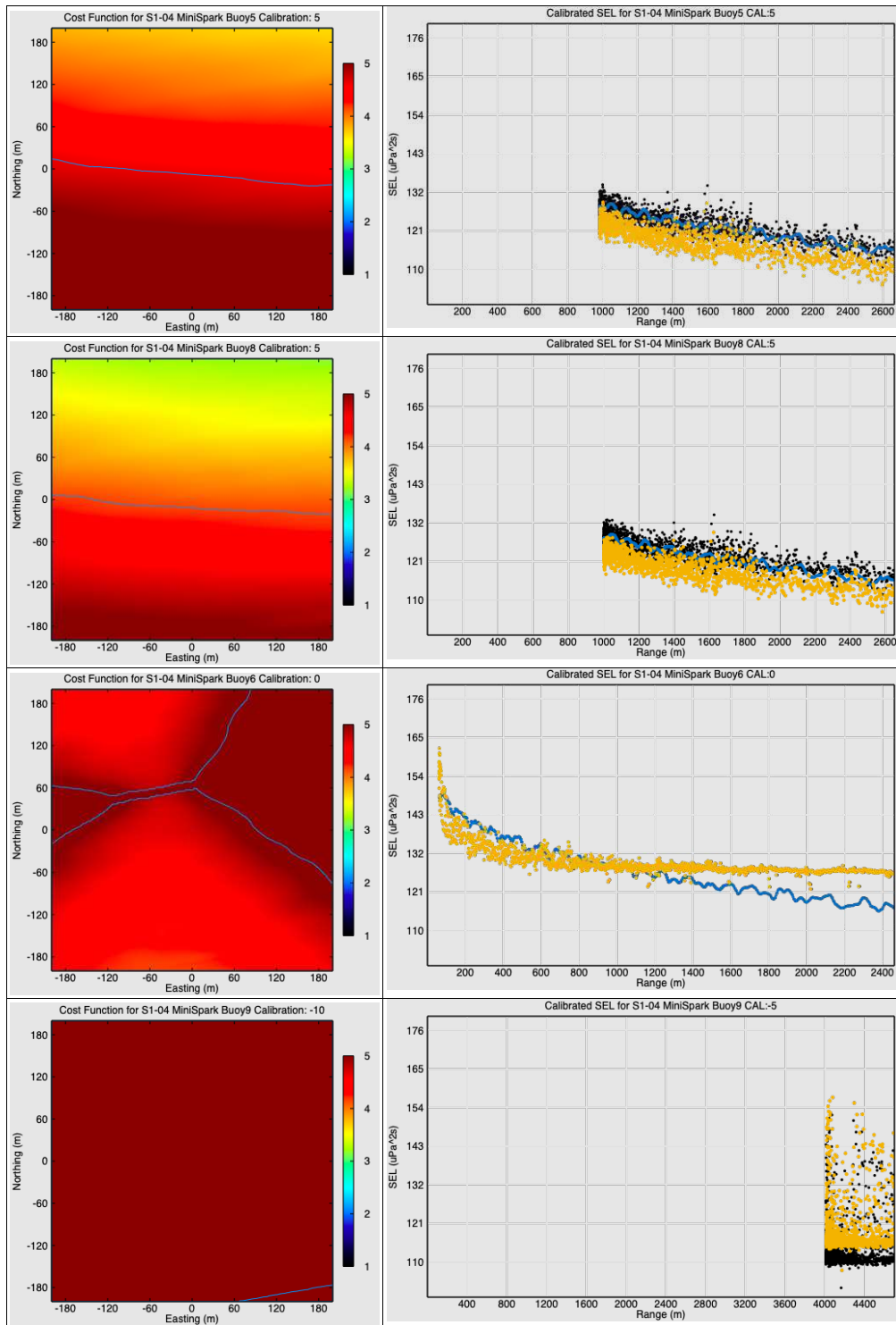
### A.1.1 Site 1, Deployment 1

*Mini Sparker Mode 28, Run 4, Buoys 5, 6, 8, and 9 (Figures A.1-1 and A.1-2).*



**Figure A.1-1. Modeled (lines) versus measured (dots) data for Mini Sparker, Mode 28, at Site 1, Deployment 1, Run 4.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for four buoys (Buoy 5 and 8, yellow; Buoy 6, blue; Buoy 9, purple). Top: pre-adjusted data; Bottom: adjusted data (dots).

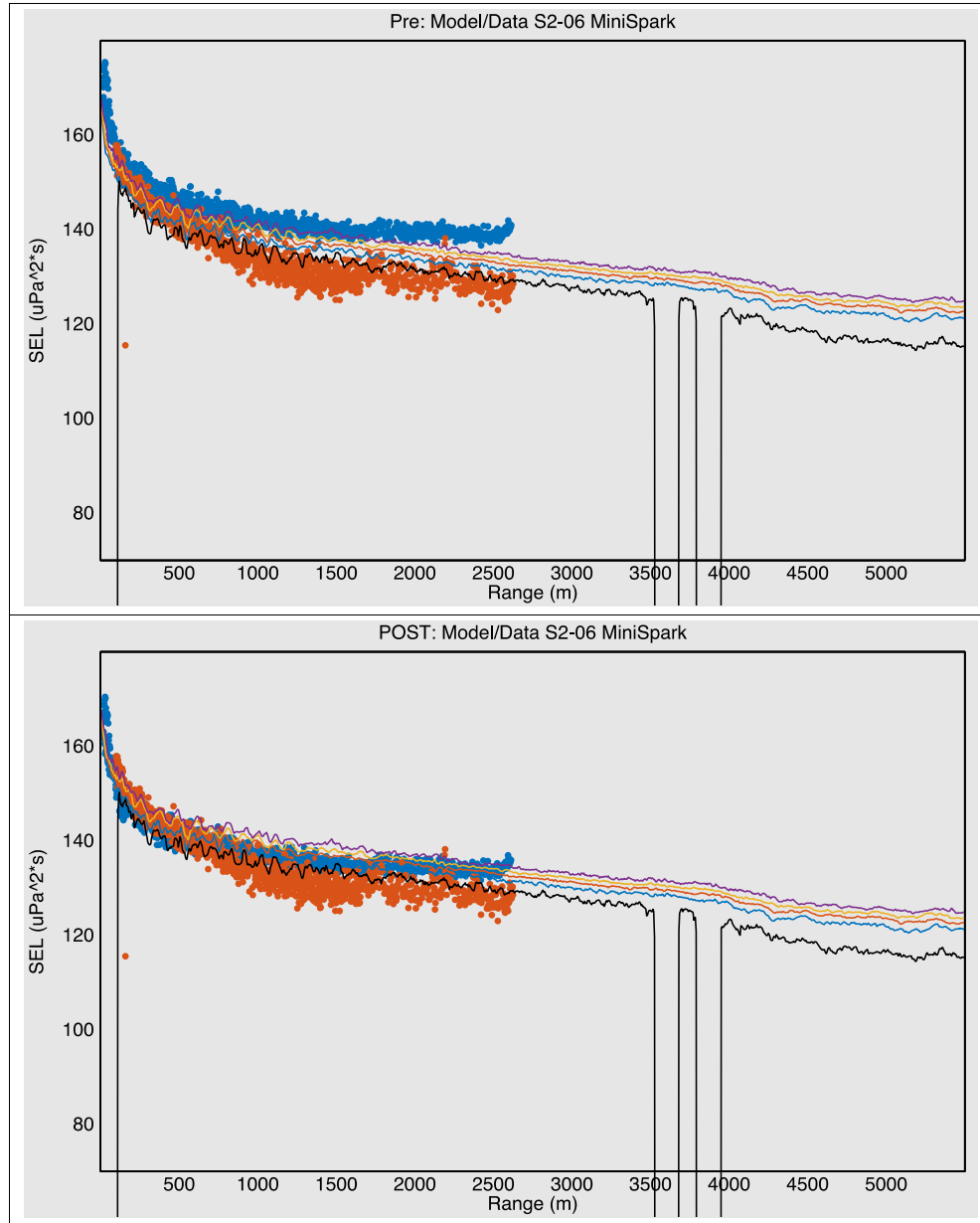


**Figure A.1-2. Cost functions of buoy locations and SEL comparisons for Mini Sparker, Mode 28, at Site 1, Deployment 1, Run 4.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 8, 6, and 9). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

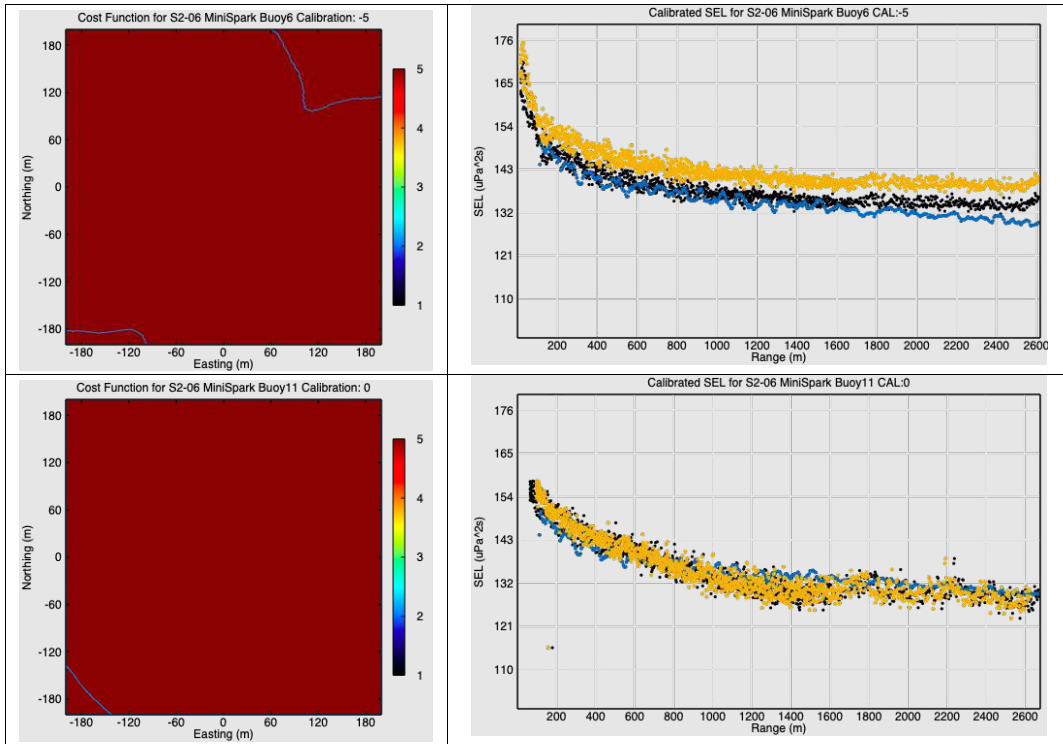
## A.1.2 Site 2, Deployment 1

*Mini Sparker Mode 28, Run 6, Buoys 6 and 11 (Figures A.1-3 and A.1-4).*



**Figure A.1-3. Modeled (lines) versus measured (dots) data for Mini Sparker, Mode 28, at Site 2, Deployment 1, Run 6.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for two buoys (Buoy 6, blue; Buoy 11, red). Top: pre-adjusted data; Bottom: adjusted data (dots).

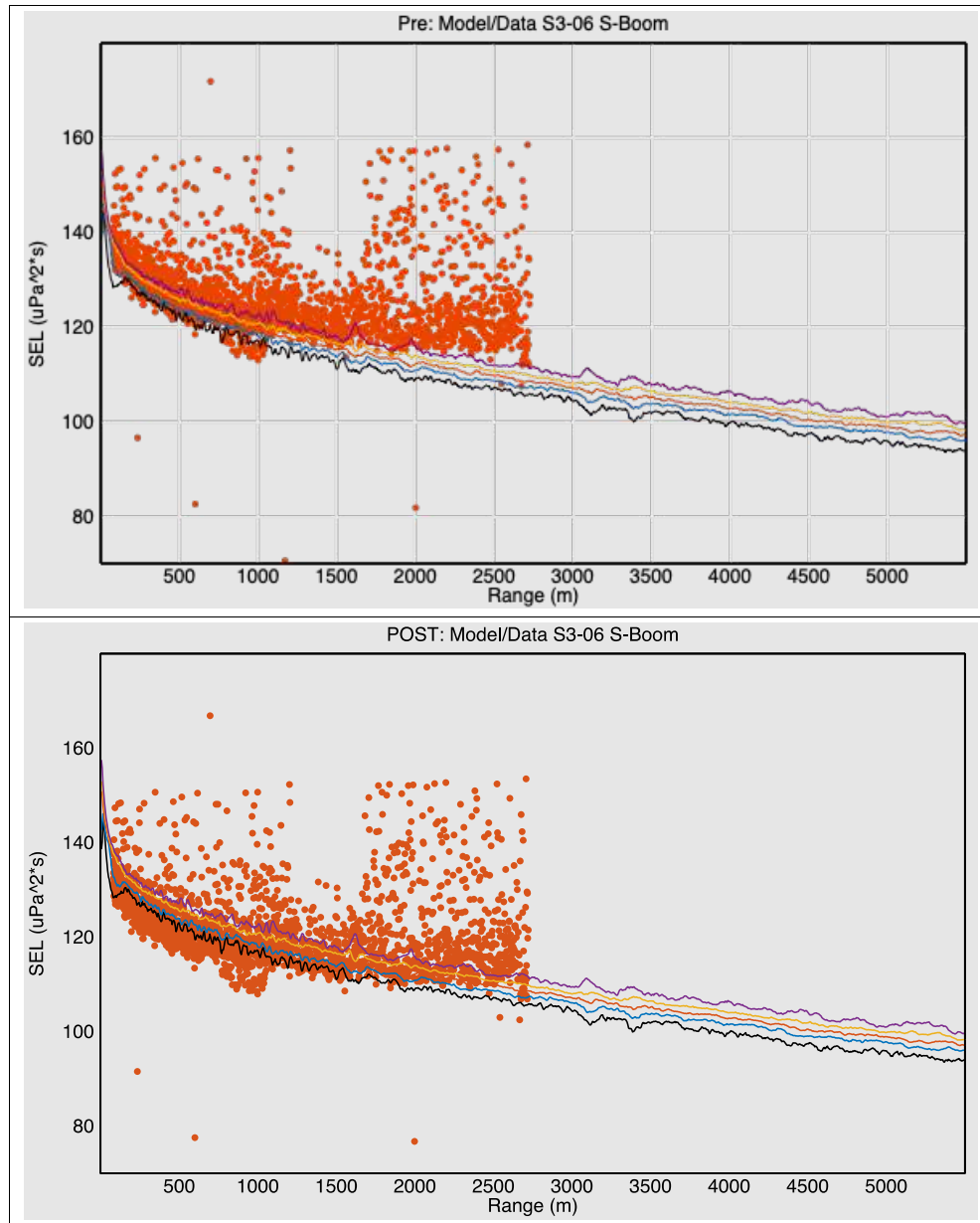


**Figure A.1-4. Cost functions of buoy locations and SEL comparisons for Mini Sparker, Mode 28, at Site 2, Deployment 1, Run 6.**

Left: Cost functions for the buoy locations (top: Buoy 6; bottom: Buoy 11). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

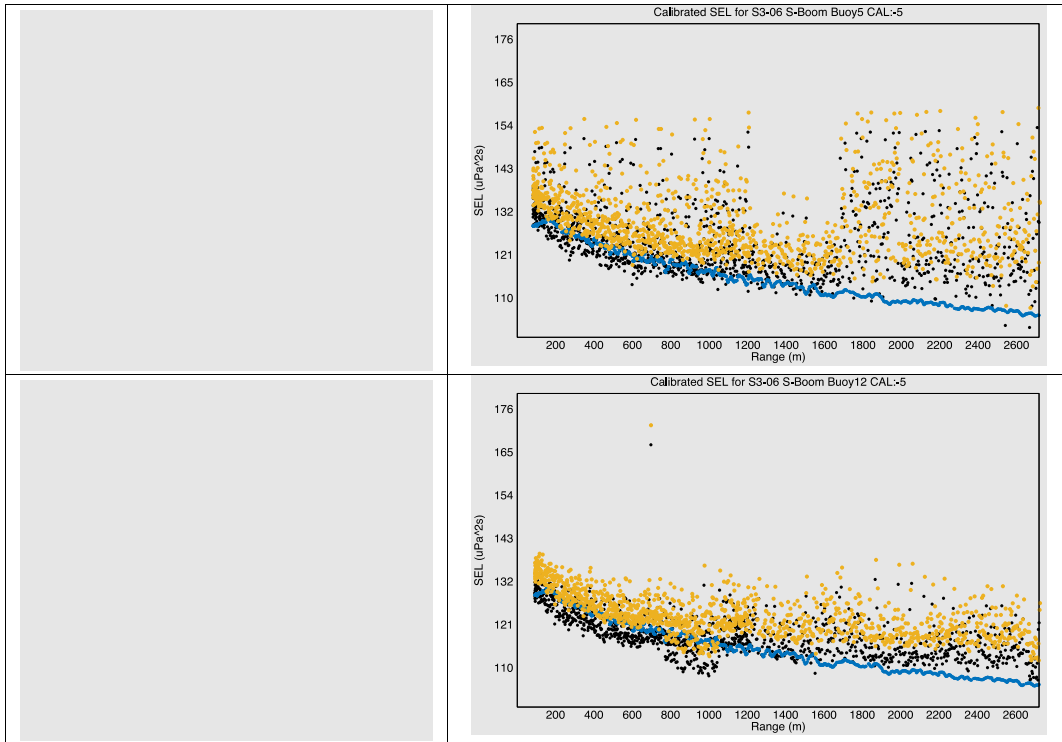
### A.1.3 Site 3, Deployment 1

252 S-Boom, Mode 26, Run 6, Buoys 5 and 11 (Figures A.1-5 and A.1-6).



**Figure A.1-5. Modeled (lines) versus measured (dots) data for 252 S-Boom, Mode 26, at Site 3, Deployment 1, Run 6.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for two buoys (Buoy 5, red; and; Buoy 12, red). Buoys 7 and 8 were deployed but had bad data. Top: pre-adjusted data; Bottom: adjusted data (dots).

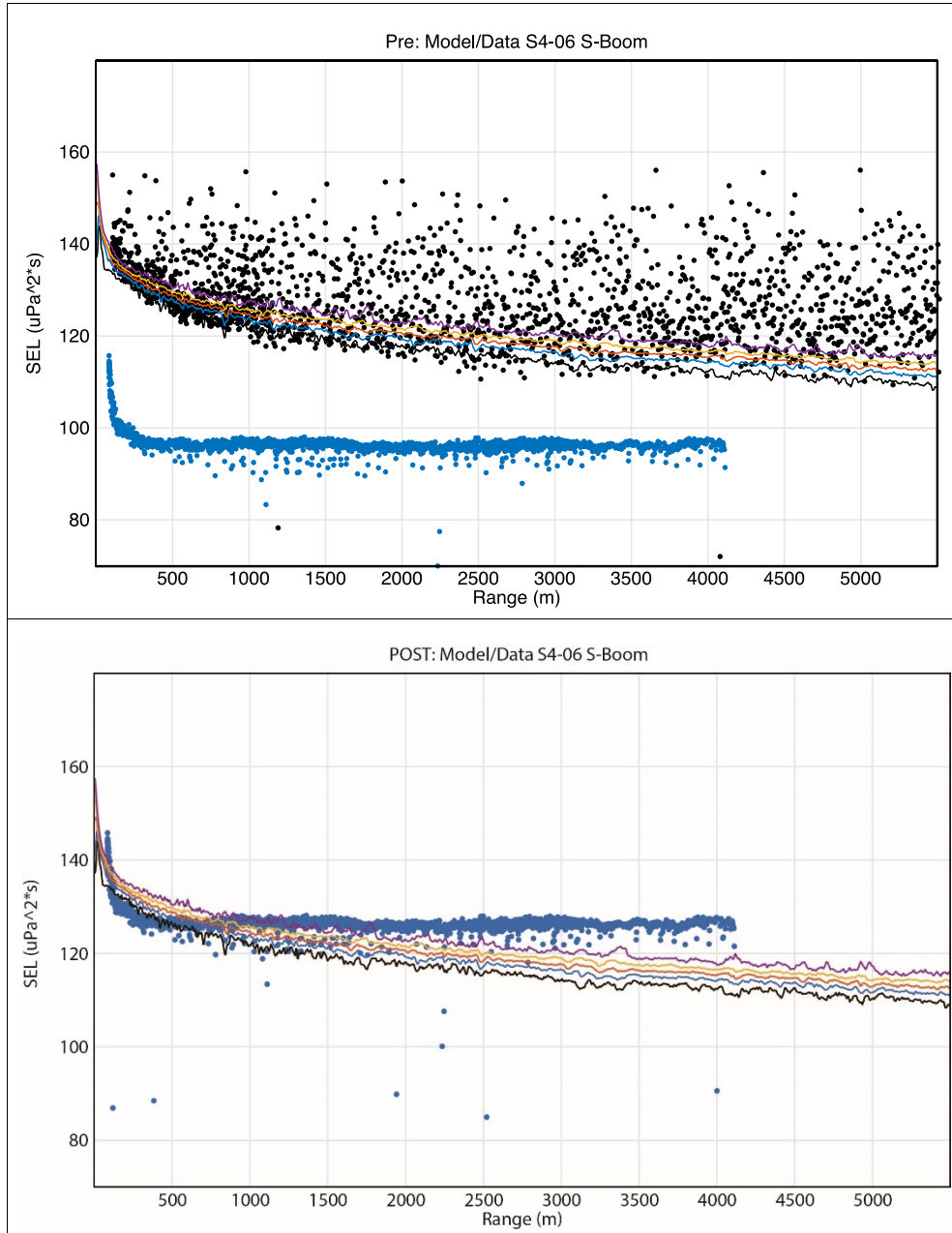


**Figure A.1-6. Cost functions of buoy locations and SEL comparisons for 252 S-Boom, Mode 26, at Site 3, Deployment 1, Run 6.**

Left: Cost functions for the buoy locations (top: Buoy 5; bottom: Buoy 12). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

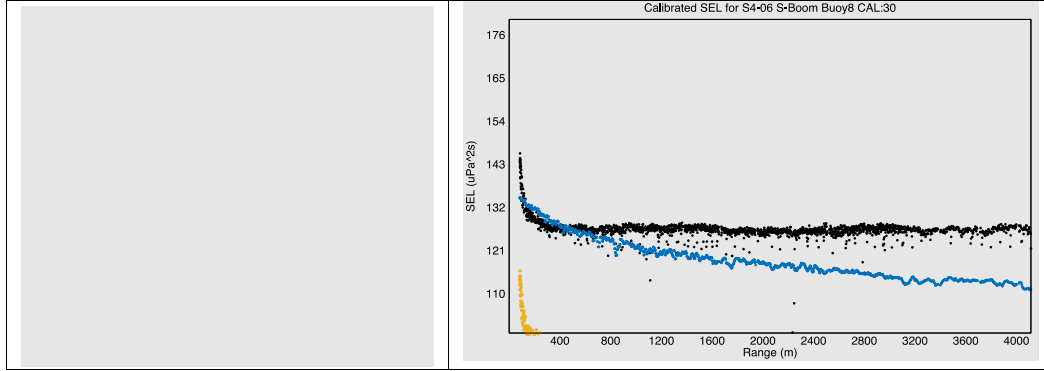
### A.1.4 Site 4, Deployment 1

252 S-Boom, Mode 26, Run 6, Buoys 6 and 8 (Figures A.1-7 and A.1-8).



**Figure A.1-7. Modeled (lines) versus measured (dots) data for 252 S-Boom, Mode 26, at Site 4, Deployment 1, Run 6.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for two buoys (Buoy 6, blue; Buoy 8, black). Buoy 6 navigation data were too poor quality for a cost function, so they are not included in the rest of the example and the adjusted data plot is not presented. Top: pre-adjusted data; Bottom: adjusted data (dots).

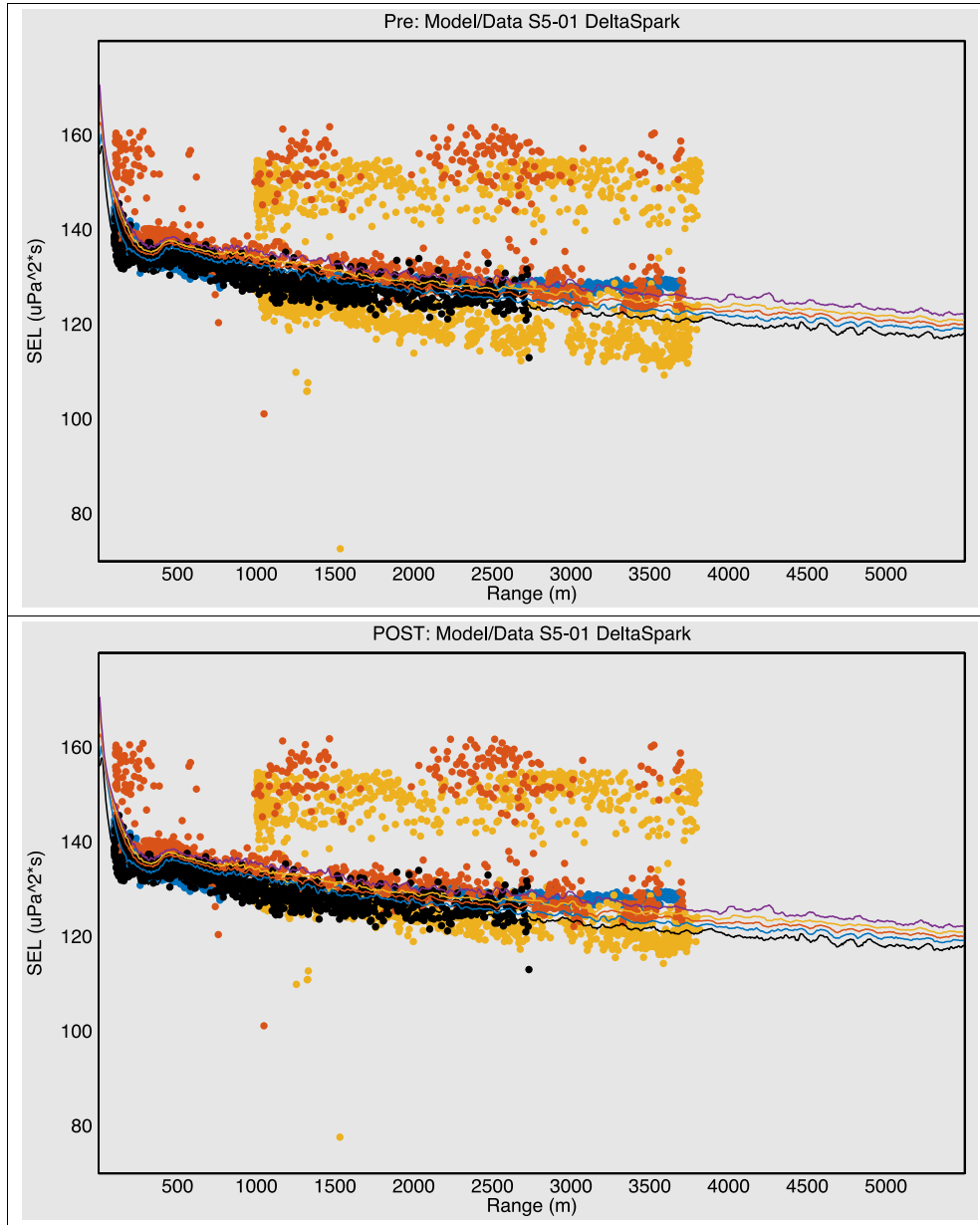


**Figure A.1-8. Cost function of buoy location and SEL comparisons for 252 S-Boom, Mode 26, at Site 4, Deployment 1, Run 6.**

Left: Cost function for the buoy location (Buoy 8). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

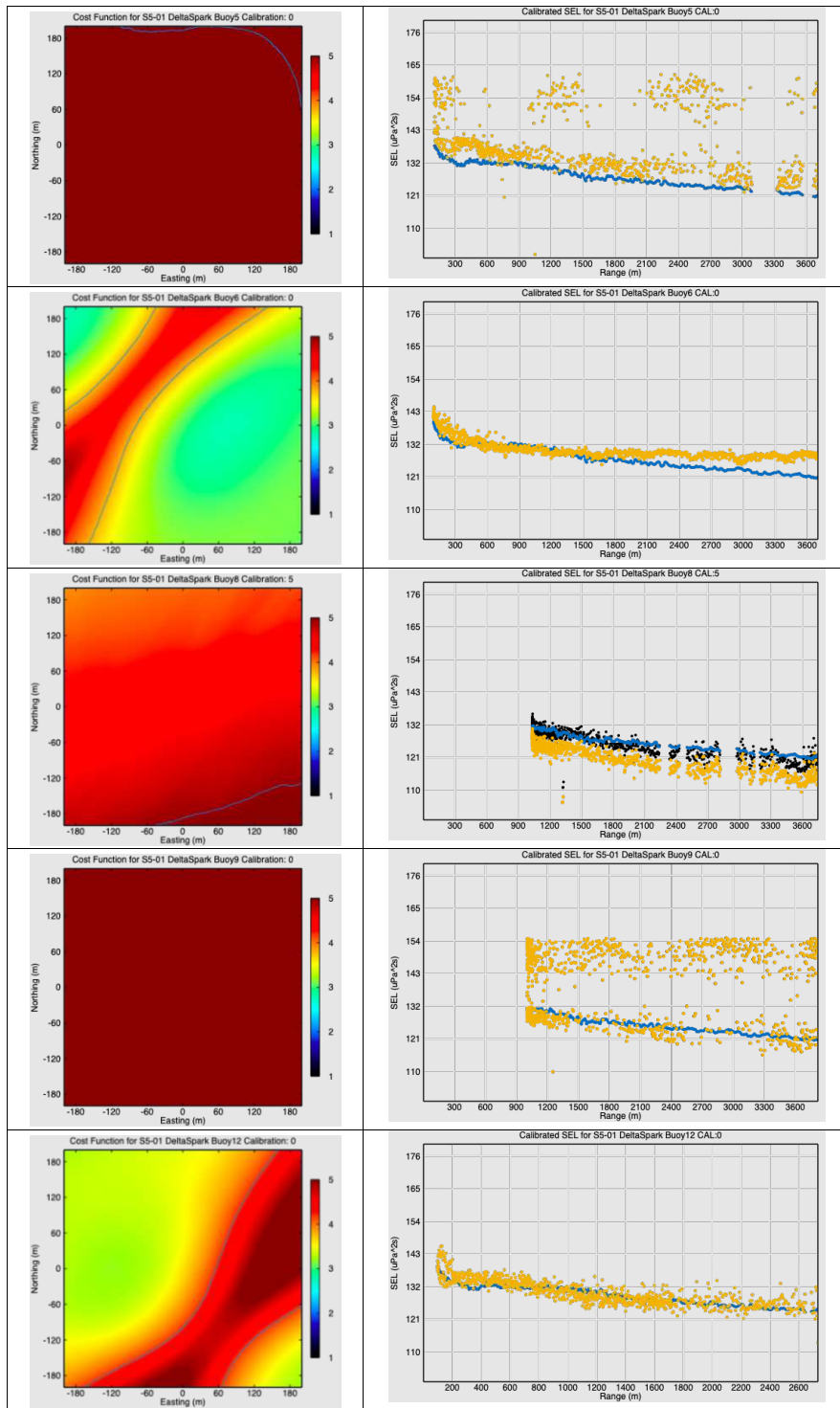
### A.1.5 Site 5, Deployment 1

*Delta Sparker, Mode 39, Run 1, Buoys 5, 6, 8, 9, and 12 (Figures A.1-9 and A.1-10).*



**Figure A.1-9. Modeled (lines) versus measured (dots) data for Delta Sparker, Mode 39, at Site 5, Deployment 1, Run 1.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for five buoys (Buoy 5, red; Buoy 6, blue; Buoys 8 and 9, yellow; Buoy 12, black). The double stack of dots indicates bad data that were not used in the model-data comparison. Top: pre-adjusted data; Bottom: adjusted data (dots).

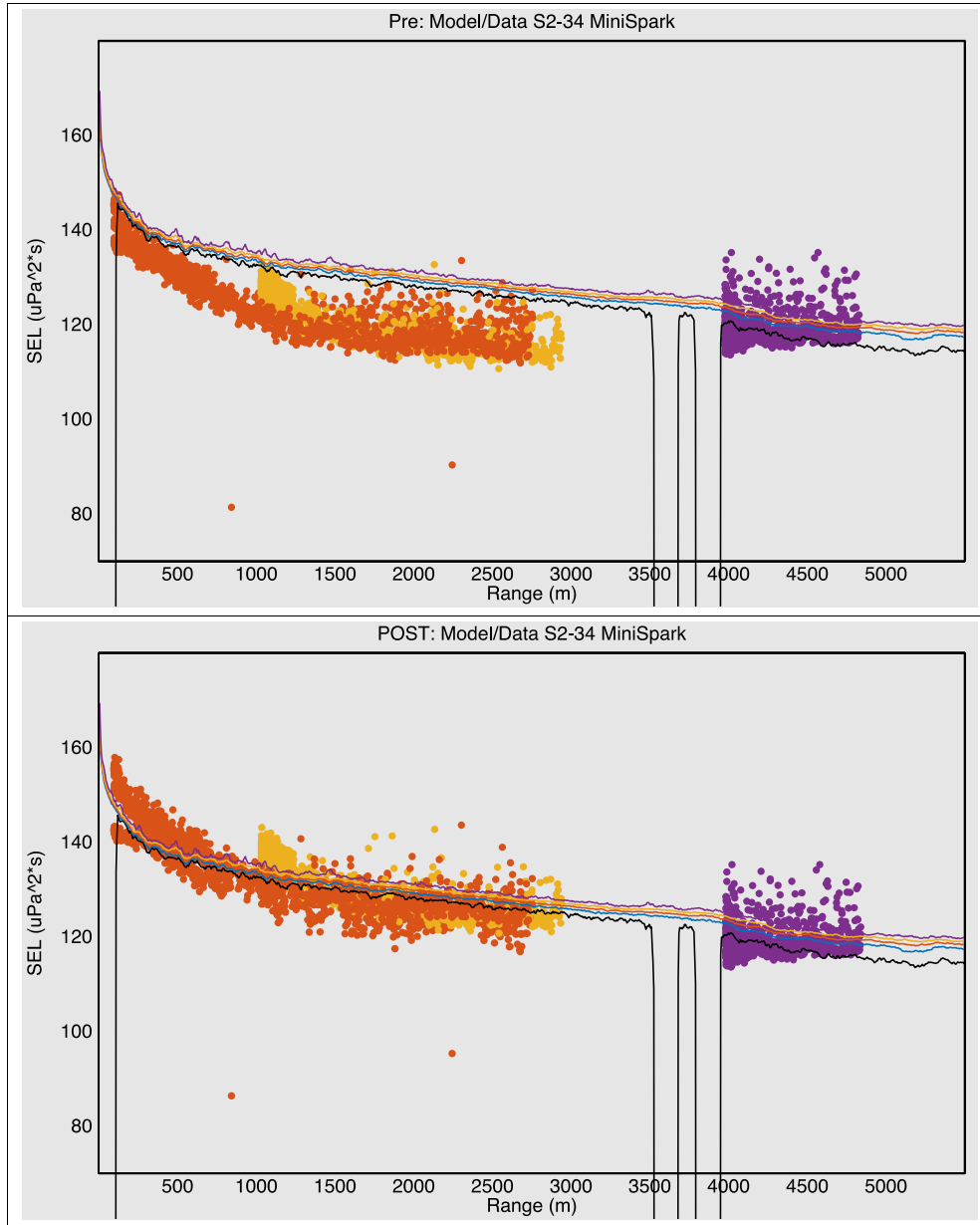


**Figure A.1-10. Cost functions of buoy locations and SEL comparisons for Delta Sparker, Mode 39, at Site 5, Deployment 1, Run 1.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 6, 8, 9, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

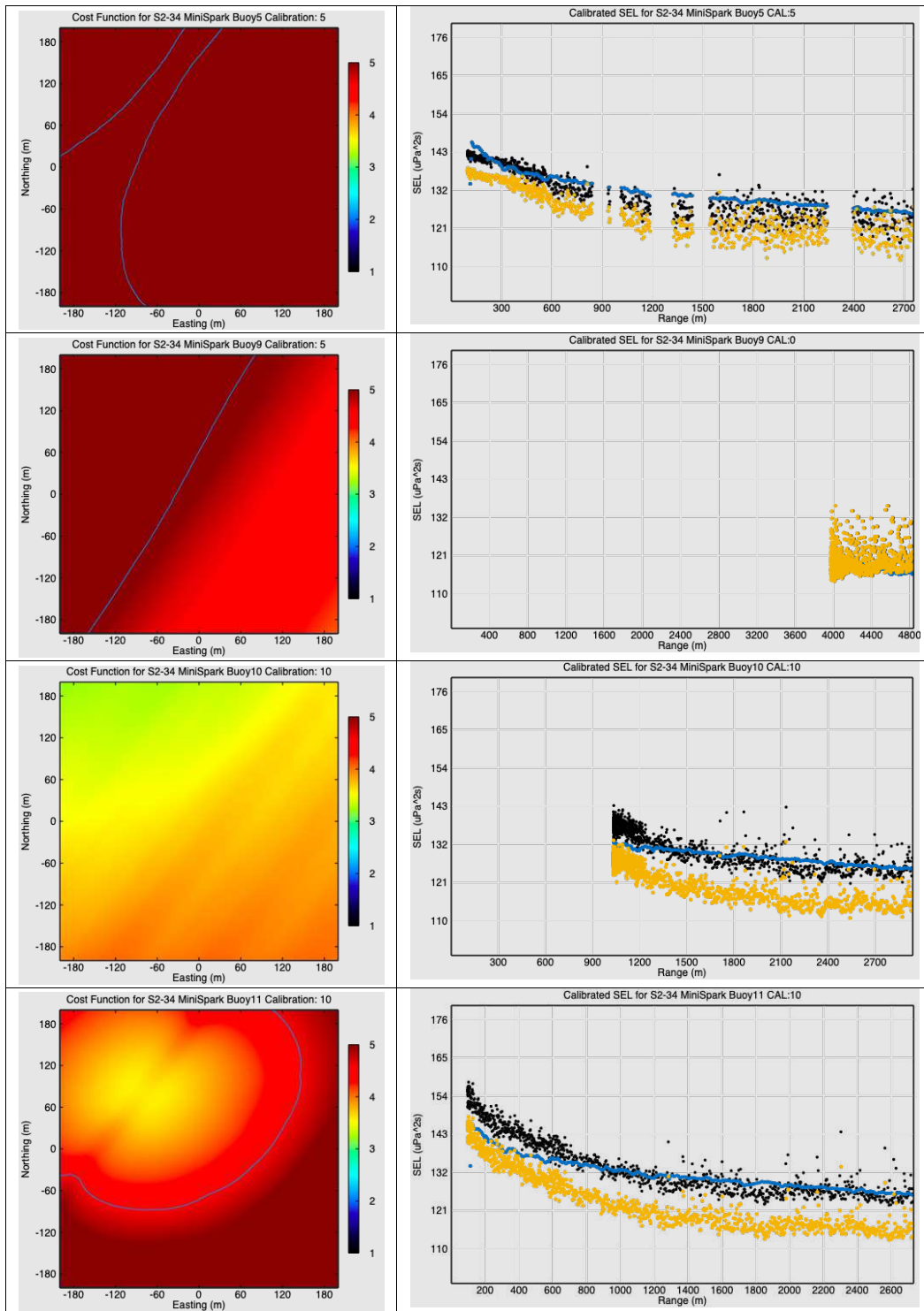
## A.1.6 Site 2, Deployment 2

Mini Sparker Mode 29, Run 34, Buoys 5, 9, 10, and 11 (Figures A.1-11 and A.1-12).



**Figure A.1-11. Modeled (lines) versus measured (dots) data for Mini Sparker, Mode 29, at Site 2, Deployment 2, Run 34.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for four buoys (Buoy 5, red; Buoy 9, purple; Buoy 10, yellow; and Buoy 11, red). Top: pre-adjusted data; Bottom: adjusted data (dots).

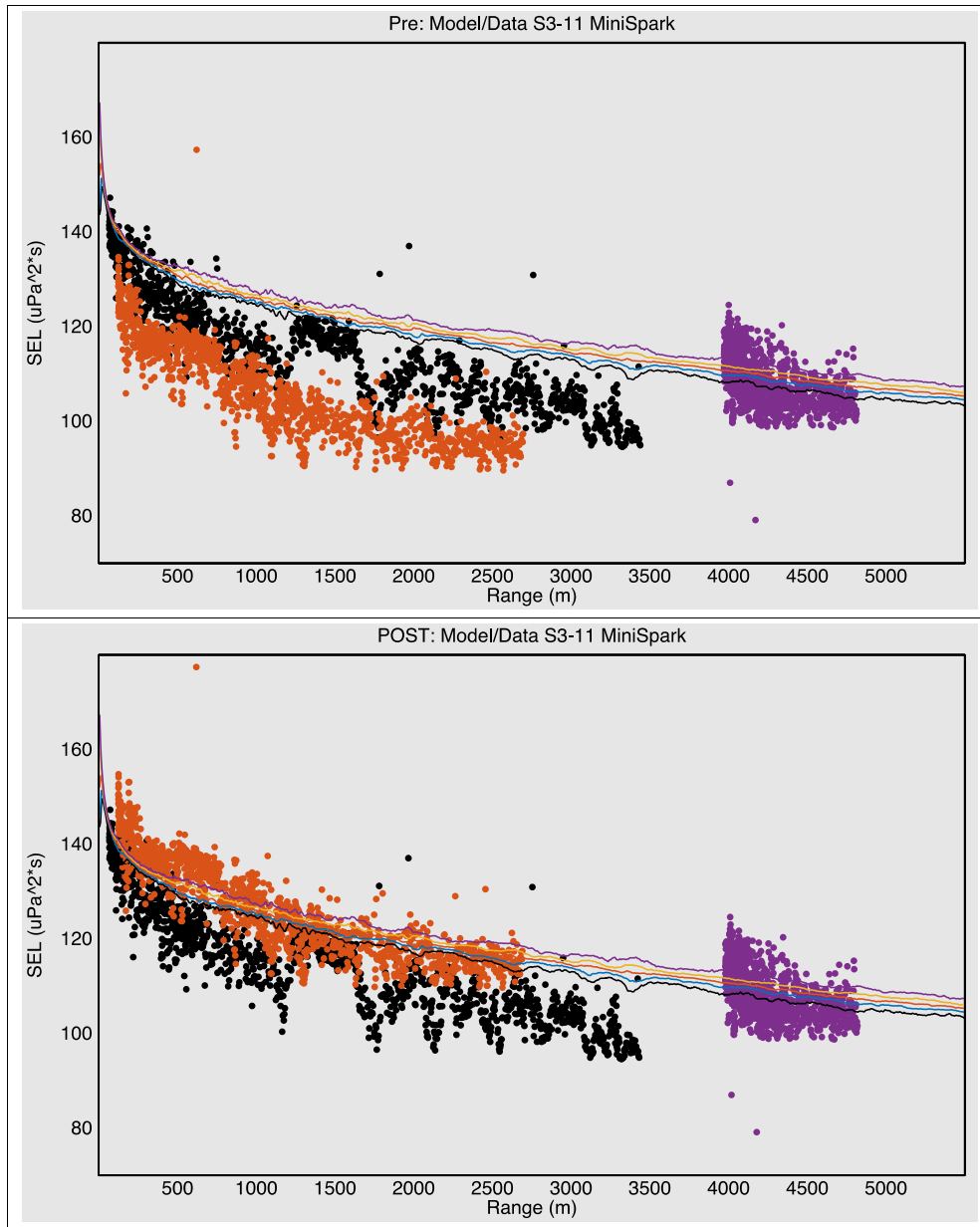


**Figure A.1-12. Cost functions of buoy locations and SEL comparisons for Mini Sparker, Mode 29, at Site 2, Deployment 2, Run 34.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 9, 10, and 11). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

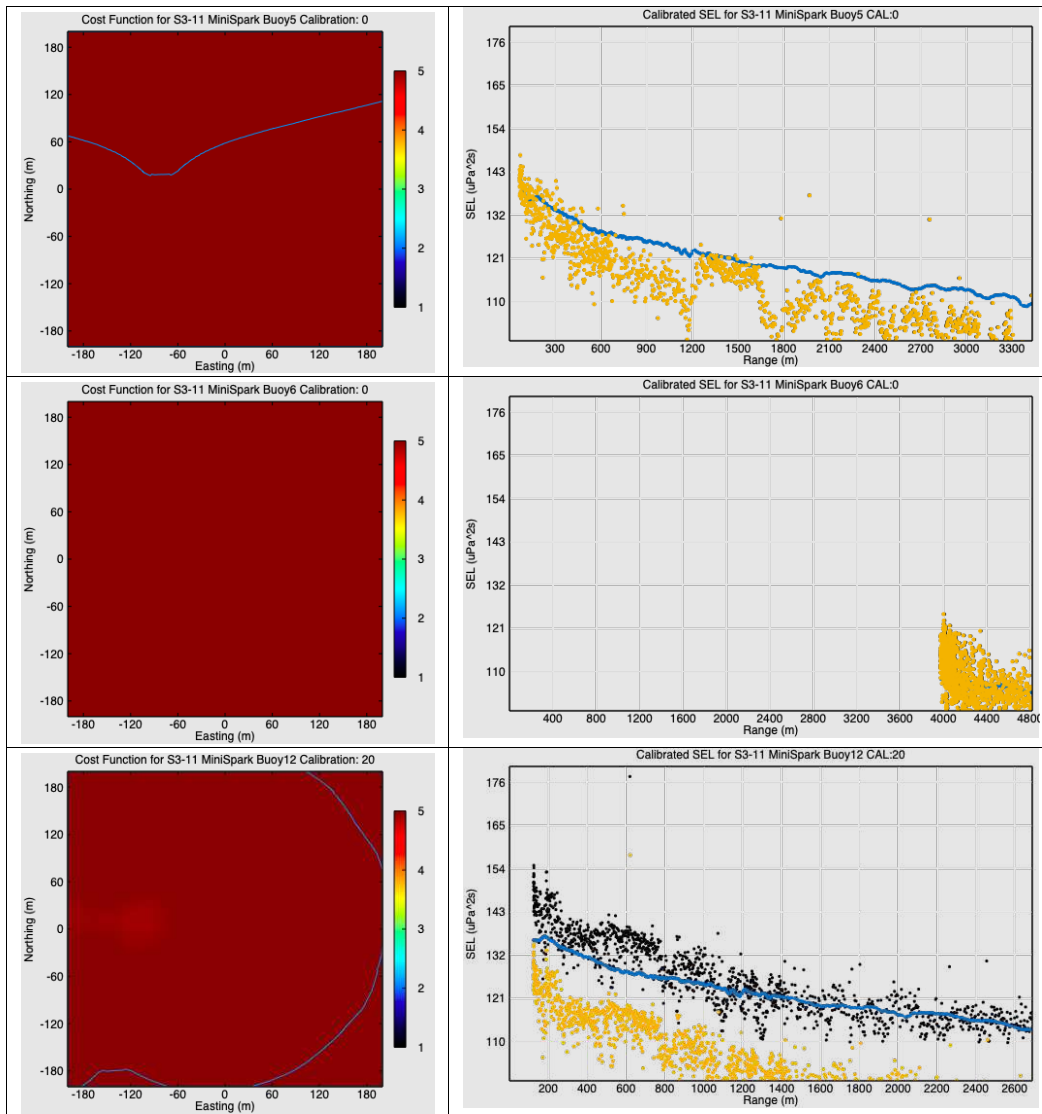
### A.1.7 Site 3, Deployment 2

Mini Sparker Mode 29, Run 11, Buoys 5, 6, and 12 (Figures A.1-13 and A.1-14).



**Figure A.1-13. Modeled (lines) versus measured (dots) data for Mini Sparker, Mode 29, at Site 3, Deployment 2, Run 11.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>. purple; 75<sup>th</sup>. yellow; 50<sup>th</sup>. red; 25<sup>th</sup>. blue; 5<sup>th</sup>. black). The dots are measured SEL versus range for three buoys (Buoy 5, black; Buoy 6, purple; Buoy 12, red). Top: pre-adjusted data; Bottom: adjusted data (dots).



**Figure A.1-14. Cost functions of buoy locations and SEL comparisons for Mini Sparker, Mode 29, at Site 3, Deployment 2, Run 11.**

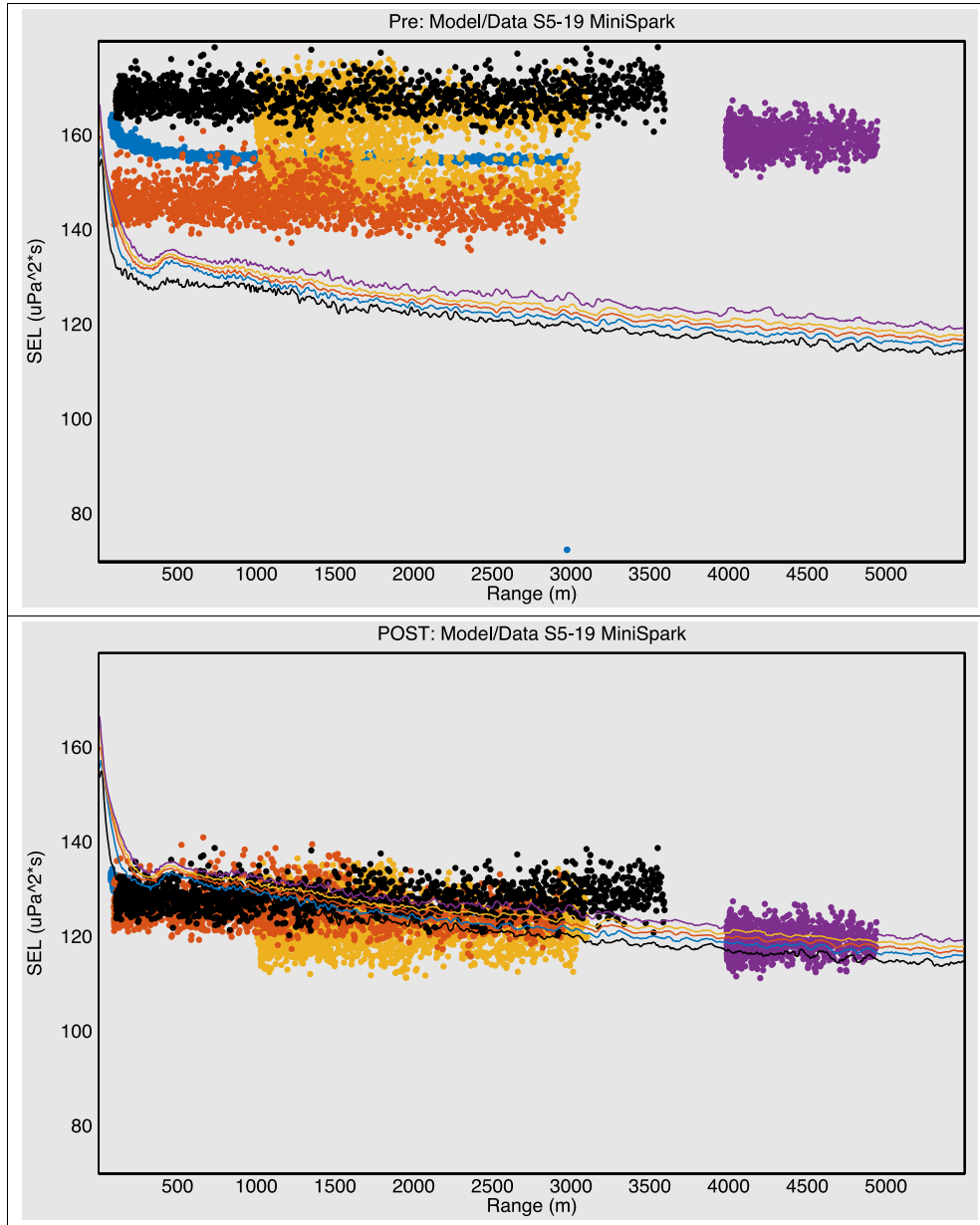
Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 6, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

### A.1.8 Site 4, Deployment 2

No run from Deployment 2 at Site 4 had viable data for calculating adjustment factors.

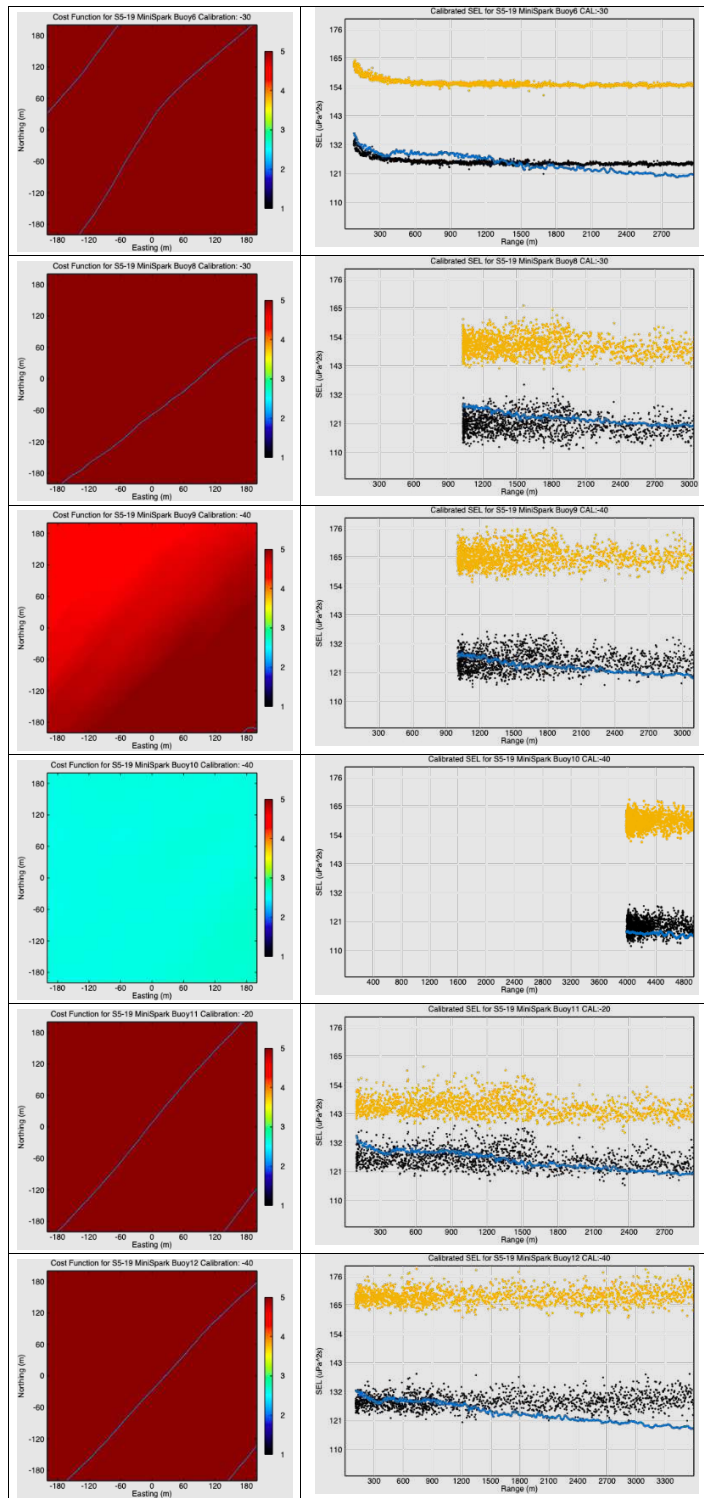
## A.1.9 Site 5, Deployment 2

Mini Sparker Mode 28, Run 19, Buoys 6, 8, 9, 10, 11, and 12 (Figures A.1-15 and A.1-16).



**Figure A.1-15. Modeled (lines) versus measured (dots) data for Mini Sparker, Mode 28, at Site 5, Deployment 2, Run 19.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>. purple; 75<sup>th</sup>. yellow; 50<sup>th</sup>. red; 25<sup>th</sup>. blue; 5<sup>th</sup>. black). The dots are measured SEL versus range for six buoys (Buoy 6, blue; Buoys 8 and 9, yellow; Buoy 10, purple; Buoy 11, red; Buoy 12, black). Top: pre-adjusted data; Bottom: adjusted data (dots).



**Figure A.1-16. Cost functions of buoy locations and SEL comparisons for Mini Sparker, Mode 28, at Site 5, Deployment 2, Run 19.**

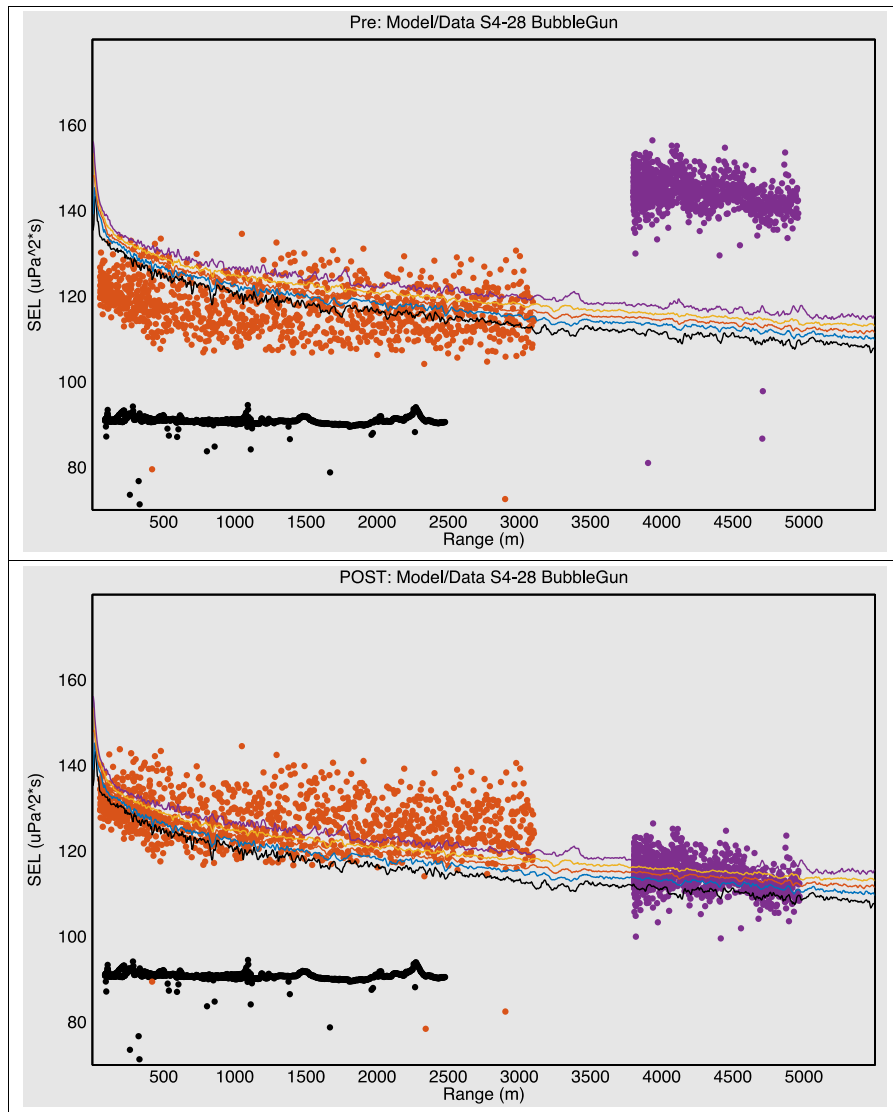
Left: Cost functions for the buoy locations (top to bottom: Buoys 6, 8, 9, 10, 11, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

### A.1.10 Site 3, Deployment 3

The low-frequency source at Site 3 for Deployment 2 is shown in Section 2.1 of the main report.

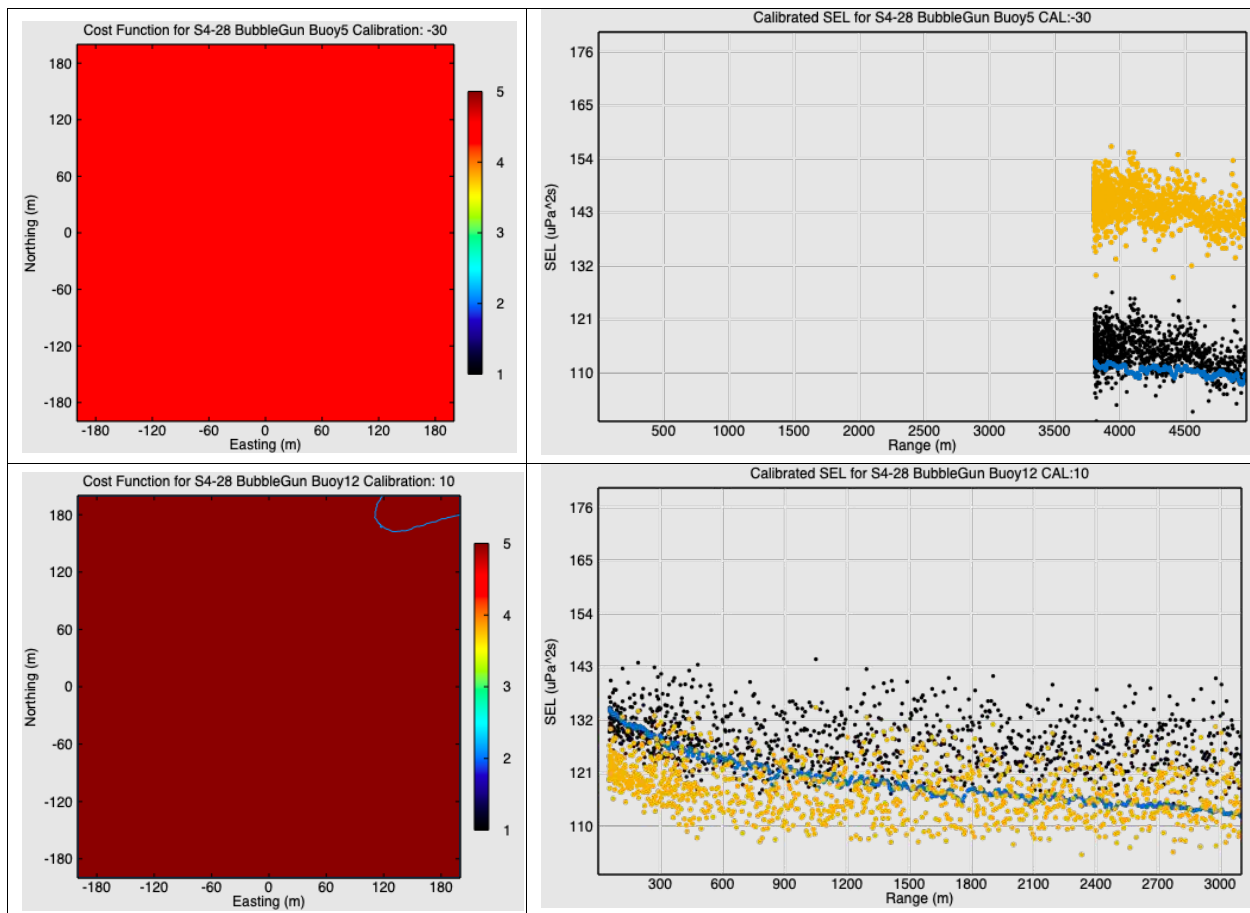
### A.1.11 Site 4, Deployment 3

*Bubble Gun Mode 33, Run 28, Buoys 5 and 12 (Figures A.1-17 and A.1-18).*



**Figure A.1-17. Modeled (lines) versus measured (dots) data for Bubble Gun, Mode 33, at Site 4, Deployment 3, Run 28.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for three buoys (Buoy 5, purple; Buoy 7, black; Buoy 12, red). Top: pre-adjusted data; Bottom: adjusted data (dots). Buoy 7 (black) only had bad data, so while plotted, the data were not adjusted.



**Figure A.1-18. Cost functions of buoy locations and SEL comparisons for Bubble Gun, Mode 33, at Site 4, Deployment 3, Run 28.**

Left: Cost functions for the buoy locations (top: Buoy 5; bottom: Buoy 12). Right: Sound exposure level (SEL) versus range compared to the model (blue line), pre-adjusted data (yellow), and adjusted data (black).

### A.1.12 Site 5, Deployment 3

No low-frequency source occurred during Deployment 3 at Site 5.

### A.1.13 Low-Frequency Results Table

Table A.1-1. Adjustment factors for all low-frequency sources.

Source	Mode	Site	Deployment	Run	frequency	Channel	Buoy Position															
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1
252 S-Boom	26	1	1	3	LF	na	6	-10 dB	na	--	na	--	na	--	na	--	5	10 dB	8	10 dB	9	-20 dB
252 S-Boom	26	1	1	3	LF	na	6	200 S	na	--	na	--	na	--	na	--	5	70 N	8	200 N	9	200 N
252 S-Boom	26	1	1	3	LF	na	6	200 E	na	--	na	--	na	--	na	--	5	200 W	8	200 W	9	200 W
252 S-Boom	26	1	1	3	LF	na	6	10.59	na	--	na	--	na	--	na	--	5	3.32	8	2.98	9	5.16
252 S-Boom	26	1	1	3	LF	na	6	>400m	na	--	na	--	na	--	na	--	5	>400 m	8	>380 m	9	>400 m
Mini Sparker	28	1	1	4	LF	na	6	0 dB	na	--	na	--	na	--	na	--	5	5 dB	8	5 dB	9	-5 dB
Mini Sparker	28	1	1	4	LF	na	6	200 S	na	--	na	--	na	--	na	--	5	200 N	8	200 N	9	192 S
Mini Sparker	28	1	1	4	LF	na	6	58 W	na	--	na	--	na	--	na	--	5	196 E	8	200 E	9	200W
Mini Sparker	28	1	1	4	LF	na	6	4.16	na	--	na	--	na	--	na	--	5	3.65	8	3.17	9	7.57
Mini Sparker	28	1	1	4	LF	na	6	>260 m	na	--	na	--	na	--	na	--	5	>200 m	8	>200 m	9	>400 m
Mini Sparker	29	1	1	5	LF	na	6	0 dB	na	--	na	--	na	--	na	--	5	bad	8	30 dB	9	-10 dB
Mini Sparker	29	1	1	5	LF	na	6	50 N	na	--	na	--	na	--	na	--	5	bad	8	200 S	9	200 S
Mini Sparker	29	1	1	5	LF	na	6	64 W	na	--	na	--	na	--	na	--	5	bad	8	36 W	9	36 W
Mini Sparker	29	1	1	5	LF	na	6	12.55	na	--	na	--	na	--	na	--	5	bad	8	2.52	9	13.98
Mini Sparker	29	1	1	5	LF	na	6	>400 m	na	--	na	--	na	--	na	--	5	bad	8	>210 m	9	>380 m
Bubble Gun	33	1	1	13	LF	na	6	bad	na	--	na	--	na	--	na	--	5	10 dB	8	bad	9	no data
Bubble Gun	33	1	1	13	LF	na	6	bad	na	--	na	--	na	--	na	--	5	200 N	8	bad	9	no data
Bubble Gun	33	1	1	13	LF	na	6	bad	na	--	na	--	na	--	na	--	5	196 W	8	bad	9	no data
Bubble Gun	33	1	1	13	LF	na	6	bad	na	--	na	--	na	--	na	--	5	5.25	8	bad	9	no data
Bubble Gun	33	1	1	13	LF	na	6	bad	na	--	na	--	na	--	na	--	5	>170 m	8	bad	9	no data
252 S-Boom	26	2	1	4	LF	0	6	0 dB	na	--	na	--	na	--	na	--	na	--	na	--	F	bad
253 S-Boom	26	2	1	4	LF	0	6	48 N	na	--	na	--	na	--	na	--	na	--	na	--	F	bad
254 S-Boom	26	2	1	4	LF	0	6	156 W	na	--	na	--	na	--	na	--	na	--	na	--	F	bad
255 S-Boom	26	2	1	4	LF	0	6	4.96	na	--	na	--	na	--	na	--	na	--	na	--	F	bad
256 S-Boom	26	2	1	4	LF	0	6	>400 m	na	--	na	--	na	--	na	--	na	--	na	--	F	bad
257 S-Boom	27	2	1	5	LF	0	6	0 dB	na	--	na	--	11	15 dB	na	--	na	--	na	--	na	--
258 S-Boom	27	2	1	5	LF	0	6	200 S	na	--	na	--	11	54 S	na	--	na	--	na	--	na	--
259 S-Boom	27	2	1	5	LF	0	6	200 E	na	--	na	--	11	178 E	na	--	na	--	na	--	na	--
260 S-Boom	27	2	1	5	LF	0	6	4.42	na	--	na	--	11	3	na	--	na	--	na	--	na	--
261 S-Boom	27	2	1	5	LF	0	6	>200 m	na	--	na	--	11	>200 m	na	--	na	--	na	--	na	--
Mini Sparker	28	2	1	6	LF	0	6	-5 dB	na	--	na	--	11	0 dB	na	--	na	--	na	--	9	bad
Mini Sparker	28	2	1	6	LF	0	6	0 N	na	--	na	--	11	110 N	na	--	na	--	na	--	9	bad
Mini Sparker	28	2	1	6	LF	0	6	22 E	na	--	na	--	11	140 W	na	--	na	--	na	--	9	bad
Mini Sparker	28	2	1	6	LF	0	6	5.70	na	--	na	--	11	5.10	na	--	na	--	na	--	9	bad
Mini Sparker	28	2	1	6	LF	0	6	>260 m	na	--	na	--	11	>400 m	na	--	na	--	na	--	9	bad
Mini Sparker	29	2	1	7	LF	0	6	10 dB	na	--	na	--	11	no data	na	--	na	--	na	--	9	bad
Mini Sparker	29	2	1	7	LF	0	6	14 N	na	--	na	--	11	no data	na	--	na	--	na	--	9	bad
Mini Sparker	29	2	1	7	LF	0	6	42 E	na	--	na	--	11	no data	na	--	na	--	na	--	9	bad
Mini Sparker	29	2	1	7	LF	0	6	2.68	na	--	na	--	11	no data	na	--	na	--	na	--	9	bad
Mini Sparker	29	2	1	7	LF	0	6	>100 m	na	--	na	--	11	no data	na	--	na	--	na	--	9	bad
AA251	30	2	1	26	LF	na	6	30 dB	na	--	na	--	11	45 dB	na	--	na	--	na	--	9	10 dB
AA251	30	2	1	26	LF	na	6	24 N	na	--	na	--	11	20 S	na	--	na	--	na	--	9	200 S
AA251	30	2	1	26	LF	na	6	16 W	na	--	na	--	11	62 W	na	--	na	--	na	--	9	200 E
AA251	30	2	1	26	LF	na	6	7.76	na	--	na	--	11	2.66	na	--	na	--	na	--	9	3.43
AA251	30	2	1	26	LF	na	6	>400 m	na	--	na	--	11	>120 m	na	--	na	--	na	--	9	>200 m
AA251	31	2	1	27	LF	na	6	30 dB	na	--	na	--	11	45 dB	na	--	na	--	na	--	9	10 dB
AA251	31	2	1	27	LF	na	6	108 N	na	--	na	--	11	26 S	na	--	na	--	na	--	9	200 S
AA251	31	2	1	27	LF	na	6	200 W	na	--	na	--	11	32 W	na	--	na	--	na	--	9	200 E

Table A.1-1. (Continued).

Source	Mode	Site	Deployment	Run	frequency	Channel	Buoy Position															
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1
AA251	31	2	1	27	LF	na	6	8.16	na	--	na	--	11	2.51	na	--	na	--	na	--	9	5.18
AA251	31	2	1	27	LF	na	6	>400m	na	--	na	--	11	>150 m	na	--	na	--	na	--	9	>400 m
Bubble Gun	32	2	1	26	LF	na	6	0 dB	na	--	na	--	11	10 dB	na	--	na	--	na	--	9	bad
Bubble Gun	32	2	1	26	LF	na	6	144 N	na	--	na	--	11	188 S	na	--	na	--	na	--	9	bad
Bubble Gun	32	2	1	26	LF	na	6	200 W	na	--	na	--	11	200 E	na	--	na	--	na	--	9	bad
Bubble Gun	32	2	1	26	LF	na	6	5.78	na	--	na	--	11	5.40	na	--	na	--	na	--	9	bad
Bubble Gun	32	2	1	26	LF	na	6	>400 m	na	--	na	--	11	>400m	na	--	na	--	na	--	9	bad
Bubble Gun	33	2	1	27	LF	na	6	-10 dB	na	--	na	--	11	10 dB	na	--	na	--	na	--	9	-20 dB
Bubble Gun	33	2	1	27	LF	na	6	200 N	na	--	na	--	11	200 S	na	--	na	--	na	--	9	200 S
Bubble Gun	33	2	1	27	LF	na	6	200 W	na	--	na	--	11	200 E	na	--	na	--	na	--	9	200 E
Bubble Gun	33	2	1	27	LF	na	6	5.62	na	--	na	--	11	5.48	na	--	na	--	na	--	9	5.07
Bubble Gun	33	2	1	27	LF	na	6	>400 m	na	--	na	--	11	>400 m	na	--	na	--	na	--	9	>400 m
252 S-Boom	26	3	1	6	LF	na	8	bad	na	--	na	--	5	-5 dB	12	-5 dB	7	bad	na	--	na	--
252 S-Boom	26	3	1	6	LF	na	8	bad	na	--	na	--	5	66 S	12	176 S	7	bad	na	--	na	--
252 S-Boom	26	3	1	6	LF	na	8	bad	na	--	na	--	5	14 E	12	200 E	7	bad	na	--	na	--
252 S-Boom	26	3	1	6	LF	na	8	bad	na	--	na	--	5	11.69	12	5.72	7	bad	na	--	na	--
252 S-Boom	26	3	1	6	LF	na	8	bad	na	--	na	--	5	>400 m	12	>400 m	7	bad	na	--	na	--
252 S-Boom	27	3	1	7	LF	na	8	bad	na	--	na	--	5	-10 dB	12	-10 dB	7	bad	na	--	na	--
252 S-Boom	27	3	1	7	LF	na	8	bad	na	--	na	--	5	194 S	12	94 S	7	bad	na	--	na	--
252 S-Boom	27	3	1	7	LF	na	8	bad	na	--	na	--	5	92 W	12	138 E	7	bad	na	--	na	--
252 S-Boom	27	3	1	7	LF	na	8	bad	na	--	na	--	5	10.32	12	5.05	7	bad	na	--	na	--
252 S-Boom	27	3	1	7	LF	na	8	bad	na	--	na	--	5	>400 m	12	>400 m	7	bad	na	--	na	--
252 S-Boom	26	5	1	8	LF	na	6	-15 dB	12	-5 dB	na	--	na	--	na	--	9	0 dB	8	0 dB	10	-10 dB
252 S-Boom	26	5	1	8	LF	na	6	44 S	12	60 S	na	--	na	--	na	--	9	178 S	8	200 N	10	200 S
252 S-Boom	26	5	1	8	LF	na	6	32 E	12	200 W	na	--	na	--	na	--	9	200 E	8	200 W	10	200 E
252 S-Boom	26	5	1	8	LF	na	6	4.55	12	4.24	na	--	na	--	na	--	9	5.42	8	2.7	10	7.03
252 S-Boom	26	5	1	8	LF	na	6	>120 m	12	>260 m	na	--	na	--	na	--	9	>400 m	8	>400 m	10	>400 m
252 S-Boom	27	5	1	9	LF	na	6	-30 dB	12	-15 dB	na	--	11	-40 dB	na	--	9	-10 dB	8	-10 dB	10	-15 dB
252 S-Boom	27	5	1	9	LF	na	6	32 S	12	58 S	na	--	11	200 N	na	--	9	200 N	8	200 N	10	46 N
252 S-Boom	27	5	1	9	LF	na	6	186 E	12	200 W	na	--	11	112 W	na	--	9	200 W	8	198 W	10	198 W
252 S-Boom	27	5	1	9	LF	na	6	4.66	12	4.2	na	--	11	5.46	na	--	9	3.53	8	2.81	10	3.27
252 S-Boom	27	5	1	9	LF	na	6	>320 m	12	>120 m	na	--	11	>400 m	na	--	9	>320 m	8	>260 m	10	>400 m
Delta Sparker	39	5	1	1	LF	na	6	0 dB	12	0 dB	na	--	5	0 dB	na	--	9	0 dB	8	5 dB	10	no data
Delta Sparker	39	5	1	1	LF	na	6	2 S	12	2 N	na	--	5	182 S	na	--	9	200 S	8	200 N	10	no data
Delta Sparker	39	5	1	1	LF	na	6	76 E	12	126 W	na	--	5	76 E	na	--	9	166 W	8	194 W	10	no data
Delta Sparker	39	5	1	1	LF	na	6	2.80	12	3.20	na	--	5	12.82	na	--	9	16.00	8	3.94	10	no data
Delta Sparker	39	5	1	1	LF	na	6	>120 m	12	>120 m	na	--	5	>400 m	na	--	9	>400 m	8	>400 m	10	no data
Mini Sparker	28	5	1	3	LF	na	6	-30 dB	12	-10 dB	na	--	5	-40 dB	na	--	9	-40 dB	8	-10 dB	10	-50 dB
Mini Sparker	28	5	1	3	LF	na	6	104 S	12	44 S	na	--	5	10 N	na	--	9	200 N	8	200 N	10	198 N
Mini Sparker	28	5	1	3	LF	na	6	200 E	12	124 W	na	--	5	194 E	na	--	9	200 W	8	200 W	10	190 W
Mini Sparker	28	5	1	3	LF	na	6	1.30	12	2.31	na	--	5	9.63	na	--	9	24.56	8	2.90	10	13.5
Mini Sparker	28	5	1	3	LF	na	6	>120 m	12	>150 m	na	--	5	>400 m	na	--	9	>400 m	8	>120 m	10	>400 m
Mini Sparker	29	5	1	4	LF	na	6	-20 dB	12	bad	na	--	5	no data	na	--	9	-5 dB	8	0 dB	10	no data
Mini Sparker	29	5	1	4	LF	na	6	18 N	12	bad	na	--	5	no data	na	--	9	20 N	8	52 S	10	no data
Mini Sparker	29	5	1	4	LF	na	6	198 E	12	bad	na	--	5	no data	na	--	9	200 E	8	182 E	10	no data
Mini Sparker	29	5	1	4	LF	na	6	4.72	12	bad	na	--	5	no data	na	--	9	7.52	8	1.95	10	no data
Mini Sparker	29	5	1	4	LF	na	6	>180 m	12	bad	na	--	5	no data	na	--	9	>400 m	8	>400 m	10	no data
Mini Sparker	29	5	1	5	LF	na	6	-20 dB	12	0 dB	na	--	5	no data	na	--	9	5 dB	8	5dB	10	no data
Mini Sparker	29	5	1	5	LF	na	6	138 S	12	180 N	na	--	5	no data	na	--	9	200 S	8	200 W	10	no data

Table A.1-1. (Continued).

Source	Mode	Site	Deployment	Run	frequency	Channel	Buoy Position															
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1
Mini Sparker	29	5	1	5	LF	na	6	200 E	12	200 W	na	--	5	no data	na	--	9	140 E	8	200 N	10	no data
Mini Sparker	29	5	1	5	LF	na	6	6.72	12	3.39	na	--	5	no data	na	--	9	10.61	8	2.55	10	no data
Mini Sparker	29	5	1	5	LF	na	6	>400 m	12	>180 m	na	--	5	no data	na	--	9	>400 m	8	>400 m	10	no data
252 S-Boom	26	2	2	31	LF	na	na	--	na	--	na	--	5	-5	11	0	10	bad	na	--	9	-10 dB
253 S-Boom	26	2	2	31	LF	na	na	--	na	--	na	--	5	200 S	11	200 S	10	bad	na	--	9	200 S
254 S-Boom	26	2	2	31	LF	na	na	--	na	--	na	--	5	198 E	11	128 E	10	bad	na	--	9	200 E
255 S-Boom	26	2	2	31	LF	na	na	--	na	--	na	--	5	3.96	11	3.39	10	bad	na	--	9	2.68
256 S-Boom	26	2	2	31	LF	na	na	--	na	--	na	--	5	>320 m	11	>260m	10	bad	na	--	9	>200 m
257 S-Boom	27	2	2	32	LF	na	na	--	na	--	na	--	5	-5	11	10	10	bad	na	--	9	bad
258 S-Boom	27	2	2	32	LF	na	na	--	na	--	na	--	5	200 S	11	200 S	10	bad	na	--	9	bad
259 S-Boom	27	2	2	32	LF	na	na	--	na	--	na	--	5	26 W	11	52 W	10	bad	na	--	9	bad
260 S-Boom	27	2	2	32	LF	na	na	--	na	--	na	--	5	6.19	11	6.87	10	bad	na	--	9	bad
261 S-Boom	27	2	2	32	LF	na	na	--	na	--	na	--	5	>400 m	11	>400m	10	bad	na	--	9	bad
Mini Sparker	28	2	2	33	LF	na	na	--	na	--	na	--	5	10 dB	11	15 dB	10	20 dB	na	--	9	20 dB
Mini Sparker	28	2	2	33	LF	na	na	--	na	--	na	--	5	6 S	11	8 S	10	190 N	na	--	9	200 S
Mini Sparker	28	2	2	33	LF	na	na	--	na	--	na	--	5	140 E	11	200 E	10	200 E	na	--	9	200 E
Mini Sparker	28	2	2	33	LF	na	na	--	na	--	na	--	5	2.87	11	7.47	10	3.71	na	--	9	5.25
Mini Sparker	28	2	2	33	LF	na	na	--	na	--	na	--	5	>180m	11	>400m	10	>400 m	na	--	9	>400m
Mini Sparker	29	2	2	34	LF	na	na	--	na	--	na	--	5	5 dB	11	10 dB	10	20dB	na	--	9	10 dB
Mini Sparker	29	2	2	34	LF	na	na	--	na	--	na	--	5	54 N	11	90 N	10	200 N	na	--	9	200 S
Mini Sparker	29	2	2	34	LF	na	na	--	na	--	na	--	5	200 E	11	100 W	10	198 W	na	--	9	200 E
Mini Sparker	29	2	2	34	LF	na	na	--	na	--	na	--	5	5.12	11	3.58	10	3.20	na	--	9	3.20
Mini Sparker	29	2	2	34	LF	na	na	--	na	--	na	--	5	>400 m	11	>150 m	10	>400 m	na	--	9	>400 m
Mini Sparker	28	3	2	10	LF	na	na	--	5	-10 dB	na	--	12	no data	na	--	na	--	na	--	6	-30 dB
Mini Sparker	28	3	2	10	LF	na	na	--	5	200 N	na	--	12	no data	na	--	na	--	na	--	6	200 S
Mini Sparker	28	3	2	10	LF	na	na	--	5	194 W	na	--	12	no data	na	--	na	--	na	--	6	200 W
Mini Sparker	28	3	2	10	LF	na	na	--	5	13.54	na	--	12	no data	na	--	na	--	na	--	6	8.35
Mini Sparker	28	3	2	10	LF	na	na	--	5	>400 m	na	--	12	no data	na	--	na	--	na	--	6	>400m
Mini Sparker	29	3	2	11	LF	na	na	--	5	0 dB	na	--	12	20 dB	na	--	na	--	na	--	6	0 dB
Mini Sparker	29	3	2	11	LF	na	na	--	5	200 S	na	--	12	12 N	na	--	na	--	na	--	6	200 N
Mini Sparker	29	3	2	11	LF	na	na	--	5	200 E	na	--	12	114 W	na	--	na	--	na	--	6	176 E
Mini Sparker	29	3	2	11	LF	na	na	--	5	9.83	na	--	12	4.91	na	--	na	--	na	--	6	5.12
Mini Sparker	29	3	2	11	LF	na	na	--	5	>400 m	na	--	12	>320 m	na	--	na	--	na	--	6	>400 m
252 S-Boom	26	5	2	24	LF	na	6	0 dB	12	5 dB	na	--	11	10 dB	na	--	8	10 dB	9	10 dB	10	10 dB
252 S-Boom	26	5	2	24	LF	na	6	200 S	12	54 N	na	--	11	82 N	na	--	8	198 S	9	200 S	10	200 S
252 S-Boom	26	5	2	24	LF	na	6	6 W	12	4 E	na	--	11	2 E	na	--	8	174 W	9	200 E	10	200 E
252 S-Boom	26	5	2	24	LF	na	6	4.48	12	3.14	na	--	11	2.96	na	--	8	2.03	9	9.11	10	22.42
252 S-Boom	26	5	2	24	LF	na	6	>150 m	12	>320 m	na	--	11	>100 m	na	--	8	>400 m	9	>400 m	10	>400m
252 S-Boom	27	5	2	25	LF	na	6	-10 dB	12	-10 dB	na	--	11	-5 dB	na	--	8	-5 dB	9	0 dB	10	-5 dB
252 S-Boom	27	5	2	25	LF	na	6	32 S	12	98 S	na	--	11	54 N	na	--	8	68 S	9	200 S	10	200 S
252 S-Boom	27	5	2	25	LF	na	6	30 E	12	200 W	na	--	11	4 E	na	--	8	200 W	9	198 E	10	200 E
252 S-Boom	27	5	2	25	LF	na	6	3.12	12	4.76	na	--	11	4.23	na	--	8	3.63	9	16.12	10	24.71
252 S-Boom	27	5	2	25	LF	na	6	>100 m	12	>180 m	na	--	11	>180 m	na	--	8	>400 m	9	>400 m	10	>400m
Mini Sparker	28	5	2	19	LF	na	6	-30 dB	12	-40 dB	na	--	11	-20 dB	na	--	8	-30 dB	9	-40 dB	10	-40 dB
Mini Sparker	28	5	2	19	LF	na	6	200 S	12	200 N	na	--	11	194 N	na	--	8	200 N	9	200 N	10	68 N
Mini Sparker	28	5	2	19	LF	na	6	198 E	12	120 W	na	--	11	120 W	na	--	8	200 W	9	200 W	10	200 W
Mini Sparker	28	5	2	19	LF	na	6	5.17	12	6.06	na	--	11	5.18	na	--	8	6.59	9	4.37	10	2.57
Mini Sparker	28	5	2	19	LF	na	6	>400 m	12	>400 m	na	--	11	>400 m	na	--	8	>400 m	9	>400 m	10	>400 m
AirGun	34	5	2	14	LF	na	6	bad	12	30 dB	na	--	11	30 dB	na	--	8	30 dB	9	40 dB	10	bad

Table A.1-1. (Continued).

Source	Mode	Site	Deployment	Run	frequency	Channel	Buoy Position															
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1
AirGun	34	5	2	14	LF	na	6	bad	12	200 N	na	--	11	200 N	na	--	8	56 N	9	152 S	10	bad
AirGun	34	5	2	14	LF	na	6	bad	12	50 E	na	--	11	52 W	na	--	8	200 W	9	172 W	10	bad
AirGun	34	5	2	14	LF	na	6	bad	12	3.56	na	--	11	5.41	na	--	8	2.99	9	13.35	10	bad
AirGun	34	5	2	14	LF	na	6	bad	12	>320 m	na	--	11	>400 m	na	--	8	>400 m	9	>400 m	10	bad
AirGun	38	5	2	28	LF	na	6	-5 dB	12	-5 dB	na	--	11	no data	na	--	8	bad	9	-5 dB	10	bad
AirGun	38	5	2	28	LF	na	6	70 N	12	200 N	na	--	11	no data	na	--	8	bad	9	194 N	10	bad
AirGun	38	5	2	28	LF	na	6	200 W	12	98 W	na	--	11	no data	na	--	8	bad	9	200 W	10	bad
AirGun	38	5	2	28	LF	na	6	9.11	12	1.27	na	--	11	no data	na	--	8	bad	9	1.03	10	bad
AirGun	38	5	2	28	LF	na	6	>400m	12	>60m	na	--	11	no data	na	--	8	bad	9	>120 m	10	bad
AirGun	34	5	2	29	LF	na	6	bad	12	20 dB	na	--	11	no data	na	--	8	30 dB	9	20 dB	10	bad
AirGun	34	5	2	29	LF	na	6	bad	12	190 N	na	--	11	no data	na	--	8	76 S	9	196 S	10	bad
AirGun	34	5	2	29	LF	na	6	bad	12	24 E	na	--	11	no data	na	--	8	200 W	9	2 E	10	bad
AirGun	34	5	2	29	LF	na	6	bad	12	4.38	na	--	11	no data	na	--	8	3.11	9	15.89	10	bad
AirGun	34	5	2	29	LF	na	6	bad	12	>150 m	na	--	11	no data	n0	--	8	>400 m	9	>400 m	10	bad
AirGun	34	5	2	30	LF	na	6	0 dB	12	20 dB	na	--	11	no data	na	--	8	0 dB	9	-10 dB	10	bad
AirGun	34	5	2	30	LF	na	6	68 S	12	24 N	na	--	11	no data	na	--	8	198 S	9	200 S	10	bad
AirGun	34	5	2	30	LF	na	6	4 W	12	200 E	na	--	11	no data	na	--	8	198 E	9	200 W	10	bad
AirGun	34	5	2	30	LF	na	6	10.48	12	4.4	na	--	11	no data	na	--	8	3.45	9	4.11	10	bad
AirGun	34	5	2	30	LF	na	6	>400 m	12	>260 m	na	--	11	no data	na	--	8	>400 m	9	>400 m	10	bad
AirGun	35	5	2	15	LF	na	6	0 dB	12	0 dB	na	--	11	0 dB	na	--	8	5 dB	9	0 dB	10	0 dB
AirGun	35	5	2	15	LF	na	6	78 N	12	48 S	na	--	11	198 N	na	--	8	200 N	9	198 S	10	188 N
AirGun	35	5	2	15	LF	na	6	200 E	12	198 W	na	--	11	94 W	na	--	8	200 W	9	200 W	10	38 W
AirGun	35	5	2	15	LF	na	6	10.30	12	3.85	na	--	11	7.66	na	--	8	2.85	9	6.56	10	8.89
AirGun	35	5	2	15	LF	na	6	>400 m	12	>150m	na	--	11	>400 m	na	--	8	>260 m	9	>400 m	10	>400 m
AirGun	36	5	2	16	LF	na	6	5 dB	12	5 dB	na	--	11	5 dB	na	--	8	5 dB	9	5 dB	10	bad
AirGun	36	5	2	16	LF	na	6	6 S	12	194 N	na	--	11	198 N	na	--	8	200 N	9	58 S	10	bad
AirGun	36	5	2	16	LF	na	6	36 W	12	196 W	na	--	11	142 W	na	--	8	200 W	9	56 W	10	bad
AirGun	36	5	2	16	LF	na	6	8.54	12	2.29	na	--	11	4.03	na	--	8	3.93	9	4.74	10	bad
AirGun	36	5	2	16	LF	na	6	>400 m	12	>400m	na	--	11	>250 m	na	--	8	>320 m	9	>400 m	10	bad
AirGun	34	5	2	17	LF	na	6	0 dB	12	0 dB	na	--	11	0 dB	na	--	8	0 dB	9	10 dB	10	bad
AirGun	34	5	2	17	LF	na	6	26 S	12	110 S	na	--	11	192 N	na	--	8	200 N	9	136 S	10	bad
AirGun	34	5	2	17	LF	na	6	34 E	12	168 W	na	--	11	194 W	na	--	8	200 W	9	6 W	10	bad
AirGun	34	5	2	17	LF	na	6	9.01	12	1.54	na	--	11	4.33	na	--	8	3.49	9	4.62	10	bad
AirGun	34	5	2	17	LF	na	6	>400 m	12	>320 m	na	--	11	>320 m	na	--	8	>320 m	9	>400 m	10	bad
AirGun	37	5	2	18	LF	na	6	5 dB	12	5 dB	na	--	11	no data	na	--	8	5 dB	9	5 dB	10	bad
AirGun	37	5	2	18	LF	na	6	102 N	12	6 N	na	--	11	no data	na	--	8	200 N	9	188 S	10	bad
AirGun	37	5	2	18	LF	na	6	158 E	12	22 E	na	--	11	no data	na	--	8	200 W	9	146 E	10	bad
AirGun	37	5	2	18	LF	na	6	8.26	12	1.49	na	--	11	no data	na	--	8	2.89	9	7.10	10	bad
AirGun	37	5	2	18	LF	na	6	>400 m	12	>100m	na	--	11	no data	na	--	8	>300 m	9	>400 m	10	bad
Mini Sparker	28	3	3	30	LF	na	6	-10	12	-10	na	--	11	0	na	--	8	-5	10	-5	9	-20
Mini Sparker	28	3	3	30	LF	na	6	62 N	12	68 S	na	--	11	122 N	na	--	8	200 N	10	200 N	9	200 N
Mini Sparker	28	3	3	30	LF	na	6	0 W	12	200 E	na	--	11	78 E	na	--	8	200 E	10	200 E	9	200 E
Mini Sparker	28	3	3	30	LF	na	6	1.86	12	4.01	na	--	11	2.88	na	--	8	2.90	10	3.88	9	4.91
Mini Sparker	28	3	3	30	LF	na	6	>30 m	12	>260 m	na	--	11	>230 m	na	--	8	>300 m	10	>280 m	9	>400 m
252 S-Boom	26	3	3	29	LF	na	6	bad	12	bad	na	--	11	10 dB	na	--	8	20 dB	10	20 dB	9	bad
252 S-Boom	26	3	3	29	LF	na	6	bad	12	bad	na	--	11	200 N	na	--	8	200 S	10	104 S	9	bad
252 S-Boom	26	3	3	29	LF	na	6	bad	12	bad	na	--	11	200 E	na	--	8	200 W	10	94 E	9	bad
252 S-Boom	26	3	3	29	LF	na	6	bad	12	bad	na	--	11	9.84	na	--	8	6.78	10	6.11	9	bad
252 S-Boom	26	3	3	29	LF	na	6	bad	12	bad	na	--	11	>400 m	na	--	8	>400 m	10	>400 m	9	bad

Table A.1-1. (Continued).

Source	Mode	Site	Deployment	Run	frequency	Channel	Buoy Position															
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1
252 S-Boom	27	3	3	28	LF	na	6	bad	12	5 dB	na	--	11	10 dB	na	--	8	0 dB	10	0 dB	9	bad
252 S-Boom	27	3	3	28	LF	na	6	bad	12	200 N	na	--	11	200 S	na	--	8	200 S	10	200 S	9	bad
252 S-Boom	27	3	3	28	LF	na	6	bad	12	86 E	na	--	11	152 E	na	--	8	200 E	10	146 E	9	bad
252 S-Boom	27	3	3	28	LF	na	6	bad	12	6.51	na	--	11	8.19	na	--	8	6.1	10	6.72	9	bad
252 S-Boom	27	3	3	28	LF	na	6	bad	12	>400 m	na	--	11	>400 m	na	--	8	>400 m	10	>400 m	9	bad
252 S-Boom	26	4	1	6	LF	na	8	30 dB	6	0 dB	na	--	na	--	na	--	9	bad	na	--	na	--
252 S-Boom	26	4	1	6	LF	na	8	104 N	6	bad	na	--	na	--	na	--	9	bad	na	--	na	--
252 S-Boom	26	4	1	6	LF	na	8	68 W	6	bad	na	--	na	--	na	--	9	bad	na	--	na	--
252 S-Boom	26	4	1	6	LF	na	8	6.4	6	bad	na	--	na	--	na	--	9	bad	na	--	na	--
252 S-Boom	26	4	1	6	LF	na	8	>400 m	6	bad	na	--	na	--	na	--	9	bad	na	--	na	--
252 S-Boom	26	4	3	21	LF	na	8	bad	7	-40 dB	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	26	4	3	21	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	26	4	3	21	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	26	4	3	21	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	26	4	3	21	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	27	4	3	22	LF	na	8	40 dB	7	-60 dB	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	27	4	3	22	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	27	4	3	22	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	27	4	3	22	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
252 S-Boom	27	4	3	22	LF	na	8	bad	7	bad	na	--	12	bad	na	--	na	--	na	--	5	bad
Mini Sparker	29	4	3	25	LF	na	na	--	7	bad	na	--	12	0 dB	na	--	na	--	na	--	9	-10 dB
Mini Sparker	29	4	3	25	LF	na	na	--	7	bad	na	--	12	118 N	na	--	na	--	na	--	9	200 N
Mini Sparker	29	4	3	25	LF	na	na	--	7	bad	na	--	12	94 W	na	--	na	--	na	--	9	200 W
Mini Sparker	29	4	3	25	LF	na	na	--	7	bad	na	--	12	3.49	na	--	na	--	na	--	9	7.49
Mini Sparker	29	4	3	25	LF	na	na	--	7	bad	na	--	12	>180 m	na	--	na	--	na	--	9	>400 m
Mini Sparker	28	4	3	26	LF	na	na	--	7	bad	na	--	12	0 dB	na	--	na	--	na	--	9	bad
Mini Sparker	28	4	3	26	LF	na	na	--	7	bad	na	--	12	118 N	na	--	na	--	na	--	9	bad
Mini Sparker	28	4	3	26	LF	na	na	--	7	bad	na	--	12	94 W	na	--	na	--	na	--	9	bad
Mini Sparker	28	4	3	26	LF	na	na	--	7	bad	na	--	12	3.49	na	--	na	--	na	--	9	bad
Mini Sparker	28	4	3	26	LF	na	na	--	7	bad	na	--	12	>150 m	na	--	na	--	na	--	9	bad
Bubble Gun	33	4	3	28	LF	na	na	--	7	bad	na	--	12	10 dB	na	--	na	--	na	--	5	bad
Bubble Gun	33	4	3	28	LF	na	na	--	7	bad	na	--	12	200 S	na	--	na	--	na	--	5	bad
Bubble Gun	33	4	3	28	LF	na	na	--	7	bad	na	--	12	98 W	na	--	na	--	na	--	5	bad
Bubble Gun	33	4	3	28	LF	na	na	--	7	bad	na	--	12	7.52	na	--	na	--	na	--	5	bad
Bubble Gun	33	4	3	28	LF	na	na	--	7	bad	na	--	12	>400 m	na	--	na	--	na	--	5	bad

-- = no information; bad = data quality too poor to ascertain an adjustment factor; dB = decibel; E = east; HRG = high-resolution geophysical; LF = low-frequency; m = meter; na = not applicable; no data = buoy did not function; N = North; S = south; W = west.

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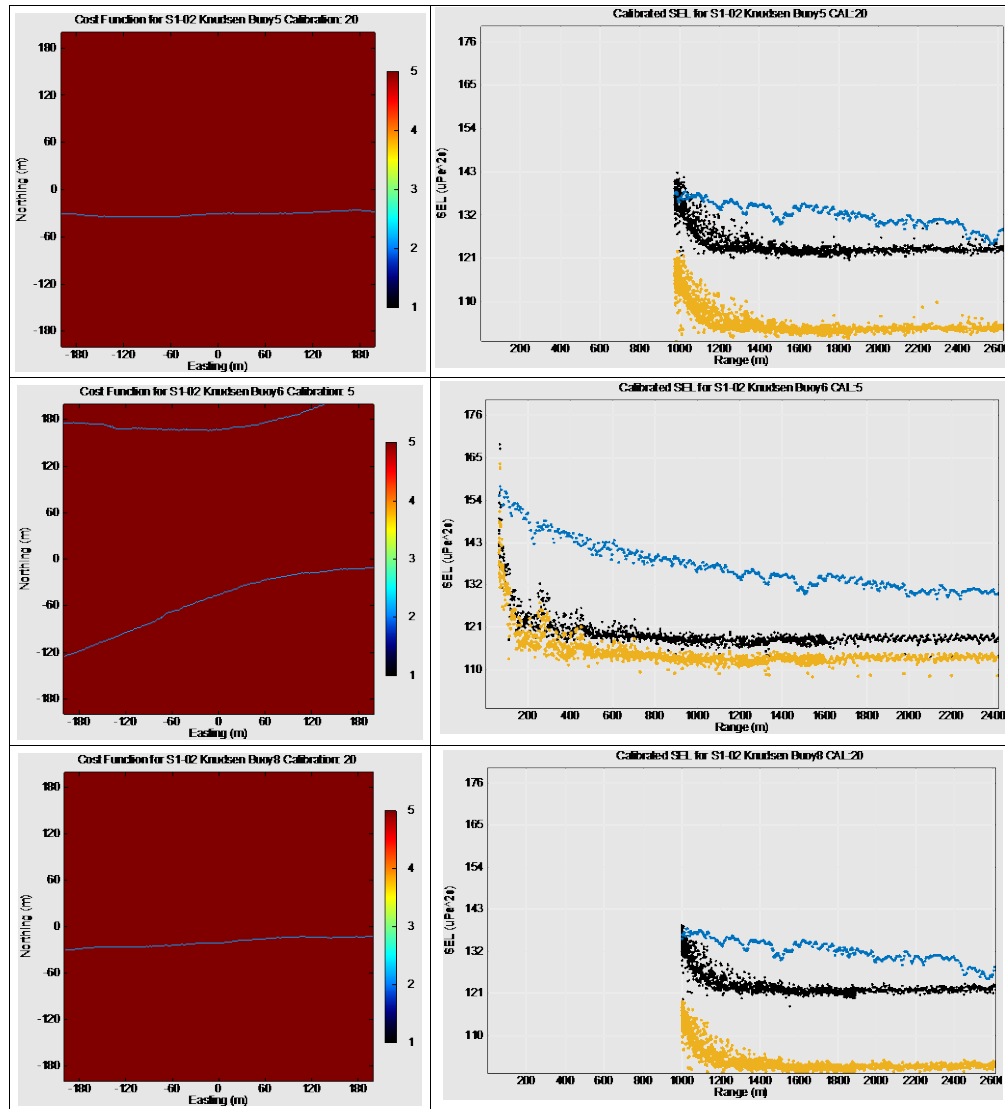
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## A.2 Appendix A: Mid-Frequency Results

### A.2.1 Site 1, Deployment 1

Knudsen 3260, Mode 24, Run 2, Buoys 5, 6, and 8. Buoy 9 had bad data (*Figure A.2-1*).

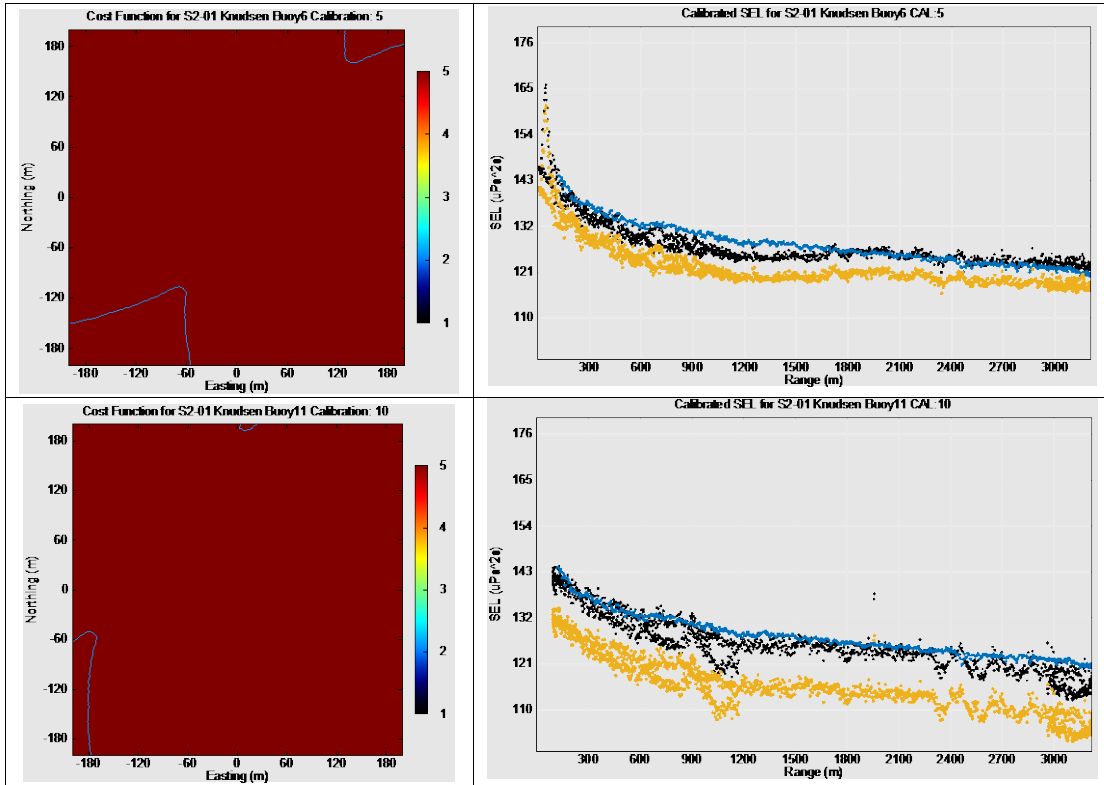


**Figure A.2-1. Cost functions of buoy locations and SEL comparisons for Knudsen 3260, Mode 24, at Site 1, Deployment 1, Run 2.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 6, and 8). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

## A.2.2 Site 2, Deployment 1

Knudsen 3260, Mode 23, Run 1, Buoys 6 and 11. Buoy 9 had bad data (Figure A.2-2).

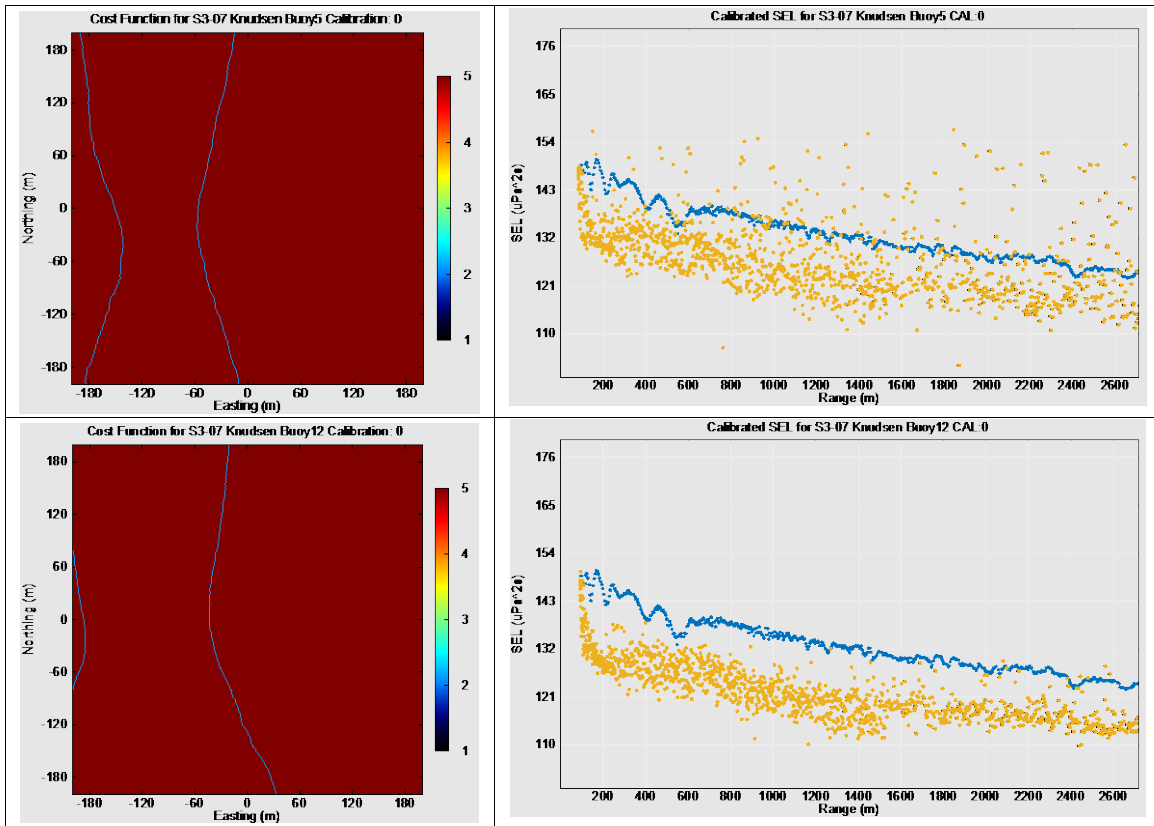


**Figure A.2-2. Cost functions of buoy locations and SEL comparisons for Knudsen 3260, Mode 23, at Site 2, Deployment 1, Run 1.**

Left: Cost functions for the buoy locations (top: Buoy 6; bottom: Buoy 11). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

### A.2.3 Site 3, Deployment 1

Knudsen 3260, Mode 25, Run 7, Buoys 5 and 12. Buoys 7 and 8 had bad data (*Figure A.2-3*).

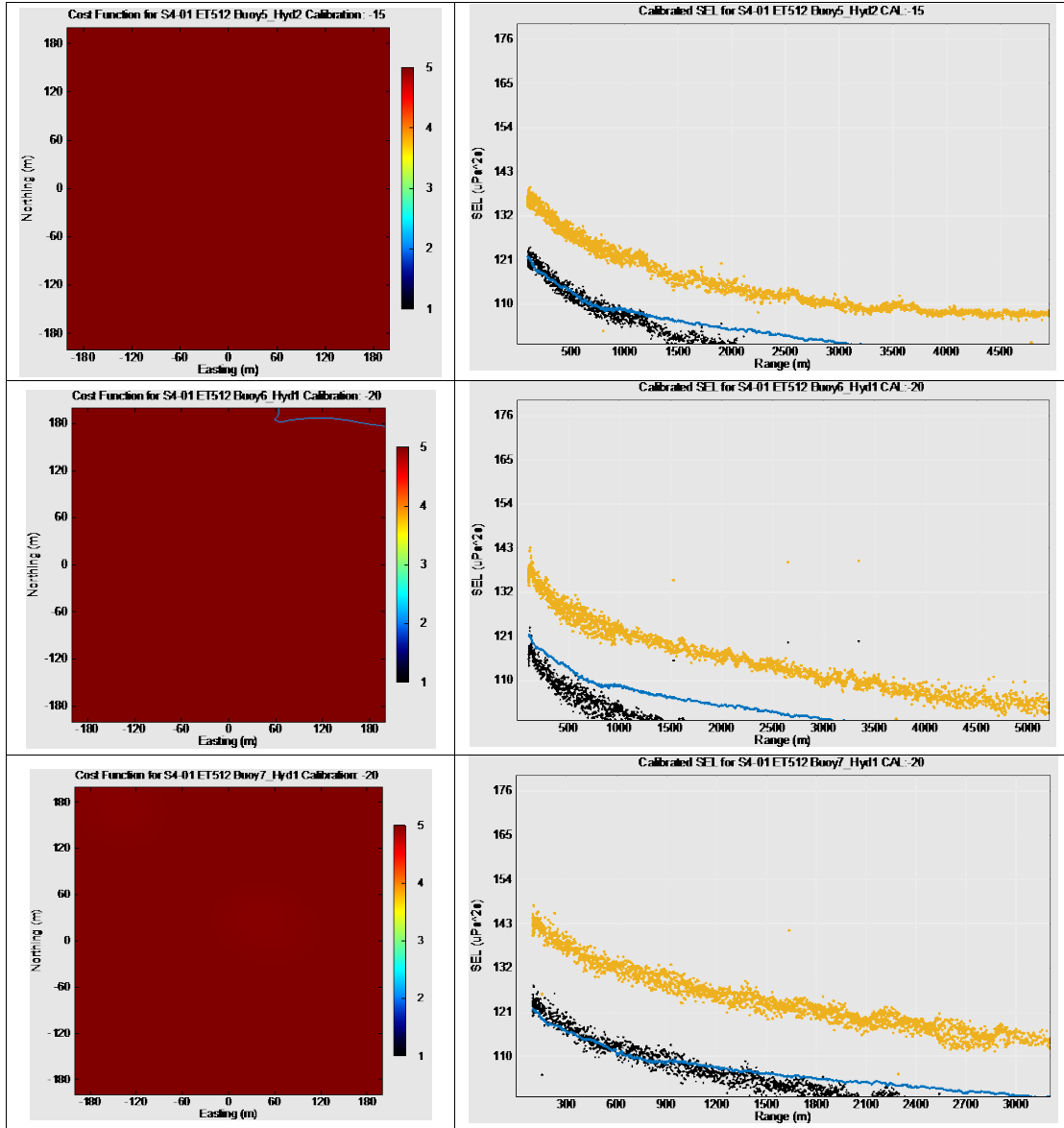


**Figure A.2-3. Cost functions of buoy locations and SEL comparisons for Knudsen 3260, Mode 25, at Site 3, Deployment 1, Run 7.**

Left: Cost functions for the buoy locations (top: Buoy 5; bottom: Buoy 12). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

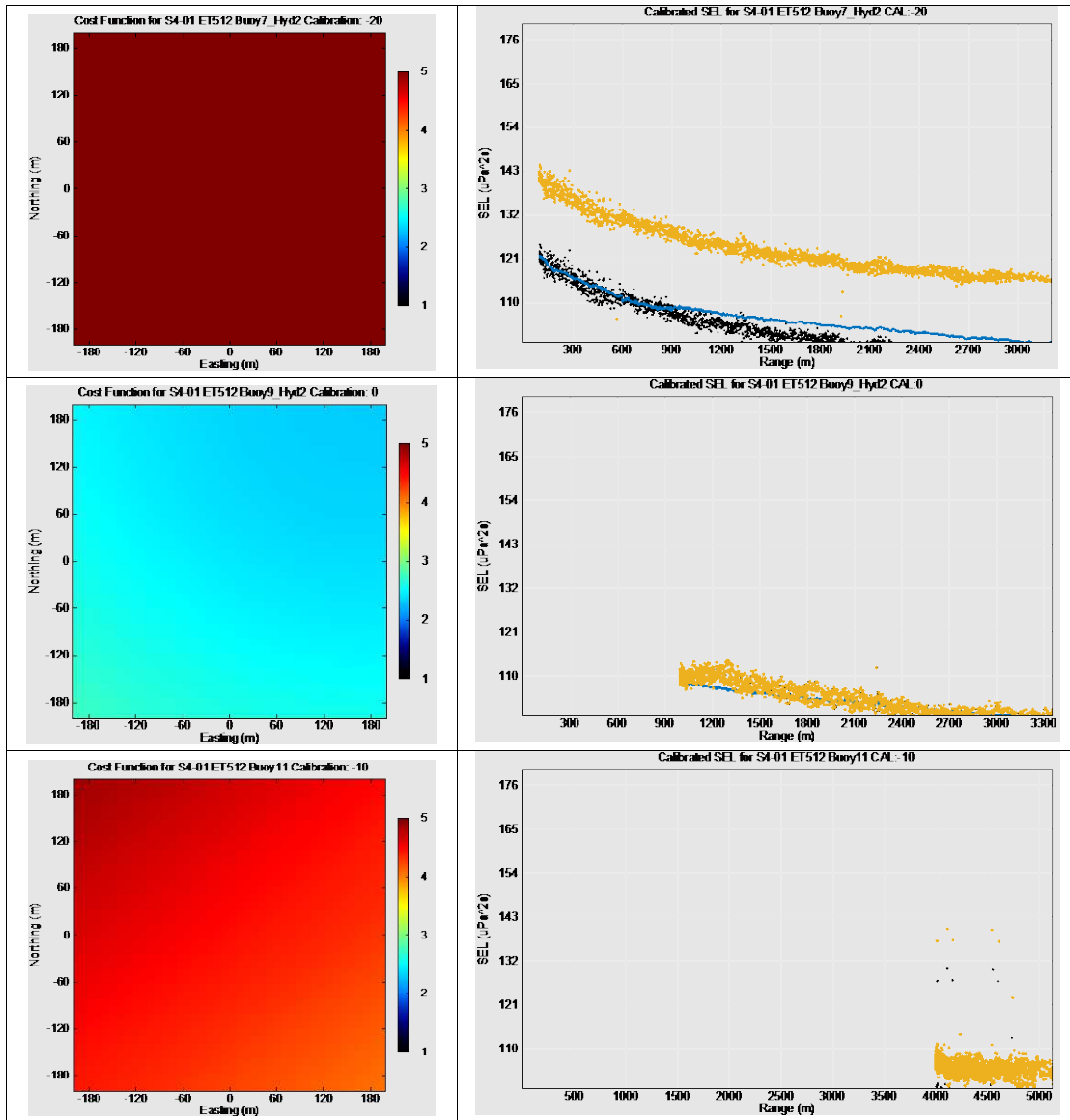
## A.2.4 Site 4, Deployment 1

ET512, Mode 20, Run 1, Buoys 5 (Hydrophone 2), 6 (Hydrophone 1), 7 (Hydrophones 1 and 2), 9 (Hydrophone 2), and 11. Buoy 8 had bad data (**Figure A.2-4**).



**Figure A.2-4. Cost functions of buoy locations and SEL comparisons for ET512, Mode 20, at Site 4, Deployment 1, Run 1.**

Left: Cost function for the buoy locations (Buoys 5\_Hyd2, 6\_Hyd1, 7\_Hyd1, 7\_Hyd2, 9\_Hyd2, and 11). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

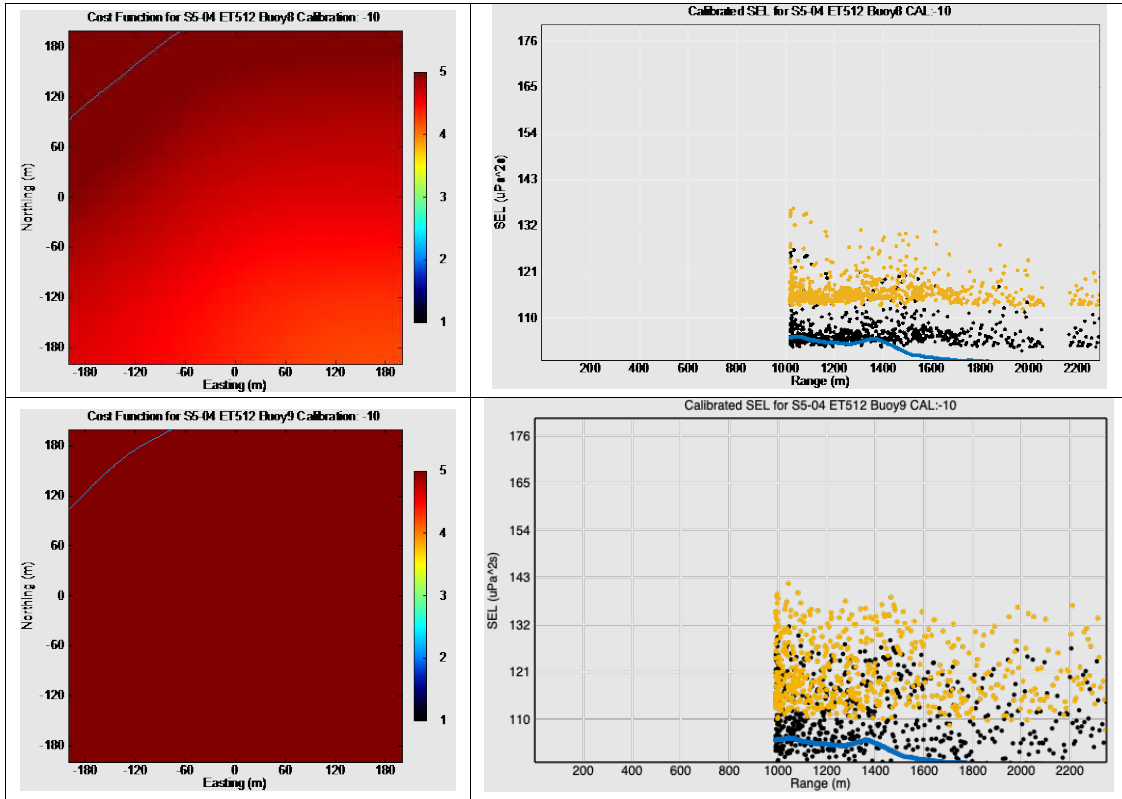


**Figure A.2-4 (Continued). Cost functions of buoy locations and SEL comparisons for ET512, Mode 20, at Site 4, Deployment 1, Run 1.**

Left: Cost function for the buoy locations (top to bottom: Buoy 5 Hydrophone 2, Buoy 6 Hydrophone 1, Buoy 7 Hydrophone 1, Buoy 7 Hydrophone 2, Buoy 9 Hydrophone 2, and Buoy 11). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

## A.2.5 Site 5, Deployment 1

ET512, Mode 21, Run 4, Buoys 8 and 9. Buoys 6 and 12 had bad data (**Figure A.2-5**).

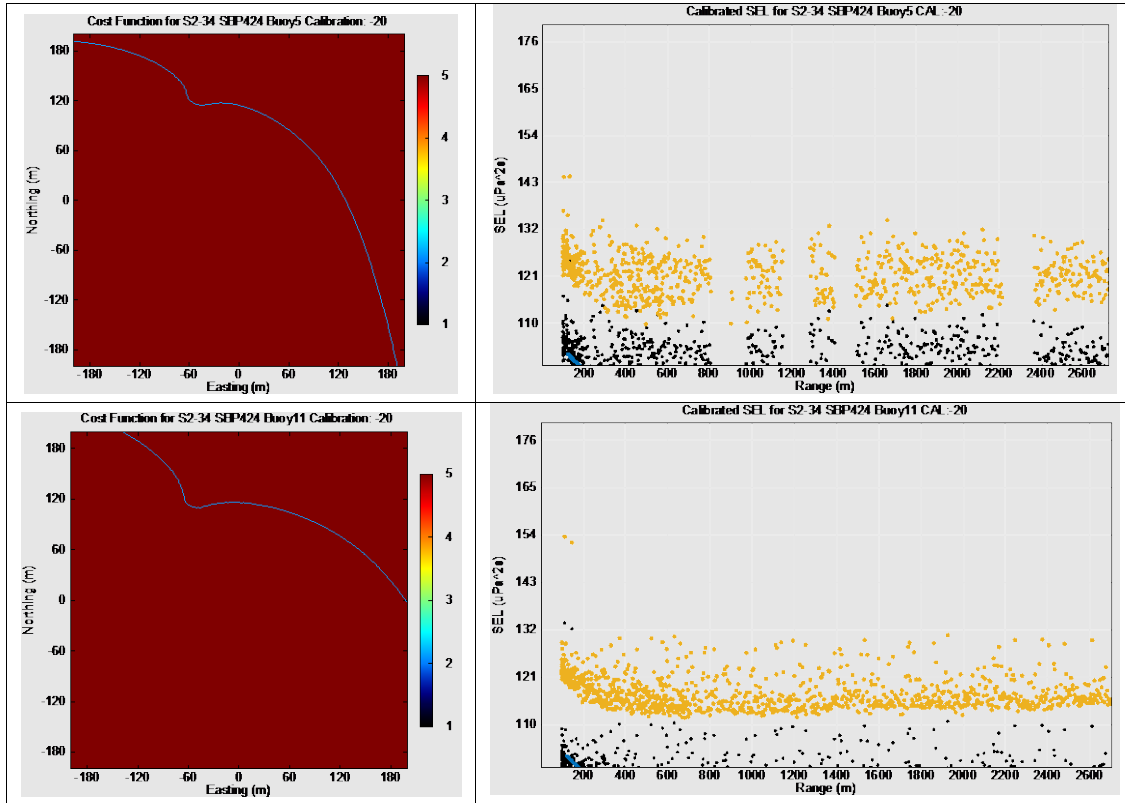


**Figure A.2-5. Cost functions of buoy locations and SEL comparisons for ET512, Mode 21, at Site 5, Deployment 1, Run 4.**

Left: Cost functions for the buoy locations (top: Buoy 8; bottom: Buoy 9). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

## A.2.6 Site 2, Deployment 2

SBP424, Mode 19, Run 34, Buoys 5 and 11. Buoy 9 had bad data (**Figure A.2-6**).

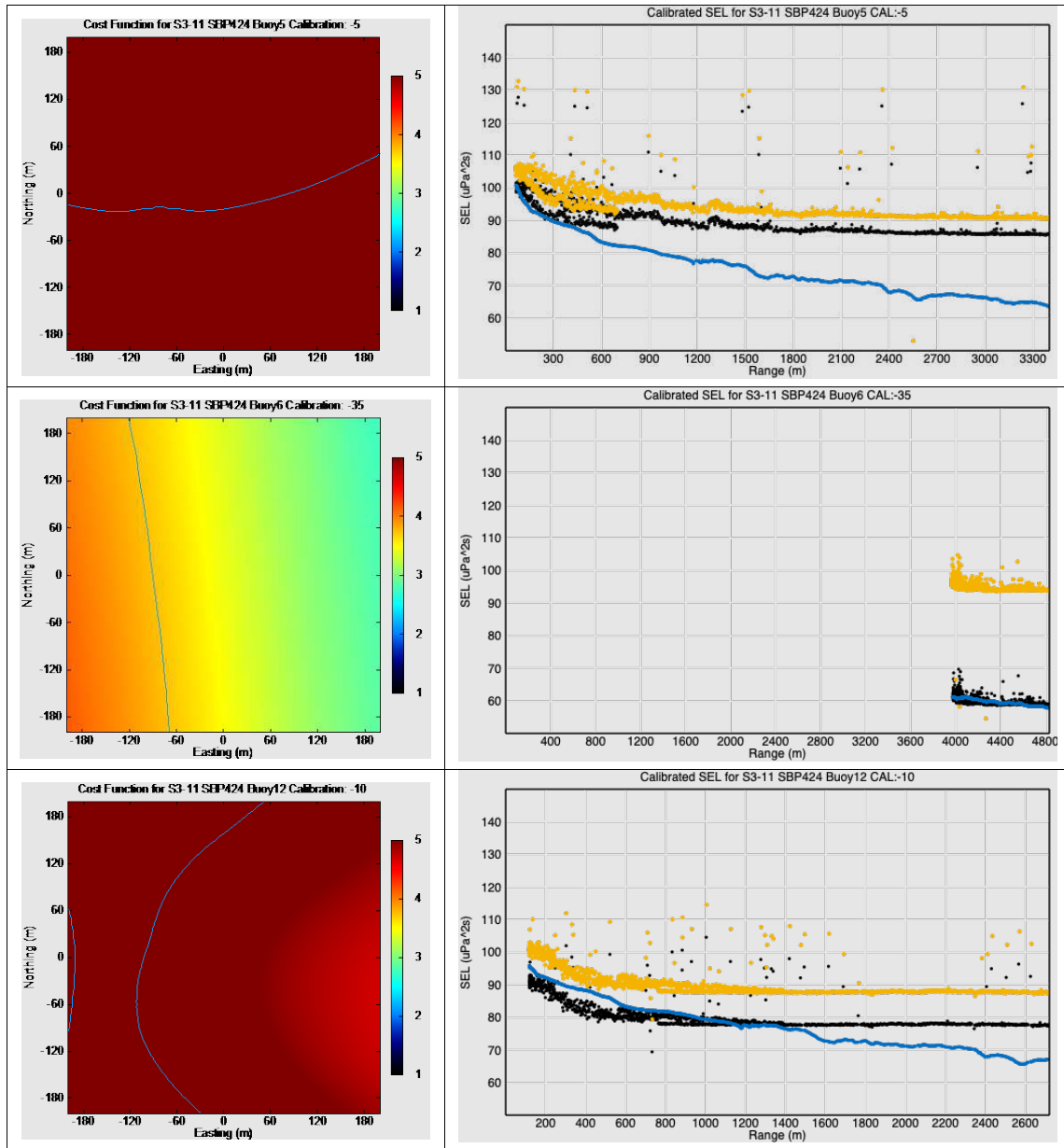


**Figure A.2-6. Cost functions of buoy locations and SEL comparisons for SBP424, Mode 19, at Site 2, Deployment 2, Run 34.**

Left: Cost functions for the buoy locations (top: Buoy 5; bottom: Buoy 11). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

## A.2.7 Site 3, Deployment 2

SBP424, Mode 17, Run 11, Buoys 5, 6, and 12 (Figure A.2-7).



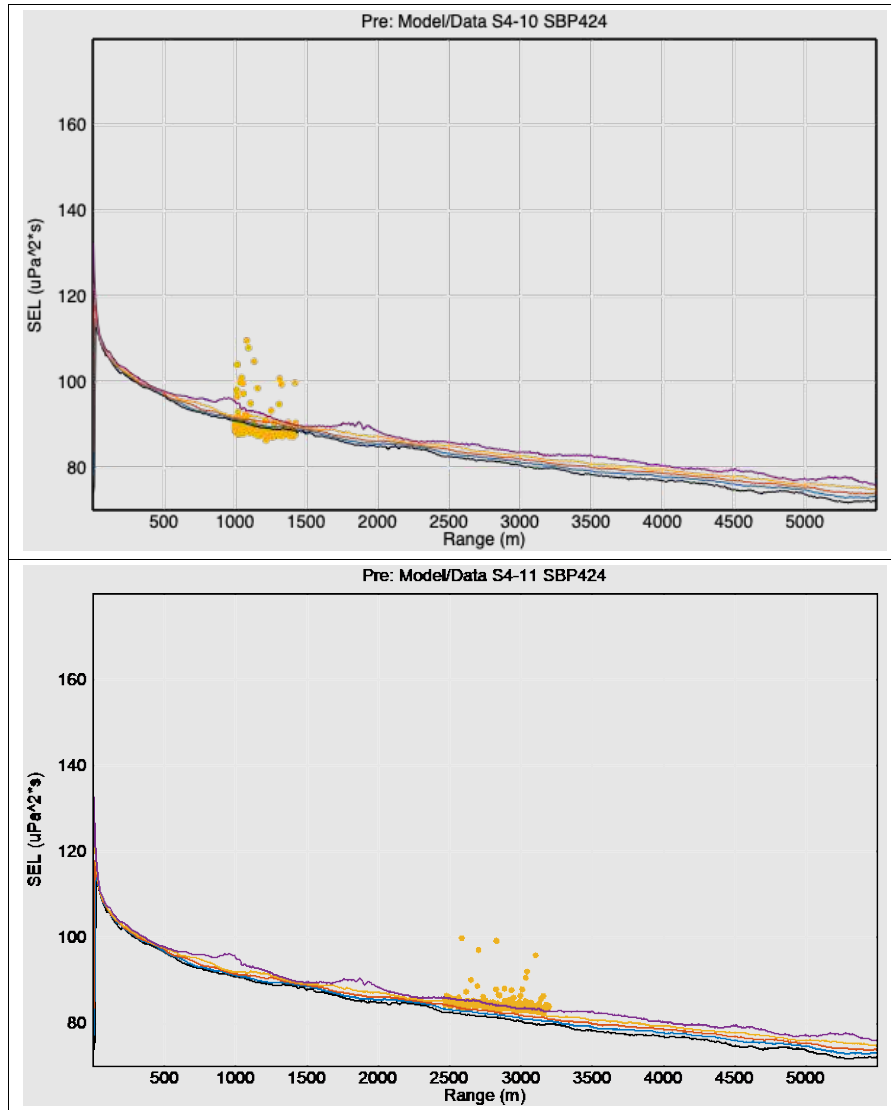
**Figure A.2-7. Cost functions of buoy locations and SEL comparisons for SBP424, Mode 17, at Site 3, Deployment 2, Run 11.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 5, 6, and 12). Right: Sound exposure level (SEL) versus time of the adjusted data (black) compared to the model (blue) where the closest point of approach is the peak.

## A.2.8 Site 4, Deployment 2

SBP424, Mode 16, Runs 10 and 11, Buoy 9 (Figure A.2-8).

Cost functions were not possible to generate with bad navigation data files; therefore, a plot of the percentiles compared with pre-adjusted data are shown for two runs, buoy 9 for run 10 and buoy 9, hydrophone 2 for run 11. Without cost functions, adjustment factors cannot be calculated or applied with the position optimization; thus, an adjusted plot is not available. Any adjustment factors are only able to be determined by visual comparison between the percentiles and the plotted pre-adjusted data.

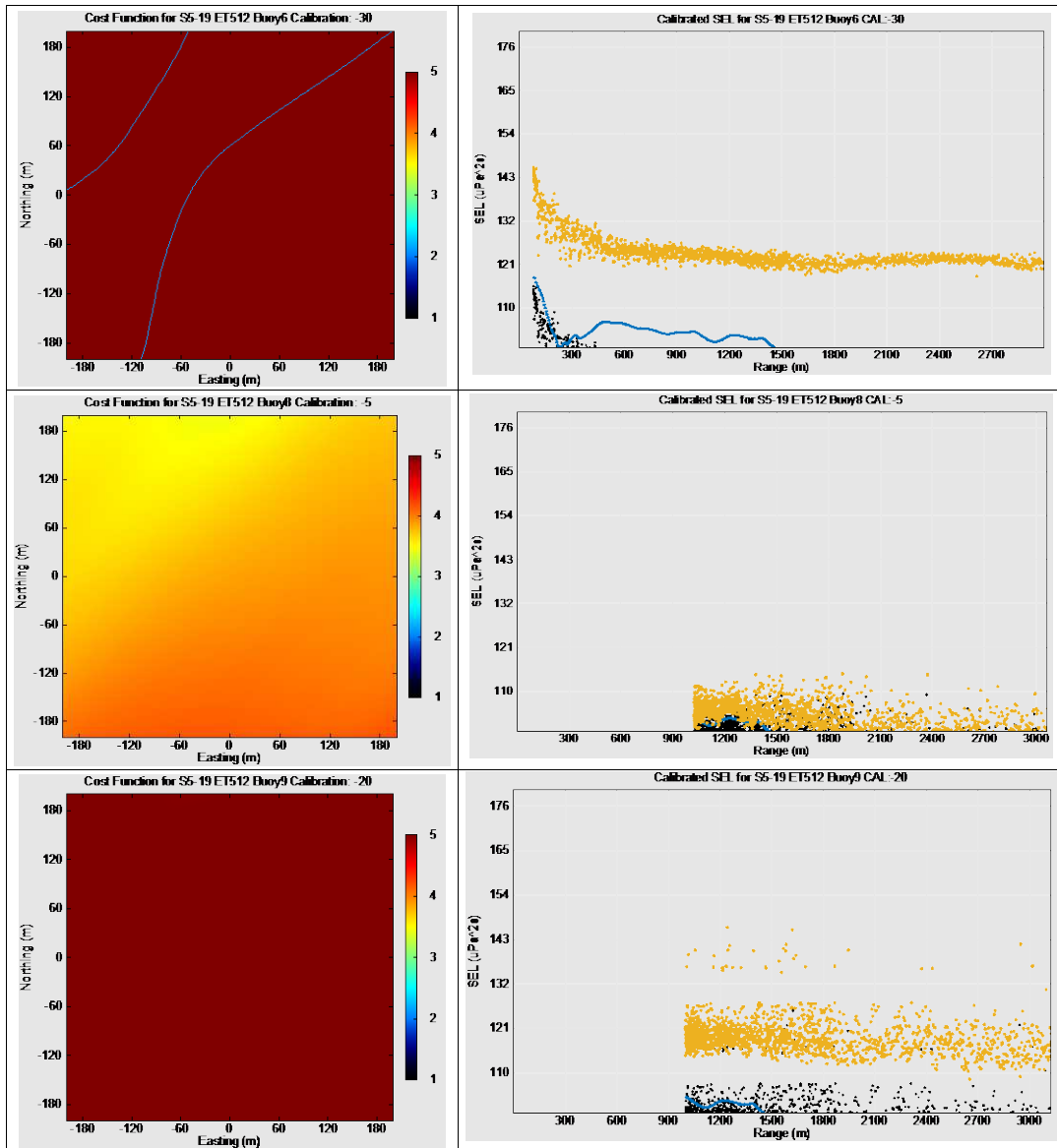


**Figure A.2-8. Modeled (lines) versus measured (dots) data for SBP424, Mode 16, at Site 4, Deployment 2, Runs 10 and 11.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for Buoy 9 during run 10 (top) and Buoy 9, hydrophone 2 during run 11 (bottom).

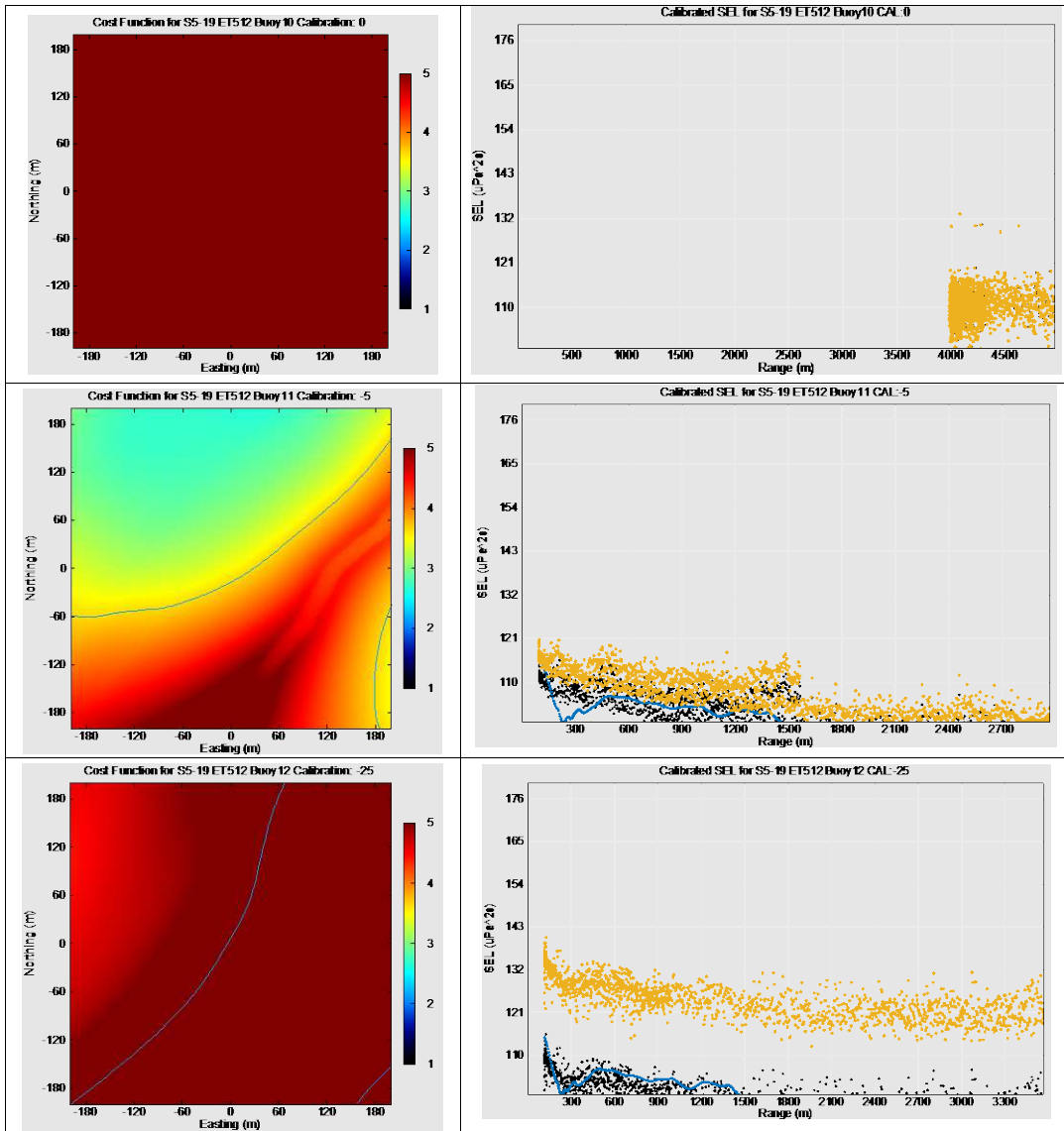
## A.2.9 Site 5, Deployment 2

ET512, Mode 20, Run 19, Buoys 6, 8, 9, 10, 11, and 12 (Figure A.2-9).



**Figure A.2-9. Cost functions of buoy locations and SEL comparisons for ET512, Mode 20, at Site 5, Deployment 2, Run 19.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 6, 8, 9, 10, 11, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

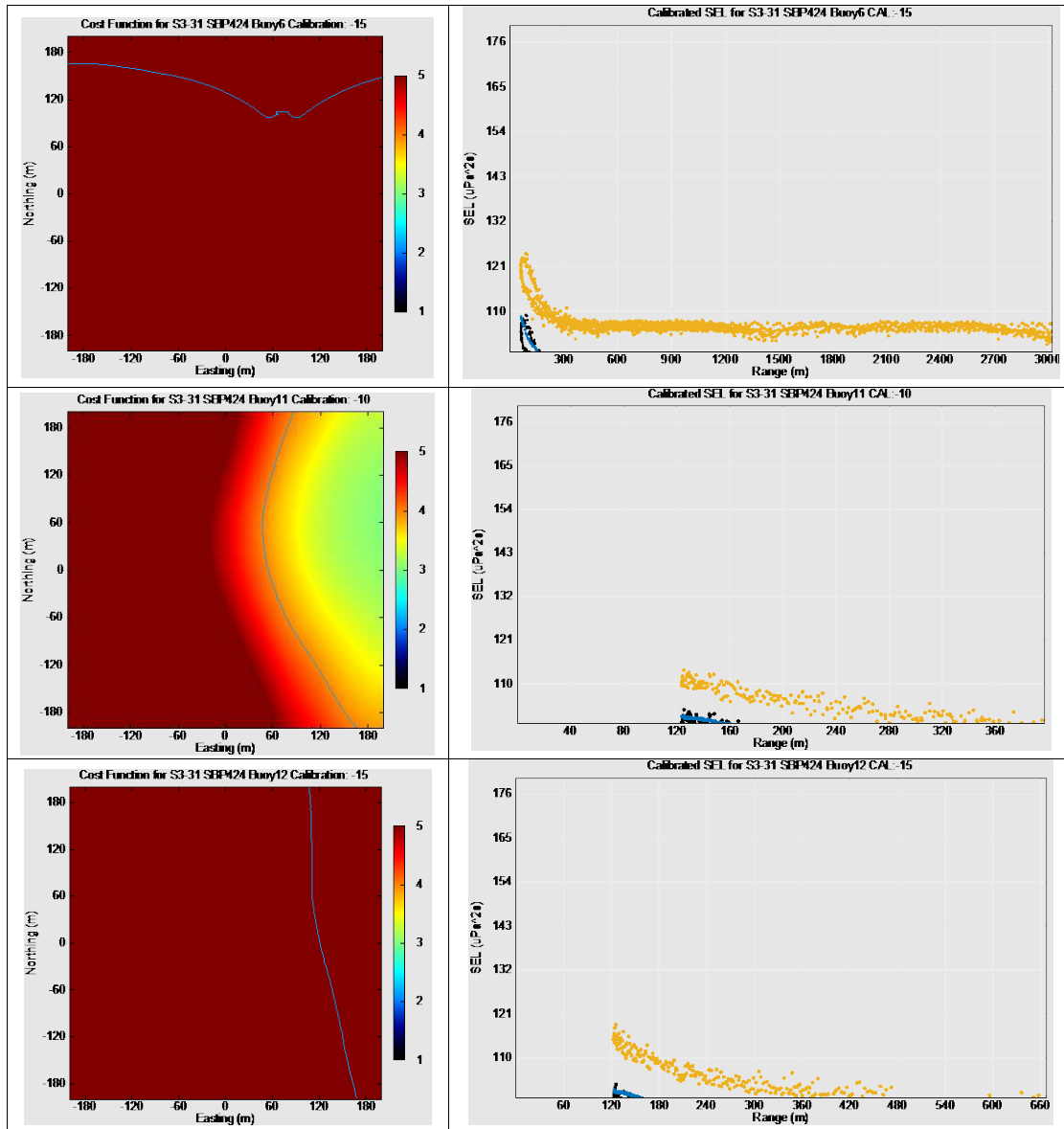


**Figure A.2-10 (Continued). Cost functions of buoy locations and SEL comparisons for ET512, Mode 20, at Site 5, Deployment 2, Run 19.**

Left: Cost functions for the buoy locations (top to bottom: Buoys 6, 8, 9, 10, 11, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

## A.2.10 Site 3, Deployment 3

SBP424, Mode 18, Run 31, Buoys 6, 11, and 12. Buoys 8, 9, and 10 had bad data (Figure A.2-10).

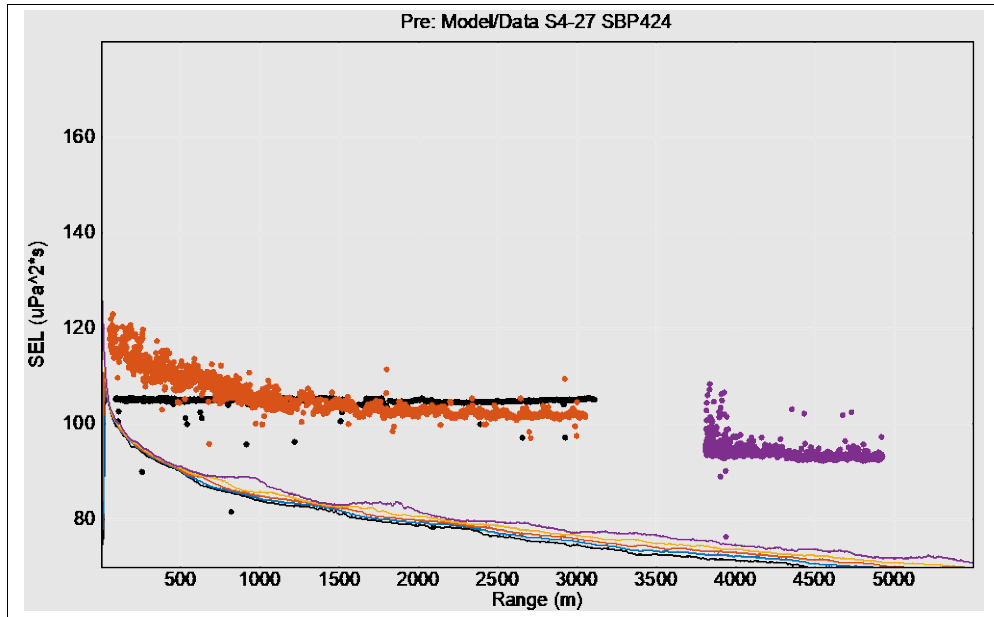


**Figure A.2-11. SEL comparisons for SBP424, Mode 18, at Site 3, Deployment 3, Run 31.** Left: Cost functions for the buoy locations (top to bottom: Buoys 6, 11, and 12). Right: Sound exposure level (SEL) versus range compared to the model (blue), pre-adjusted data (yellow), and adjusted data (black).

### A.2.11 Site 4, Deployment 3

SBP424, Mode 19, Run 27, Buoys 5 and 12. Buoy 7 had bad data (**Figure 2.2.-11**).

Cost functions were not possible to generate with bad navigation data files at Site 4 during deployment 3; therefore, plots comparing percentiles and pre-adjusted data are shown. Buoy 7 data were bad. Data from Buoys 5 and 12 at the closest point of approach were shifted by  $-20$  dB relative to the percentile range. Because no GPS data were available, position optimization could not be performed.



**Figure A.2-12. Modeled (lines) versus measured (dots) data for SBP424, Mode 19, at Site 4, Deployment 3, Run 27.**

The five percentile lines of the modeled sound exposure level (SEL) illustrate the potential environmental error (95<sup>th</sup>, purple; 75<sup>th</sup>, yellow; 50<sup>th</sup>, red; 25<sup>th</sup>, blue; 5<sup>th</sup>, black). The dots are measured SEL versus range for Buoys 5 (red), 12 (purple), and 7 (black; bad data).

### A.2.12 Site 5, Deployment 3

No mid-frequency source occurred during Deployment 3 at Site 5.

### A.2.13 Mid-Frequency Results Table



Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position										C						
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2		Buoy#	E1	Buoy#	E2	Buoy#	F1
ET424 3100P	16	2	1	4	MF	0	6	192 S	--	--	--	--	11	4 S	--	--	--	--	--	--	--	--	--
ET424 3100P	16	2	1	4	MF	0	6	200 W	--	--	--	--	11	200 E	--	--	--	--	--	--	--	--	--
ET424 3100P	16	2	1	4	MF	0	6	>400 m	--	--	--	--	11	>220 m	--	--	--	--	--	--	--	--	--
ET424 3100P	16	2	1	4	MF	0	6	13.83 dB RMSE	--	--	--	--	11	2.57 dB RMSE	--	--	--	--	--	--	--	--	--
ET424 3100P	17	2	1	5	MF	0	6	-5 dB	--	--	--	--	11	5 dB	--	--	--	--	--	--	--	--	--
ET424 3100P	17	2	1	5	MF	0	6	200 S	--	--	--	--	11	200 S	--	--	--	--	--	--	--	--	--
ET424 3100P	17	2	1	5	MF	0	6	200 W	--	--	--	--	11	96 W	--	--	--	--	--	--	--	--	--
ET424 3100P	17	2	1	5	MF	0	6	>400 m	--	--	--	--	11	>400 m	--	--	--	--	--	--	--	--	--
ET424 3100P	17	2	1	5	MF	0	6	15.25 dB RMSE	--	--	--	--	11	8.82 dB RMSE	--	--	--	--	--	--	--	--	--
ET3200XS	18	2	1	6	MF	0	6	-20 dB	--	--	--	--	11	-20 dB	--	--	--	--	--	--	--	--	--
ET3200XS	18	2	1	6	MF	0	6	8 S	--	--	--	--	11	86 N	--	--	--	--	--	--	--	--	--
ET3200XS	18	2	1	6	MF	0	6	36 E	--	--	--	--	11	200 E	--	--	--	--	--	--	--	--	--
ET3200XS	18	2	1	6	MF	0	6	>400 m	--	--	--	--	11	>400 m	--	--	--	--	--	--	--	--	--
ET3200XS	18	2	1	6	MF	0	6	7.23 dB RMSE	--	--	--	--	11	4.92 dB RMSE	--	--	--	--	--	--	--	--	--
ET3200XS	19	2	1	7	MF	0	6	-30 dB	--	--	--	--	11	-20 dB	--	--	--	--	--	--	--	--	--
ET3200XS	19	2	1	7	MF	0	6	200 S	--	--	--	--	11	200 S	--	--	--	--	--	--	--	--	--
ET3200XS	19	2	1	7	MF	0	6	200 W	--	--	--	--	11	14 W	--	--	--	--	--	--	--	--	--
ET3200XS	19	2	1	7	MF	0	6	>400 m	--	--	--	--	11	>400 m	--	--	--	--	--	--	--	--	--
ET3200XS	19	2	1	7	MF	0	6	13.88 dB RMSE	--	--	--	--	11	7.66 dB RMSE	--	--	--	--	--	--	--	--	--
ET512i	20	2	1	1	MF	0	6	bad	--	--	--	--	11	0 dB	--	--	--	--	--	9	bad	--	--
ET512i	20	2	1	1	MF	0	6	bad	--	--	--	--	11	74 S	--	--	--	--	--	9	bad	--	--
ET512i	20	2	1	1	MF	0	6	bad	--	--	--	--	11	200 E	--	--	--	--	--	9	bad	--	--
ET512i	20	2	1	1	MF	0	6	bad	--	--	--	--	11	>400 m	--	--	--	--	--	9	bad	--	--
ET512i	20	2	1	1	MF	0	6	bad	--	--	--	--	11	5.84 dB RMSE	--	--	--	--	--	9	bad	--	--
ET512i	21	2	1	2	MF	0	6	0 dB	--	--	--	--	11	0 dB	--	--	--	--	--	--	--	--	--
ET512i	21	2	1	2	MF	0	6	10 N	--	--	--	--	11	158 N	--	--	--	--	--	--	--	--	--
ET512i	21	2	1	2	MF	0	6	24 E	--	--	--	--	11	148 E	--	--	--	--	--	--	--	--	--
ET512i	21	2	1	2	MF	0	6	>100 m	--	--	--	--	11	>400 m	--	--	--	--	--	--	--	--	--
ET512i	21	2	1	2	MF	0	6	3.97 dB RMSE	--	--	--	--	11	5.81 dB RMSE	--	--	--	--	--	--	--	--	--
ET512i	22	2	1	3	MF	0	6	-5 dB	--	--	--	--	11	-5 dB	--	--	--	--	--	9	bad	--	--
ET512i	22	2	1	3	MF	0	6	2 N	--	--	--	--	11	162 S	--	--	--	--	--	9	bad	--	--
ET512i	22	2	1	3	MF	0	6	18 E	--	--	--	--	11	10 E	--	--	--	--	--	9	bad	--	--
ET512i	22	2	1	3	MF	0	6	>400 m	--	--	--	--	11	>200 m	--	--	--	--	--	9	bad	--	--
ET512i	22	2	1	3	MF	0	6	9.31 dB RMSE	--	--	--	--	11	3.39 dB RMSE	--	--	--	--	--	9	bad	--	--
Knudsen3260	23	2	1	1	MF	0	6	5 dB	--	--	--	--	11	10 dB	--	--	--	--	--	9	bad	--	--
Knudsen3260	23	2	1	1	MF	0	6	134 N	--	--	--	--	11	110 S	--	--	--	--	--	9	bad	--	--
Knudsen3260	23	2	1	1	MF	0	6	146 W	--	--	--	--	11	200 E	--	--	--	--	--	9	bad	--	--
Knudsen3260	23	2	1	1	MF	0	6	>400 m	--	--	--	--	11	>400 m	--	--	--	--	--	9	bad	--	--

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Knudsen3260	23	2	1	1	MF	0	6	6.04 dB RMSE	--	--	--	--	11	6.44 dB RMSE	--	--	--	--	--	--	9	bad	--	--
Knudsen3260	24	2	1	2	MF	0	6	10 dB	--	--	--	--	11	20 dB	--	--	--	--	--	--	--	--	--	--
Knudsen3260	24	2	1	2	MF	0	6	200 N	--	--	--	--	11	52 N	--	--	--	--	--	--	--	--	--	--
Knudsen3260	24	2	1	2	MF	0	6	194 W	--	--	--	--	11	200 E	--	--	--	--	--	--	--	--	--	--
Knudsen3260	24	2	1	2	MF	0	6	>400 m	--	--	--	--	11	>400 m	--	--	--	--	--	--	--	--	--	--
Knudsen3260	24	2	1	2	MF	0	6	10.38 dB RMSE	--	--	--	--	11	7.68 dB RMSE	--	--	--	--	--	--	--	--	--	--
Knudsen3260	25	2	1	3	MF	0	6	5 dB	--	--	--	--	11	bad	--	--	--	--	--	--	9	bad	--	--
Knudsen3260	25	2	1	3	MF	0	6	188 N	--	--	--	--	11	bad	--	--	--	--	--	--	9	bad	--	--
Knudsen3260	25	2	1	3	MF	0	6	200 W	--	--	--	--	11	bad	--	--	--	--	--	--	9	bad	--	--
Knudsen3260	25	2	1	3	MF	0	6	>400 m	--	--	--	--	11	bad	--	--	--	--	--	--	9	bad	--	--
Knudsen3260	25	2	1	3	MF	0	6	8.11 dB RMSE	--	--	--	--	11	bad	--	--	--	--	--	--	9	bad	--	--
ET512i	20	3	1	1	MF	0	--	--	--	--	--	--	5	-15 dB	12	-15 dB	7	bad	--	--	--	--	--	--
ET512i	20	3	1	1	MF	0	--	--	--	--	--	--	5	52 S	12	28 S	7	bad	--	--	--	--	--	--
ET512i	20	3	1	1	MF	0	--	--	--	--	--	--	5	150 E	12	200 E	7	bad	--	--	--	--	--	--
ET512i	20	3	1	1	MF	0	--	--	--	--	--	--	5	>400 m	12	>260 m	7	bad	--	--	--	--	--	--
ET512i	20	3	1	1	MF	0	--	--	--	--	--	--	5	5.06 dB RMSE	12	3.94 dB RMSE	7	bad	--	--	--	--	--	--
ET512i	21	3	1	2	MF	0	--	--	--	--	--	--	5	-15 dB	12	-15 dB	7	bad	--	--	--	--	--	--
ET512i	21	3	1	2	MF	0	--	--	--	--	--	--	5	198 N	12	200 N	7	bad	--	--	--	--	--	--
ET512i	21	3	1	2	MF	0	--	--	--	--	--	--	5	200 E	12	200 E	7	bad	--	--	--	--	--	--
ET512i	21	3	1	2	MF	0	--	--	--	--	--	--	5	>400 m	12	>400 m	7	bad	--	--	--	--	--	--
ET512i	21	3	1	2	MF	0	--	--	--	--	--	--	5	10.07 dB RMSE	12	9.23 dB RMSE	7	bad	--	--	--	--	--	--
ET512i	22	3	1	1	MF	0	--	--	--	--	--	--	5	-15 dB	12	-15 dB	7	bad	--	--	--	--	--	--
ET512i	22	3	1	1	MF	0	--	--	--	--	--	--	5	58 N	12	42 S	7	bad	--	--	--	--	--	--
ET512i	22	3	1	1	MF	0	--	--	--	--	--	--	5	200 E	12	200 E	7	bad	--	--	--	--	--	--
ET512i	22	3	1	1	MF	0	--	--	--	--	--	--	5	>400 m	12	>400 m	7	bad	--	--	--	--	--	--
ET512i	22	3	1	1	MF	0	--	--	--	--	--	--	5	7.96 dB RMSE	12	4.95 dB RMSE	7	bad	--	--	--	--	--	--
Knudsen3260	23	3	1	6	MF	0	--	--	--	--	--	--	5	0 dB	12	0 dB	7	bad	--	--	--	--	--	--
Knudsen3260	23	3	1	6	MF	0	--	--	--	--	--	--	5	154 N	12	194 N	7	bad	--	--	--	--	--	--
Knudsen3260	23	3	1	6	MF	0	--	--	--	--	--	--	5	200 E	12	200 E	7	bad	--	--	--	--	--	--
Knudsen3260	23	3	1	6	MF	0	--	--	--	--	--	--	5	>400 m	12	>400 m	7	bad	--	--	--	--	--	--
Knudsen3260	23	3	1	6	MF	0	--	--	--	--	--	--	5	13.02 dB RMSE	12	11.67 dB RMSE	7	bad	--	--	--	--	--	--
Knudsen3260	25	3	1	7	MF	0	8	bad	--	--	--	--	5	0 dB	12	0 dB	7	bad	--	--	--	--	--	--
Knudsen3260	25	3	1	7	MF	0	8	bad	--	--	--	--	5	172 N	12	198 N	7	bad	--	--	--	--	--	--
Knudsen3260	25	3	1	7	MF	0	8	bad	--	--	--	--	5	200 E	12	200 E	7	bad	--	--	--	--	--	--
Knudsen3260	25	3	1	7	MF	0	8	bad	--	--	--	--	5	>400 m	12	>400 m	7	bad	--	--	--	--	--	--
Knudsen3260	25	3	1	7	MF	0	8	bad	--	--	--	--	5	13.02 dB RMSE	12	16.32 dB RMSE	7	bad	--	--	--	--	--	--
ET512i	20	4	1	1	MF	0	8_Hyd2	bad	6_Hyd1	-20 dB	--	--	7_Hyd1	-20 dB	7_Hyd2	-20 dB	9_Hyd2	0 dB	--	--	11	-10 dB	5_hyd2	-15 dB
ET512i	20	4	1	1	MF	0	8_Hyd2	bad	6_Hyd1	58 N	--	--	7_Hyd1	32 N	7_Hyd2	148 S	9_Hyd2	194 N	--	--	11	200 S	5_hyd2	58 N
ET512i	20	4	1	1	MF	0	8_Hyd2	bad	6_Hyd1	200 E	--	--	7_Hyd1	42 E	7_Hyd2	142 E	9_Hyd2	196 E	--	--	11	200 E	5_hyd2	200 E
ET512i	20	4	1	1	MF	0	8_Hyd2	bad	6_Hyd1	>400 m	--	--	7_Hyd1	>400 m	7_Hyd2	>400 m	9_Hyd2	>400 m	--	--	11	>400 m	5_hyd2	>400 m

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
ET512i	20	4	1	1	MF	0	8_Hyd2	bad	6_Hyd1	6.21 dB RMSE	--	--	7_Hyd1	4.97 dB RMSE	7_Hyd2	5.56 dB RMSE	9_Hyd2	2.3 dB RMSE	--	--	11	4.05 dB RMSE	5_hyd2	6.21 dB RMSE
ET512i	21	4	1	2	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	-15 dB	7_Hyd2	-15 dB	9_Hyd2	5 dB	--	--	11	0 dB	5_hyd2	-10 dB
ET512i	21	4	1	2	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	82 S	7_Hyd2	160 S	9_Hyd2	200 S	--	--	11	200 S	5_hyd2	56 N
ET512i	21	4	1	2	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	26 E	7_Hyd2	200 E	9_Hyd2	200 E	--	--	11	200 E	5_hyd2	200 E
ET512i	21	4	1	2	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	>400 m	7_Hyd2	>400 m	9_Hyd2	>400 m	--	--	11	>400 m	5_hyd2	>400 m
ET512i	21	4	1	2	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	6.36 dB RMSE	7_Hyd2	6.25 dB RMSE	9_Hyd2	2.64 dB RMSE	--	--	11	2.39 dB RMSE	5_hyd2	5.82 dB RMSE
ET512i	22	4	1	3	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	-20 dB	7_Hyd2	-20 dB	9_Hyd2	0 dB	--	--	11	-5 dB	5_hyd2	-15 dB
ET512i	22	4	1	3	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	84 S	7_Hyd2	194 S	9_Hyd2	184 N	--	--	11	56 S	5_hyd2	2 S
ET512i	22	4	1	3	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	114 E	7_Hyd2	200 E	9_Hyd2	90 W	--	--	11	200 W	5_hyd2	200 E
ET512i	22	4	1	3	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	>400 m	7_Hyd2	>260 m	9_Hyd2	>400 m	--	--	11	>400 m	5_hyd2	>400 m
ET512i	22	4	1	3	MF	0	8_Hyd2	bad	--	--	--	--	7_Hyd1	5.18 dB RMSE	7_Hyd2	3.53 dB RMSE	9_Hyd2	4.51 dB RMSE	--	--	11	4.41 dB RMSE	5_hyd2	4.51 dB RMSE
Knudsen3260	23	4	1	6	MF	0	8	30 dB	6	bad	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
Knudsen3260	23	4	1	6	MF	0	8	200 N	6	bad	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
Knudsen3260	23	4	1	6	MF	0	8	200 W	6	bad	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
Knudsen3260	23	4	1	6	MF	0	8	>400 m	6	bad	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
Knudsen3260	23	4	1	6	MF	0	8	15.69 dB RMSE	6	bad	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET512i	20	5	1	3	MF	0	6	-40 dB	12	-20 dB	--	--	5	-30 dB	--	--	8	-20 dB	9	-30 dB	10	-15 dB	--	--
ET512i	20	5	1	3	MF	0	6	102 S	12	30 S	--	--	5	200 S	--	--	8	200 N	9	200 S	10	200 S	--	--
ET512i	20	5	1	3	MF	0	6	200 E	12	70 W	--	--	5	200 W	--	--	8	4 E	9	46 E	10	200 W	--	--
ET512i	20	5	1	3	MF	0	6	>230 m	12	>120 m	--	--	5	>400 m	--	--	8	>400 m	9	>400 m	10	>400 m	--	--
ET512i	20	5	1	3	MF	0	6	3.64 dB RMSE	12	3.19 dB RMSE	--	--	5	19.53 dB RMSE	--	--	8	5.29 dB RMSE	9	25.55 dB RMSE	10	37.76 dB RMSE	--	--
ET512i	21	5	1	4	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	-10 dB	9	-10 dB	--	--	--	--
ET512i	21	5	1	4	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	200 S	9	200 S	--	--	--	--
ET512i	21	5	1	4	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	200 E	9	200 E	--	--	--	--
ET512i	21	5	1	4	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	>320 m	9	>400 m	--	--	--	--
ET512i	21	5	1	4	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	4.21 dB RMSE	9	16.86 dB RMSE	--	--	--	--
ET512i	22	5	1	5	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	-20 dB	--	--	--	--	--	--
ET512i	22	5	1	5	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	200 N	--	--	--	--	--	--
ET512i	22	5	1	5	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	114 W	--	--	--	--	--	--
ET512i	22	5	1	5	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	>400 m	--	--	--	--	--	--
ET512i	22	5	1	5	MF	0	6	bad	12	bad	--	--	--	--	--	--	8	4.04 dB RMSE	--	--	--	--	--	--
Knudsen3260	23	5	1	10	MF	0	6	-20 dB	12	-5 dB	--	--	5	bad	11	bad	8	10 dB	9	10 dB	10	5 dB	--	--
Knudsen3260	23	5	1	10	MF	0	6	198 S	12	200 N	--	--	5	bad	11	bad	8	200 N	9	200 N	10	196 S	--	--
Knudsen3260	23	5	1	10	MF	0	6	200 E	12	200 W	--	--	5	bad	11	bad	8	200 W	9	200 W	10	200 E	--	--
Knudsen3260	23	5	1	10	MF	0	6	>400 m	12	>400 m	--	--	5	bad	11	bad	8	>400 m	9	>400 m	10	>400 m	--	--
Knudsen3260	23	5	1	10	MF	0	6	11.2 dB RMSE	12	15.56 dB RMSE	--	--	5	bad	11	bad	8	6.63 dB RMSE	9	7.84 dB RMSE	10	3.94 dB RMSE	--	--
Knudsen3260	23	5	1	11	MF	0	6	-10 dB	12	-10 dB	--	--	5	bad	11	bad	8	10 dB	9	10 dB	10	-10 dB	--	--
Knudsen3260	23	5	1	11	MF	0	6	198 S	12	198 S	--	--	5	bad	11	bad	8	200 N	9	154N	10	200 N	--	--

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Knudsen3260	23	5	1	11	MF	0	6	200 E	12	200 E	--	--	5	bad	11	bad	8	200 W	9	200 W	10	200 W	--	--
Knudsen3260	23	5	1	11	MF	0	6	>400 m	12	>400 m	--	--	5	bad	11	bad	8	>400 m	9	>400 m	10	>400 m	--	--
Knudsen3260	23	5	1	11	MF	0	6	9.11 dB RMSE	12	19.24 dB RMSE	--	--	5	bad	11	bad	8	3.49 dB RMSE	9	7.66 dB RMSE	10	8.78 dB RMSE	--	--
ET424 3100P	16	2	2	31	MF	0	--	--	--	--	--	--	5	bad	11	bad	10	bad	--	--	9	bad	--	--
ET424 3100P	16	2	2	31	MF	0	--	--	--	--	--	--	5	bad	11	bad	10	bad	--	--	9	bad	--	--
ET424 3100P	16	2	2	31	MF	0	--	--	--	--	--	--	5	bad	11	bad	10	bad	--	--	9	bad	--	--
ET424 3100P	16	2	2	31	MF	0	--	--	--	--	--	--	5	bad	11	bad	10	bad	--	--	9	bad	--	--
ET424 3100P	17	2	2	32	MF	0	--	--	--	--	--	--	5	0 dB	11	5 dB	10	bad	--	--	9	bad	--	--
ET424 3100P	17	2	2	32	MF	0	--	--	--	--	--	--	5	200 S	11	200 S	10	bad	--	--	9	bad	--	--
ET424 3100P	17	2	2	32	MF	0	--	--	--	--	--	--	5	200 E	11	162 W	10	bad	--	--	9	bad	--	--
ET424 3100P	17	2	2	32	MF	0	--	--	--	--	--	--	5	>400 m	11	>400 m	10	bad	--	--	9	bad	--	--
ET424 3100P	17	2	2	32	MF	0	--	--	--	--	--	--	5	6.08 dB RMSE	11	10.84 dB RMSE	10	bad	--	--	9	bad	--	--
ET3200XS	18	2	2	33	MF	0	--	--	--	--	--	--	5	-20 dB	11	-20 dB	10	-30 dB	--	--	9	-35 dB	--	--
ET3200XS	18	2	2	33	MF	0	--	--	--	--	--	--	5	56 S	11	52 S	10	86 N	--	--	9	50 N	--	--
ET3200XS	18	2	2	33	MF	0	--	--	--	--	--	--	5	44 W	11	170 E	10	200 E	--	--	9	18 W	--	--
ET3200XS	18	2	2	33	MF	0	--	--	--	--	--	--	5	>400 m	11	>400 m	10	>400 m	--	--	9	>400 m	--	--
ET3200XS	18	2	2	33	MF	0	--	--	--	--	--	--	5	11.36 dB RMSE	11	5.34 dB RMSE	10	3.33 dB RMSE	--	--	9	2.87 dB RMSE	--	--
ET3200XS	19	2	2	34	MF	0	--	--	--	--	--	--	5	-20 dB	11	-20 dB			--	--	9	bad	--	--
ET3200XS	19	2	2	34	MF	0	--	--	--	--	--	--	5	200 S	11	200 S			--	--	9	bad	--	--
ET3200XS	19	2	2	34	MF	0	--	--	--	--	--	--	5	200 W	11	148 W			--	--	9	bad	--	--
ET3200XS	19	2	2	34	MF	0	--	--	--	--	--	--	5	>400 m	11	>400 m			--	--	9	bad	--	--
ET3200XS	19	2	2	34	MF	0	--	--	--	--	--	--	5	9.29 dB RMSE	11	12.9 dB RMSE			--	--	9	bad	--	--
ET512i	20	2	2	29	MF	0	--	--	--	--	--	--	5	5 dB	11	5 dB	10	10 dB	--	--	9	5 dB	--	--
ET512i	20	2	2	29	MF	0	--	--	--	--	--	--	5	200 S	11	200 S	10	200 S	--	--	9	200 N	--	--
ET512i	20	2	2	29	MF	0	--	--	--	--	--	--	5	178 E	11	200 W	10	200 E	--	--	9	200 W	--	--
ET512i	20	2	2	29	MF	0	--	--	--	--	--	--	5	>400 m	11	>320 m	10	>400 m	--	--	9	>400 m	--	--
ET512i	20	2	2	29	MF	0	--	--	--	--	--	--	5	4.66 dB RMSE	11	3.89 dB RMSE	10	5.75 dB RMSE	--	--	9	5.01 dB RMSE	--	--
ET512i	21	2	2	30	MF	0	--	--	--	--	--	--	5	0 dB	11	5 dB	10	10 dB	--	--	9	-5 dB	--	--
ET512i	21	2	2	30	MF	0	--	--	--	--	--	--	5	60 N	11	22 N	10	200 N	--	--	9	200 N	--	--
ET512i	21	2	2	30	MF	0	--	--	--	--	--	--	5	198 E	11	32 E	10	106 E	--	--	9	200 W	--	--
ET512i	21	2	2	30	MF	0	--	--	--	--	--	--	5	>400 m	11	>200 m	10	>400 m	--	--	9	>400 m	--	--
ET512i	21	2	2	30	MF	0	--	--	--	--	--	--	5	7.61 dB RMSE	11	4.46 dB RMSE	10	2 dB RMSE	--	--	9	4.93 dB RMSE	--	--
Knudsen3260	23	2	2	29	MF	0	--	--	--	--	--	--	5	15 dB	11	15 dB	10	15 dB	--	--	9	15 dB	--	--
Knudsen3261	23	2	2	29	MF	0	--	--	--	--	--	--	5	114 S	11	200 S	10	200 S	--	--	9	200 S	--	--
Knudsen3262	23	2	2	29	MF	0	--	--	--	--	--	--	5	200 W	11	200 W	10	198 E	--	--	9	200 E	--	--
Knudsen3263	23	2	2	29	MF	0	--	--	--	--	--	--	5	>400 m	11	>400 m	10	>400 m	--	--	9	>400 m	--	--
Knudsen3264	23	2	2	29	MF	0	--	--	--	--	--	--	5	4.11 dB RMSE	11	5.67 dB RMSE	10	7.42 dB RMSE	--	--	9	6.8 dB RMSE	--	--
Knudsen3265	24	2	2	30	MF	0	--	--	--	--	--	--	5	20 dB	11	20 dB	10	15 dB	--	--	9	0 dB	--	--
Knudsen3266	24	2	2	30	MF	0	--	--	--	--	--	--	5	18 N	11	38 N	10	198 N	--	--	9	200 S	--	--
Knudsen3267	24	2	2	30	MF	0	--	--	--	--	--	--	5	200 E	11	200 E	10	200 W	--	--	9	200 E	--	--

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Knudsen3268	24	2	2	30	MF	0	--	--	--	--	--	--	5	>400 m	11	>400 m	10	>400 m	--	--	9	>400 m	--	--
Knudsen3269	24	2	2	30	MF	0	--	--	--	--	--	--	5	6.39 dB RMSE	11	8.27 dB RMSE	10	14.59 dB RMSE	--	--	9	6.99 dB RMSE	--	--
ET424 3100P	16	3	2	10	MF	0	--	--	5	-15 dB	--	--	--	--	--	--	--	--	--	--	6	-35 dB	--	--
ET424 3100P	16	3	2	10	MF	0	--	--	5	200 N	--	--	--	--	--	--	--	--	--	--	6	200 S	--	--
ET424 3100P	16	3	2	10	MF	0	--	--	5	98 E	--	--	--	--	--	--	--	--	--	--	6	200 W	--	--
ET424 3100P	16	3	2	10	MF	0	--	--	5	>400 m	--	--	--	--	--	--	--	--	--	--	6	>400 m	--	--
ET424 3100P	16	3	2	10	MF	0	--	--	5	10.22 dB RMSE	--	--	--	--	--	--	--	--	--	--	6	6.12 dB RMSE	--	--
ET424 3100P	17	3	2	11	MF	0	--	--	5	-5 dB	--	--	12	-10 dB	--	--	--	--	--	--	6	-35 dB	--	--
ET424 3100P	17	3	2	11	MF	0	--	--	5	200 N	--	--	12	50 S	--	--	--	--	--	--	6	200 N	--	--
ET424 3100P	17	3	2	11	MF	0	--	--	5	20 W	--	--	12	20 E	--	--	--	--	--	--	6	200 E	--	--
ET424 3100P	17	3	2	11	MF	0	--	--	5	>400 m	--	--	12	>360 m	--	--	--	--	--	--	6	>260 m	--	--
ET424 3100P	17	3	2	11	MF	0	--	--	5	11.86 dB RMSE	--	--	12	4.67 dB RMSE	--	--	--	--	--	--	6	2.74 dB RMSE	--	--
ET3200XS	18	3	2	12	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	18	3	2	12	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	18	3	2	12	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	18	3	2	12	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	18	3	2	12	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	19	3	2	13	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	19	3	2	13	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	19	3	2	13	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET3200XS	19	3	2	13	MF	0	--	--	5	bad	--	--	12	bad	--	--	--	--	--	--	6	bad	--	--
ET424 3100P	16	4	2	10	MF	0	--	--	6	0 dB	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	10	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	10	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	10	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	10	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	11	MF	0	--	--	6	0 dB	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	11	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	11	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	11	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	16	4	2	11	MF	0	--	--	6	bad nav	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET424 3100P	17	4	2	12	MF	0	--	--	--	--	--	--	--	--	--	--	9	-20 dB	--	--	--	--	--	--
ET424 3100P	17	4	2	12	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET424 3100P	17	4	2	12	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET424 3100P	17	4	2	12	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET424 3100P	17	4	2	12	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET3200XS	18	4	2	14	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET3200XS	18	4	2	14	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET3200XS	18	4	2	14	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET3200XS	18	4	2	14	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET3200XS	18	4	2	14	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad	--	--	--	--	--	--
ET3200XS	19	4	2	13	MF	0	--	--	--	--	--	--	--	--	--	--	9	-40 dB	--	--	--	--	--	--
ET3200XS	19	4	2	13	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET3200XS	19	4	2	13	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--
ET3200XS	19	4	2	13	MF	0	--	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
ET3200XS	19	4	2	13	MF	0	--	--	--	--	--	--	--	--	--	9	bad nav	--	--	--	--	--	--	
ET512i	20	5	2	29	MF	0	6	-30 dB	12	-25 dB	--	--	11	-5 dB	--	--	8	-5 dB	9	-20 dB	10	0 dB	--	--
ET512i	20	5	2	29	MF	0	6	200 S	12	104 N	--	--	11	200 N	--	--	8	200 N	9	200 S	10	8 N	--	--
ET512i	20	5	2	29	MF	0	6	200 E	12	200 W	--	--	11	26 E	--	--	8	22 W	9	54 W	10	200 W	--	--
ET512i	20	5	2	29	MF	0	6	>400 m	12	>200 m	--	--	11	>200 m	--	--	8	>400 m	9	>400 m	10	>400 m	--	--
ET512i	20	5	2	29	MF	0	6	9.67 dB RMSE	12	4.45 dB RMSE	--	--	11	2.65 dB RMSE	--	--	8	3.45 dB RMSE	9	4.98 dB RMSE	10	17.53 dB RMSE	--	--
ET424 3100P	16	3	3	30	MF	0	6	bad	12	-10 dB	--	--	11	-5 dB	--	--	8	bad	10	bad	9	-40 dB	--	--
ET424 3100P	16	3	3	30	MF	0	6	bad	12	200 N	--	--	11	30 N	--	--	8	bad	10	bad	9	200 N	--	--
ET424 3100P	16	3	3	30	MF	0	6	bad	12	200 E	--	--	11	122 E	--	--	8	bad	10	bad	9	200 E	--	--
ET424 3100P	16	3	3	30	MF	0	6	bad	12	>400 m	--	--	11	>120 m	--	--	8	bad	10	bad	9	>360 m	--	--
ET424 3100P	16	3	3	30	MF	0	6	bad	12	8.34 dB RMSE	--	--	11	4.69 dB RMSE	--	--	8	bad	10	bad	9	3.38 dB RMSE	--	--
ET3200XS	18	3	3	31	MF	0	6	-15 dB	12	-15 dB	--	--	11	-10 dB	--	--	8	bad	10	bad	9	bad	--	--
ET3200XS	18	3	3	31	MF	0	6	200 S	12	200 N	--	--	11	60 N	--	--	8	bad	10	bad	9	bad	--	--
ET3200XS	18	3	3	31	MF	0	6	200 W	12	200 E	--	--	11	200 E	--	--	8	bad	10	bad	9	bad	--	--
ET3200XS	18	3	3	31	MF	0	6	>400 m	12	>400 m	--	--	11	>150 m	--	--	8	bad	10	bad	9	bad	--	--
ET3200XS	18	3	3	31	MF	0	6	7.08 dB RMSE	12	5.78 dB RMSE	--	--	11	2.99 dB RMSE	--	--	8	bad	10	bad	9	bad	--	--
ET512i	20	3	3	21	MF	0	6	-20 dB	12	-15 dB	--	--	11	-10 dB	--	--	8	0 dB	10	-5 dB	9	0 dB	--	--
ET512i	20	3	3	21	MF	0	6	38 N	12	200 S	--	--	11	200 N	--	--	8	68 N	10	200 N	9	200 S	--	--
ET512i	20	3	3	21	MF	0	6	200 W	12	200 E	--	--	11	200 E	--	--	8	22 E	10	200 E	9	48 E	--	--
ET512i	20	3	3	21	MF	0	6	>400 m	12	>400 m	--	--	11	>400 m	--	--	8	>400 m	10	>260 m	9	>400 m	--	--
ET512i	20	3	3	21	MF	0	6	5.17 dB RMSE	12	7.29 dB RMSE	--	--	11	8.43 dB RMSE	--	--	8	1.64 dB RMSE	10	3.99 dB RMSE	9	2.35 dB RMSE	--	--
ET512i	21	3	3	22	MF	0	6	-15 dB	12	-10 dB	--	--	11	-5 dB	--	--	8	bad	10	5 dB	9	bad	--	--
ET512i	21	3	3	22	MF	0	6	116 S	12	200 S	--	--	11	196 N	--	--	8	bad	10	200 S	9	bad	--	--
ET512i	21	3	3	22	MF	0	6	200 W	12	200 E	--	--	11	200 E	--	--	8	bad	10	200 E	9	bad	--	--
ET512i	21	3	3	22	MF	0	6	>400 m	12	>400 m	--	--	11	>400 m	--	--	8	bad	10	>350 m	9	bad	--	--
ET512i	21	3	3	22	MF	0	6	5.12 dB RMSE	12	10.79 dB RMSE	--	--	11	7.79 dB RMSE	--	--	8	bad	10	1.57 dB RMSE	9	bad	--	--
ET512i	22	3	3	23	MF	0	6	-20 dB	12	-10 dB	--	--	11	-10 dB	--	--	8	bad	10	-5 dB	--	--	--	--
ET512i	22	3	3	23	MF	0	6	200 S	12	200 N	--	--	11	86 N	--	--	8	bad	10	60 N	--	--	--	--
ET512i	22	3	3	23	MF	0	6	14 E	12	92 E	--	--	11	200 E	--	--	8	bad	10	120 W	--	--	--	--
ET512i	22	3	3	23	MF	0	6	>400 m	12	>400 m	--	--	11	>260 m	--	--	8	bad	10	>400 m	--	--	--	--
ET512i	22	3	3	23	MF	0	6	17.07 dB RMSE	12	6.42 dB RMSE	--	--	11	3.43 dB RMSE	--	--	8	bad	10	4.58 dB RMSE	--	--	--	--
Knudsen3260	23	3	3	27	MF	0	6	20 dB	12	20 dB	--	--	11	30 dB	--	--	8	20 dB	10	15 dB	9	-5 dB	--	--
Knudsen3260	23	3	3	27	MF	0	6	200 N	12	200 S	--	--	11	170 S	--	--	8	200 S	10	200 S	9	200 S	--	--
Knudsen3260	23	3	3	27	MF	0	6	200 W	12	200 E	--	--	11	156 E	--	--	8	200 E	10	200 E	9	200 E	--	--
Knudsen3260	23	3	3	27	MF	0	6	>150 m	12	>400 m	--	--	11	>230 m	--	--	8	>400 m	10	>400 m	9	>400 m	--	--
Knudsen3260	23	3	3	27	MF	0	6	3.19 dB RMSE	12	6 dB RMSE	--	--	11	2.74 dB RMSE	--	--	8	12.49 dB RMSE	10	17.9 dB RMSE	9	26.64 dB RMSE	--	--
Knudsen3260	25	3	3	28	MF	0	6	0 dB	12	10 dB	--	--	11	20 dB	--	--	8	15 dB	10	15 dB	9	bad	--	--
Knudsen3260	25	3	3	28	MF	0	6	200 N	12	200 S	--	--	11	200 N	--	--	8	200 N	10	200 S	9	bad	--	--
Knudsen3260	25	3	3	28	MF	0	6	200 W	12	200 E	--	--	11	200 E	--	--	8	200 E	10	200 E	9	bad	--	--
Knudsen3260	25	3	3	28	MF	0	6	>400 m	12	>400 m	--	--	11	>400 m	--	--	8	>400 m	10	>400 m	9	bad	--	--
Knudsen3260	25	3	3	28	MF	0	6	11.66 dB RMSE	12	13.7 dB RMSE	--	--	11	6.94 dB RMSE	--	--	8	14.08 dB RMSE	10	13.7 dB RMSE	9	bad	--	--
ET424 3100P	16	4	3	25	MF	0	--	--	--	--	--	--	12	0 dB	--	--	--	--	--	5	-20 dB	--	--	

Table A-2.1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
ET424 3100P	16	4	3	25	MF	0	--	--	--	--	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET424 3100P	16	4	3	25	MF	0	--	--	--	--	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET424 3100P	16	4	3	25	MF	0	--	--	--	--	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET424 3100P	16	4	3	25	MF	0	--	--	--	--	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET424 3100P	17	4	3	26	MF	0	--	--	7	bad	--	--	12	-10 dB	--	--	--	--	--	--	5	-20 dB	--	--
ET424 3100P	17	4	3	26	MF	0	--	--	7	bad	--	--	12	198 S	--	--	--	--	--	--	5	188 N	--	--
ET424 3100P	17	4	3	26	MF	0	--	--	7	bad	--	--	12	124 W	--	--	--	--	--	--	5	200 W	--	--
ET424 3100P	17	4	3	26	MF	0	--	--	7	bad	--	--	12	>400 m	--	--	--	--	--	--	5	>400 m	--	--
ET424 3100P	17	4	3	26	MF	0	--	--	7	bad	--	--	12	6.51 dB RMSE	--	--	--	--	--	--	5	8.99 dB RMSE	--	--
ET3200XS	18	4	3	27	MF	0	--	--	7	bad	--	--	12	-20 dB	--	--	--	--	--	--	5	bad	--	--
ET3200XS	18	4	3	27	MF	0	--	--	7	bad	--	--	12	200 S	--	--	--	--	--	--	5	bad	--	--
ET3200XS	18	4	3	27	MF	0	--	--	7	bad	--	--	12	200 W	--	--	--	--	--	--	5	bad	--	--
ET3200XS	18	4	3	27	MF	0	--	--	7	bad	--	--	12	>400 m	--	--	--	--	--	--	5	bad	--	--
ET3200XS	18	4	3	27	MF	0	--	--	7	bad	--	--	12	11.13 dB RMSE	--	--	--	--	--	--	5	bad	--	--
ET3200XS	19	4	3	28	MF	0	--	--	7	bad	--	--	12	-20 dB	--	--	--	--	--	--	5	-20 dB	--	--
ET3200XS	19	4	3	28	MF	0	--	--	7	bad	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET3200XS	19	4	3	28	MF	0	--	--	7	bad	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET3200XS	19	4	3	28	MF	0	--	--	7	bad	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
ET3200XS	19	4	3	28	MF	0	--	--	7	bad	--	--	12	bad nav	--	--	--	--	--	--	5	bad nav	--	--
Knudsen3260	23	4	3	21	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	23	4	3	21	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	23	4	3	21	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	23	4	3	21	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	23	4	3	21	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	25	4	3	22	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	25	4	3	22	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	25	4	3	22	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	25	4	3	22	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--
Knudsen3260	25	4	3	22	MF	0	8	bad	7	bad	--	--	12	bad	--	--	--	--	--	--	5	bad	--	--

-- = no information; bad = data quality too poor to ascertain an adjustment factor; dB = decibel; E = east; HRG = high-resolution geophysical; m = meter; MF = mid-frequency; na = not applicable; no data = buoy did not function; N = North; S = south; W = west.

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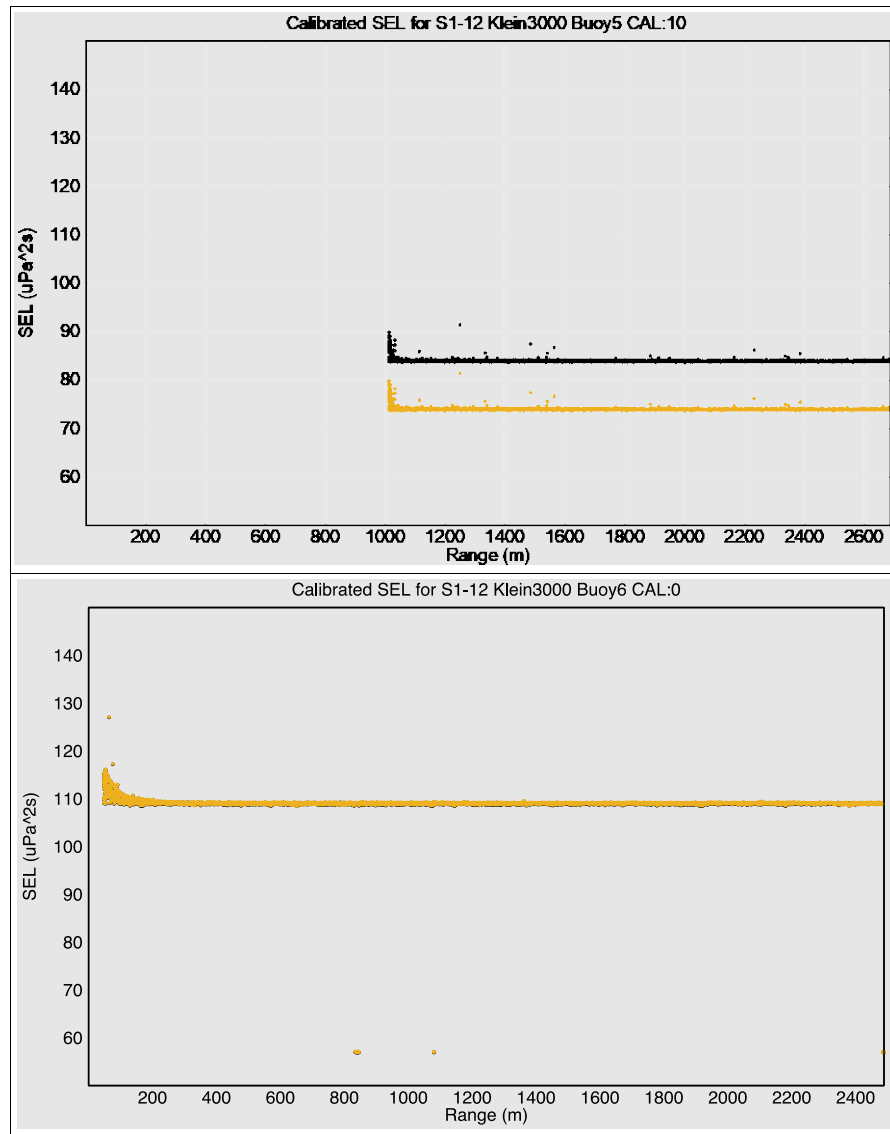
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## A.3 Appendix A: High-Frequency Results

### A.3.1 Site 1, Deployment 1

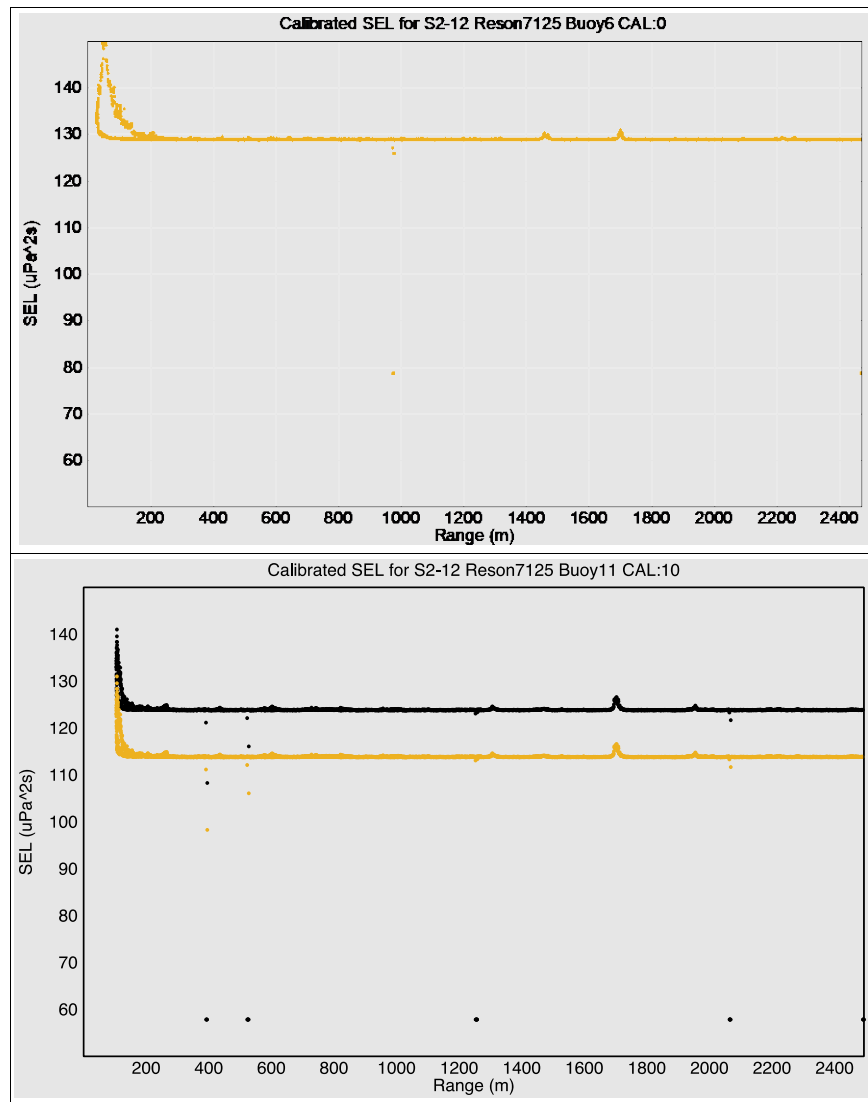
*Klein 3000, Mode 6, Run 12, Buoys 5 and 6 (Figure A.3-1).*



**Figure A.3-1. SEL comparisons for Klein 3000, Mode 6, at Site 1, Deployment 1, Run 12.** Sound exposure level (SEL) versus range (top: Buoy 5; bottom: Buoy 6). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.2 Site 2, Deployment 1

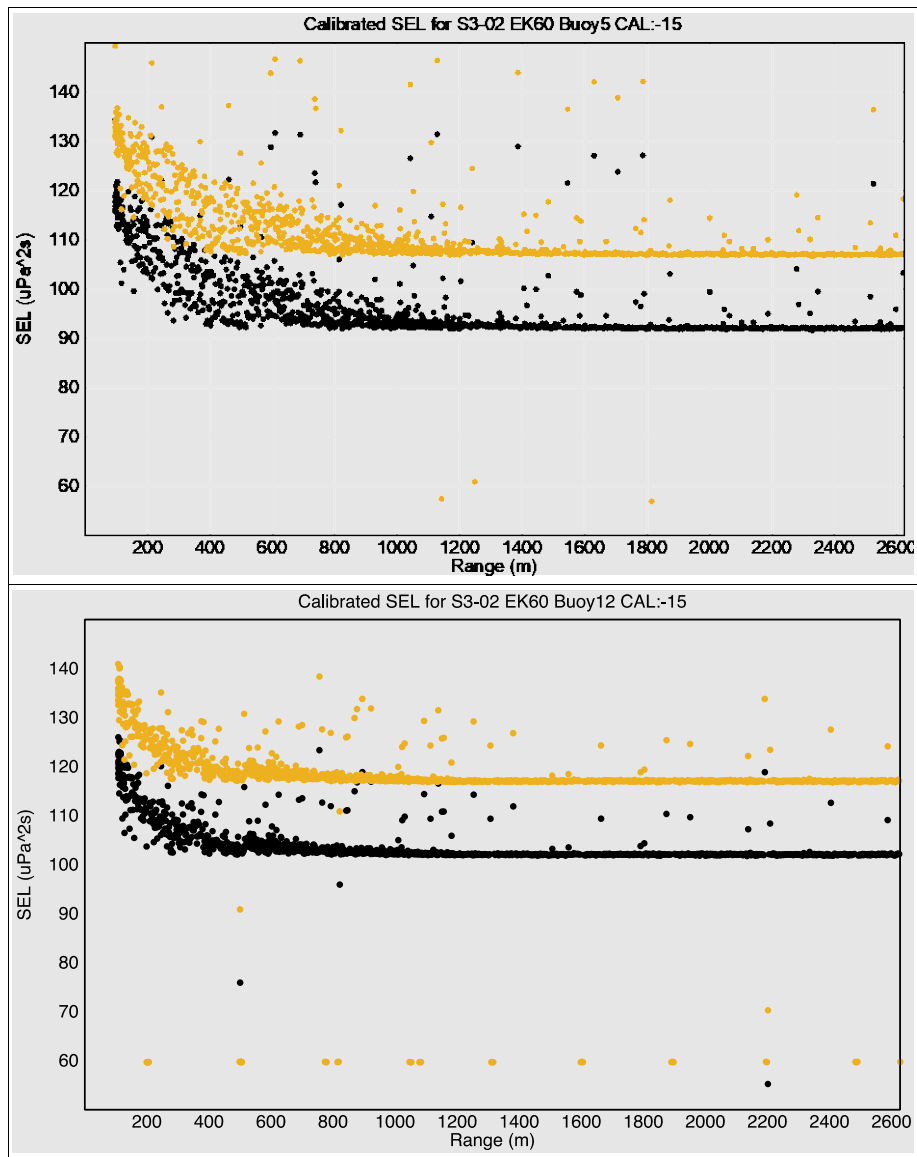
Reson 7125, Mode 1, Run 12, Buoys 6 and 11 (Figure A.3-2).



**Figure A.3-2. SEL comparisons for Reson 7125, Mode 1, at Site 2, Deployment 1, Run 12.** Sound exposure level (SEL) versus range (top: Buoy 6; bottom: Buoy 11). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.3 Site 3, Deployment 1

EK60, Mode 14, Run 2, Buoys 5 and 12 (Figure A.3-3).



**Figure A.3-3. SEL comparisons for EK60, Mode 14, at Site 3, Deployment 1, Run 2.**

Sound exposure level (SEL) versus range (top: Buoy 5; bottom: Buoy 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.4 Site 4, Deployment 1

EK60, Mode 15, Run 3, Buoys 5, 7 (both hydrophones), 9, and 11 (Figure A.3-4).

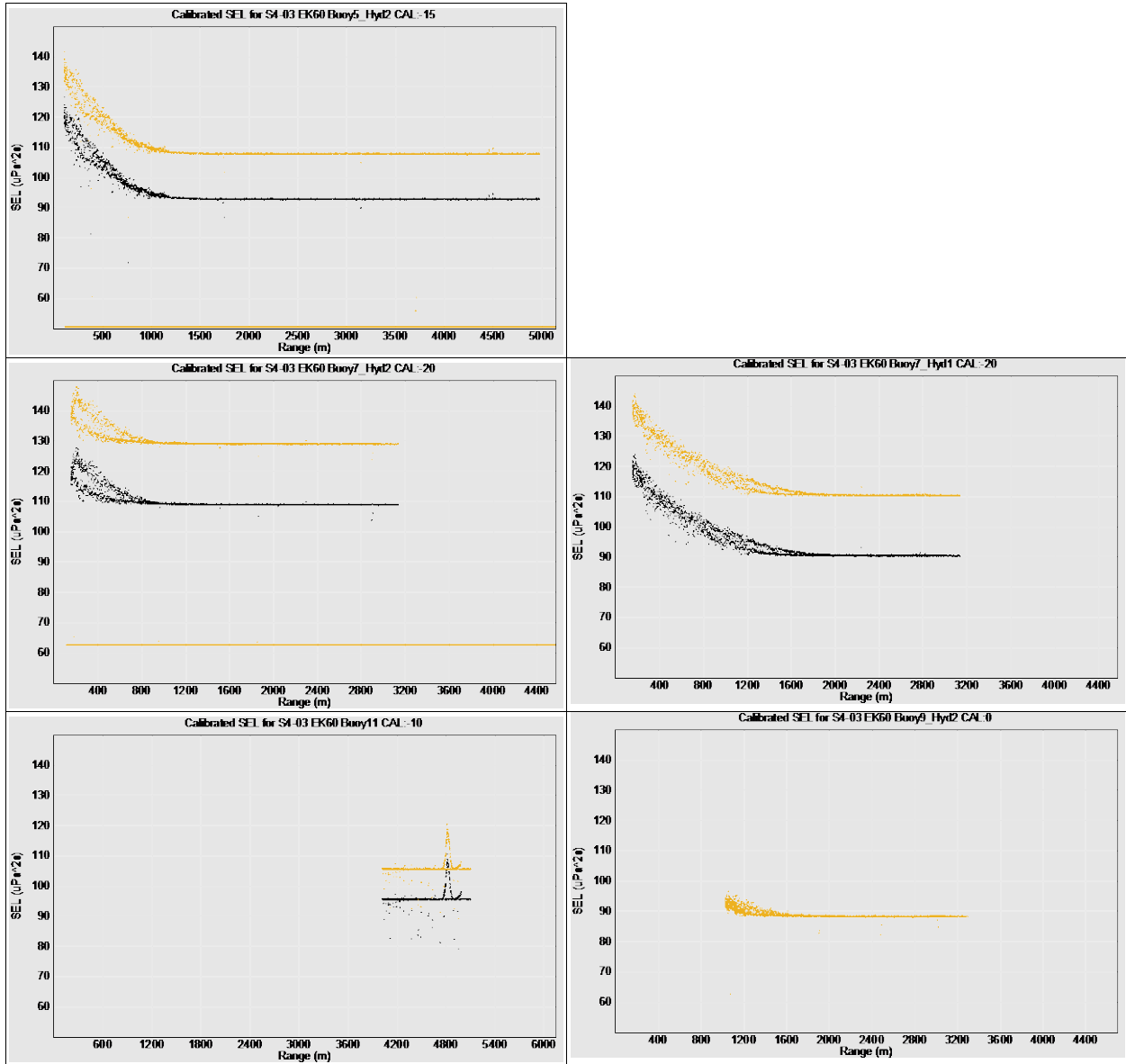
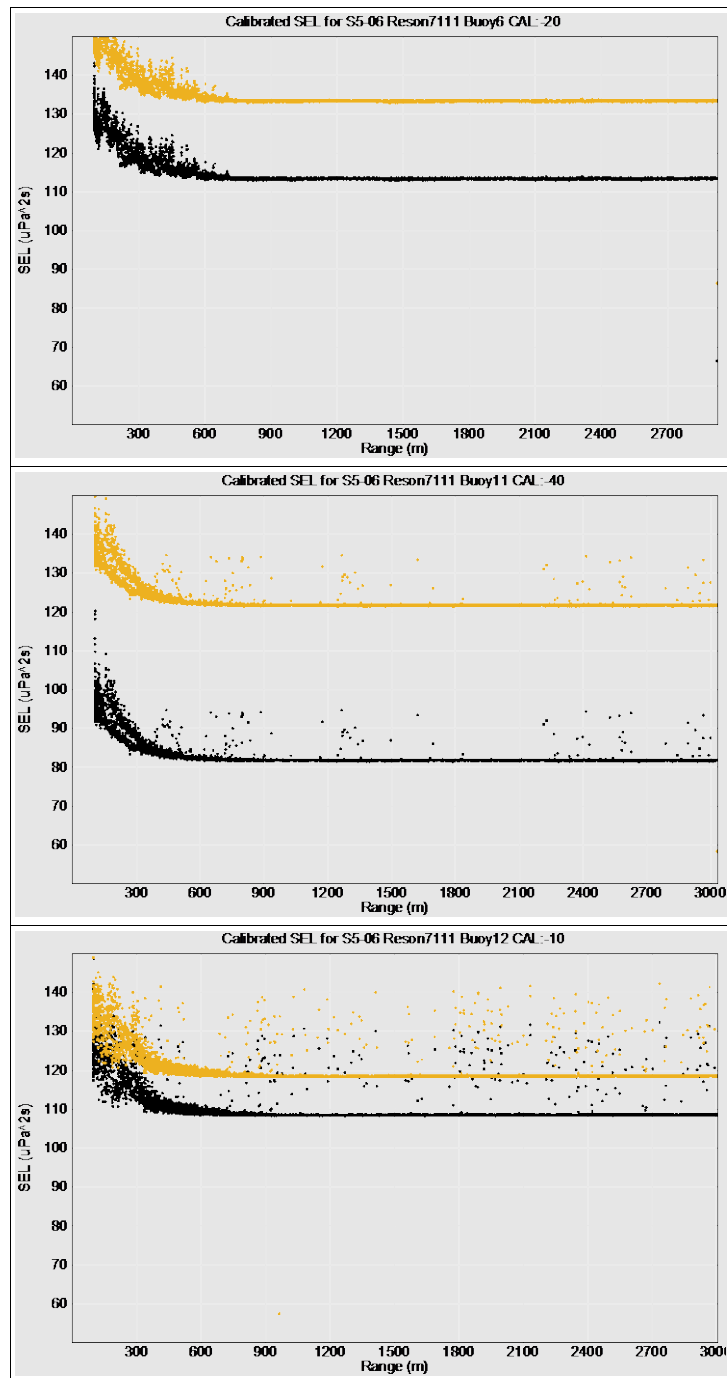


Figure A.3-4. SEL comparisons for EK60, Mode 15, at Site 4, Deployment 1, Run 3.

Sound exposure level (SEL) versus range. Top to bottom: Buoy 5 hydrophone 2; Buoy 7 hydrophone 2 (left), hydrophone 1 (right); Buoy 11 hydrophone 2 (left); and Buoy 9 hydrophone 2 (right). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.5 Site 5, Deployment 1

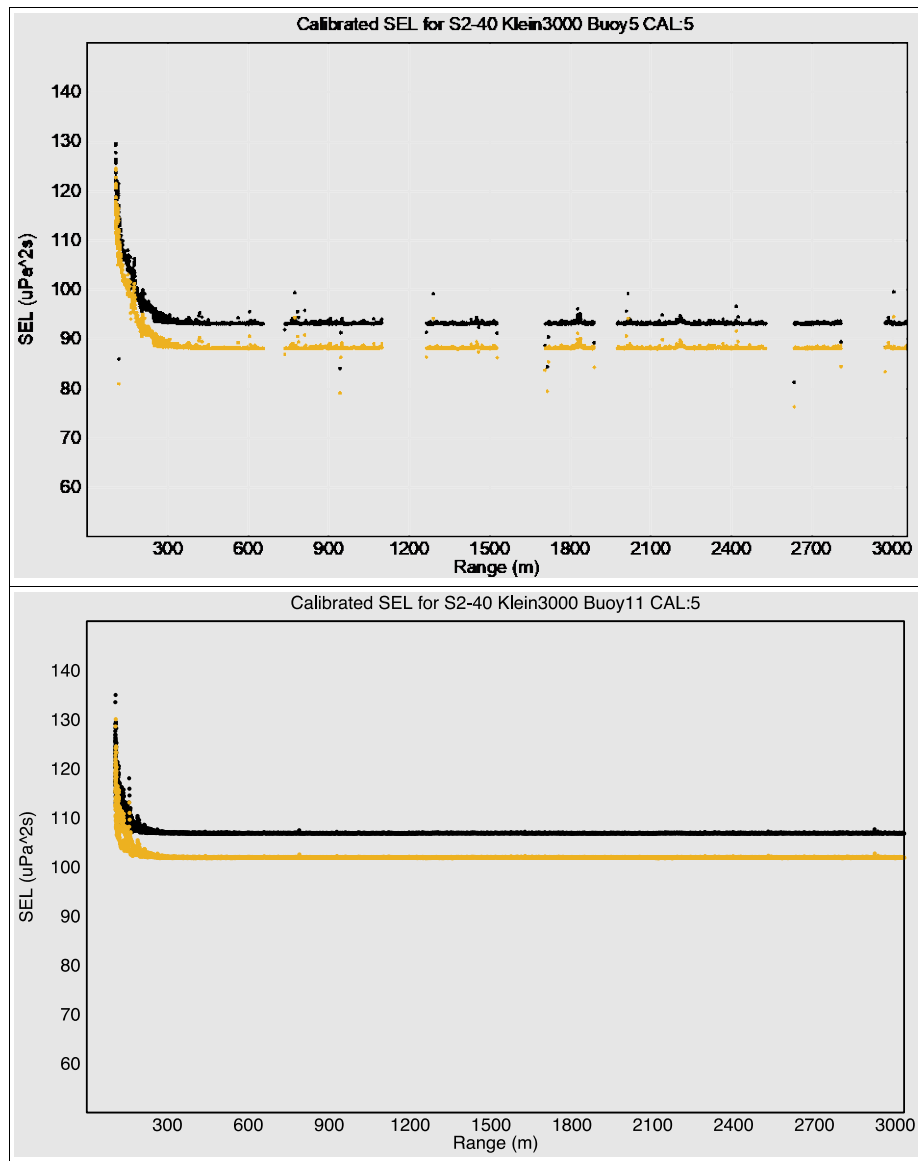
Reason 7111, Mode 3, Run 6, Buoys 6, 11, and 12 (Figure A.3-5).



**Figure A.3-5. SEL comparisons for Reson 7111, Mode 3, at Site 5, Deployment 1, Run 6.** Sound exposure level (SEL) versus range (top to bottom: Buoys 6, 11, and 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.6 Site 2, Deployment 2

*Klein 3000, Mode 5, Run 40, Buoys 5 and 11 (Figure A.3-6).*

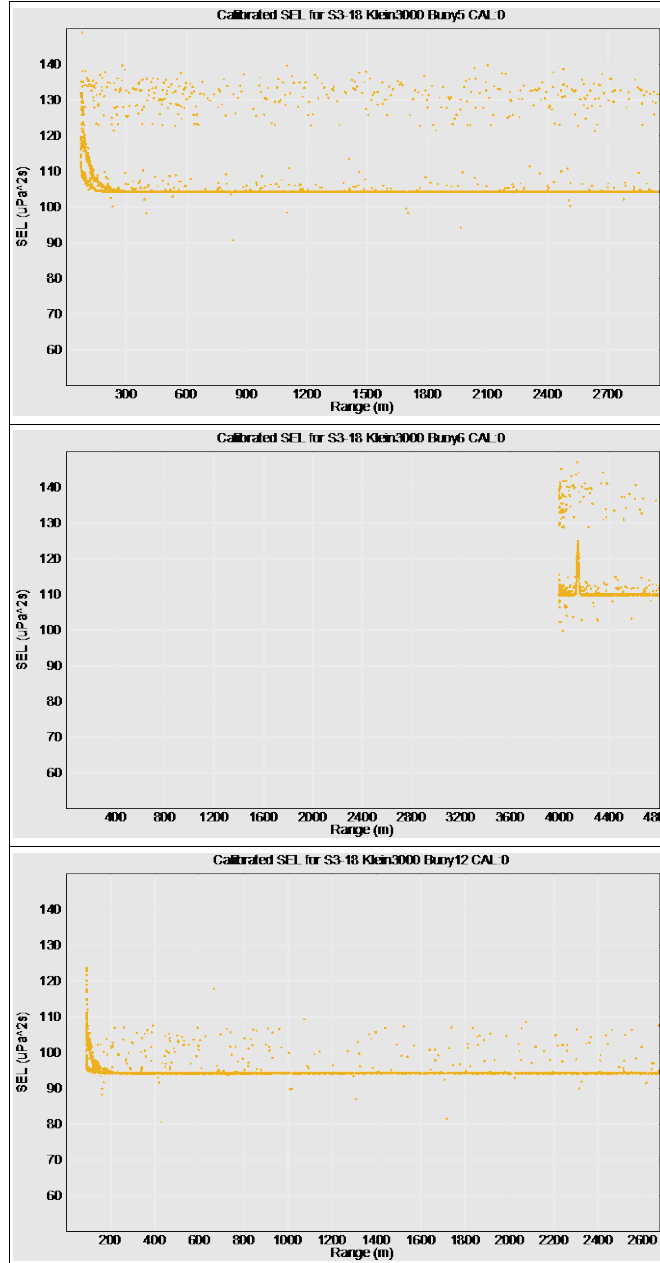


**Figure A.3-6. SEL comparisons for Klein 3000, Mode 5, at Site 2, Deployment 2, Run 40.** Sound exposure level (SEL) versus range (top: Buoy 5; bottom: Buoy 11). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.7 Site 3, Deployment 2

*Klein 3000, Mode 5, Run 18, Buoys 5, 6, and 12 (Figure A.3-7).*

During Deployment 2 at Site 3, no low- or mid-frequency sources had good data to provide adjustment factors to the high-frequency sources that did have good data. Therefore, the figures below show only the unadjusted data, which will be adjusted, if needed, in the model-data comparison section.



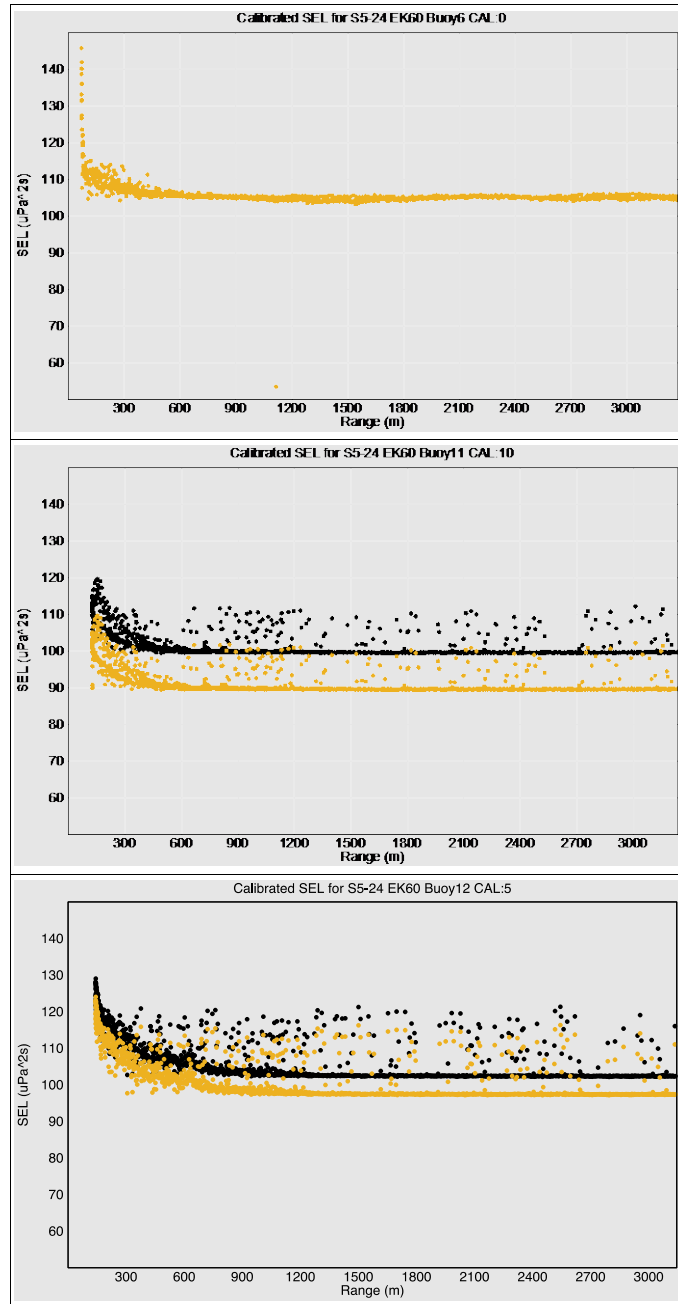
**Figure A.3-7. SEL original data for Klein 3000, Mode 5, at Site 3, Deployment 2, Run 18.** Sound exposure level (SEL) versus range (top to bottom: Buoys 5, 6, and 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.8 Site 4, Deployment 2

No buoy during the high-frequency source runs recorded good data.

### A.3.9 Site 5, Deployment 2

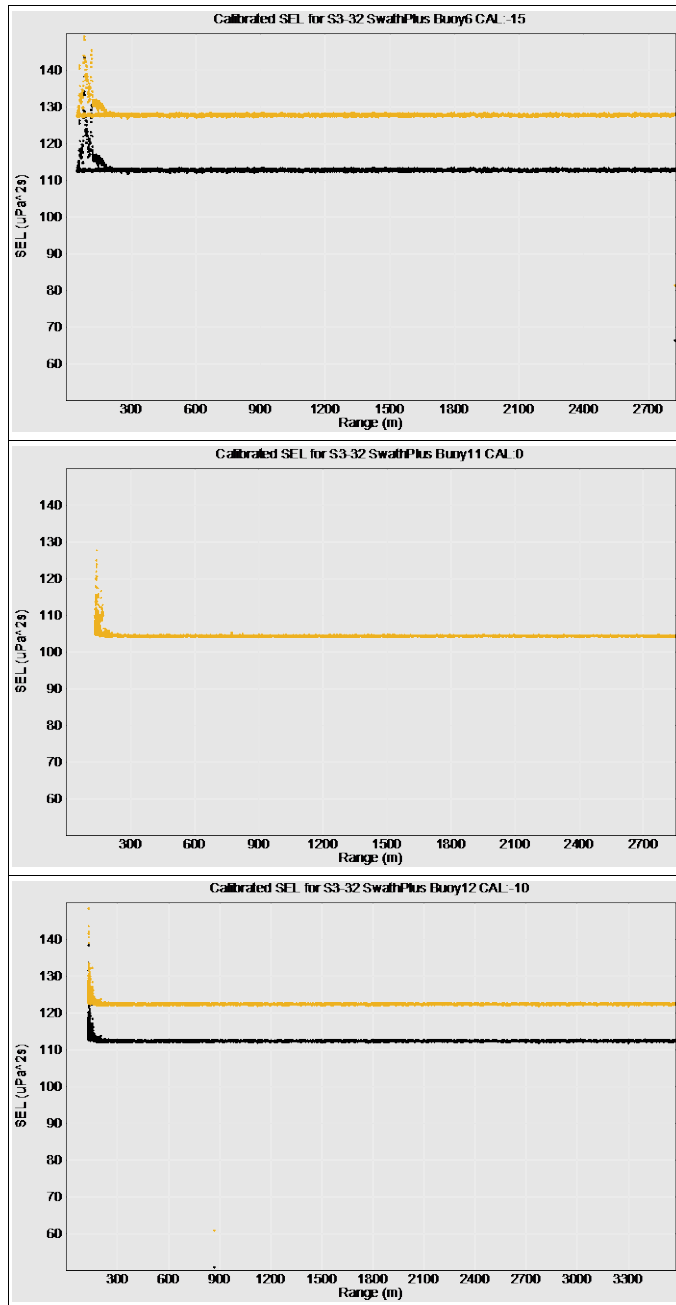
EK60, Mode 13, Run 24, Buoys 6, 11, and 12 (Figure A.3-8).



**Figure A.3-8. SEL comparisons for EK60, Mode 13, at Site 5, Deployment 2, Run 24.** Sound exposure level (SEL) versus range (top to bottom: Buoys 6, 11, and 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.10 Site 3, Deployment 3

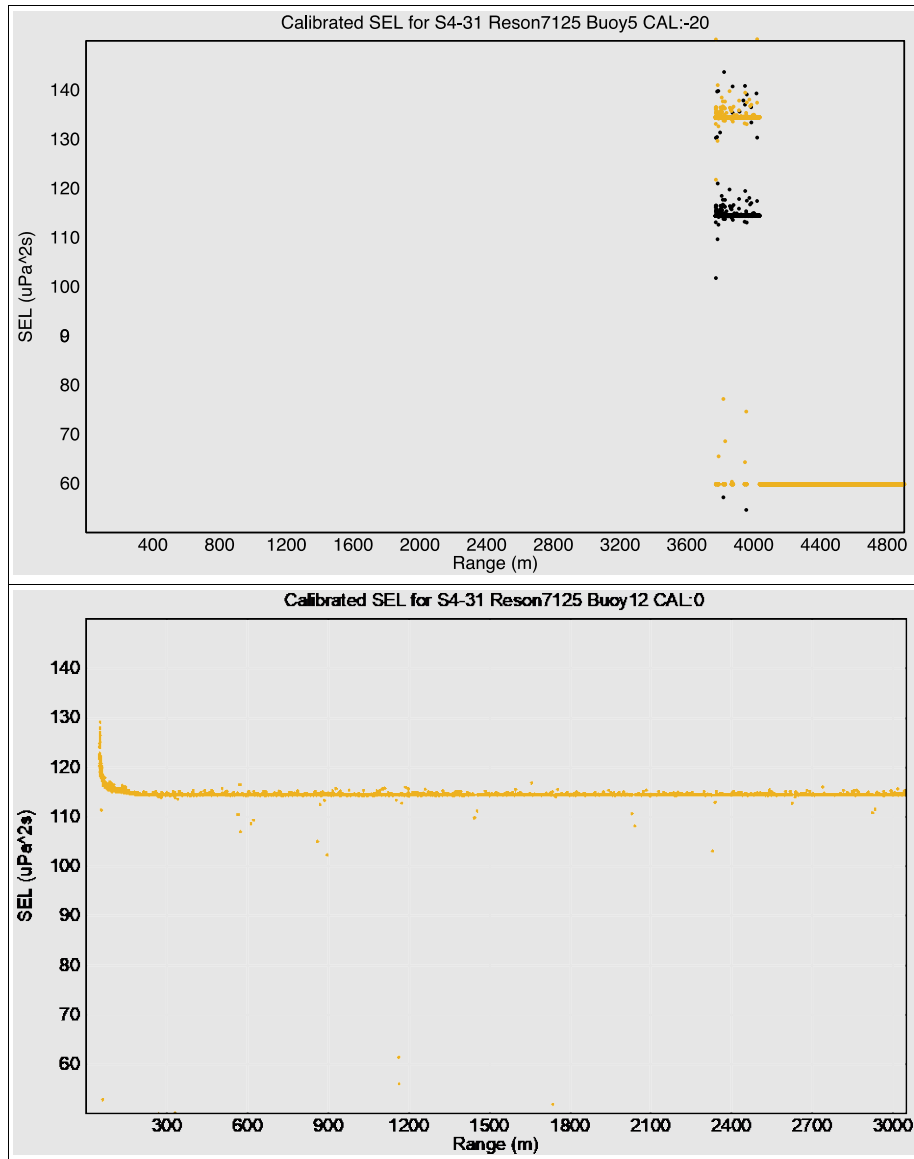
SwathPlus, Mode 12, Run 33, Buoys 6, 11, and 12 (Figure A.3-9).



**Figure A.3-9. SEL comparisons for SwathPlus, Mode 12, at Site 3, Deployment 3, Run 33.** Sound exposure level (SEL) versus range (top to bottom: Buoys 6, 11, and 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.11 Site 4, Deployment 3

Reson7125, Mode 1, Run 31, Buoys 5 and 12 (Figure A.3-10).



**Figure A.3-10. SEL comparisons for Reson7125, Mode 1, at Site 4, Deployment 3, Run 31.** Sound exposure level (SEL) versus range, (top: Buoy 5; bottom: Buoy 12). Pre-adjusted data (yellow) and adjusted data (black).

### A.3.12 Site 5, Deployment 3

No sources were operated at Site 5 during Deployment 3.

### A.3.13 High-Frequency Results Table

Table A.3-1. Adjustment factors for all high-frequency sources.

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Reson 7125	1	1	1	8	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	1	1	1	8	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	1	1	1	8	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	2	1	1	9	HF	0	6	Bad	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	2	1	1	9	HF	0	6	Bad	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	2	1	1	9	HF	0	6	Bad	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	5	1	1	11	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	5	1	1	11	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	5	1	1	11	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	6	1	1	12	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	6	1	1	12	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Klein 3000	6	1	1	12	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Edgetech 4200	7	1	1	6	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Edgetech 4200	7	1	1	6	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Edgetech 4200	7	1	1	6	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Edgetech 4200	8	1	1	7	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	9	-10 dB	--	--
Edgetech 4200	8	1	1	7	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	9	75 S	--	--
Edgetech 4200	8	1	1	7	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	9	94 W	--	--
SwathPlus	9	1	1	10	HF	0	6	0 dB	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
SwathPlus	9	1	1	10	HF	0	6	153 S	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
SwathPlus	9	1	1	10	HF	0	6	83 E	--	--	--	--	--	--	--	--	5	Bad	8	Bad	--	--	--	--
Reson 7125	1	2	1	12	HF	0	6	0 dB	--	--	--	--	--	--	11	10 dB	--	--	--	--	9	Bad	--	--
Reson 7125	1	2	1	12	HF	0	6	81 N	--	--	--	--	--	--	11	50 S	--	--	--	--	9	Bad	--	--
Reson 7125	1	2	1	12	HF	0	6	83 W	--	--	--	--	--	--	11	101 E	--	--	--	--	9	Bad	--	--
Reson 7125	2	2	1	13	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Reson 7125	2	2	1	13	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Reson 7125	2	2	1	13	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Klein 3000	5	2	1	14	HF	0	6	0 dB	--	--	--	--	--	--	11	10 dB	--	--	--	--	9	Bad	--	--
Klein 3000	5	2	1	14	HF	0	6	81 N	--	--	--	--	--	--	11	50 S	--	--	--	--	9	Bad	--	--
Klein 3000	5	2	1	14	HF	0	6	83 W	--	--	--	--	--	--	11	101 E	--	--	--	--	9	Bad	--	--
Klein 3000	6	2	1	15	HF	0	6	0 dB	--	--	--	--	--	--	11	10 dB	--	--	--	--	9	Bad	--	--
Klein 3000	6	2	1	15	HF	0	6	81 N	--	--	--	--	--	--	11	50 S	--	--	--	--	9	Bad	--	--
Klein 3000	6	2	1	15	HF	0	6	83 W	--	--	--	--	--	--	11	101 E	--	--	--	--	9	Bad	--	--
Edgetech 4200	7	2	1	8	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Edgetech 4200	7	2	1	8	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Edgetech 4200	7	2	1	8	HF	0	6	Bad	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Edgetech 4200	8	2	1	9	HF	0	6	0 dB	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Edgetech 4200	8	2	1	9	HF	0	6	81 N	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
Edgetech 4200	8	2	1	9	HF	0	6	83 W	--	--	--	--	--	--	11	Bad	--	--	--	--	9	Bad	--	--
SwathPlus	9	2	1	10	HF	0	6	0 dB	--	--	--	--	--	--	11	10 dB	--	--	--	--	9	Bad	--	--
SwathPlus	9	2	1	10	HF	0	6	81 N	--	--	--	--	--	--	11	50 S	--	--	--	--	9	Bad	--	--
SwathPlus	9	2	1	10	HF	0	6	83 W	--	--	--	--	--	--	11	101 E	--	--	--	--	9	Bad	--	--
SwathPlus	11	2	1	12	HF	0	6	0 dB	--	--	--	--	--	--	11	10 dB	--	--	--	--	9	Bad	--	--
SwathPlus	11	2	1	12	HF	0	6	81 N	--	--	--	--	--	--	11	50 S	--	--	--	--	9	Bad	--	--
SwathPlus	11	2	1	12	HF	0	6	83 W	--	--	--	--	--	--	11	101 E	--	--	--	--	9	Bad	--	--
Edgetech 4200	7	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--
Edgetech 4200	7	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--
Edgetech 4200	7	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--
Edgetech 4200	8	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--

Table A.3-1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Edgetech 4200	8	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--
Edgetech 4200	8	3	1	?	HF	0	8	Bad	--	--	--	--	5	Bad	12	Bad	7	Bad	--	--	--	--	--	--
SwathPlus	10/11	3	1	4	HF	0	8	Bad	--	--	--	--	5	-10 dB	12	Bad	7	Bad	--	--	--	--	--	--
SwathPlus	10/11	3	1	4	HF	0	8	Bad	--	--	--	--	5	52 S	12	Bad	7	Bad	--	--	--	--	--	--
SwathPlus	10/11	3	1	4	HF	0	8	Bad	--	--	--	--	5	119 E	12	Bad	7	Bad	--	--	--	--	--	--
SwathPlus	12	3	1	5	HF	0	8	Bad	--	--	--	--	5	-10 dB	12	-10 dB	7	Bad	--	--	--	--	--	--
SwathPlus	12	3	1	5	HF	0	8	Bad	--	--	--	--	5	52 S	12	52 S	7	Bad	--	--	--	--	--	--
SwathPlus	12	3	1	5	HF	0	8	Bad	--	--	--	--	5	119 E	12	119 E	7	Bad	--	--	--	--	--	--
EK60	13	3	1	1	HF	0	8	Bad	--	--	--	--	5	-15 dB	12	-15 dB	7	Bad	--	--	--	--	--	--
EK60	13	3	1	1	HF	0	8	Bad	--	--	--	--	5	52 S	12	52 S	7	Bad	--	--	--	--	--	--
EK60	13	3	1	1	HF	0	8	Bad	--	--	--	--	5	119 E	12	119 E	7	Bad	--	--	--	--	--	--
EK60	14	3	1	3?	HF	0	8	Bad	--	--	--	--	5	-15 dB	12	-15 dB	7	Bad	--	--	--	--	--	--
EK60	14	3	1	3?	HF	0	8	Bad	--	--	--	--	5	52 S	12	52 S	7	Bad	--	--	--	--	--	--
EK60	14	3	1	3?	HF	0	8	Bad	--	--	--	--	5	119 E	12	119 E	7	Bad	--	--	--	--	--	--
EK60	15	3	1	2?	HF	0	8	0 dB	--	--	--	--	5	-15 dB	12	-15 dB	7	Bad	--	--	--	--	--	--
EK60	15	3	1	2?	HF	0	8	No ref.	--	--	--	--	5	52 S	12	52 S	7	Bad	--	--	--	--	--	--
EK60	15	3	1	2?	HF	0	8	No ref.	--	--	--	--	5	119 E	12	119 E	7	Bad	--	--	--	--	--	--
Reson 7111	3	4	1	4	HF	0	8	Bad	6	-20 dB	--	--	7_H	Bad	7_L	Bad	9	Bad	--	--	11	Bad	5	-15 dB
Reson 7111	3	4	1	4	HF	0	8	Bad	6	58 N	--	--	7_H	Bad	7_L	Bad	9	Bad	--	--	11	Bad	5	37 N
Reson 7111	3	4	1	4	HF	0	8	Bad	6	200 E	--	--	7_H	Bad	7_L	Bad	9	Bad	--	--	11	Bad	5	200 E
Reson 7111	4	4	1	5	HF	0	8	Bad	6	-20 dB	--	--	7_H	-20 dB	7_L	-20 dB	9	Bad	--	--	11	Bad	5	-15 dB
Reson 7111	4	4	1	5	HF	0	8	Bad	6	58 N	--	--	7_H	127 S	7_L	106 S	9	Bad	--	--	11	Bad	5	37 N
Reson 7111	4	4	1	5	HF	0	8	Bad	6	200 E	--	--	7_H	105 E	7_L	121 E	9	Bad	--	--	11	Bad	5	200 E
EK60	13	4	1	1	HF	0	8	Bad	6	-20 dB	--	--	7_H	-20 dB	7_L	-20 dB	9	0 dB	--	--	11	Bad	5	-15 dB
EK60	13	4	1	1	HF	0	8	Bad	6	58 N	--	--	7_H	127 S	7_L	106 S	9	59 N	--	--	11	Bad	5	37 N
EK60	13	4	1	1	HF	0	8	Bad	6	200 E	--	--	7_H	105 E	7_L	121 E	9	102 E	--	--	11	Bad	5	200 E
EK60	14	4	1	2?	HF	0	8	Bad	6	Bad	--	--	7_H	-20 dB	7_L	-20 dB	9	0 dB	--	--	11	Bad	5	-15 dB
EK60	14	4	1	2?	HF	0	8	Bad	6	Bad	--	--	7_H	127 S	7_L	106 S	9	59 N	--	--	11	Bad	5	37 N
EK60	14	4	1	2?	HF	0	8	Bad	6	Bad	--	--	7_H	105 E	7_L	121 E	9	102 E	--	--	11	Bad	5	200 E
EK60	15	4	1	3?	HF	0	8	Bad	6	Bad	--	--	7_H	-20 dB	7_L	-20 dB	9	0 dB	--	--	11	-10 dB	5	-15 dB
EK60	15	4	1	3?	HF	0	8	Bad	6	Bad	--	--	7_H	127 S	7_L	106 S	9	59 N	--	--	11	128 S	5	37 N
EK60	15	4	1	3?	HF	0	8	Bad	6	Bad	--	--	7_H	105 E	7_L	121 E	9	102 E	--	--	11	0 E	5	200 E
Reson 7125	1	5	1	12	HF	0	6	Bad	12	-10 dB	--	--	11	-40 dB	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7125	1	5	1	12	HF	0	6	Bad	12	10 N	--	--	11	10 N	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7125	1	5	1	12	HF	0	6	Bad	12	168 W	--	--	11	88 E	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7125	2	5	1	13	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7125	2	5	1	13	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	3	5	1	6	HF	0	6	-20 dB	12	-10 dB	--	--	11	-40 dB	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	3	5	1	6	HF	0	6	83 S	12	10 N	--	--	11	10 N	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	3	5	1	6	HF	0	6	161 E	12	168 W	--	--	11	88 E	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	4	5	1	7	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	4	5	1	7	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	9	Bad	8	Bad	10	Bad	--	--
Reson 7111	4	5	1	7	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	9	Bad	8	Bad	10	Bad	--	--
EK60	13	5	1	8	HF	0	6	-20 dB	12	-10 dB	--	--	11	Bad	--	--	9	0 dB	8	-10 dB	10	-15 dB	--	--
EK60	13	5	1	8	HF	0	6	83 S	12	10 N	--	--	11	Bad	--	--	9	71 N	8	71 N	10	39 S	--	--
EK60	13	5	1	8	HF	0	6	161 E	12	168 W	--	--	11	Bad	--	--	9	65 W	8	65 W	10	97 W	--	--
EK60	15	5	1	9	HF	0	6	-20 dB	12	-10 dB	--	--	11	Bad	--	--	9	0 dB	8	-10 dB	10	Bad	--	--
EK60	15	5	1	9	HF	0	6	83 S	12	10 N	--	--	11	Bad	--	--	9	71 N	8	71 N	10	Bad	--	--
EK60	15	5	1	9	HF	0	6	161 E	12	168 W	--	--	11	Bad	--	--	9	65 W	8	65 W	10	Bad	--	--
Reson 7125	1	2	2	38	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--

Table A.3-1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Reson 7125	1	2	2	38	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--
Reson 7125	1	2	2	38	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--
Reson 7125	2	2	2	39	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--
Reson 7125	2	2	2	39	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--
Reson 7125	2	2	2	39	HF	0	--	--	--	--	--	--	5	Bad	11	Bad	10	Bad	--	--	9	Bad	--	--
Klein 3000	5	2	2	40	HF	0	--	--	--	--	--	--	5	5 dB	11	5 dB	10	Bad	--	--	9	Bad	--	--
Klein 3000	5	2	2	40	HF	0	--	--	--	--	--	--	5	69 S	11	69 S	10	Bad	--	--	9	Bad	--	--
Klein 3000	5	2	2	40	HF	0	--	--	--	--	--	--	5	57 E	11	57 E	10	Bad	--	--	9	Bad	--	--
Klein 3000	6	2	2	41	HF	0	--	--	--	--	--	--	5	5 dB	11	5 dB	10	Bad	--	--	9	Bad	--	--
Klein 3000	6	2	2	41	HF	0	--	--	--	--	--	--	5	69 S	11	69 S	10	Bad	--	--	9	Bad	--	--
Klein 3000	6	2	2	41	HF	0	--	--	--	--	--	--	5	57 E	11	57 E	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	7	2	2	35	HF	0	--	--	--	--	--	--	5	5 dB	11	Bad	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	7	2	2	35	HF	0	--	--	--	--	--	--	5	69 S	11	Bad	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	7	2	2	35	HF	0	--	--	--	--	--	--	5	57 E	11	Bad	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	8	2	2	36	HF	0	--	--	--	--	--	--	5	5 dB	11	Bad	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	8	2	2	36	HF	0	--	--	--	--	--	--	5	69 S	11	Bad	10	Bad	--	--	9	Bad	--	--
Edgetech 4200	8	2	2	36	HF	0	--	--	--	--	--	--	5	57 E	11	Bad	10	Bad	--	--	9	Bad	--	--
SwathPlus	10	2	2	37	HF	0	--	--	--	--	--	--	5	Bad	11	5 dB	10	Bad	--	--	9	Bad	--	--
SwathPlus	10	2	2	37	HF	0	--	--	--	--	--	--	5	Bad	11	69 S	10	Bad	--	--	9	Bad	--	--
SwathPlus	10	2	2	37	HF	0	--	--	--	--	--	--	5	Bad	11	57 E	10	Bad	--	--	9	Bad	--	--
Reson 7125	1	3	2	17	HF	0	--	--	5	Pending	--	--	12	Pending	--	--	--	--	--	--	6	Bad	--	--
Reson 7125	1	3	2	17	HF	0	--	--	5	0 N	--	--	12	12 N	--	--	--	--	--	--	6	Bad	--	--
Reson 7125	1	3	2	17	HF	0	--	--	5	3 W	--	--	12	114 W	--	--	--	--	--	--	6	Bad	--	--
Reson 7125	2	3	2	16	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Reson 7125	2	3	2	16	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Reson 7125	2	3	2	16	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	3	3	2	14	HF	0	--	--	5	Bad	--	--	12	Pending	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	3	3	2	14	HF	0	--	--	5	Bad	--	--	12	12 N	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	3	3	2	14	HF	0	--	--	5	Bad	--	--	12	114 W	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	4	3	2	15	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	4	3	2	15	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Reson 7111	4	3	2	15	HF	0	--	--	5	Bad	--	--	12	Bad	--	--	--	--	--	--	6	Bad	--	--
Klein 3000	5	3	2	18	HF	0	--	--	5	Pending	--	--	12	Pending	--	--	--	--	--	--	6	Pending	--	--
Klein 3000	5	3	2	18	HF	0	--	--	5	0 N	--	--	12	12 N	--	--	--	--	--	--	6	0 N	--	--
Klein 3000	5	3	2	18	HF	0	--	--	5	3 W	--	--	12	114 W	--	--	--	--	--	--	6	12 W	--	--
Klein 3000	6	3	2	19	HF	0	--	--	5	Pending	--	--	12	Pending	--	--	--	--	--	--	6	Pending	--	--
Klein 3000	6	3	2	19	HF	0	--	--	5	0 N	--	--	12	12 N	--	--	--	--	--	--	6	0 N	--	--
Klein 3000	6	3	2	19	HF	0	--	--	5	3 W	--	--	12	114 W	--	--	--	--	--	--	6	12 W	--	--
Reson 7125	1	4	2	17	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	1	4	2	17	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	1	4	2	17	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	2	4	2	18	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	2	4	2	18	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	2	4	2	18	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	7	4	2	8	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	7	4	2	8	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	7	4	2	8	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	8	4	2	9	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	8	4	2	9	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
EdgeTech4200	8	4	2	9	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
SwathPlus	10	4	2	15	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	

Table A.3-1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position															C		
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#		F1	Buoy#
SwathPlus	10	4	2	15	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
SwathPlus	10	4	2	15	HF	0	--	--	--	--	--	--	--	--	--	--	9	Bad	--	--	--	--	--	
Reson 7125	1	5	2	12	HF	0	6	0 dB	12	5 dB	--	--	11	10 dB	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	1	5	2	12	HF	0	6	48 S	12	84 N	--	--	11	164 N	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	1	5	2	12	HF	0	6	57 E	12	62 W	--	--	11	90 W	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	2	5	2	13	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	2	5	2	13	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	2	5	2	13	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	3	5	2	6	HF	0	6	0 dB	12	5 dB	--	--	11	10 dB	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	3	5	2	6	HF	0	6	48 S	12	84 N	--	--	11	164 N	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	3	5	2	6	HF	0	6	57 E	12	62 W	--	--	11	90 W	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	4	5	2	7	HF	0	6	0 dB	12	5 dB	--	--	11	10 dB	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	4	5	2	7	HF	0	6	48 S	12	84 N	--	--	11	164 N	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7111	4	5	2	7	HF	0	6	57 E	12	62 W	--	--	11	90 W	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	13	5	2	8	HF	0	6	0 dB	12	5 dB	--	--	11	10 dB	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	13	5	2	8	HF	0	6	48 S	12	84 N	--	--	11	164 N	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	13	5	2	8	HF	0	6	57 E	12	62 W	--	--	11	90 W	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	15	5	2	9	HF	0	6	0 dB	12	5 dB	--	--	11	10 dB	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	15	5	2	9	HF	0	6	48 S	12	84 N	--	--	11	164 N	--	--	8	Bad	9	Bad	10	Bad	--	--
EK60	15	5	2	9	HF	0	6	57 E	12	62 W	--	--	11	90 W	--	--	8	Bad	9	Bad	10	Bad	--	--
Reson 7125	1	3	3	34	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	1	3	3	34	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	1	3	3	34	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	2	3	3	35	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	2	3	3	35	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	2	3	3	35	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	3	3	3	24	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	3	3	3	24	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	3	3	3	24	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	4	3	3	25	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	4	3	3	25	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7111	4	3	3	25	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	5	3	3	36	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	5	3	3	36	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	5	3	3	36	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	6	3	3	37	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	6	3	3	37	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
Klein 3000	6	3	3	37	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	7	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	7	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	7	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	8	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	8	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
EdgeTech 4200	8	3	3	29	HF	0	6	Bad	12	Bad	--	--	11	Bad	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	10	3	3	32	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	10	3	3	32	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	10	3	3	32	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	12	3	3	33	HF	0	6	-15 dB	12	-10	--	--	11	0 dB	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	12	3	3	33	HF	0	6	6 N	12	7 N	--	--	11	41 N	--	--	8	Bad	10	Bad	9	Bad	--	--
SwathPlus	12	3	3	33	HF	0	6	123 W	12	162 E	--	--	11	161 E	--	--	8	Bad	10	Bad	9	Bad	--	--
Reson 7125	1	4	3	31	HF	0	8	Bad	7	Bad	--	--	12	0 dB	--	--	--	--	--	--	5	-20 dB	--	--

Table A.3-1. (Continued).

Source	Mode	Site	Deployment	Run	Frequency	Channel	Buoy Position																	
							Buoy#	D	Buoy#	A1	Buoy#	A2	Buoy#	B1	Buoy#	B2	Buoy#	E1	Buoy#	E2	Buoy#	F1	Buoy#	C
Reson 7125	1	4	3	31	HF		8	Bad	7	Bad	--	--	12	12 N	--	--	--	--	--	--	5	200 N	--	--
Reson 7125	1	4	3	31	HF		8	Bad	7	Bad	--	--	12	95 W	--	--	--	--	--	--	5	200 W	--	--
Reson 7125	2	4	3	32	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
Reson 7125	2	4	3	32	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
Reson 7125	2	4	3	32	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	24	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	24	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	24	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	23	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	23	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
EdgeTech 4200	7	4	3	23	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	9	4	3	30	HF		8	Bad	7	Bad	--	--	12	0 dB	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	9	4	3	30	HF		8	Bad	7	Bad	--	--	12	12 N	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	9	4	3	30	HF		8	Bad	7	Bad	--	--	12	95 W	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	10	4	3	29	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	10	4	3	29	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--
SwathPlus	10	4	3	29	HF		8	Bad	7	Bad	--	--	12	Bad	--	--	--	--	--	--	5	Bad	--	--

-- = no information; bad = data quality too poor to ascertain an adjustment factor; dB = decibel; E = east; HRG = high-resolution geophysical; m = meter; MF = mid-frequency; na = not applicable; no data = buoy did not function; N = north; S = south; W = west.

## **A.4 Appendix A: Bibliography**

Halvorsen, M.B. and K.D. Heaney. 2018. Propagation characteristics of high-resolution geophysical surveys: open water testing. U.S. Department of the Interior, Bureau of Ocean Energy Management, Sterling, VA. Prepared by CSA Ocean Sciences Inc. OCS Study BOEM 2018-052. 806 pp.