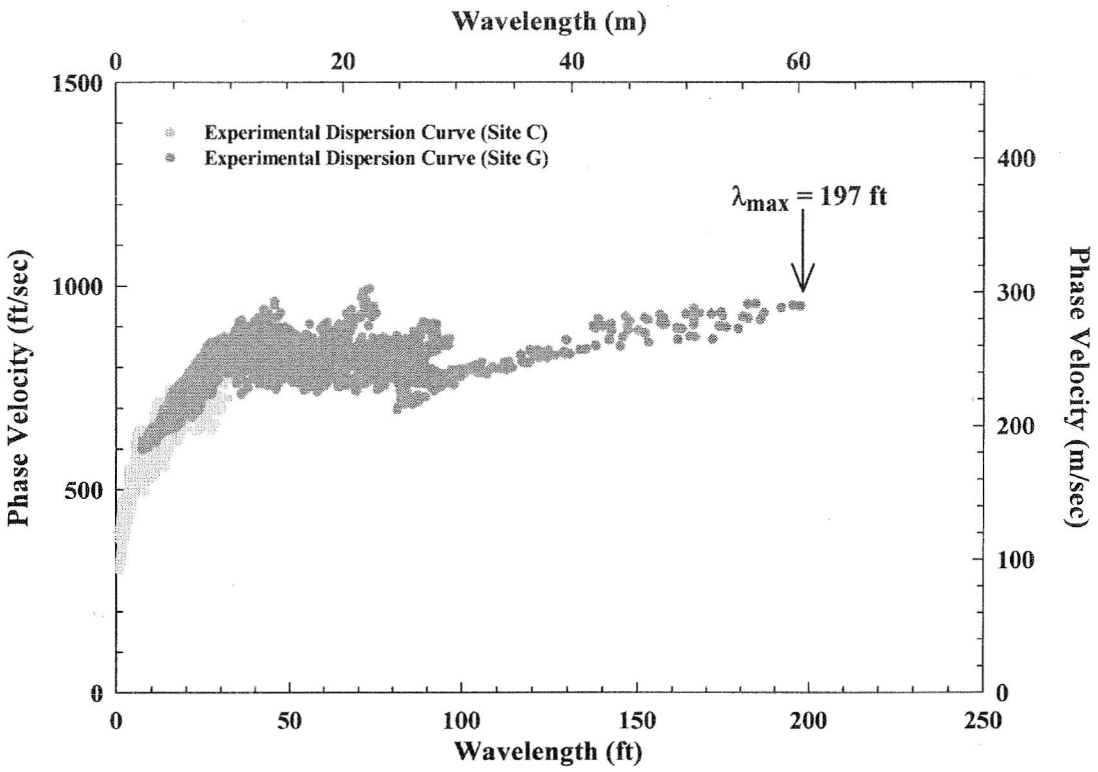


Figure P.31 Experimental Dispersion Curve Measured during Third Site Visit at Site C at Vogtle, GA; Linear Wavelength Axis

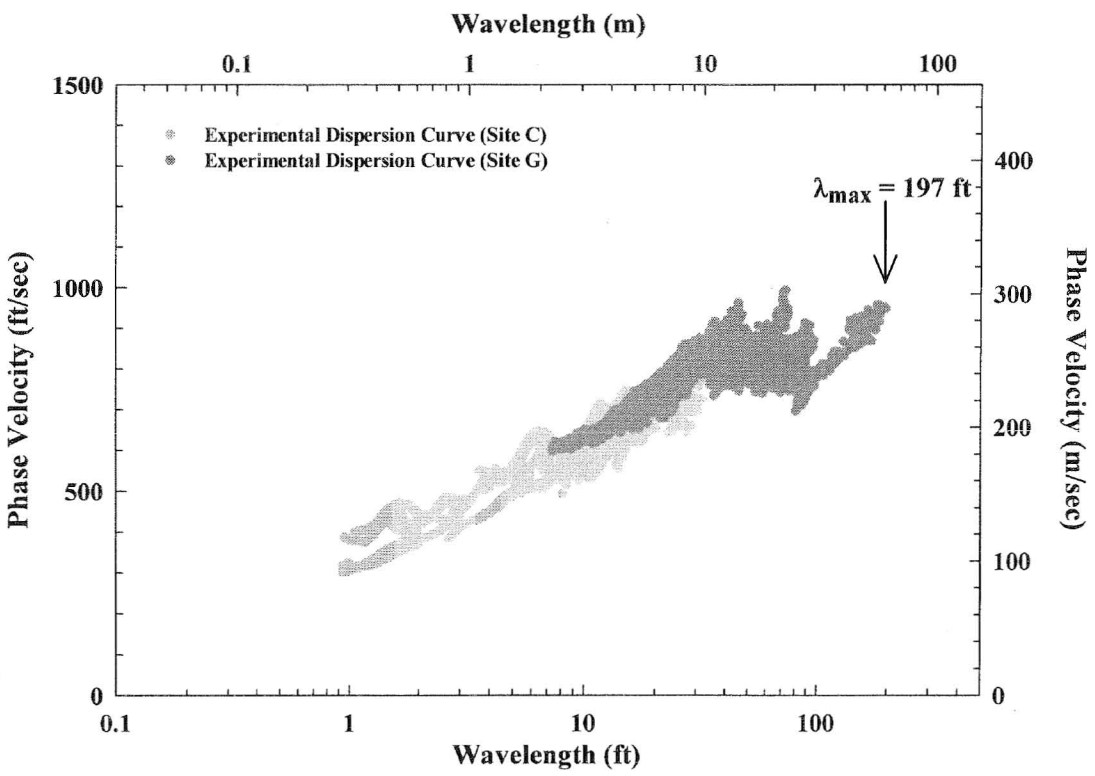


Figure P.32 Experimental Dispersion Curve Measured during Third Site Visit at Site C at Vogtle, GA; Logarithmic Wavelength Axis

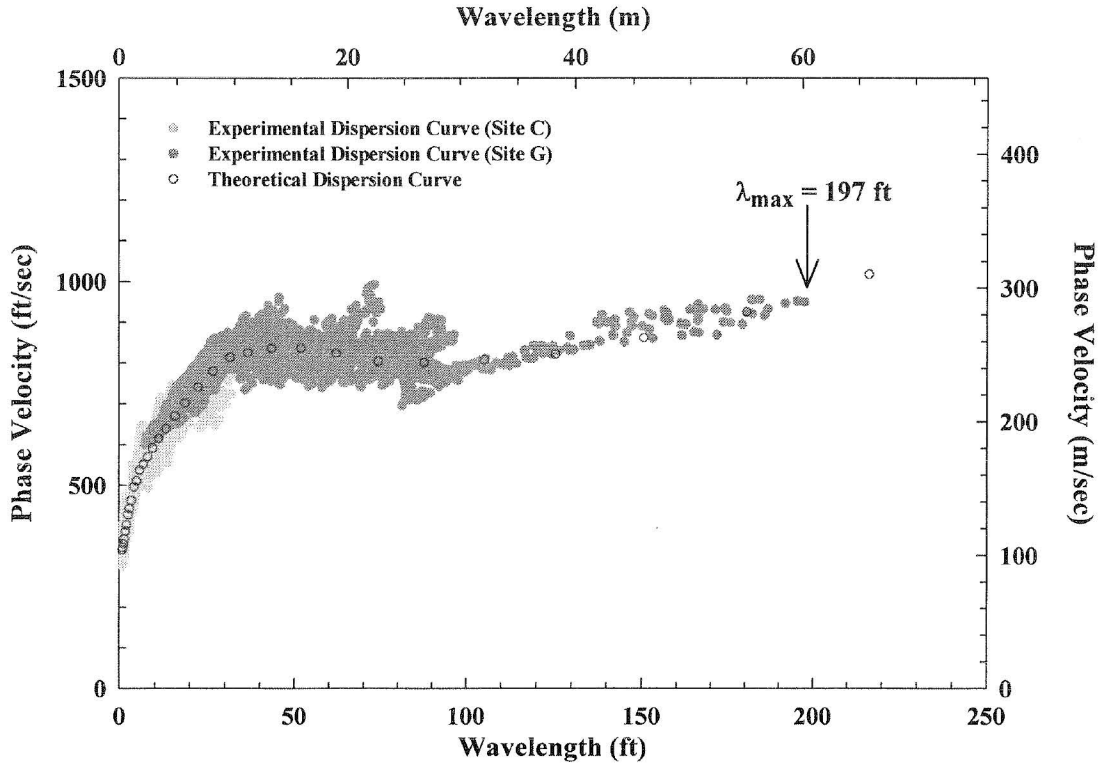


Figure P.33 Experimental and Theoretical Dispersion Curves from Site C in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

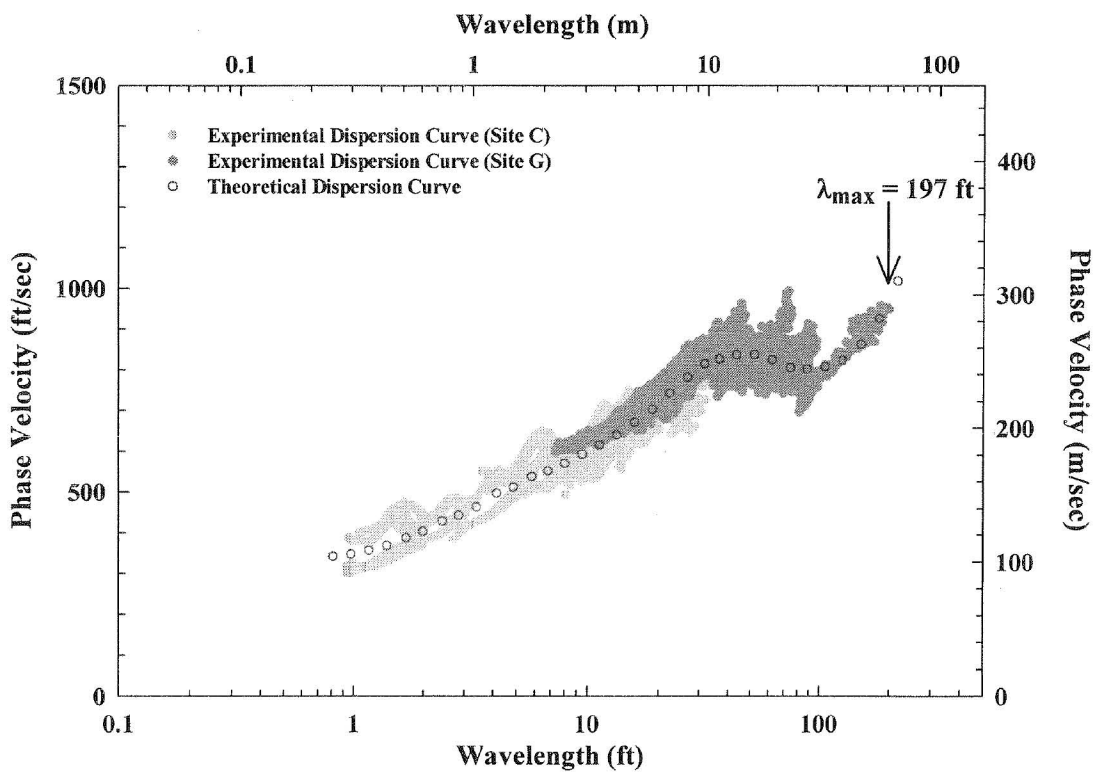


Figure P.34 Experimental and Theoretical Dispersion Curves from Site C in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

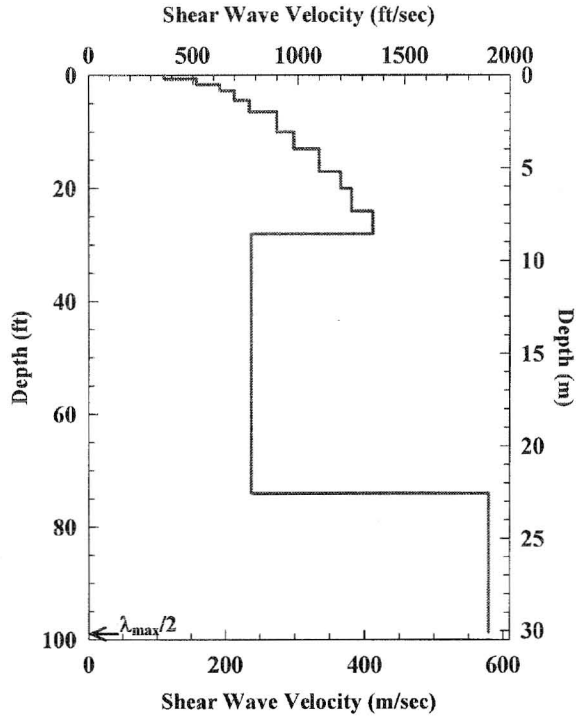


Figure P.35 Shear Wave Velocity Profile Determined at Site C during Third Site Visit at Vogtle, GA

Table P.4 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site C in the Third Site Visit at Vogtle, GA

Layer NP.	Thickness, ft	Depth to Top of Layer, ft	S-Wave Velocity, ft/s	Assumed Poisson's Ratio	P-Wave Velocity, ft/s	Assumed Total Unit Weight, pcf
1	0.7	0.0	365	0.24	624	128
2	1.0	0.7	520	0.24	889	128
3	1.1	1.7	630	0.24	1077	128
4	1.7	2.8	700	0.24	1197	128
5	2.0	4.5	770	0.24	1317	128
6	3.6	6.5	900	0.24	1539	128
7	3.0	10.1	980	0.24	1676	128
8	4.0	13.1	1100	0.24	1881	128
9	3.0	17.1	1200	0.24	2052	128
10	4.0	20.1	1250	0.24	2137	128
11	4.0	24.1	1350	0.24	2308	128
12	46.0	28.1	780	0.24	1334	128
13#	24.9	74.1	1900	0.42	5000	135
14*#	5.1	99.0	1900	0.42	5000	135
15*#	Half Space	104.1	2200	0.38	5000	135

* Layer below maximum depth of the V_S Profile.

\# Layer below water tatble.

Performed by Yin-Cheng Lin Checked by K. H. Stokoe

Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix Q

SASW Measurements of Third Site Visit at Vogtle, GA
Site Location: Site D

1. Data Sheet(s) Q.2
2. Phase Plots from SASW Tests Q.4
3. Table of Masking Parameters Q.14
4. Experimental Dispersion Curves Q.17
5. Matching the Experimental and Theoretical Dispersion Curves Q.18
6. Shear Wave Velocity Profile Q.19
7. Table of Profile Parameters Q.19

3 - Receiver SASW Data Sheet

Project : Vogtle

Location : D(SA3#4)

Date/(Time) : Dec, 27, 2007 : ~ :)

Personnel : Stokoe, Yuan

Recorded by : Yuan

Checked by : Stokoe

R1 I.D. : UT07-4.5Hz-04

R2 I.D. : UT07-4.5Hz-02

R3 I.D. : UT07-4.5Hz-03

Data Sheet # : SA3 #4

Disk # : SA3#4

elev = 232.58

Sketch

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	For	Rev	small	3D1	0 - 800	
1	1	2	For	Rev	"	3D2	0 - 800	
3	3	6	For	Rev	med	3D3	0 - 400	
3	3	6	For	Rev	"	3D4	0 - 400	
9	9	18	For	Rev	big	3D5	0 - 200	
9	9	18	For	Rev	sledge	3D6	0 - 200	
9	9	18	For	Rev	big	3D7	0 - 200	
9	9	18	For	Rev	sledge	3D8	0 - 200	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

3 - Receiver SASW Data Sheet

Page 1 of 1

Project : Vogtle

Data Sheet # : SA3#7

Location : G (SA3#7)

Disk # : SA3#7

Date/(Time) : Dec / 27 / 2007 (: ~ :)

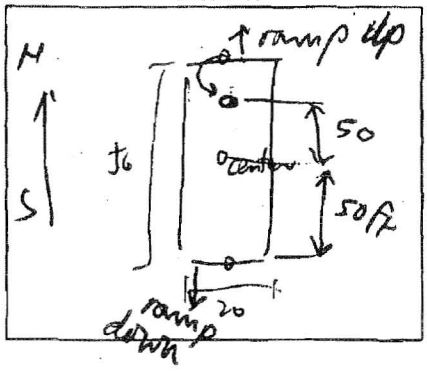
Personnel : Stokoe, Tuan

Recorded by : Tuan

Checked by : Stokoe

			Cable
R1 I.D. :	3773	(1Hz)	C26
R2 I.D. :	3774	(1Hz)	C27
R3 I.D. :	3775	(1Hz)	C25

Sketch



Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes (input voltage)
S - R1	R1 - R2	R2 - R3						
25	25	25	For	Rev	bull dozer	361	0 - 100	500 mV
50	50		For	Rev	"	362	0 - 100	
50	50	50	For	Rev	"	363	0 - 100	
50	50	50	For	Rev	"	364	0 - 50	250 mV
100	100		For	Rev	"	365	0 - 50	100 mV
25	25	25	For	Rev	bull dozer	366	0 - 100	500 mV
50	50		For	Rev	"	367	0 - 50	250 mV
85	50	50	For	Rev	"	368	0 - 50	150 mV
100	100		For	Rev	"	369	0 - 50	100 mV
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

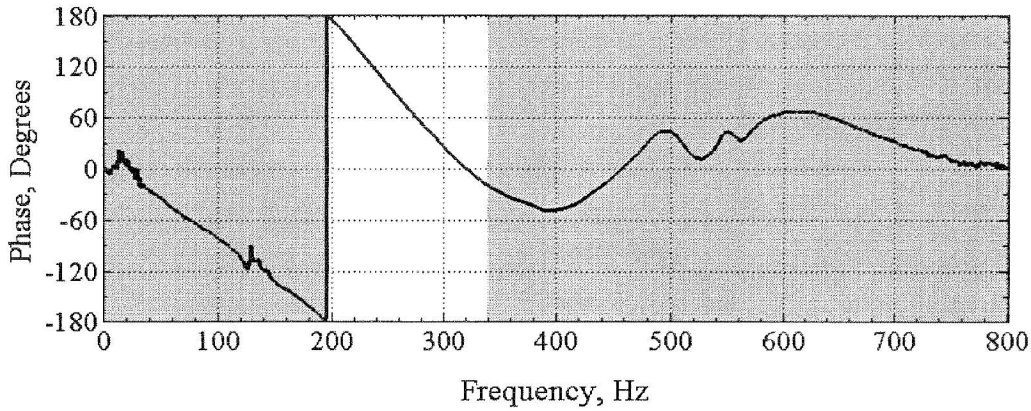


Figure Q.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3D1_F_21.DAT)

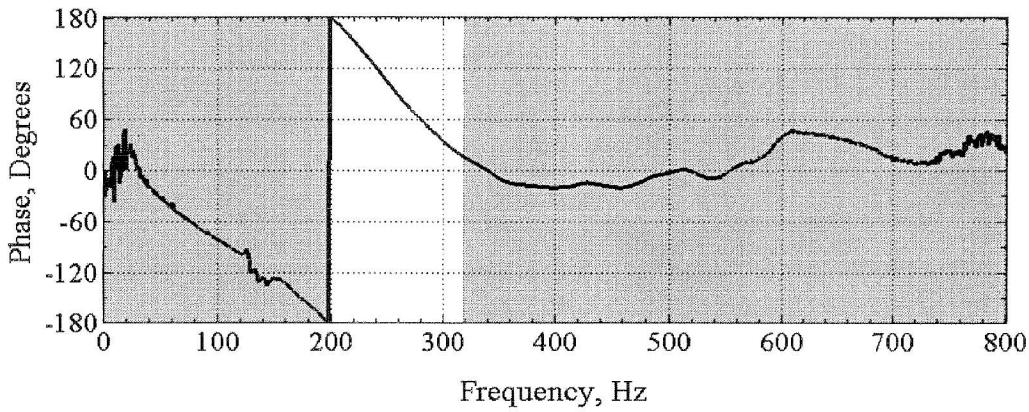


Figure Q.2 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3D2_F_21.DAT)

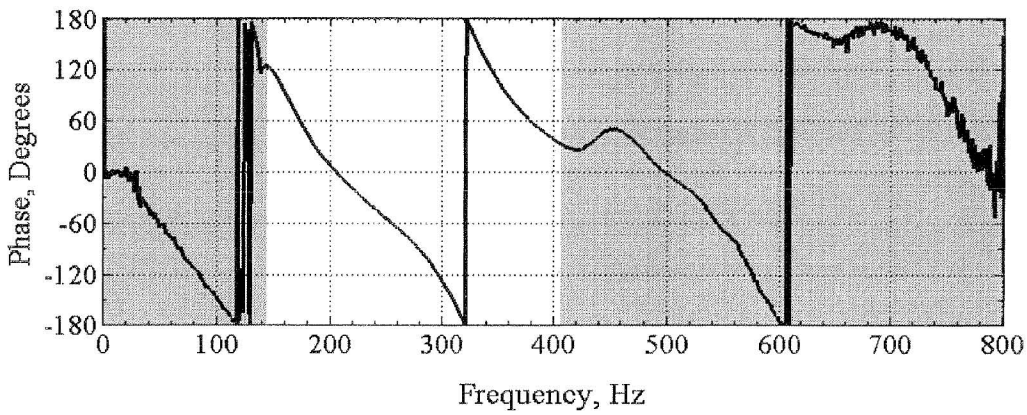


Figure Q.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3D1_F_43.DAT)

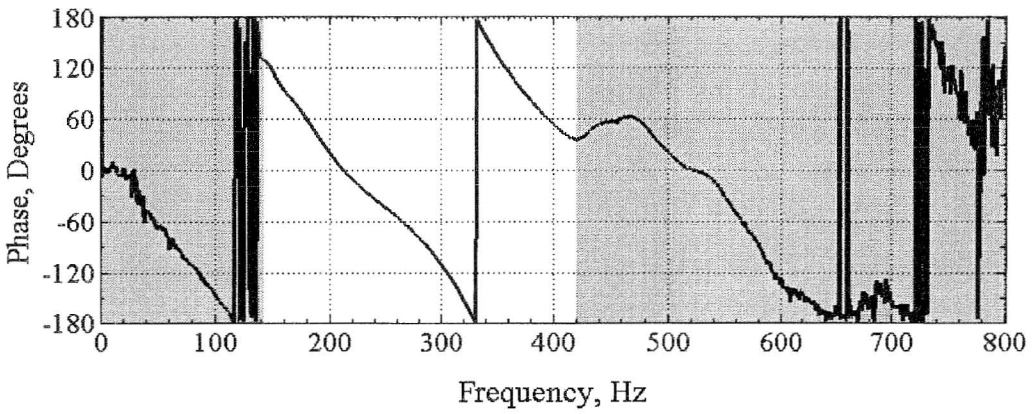


Figure Q.4 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3D2_F_43.DAT)

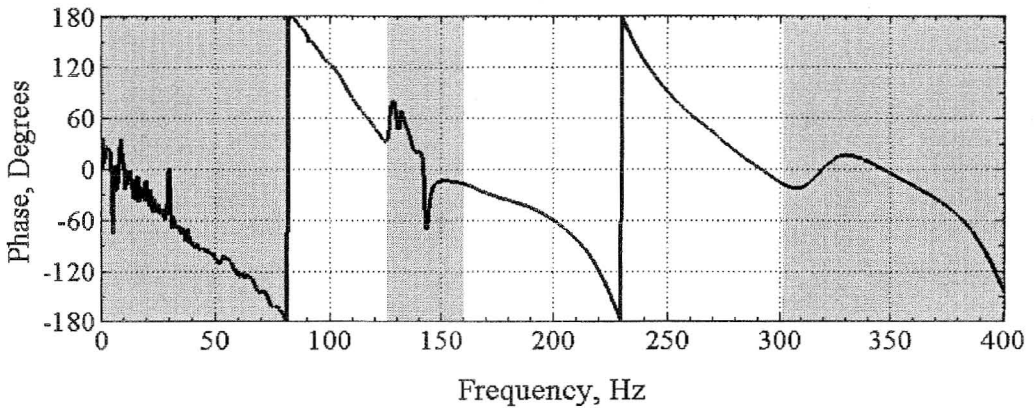


Figure Q.5 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3D3_F_21.DAT)

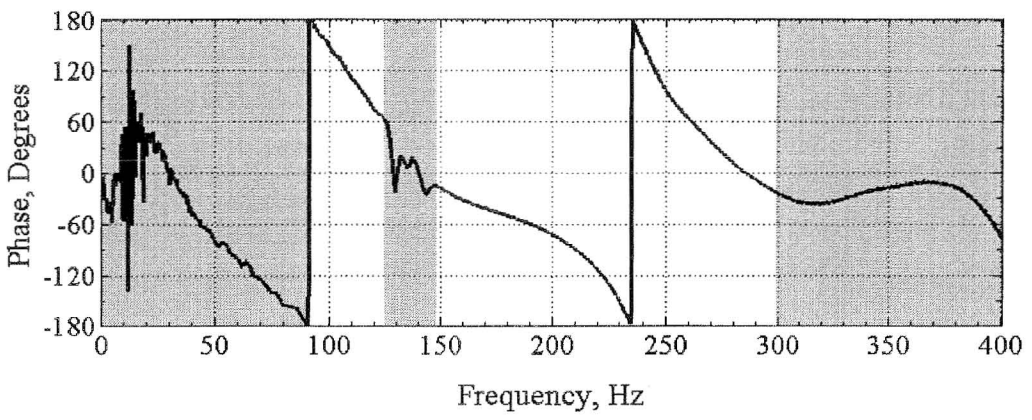


Figure Q.6 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3D4_F_21.DAT)

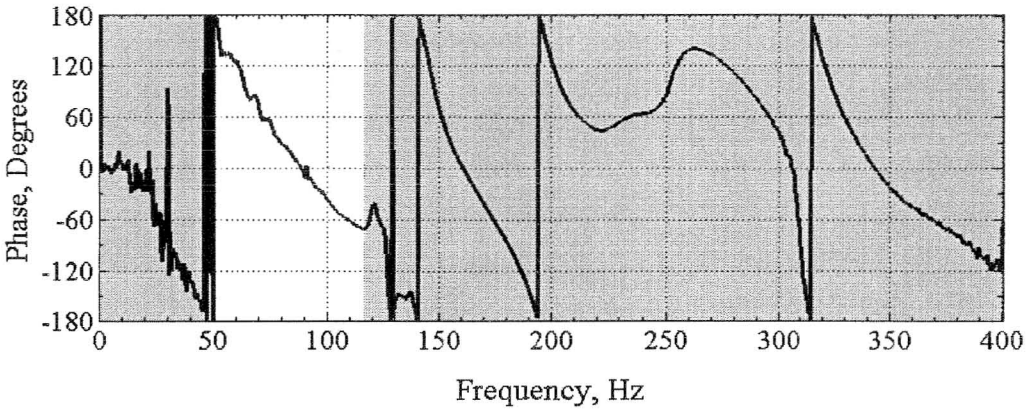


Figure Q.7 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3D3_F_43.DAT)

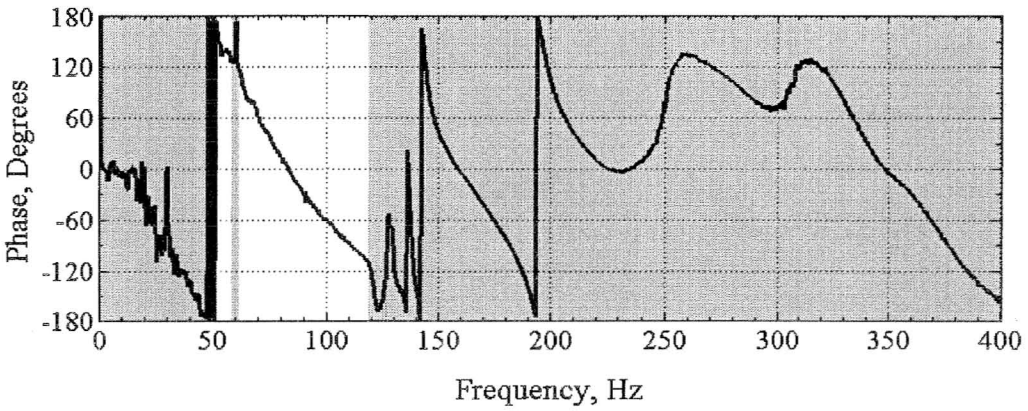


Figure Q.8 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3D4_F_43.DAT)

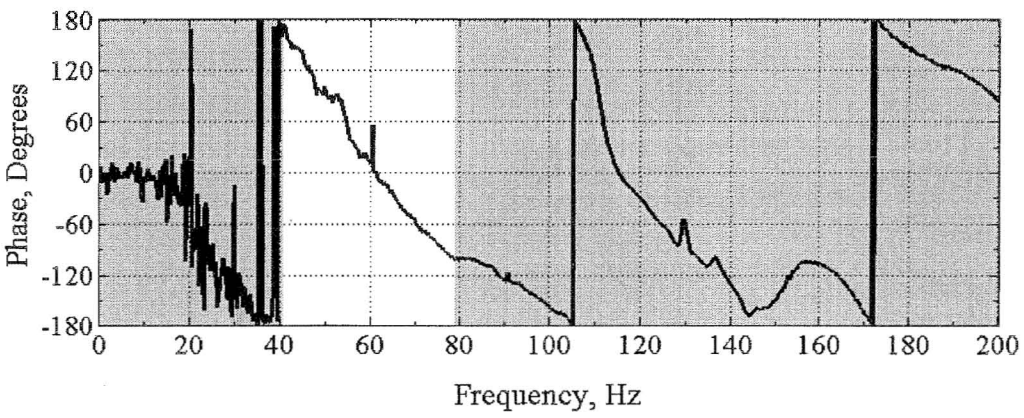


Figure Q.9 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3D5_F_21.DAT)

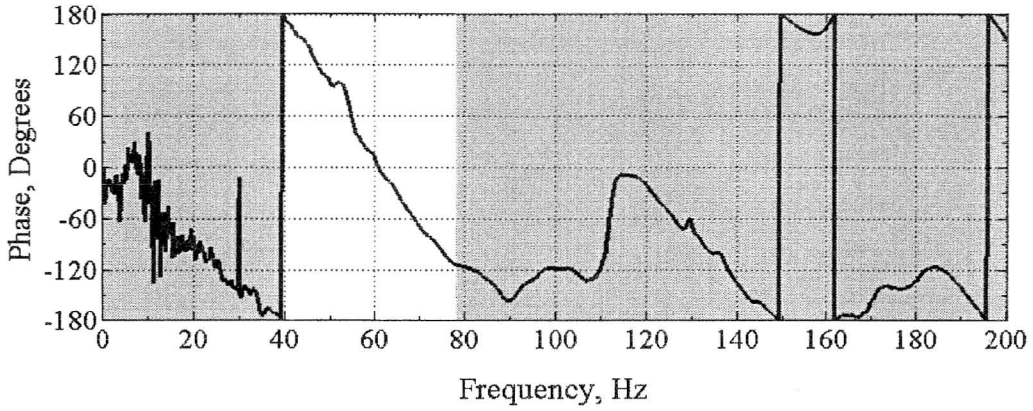


Figure Q.10 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3D6_F_21.DAT)

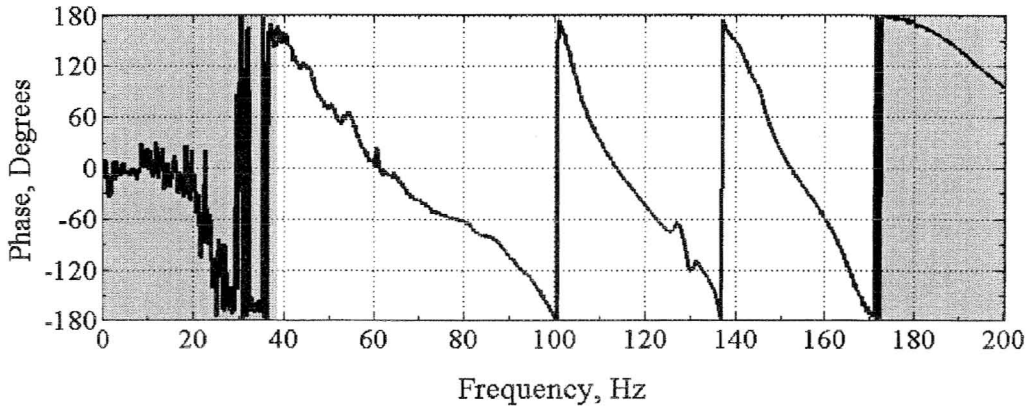


Figure Q.11 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3D7_F_21.DAT)

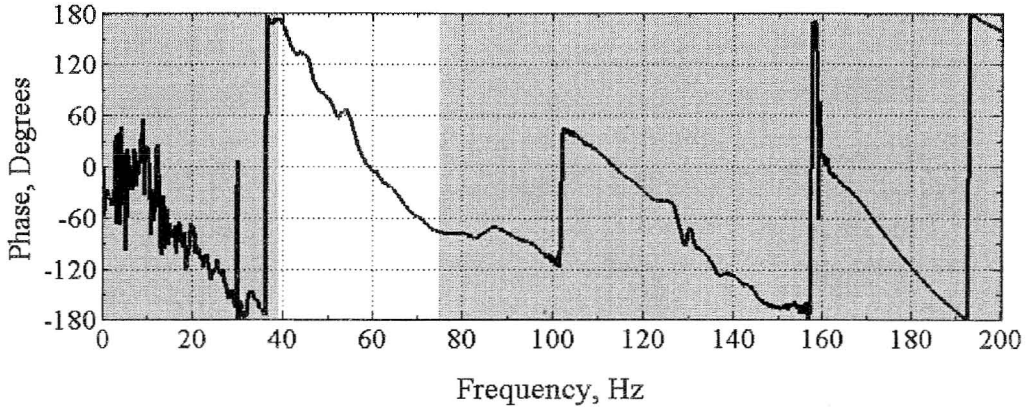


Figure Q.12 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3D8_F_21.DAT)

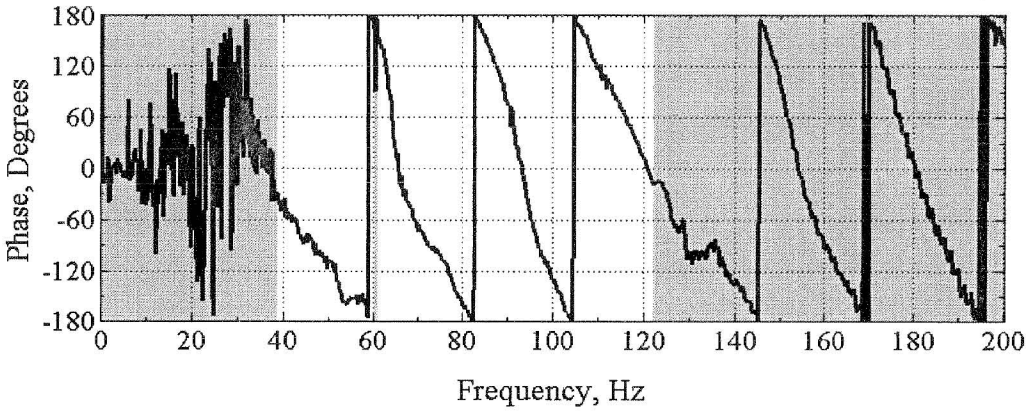


Figure Q.13 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3D5_F_43.DAT)

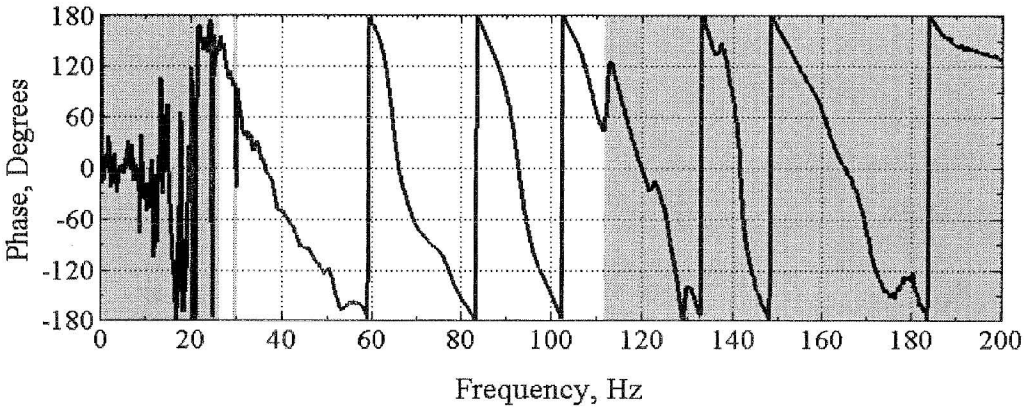


Figure Q.14 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3D6_F_43.DAT)

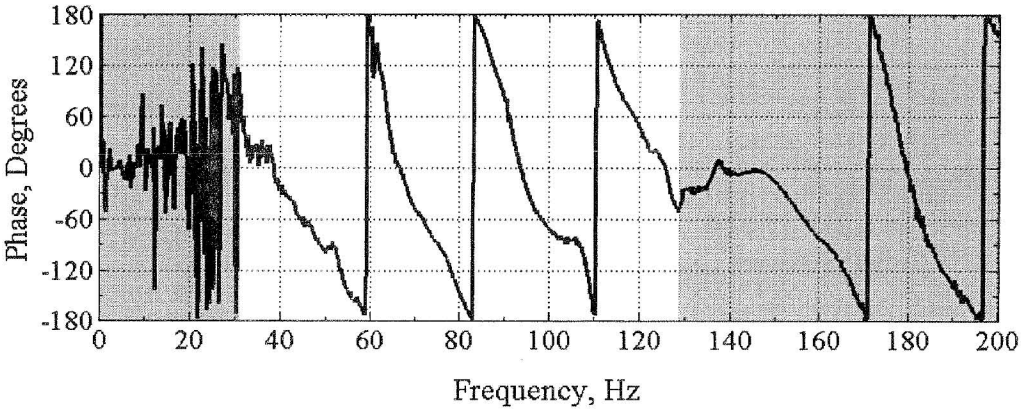


Figure Q.15 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3D7_F_43.DAT)

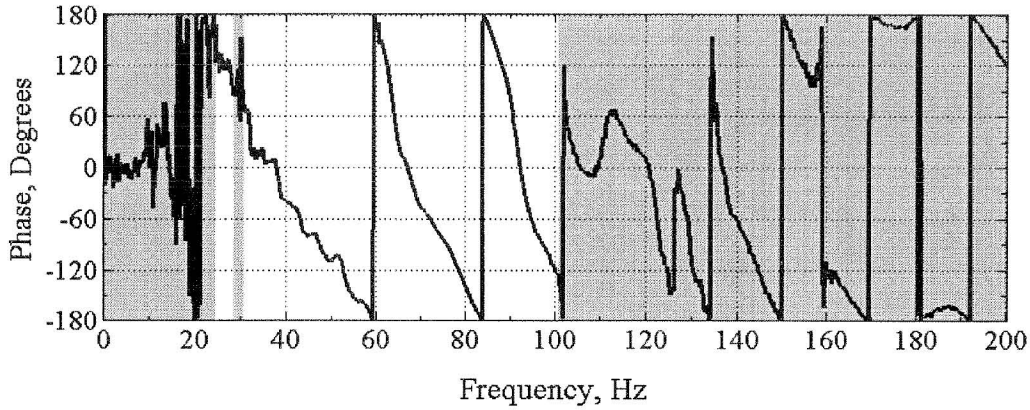


Figure Q.16 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3D8_F_43.DAT)

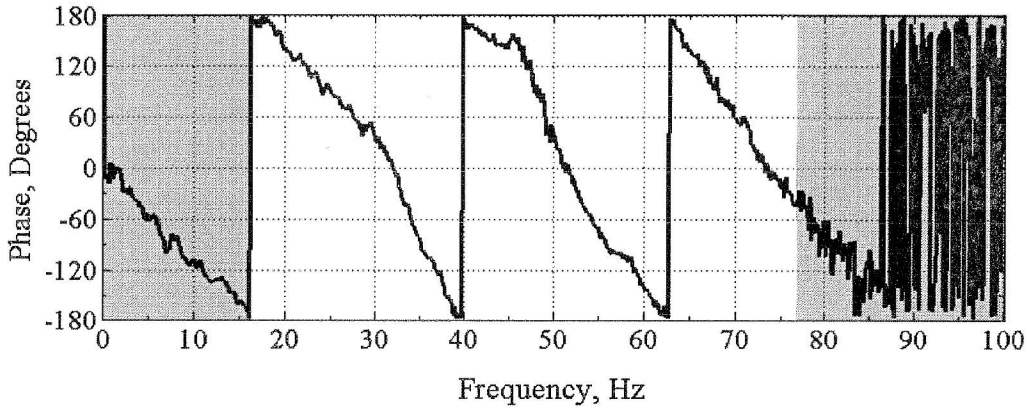


Figure Q.17 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_21.DAT)

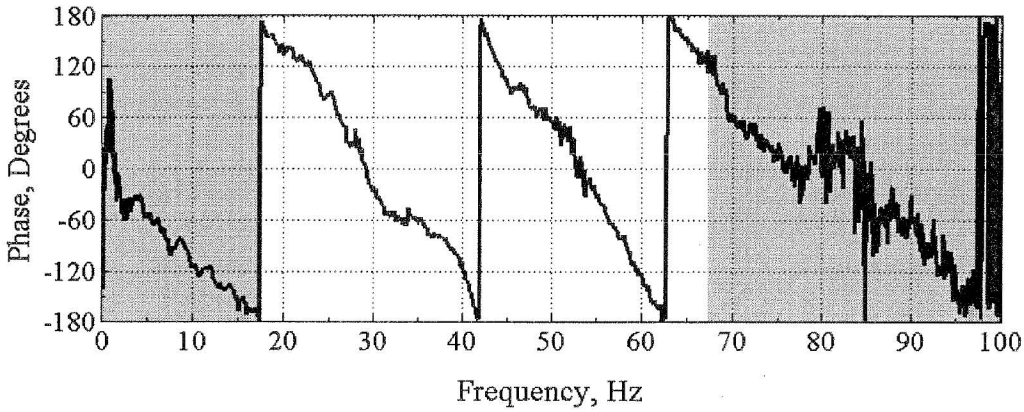


Figure Q.18 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_43.DAT)

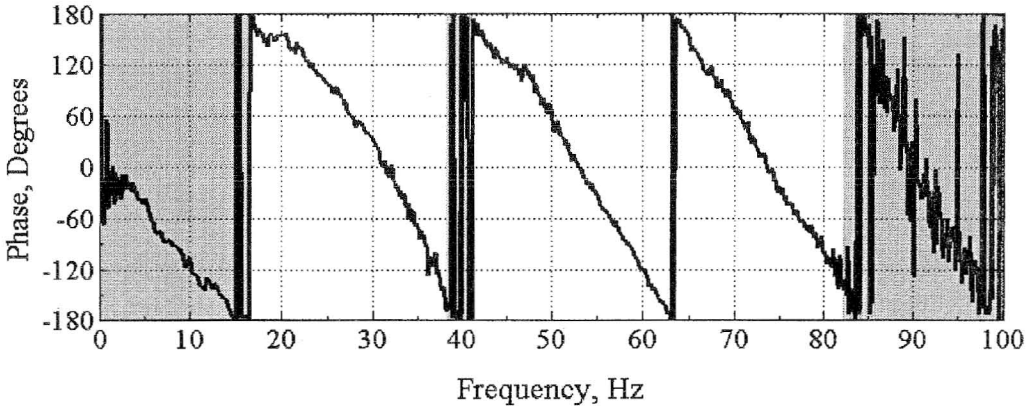


Figure Q.19 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_21.DAT)

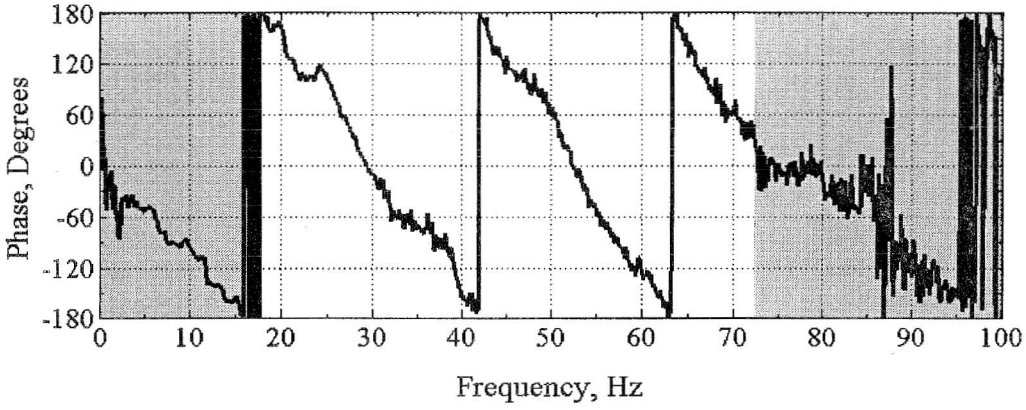


Figure Q.20 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_43.DAT)

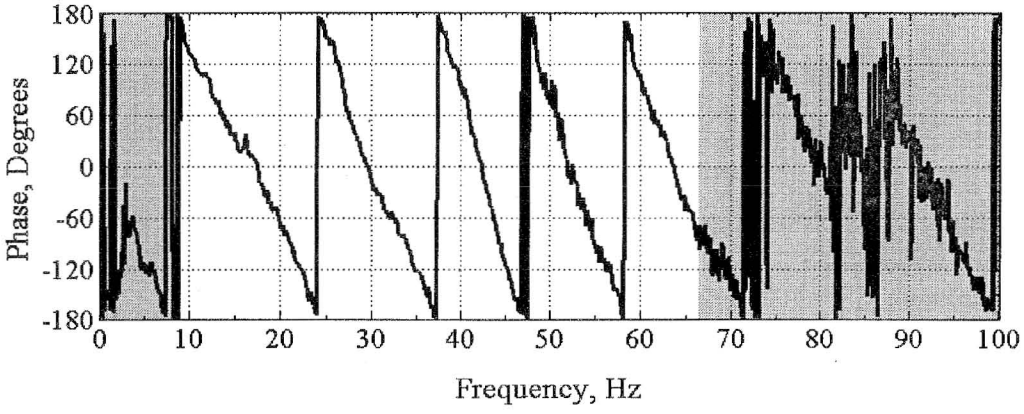


Figure Q.21 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G2_F_21.DAT)

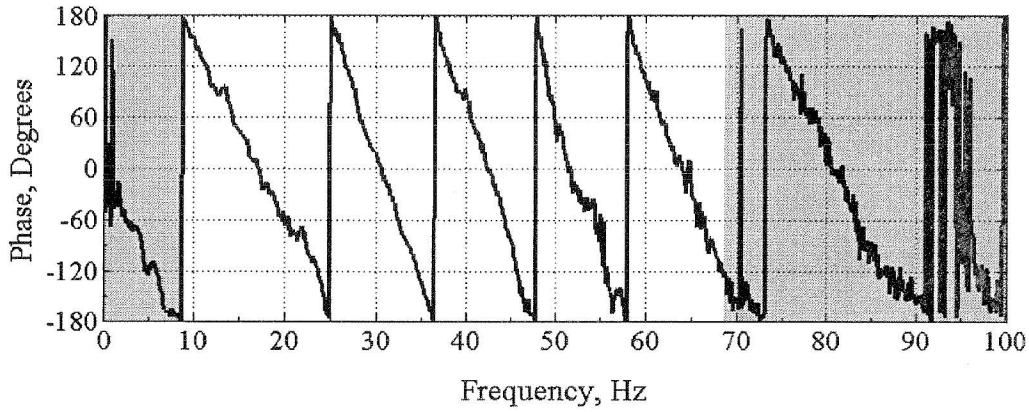


Figure Q.22 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_21.DAT)

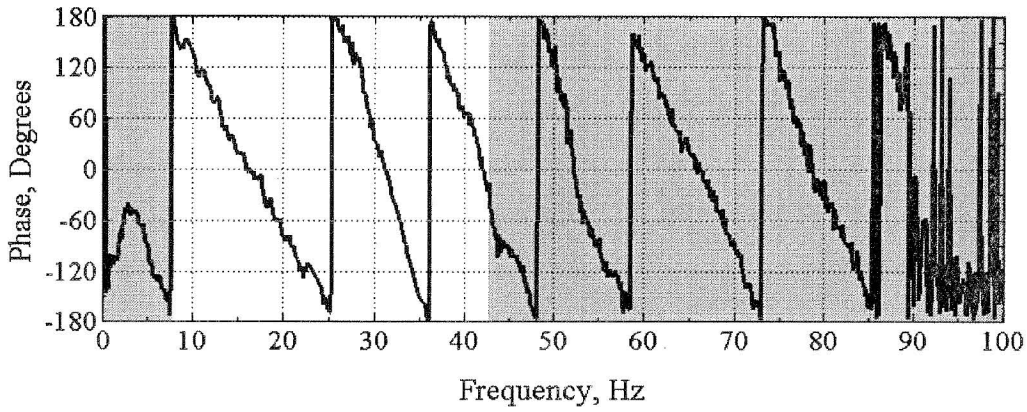


Figure Q.23 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_43.DAT)

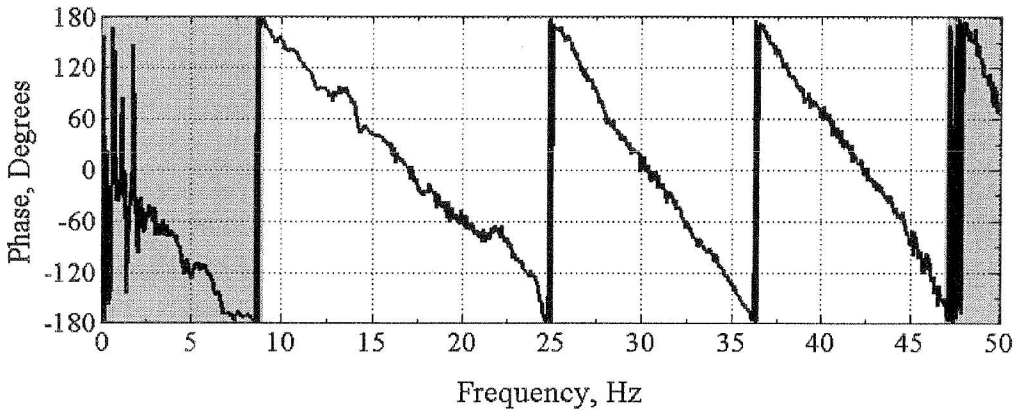


Figure Q.24 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_21.DAT)

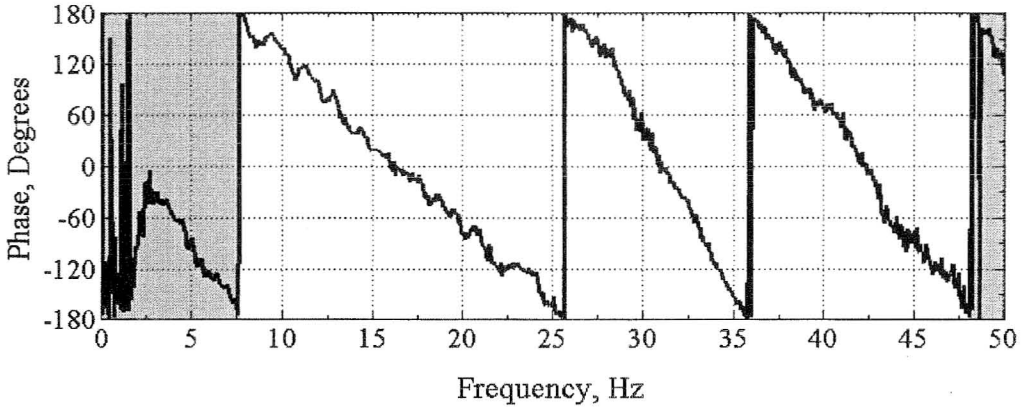


Figure Q.25 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_43.DAT)

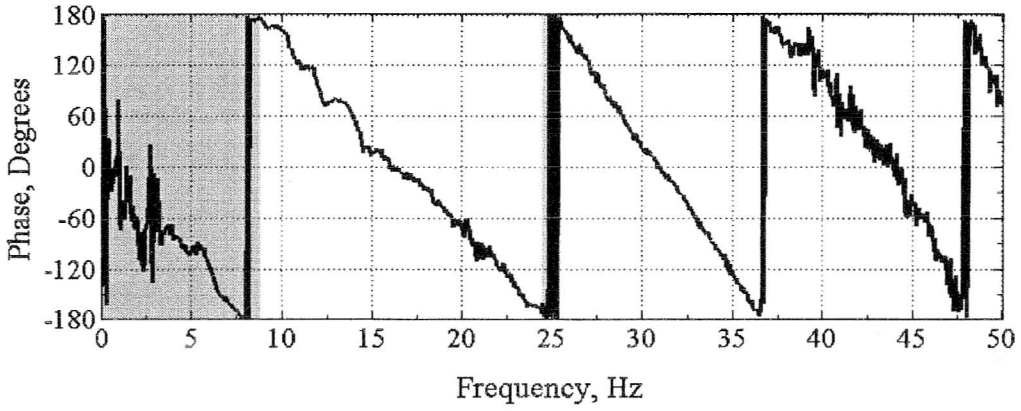


Figure Q.26 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G7_F_21.DAT)

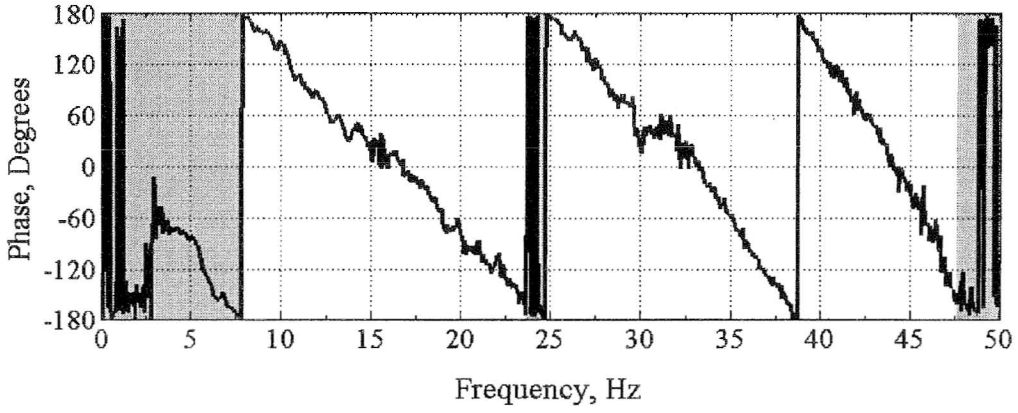


Figure Q.27 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_21.DAT)

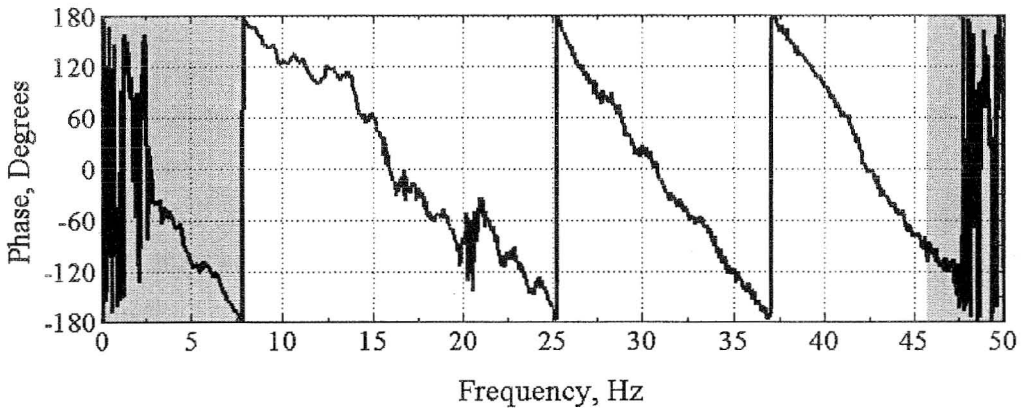


Figure Q.28 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_43.DAT)

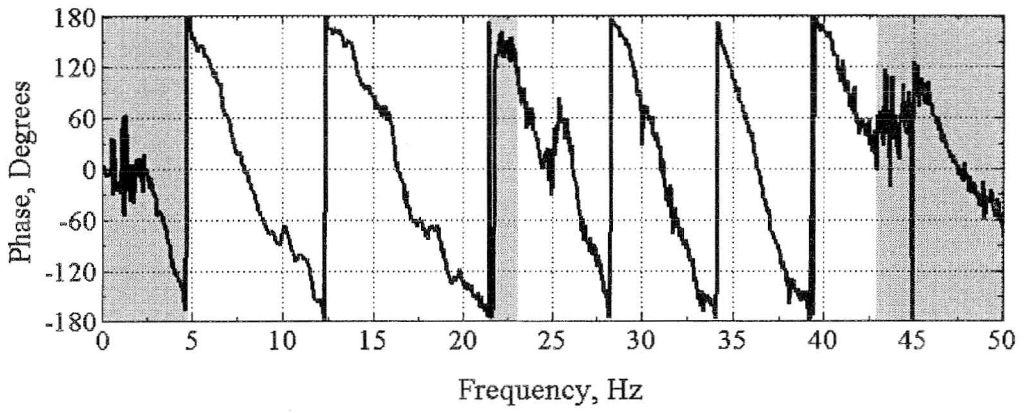


Figure Q.29 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G5_F_21.DAT)

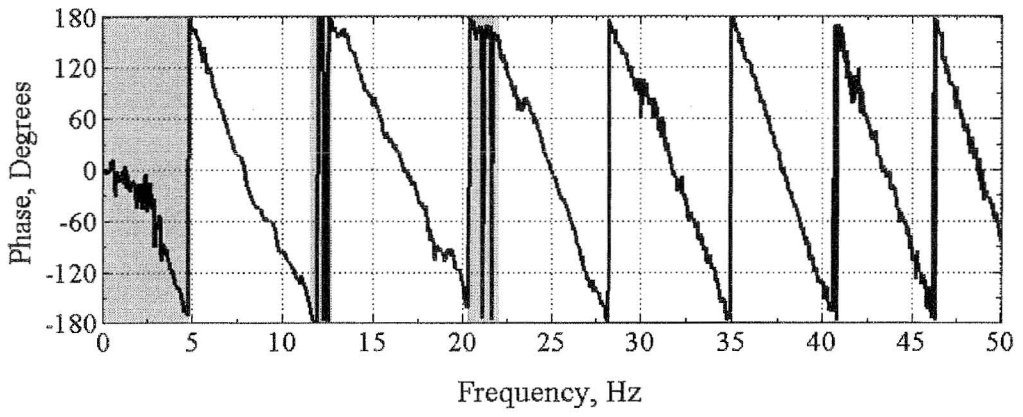


Figure Q.30 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G9_F_21.DAT)

Table Q.1 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site D

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
1	1	0	196	1	3D1_F_21.DAT
	2	339	800	-	
1	1	0	199	1	3D2_F_21.DAT
	2	318	800	-	
2	1	0	144	1	3D1_F_43.DAT
	2	407	800	-	
2	1	0	142	1	3D2_F_43.DAT
	2	419	800	-	
3	1	0	82	1	3D3_F_21.DAT
	2	125.5	160.5	1	
	3	301.5	400	-	
3	1	0	91.5	1	3D4_F_21.DAT
	2	124.5	148	1	
	3	299	400	-	
6	1	0	51.5	1	3D3_F_43.DAT
	2	116.5	400	-	
6	1	0	52	1	3D4_F_43.DAT
	2	58	61.5	1	
	3	118.5	400	-	
9	1	0	40.75	1	3D5_F_21.DAT
	2	79	200	-	
9	1	0	39.5	1	3D6_F_21.DAT
	2	78.25	200	-	
9	1	0	38.5	1	3D7_F_21.DAT
	2	170.25	200	-	
9	1	0	39	1	3D8_F_21.DAT
	2	74.75	200	-	
18	1	0	38.75	1	3D5_F_43.DAT
	2	60.25	61	2	
	3	122	200	-	
18	1	0	26.5	1	3D6_F_43.DAT
	2	29.5	30.25	1	
	3	111.5	200	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table Q.2 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site D (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
18	1	0	31.25	1	3D7_F_43.DAT
	2	128.5	200	-	
18	1	0	24.75	1	3D8_F_43.DAT
	2	28.5	30.75	1	
	3	100.75	200	-	
25	1	0	16.25	1	3G1_F_21.DAT
	2	76.62	100	-	
25	1	0	17.62	1	3G1_F_43.DAT
	2	67.25	100	-	
25	1	0	16.62	1	3G6_F_21.DAT
	2	38.25	41.25	2	
	3	82	100	-	
25	1	0	17.88	1	3G6_F_43.DAT
	2	72.25	100	-	
50	1	0	9	1	3G2_F_21.DAT
	2	66.38	100	-	
50	1	0	8.88	1	3G3_F_21.DAT
	2	68.62	100	-	
50	1	0	7.75	1	3G3_F_43.DAT
	2	42.62	100	-	
50	1	0	9	1	3G4_F_21.DAT
	2	46.75	50	-	
50	1	0	7.69	1	3G4_F_43.DAT
	2	48	50	-	
50	1	0	8.81	1	3G7_F_21.DAT
	2	24.44	25.5	2	
	3	49.94	50	-	
50	1	0	7.88	1	3G8_F_21.DAT
	2	23.63	24.75	2	
	3	47.5	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table Q.3 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site D (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
50	1	0	7.88	1	3G8_F_43.DAT
	2	45.63	50	-	
100	1	0	4.75	1	3G5_F_21.DAT
	2	21.38	23.06	3	
	3	42.81	50	-	
100	1	0	4.88	1	3G9_F_21.DAT
	2	11.56	12.69	2	
	3	20.25	22	3	
	4	49.88	50	-	

Performed by Jiabei Jiabei Yuan Checked by Yin-Cheng Lin Yin-Cheng Lin

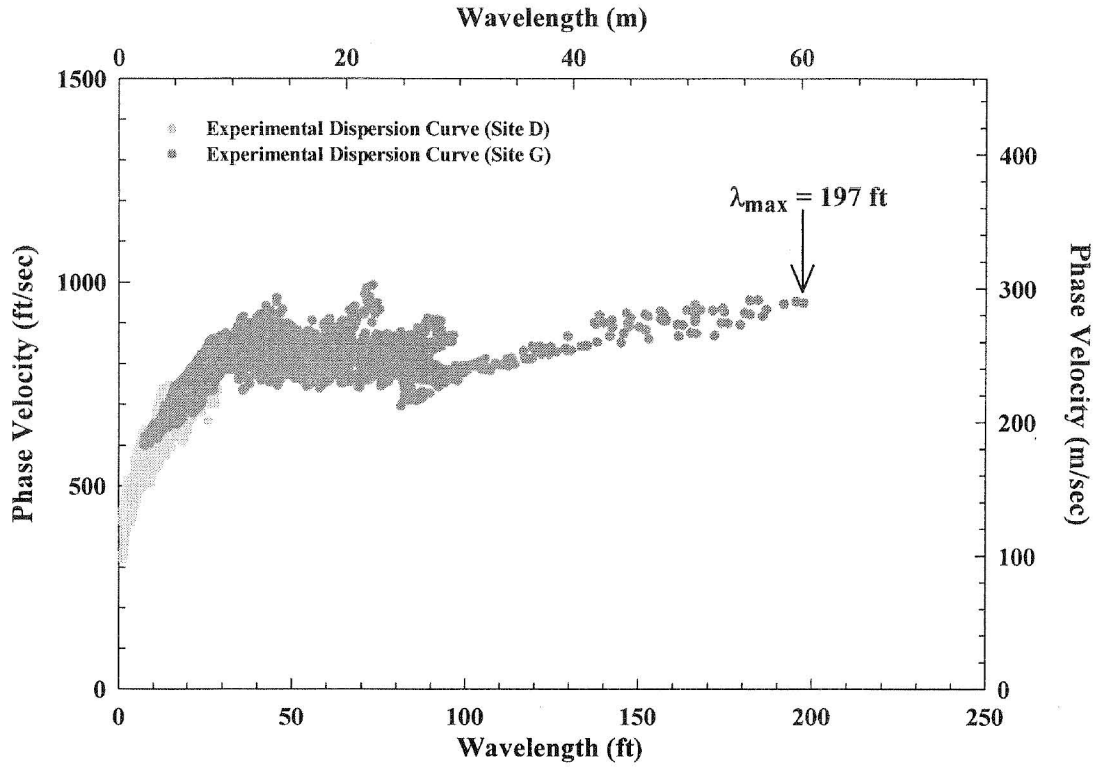


Figure Q.31 Experimental Dispersion Curve Measured during Third Site Visit at Site D at Vogtle, GA; Linear Wavelength Axis

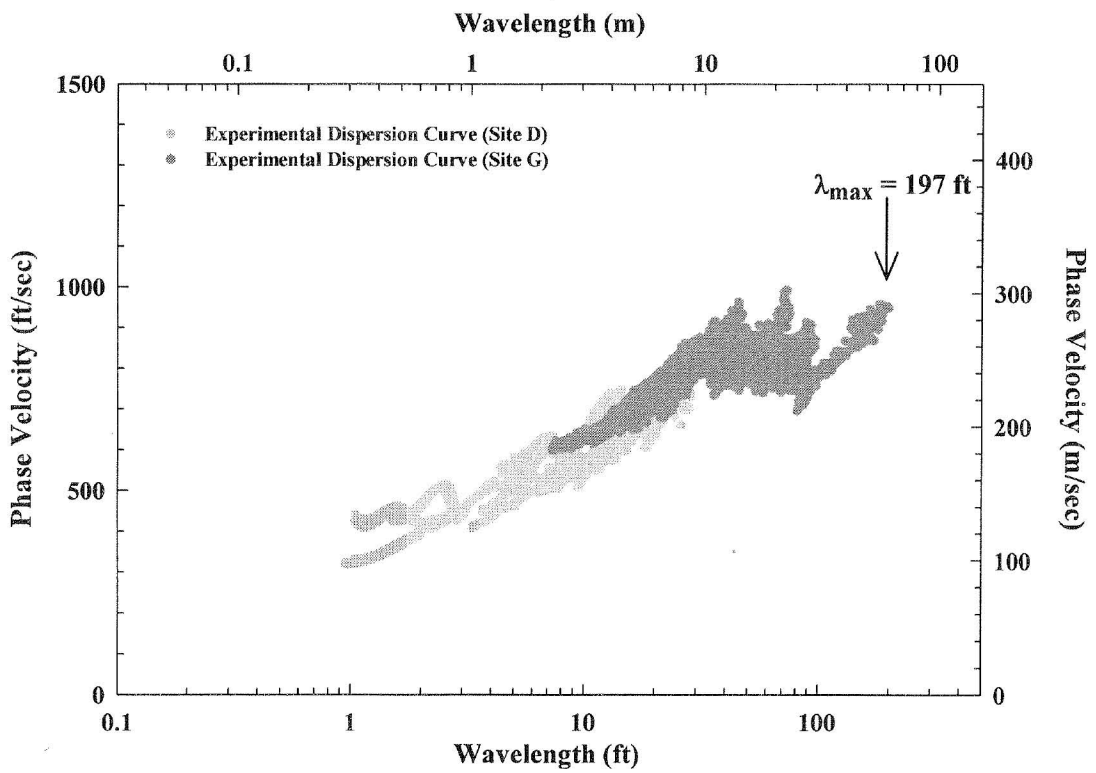


Figure Q.32 Experimental Dispersion Curve Measured during Third Site Visit at Site D at Vogtle, GA; Logarithmic Wavelength Axis

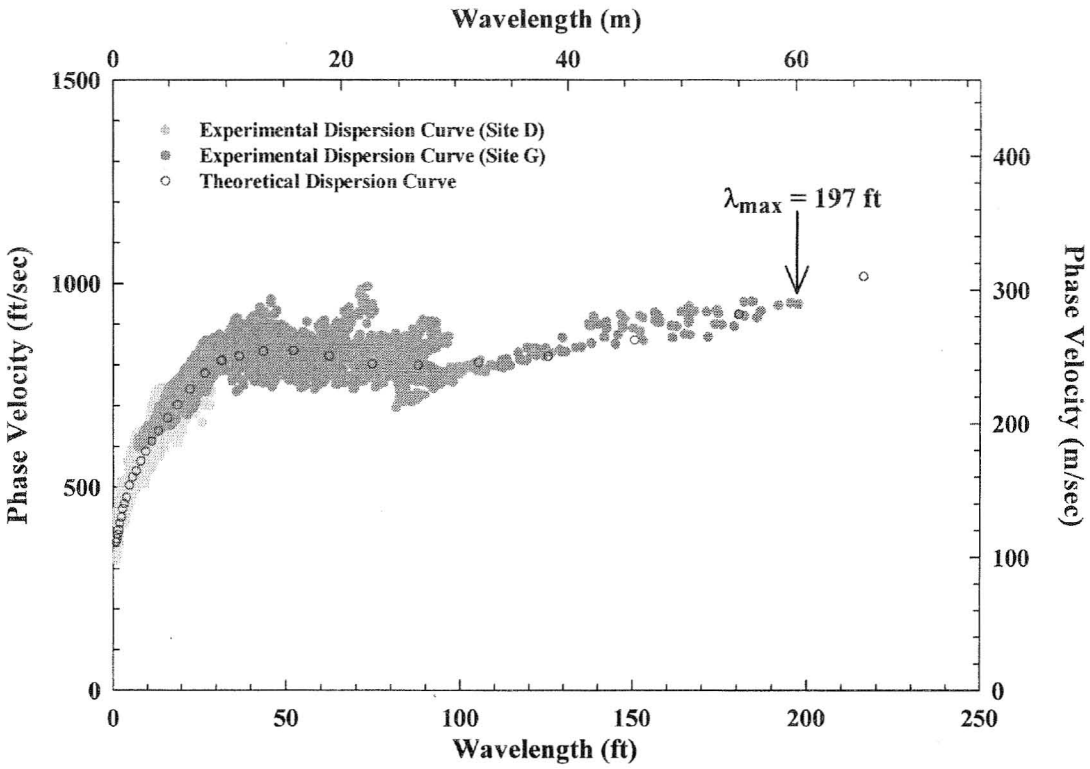


Figure Q.33 Experimental and Theoretical Dispersion Curves from Site D in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

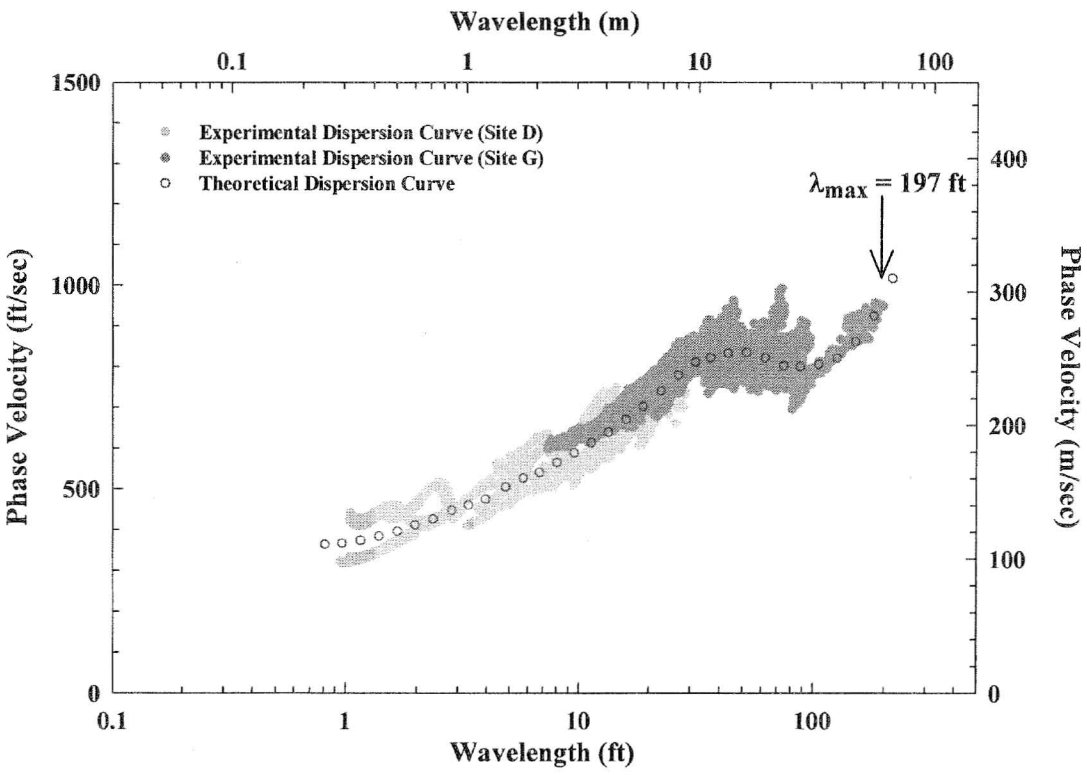


Figure Q.34 Experimental and Theoretical Dispersion Curves from Site D in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

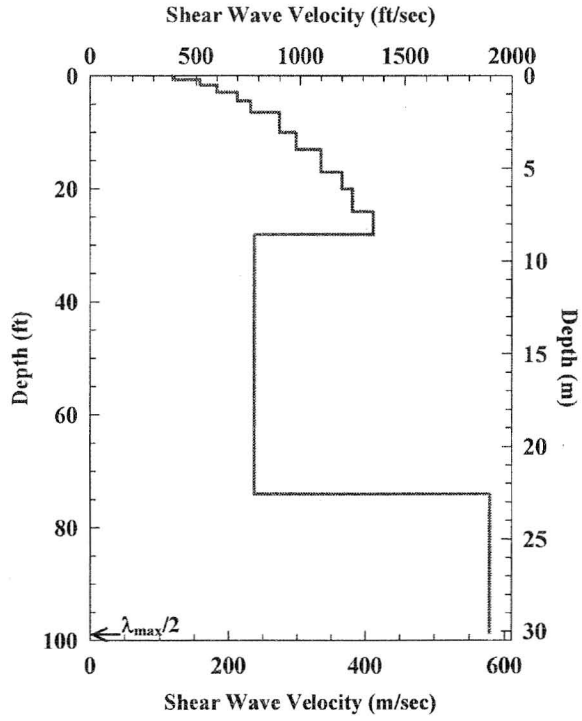


Figure Q.35 Shear Wave Velocity Profile Determined at Site D during Third Site Visit at Vogtle, GA

Table Q.4 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site D in the Third Site Visit at Vogtle, GA

Layer No.	Thickness, ft	Depth to Top of Layer, ft	S-Wave Velocity, ft/s	Assumed Poisson's Ratio	P-Wave Velocity, ft/s	Assumed Total Unit Weight, pcf
1	0.75	0.0	390	0.24	667	128
2	0.95	0.75	520	0.24	889	128
3	1.3	1.7	600	0.24	1026	128
4	1.5	3.0	700	0.24	1197	128
5	2.0	4.5	760	0.24	1299	128
6	3.6	6.5	900	0.24	1539	128
7	3.0	10.1	980	0.24	1676	128
8	4.0	13.1	1100	0.24	1881	128
9	3.0	17.1	1200	0.24	2052	128
10	4.0	20.1	1250	0.24	2137	128
11	4.0	24.1	1350	0.24	2308	128
12	46.0	28.1	780	0.24	1334	128
13#	24.9	74.1	1900	0.42	5000	135
14*#	5.1	99.0	1900	0.42	5000	135
15*#	Half Space	104.1	2200	0.38	5000	135

* Layer below maximum depth of the V_S Profile.

\# Layer below water tatble.

Performed by Yin-Cheng Lin Checked by K. H. Stokoe

Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix R

SASW Measurements of Third Site Visit at Vogtle, GA
Site Location: Site E

1. Data Sheet(s) R.2
2. Phase Plots from SASW Tests R.4
3. Table of Masking Parameters R.14
4. Experimental Dispersion Curves R.17
5. Matching the Experimental and Theoretical Dispersion Curves R.18
6. Shear Wave Velocity Profile R.19
7. Table of Profile Parameters R.19

3 - Receiver SASW Data Sheet

Project : Vogtle

Location : E (SA3#5)

Date/(Time) : Dec 12 / 2007 (: ~ :)

Personnel : Stokoe, Tuan

Recorded by : Tuan

Checked by : Stokoe

Data Sheet # : SA3#5

Disk # : SA3#5

elev = 232.65

Sketch

R1 I.D. : UT07-4.5Hz-04

R2 I.D. : UT07-4.5Hz-02

R3 I.D. : UT07-4.5Hz-03

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	For	Rev	small	3E1	0-800	
1	1	2	For	Rev	"	3E2	0-800	
3	3	6	For	Rev	med	3E3	0-400	
3	3	6	For	Rev	"	3E4	0-400	
9	9	18	For	Rev	big	3E5	0-200	
9	9	18	For	Rev	sledge	3E6	0-200	
9	9	18	For	Rev	big	3E7	0-200	
9	9	18	For	Rev	sledge	3E8	0-200	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSiN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

3 - Receiver SASW Data Sheet

Page 1 of 1

Project : Vogtle

Data Sheet # : SA3#7

Location : G (SA3#7)

Disk # : SA3#7

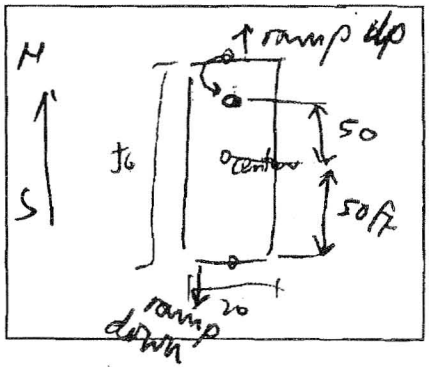
Date/(Time) : Dec, 27, 2007 (: ~ :)

Personnel : Stokoe, Tuan

Recorded by : Tuan

Checked by : Stokoe

Sketch



			Cable
R1 I.D. :	3773	(1Hz)	C26
R2 I.D. :	3774	(1Hz)	C27
R3 I.D. :	3775	(1Hz)	C25

Distance (ft) S - R1	R1 - R2	R2 - R3	Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes (input voltage)
25	25	25	For	Rev	bull dozer	361	0 ~ 100	500 mV
50	50		For	Rev	"	362	0 ~ 100	
50	50	50	For	Rev	"	363	0 ~ 100	
50	50	50	For	Rev	"	364	0 ~ 50	250 mV
100	100		For	Rev	"	365	0 ~ 50	100 mV
25	25	25	For	Rev	bull dozer	366	0 ~ 100	500 mV
50	50		For	Rev	"	367	0 ~ 50	250 mV
85	50	50	For	Rev	"	368	0 ~ 50	150 mV
100	100		For	Rev	"	369	0 ~ 50	100 mV
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

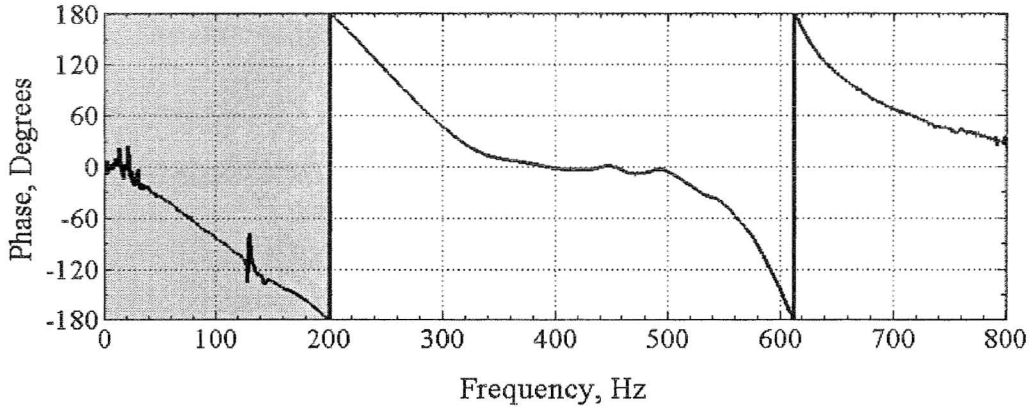


Figure R.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3E1_F_21.DAT)

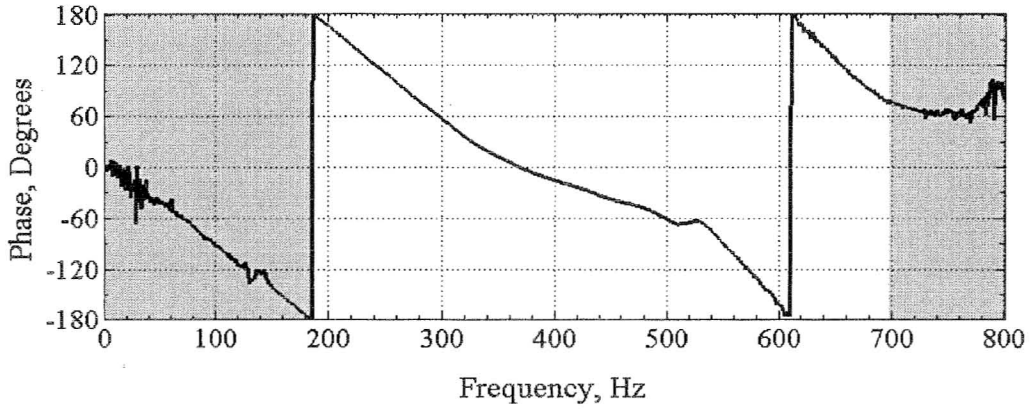


Figure R.2 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3E2_F_21.DAT)

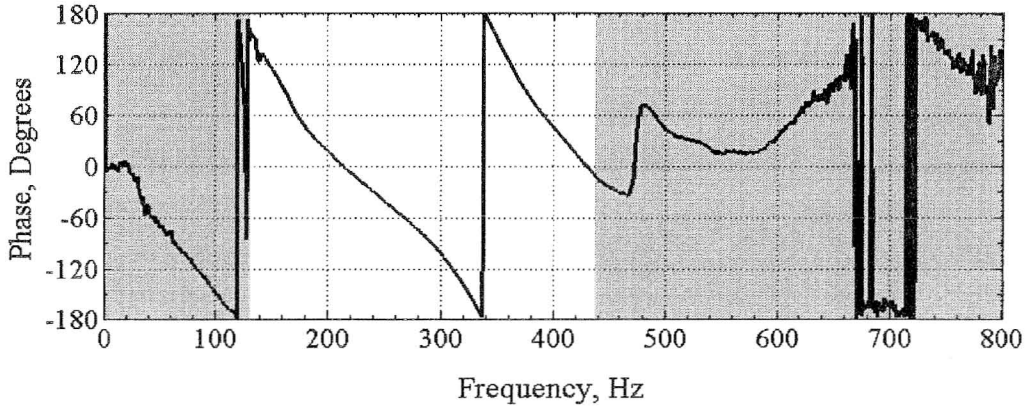


Figure R.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3E1_F_43.DAT)

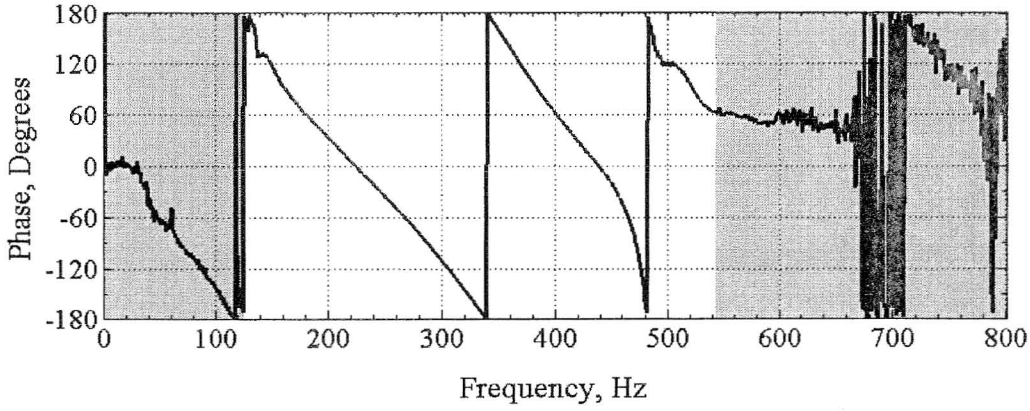


Figure R.4 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3E2_F_43.DAT)

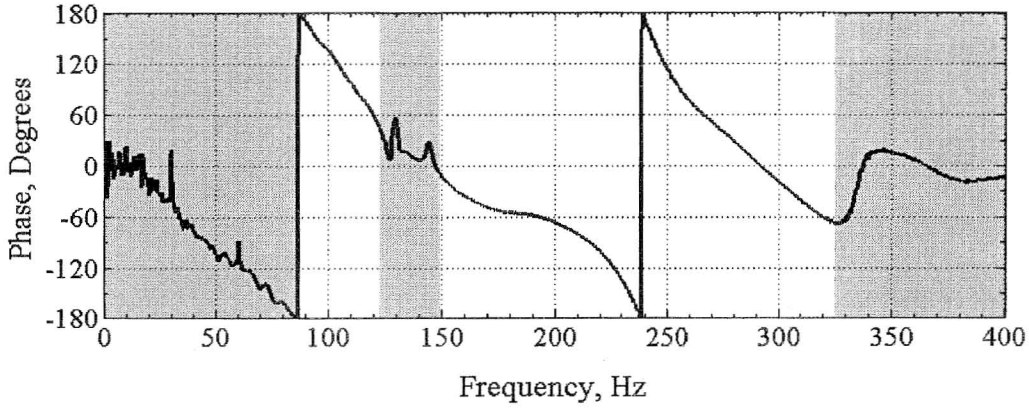


Figure R.5 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3E3_F_21.DAT)

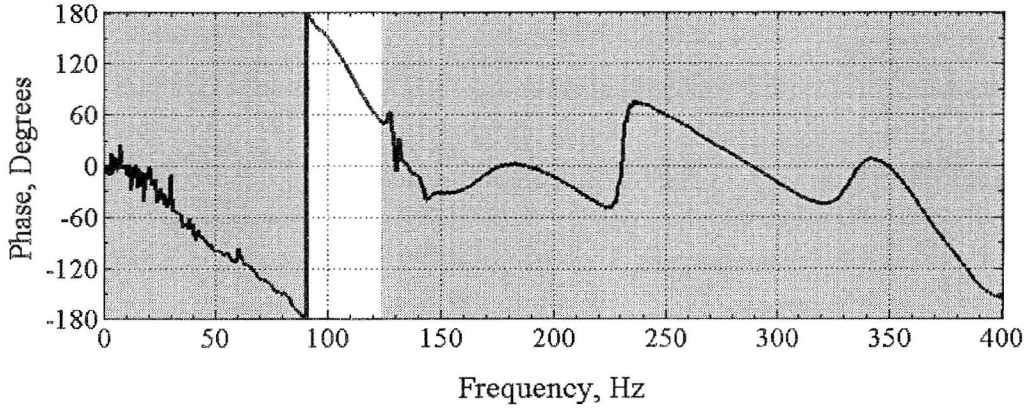


Figure R.6 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3E4_F_21.DAT)

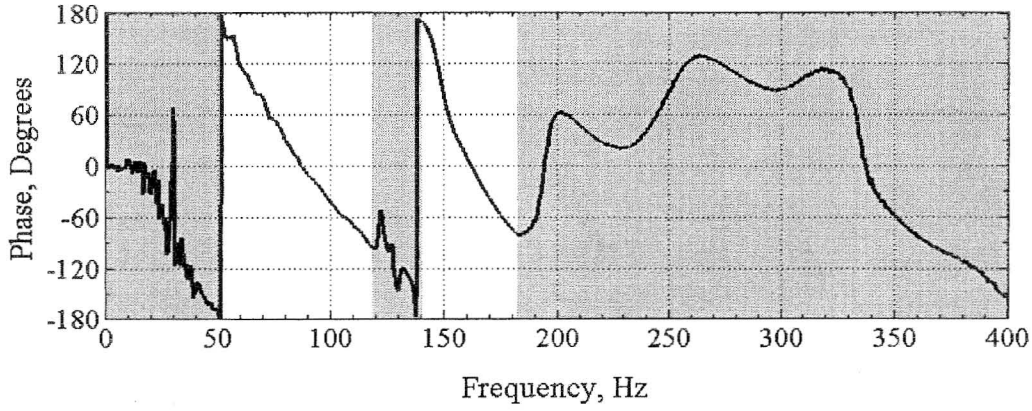


Figure R.7 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3E3_F_43.DAT)

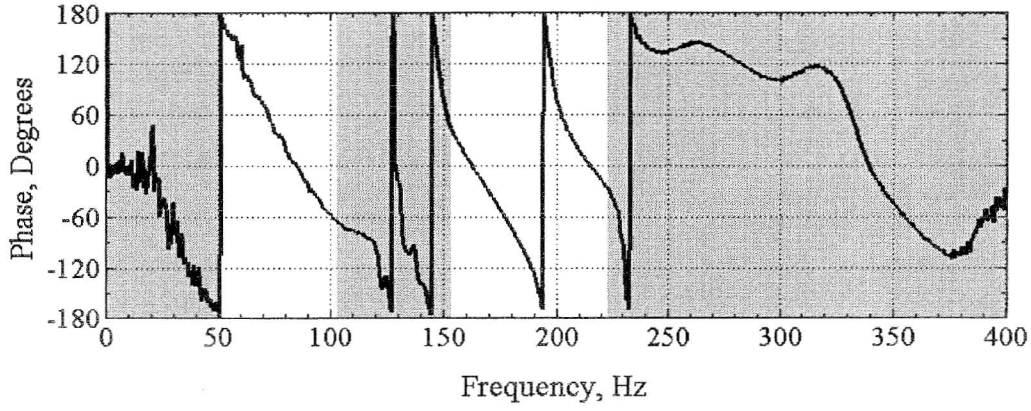


Figure R.8 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3E4_F_43.DAT)

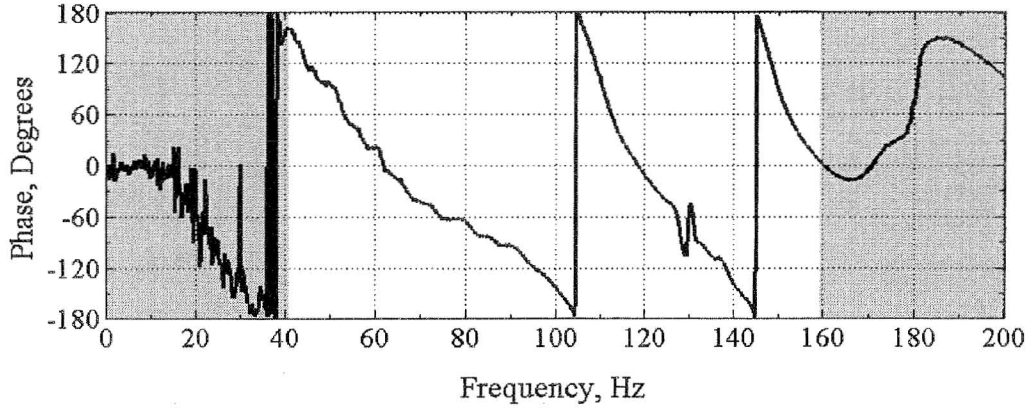


Figure R.9 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E5_F_21.DAT)

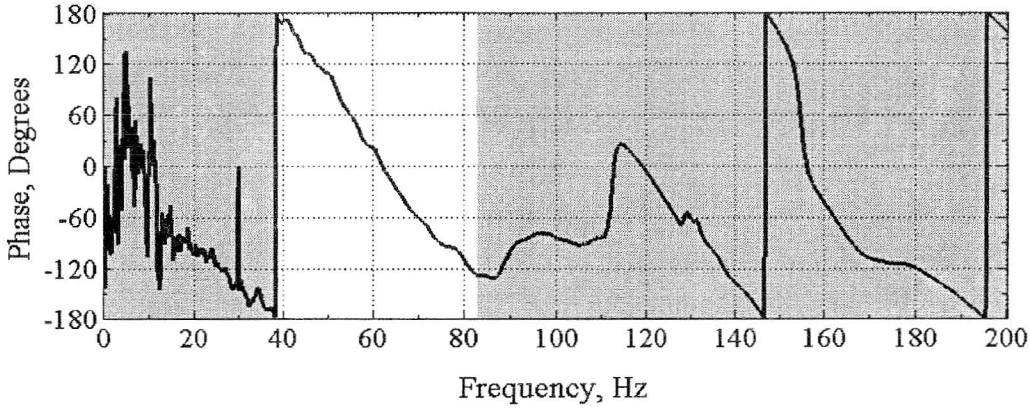


Figure R.10 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E6_F_21.DAT)

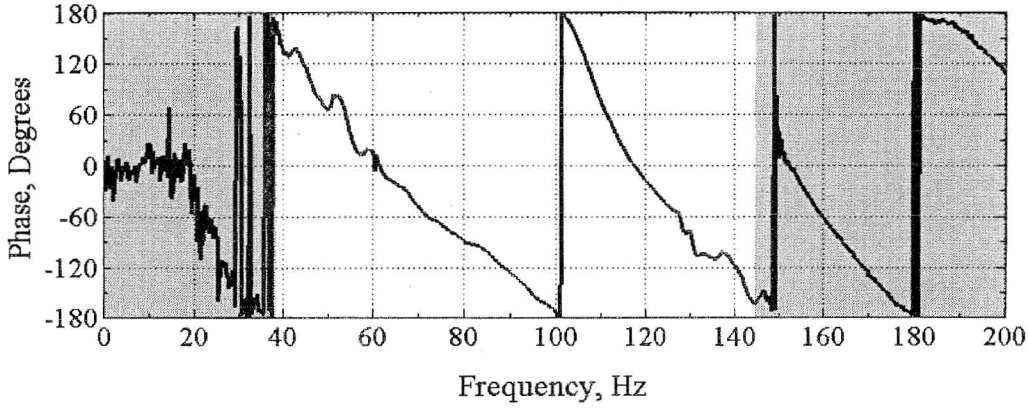


Figure R.11 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E7_F_21.DAT)

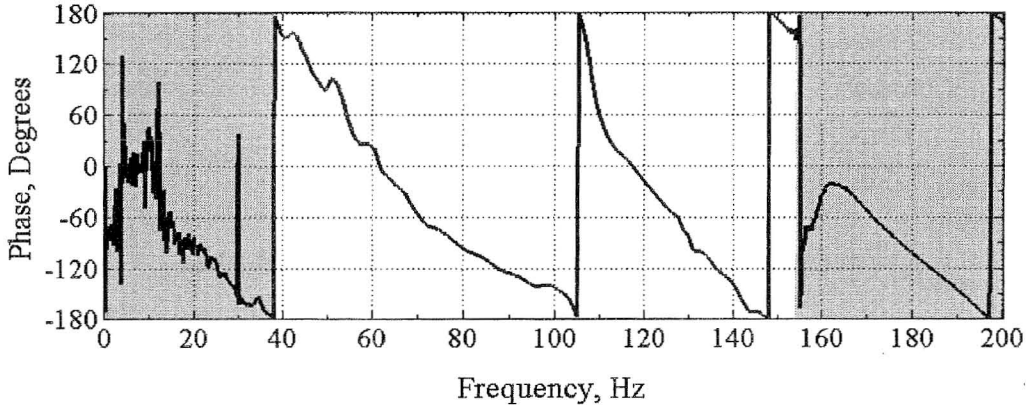


Figure R.12 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3E8_F_21.DAT)

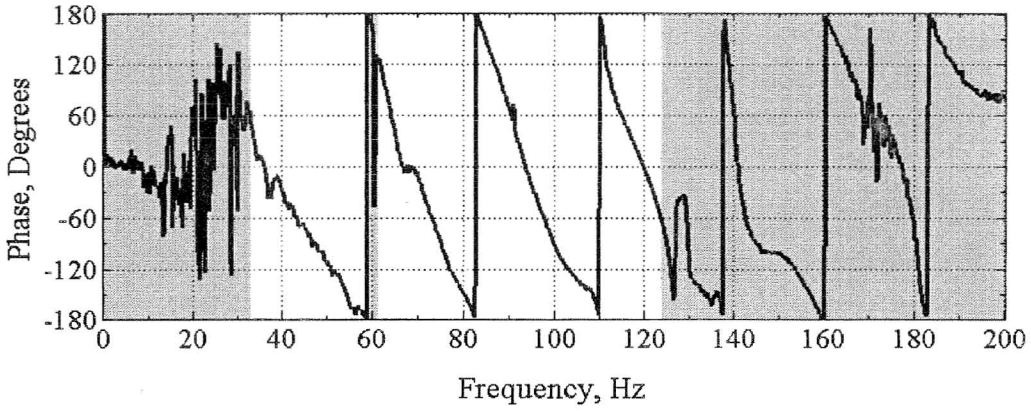


Figure R.13 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E5_F_43.DAT)

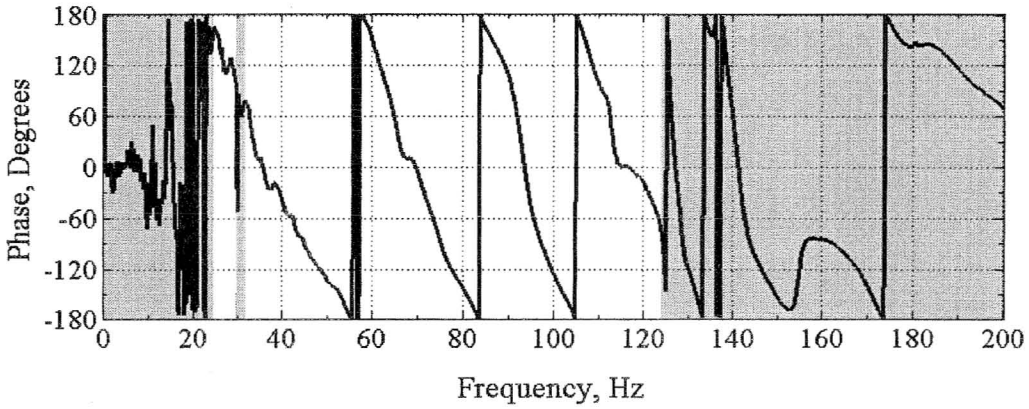


Figure R.14 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E6_F_43.DAT)

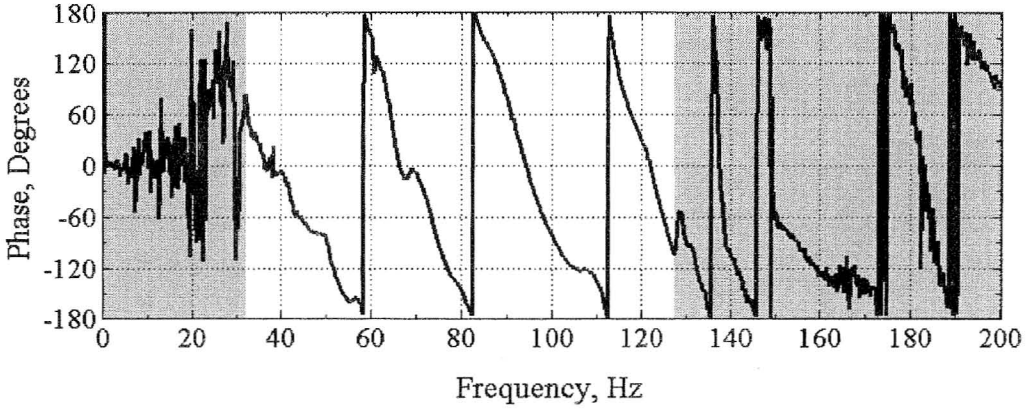


Figure R.15 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E7_F_43.DAT)

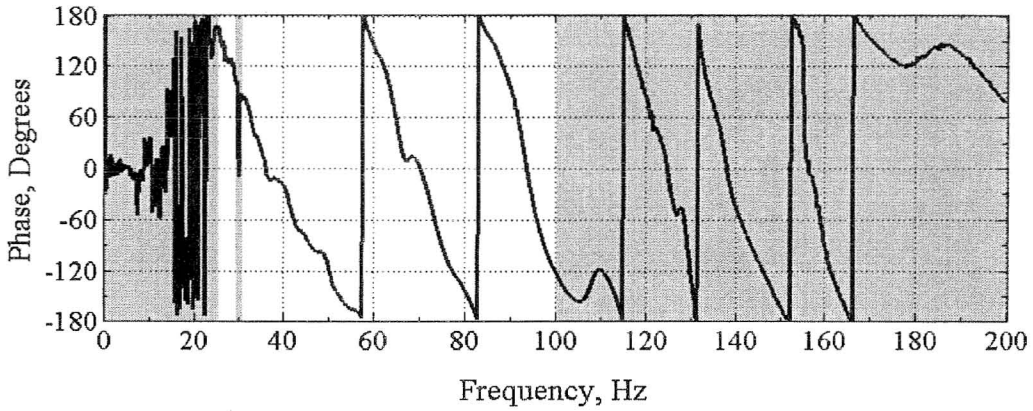


Figure R.16 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3E8_F_43.DAT)

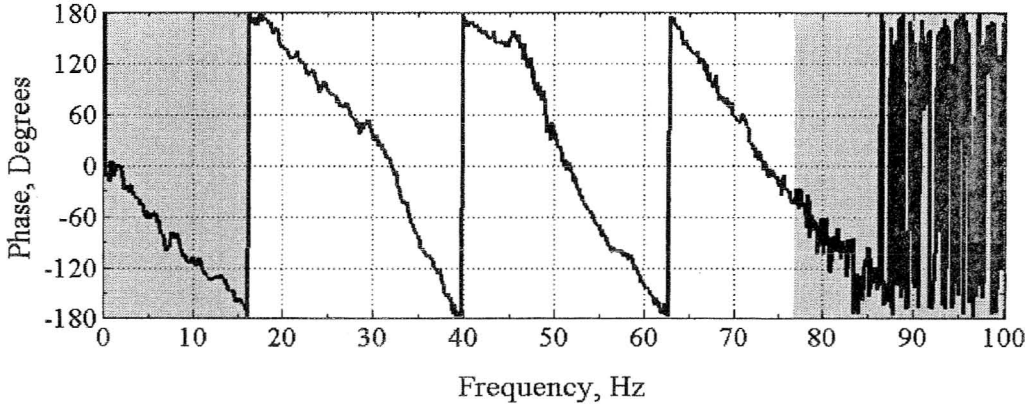


Figure R.17 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_21.DAT)

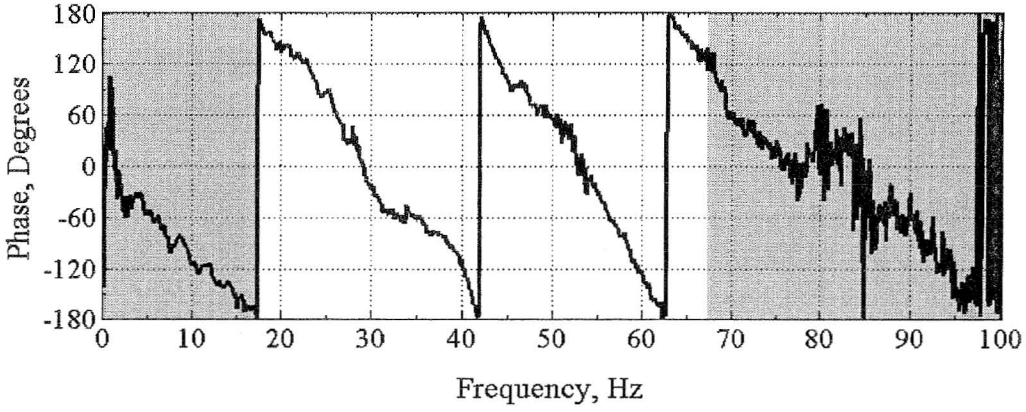


Figure R.18 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_43.DAT)

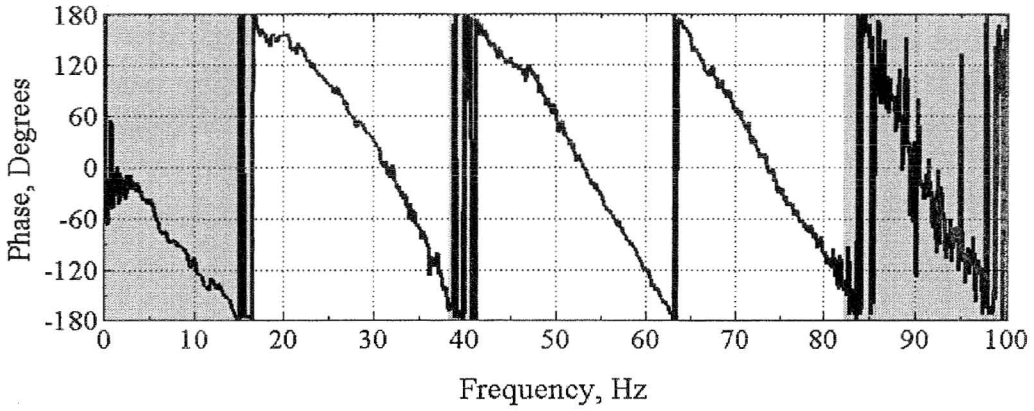


Figure R.19 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_21.DAT)

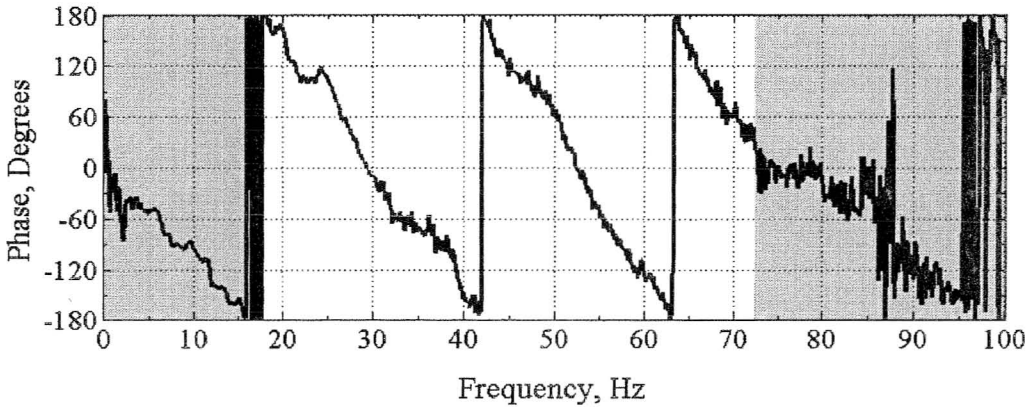


Figure R.20 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_43.DAT)

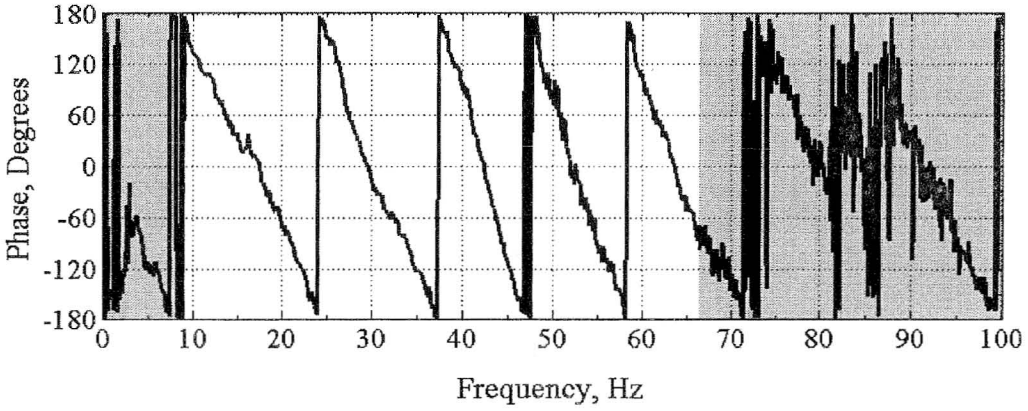


Figure R.21 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G2_F_21.DAT)

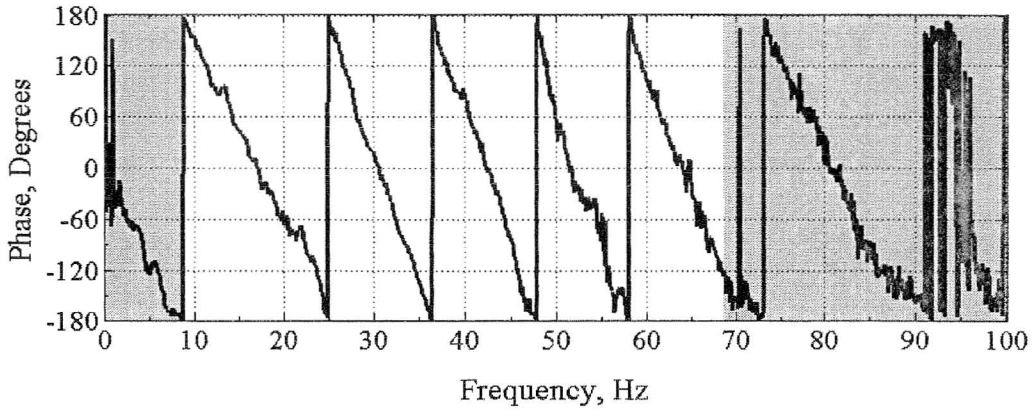


Figure R.22 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_21.DAT)

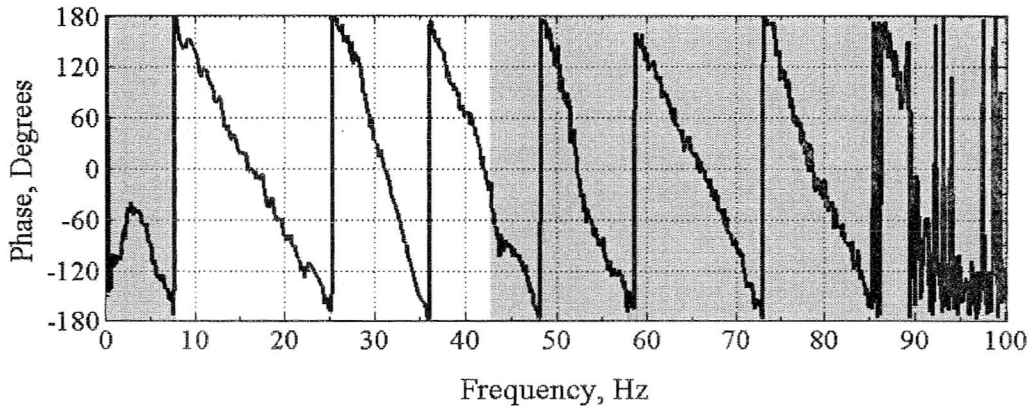


Figure R.23 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_43.DAT)

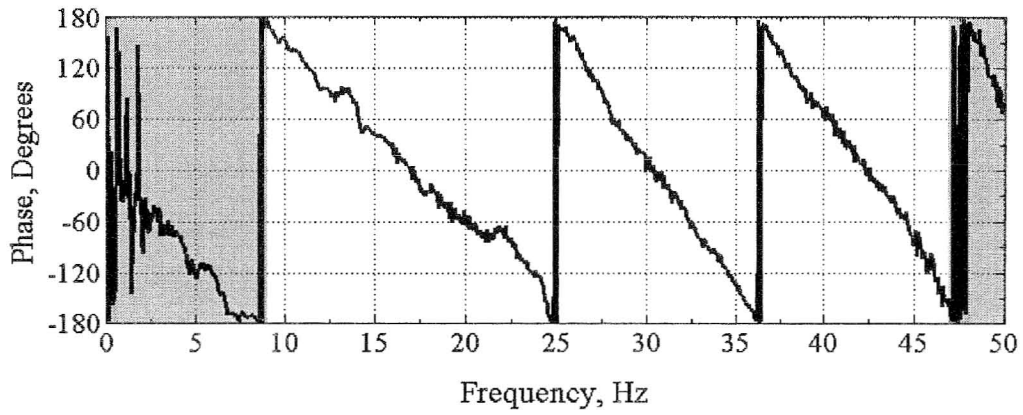


Figure R.24 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_21.DAT)

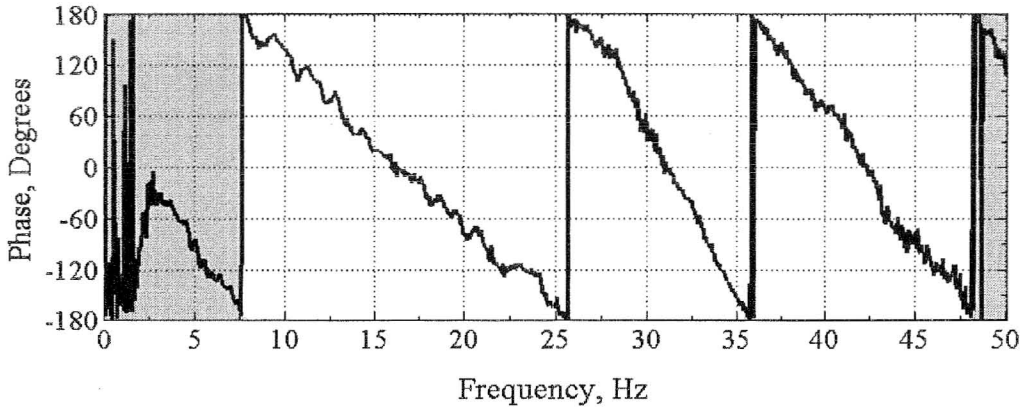


Figure R.25 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_43.DAT)

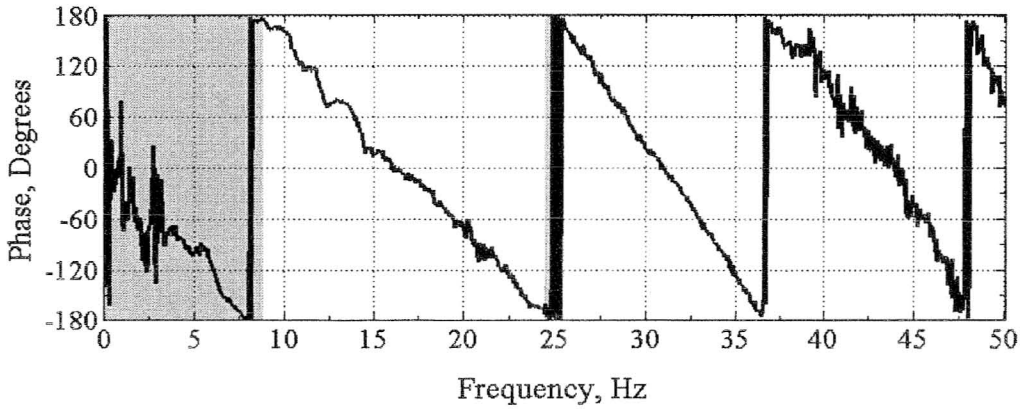


Figure R.26 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G7_F_21.DAT)

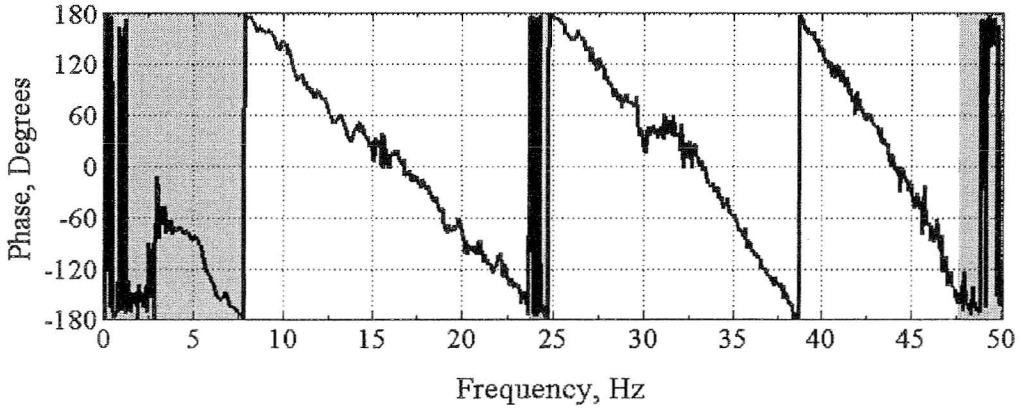


Figure R.27 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_21.DAT)

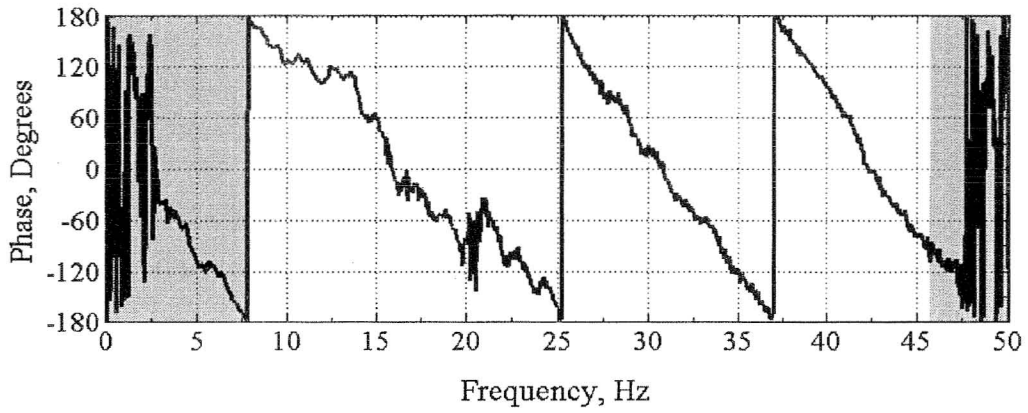


Figure R.28 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_43.DAT)

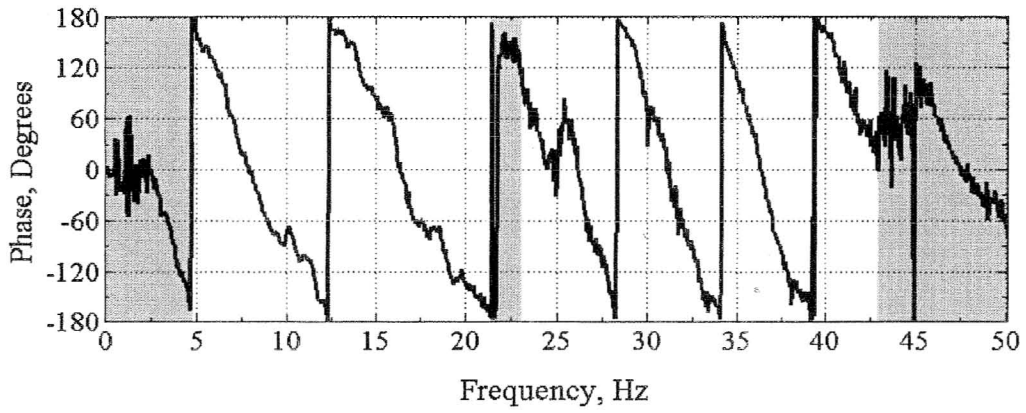


Figure R.29 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G5_F_21.DAT)

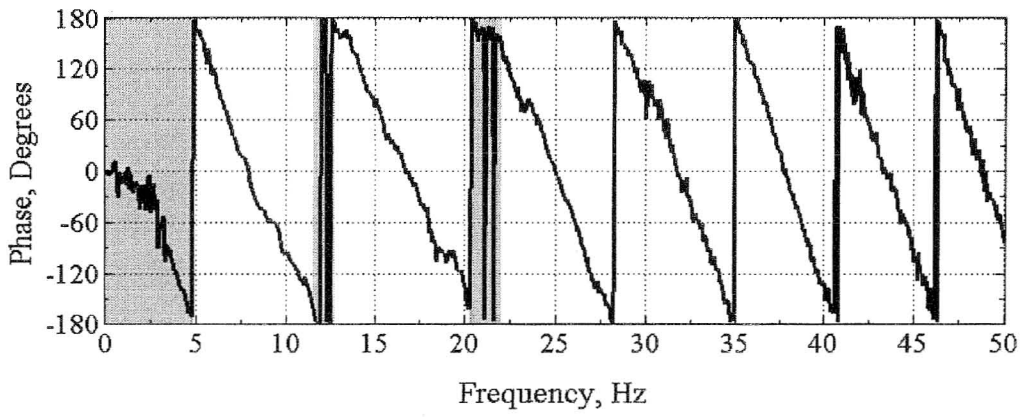


Figure R.30 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G9_F_21.DAT)

Table R.1 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
1	1	0	202	1	3E1_F_21.DAT
	2	796	800	-	
1	1	0	187	1	3E2_F_21.DAT
	2	695	800	-	
2	1	0	132	1	3E1_F_43.DAT
	2	437	800	-	
2	1	0	126	1	3E2_F_43.DAT
	2	543	800	-	
3	1	0	87	1	3E3_F_21.DAT
	2	123	149	1	
	3	324.5	400	-	
3	1	0	91	1	3E4_F_21.DAT
	2	124	400	-	
6	1	0	52	1	3E3_F_43.DAT
	2	118.5	140.5	2	
	3	182	400	-	
6	1	0	51.5	1	3E4_F_43.DAT
	2	103	153.5	2	
	3	222.5	400	-	
9	1	0	40.75	1	3E5_F_21.DAT
	2	158.75	200	-	
9	1	0	38.5	1	3E6_F_21.DAT
	2	82.75	200	-	
9	1	0	38.5	1	3E7_F_21.DAT
	2	144.5	200	-	
9	1	0	38.25	1	3E8_F_21.DAT
	2	153.75	200	-	
18	1	0	33	1	3E5_F_43.DAT
	2	59	61.5	2	
	3	123.5	200	-	
18	1	0	24.75	1	3E6_F_43.DAT
	2	29.75	31.75	1	
	3	123.75	200	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table R.2 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
18	1	0	32	1	3E7_F_43.DAT
	2	127.25	200	-	
18	1	0	25.5	1	3E8_F_43.DAT
	2	29.5	30.75	1	
	3	100.25	200	-	
25	1	0	16.25	1	3G1_F_21.DAT
	2	76.62	100	-	
25	1	0	17.62	1	3G1_F_43.DAT
	2	67.25	100	-	
25	1	0	16.62	1	3G6_F_21.DAT
	2	38.25	41.25	2	
	3	82	100	-	
25	1	0	17.88	1	3G6_F_43.DAT
	2	72.25	100	-	
50	1	0	9	1	3G2_F_21.DAT
	2	66.38	100	-	
50	1	0	8.88	1	3G3_F_21.DAT
	2	68.62	100	-	
50	1	0	7.75	1	3G3_F_43.DAT
	2	42.62	100	-	
50	1	0	9	1	3G4_F_21.DAT
	2	46.75	50	-	
50	1	0	7.69	1	3G4_F_43.DAT
	2	48	50	-	
50	1	0	8.81	1	3G7_F_21.DAT
	2	24.44	25.5	2	
	3	49.94	50	-	
50	1	0	7.88	1	3G8_F_21.DAT
	2	23.63	24.75	2	
	3	47.5	50	-	
50	1	0	7.88	1	3G8_F_43.DAT
	2	45.63	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table R.3 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site E (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
100	1	0	4.75	1	3G5_F_21.DAT
	2	21.38	23.06	3	
	3	42.81	50	-	
100	1	0	4.88	1	3G9_F_21.DAT
	2	11.56	12.69	2	
	3	20.25	22	3	
	4	49.88	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

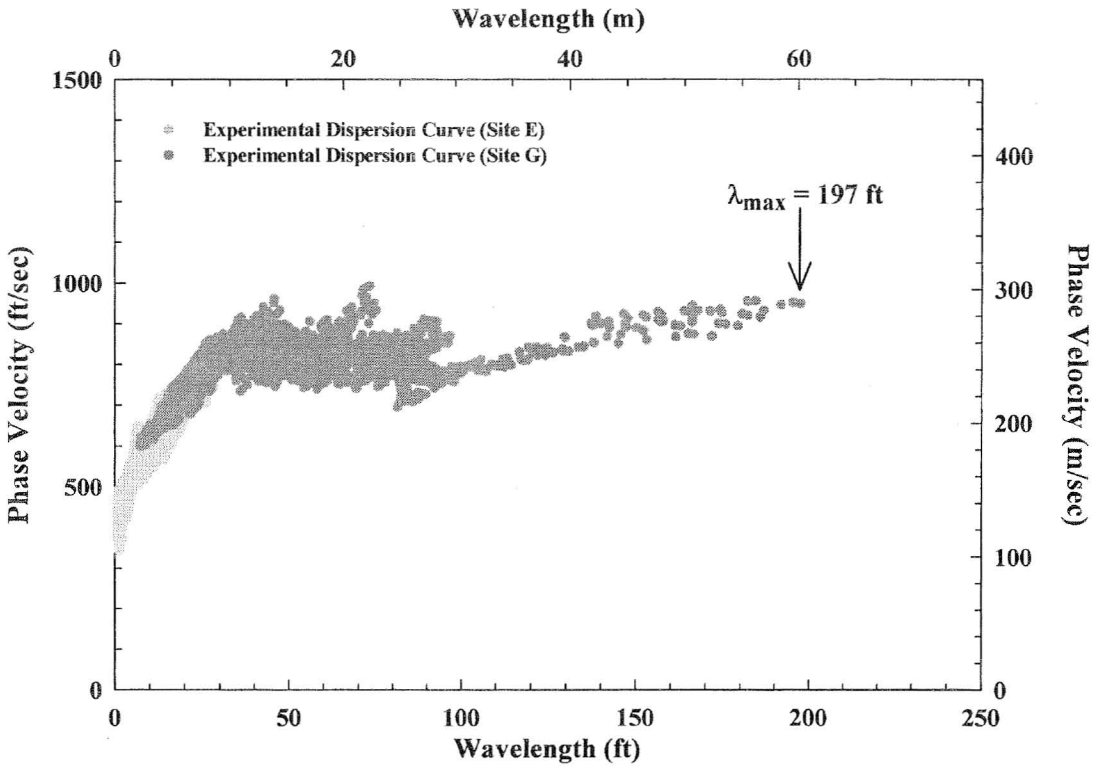


Figure R.31 Experimental Dispersion Curve Measured during Third Site Visit at Site E at Vogtle, GA; Linear Wavelength Axis

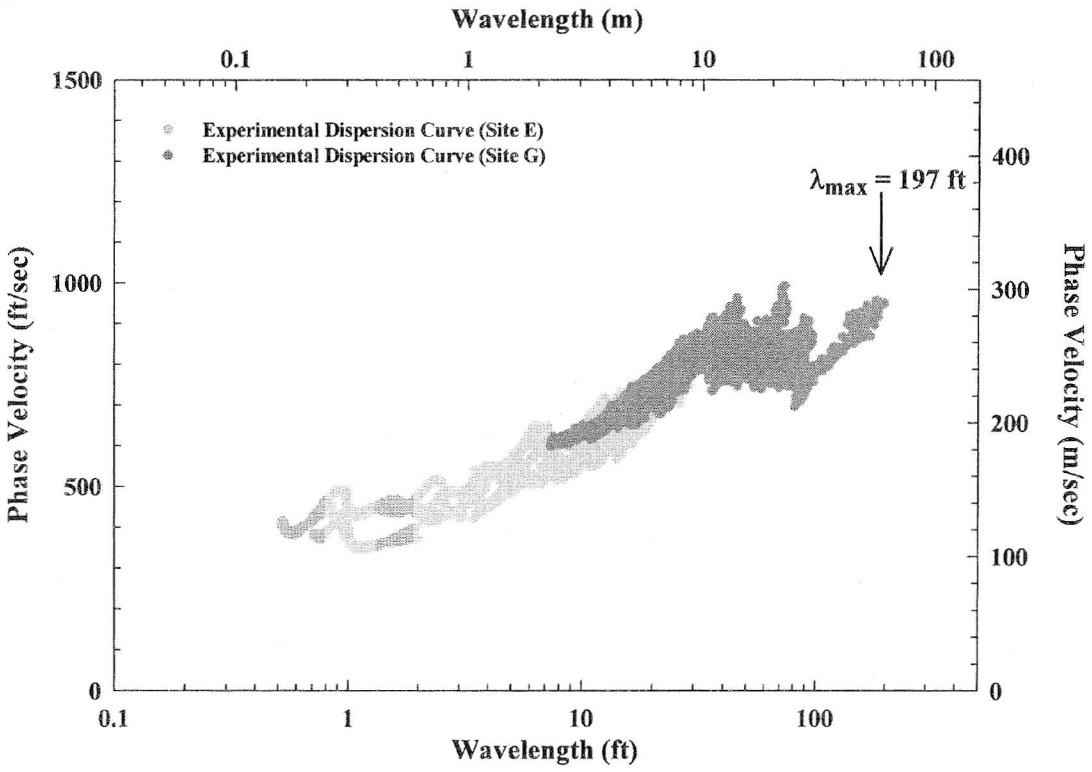


Figure R.32 Experimental Dispersion Curve Measured during Third Site Visit at Site E at Vogtle, GA; Logarithmic Wavelength Axis

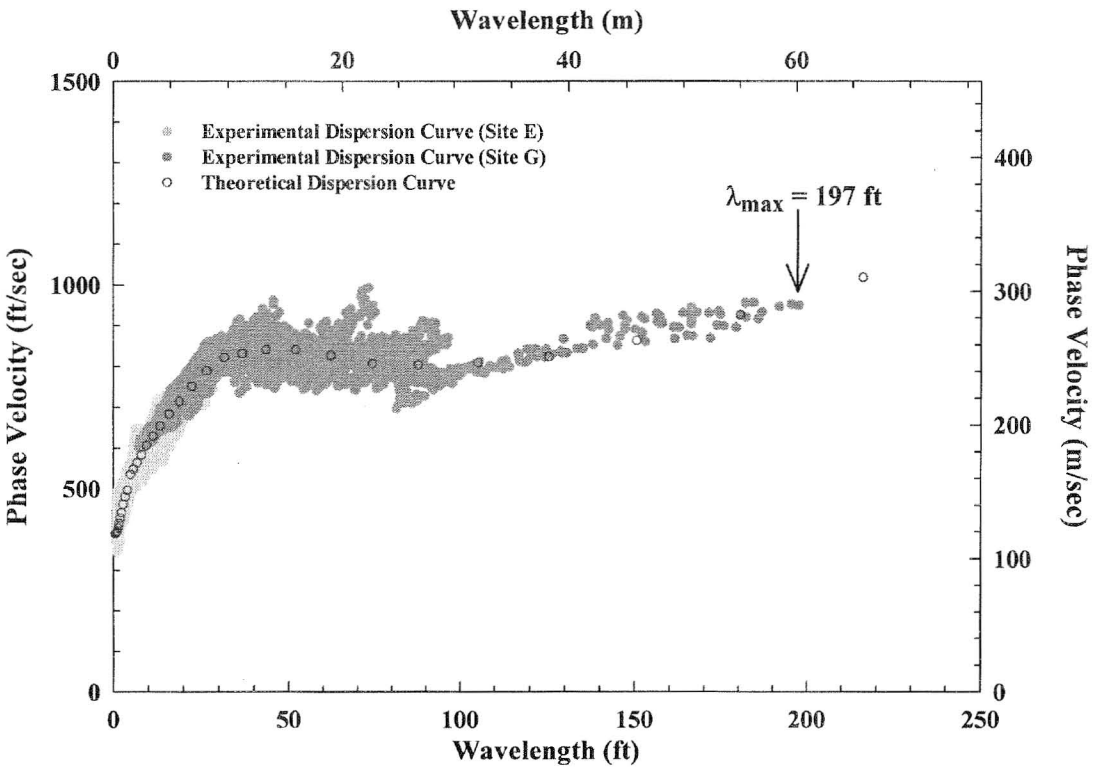


Figure R.33 Experimental and Theoretical Dispersion Curves from Site E in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

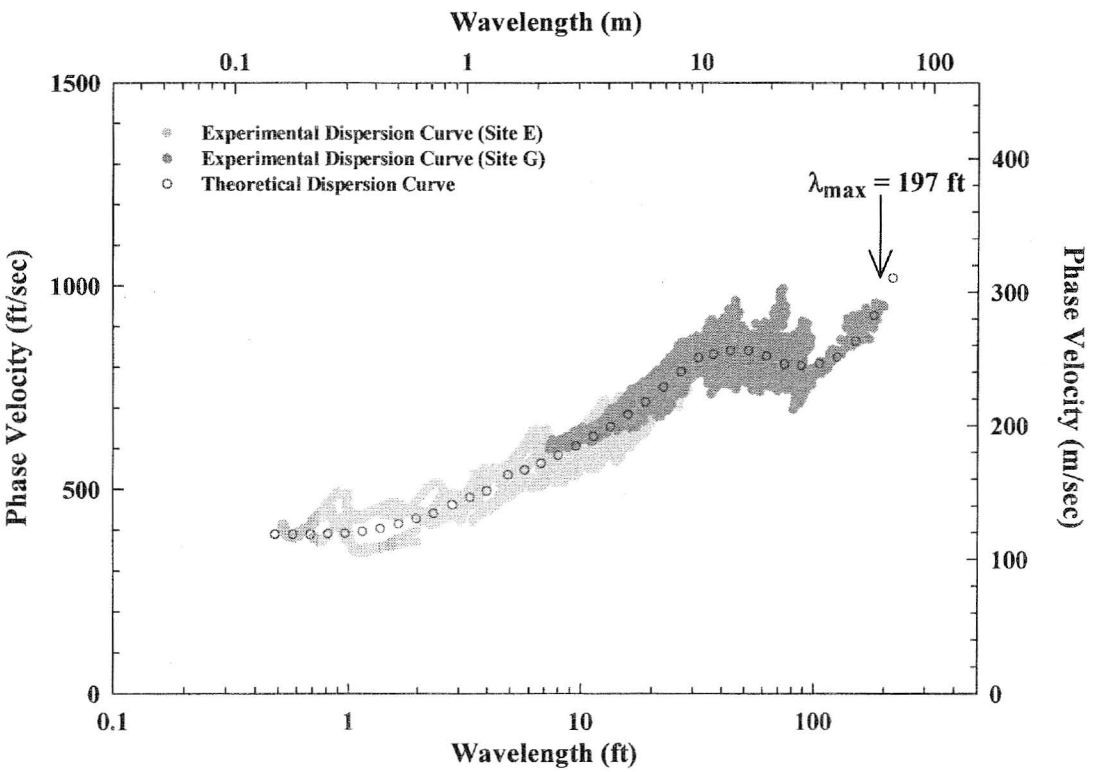


Figure R.34 Experimental and Theoretical Dispersion Curves from Site E in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

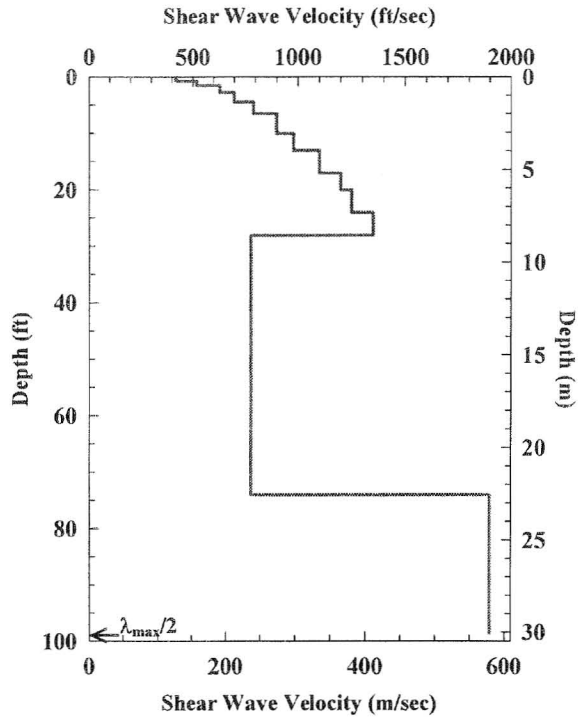


Figure R.35 Shear Wave Velocity Profile Determined at Site E during Third Site Visit at Vogtle, GA

Table R.4 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site E in the Third Site Visit at Vogtle, GA

Layer No.	Thickness, ft	Depth to Top of Layer, ft	S-Wave Velocity, ft/s	Assumed Poisson's Ratio	P-Wave Velocity, ft/s	Assumed Total Unit Weight, pcf
1	0.8	0.0	420	0.24	718	128
2	0.8	0.8	520	0.24	889	128
3	1.2	1.6	630	0.24	1077	128
4	1.7	2.8	700	0.24	1197	128
5	2.0	4.5	790	0.24	1351	128
6	3.6	6.5	900	0.24	1539	128
7	3.0	10.1	980	0.24	1676	128
8	4.0	13.1	1100	0.24	1881	128
9	3.0	17.1	1200	0.24	2052	128
10	4.0	20.1	1250	0.24	2137	128
11	4.0	24.1	1350	0.24	2308	128
12	46.0	28.1	780	0.24	1334	128
13#	24.9	74.1	1900	0.42	5000	135
14*#	5.1	99.0	1900	0.42	5000	135
15*#	Half Space	104.1	2200	0.38	5000	135

* Layer below maximum depth of the V_S Profile.

\# Layer below water tatble.

Performed by Yin-Cheng Lin Checked by K. H. Stokoe
Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix S

SASW Measurements of Third Site Visit at Vogtle, GA
Site Location: Site F

1. Data Sheet(s) S.2
2. Phase Plots from SASW Tests S.4
3. Table of Masking Parameters S.14
4. Experimental Dispersion Curves S.17
5. Matching the Experimental and Theoretical Dispersion Curves S.18
6. Shear Wave Velocity Profile S.19
7. Table of Profile Parameters S.19

3 - Receiver SASW Data Sheet

Project : Vogtle

Location : F (SA3 #6)

Date/(Time) : Dec, 27, 2007 (: ~ :)

Personnel : Stokoe Yuan

Recorded by : Yuan

Checked by : Stokoe

R1 I.D. : UT07-4.5HZ-04

R2 I.D. : UT07-4.5HZ-02

R3 I.D. : UT07-4.5HZ-03

Data Sheet # : SA3 #6

Disk # : SA3 #6

elev = 232.59

Sketch

Distance (ft)			Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes
S - R1	R1 - R2	R2 - R3						
1	1	2	For	Rev	small	3F1	0 - 800	soft hit small hammer on med
1	1	2	For	Rev	"	3F2	0 - 800	"
3	3	6	For	Rev	med	3F3	0 - 400	soft hit
3	3	6	For	Rev	"	3F4	0 - 400	"
9	9	18	For	Rev	big	3F5	0 - 200	
9	9	18	For	Rev	sledge	3F6	0 - 200	
9	9	18	For	Rev	big	3F7	0 - 200	
9	9	18	For	Rev	sledge	3F8	0 - 200	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

3 - Receiver SASW Data Sheet

Page 1 of 1

Project : Vogtle

Data Sheet # : SA3#7

Location : G (SA3#7)

Disk # : SA3#7

Date/(Time) : Dec 27 2007 (: ~ :)

Personnel : Stokoe, Tuan

Recorded by : Tuan

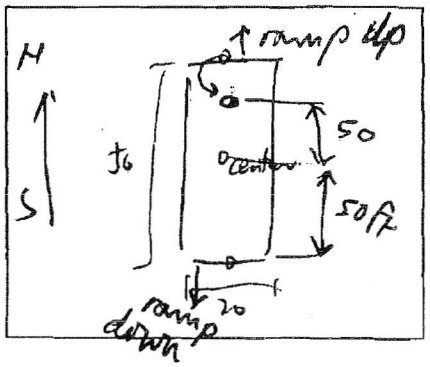
Checked by : Stokoe

R1 I.D. : 3773 (1Hz) Cable C26

R2 I.D. : 3774 (1Hz) C27

R3 I.D. : 3775 (1Hz) C25

Sketch



Distance (ft) S - R1	R1 - R2	R2 - R3	Impact Direction		Impact Source	Record #	Freq. Range (Hz)	Notes (input voltage)
25	25	25	For	Rev	bull dozer	361	0 - 100	500 mV
50	50		For	Rev	"	362	0 - 100	
50	50	50	For	Rev	"	363	0 - 100	
50	50	50	For	Rev	"	364	0 - 50	250 mV
100	100		For	Rev	"	365	0 - 50	100 mV
25	25	25	For	Rev	bull dozer	366	0 - 100	500 mV
50	50		For	Rev	"	367	0 - 50	250 mV
85	50	50	For	Rev	"	368	0 - 50	150 mV
100	100		For	Rev	"	369	0 - 50	100 mV
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	
			For	Rev			~	

* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

* Autosequence 3R_SEWPSIN saves F_2/1, Var_2, F_4/3, Var_4, Lin_1, Lin_2, Lin_4

University of Texas at Austin

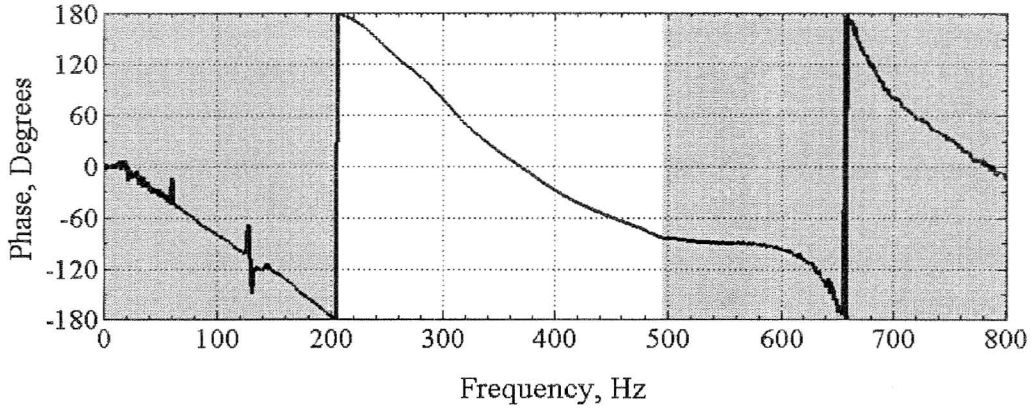


Figure S.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3F1_F_21.DAT)

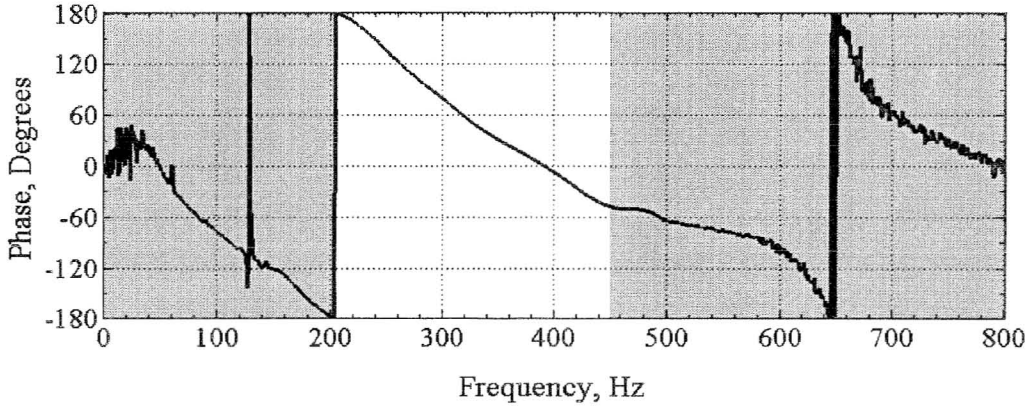


Figure S.2 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (3F2_F_21.DAT)

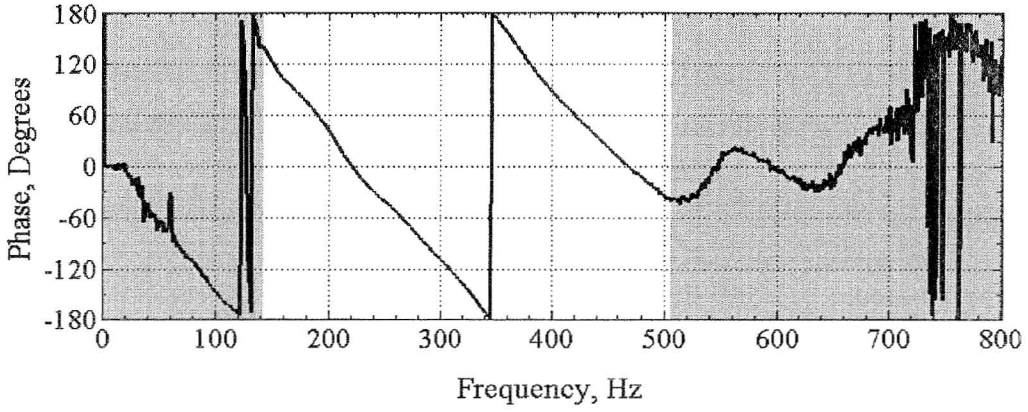


Figure S.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3F1_F_43.DAT)

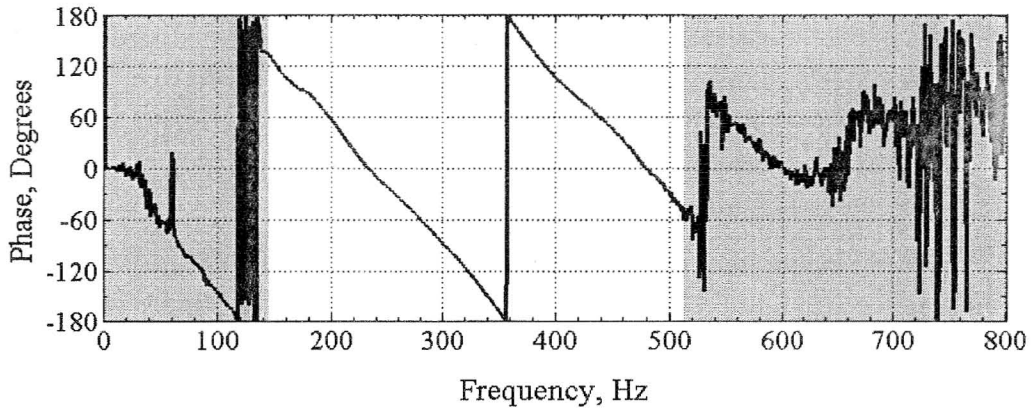


Figure S.4 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (3F2_F_43.DAT)

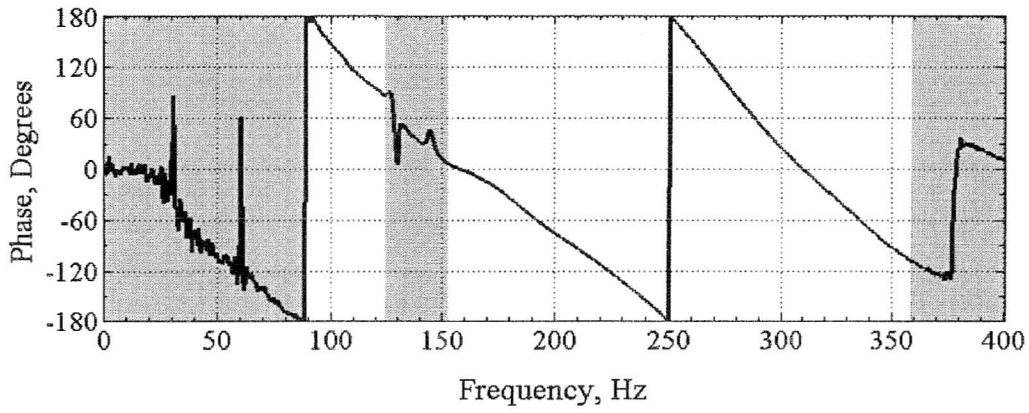


Figure S.5 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3F3_F_21.DAT)

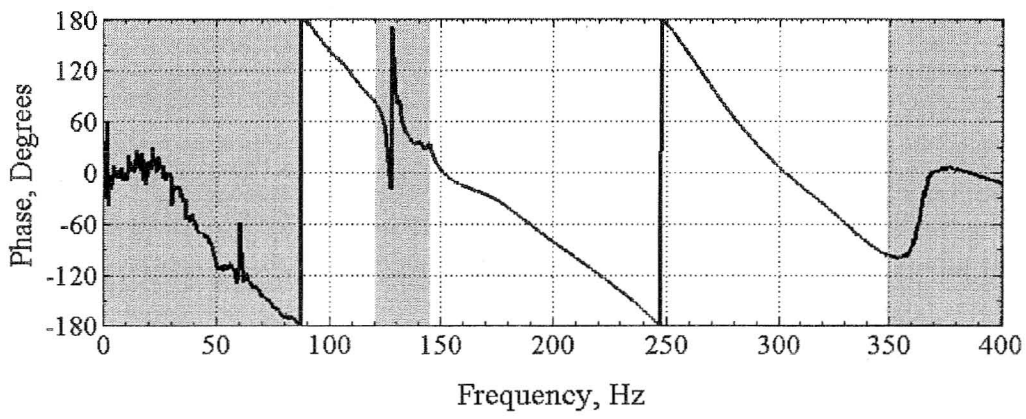


Figure S.6 Phase Plots Measured by SASW Testing with 3-ft Receiver Spacing (3F4_F_21.DAT)

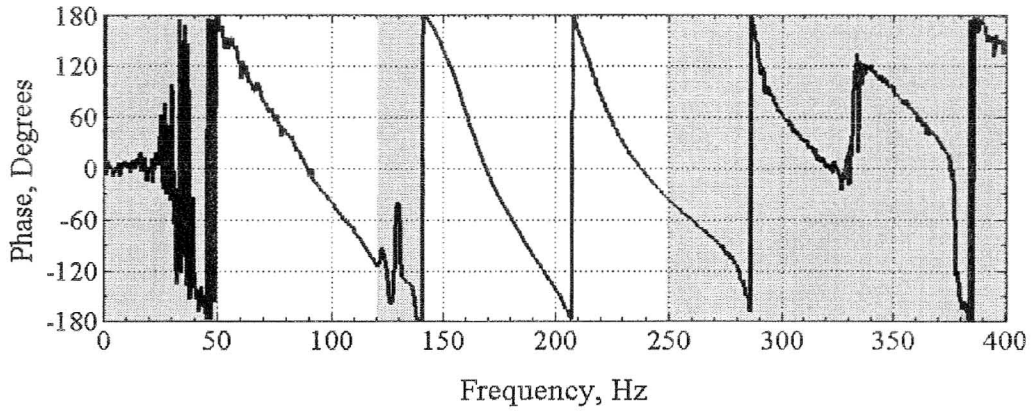


Figure S.7 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3F3_F_43.DAT)

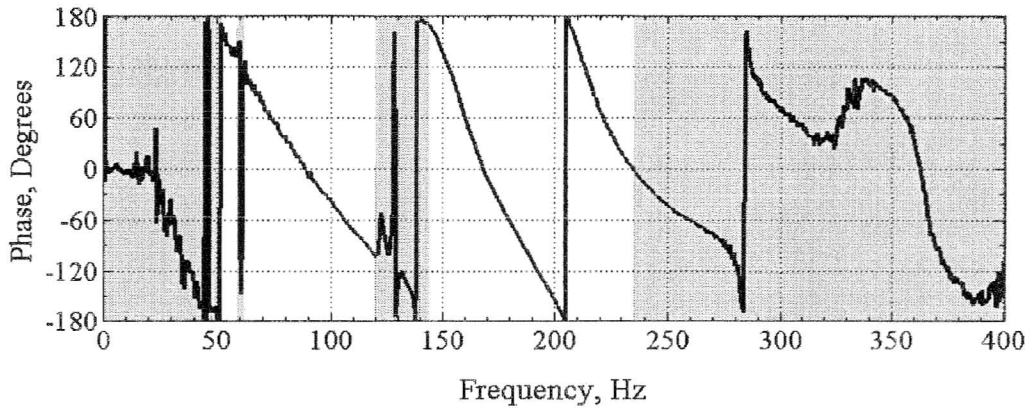


Figure S.8 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (3F4_F_43.DAT)

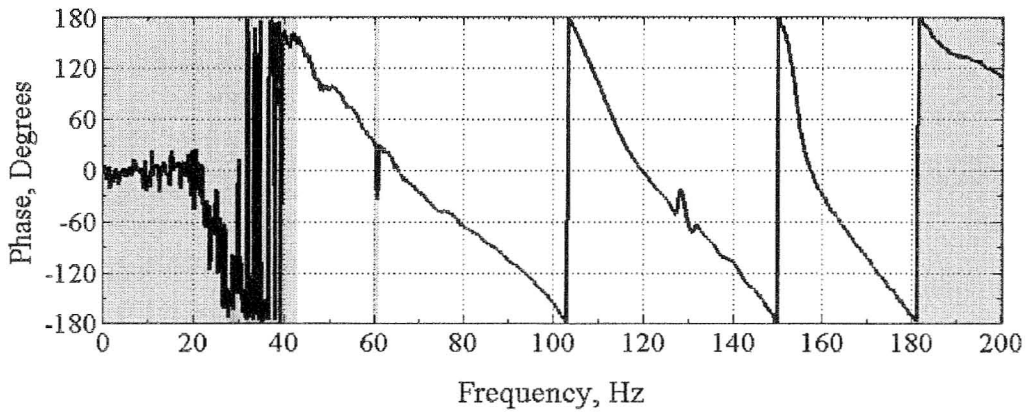


Figure S.9 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3F5_F_21.DAT)

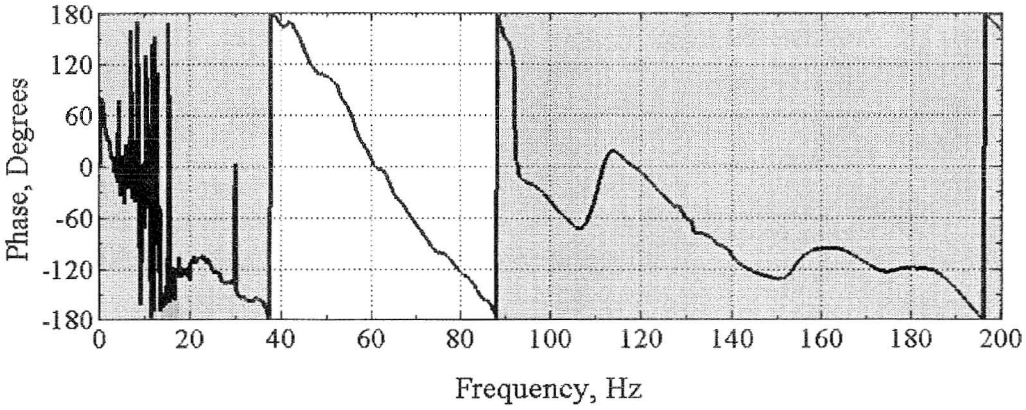


Figure S.10 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3F6_F_21.DAT)

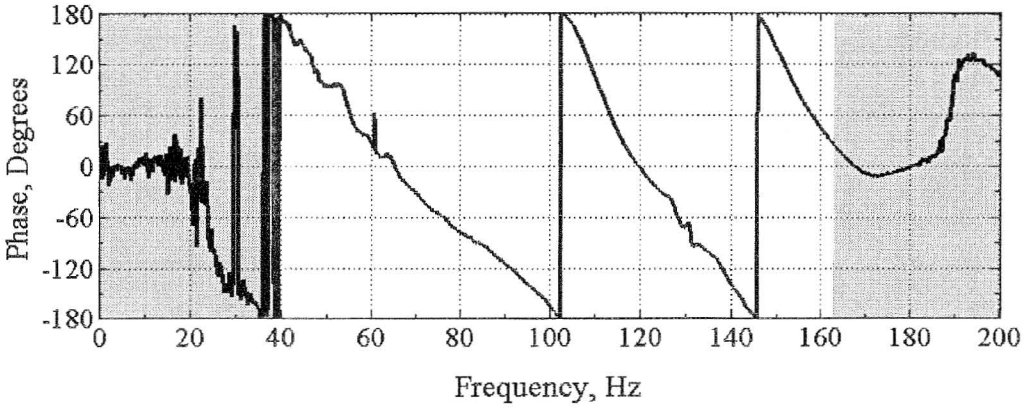


Figure S.11 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3F7_F_21.DAT)

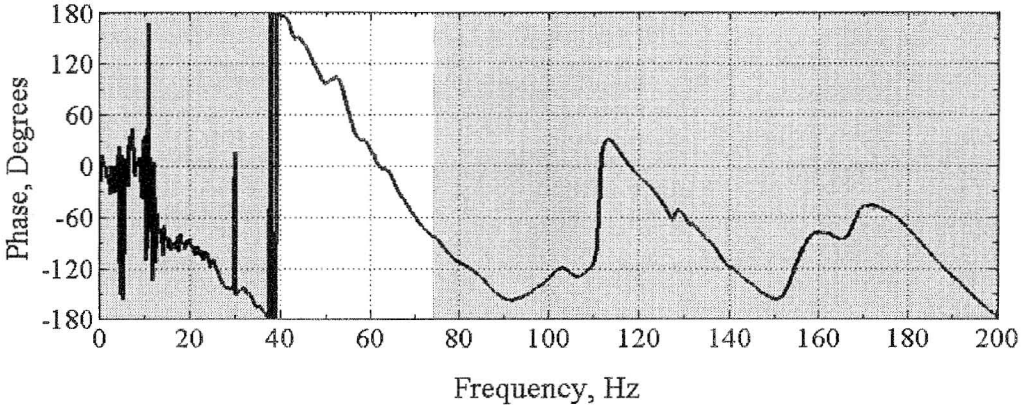


Figure S.12 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (3F8_F_21.DAT)

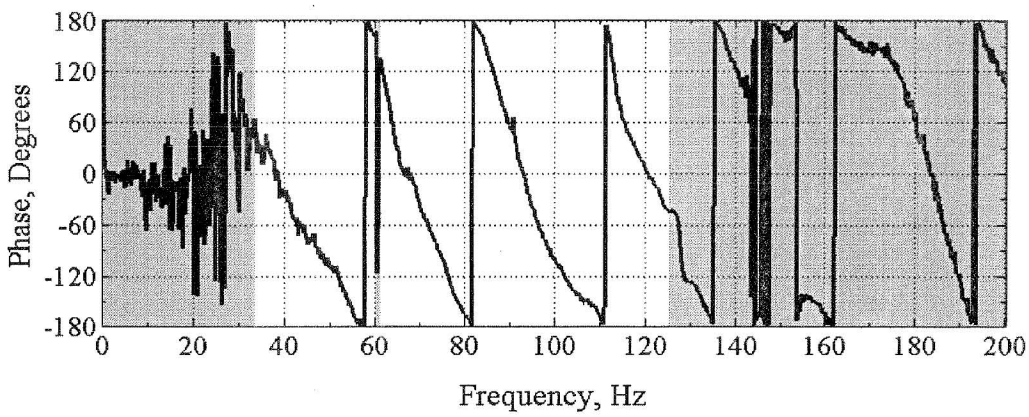


Figure S.13 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3F5_F_43.DAT)

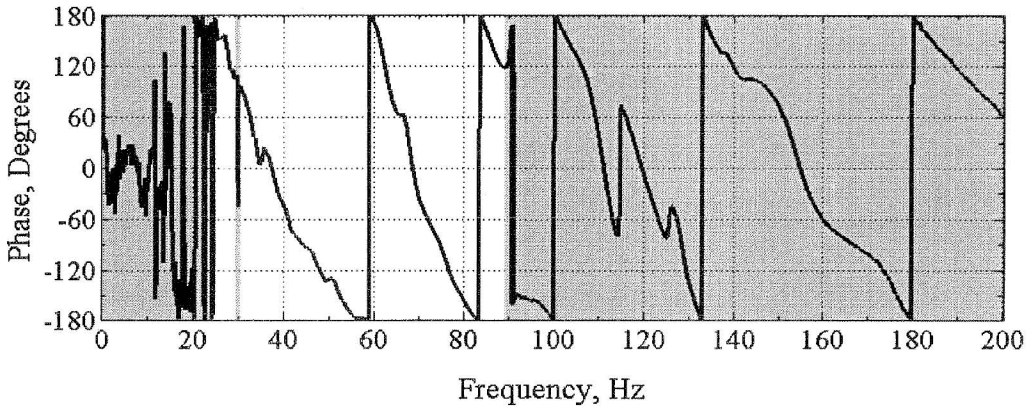


Figure S.14 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3F6_F_43.DAT)

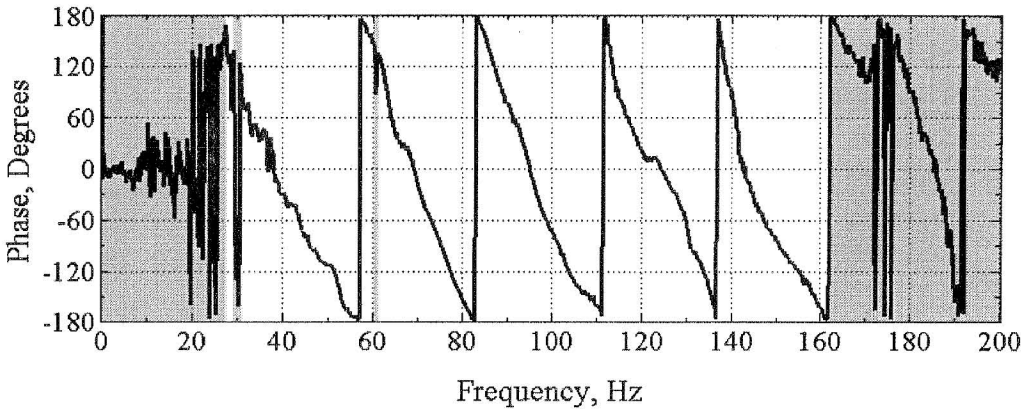


Figure S.15 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3F7_F_43.DAT)

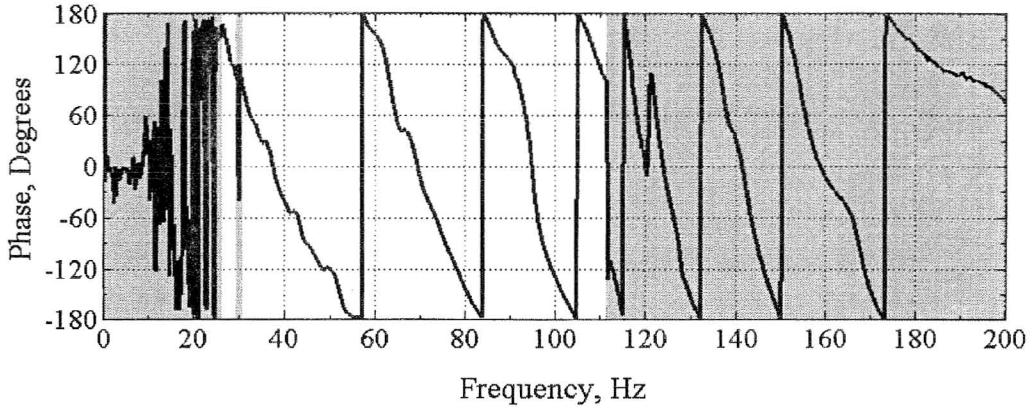


Figure S.16 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (3F8_F_43.DAT)

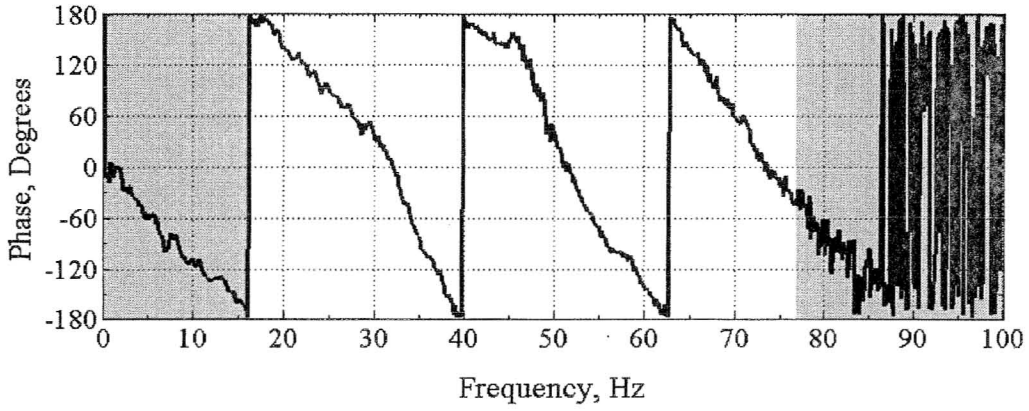


Figure S.17 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_21.DAT)

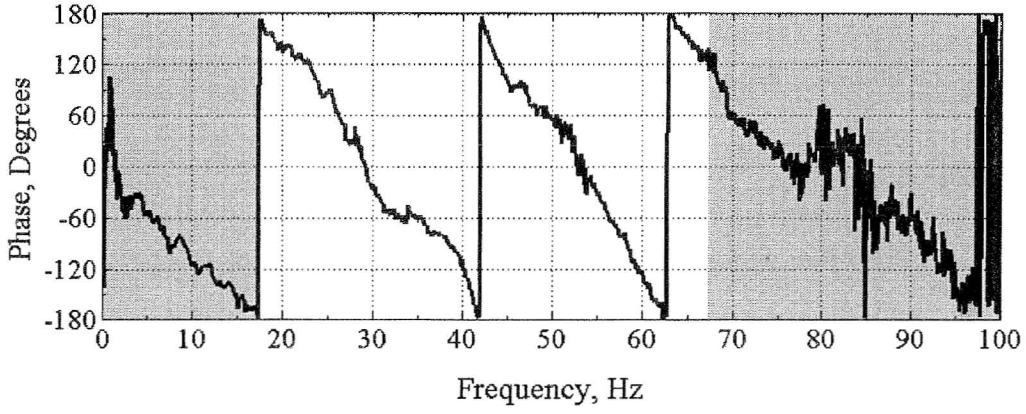


Figure S.18 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G1_F_43.DAT)

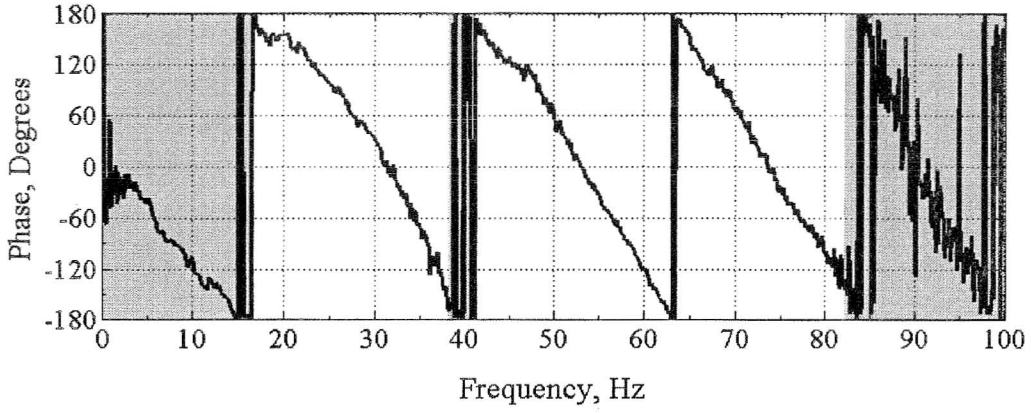


Figure S.19 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_21.DAT)

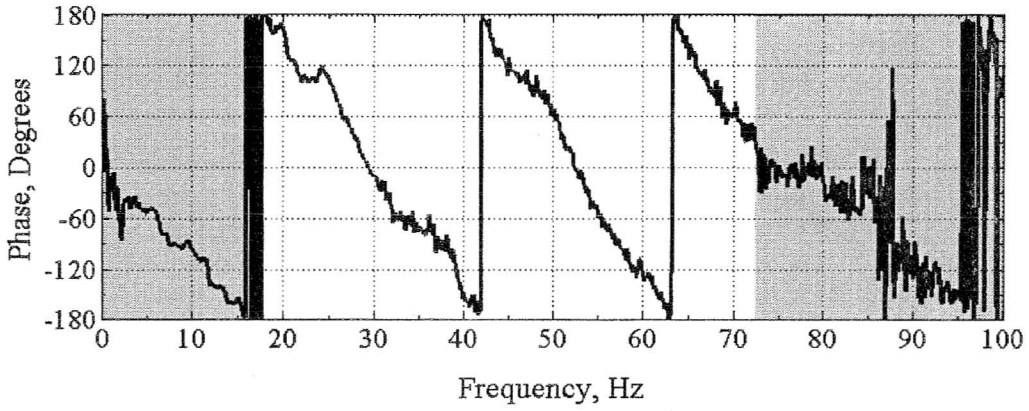


Figure S.20 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (3G6_F_43.DAT)

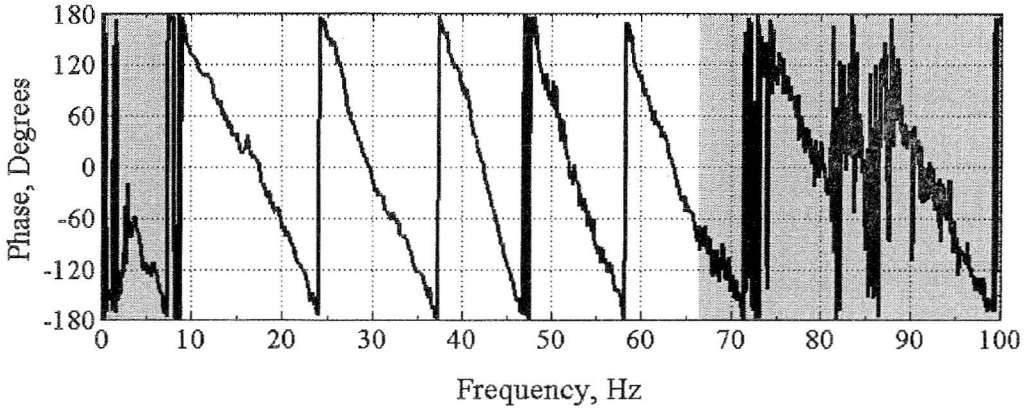


Figure S.21 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G2_F_21.DAT)

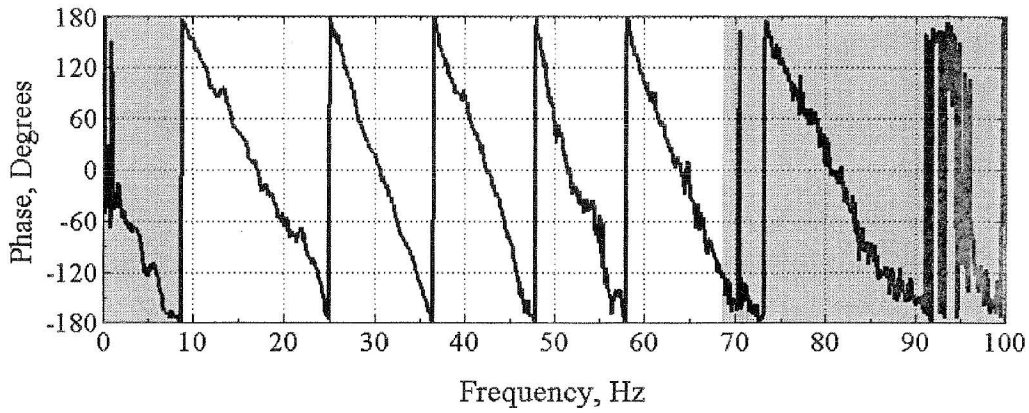


Figure S.22 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_21.DAT)

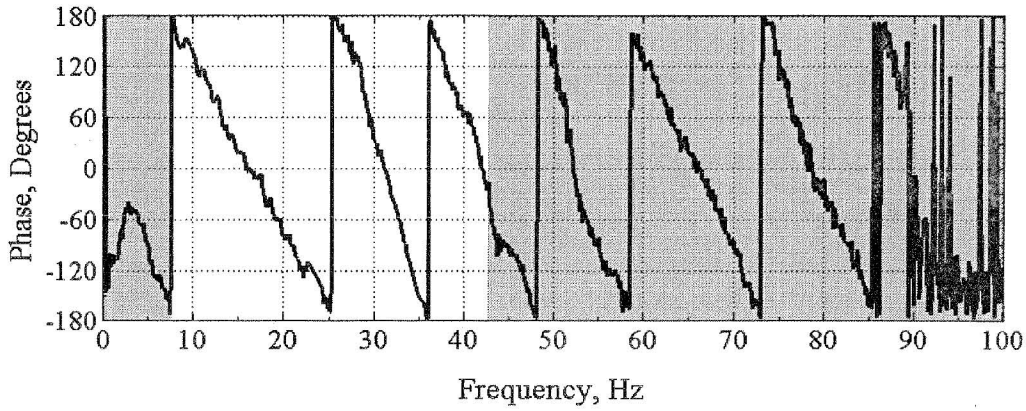


Figure S.23 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G3_F_43.DAT)

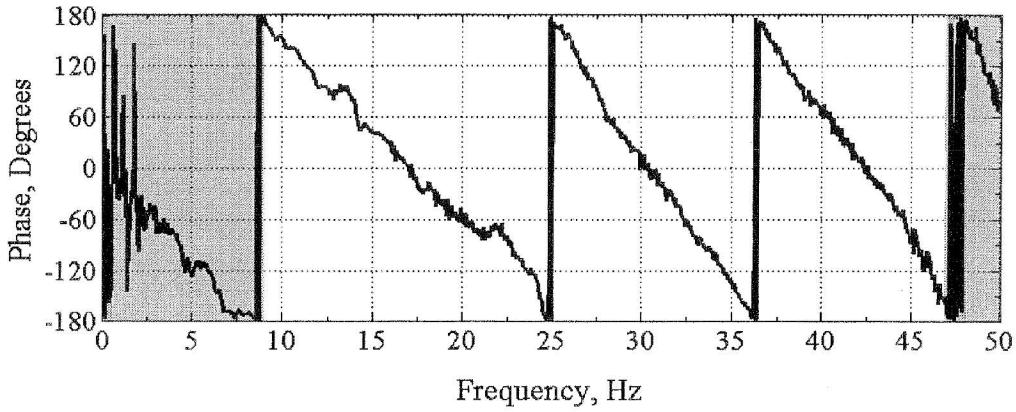


Figure S.24 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_21.DAT)

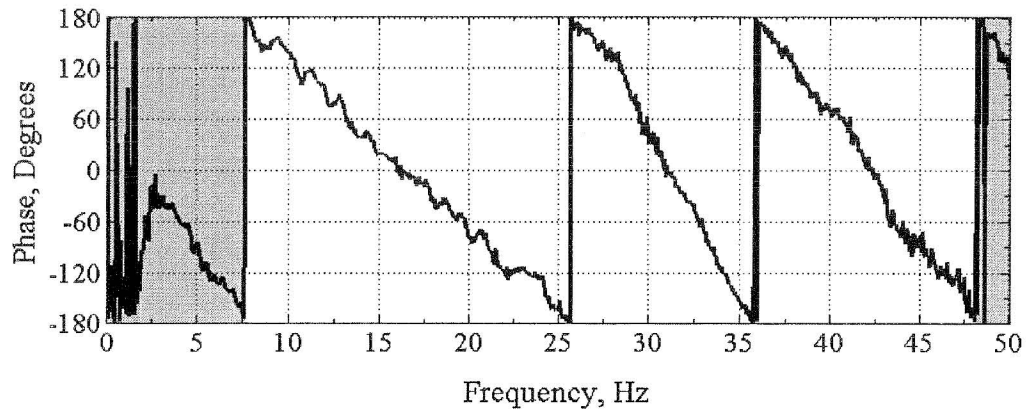


Figure S.25 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G4_F_43.DAT)

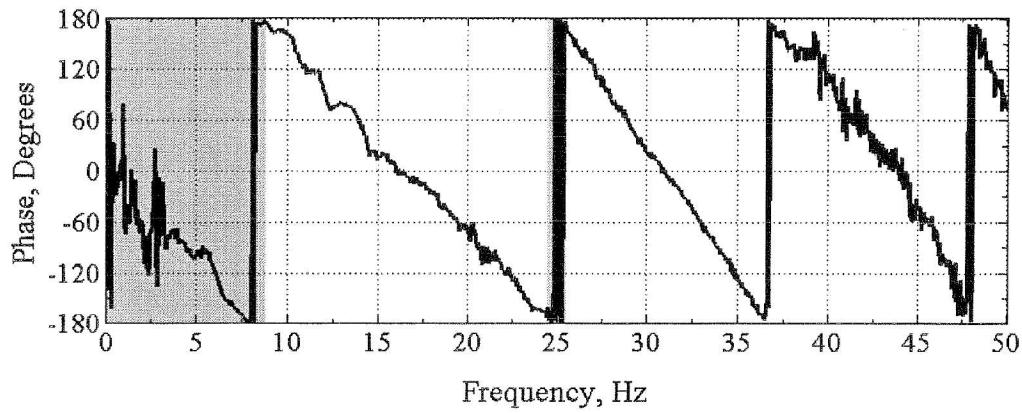


Figure S.26 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G7_F_21.DAT)

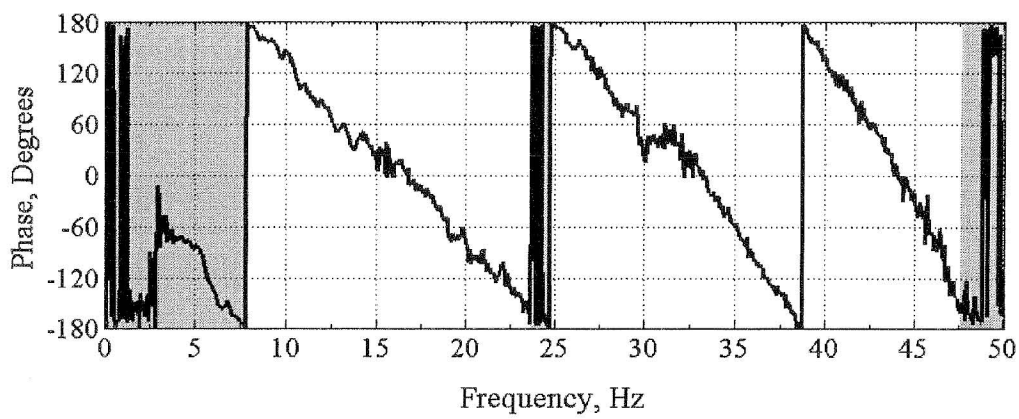


Figure S.27 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_21.DAT)

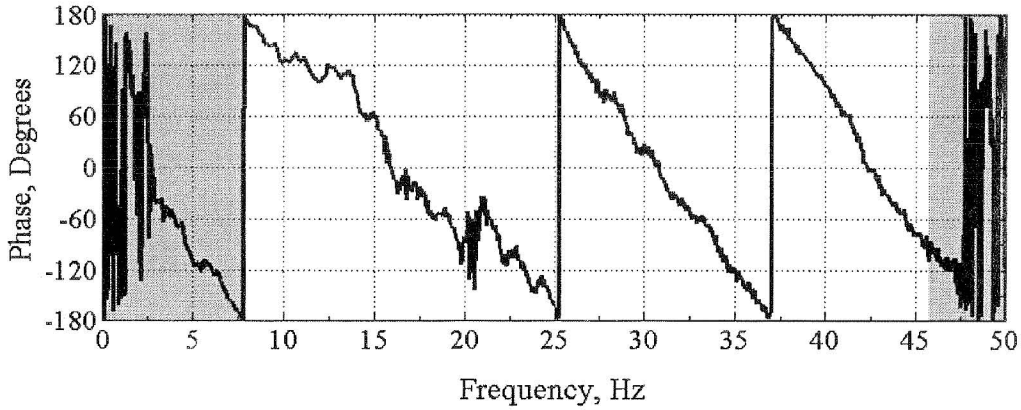


Figure S.28 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (3G8_F_43.DAT)

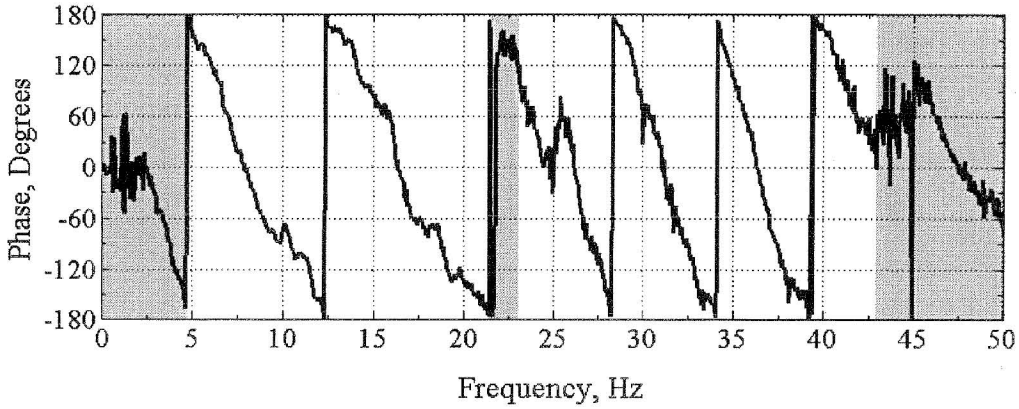


Figure S.29 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G5_F_21.DAT)

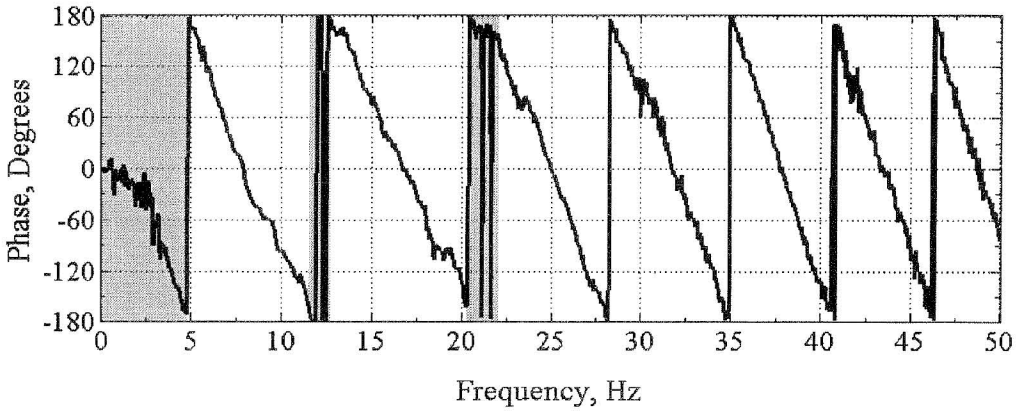


Figure S.30 Phase Plots Measured by SASW Testing with 100-ft Receiver Spacing (3G9_F_21.DAT)

Table S.1 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site F

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
1	1	0	206	1	3F1_F_21.DAT
	2	495	800	-	
1	1	0	205	1	3F2_F_21.DAT
	2	450	800	-	
2	1	0	142	1	3F1_F_43.DAT
	2	505	800	-	
2	1	0	144	1	3F2_F_43.DAT
	2	512	800	-	
3	1	0	89	1	3F3_F_21.DAT
	2	124.5	153	1	
	3	357.5	400	-	
3	1	0	87.5	1	3F4_F_21.DAT
	2	120.5	145	1	
	3	347.5	400	-	
6	1	0	50.5	1	3F3_F_43.DAT
	2	120.5	141	2	
	3	248.5	400	-	
6	1	0	52	1	3F4_F_43.DAT
	2	58.5	62.5	1	
	3	120	144	2	
	4	235	400	-	
9	1	0	43	1	3F5_F_21.DAT
	2	60	61	1	
	3	180.75	200	-	
9	1	0	37.75	1	3F6_F_21.DAT
	2	87.75	200	-	
9	1	0	40	1	3F7_F_21.DAT
	2	162.5	200	-	
9	1	0	39.5	1	3F8_F_21.DAT
	2	74	200	-	

Performed by Jiabei Jiabei Yuan Checked by Yin-Cheng Lin Yin-Cheng Lin

Table S.2 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site F (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
18	1	0	33.5	1	3F5_F_43.DAT
	2	60.25	61.25	2	
	3	125.25	200	-	
18	1	0	24.75	1	3F6_F_43.DAT
	2	29.25	30.5	1	
	3	89	200	-	
18	1	0	27.5	1	3F7_F_43.DAT
	2	29	31.25	1	
	3	60.25	61.5	2	
	4	161.5	200	-	
18	1	0	26.5	1	3F8_F_43.DAT
	2	29.5	30.75	1	
	3	111.25	200	-	
25	1	0	16.25	1	3G1_F_21.DAT
	2	76.62	100	-	
25	1	0	17.62	1	3G1_F_43.DAT
	2	67.25	100	-	
25	1	0	16.62	1	3G6_F_21.DAT
	2	38.25	41.25	2	
	3	82	100	-	
25	1	0	17.88	1	3G6_F_43.DAT
	2	72.25	100	-	
50	1	0	9	1	3G2_F_21.DAT
	2	66.38	100	-	
50	1	0	8.88	1	3G3_F_21.DAT
	2	68.62	100	-	
50	1	0	7.75	1	3G3_F_43.DAT
	2	42.62	100	-	
50	1	0	9	1	3G4_F_21.DAT
	2	46.75	50	-	
50	1	0	7.69	1	3G4_F_43.DAT
	2	48	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

Table S.3 Tables of Masking Parameters Used on Data Collected during Third Site Visit at Site F (Continued)

Receiver Spacing (ft)	Masking Interval	Masking Start Frequency, Hz	Masking Stop Frequency, Hz	Number of Jumps	Filename
50	1	0	8.81	1	3G7_F_21.DAT
	2	24.44	25.5	2	
	3	49.94	50	-	
50	1	0	7.88	1	3G8_F_21.DAT
	2	23.63	24.75	2	
	3	47.5	50	-	
50	1	0	7.88	1	3G8_F_43.DAT
	2	45.63	50	-	
100	1	0	4.88	1	3G9_F_21.DAT
	2	11.56	12.69	2	
	3	20.25	22	3	
	4	49.88	50	-	

Performed by Jiabei Yuan Checked by Yin-Cheng Lin

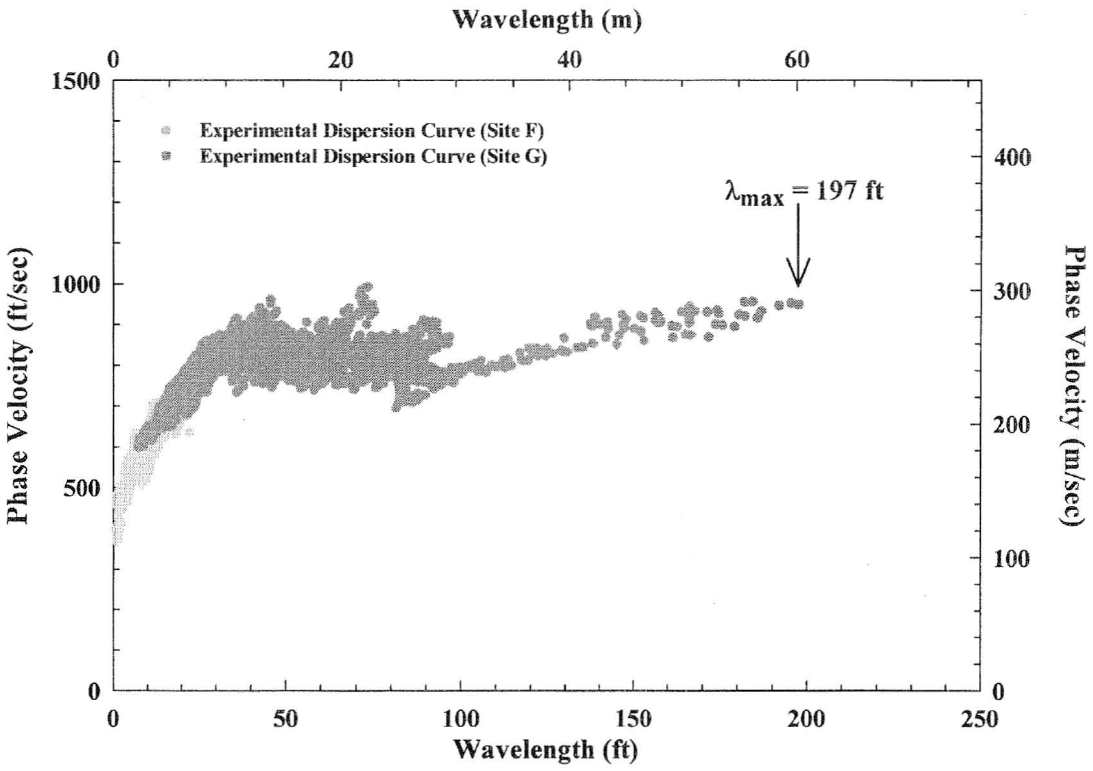


Figure S.31 Experimental Dispersion Curve Measured during Third Site Visit at Site F at Vogtle, GA; Linear Wavelength Axis

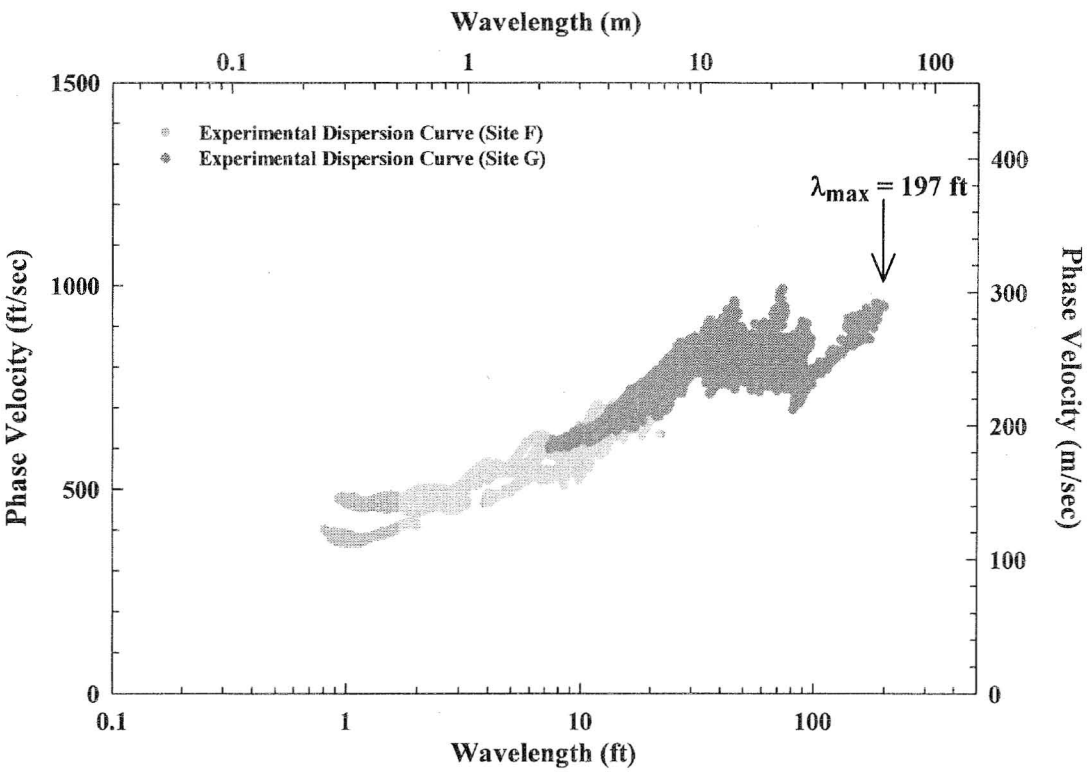


Figure S.32 Experimental Dispersion Curve Measured during Third Site Visit at Site F at Vogtle, GA; Logarithmic Wavelength Axis

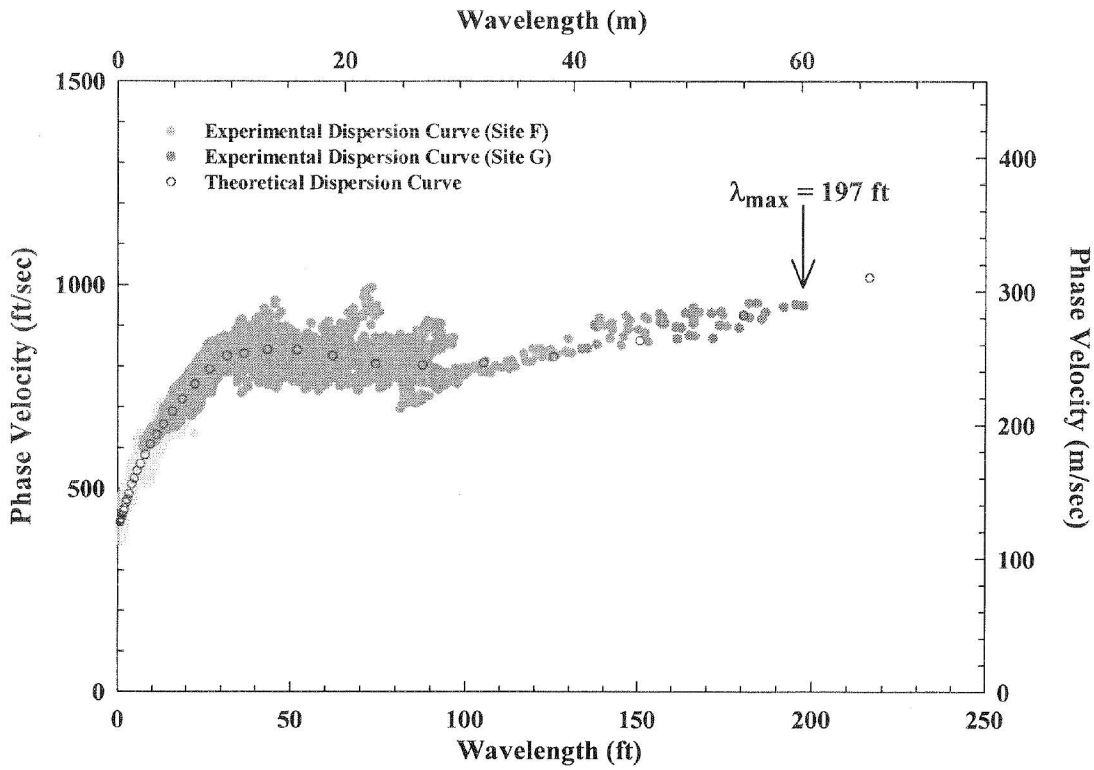


Figure S.33 Experimental and Theoretical Dispersion Curves from Site F in Third Site Visit at Vogtle, GA; Linear Wavelength Axis

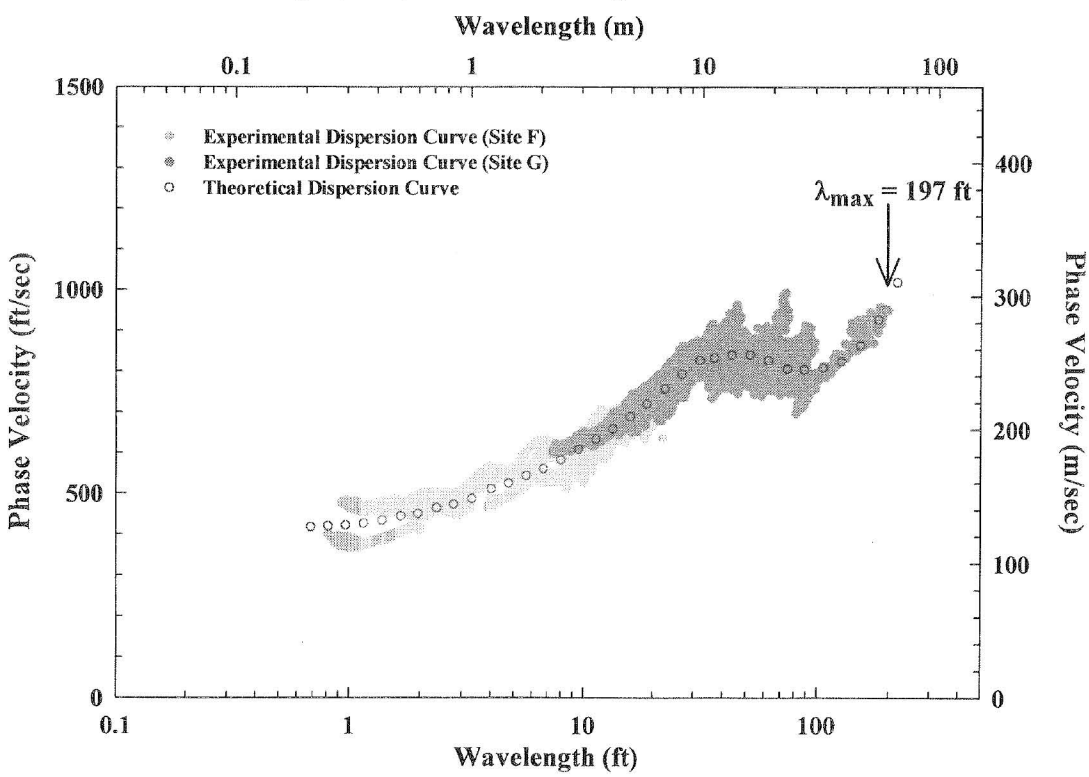


Figure S.34 Experimental and Theoretical Dispersion Curves from Site F in Third Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

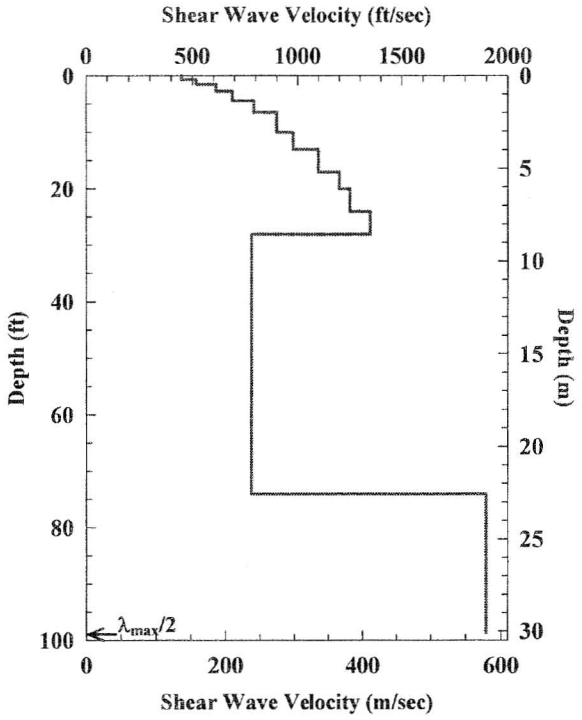


Figure S.35 Shear Wave Velocity Profile Determined at Site F during Third Site Visit at Vogtle, GA

Table S.4 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site F in the Third Site Visit at Vogtle, GA

Layer No.	Thickness, ft	Depth to Top of Layer, ft	S-Wave Velocity, ft/s	Assumed Poisson's Ratio	P-Wave Velocity, ft/s	Assumed Total Unit Weight, pcf
1	0.7	0.0	450	0.24	769	128
2	0.9	0.7	520	0.24	889	128
3	1.2	1.6	610	0.24	1043	128
4	1.7	2.8	690	0.24	1180	128
5	2.0	4.5	790	0.24	1351	128
6	3.6	6.5	900	0.24	1539	128
7	3.0	10.1	980	0.24	1676	128
8	4.0	13.1	1100	0.24	1881	128
9	3.0	17.1	1200	0.24	2052	128
10	4.0	20.1	1250	0.24	2137	128
11	4.0	24.1	1350	0.24	2308	128
12	46.0	28.1	780	0.24	1334	128
13#	24.9	74.1	1900	0.42	5000	135
14*#	5.1	99.0	1900	0.42	5000	135
15*#	Half Space	104.1	2200	0.38	5000	135

* Layer below maximum depth of the V_S Profile.

\# Layer below water tatble.

Performed by Yin-Cheng Lin Checked by K. H. Stokoe

Yin-Cheng Lin Kenneth H. Stokoe, II

Appendix T

SASW Measurements of Fourth Site Visit at Vogtle, GA
Site Location: Site A

1. Data Sheet(s) T.2
2. Phase Plots from SASW Tests T.4
3. Table of Masking Parameters T.13
4. Experimental Dispersion Curves T.15
5. Matching the Experimental and Theoretical Dispersion Curves T.16
6. Shear Wave Velocity Profile T.17
7. Table of Profile Parameters T.17