

Table F.1 Tables of Masking Parameters Used on Data Collected during First 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 | 243 | 1 | SE1_F_21.DAT |
| 1 | 1 | 0 | 241 | 1 | SE2_F_21.DAT |
| 2 | 1 | 0 | 137 | 1 | SE1_F_43.DAT |
| | 2 | 710 | 800 | - | |
| 2 | 1 | 0 | 137 | 1 | SE2_F_43.DAT |
| | 2 | 690 | 800 | - | |
| 3 | 1 | 0 | 111 | 1 | SE3_F_21.DAT |
| | 2 | 116 | 135 | 1 | |
| | 3 | 448 | 800 | - | |
| 3 | 1 | 0 | 100 | 1 | SE4_F_21.DAT |
| | 2 | 111 | 137 | 1 | |
| | 3 | 369 | 800 | - | |
| 6 | 1 | 0 | 58 | 1 | SE3_F_43.DAT |
| | 2 | 116 | 135 | 1 | |
| | 3 | 272 | 800 | - | |
| 6 | 1 | 0 | 66 | 1 | SE4_F_43.DAT |
| | 2 | 127 | 136 | 1 | |
| | 3 | 374 | 800 | - | |
| 9 | 1 | 0 | 39.5 | 1 | SE5_F_21.DAT |
| | 2 | 169 | 400 | - | |
| 9 | 1 | 0 | 40 | 1 | SE6_F_21.DAT |
| | 2 | 165 | 400 | - | |
| 18 | 1 | 0 | 36.5 | 1 | SE5_F_43.DAT |
| | 2 | 113.5 | 400 | - | |
| 18 | 1 | 0 | 37.5 | 1 | SE6_F_43.DAT |
| | 2 | 131.5 | 134 | 4 | |
| | 3 | 155.5 | 400 | - | |
| 25 | 1 | 0 | 17 | 1 | G1_F_21.DAT |
| | 2 | 91.5 | 100 | - | |
| 25 | 1 | 0 | 16.62 | 1 | G1_F_43.DAT |
| | 2 | 90.88 | 100 | - | |

Performed by Jiabei Yuan
 Jiabei Yuan

Checked by Yin-Cheng Lin
 Yin-Cheng Lin

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

| Receiver Spacing (ft) | Masking Interval | Masking Start Frequency, Hz | Masking Stop Frequency, Hz | Number of Jumps | Filename |
|-----------------------|------------------|-----------------------------|----------------------------|-----------------|-------------|
| 25 | 1 | 0 | 14.88 | 1 | G4_F_21.DAT |
| | 2 | 20 | 25.12 | 1 | |
| | 3 | 70.88 | 100 | - | |
| 25 | 1 | 0 | 16.38 | 1 | G4_F_43.DAT |
| | 2 | 21.62 | 28.12 | 1 | |
| | 3 | 88.88 | 100 | - | |
| 50 | 1 | 0 | 8.12 | 1 | G2_F_21.DAT |
| | 2 | 98 | 100 | - | |
| 50 | 1 | 0 | 8.25 | 1 | G3_F_21.DAT |
| | 2 | 62.88 | 100 | - | |

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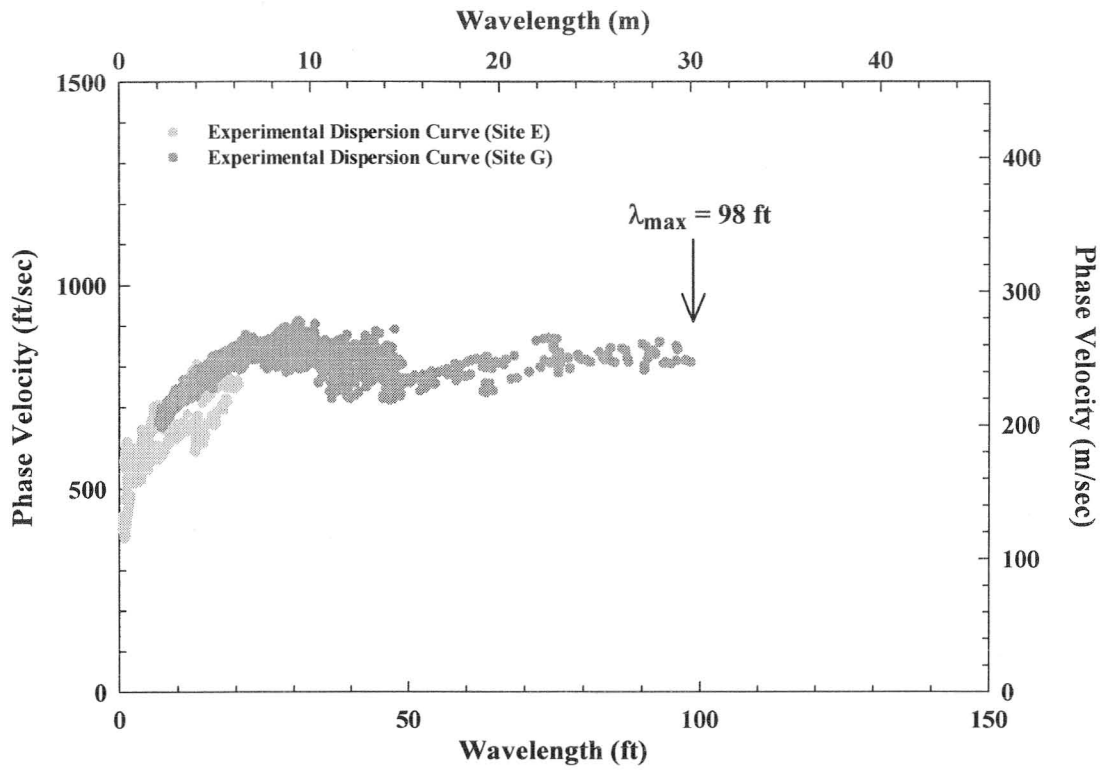


Figure F.19 Experimental Dispersion Curve Measured during First Site Visit at Site E at Vogtle, GA; Linear Wavelength Axis

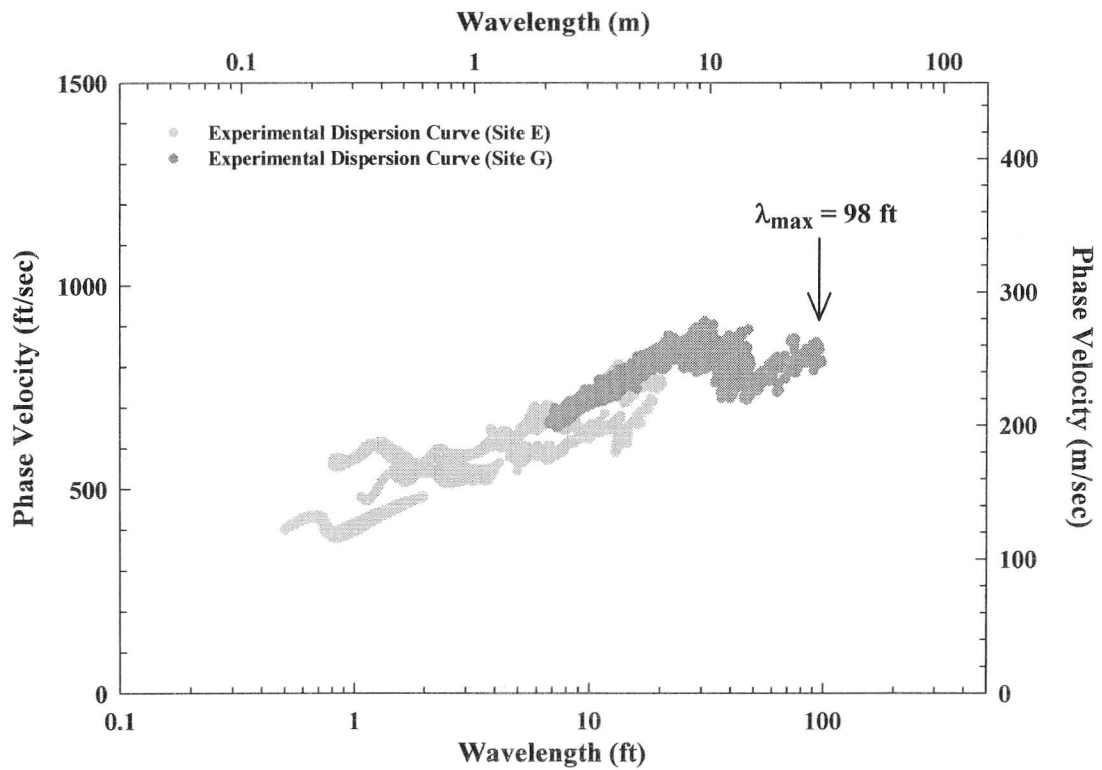


Figure F.20 Experimental Dispersion Curve Measured during First Site Visit at Site E at Vogtle, GA; Logarithmic Wavelength Axis

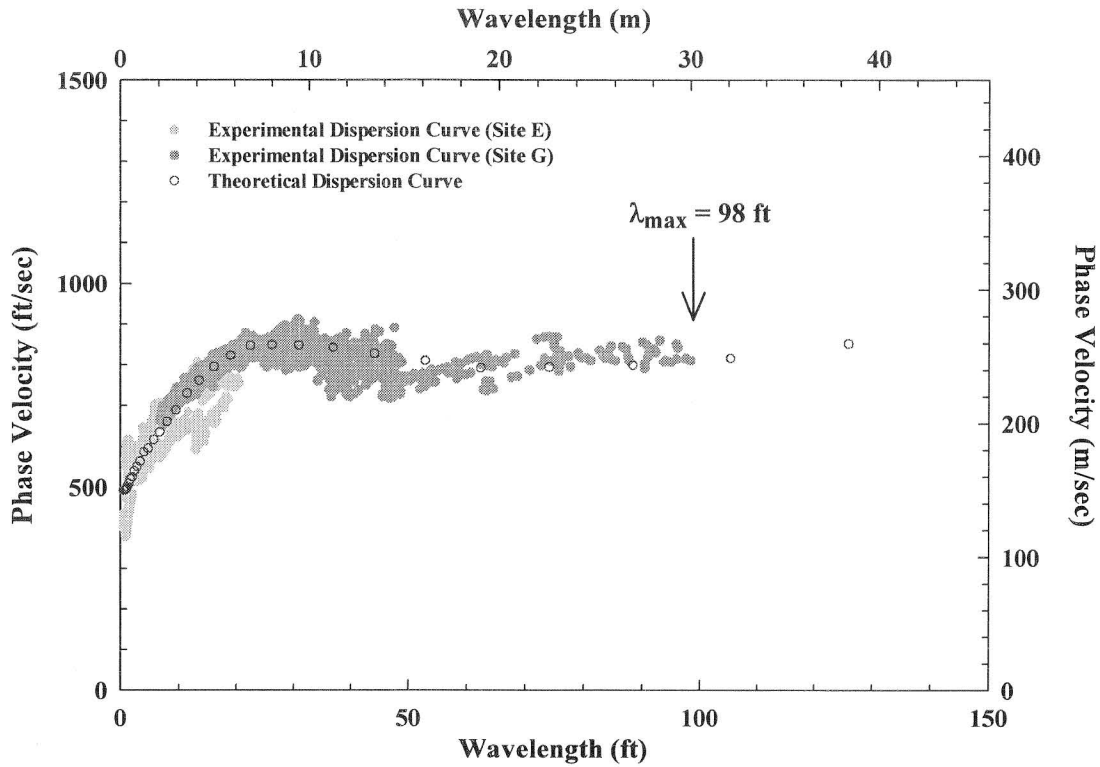


Figure F.21 Experimental and Theoretical Dispersion Curves from Site E in First Site Visit at Vogtle, GA; Linear Wavelength Axis

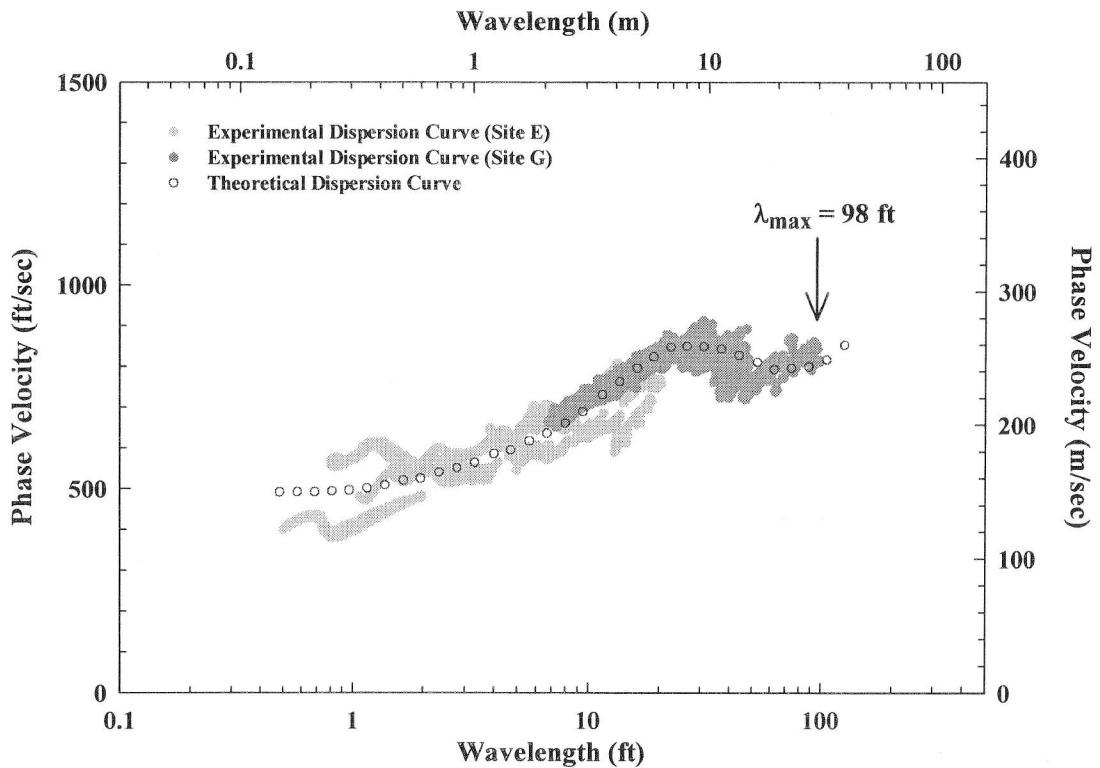


Figure F.22 Experimental and Theoretical Dispersion Curves from Site E in First Site Visit at Vogtle, GA; Logarithmic Wavelength Axis

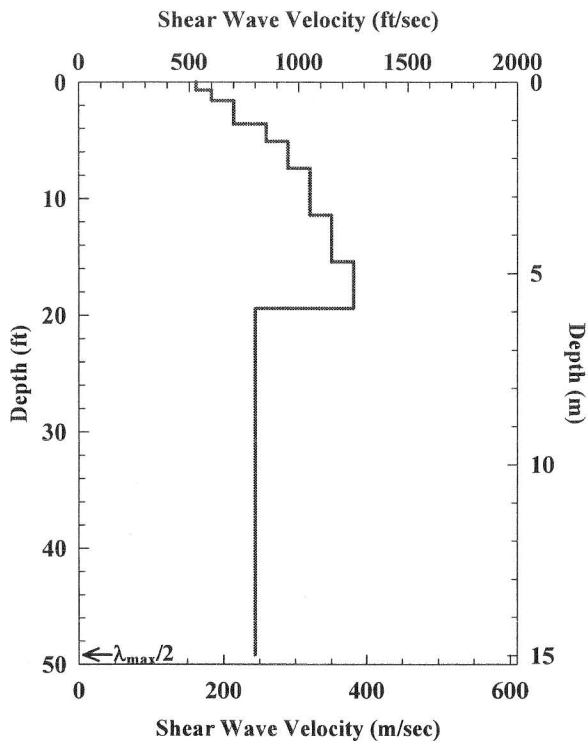


Figure F.23 Shear Wave Velocity Profile Determined at Site E during First Site Visit at Vogtle, GA

Table F.3 Profile Parameters Used to Develop Preliminary Theoretical Dispersion Curve at Site E in the First 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 | 530 | 0.24 | 906 | 128 |
| 2 | 0.9 | 0.7 | 600 | 0.24 | 1026 | 128 |
| 3 | 2.0 | 1.6 | 700 | 0.24 | 1197 | 128 |
| 4 | 1.5 | 3.6 | 850 | 0.24 | 1453 | 128 |
| 5 | 2.3 | 5.1 | 950 | 0.24 | 1624 | 128 |
| 6 | 4.0 | 7.4 | 1050 | 0.24 | 1795 | 128 |
| 7 | 4.0 | 11.4 | 1150 | 0.24 | 1966 | 128 |
| 8 | 4.0 | 15.4 | 1250 | 0.24 | 2137 | 128 |
| 9 | 29.6 | 19.4 | 800 | 0.24 | 1368 | 128 |
| 10* | 16.4 | 49.0 | 800 | 0.24 | 1368 | 128 |
| 11*# | 30.0 | 65.4 | 1900 | 0.42 | 5000 | 135 |
| 12*# | Half Space | 95.4 | 2200 | 0.38 | 5000 | 135 |

* Layer below maximum depth of the V_s Profile.

Layer below water table.

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

Appendix G

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

| | |
|--|------|
| 1. Data Sheet(s)..... | G.2 |
| 2. Phase Plots from SASW Tests..... | G.4 |
| 3. Table of Masking Parameters | G.9 |
| 4. Experimental Dispersion Curves | G.10 |
| 5. Matching the Experimental and Theoretical Dispersion Curves..... | G.11 |
| 6. Shear Wave Velocity Profile | G.12 |
| 7. Table of Profile Parameters | G.12 |

3 - Receiver SASW Data Sheet

Project : Vogtle

Data Sheet # : SA#6

Location : SF (SA#6)

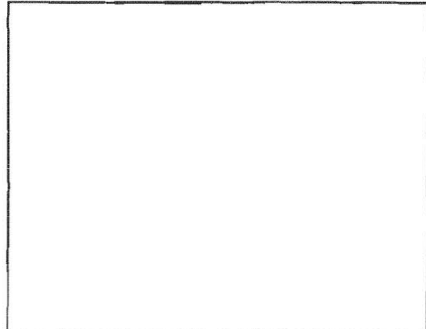
Disk # : SA#6

Date/(Time) : Dec 9, 2007 : ~ :)

Personnel : Stokoe, Minjae, Jiabei, Yuan

Sketch

Recorded by : Yuan



Checked by : Minjae

R1 I.D. : GEC 92003 Near

R2 I.D. : GEC 92002 Center

R3 I.D. : GEC 92001 Far

| Distance (ft) | | | Impact | | Impact Source | Record # | Freq. Range (Hz) | Notes |
|---------------|---------|---------|-----------|-----|---------------|----------|------------------|--------------|
| S - R1 | R1 - R2 | R2 - R3 | Direction | Rev | | | | |
| 1 | 1 | 2 | For | Rev | Small Hammer | SF1 | 0 - 800 | } Hold down. |
| 1 | 1 | 2 | For | Rev | " | SF2 | 0 - 800 | |
| 3 | 3 | 6 | For | Rev | " | SF3 | 0 - 800 | |
| 3 | 3 | 6 | For | Rev | " | SF4 | 0 - 800 | |
| 9 | 9 | 18 | For | Rev | Medium Hammer | SF5 | 0 - 400 | |
| 9 | 9 | 18 | For | Rev | " | SF6 | 0 - 400 | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |
| | | | For | Rev | | | ~ | |

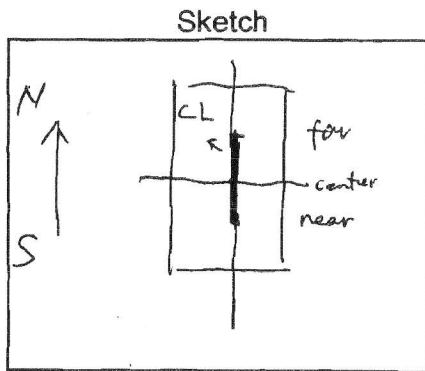
* Autosequence 3R_SASW saves F_2/1, C_2/1, F_4/3, C_4/3, Lin_1, Lin_2, Lin_4

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

3 - Receiver SASW Data Sheet

Project : Vogtle
 Location : G (SA # 7)
 Date/(Time) : Dec 9, 2007 (: ~ :)
 Personnel : Stokoe, Minjae, Yuan
 Recorded by : Yuan
 Checked by : Minjae
 R1 I.D. : GEC 92003
 R2 I.D. : GEC 92002
 R3 I.D. : GEC 92001

Data Sheet # : SA # 7
 Disk # : SA # 7



| Distance (ft) | | | Impact Direction | Impact Source | Record # | Freq. Range | Notes |
|---------------|---------|---------|------------------|---------------|----------|-------------|--|
| S - R1 | R1 - R2 | R2 - R3 | | | | (Hz) | |
| 25 | 25 | 25 | (For) Rev | Bulldozer | G1 | 0 ~ 100 | When I reverse direction location of Geophones not changed |
| | | | For Rev | | | ~ | |
| 50 | 50 | | (For) Rev | " | G2 | 0 ~ 100 | |
| | | | For Rev | | | ~ | |
| 50 | 50 | | For (Rev) | " | G3 | 0 ~ 100 | |
| | | | For Rev | | | ~ | |
| 25 | 25 | 25 | For (Rev) | " | G4 | 0 ~ 100 | |
| | | | 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

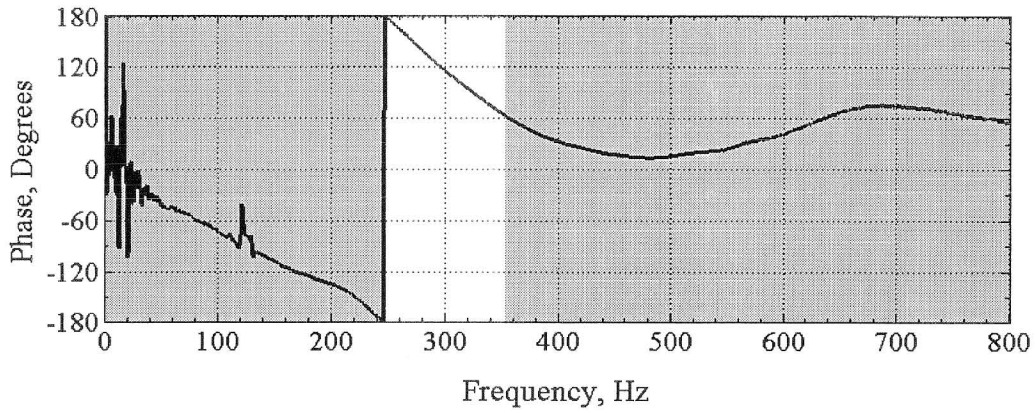


Figure G.1 Phase Plots Measured by SASW Testing with 1-ft Receiver Spacing (SF1_F_21.DAT)

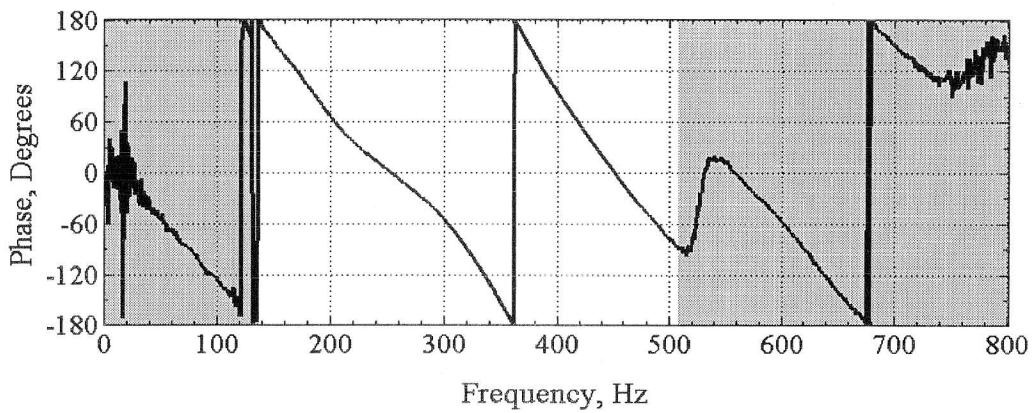


Figure G.2 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (SF1_F_43.DAT)

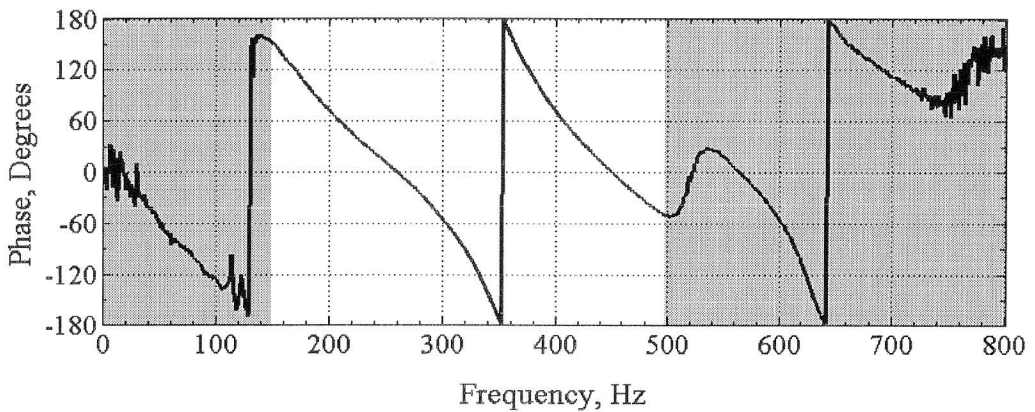


Figure G.3 Phase Plots Measured by SASW Testing with 2-ft Receiver Spacing (SF2_F_43.DAT)

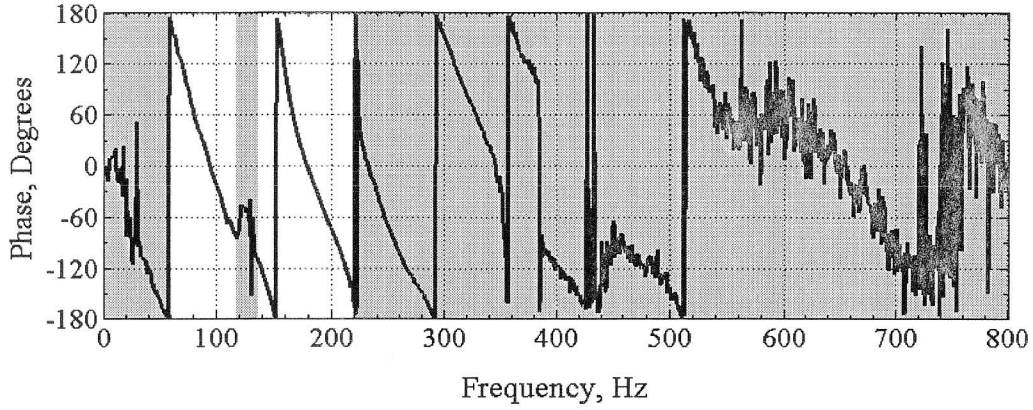


Figure G.4 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (SF3_F_43.DAT)

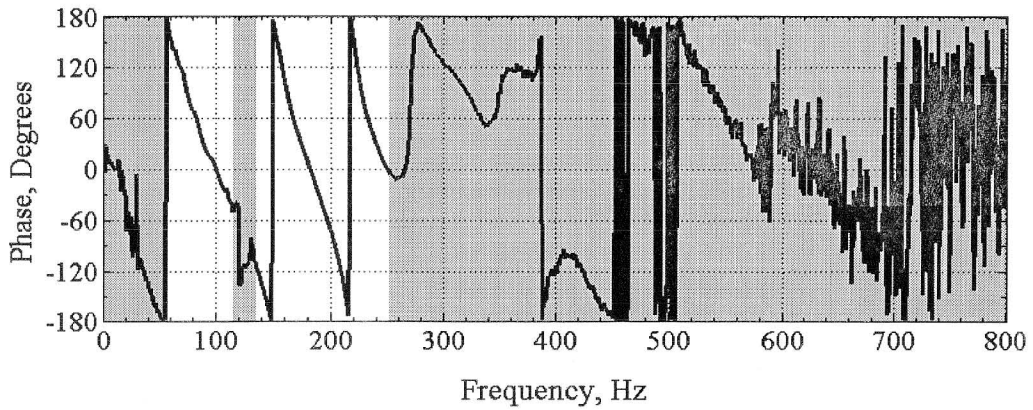


Figure G.5 Phase Plots Measured by SASW Testing with 6-ft Receiver Spacing (SF4_F_43.DAT)

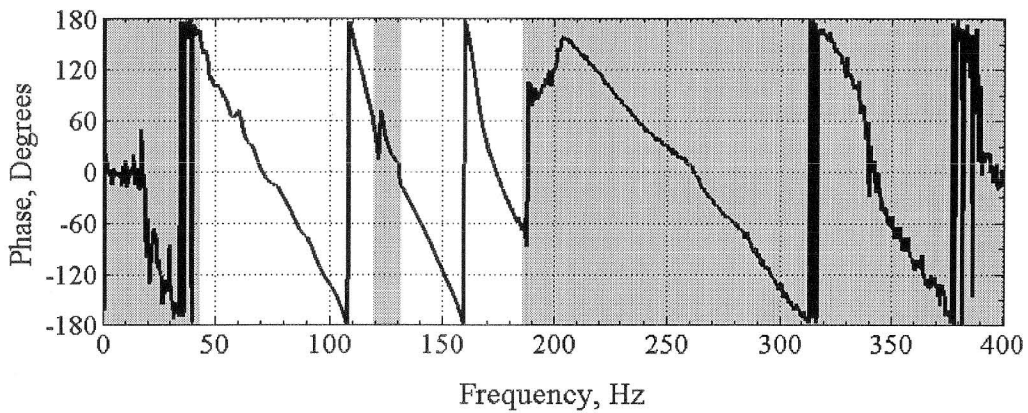


Figure G.6 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (SF5_F_21.DAT)

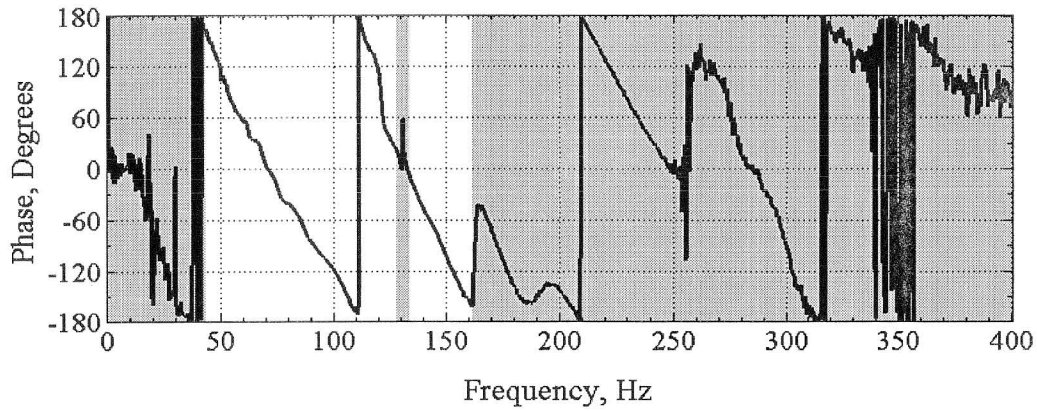


Figure G.7 Phase Plots Measured by SASW Testing with 9-ft Receiver Spacing (SF6_F_21.DAT)

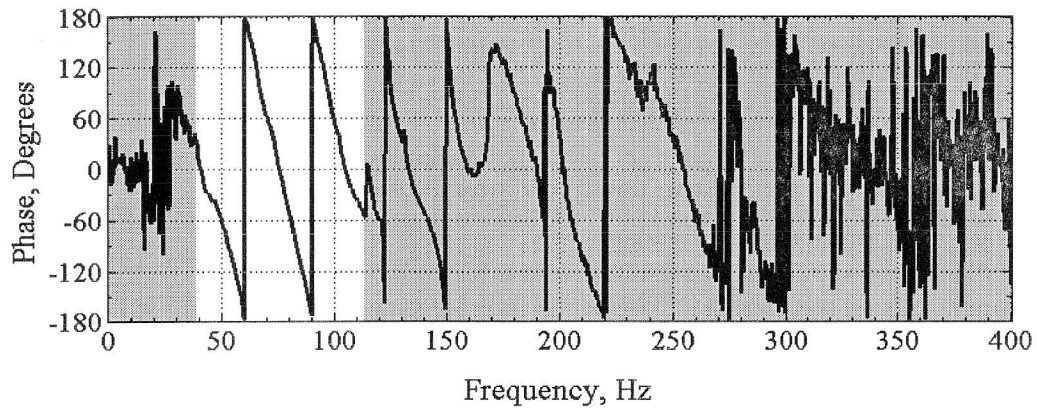


Figure G.8 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (SF5_F_43.DAT)

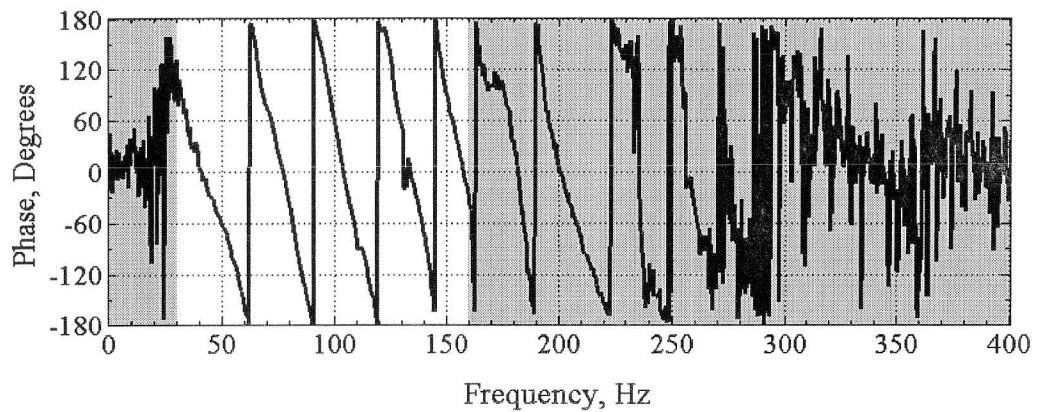


Figure G.9 Phase Plots Measured by SASW Testing with 18-ft Receiver Spacing (SF6_F_43.DAT)

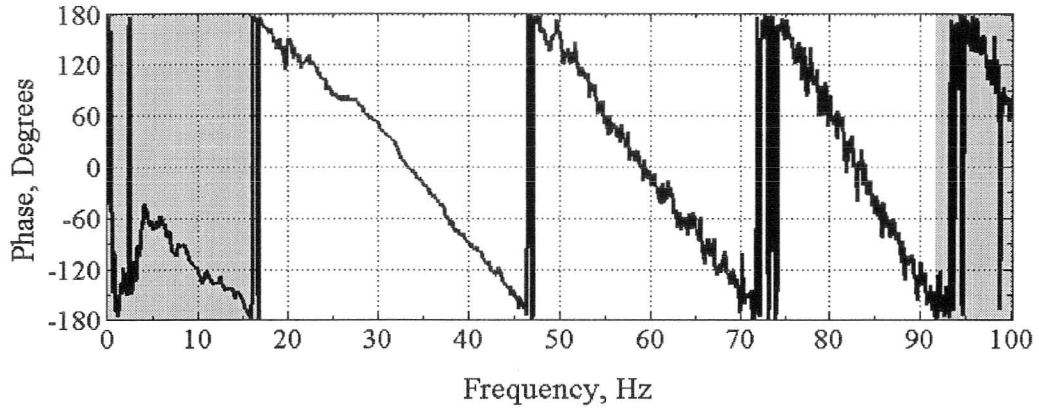


Figure G.10 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G1_F_21.DAT)

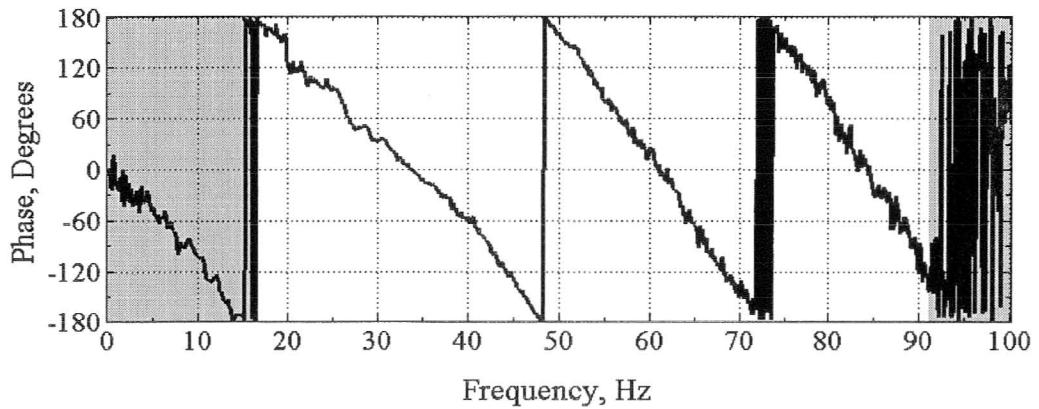


Figure G.11 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G1_F_43.DAT)

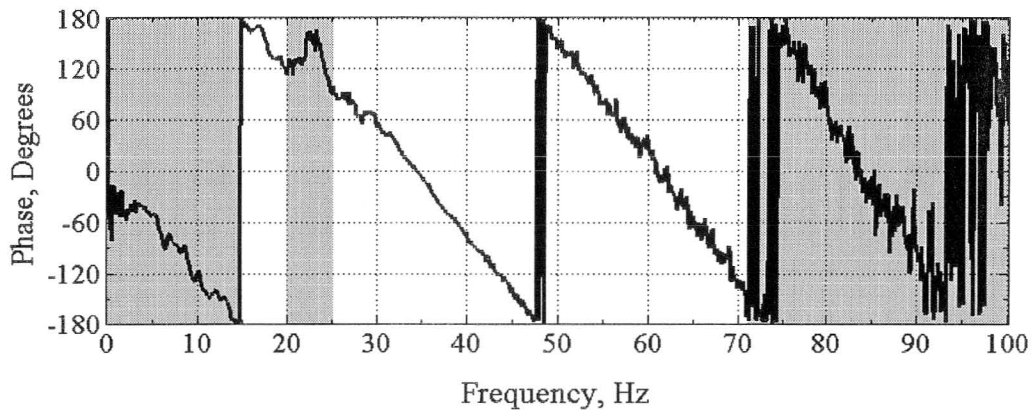


Figure G.12 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G4_F_21.DAT)

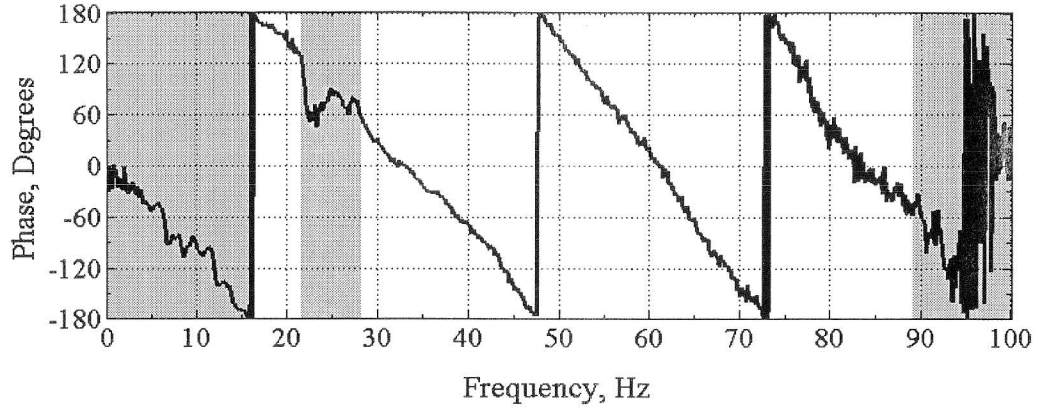


Figure G.13 Phase Plots Measured by SASW Testing with 25-ft Receiver Spacing (G4_F_43.DAT)

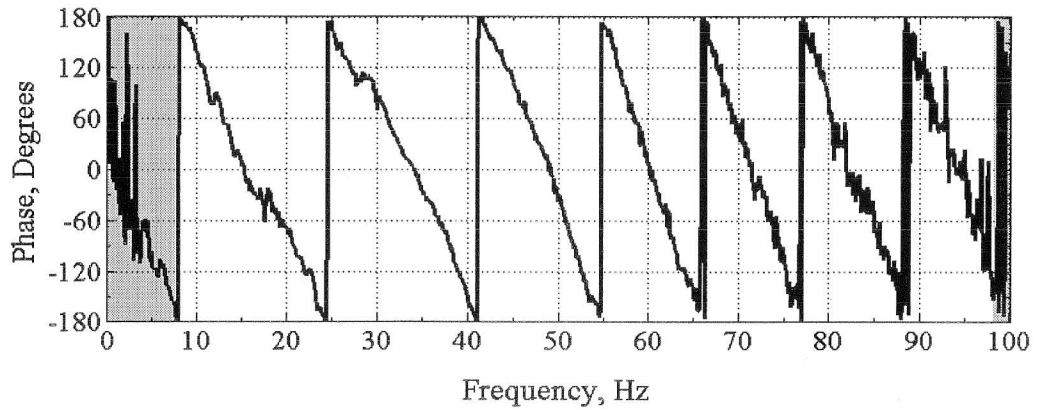


Figure G.14 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (G2_F_21.DAT)

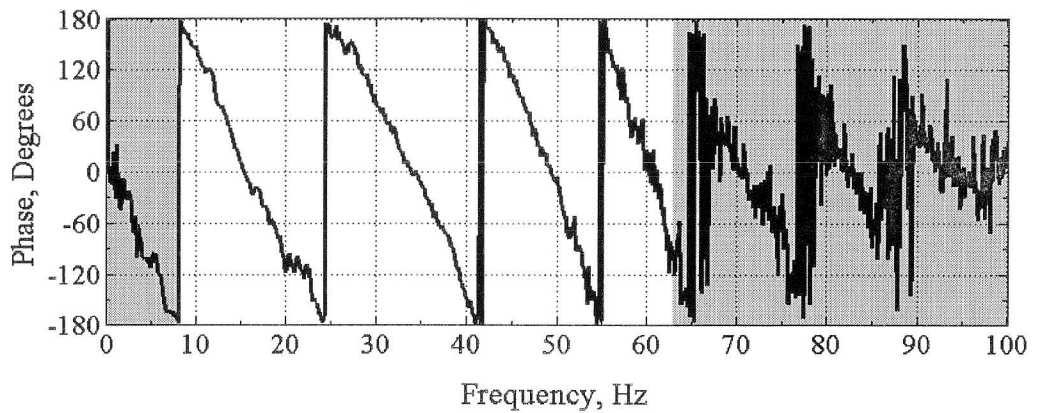


Figure G.15 Phase Plots Measured by SASW Testing with 50-ft Receiver Spacing (G3_F_21.DAT)

Table G.1 Tables of Masking Parameters Used on Data Collected during First 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 | 247 | 1 | SF1_F_21.DAT |
| | 2 | 353 | 800 | - | |
| 2 | 1 | 0 | 137 | 1 | SF1_F_43.DAT |
| | 2 | 508 | 800 | - | |
| 2 | 1 | 0 | 149 | 1 | SF2_F_43.DAT |
| | 2 | 497 | 800 | - | |
| 6 | 1 | 0 | 59 | 1 | SF3_F_43.DAT |
| | 2 | 118 | 136 | 1 | |
| | 3 | 219 | 800 | - | |
| 6 | 1 | 0 | 57 | 1 | SF4_F_43.DAT |
| | 2 | 115 | 135 | 1 | |
| | 3 | 251 | 800 | - | |
| 9 | 1 | 0 | 43.5 | 1 | SF5_F_21.DAT |
| | 2 | 119 | 131.5 | 2 | |
| | 3 | 185.5 | 400 | - | |
| 9 | 1 | 0 | 43.5 | 1 | SF6_F_21.DAT |
| | 2 | 128 | 134 | 2 | |
| | 3 | 161.5 | 400 | - | |
| 18 | 1 | 0 | 38.5 | 1 | SF5_F_43.DAT |
| | 2 | 113.5 | 400 | - | |
| 18 | 1 | 0 | 30 | 1 | SF6_F_43.DAT |
| | 2 | 159.5 | 400 | - | |
| 25 | 1 | 0 | 17 | 1 | G1_F_21.DAT |
| | 2 | 91.5 | 100 | - | |
| 25 | 1 | 0 | 16.62 | 1 | G1_F_43.DAT |
| | 2 | 90.88 | 100 | - | |
| 25 | 1 | 0 | 14.88 | 1 | G4_F_21.DAT |
| | 2 | 20 | 25.12 | 1 | |
| | 3 | 70.88 | 100 | - | |
| 25 | 1 | 0 | 16.38 | 1 | G4_F_43.DAT |
| | 2 | 21.62 | 28.12 | 1 | |
| | 3 | 88.88 | 100 | - | |
| 50 | 1 | 0 | 8.12 | 1 | G2_F_21.DAT |
| | 2 | 98 | 100 | - | |
| 50 | 1 | 0 | 8.25 | 1 | G3_F_21.DAT |
| | 2 | 62.88 | 100 | - | |

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