

NSP Phase 3 Thornwood Park Project
Wilmette, Illinois

**VIBRATION
MONITORING
REPORT-12**

Mike Zika
Berger Excavating
1205 Garland Rd
Wauconda, IL 60084

November 7, 2022

Cti



4262 Old Grand Ave
Suite 102
Chicago, IL 60031

November 7, 2022

Mike Zika
Berger Excavating
1205 Garland Rd
Wauconda, IL 60084

RE: **Report 12:** - *Ground Vibration Monitoring for the Wilmette NSP Phase 3 Thornwood Park Project located in Wilmette, Illinois.*

Mr. Zika,

Construction Testing and Instrumentation, Inc. (CTI) have prepared this vibration monitoring report to evaluate vibrations during all construction activities. This report summarizes the results of ground vibration monitoring for three seismographs, all located around the surrounding project site (see attached location diagram). This summary report covers the monitoring period from **October 24, 2022 through November 7, 2022.**

The vibration equipment at the site are Geosonic seismographs that have the capacity to record peak particle velocity (PPV) and frequency (Hertz). The maximum allowable peak particle velocity is 0.50 inches per second (IPS), which is based upon the specifications established by the U.S Bureau of Mines (USBM) and a typical threshold for construction vibration monitoring. The seismographs are set to trigger whenever vibration levels exceed 0.003 in/s lowest (PPV) and continuously monitor vibrations during all construction activities.

All vibration recordings during this report period have been below the 0.50-inch per second threshold limit. The maximum PPV for the monitoring period are below.

November 2, 2022	Southwest Corner of Park	Unit #3734	L	0.215 (in/s)
November 1, 2022	2345 Thornwood Avenue	Unit #3733	T	0.120 (in/s)
November 5, 2022	East Side of Park – Colgate St.	Unit #3647	T	0.095 (in/s)


V- Vertical Vibration
T- Transversal Vibration
L- Longitudinal Vibration

Sincerely,

Daniel W. McCarthy
Senior Instrumentation Engineer

NSP Phase 3 Thornwood Park Seismograph Locations



 Seismograph Location

SN: 3734 v3.22
Date: 10/24/2022 **Time:** 14:46:00
Event: 160
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

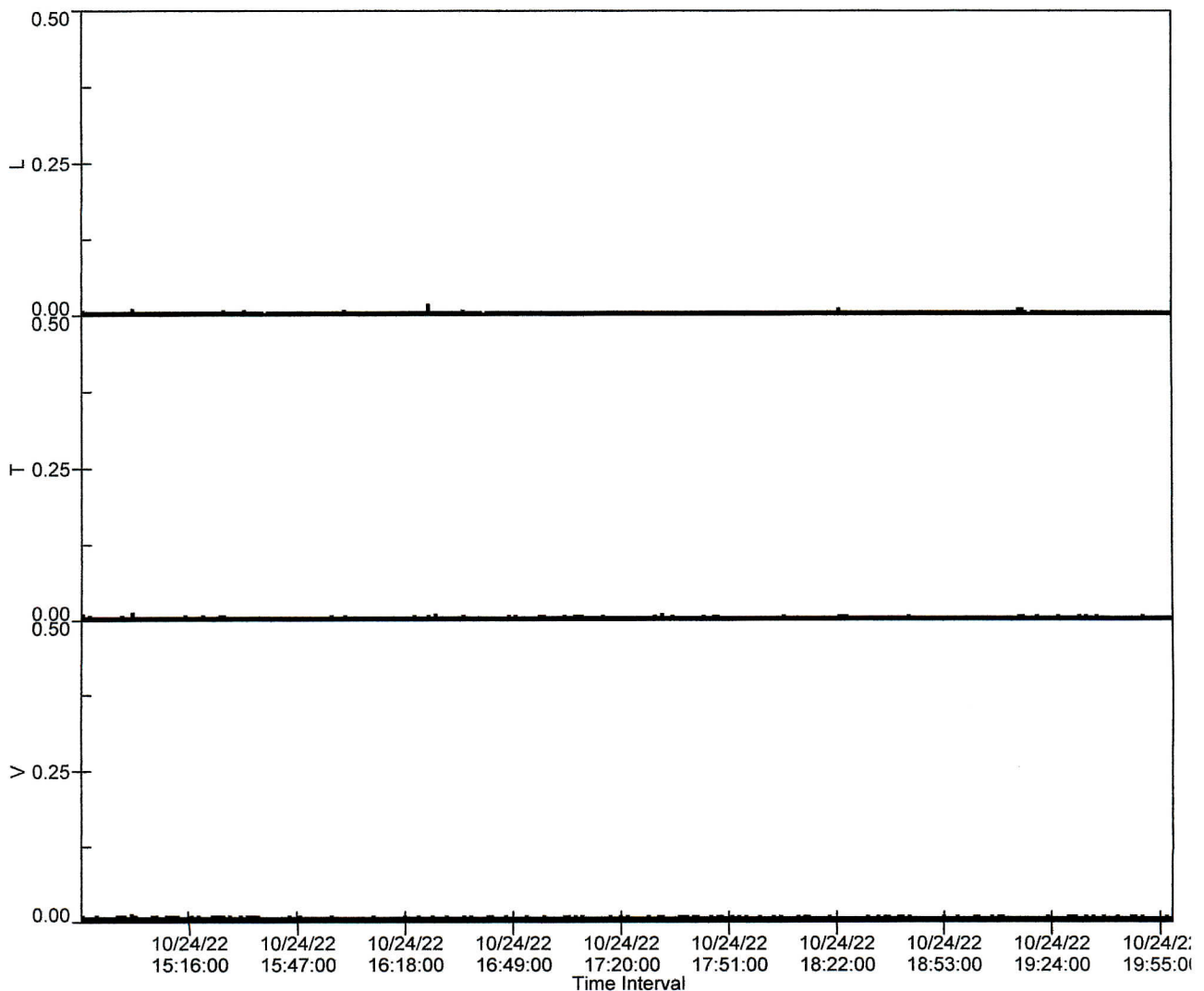
	L	T	V
PPV (in/s)	0.018	0.013	0.013
FREQ (Hz)	250.0	15.2	16.7
Peak Air Pressure:	95 db		
Recording Time:	313 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 160

Record Max PPV: 0.018 in/s Record Max DB: 95 db



SN: 3734 v3.22
Date: 10/25/2022 **Time:** 06:01:00
Event: 161
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.063	0.063	0.068
FREQ (Hz)	17.2	35.7	19.2
Peak Air Pressure:	94 db		

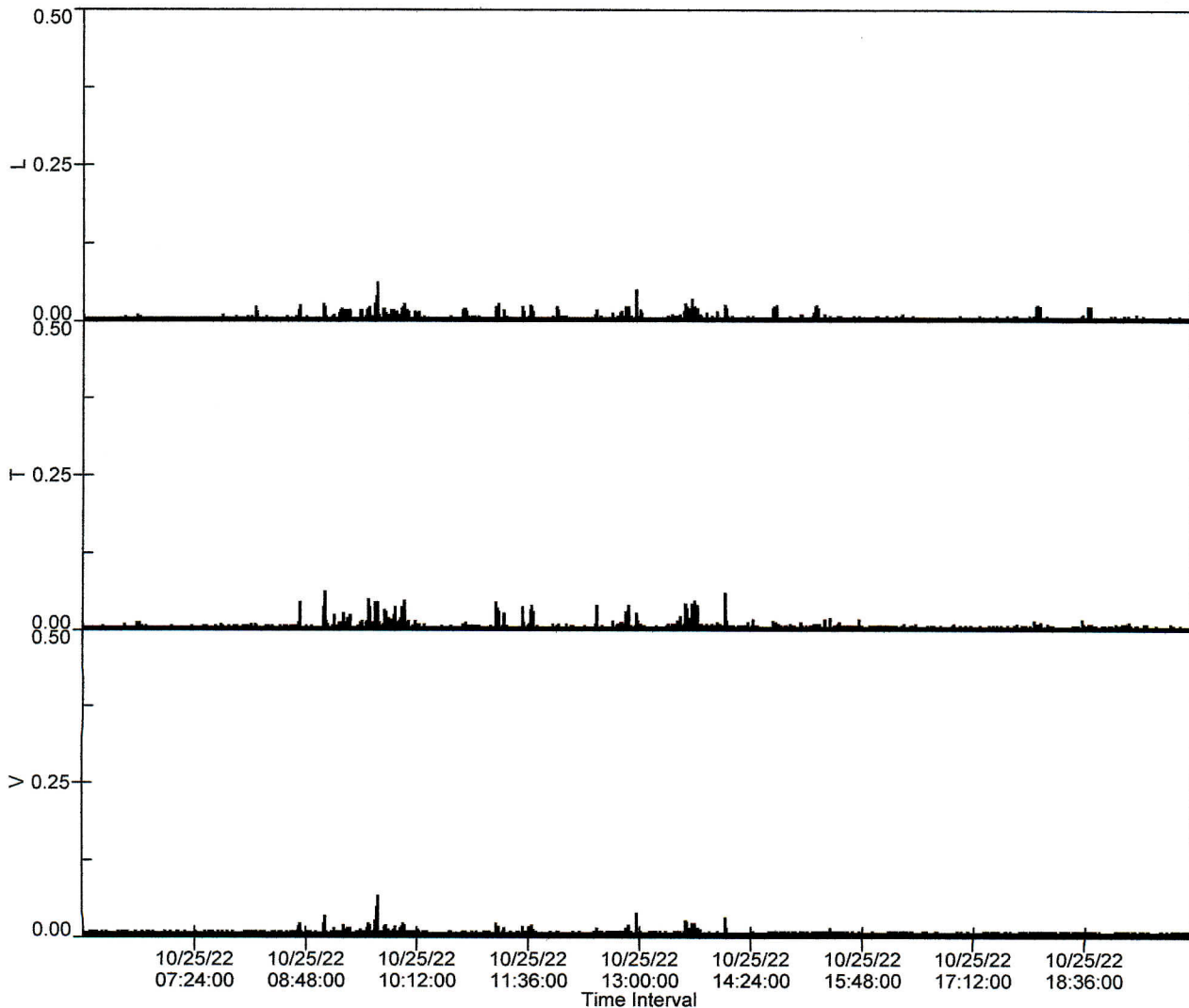
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 161

Record Max PPV: 0.068 in/s Record Max DB: 94 db



SN: 3734 v3.22
Date: 10/26/2022 **Time:** 06:01:00
Event: 162
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.035	0.073	0.033
FREQ (Hz)	29.4	23.8	17.9
Peak Air Pressure:	90 db		

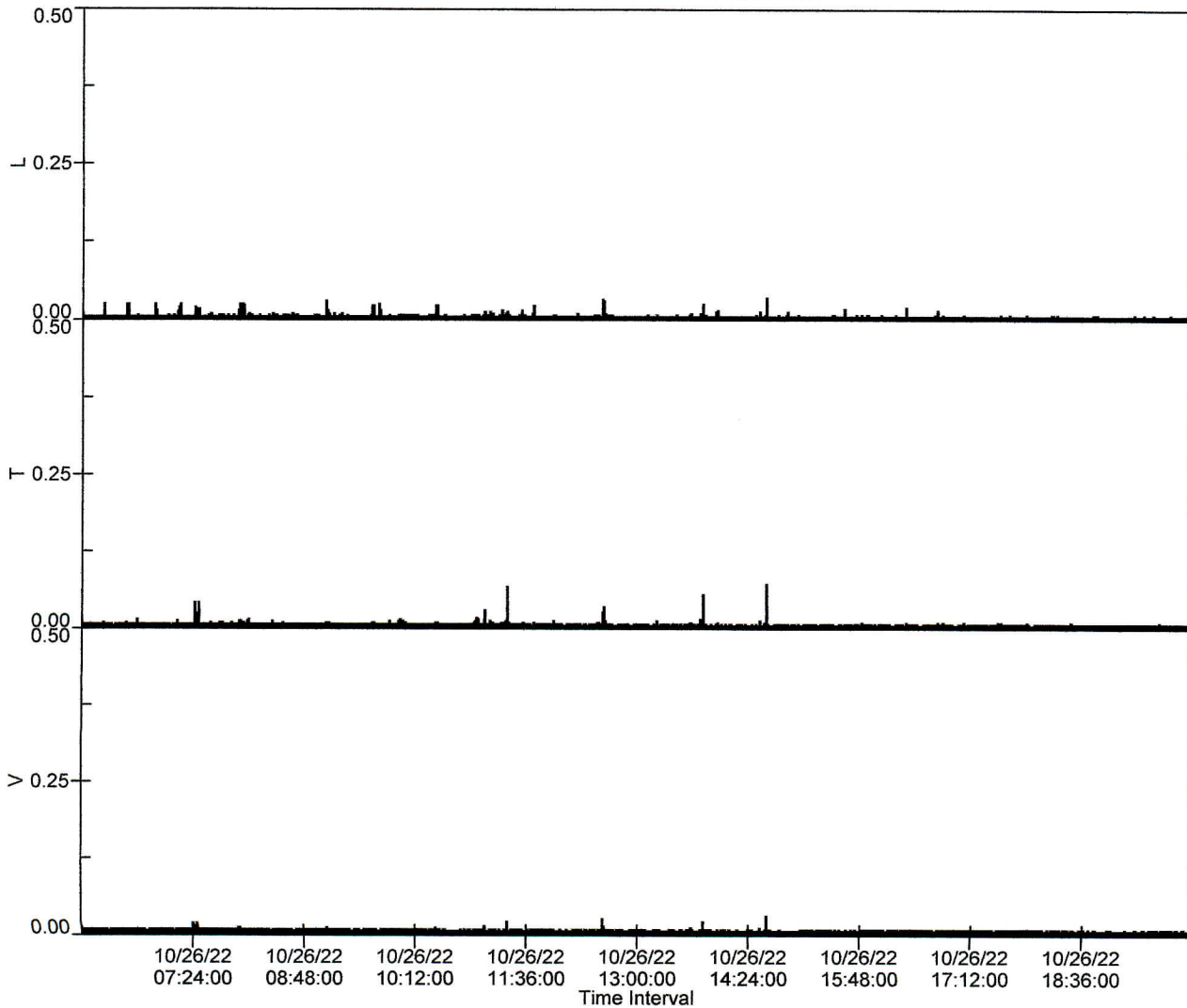
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 162

Record Max PPV: 0.073 in/s Record Max DB: 90 db



SN: 3734 v3.22
Date: 10/27/2022 **Time:** 06:01:00
Event: 163
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.058	0.210	0.158
FREQ (Hz)	50.0	50.0	45.5
Peak Air Pressure:	89 db		

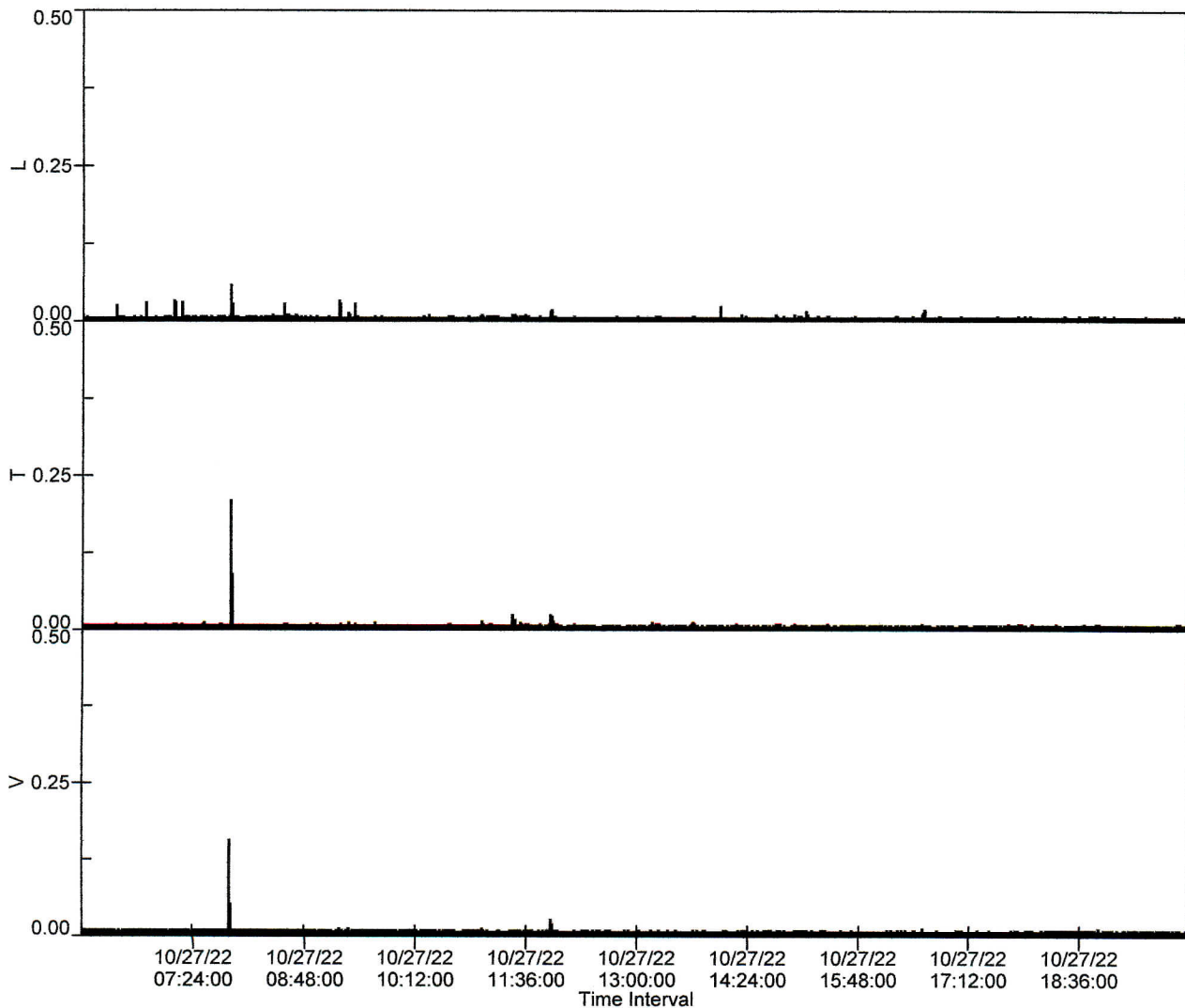
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 163

Record Max PPV: 0.210 in/s Record Max DB: 89 db



SN: 3734 v3.22
Date: 10/28/2022 **Time:** 06:01:00
Event: 164
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.038	0.063	0.038
FREQ (Hz)	45.5	35.7	27.8
Peak Air Pressure:	87 db		

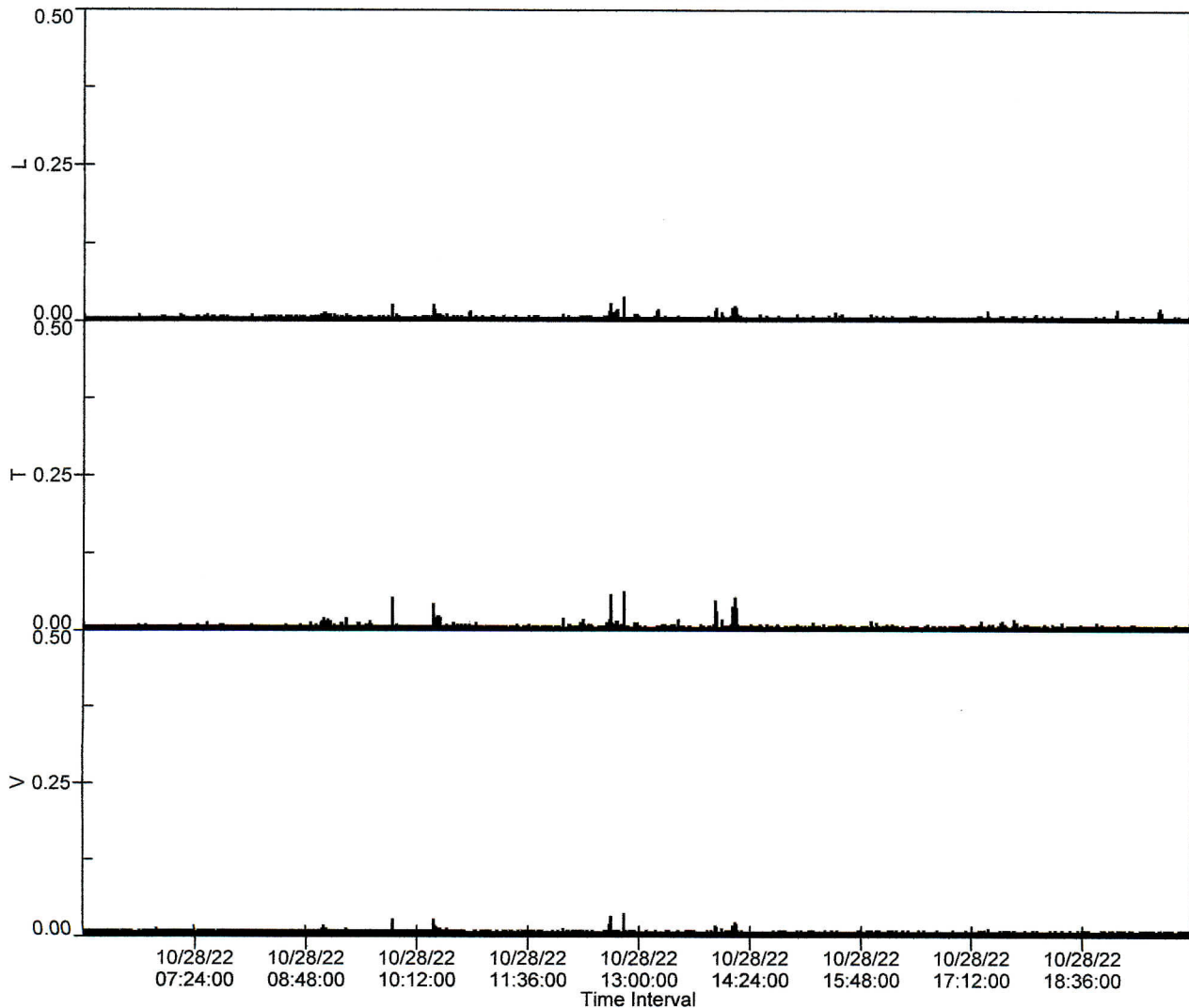
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 164

Record Max PPV: 0.063 in/s Record Max DB: 87 db



SN: 3734 v3.22
Date: 10/29/2022 **Time:** 06:01:00
Event: 165
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

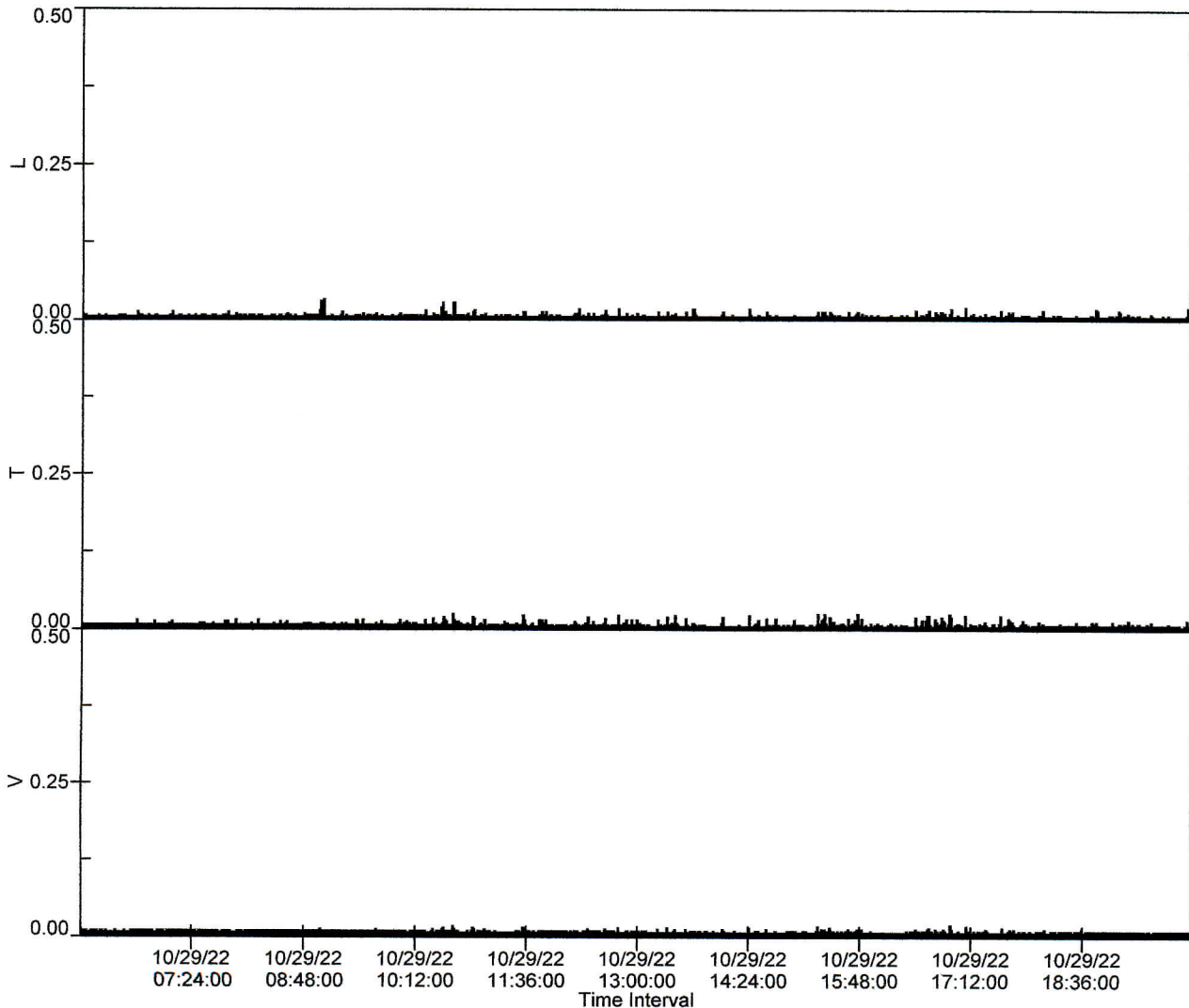
	L	T	V
PPV (in/s)	0.033	0.025	0.020
FREQ (Hz)	250.0	14.7	15.2
Peak Air Pressure:	94 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 165

Record Max PPV: 0.033 in/s Record Max DB: 94 db



SN: 3734 v3.22
Date: 10/30/2022 **Time:** 06:01:00
Event: 166
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

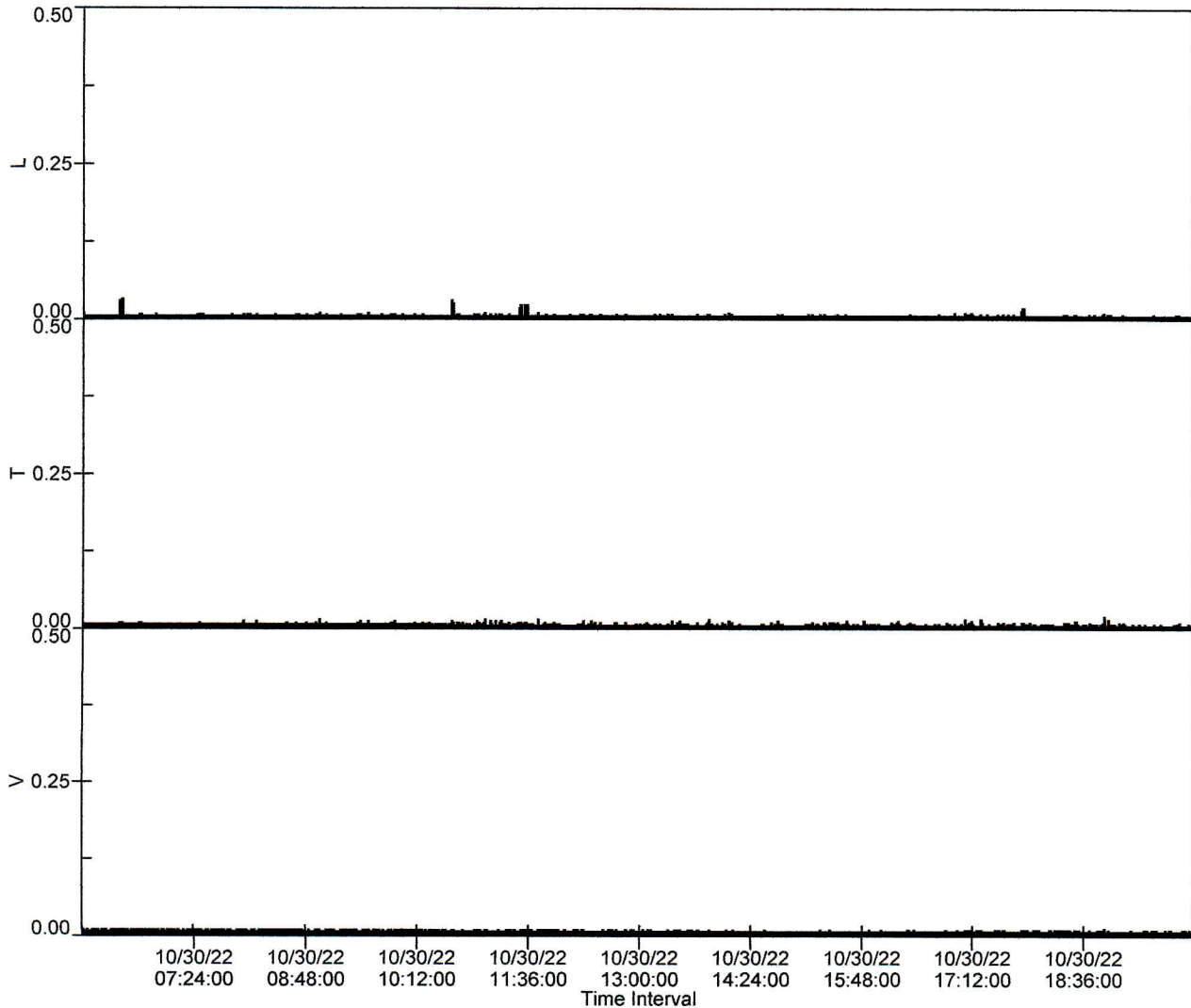
	L	T	V
PPV (in/s)	0.033	0.020	0.013
FREQ (Hz)	166.7	20.0	.2
Peak Air Pressure:	92 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 166

Record Max PPV: 0.033 in/s Record Max DB: 92 db



SN: 3734 v3.22
Date: 10/31/2022 **Time:** 06:01:00
Event: 167
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.028	0.023	0.015
FREQ (Hz)	166.7	18.5	17.9
Peak Air Pressure:	94 db		

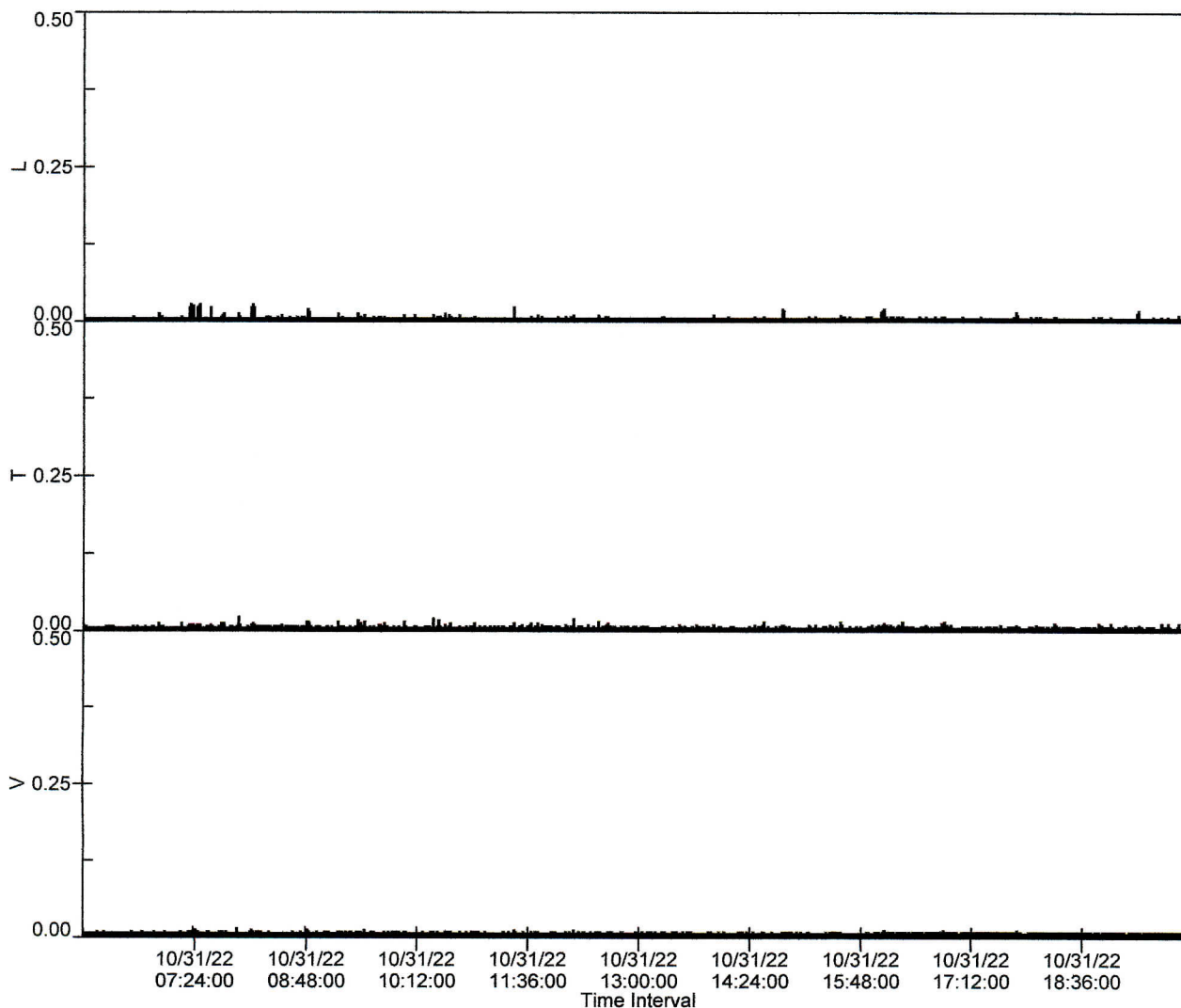
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 167

Record Max PPV: 0.028 in/s Record Max DB: 94 db



SN: 3734 v3.22
Date: 11/01/2022 **Time:** 06:01:00
Event: 168
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.033	0.035	0.030
FREQ (Hz)	11.6	11.6	9.8
Peak Air Pressure:	90 db		

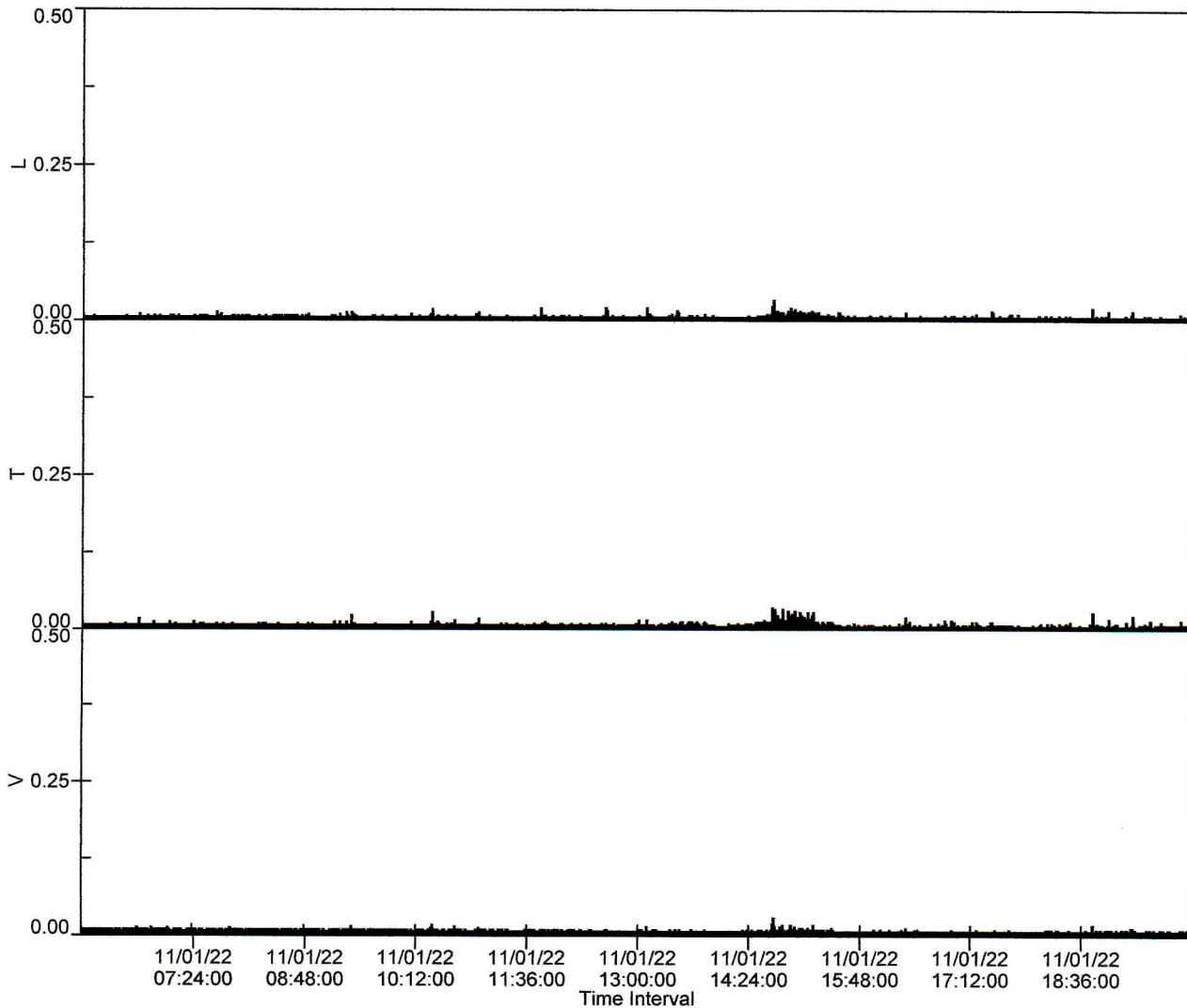
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 168

Record Max PPV: 0.035 in/s Record Max DB: 90 db



SN: 3734 v3.22
Date: 11/02/2022 **Time:** 06:01:00
Event: 169
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.153	0.215	0.148
FREQ (Hz)	17.9	17.9	33.3
Peak Air Pressure:	92 db		

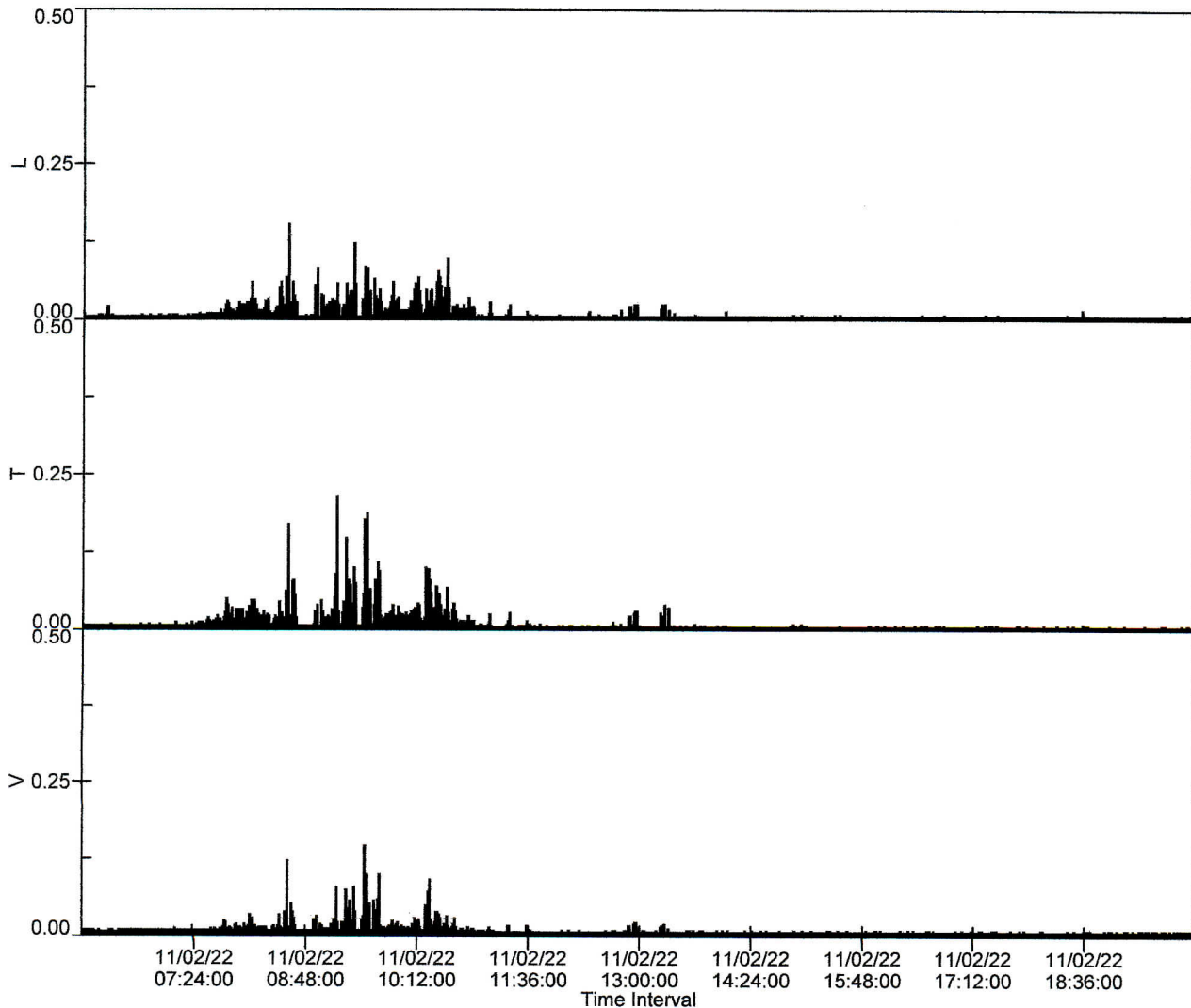
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 169

Record Max PPV: 0.215 in/s Record Max DB: 92 db



SN: 3734 v3.22
Date: 11/03/2022 **Time:** 06:01:00
Event: 170
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.053	0.050	0.038
FREQ (Hz)	10.2	26.3	27.8
Peak Air Pressure:	92 db		

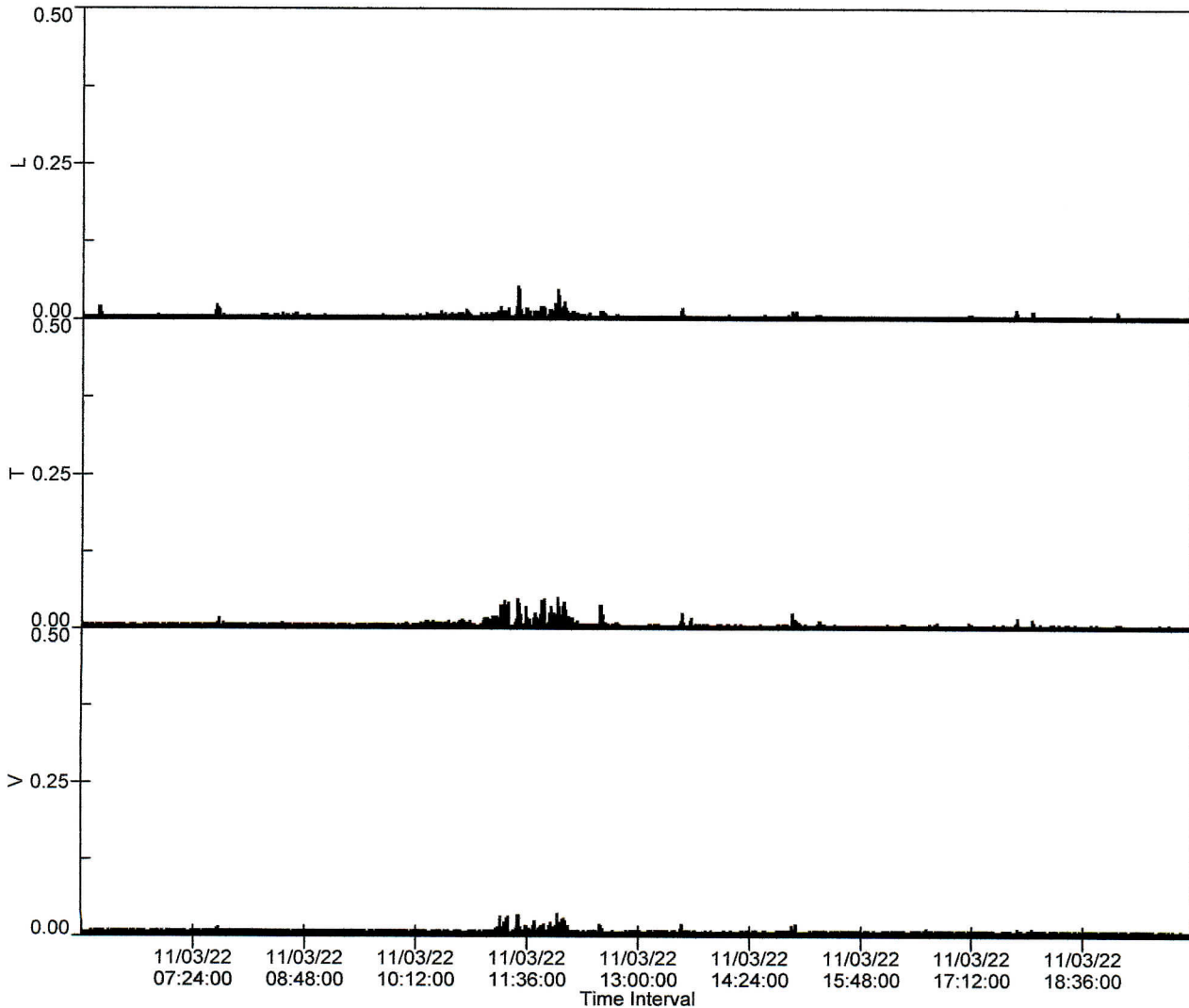
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 170

Record Max PPV: 0.053 in/s Record Max DB: 92 db



SN: 3734 v3.22
Date: 11/04/2022 **Time:** 06:01:00
Event: 171
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

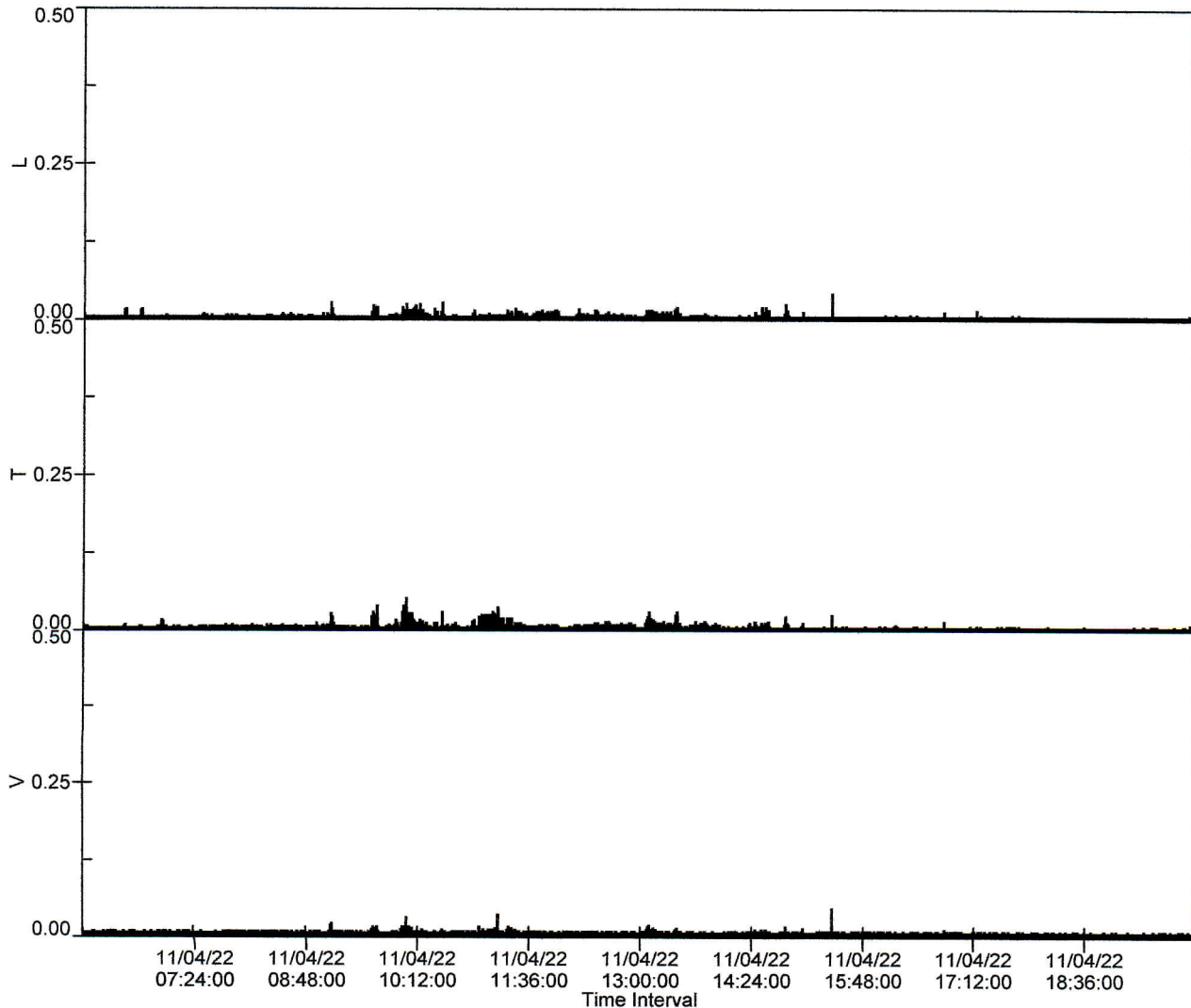
	L	T	V
PPV (in/s)	0.043	0.053	0.048
FREQ (Hz)	100.0	20.0	83.3
Peak Air Pressure:	90 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 171

Record Max PPV: 0.053 in/s Record Max DB: 90 db



SN: 3734 v3.22
Date: 11/05/2022 **Time:** 06:01:00
Event: 172
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.038	0.048	0.025
FREQ (Hz)	16.7	20.0	11.6
Peak Air Pressure:	94 db		

Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

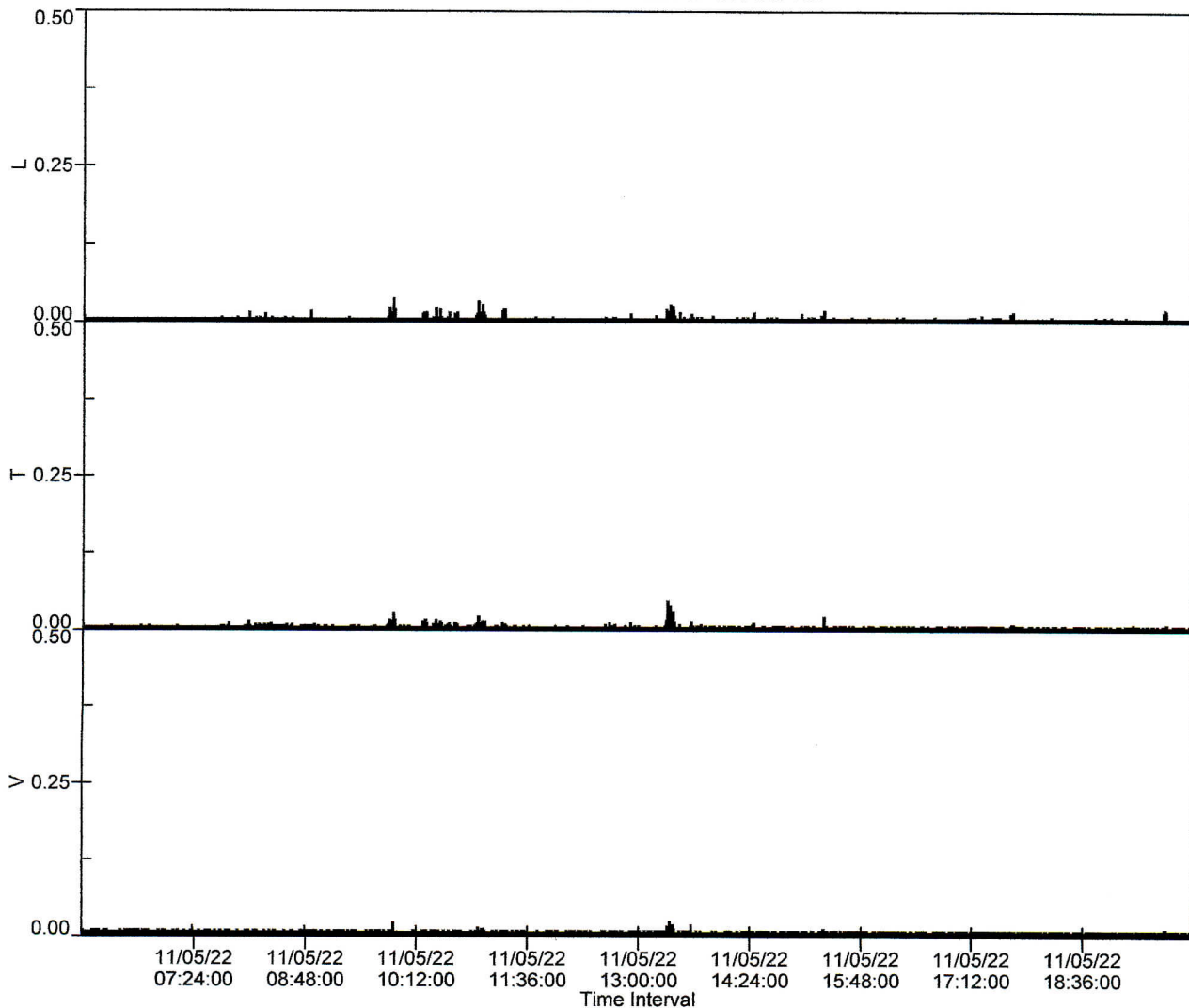
Additional Info:

Shaketable Calibrated: 04/12/2022

By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 172

Record Max PPV: 0.048 in/s Record Max DB: 94 db



SN: 3734 v3.22
Date: 11/06/2022 **Time:** 06:01:00
Event: 173
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.018	0.013	0.013
FREQ (Hz)	166.7	250.0	.2
Peak Air Pressure:	97 db		

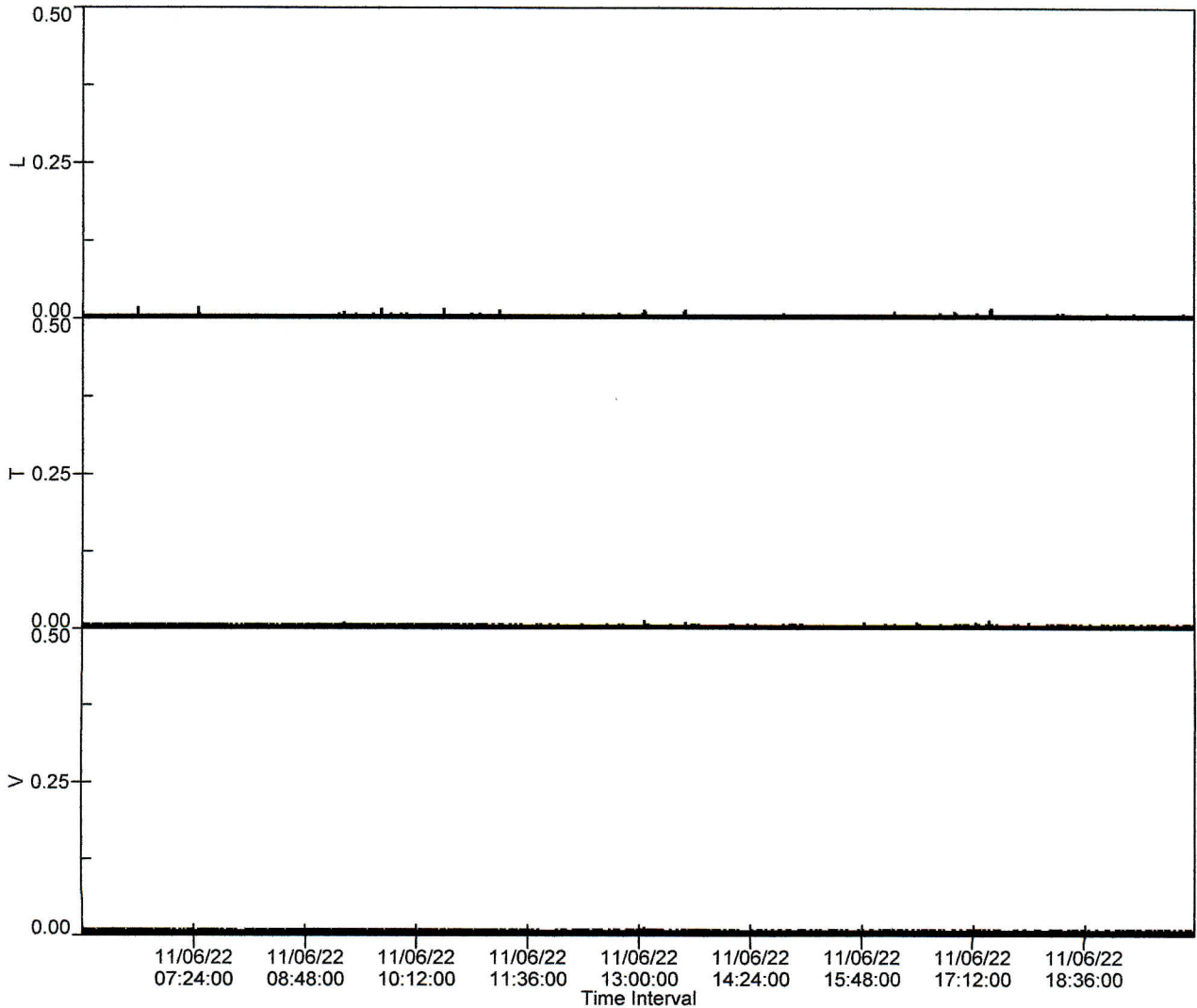
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 173

Record Max PPV: 0.018 in/s Record Max DB: 97 db



SN: 3734 v3.22
Date: 11/07/2022 **Time:** 06:01:00
Event: 174
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: SW CORNER OF PARK

**Continuous Monitor Recording
Summary Data**

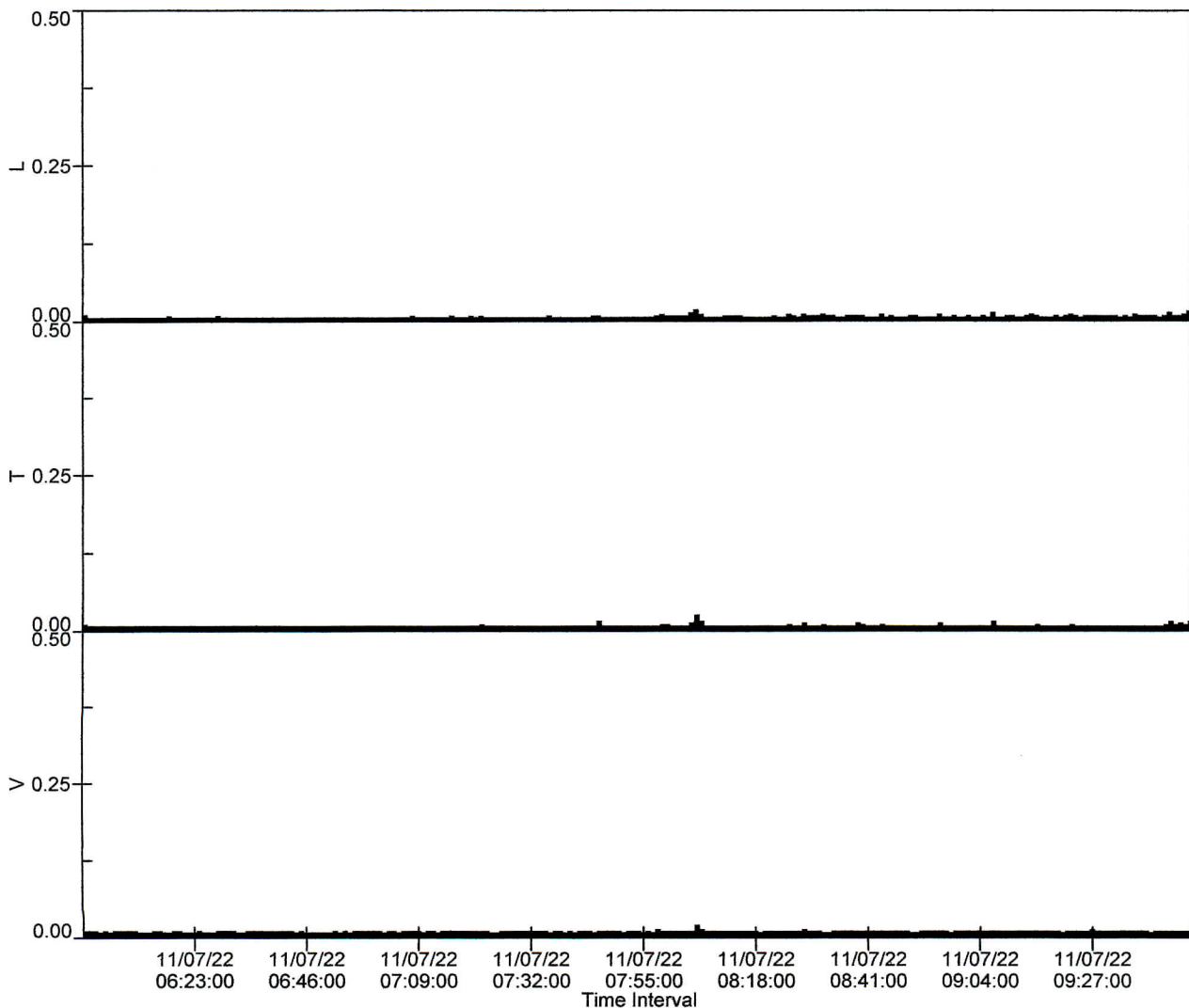
	L	T	V
PPV (in/s)	0.018	0.025	0.020
FREQ (Hz)	13.9	17.9	11.9
Peak Air Pressure:	98 db		
Recording Time:	227 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 04/12/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 174

Record Max PPV: 0.025 in/s Record Max DB: 98 db



SN: 3733 v3.22
Date: 10/24/2022 **Time:** 06:01:00
Event: 158
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

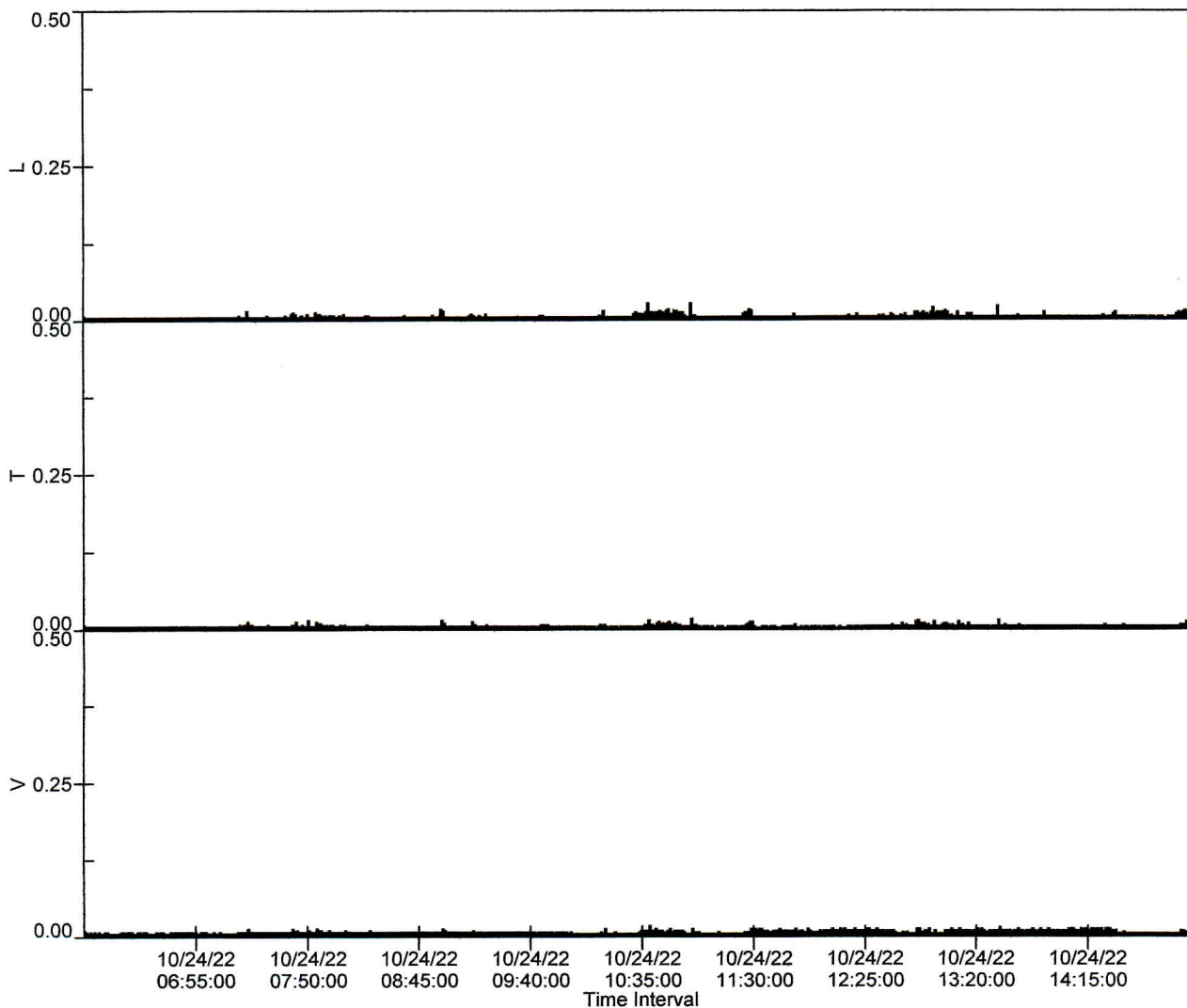
	L	T	V
PPV (in/s)	0.028	0.018	0.018
FREQ (Hz)	14.3	20.0	12.5
Peak Air Pressure:	86 db		
Recording Time:	547 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 158

Record Max PPV: 0.028 in/s Record Max DB: 86 db



SN: 3733 v3.22
Date: 10/25/2022 **Time:** 06:01:00
Event: 159
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

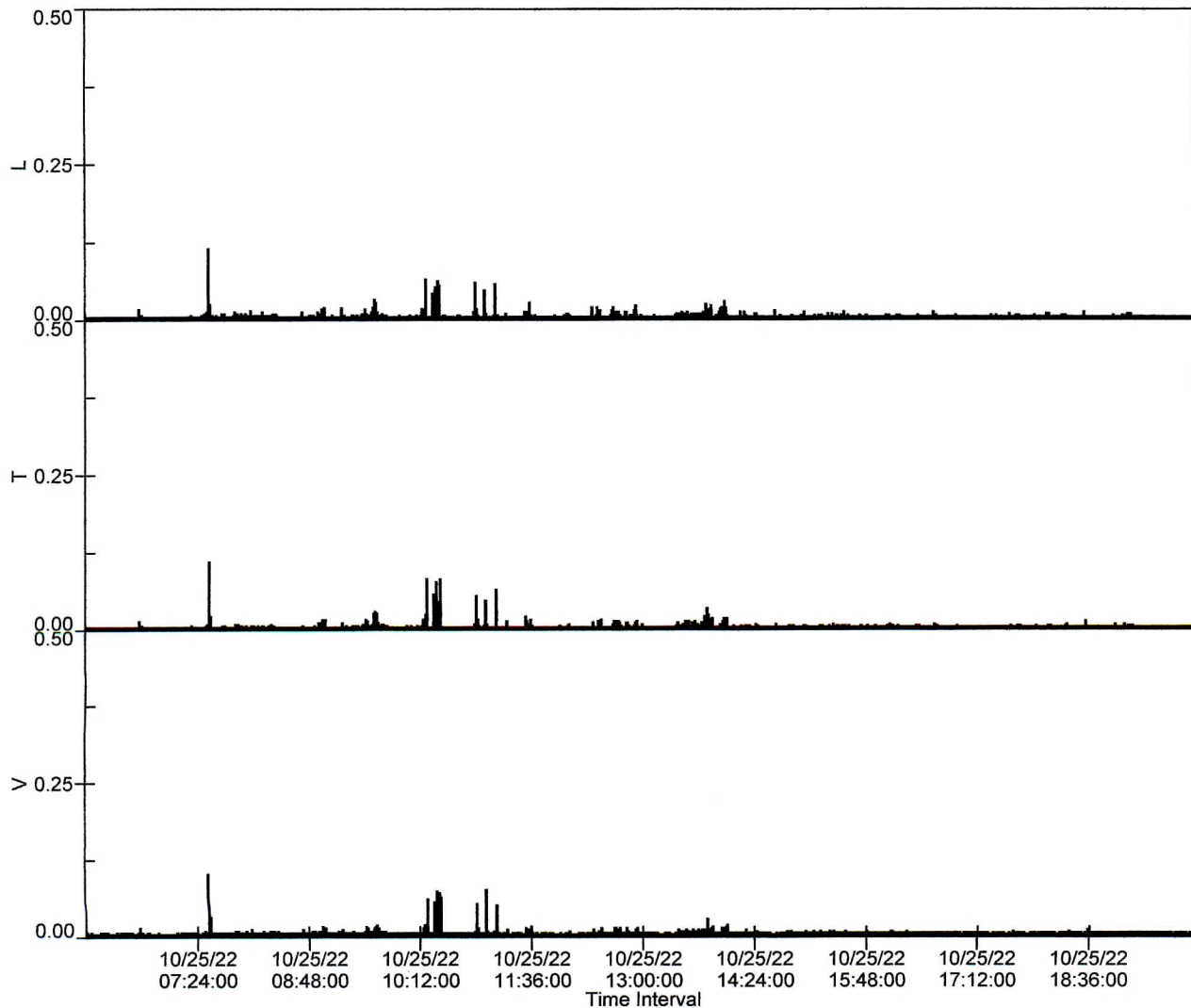
	L	T	V
PPV (in/s)	0.115	0.110	0.103
FREQ (Hz)	38.5	14.7	50.0
Peak Air Pressure:	79 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 159

Record Max PPV: 0.115 in/s Record Max DB: 79 db



SN: 3733 v3.22
Date: 10/26/2022 **Time:** 06:01:00
Event: 160
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

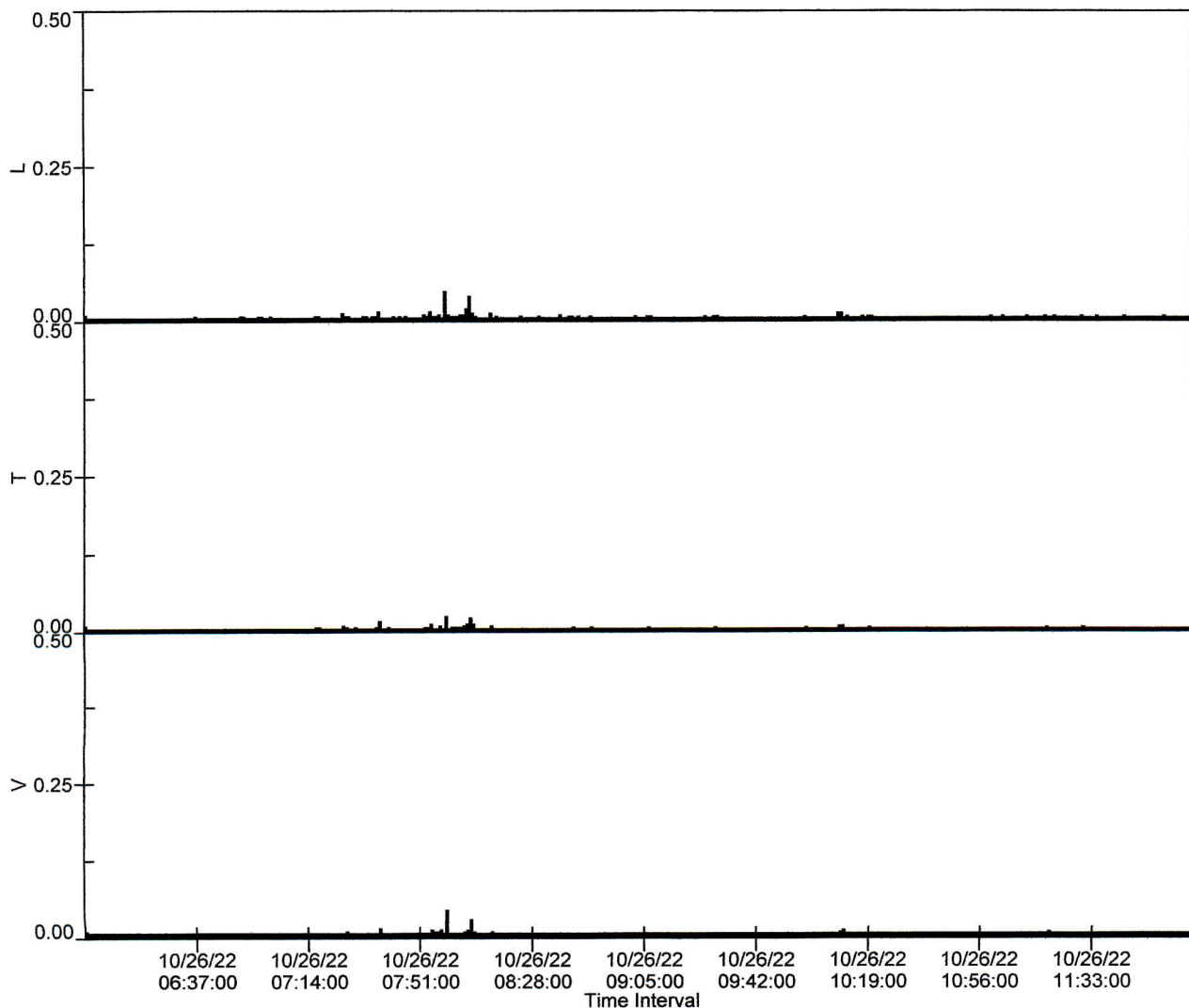
	L	T	V
PPV (in/s)	0.048	0.025	0.045
FREQ (Hz)	50.0	55.6	41.7
Peak Air Pressure:	90 db		
Recording Time:	367 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 160

Record Max PPV: 0.048 in/s Record Max DB: 90 db



SN: 3733 v3.22
Date: 10/26/2022 **Time:** 12:14:00
Event: 161
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.038	0.020	0.025
FREQ (Hz)	19.2	23.8	22.7
Peak Air Pressure:	81 db		

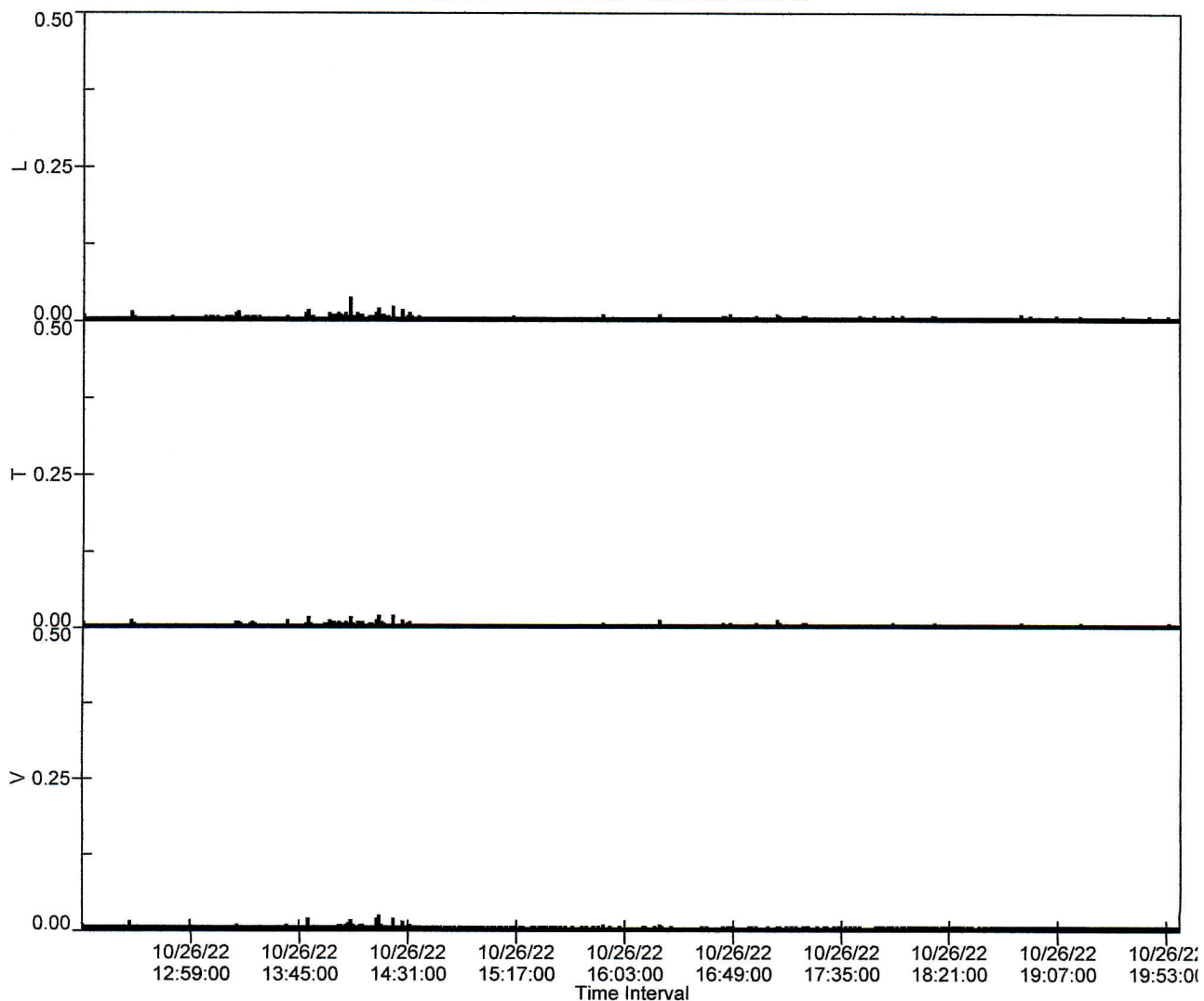
Recording Time: 465 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 161

Record Max PPV: 0.038 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 10/27/2022 **Time:** 06:01:00
Event: 162
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.028	0.018	0.018
FREQ (Hz)	20.0	16.7	25.0
Peak Air Pressure:	98 db		

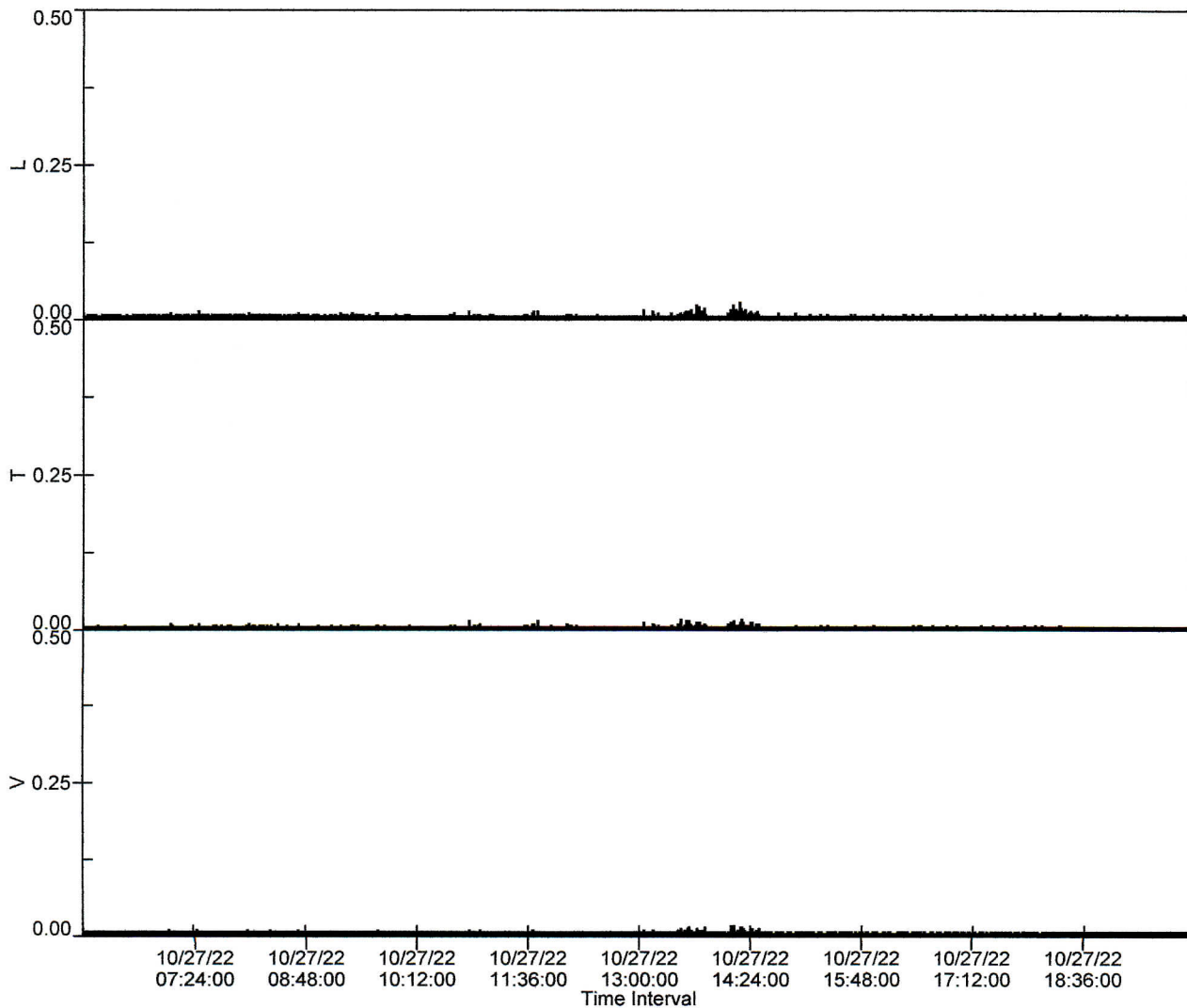
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 162

Record Max PPV: 0.028 in/s Record Max DB: 98 db



SN: 3733 v3.22
Date: 10/28/2022 **Time:** 06:01:00
Event: 163
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

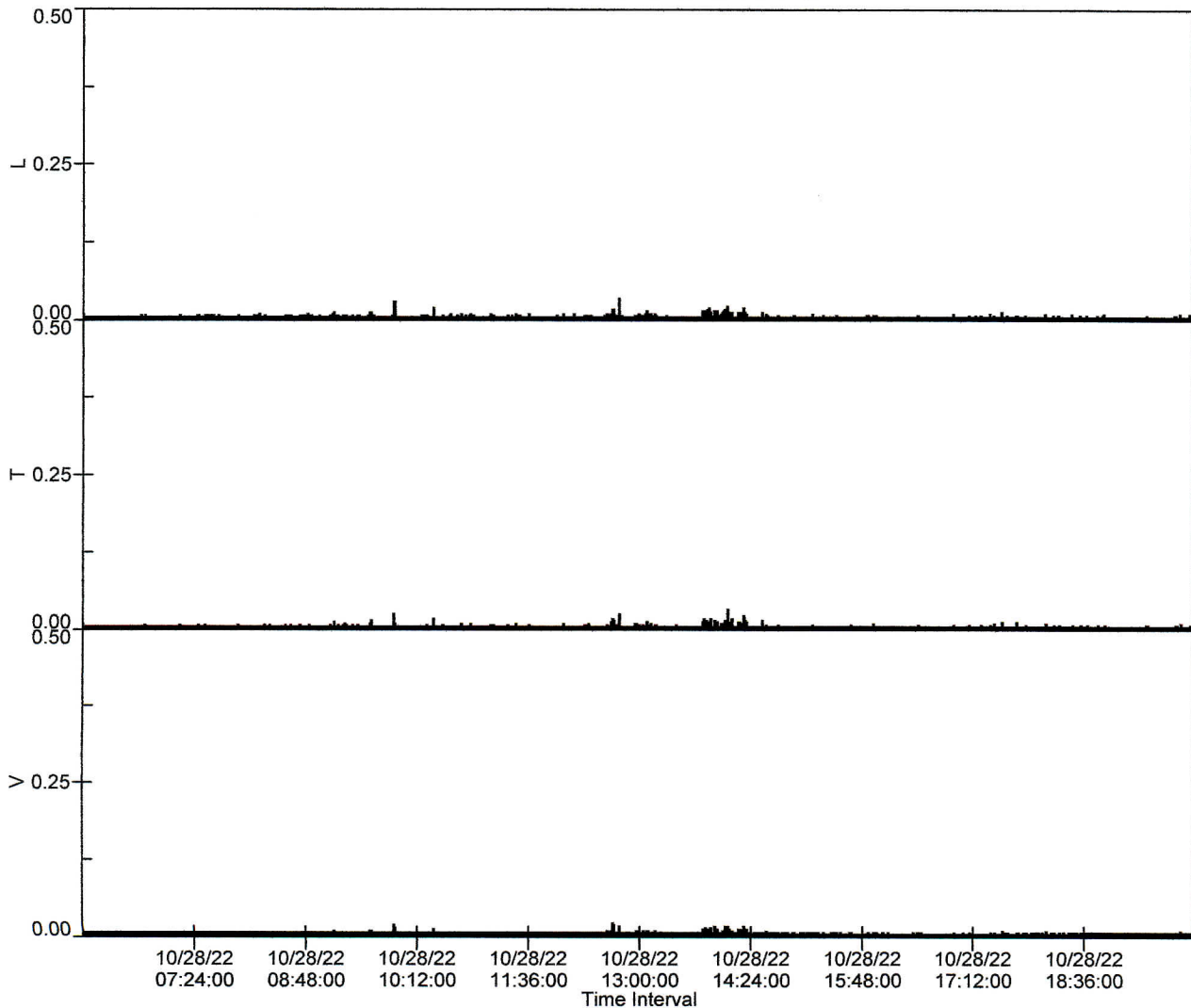
	L	T	V
PPV (in/s)	0.035	0.033	0.023
FREQ (Hz)	19.2	15.2	22.7
Peak Air Pressure:	81 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 163

Record Max PPV: 0.035 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 10/29/2022 **Time:** 06:01:00
Event: 164
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.040	0.025	0.025
FREQ (Hz)	16.7	15.2	20.0
Peak Air Pressure:	81 db		

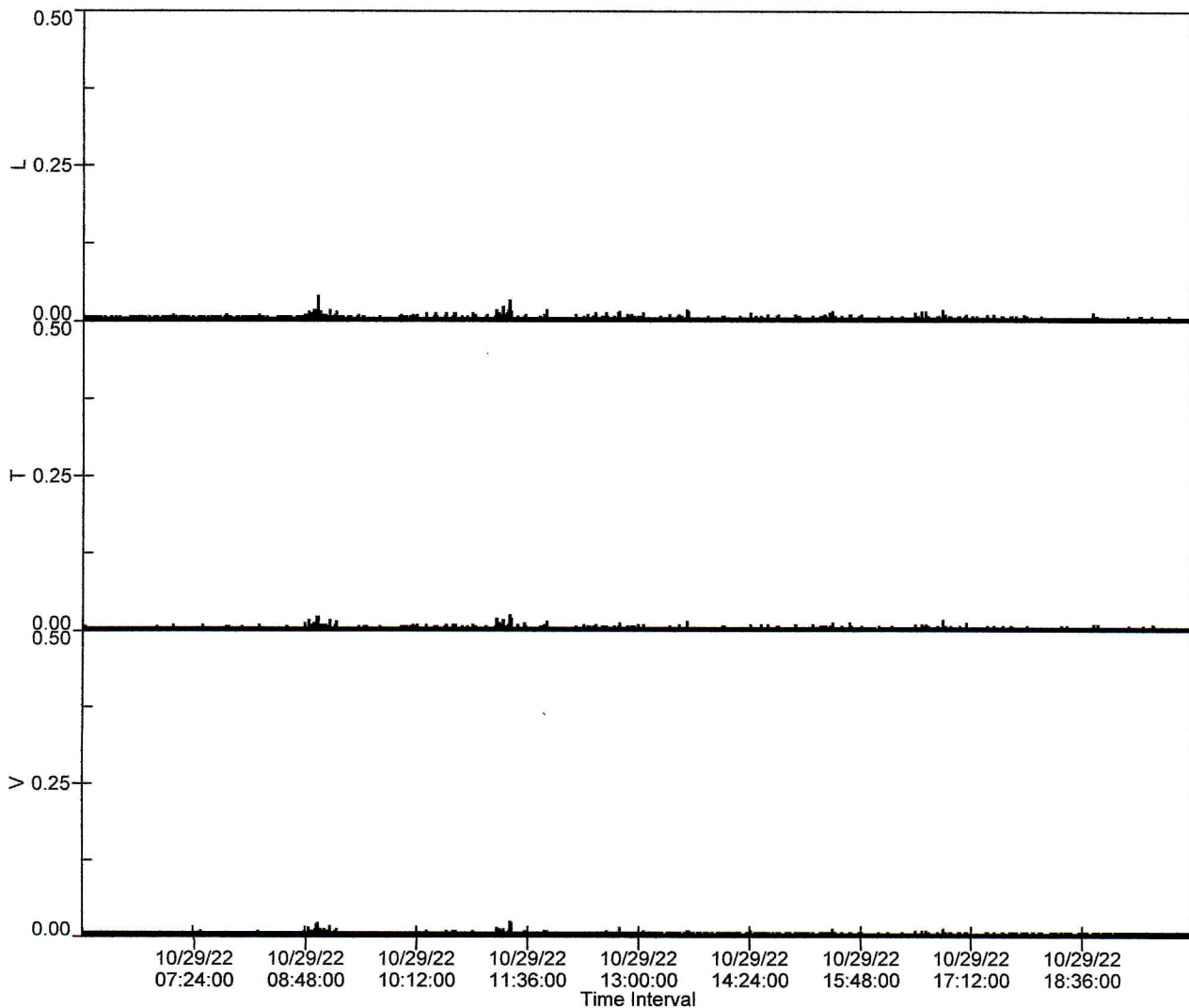
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 164

Record Max PPV: 0.040 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 10/30/2022 **Time:** 06:01:00
Event: 165
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
 Summary Data**

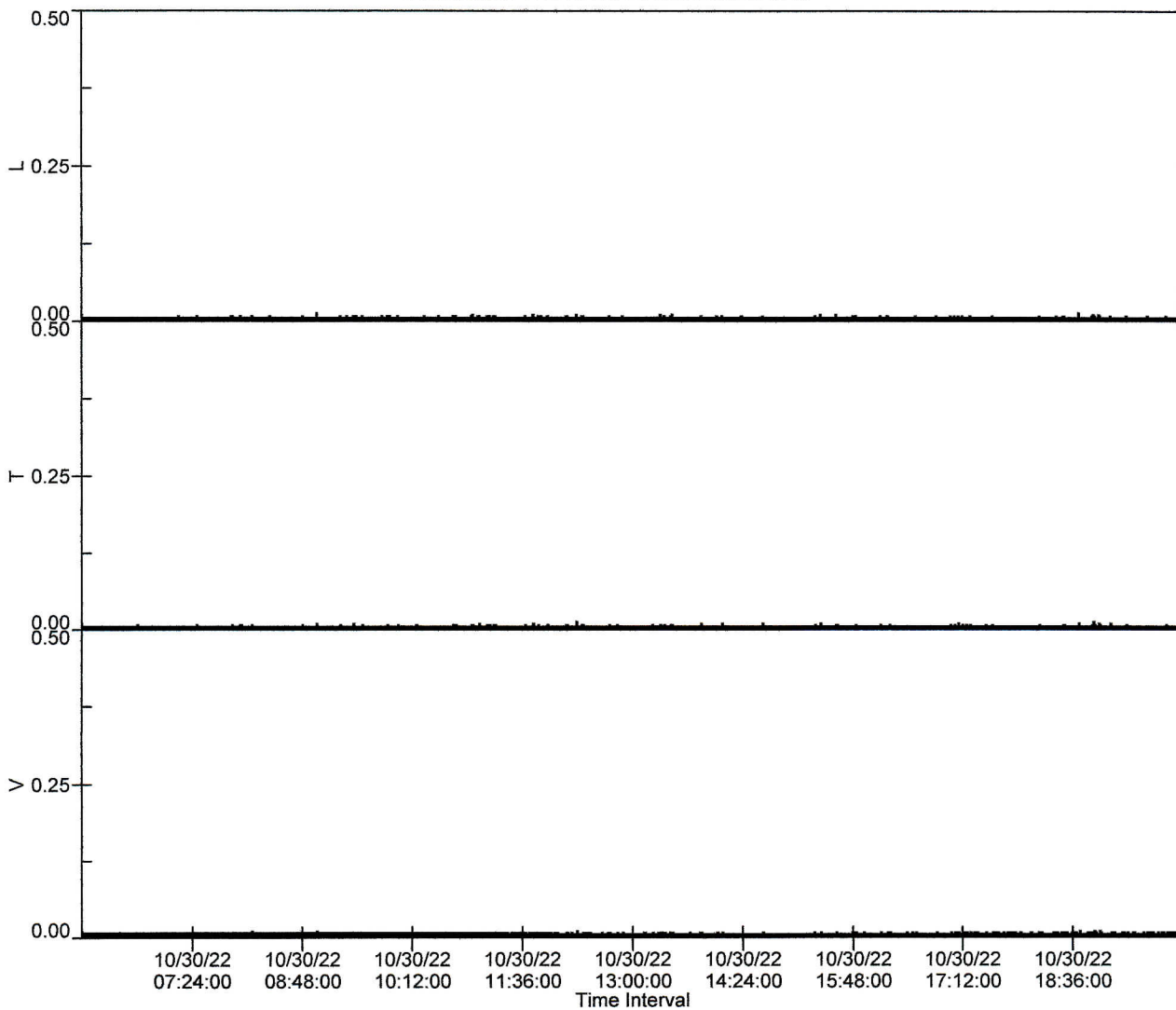
	L	T	V
PPV (in/s)	0.013	0.013	0.010
FREQ (Hz)	14.3	19.2	.2
Peak Air Pressure: 81 db			
Recording Time: 838 minutes			
Sample Size: 1440			
Interval Size: 60 seconds			

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 165

Record Max PPV: 0.013 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 11/01/2022 **Time:** 06:01:00
Event: 167
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.098	0.120	0.078
FREQ (Hz)	16.1	15.6	20.0
Peak Air Pressure:	81 db		

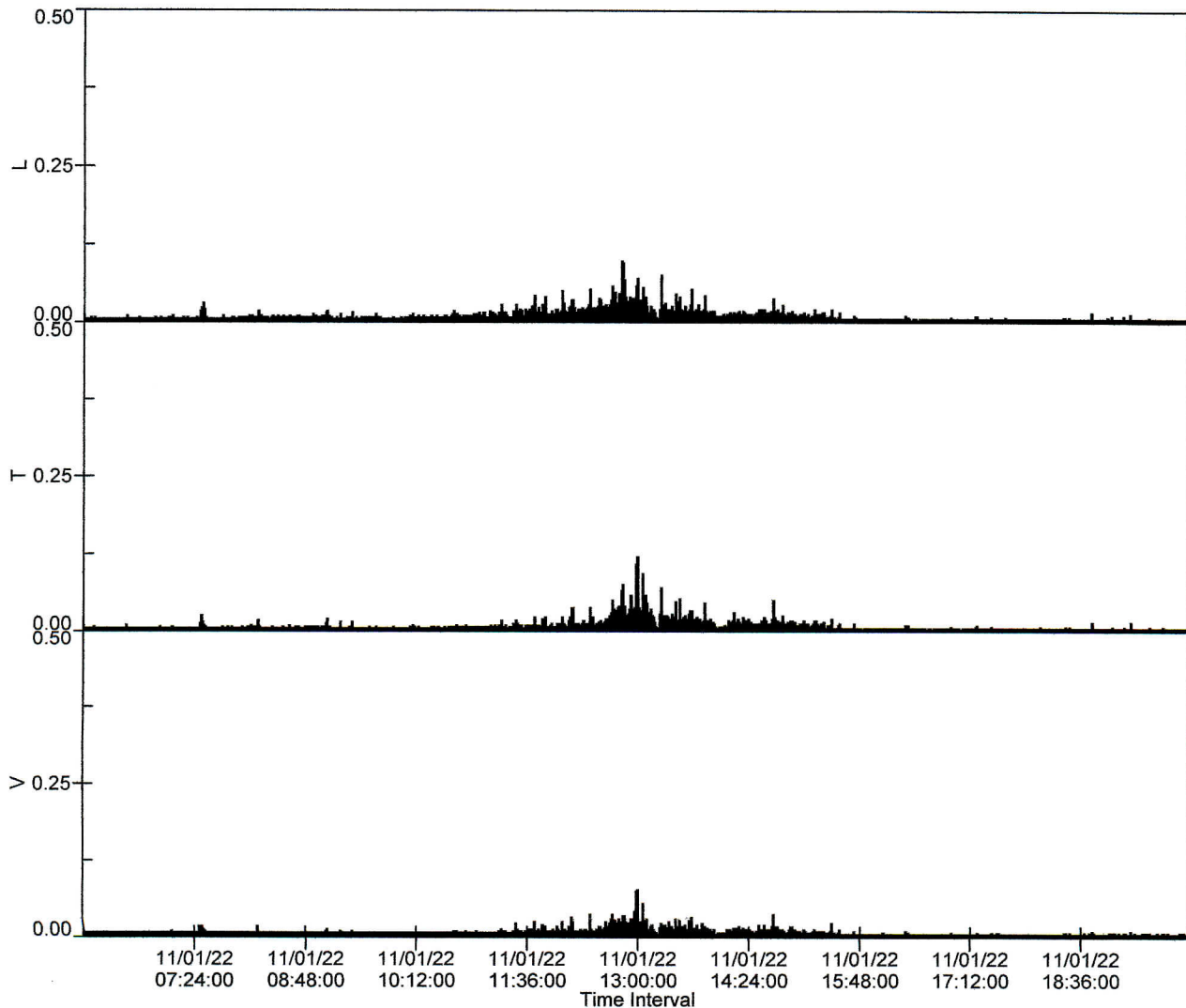
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 167

Record Max PPV: 0.120 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 11/02/2022 **Time:** 06:01:00
Event: 168
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

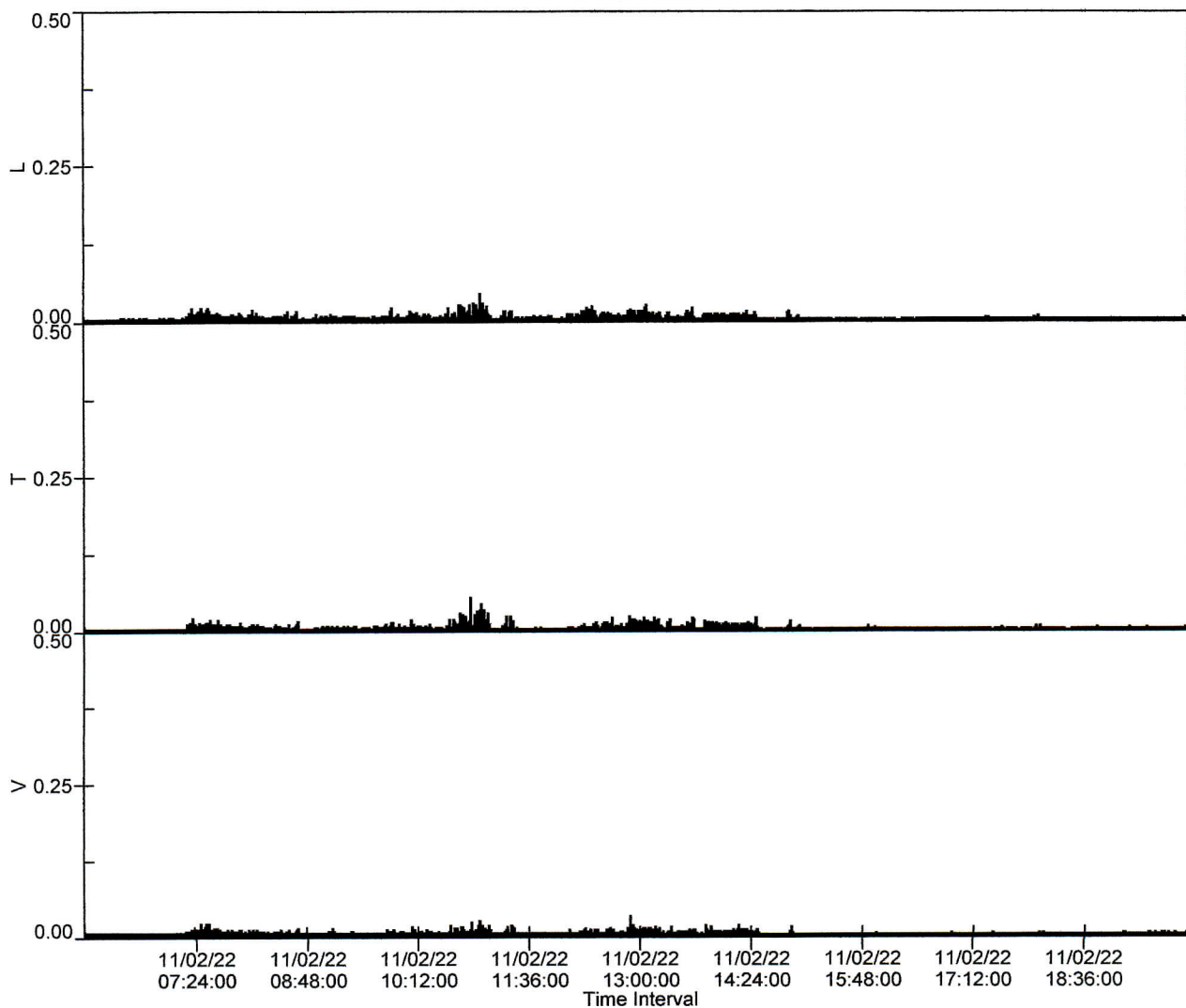
	L	T	V
PPV (in/s)	0.045	0.055	0.035
FREQ (Hz)	14.7	12.8	25.0
Peak Air Pressure:	92 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 168

Record Max PPV: 0.055 in/s Record Max DB: 92 db



SN: 3733 v3.22
Date: 11/03/2022 **Time:** 06:01:00
Event: 169
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

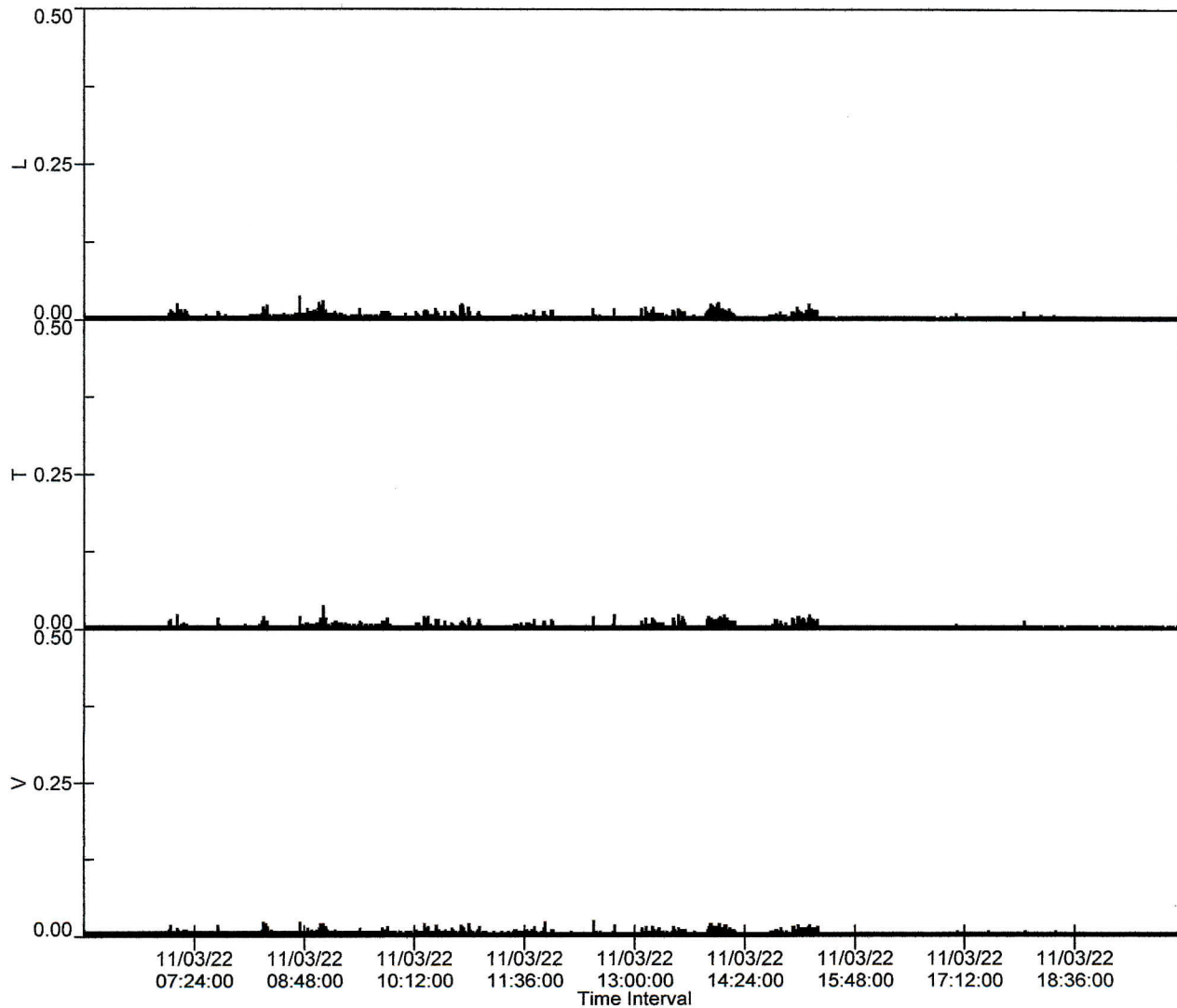
	L	T	V
PPV (in/s)	0.038	0.038	0.025
FREQ (Hz)	18.5	14.7	19.2
Peak Air Pressure:	81 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 169

Record Max PPV: 0.038 in/s Record Max DB: 81 db



SN: 3733 v3.22
Date: 11/05/2022 **Time:** 06:01:00
Event: 171
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.025	0.038	0.020
FREQ (Hz)	15.6	29.4	20.0
Peak Air Pressure:	79 db		

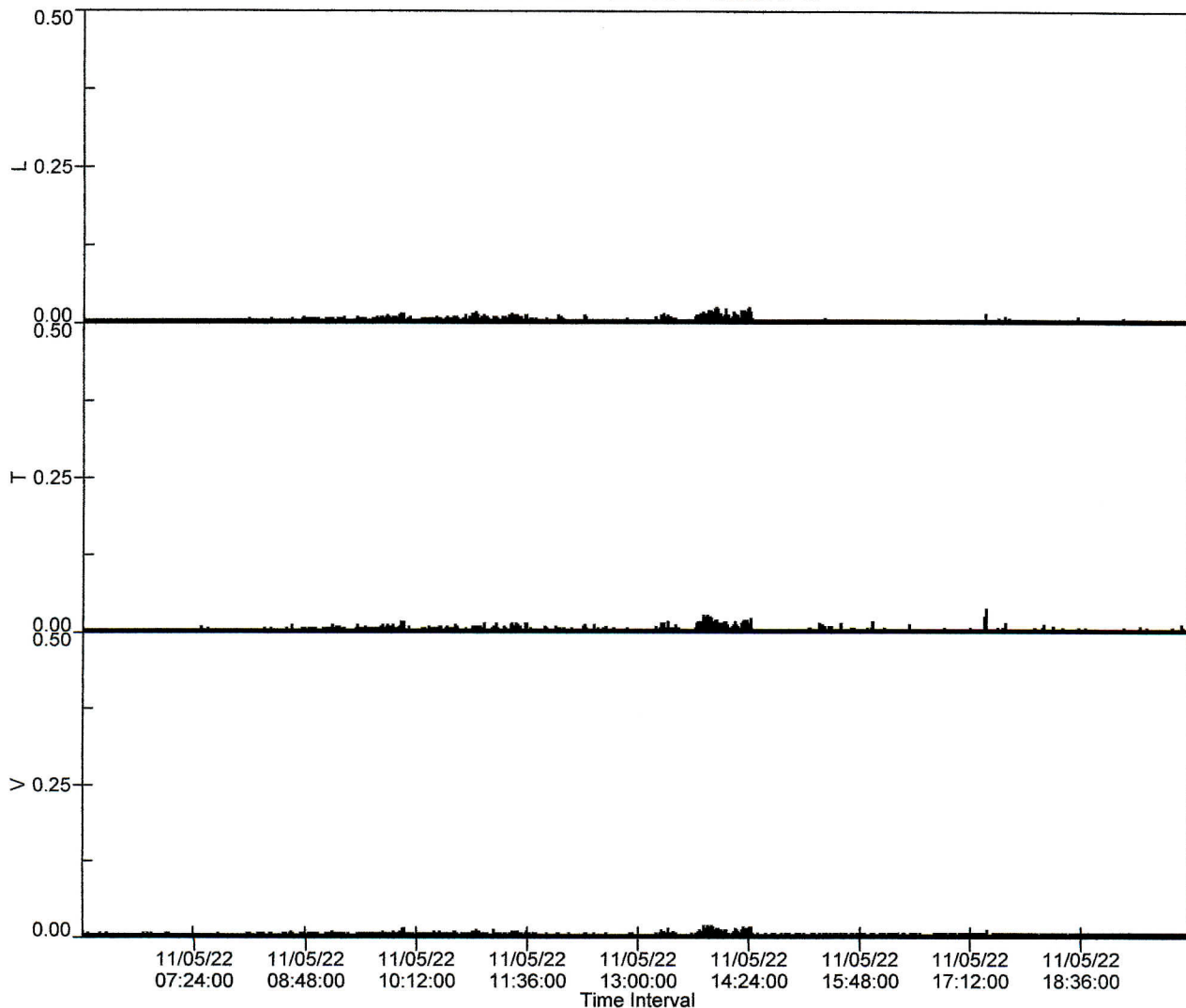
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 171

Record Max PPV: 0.038 in/s Record Max DB: 79 db



SN: 3733 v3.22
Date: 11/06/2022 **Time:** 06:01:00
Event: 172
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.013	0.013	0.013
FREQ (Hz)	13.9	83.3	.2
Peak Air Pressure:	79 db		

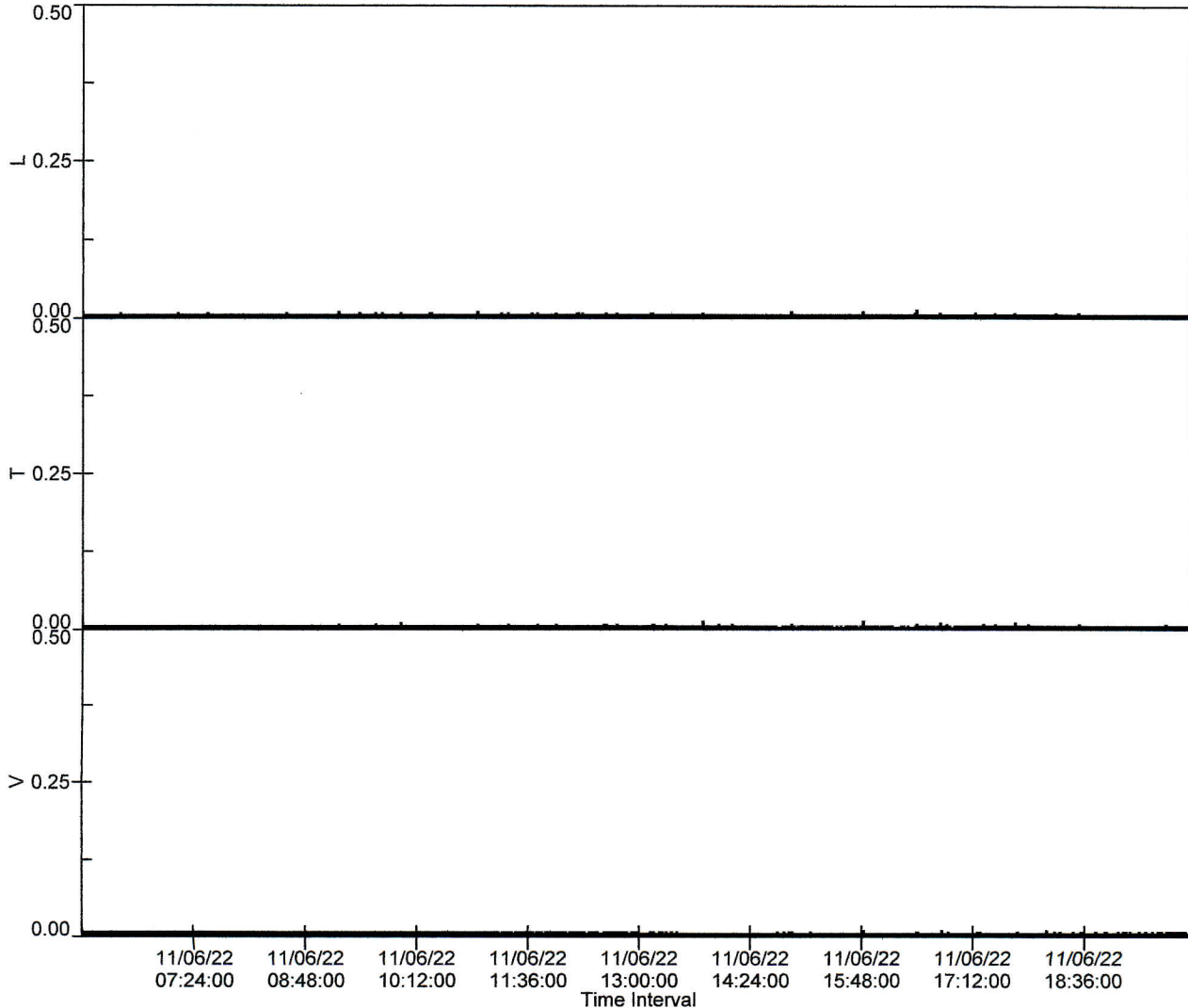
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 172

Record Max PPV: 0.013 in/s Record Max DB: 79 db



SN: 3733 v3.22
Date: 11/07/2022 **Time:** 06:01:00
Event: 173
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: 2345 THORNWOOD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.035	0.033	0.025
FREQ (Hz)	15.2	20.0	20.8
Peak Air Pressure:	92 db		

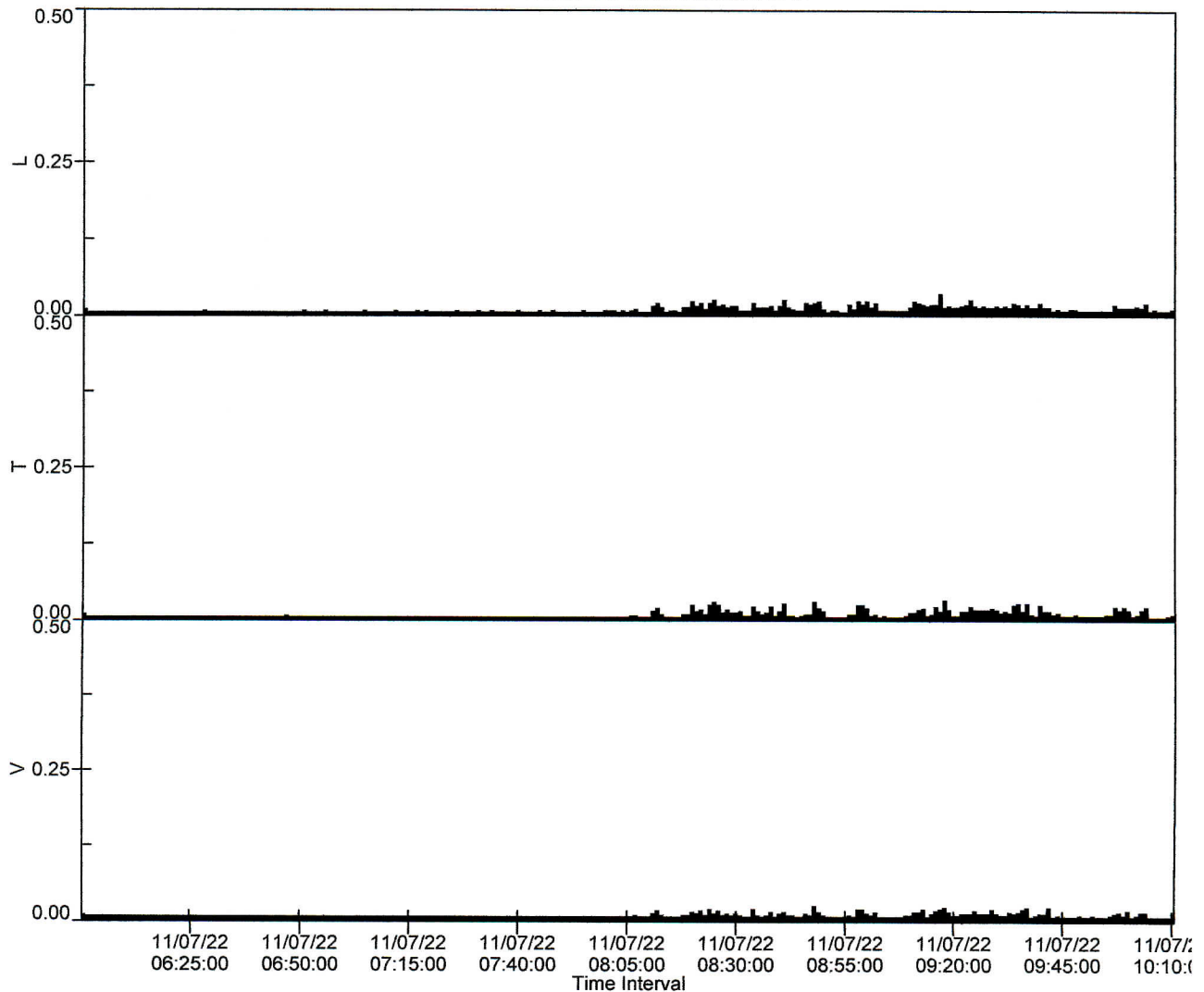
Recording Time: 250 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 12/28/2021
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3733 Event: 173

Record Max PPV: 0.035 in/s Record Max DB: 92 db



SN: 3647 v2.75
Date: 10/24/2022 **Time:** 14:55:00
Event: 160
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

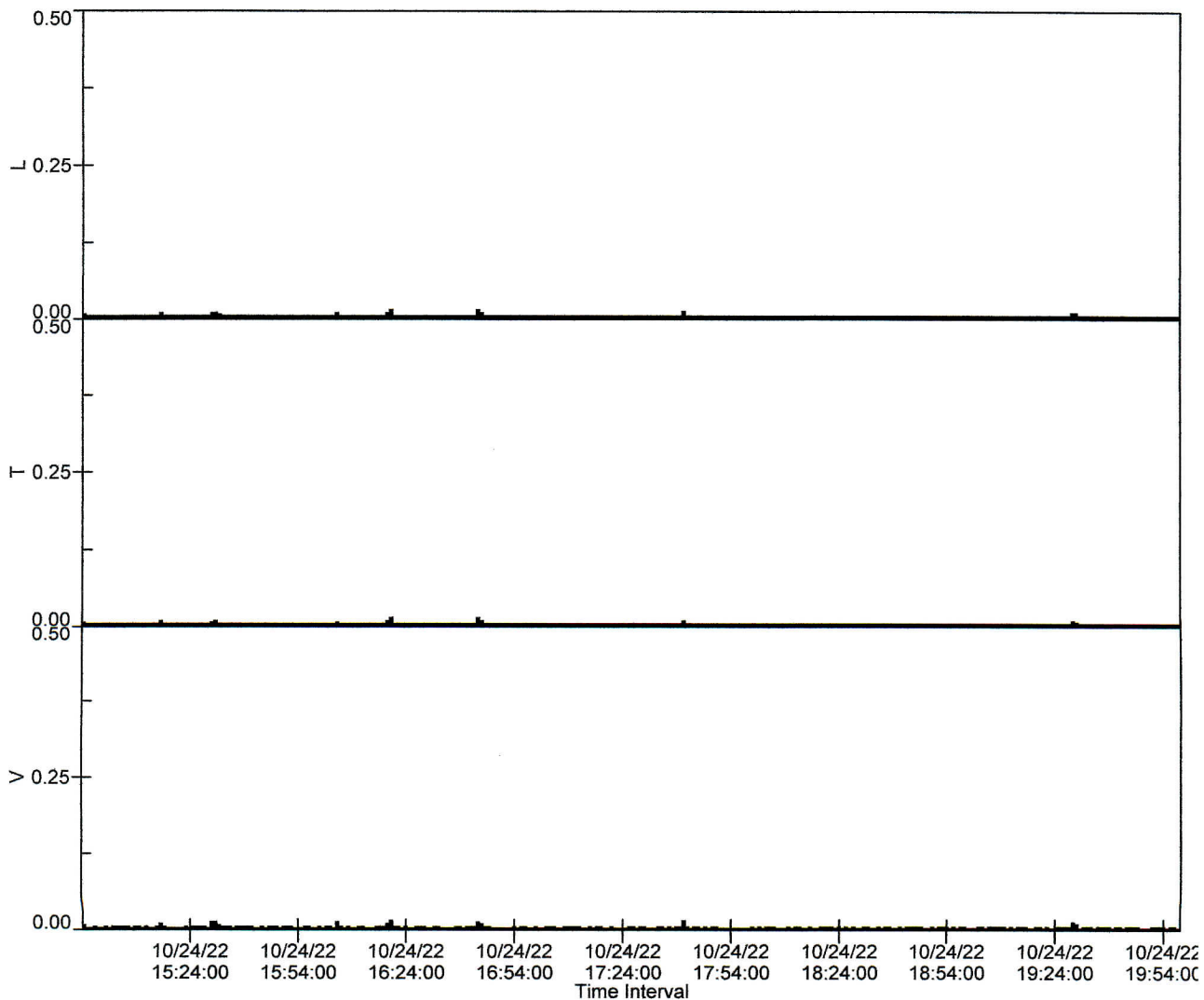
	L	T	V
PPV (in/s)	0.015	0.015	0.015
FREQ (Hz)	250.0	250.0	250.0
Peak Air Pressure:	102 db		
Recording Time:	304 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 160

Record Max PPV: 0.015 in/s Record Max DB: 102 db



SN: 3647 v2.75
Date: 10/25/2022 **Time:** 06:01:00
Event: 161
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

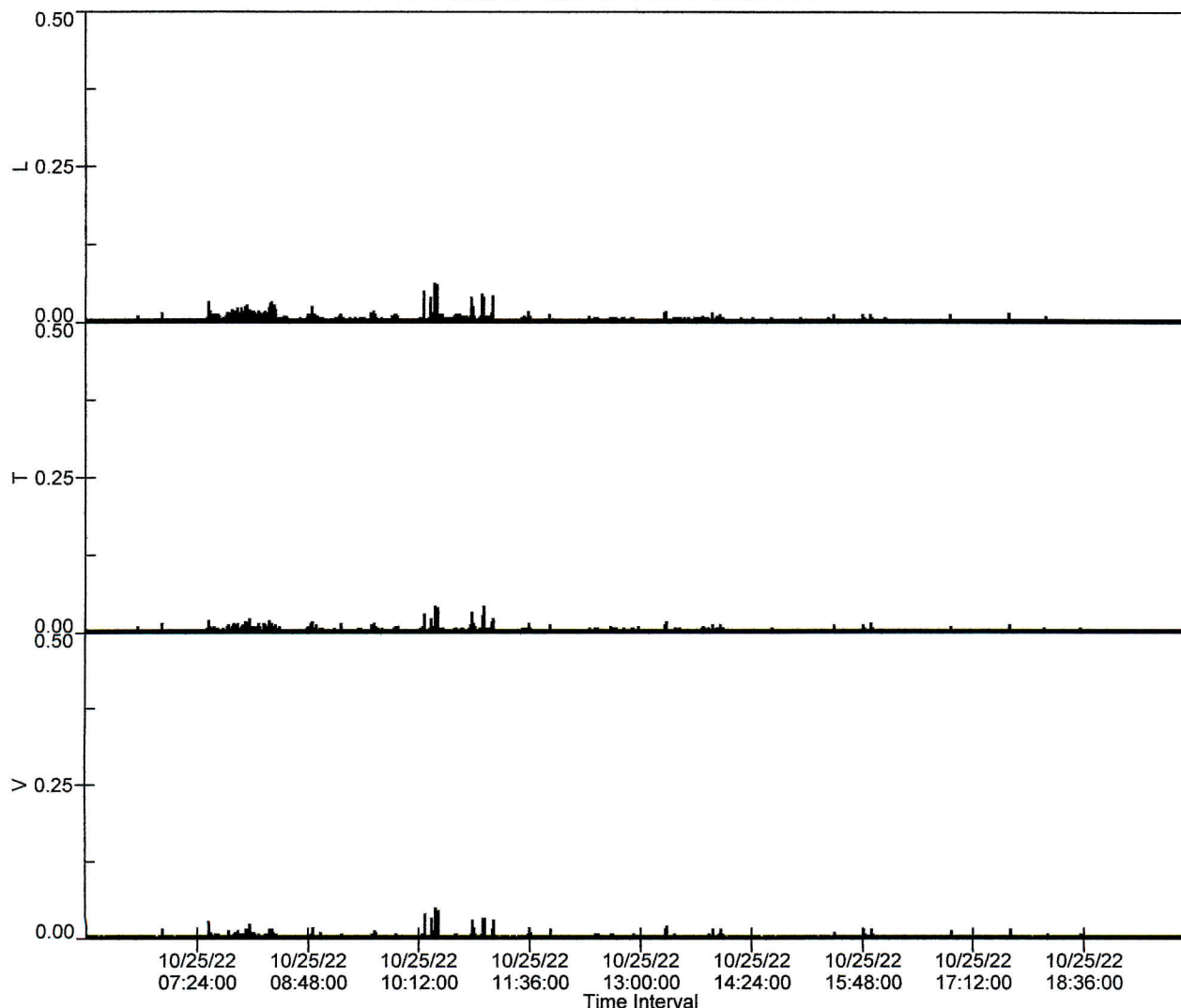
	L	T	V
PPV (in/s)	0.063	0.043	0.050
FREQ (Hz)	31.3	27.8	27.8
Peak Air Pressure:	103 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 161

Record Max PPV: 0.063 in/s Record Max DB: 103 db



SN: 3647 v2.75
Date: 10/26/2022 **Time:** 06:01:00
Event: 162
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

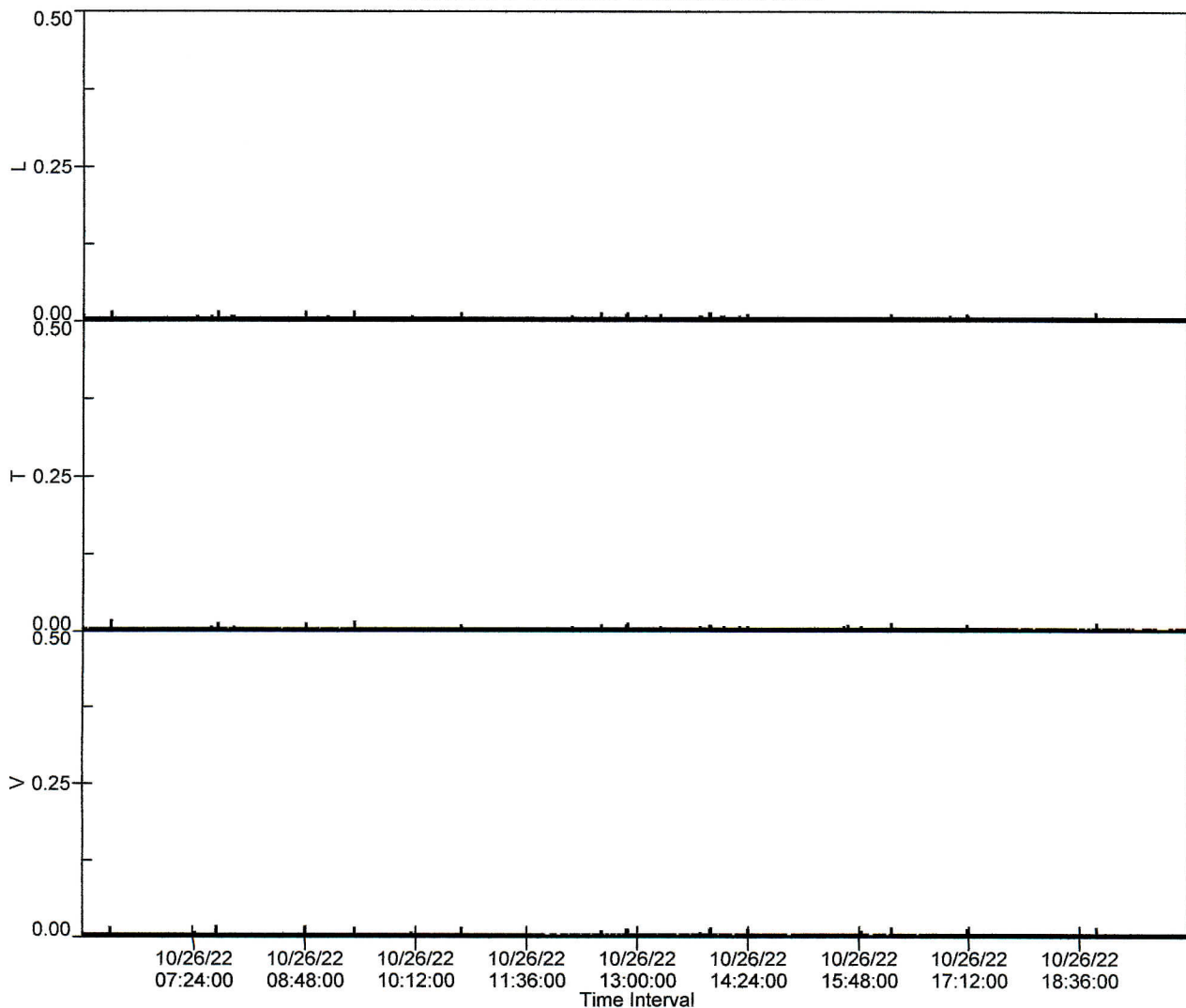
	L	T	V
PPV (in/s)	0.015	0.018	0.018
FREQ (Hz)	250.0	125.0	166.7
Peak Air Pressure:	102 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 162

Record Max PPV: 0.018 in/s Record Max DB: 102 db



SN: 3647 v2.75
Date: 10/27/2022 **Time:** 06:01:00
Event: 163
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

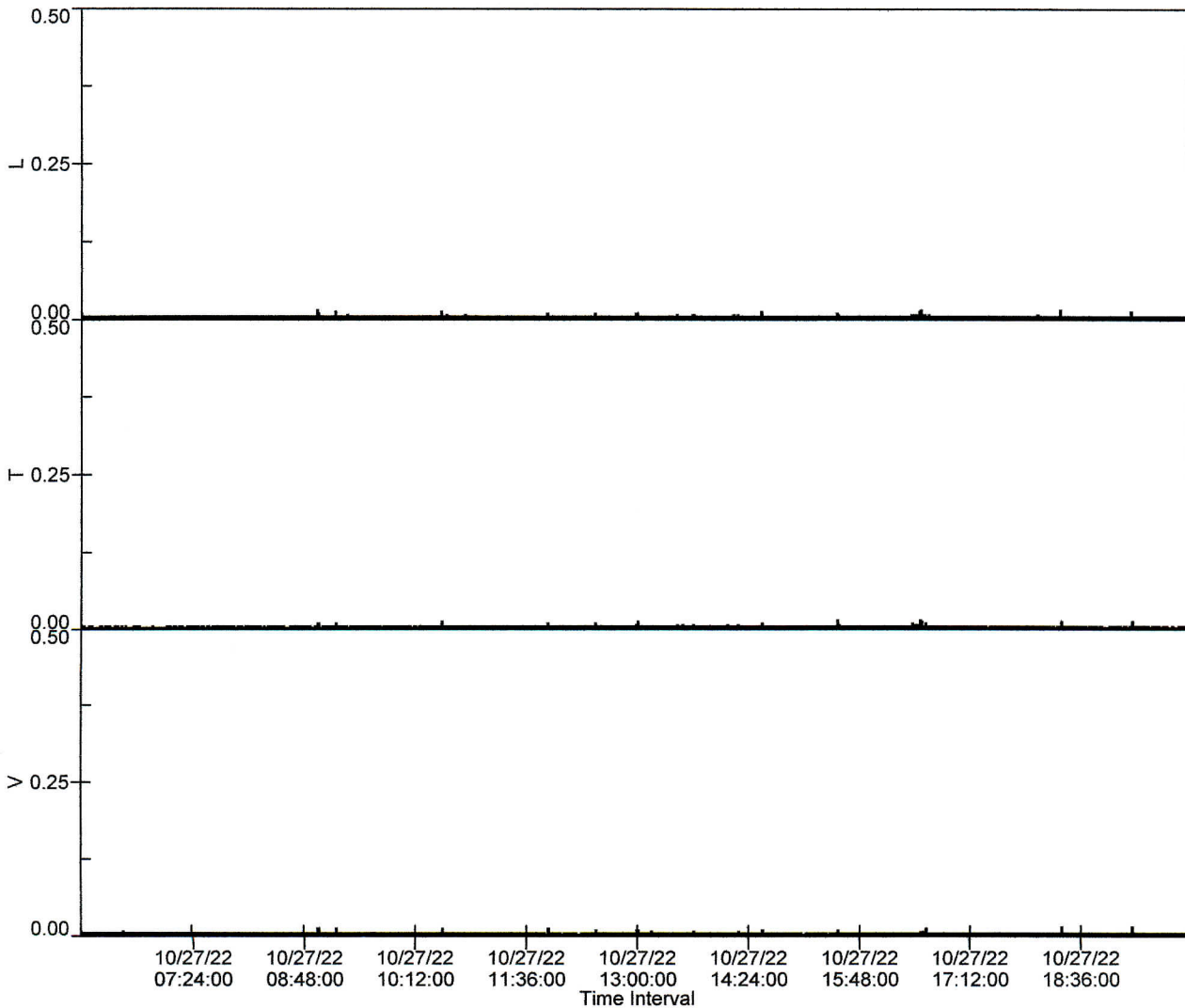
	L	T	V
PPV (in/s)	0.015	0.015	0.015
FREQ (Hz)	125.0	55.6	500.0
Peak Air Pressure:	98 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 163

Record Max PPV: 0.015 in/s Record Max DB: 98 db



SN: 3647 v2.75
Date: 10/28/2022 **Time:** 06:01:00
Event: 164
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.015	0.015	0.018
FREQ (Hz)	250.0	250.0	166.7
Peak Air Pressure:	100 db		

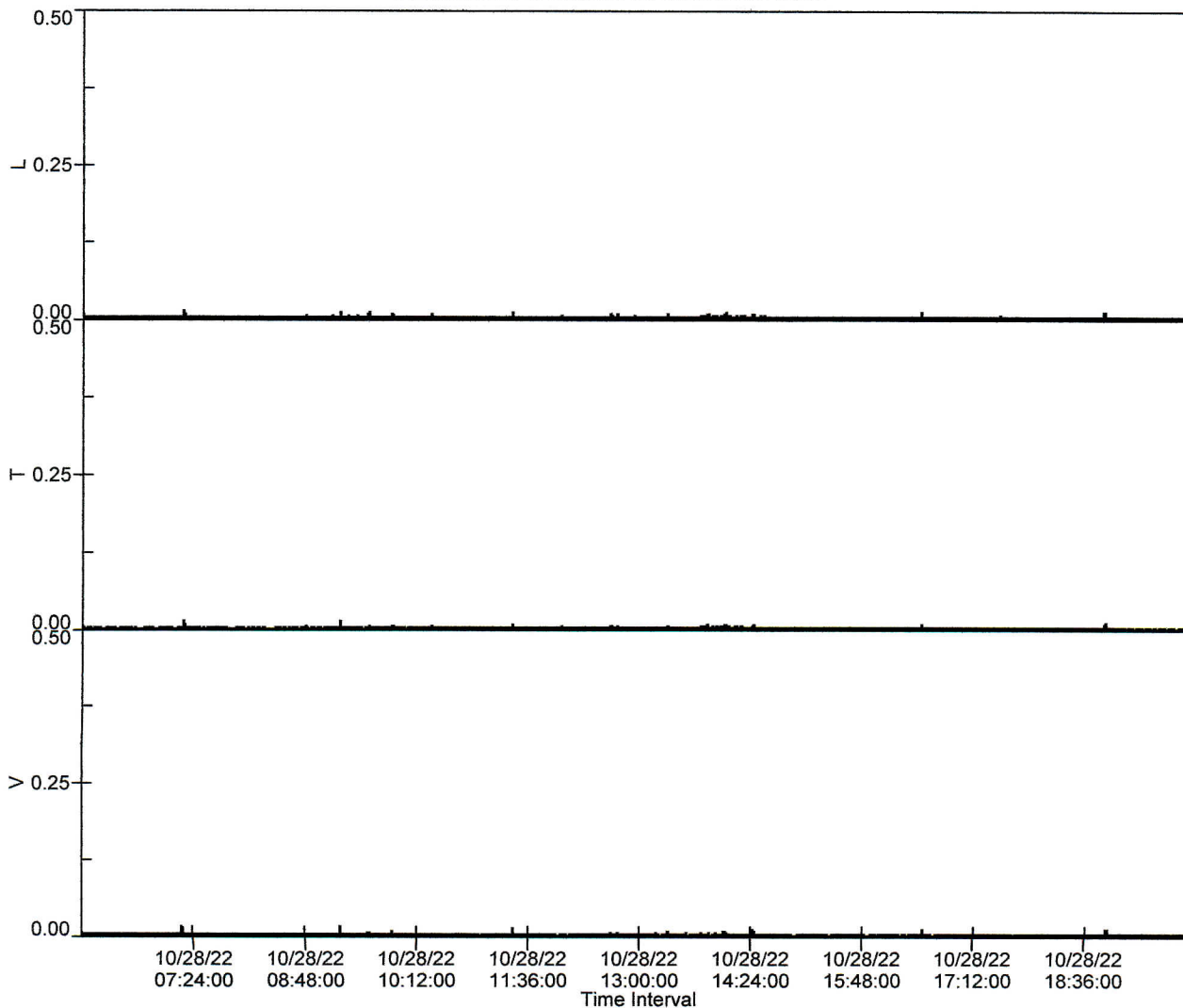
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 164

Record Max PPV: 0.018 in/s Record Max DB: 100 db



SN: 3647 v2.75
Date: 10/29/2022 **Time:** 06:01:00
Event: 165
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.015	0.015	0.015
FREQ (Hz)	11.6	500.0	10.0
Peak Air Pressure:	97 db		

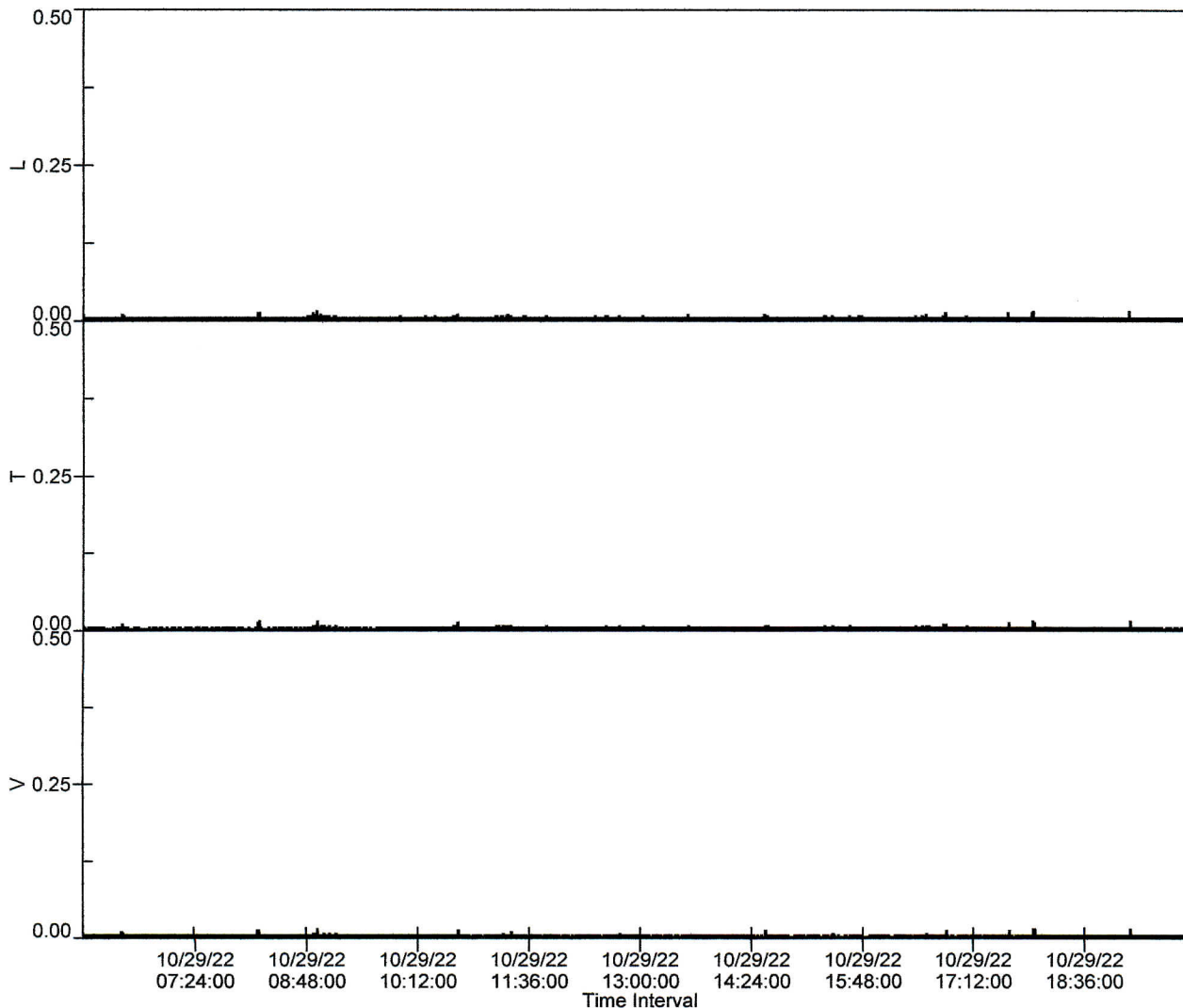
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 165

Record Max PPV: 0.015 in/s Record Max DB: 97 db



SN: 3647 v2.75
Date: 10/30/2022 **Time:** 06:01:00
Event: 166
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

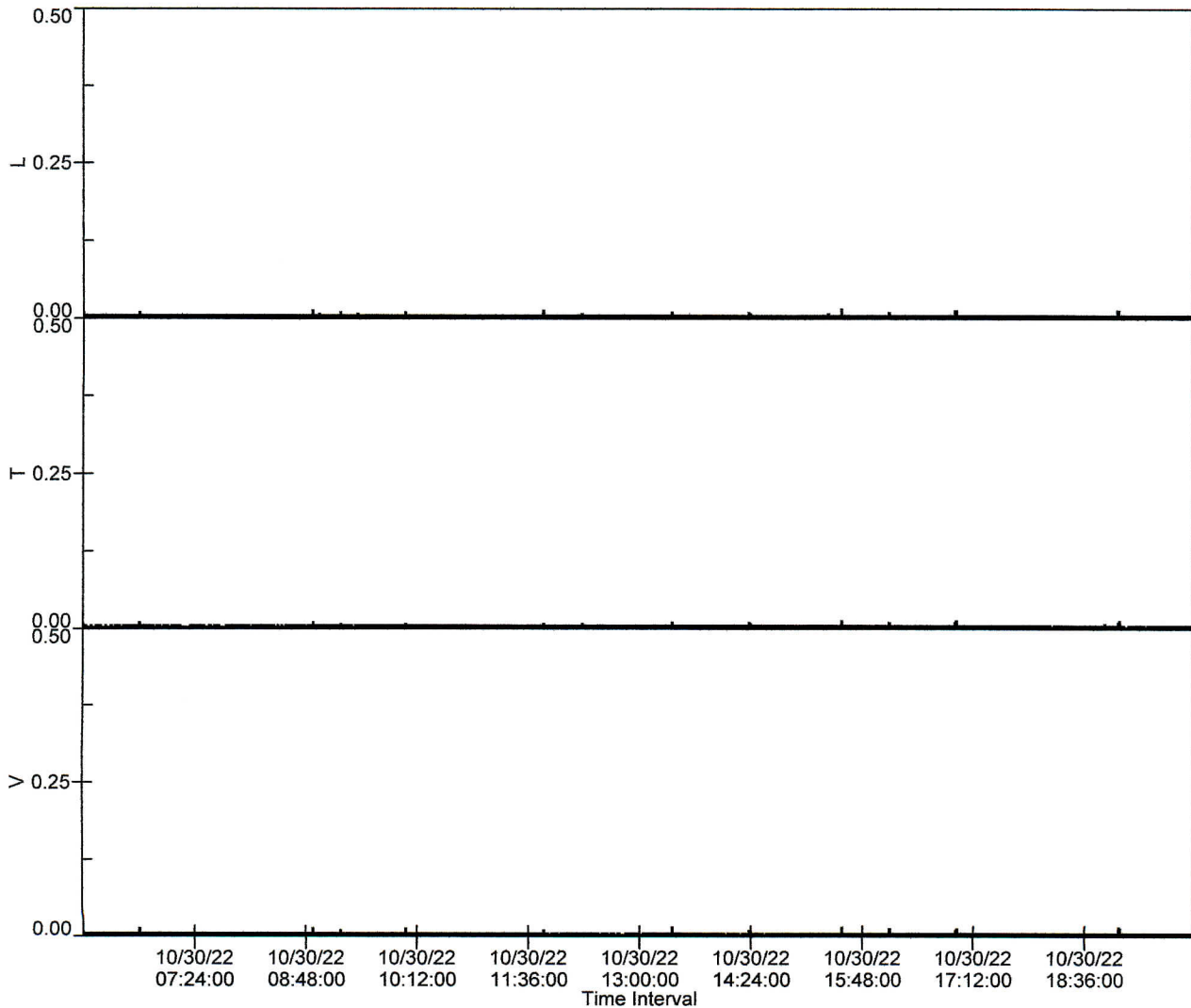
	L	T	V
PPV (in/s)	0.015	0.013	0.015
FREQ (Hz)	250.0	166.7	125.0
Peak Air Pressure:	101 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 166

Record Max PPV: 0.015 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 10/31/2022 **Time:** 06:01:00
Event: 167
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

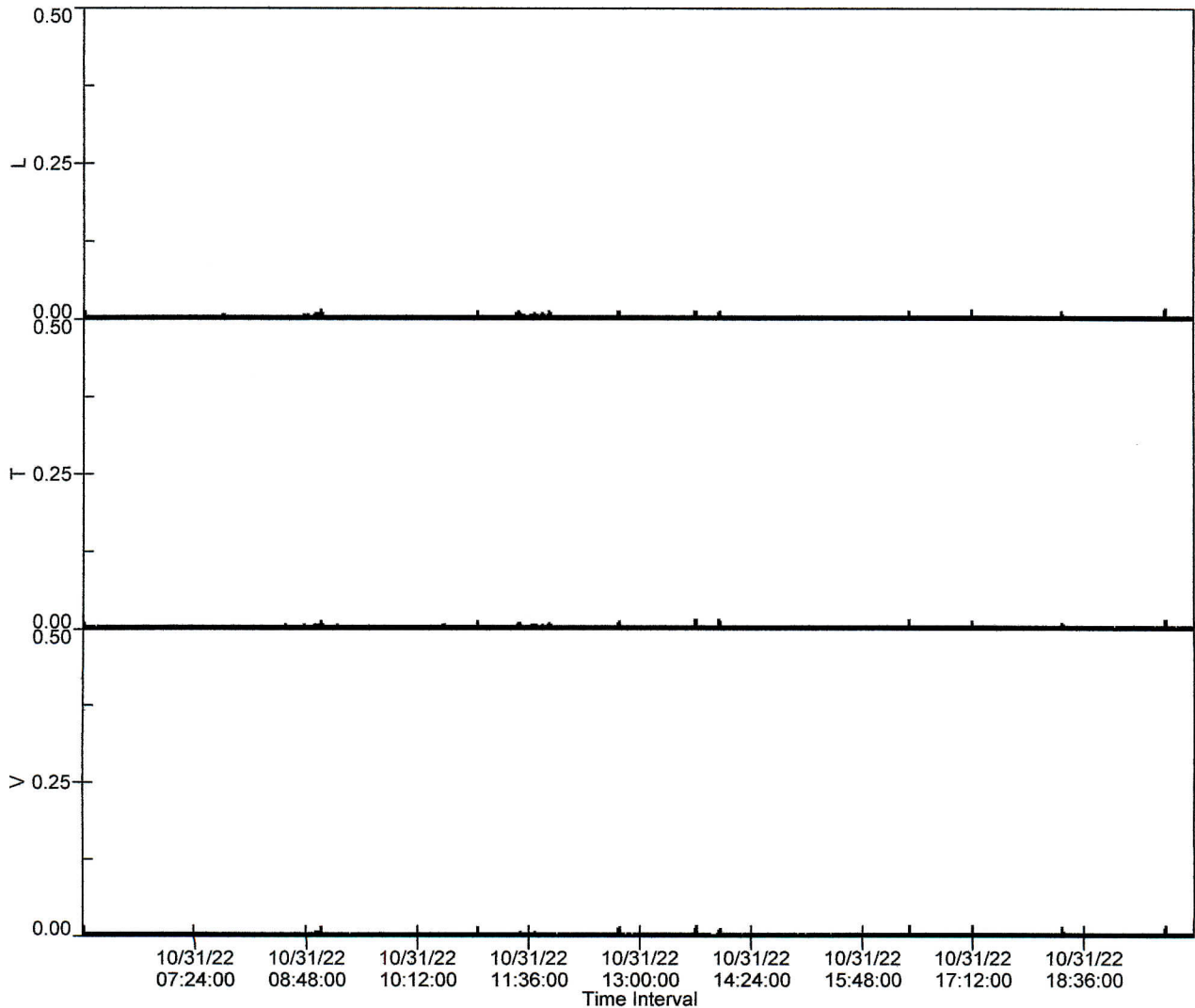
	L	T	V
PPV (in/s)	0.018	0.015	0.018
FREQ (Hz)	166.7	166.7	166.7
Peak Air Pressure:	101 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 167

Record Max PPV: 0.018 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 11/01/2022 **Time:** 06:01:00
Event: 168
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

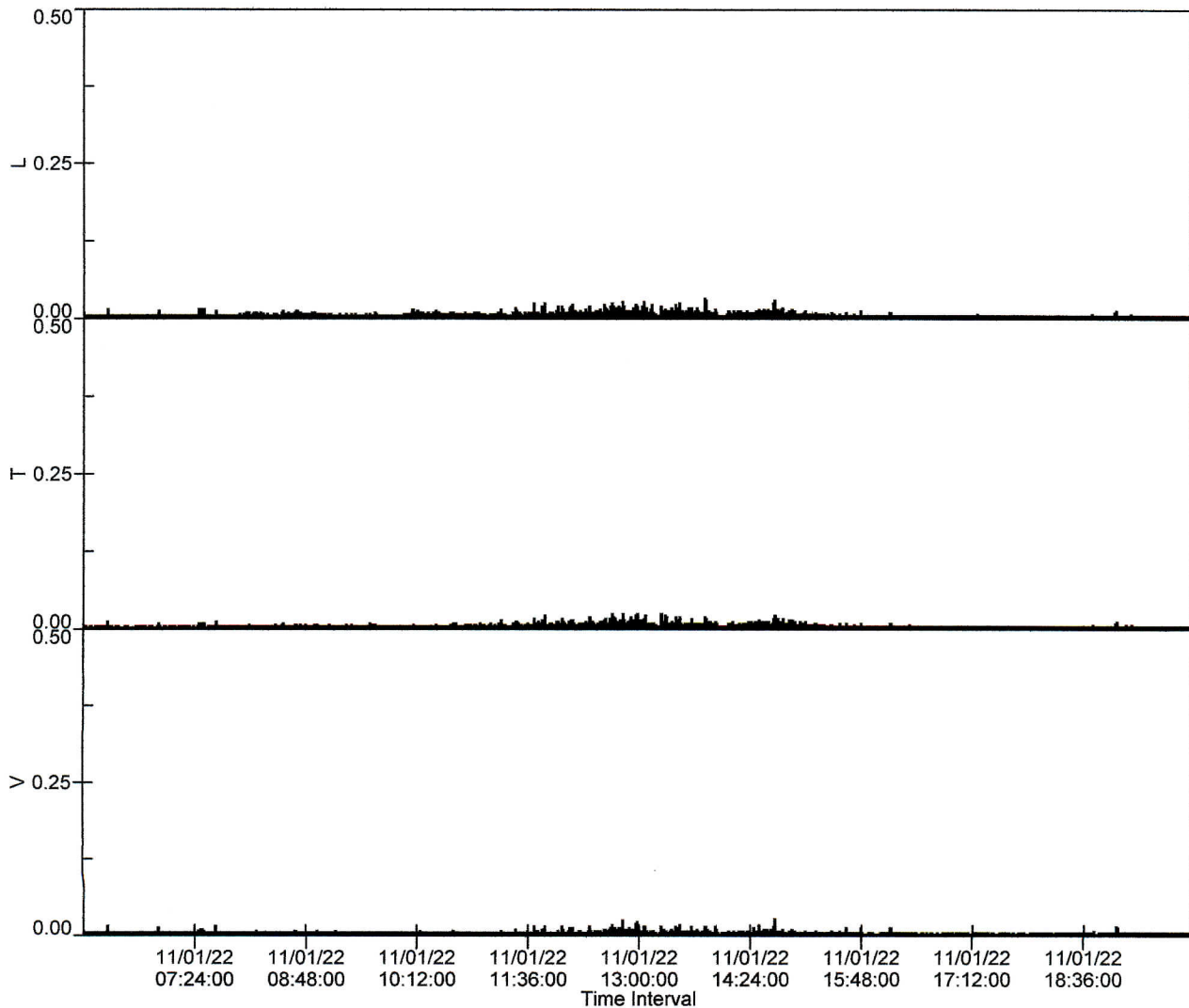
	L	T	V
PPV (in/s)	0.033	0.025	0.028
FREQ (Hz)	14.7	14.7	8.6
Peak Air Pressure:	100 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 168

Record Max PPV: 0.033 in/s Record Max DB: 100 db



SN: 3647 v2.75
Date: 11/02/2022 **Time:** 06:01:00
Event: 169
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

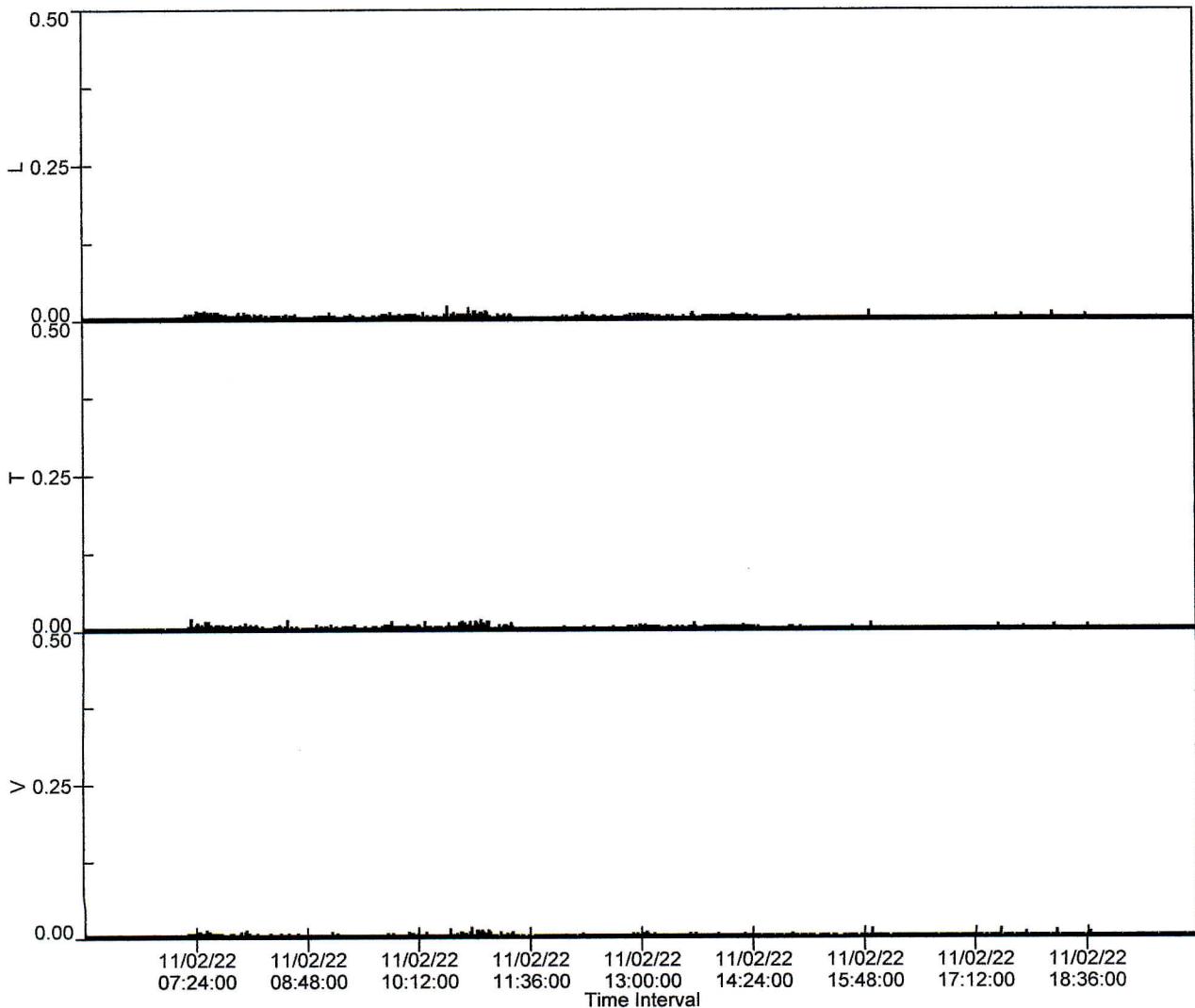
	L	T	V
PPV (in/s)	0.023	0.020	0.018
FREQ (Hz)	11.9	10.2	13.2
Peak Air Pressure: 100 db			
Recording Time: 838 minutes			
Sample Size: 1440			
Interval Size: 60 seconds			

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 169

Record Max PPV: 0.023 in/s Record Max DB: 100 db



SN: 3647 v2.75
Date: 11/03/2022 **Time:** 06:01:00
Event: 170
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

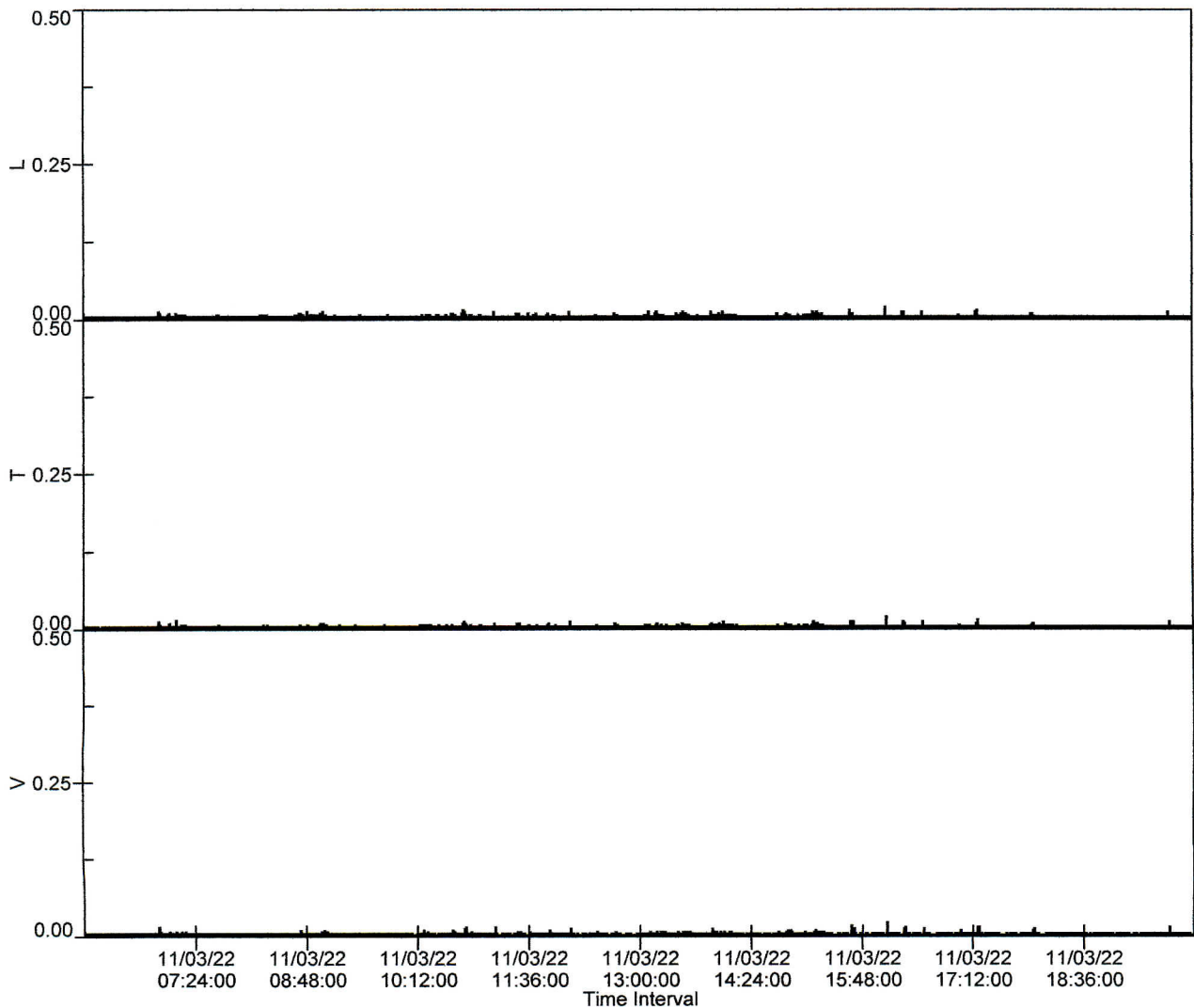
	L	T	V
PPV (in/s)	0.020	0.020	0.023
FREQ (Hz)	500.0	250.0	500.0
Peak Air Pressure:	104 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 170

Record Max PPV: 0.023 in/s Record Max DB: 104 db



SN: 3647 v2.75
Date: 11/04/2022 **Time:** 06:01:00
Event: 171
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.035	0.028	0.020
FREQ (Hz)	12.8	11.9	500.0
Peak Air Pressure: 101 db			

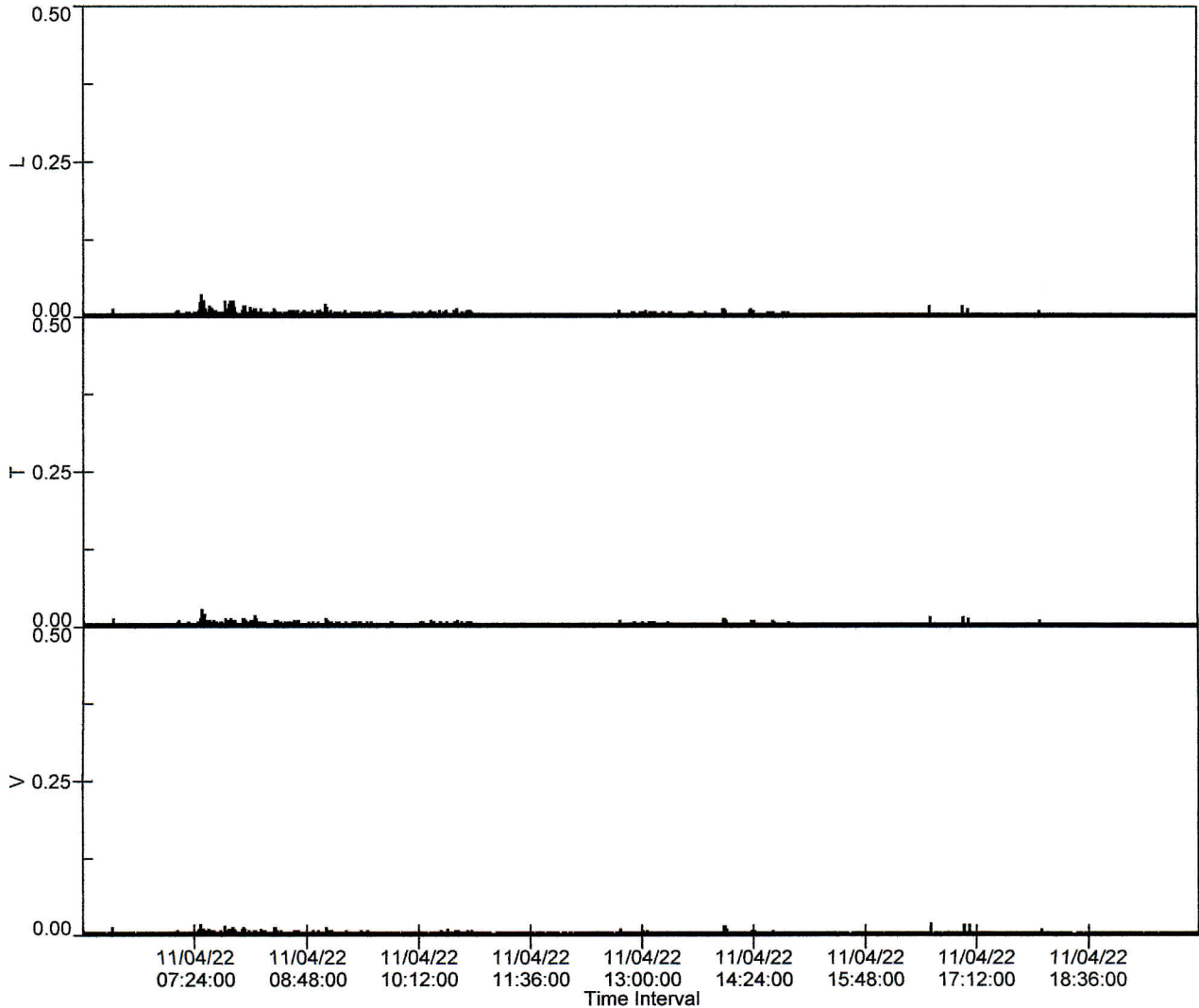
Recording Time: 838 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 171

Record Max PPV: 0.035 in/s Record Max DB: 101 db



SN: 3647 v2.75
Date: 11/05/2022 **Time:** 06:01:00
Event: 172
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

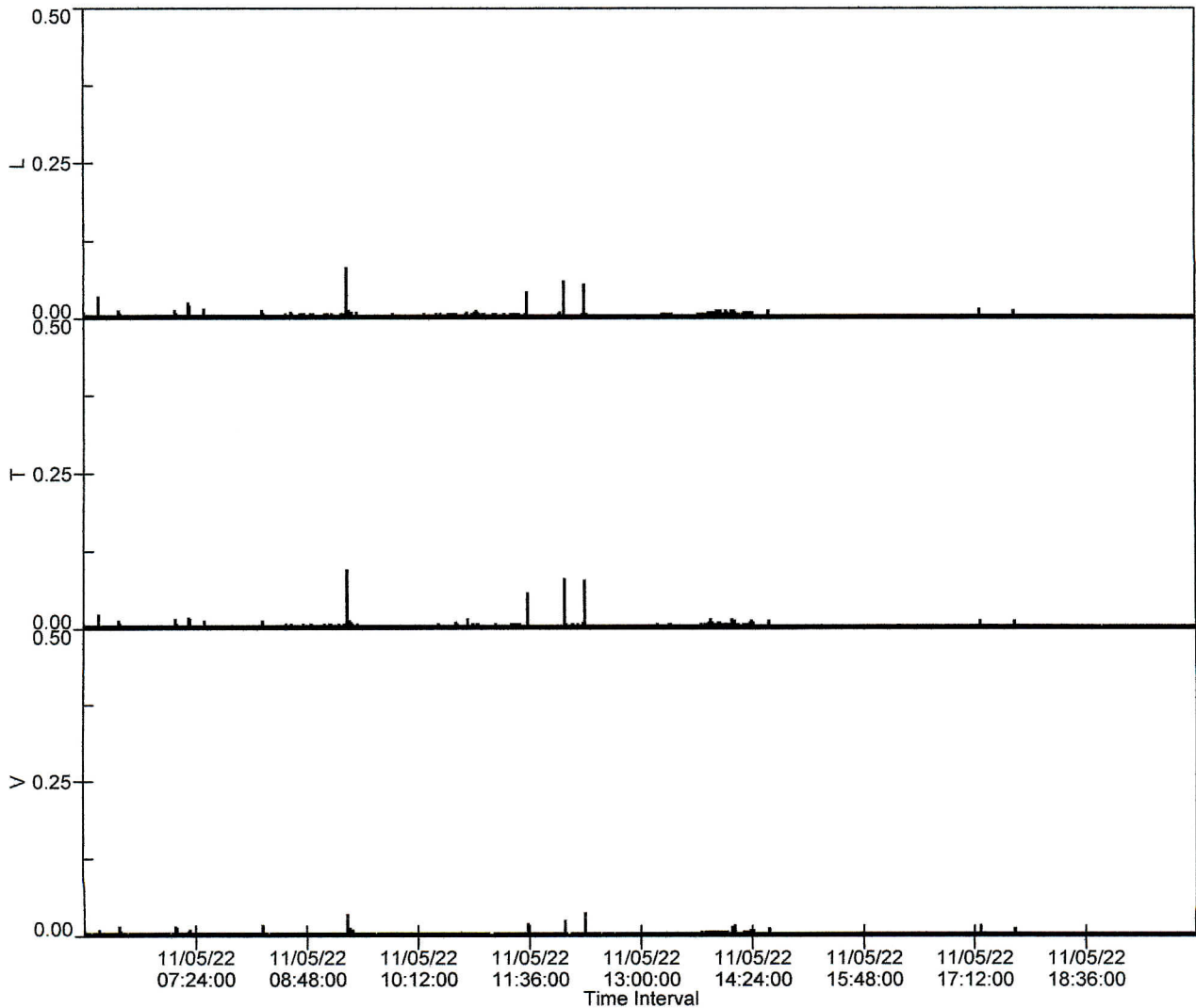
	L	T	V
PPV (in/s)	0.083	0.095	0.038
FREQ (Hz)	166.7	100.0	166.7
Peak Air Pressure:	102 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 172

Record Max PPV: 0.095 in/s Record Max DB: 102 db



SN: 3647 v2.75
Date: 11/06/2022 **Time:** 06:01:00
Event: 173
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

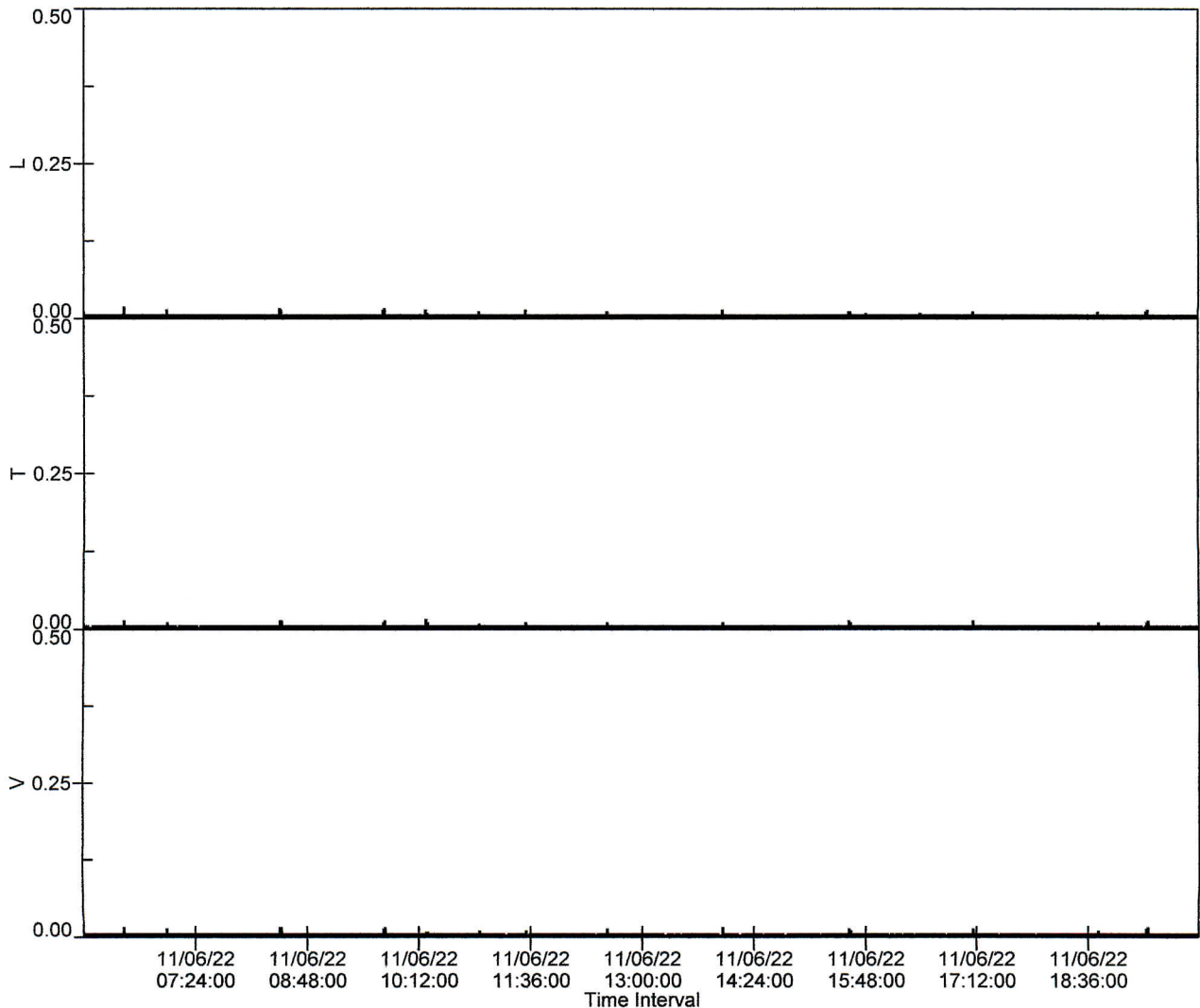
	L	T	V
PPV (in/s)	0.018	0.015	0.015
FREQ (Hz)	166.7	55.6	166.7
Peak Air Pressure:	95 db		
Recording Time:	838 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 173

Record Max PPV: 0.018 in/s Record Max DB: 95 db



SN: 3647 v2.75
Date: 11/07/2022 **Time:** 06:01:00
Event: 174
Client: BERGER
Operation: CONSTRUCTION
Location: THORNWOOD PARK
Distance: 25.
Operator: CTI INC
Comment: E SIDE COLGATE ST

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.020	0.013	0.018
FREQ (Hz)	12.2	166.7	166.7
Peak Air Pressure:	90 db		

Recording Time: 257 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/22/2022
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3647 Event: 174

Record Max PPV: 0.020 in/s Record Max DB: 90 db

