

NSP Phase 2 Hibbard Park Project
Wilmette, Illinois

VIBRATION MONITORING REPORT-9

Mike Warning
V3 Companies
7325 Janes Avenue
Woodridge, IL 60517

June 7, 2021

Cti



Construction
Testing &
Instrumentation

4262 Old Grand Ave
Suite 102
Chicago, IL 60031

June 7, 2021

Mike Warning
V3 Companies
7325 Janes Avenue
Woodridge, IL 60517

RE: **Report: 9** - *Ground Vibration Monitoring for the Wilmette NSP Phase 2 Hibbard Park Project located in Wilmette, Illinois.*

Mr. Warning,

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 **May 24, 2021 through June 7, 2021**.

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.

May 26, 2021	491 Skokie Boulevard	Unit #3817	L	0.148 (in/s)
June 1, 2021	3005 Wilmette Avenue	Unit #3559	L	0.263 (in/s)
May 26, 2021	3000 Hill Street	Unit #3734	T	0.308 (in/s)


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

Sincerely,

Daniel W. McCarthy
Senior Instrumentation Engineer

Hibbard Park Seismograph Location Diagram



 Seismograph Location

SN: 3817 v3.22
Date: 05/24/2021 **Time:** 06:43:00
Event: 105
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.020	0.018	0.030
FREQ (Hz)	18.5	17.9	25.0
Peak Air Pressure:	78 db		

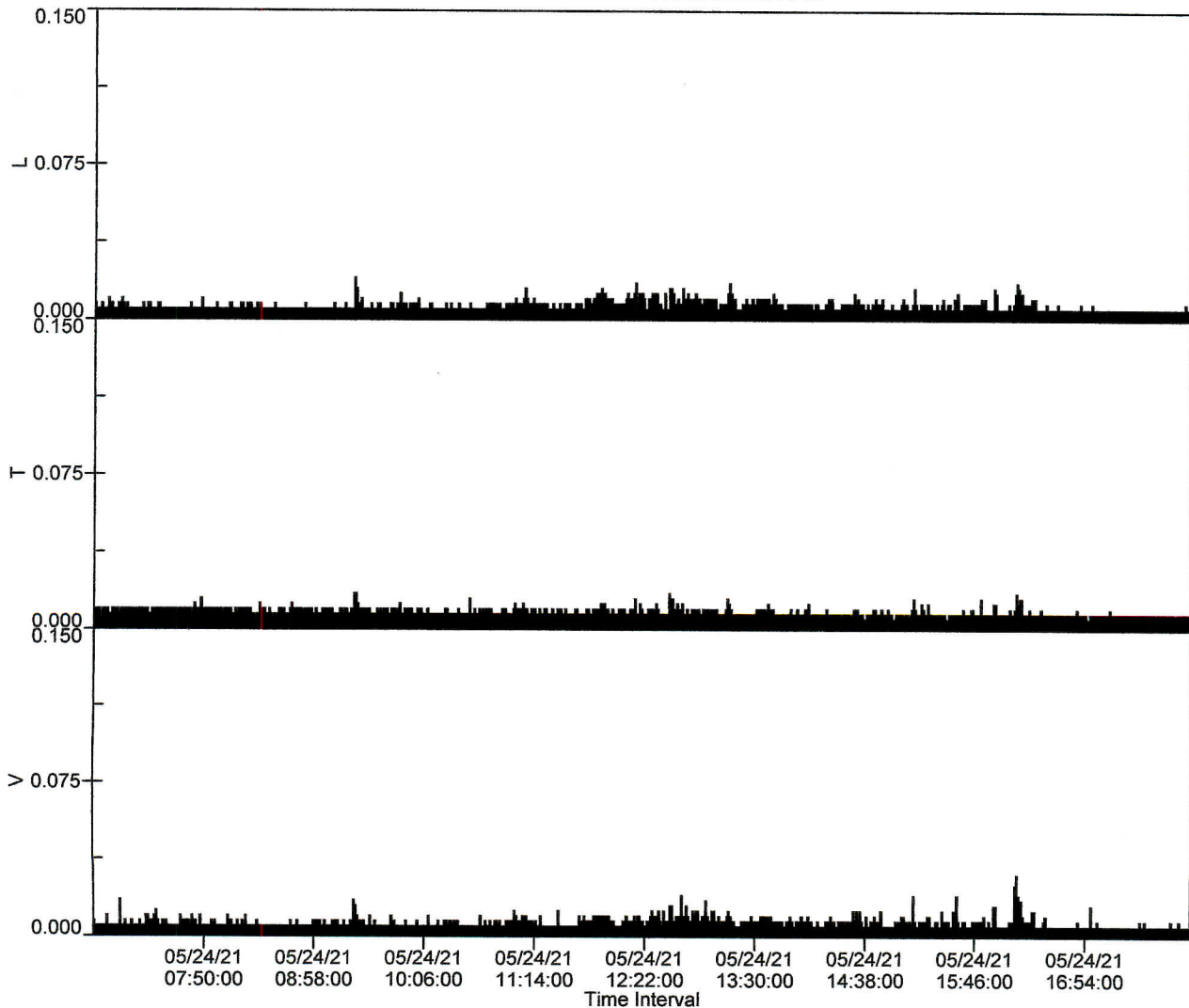
Recording Time: 676 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 105

Record Max PPV: 0.030 in/s Record Max DB: 78 db



SN: 3817 v3.22
Date: 05/25/2021 **Time:** 06:01:00
Event: 106
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.033	0.028	0.045
FREQ (Hz)	25.0	22.7	26.3
Peak Air Pressure:	78 db		

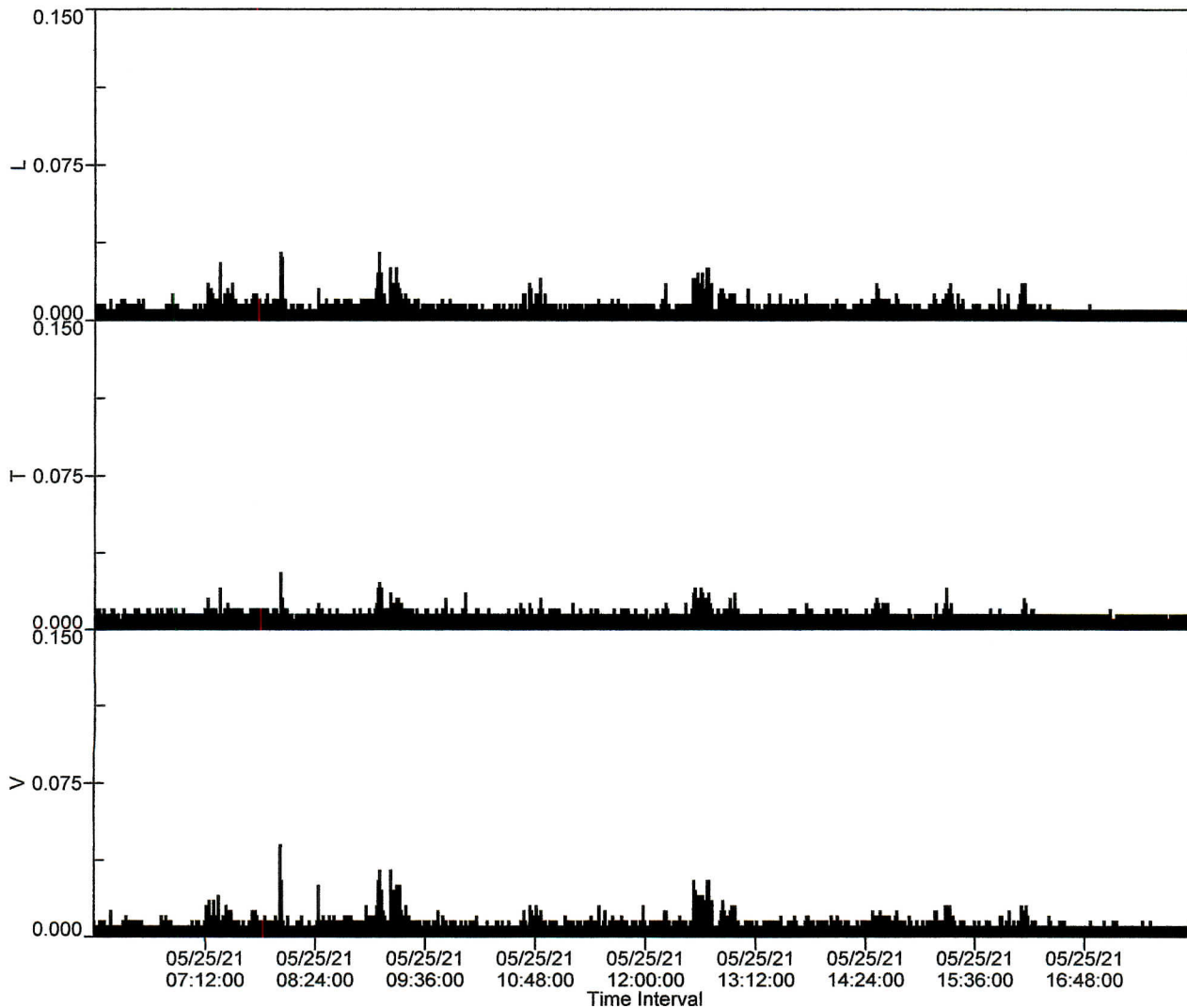
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 106

Record Max PPV: 0.045 in/s Record Max DB: 78 db



SN: 3817 v3.22
Date: 05/26/2021 **Time:** 06:01:00
Event: 107
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.148	0.118	0.145
FREQ (Hz)	20.0	20.0	17.9
Peak Air Pressure:	84 db		

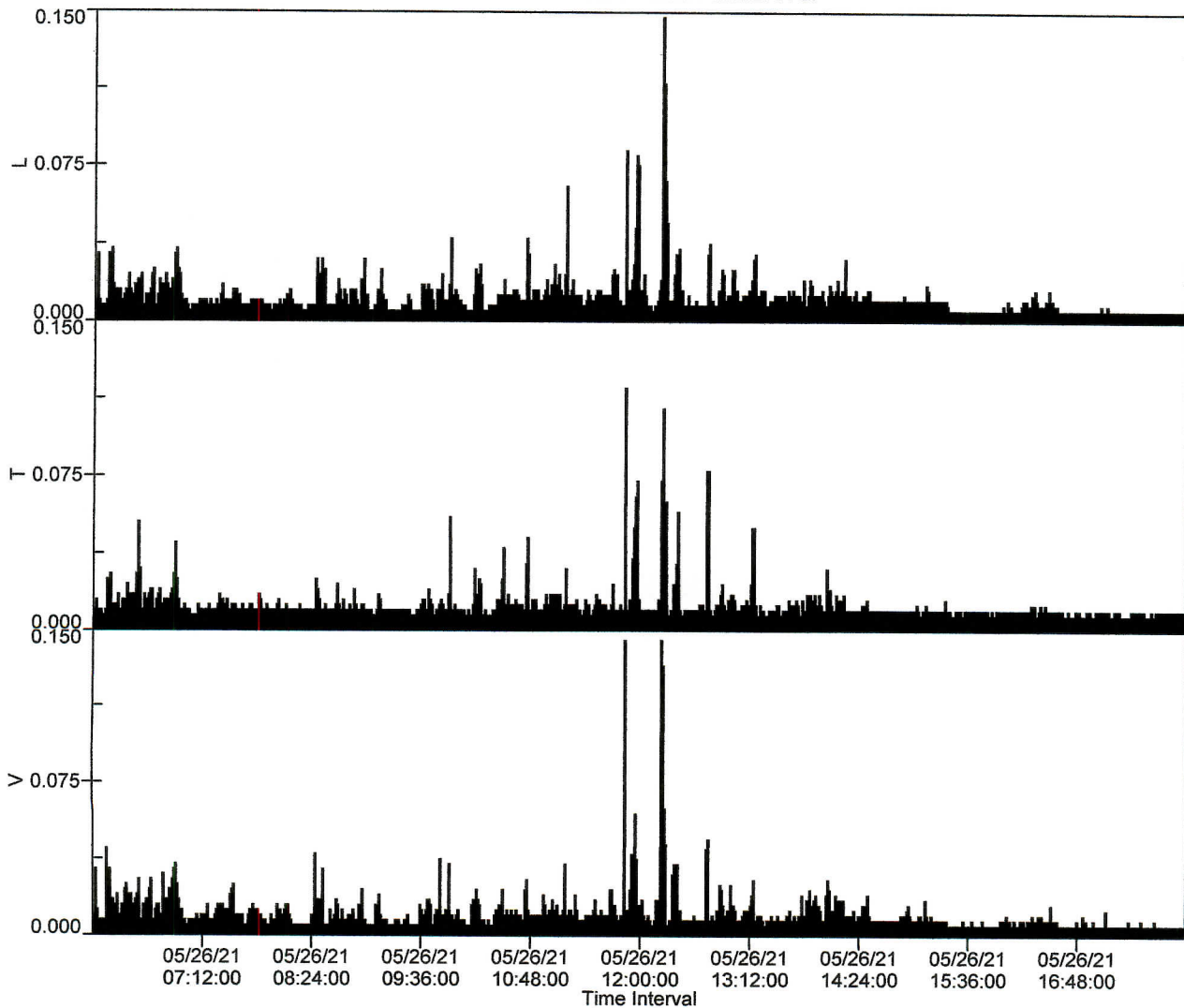
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 107

Record Max PPV: 0.148 in/s Record Max DB: 84 db



SN: 3817 v3.22
Date: 05/27/2021 **Time:** 06:01:00
Event: 108
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.058	0.063	0.055
FREQ (Hz)	22.7	18.5	23.8
Peak Air Pressure:	79 db		

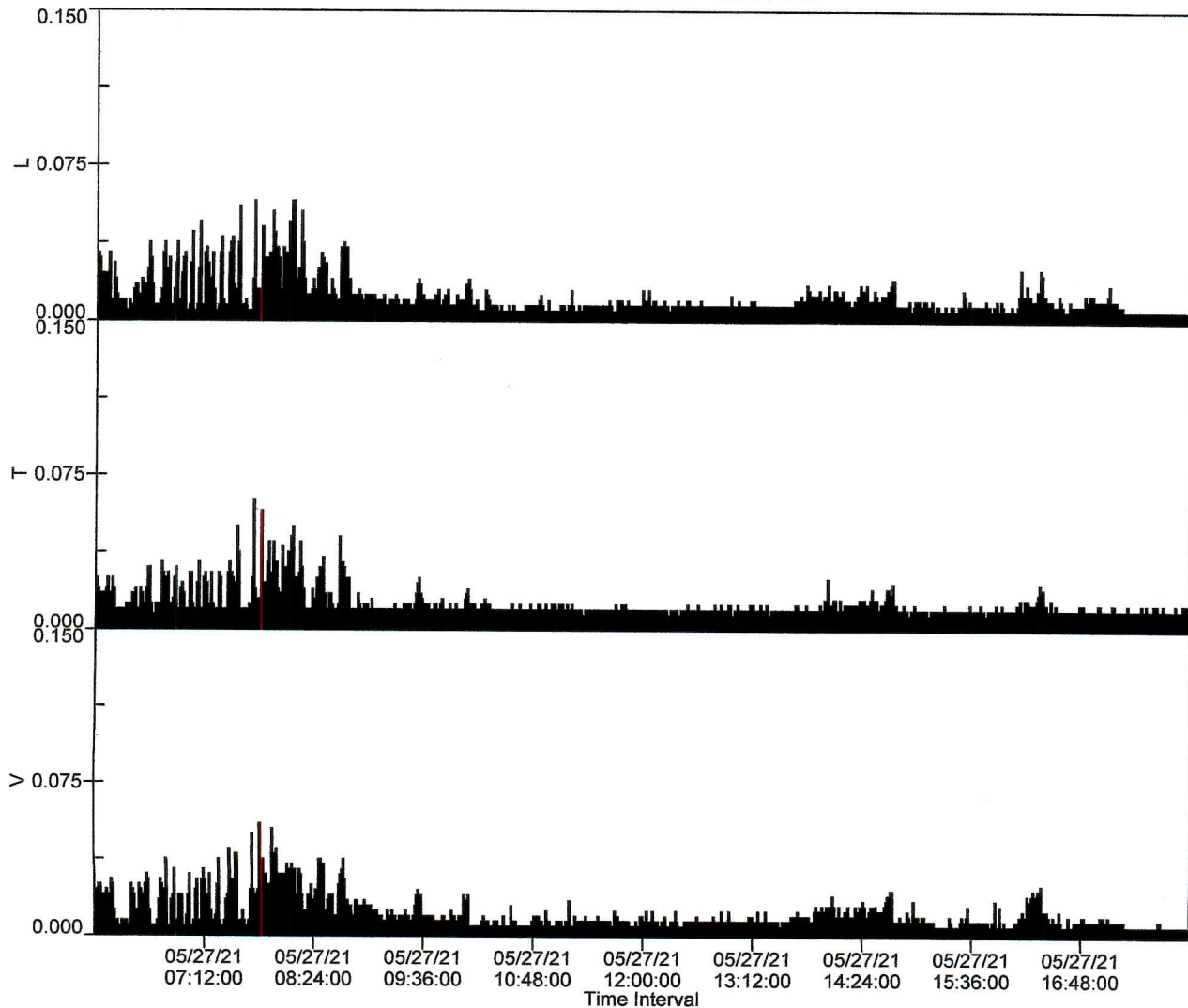
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 108

Record Max PPV: 0.063 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 05/28/2021 **Time:** 06:01:00
Event: 109
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.023	0.045	0.055
FREQ (Hz)	14.3	16.1	17.9
Peak Air Pressure:	79 db		

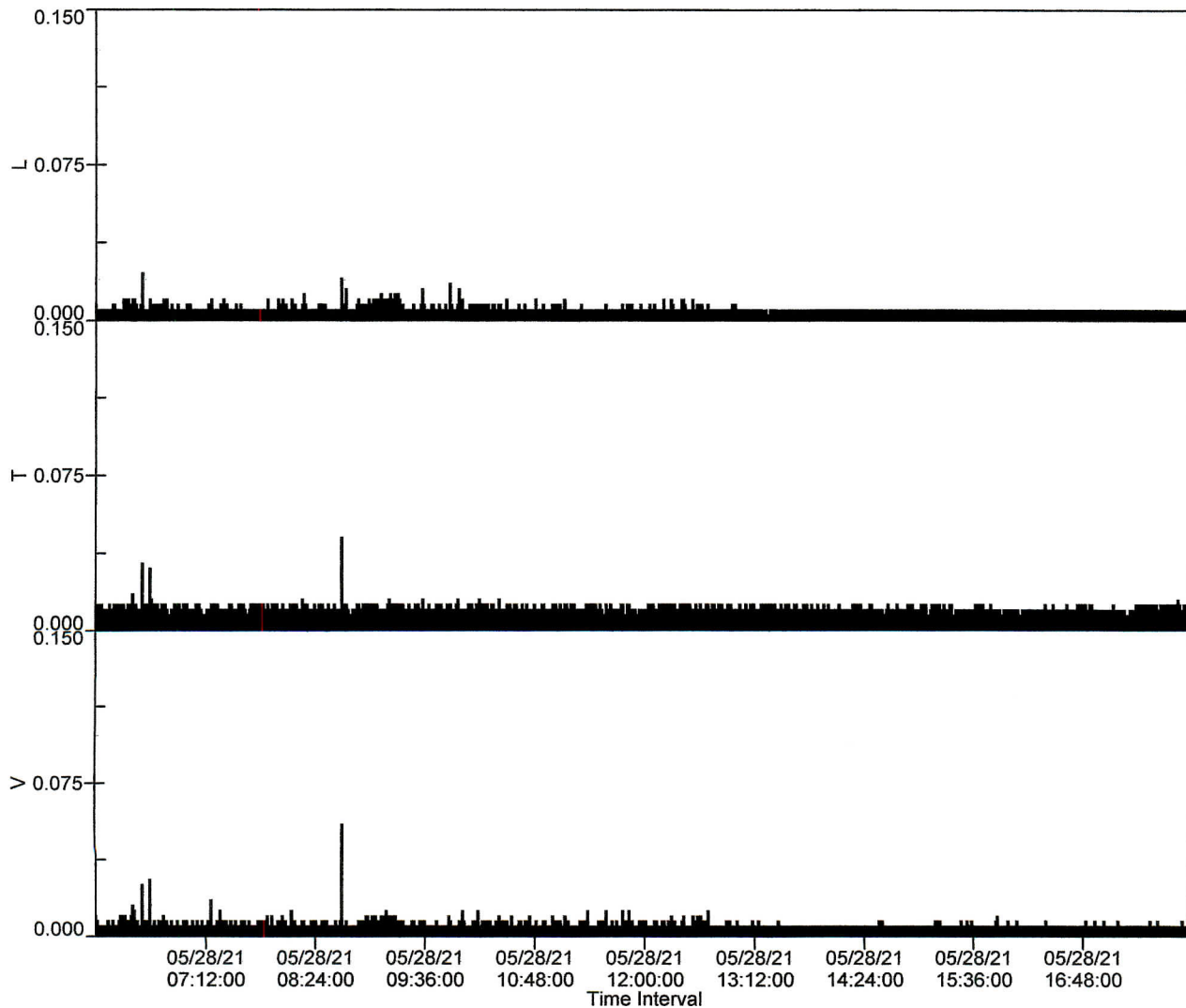
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 109

Record Max PPV: 0.055 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 05/29/2021 **Time:** 06:01:00
Event: 110
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.013	0.013	0.020
FREQ (Hz)	14.3	250.0	14.7
Peak Air Pressure:	79 db		

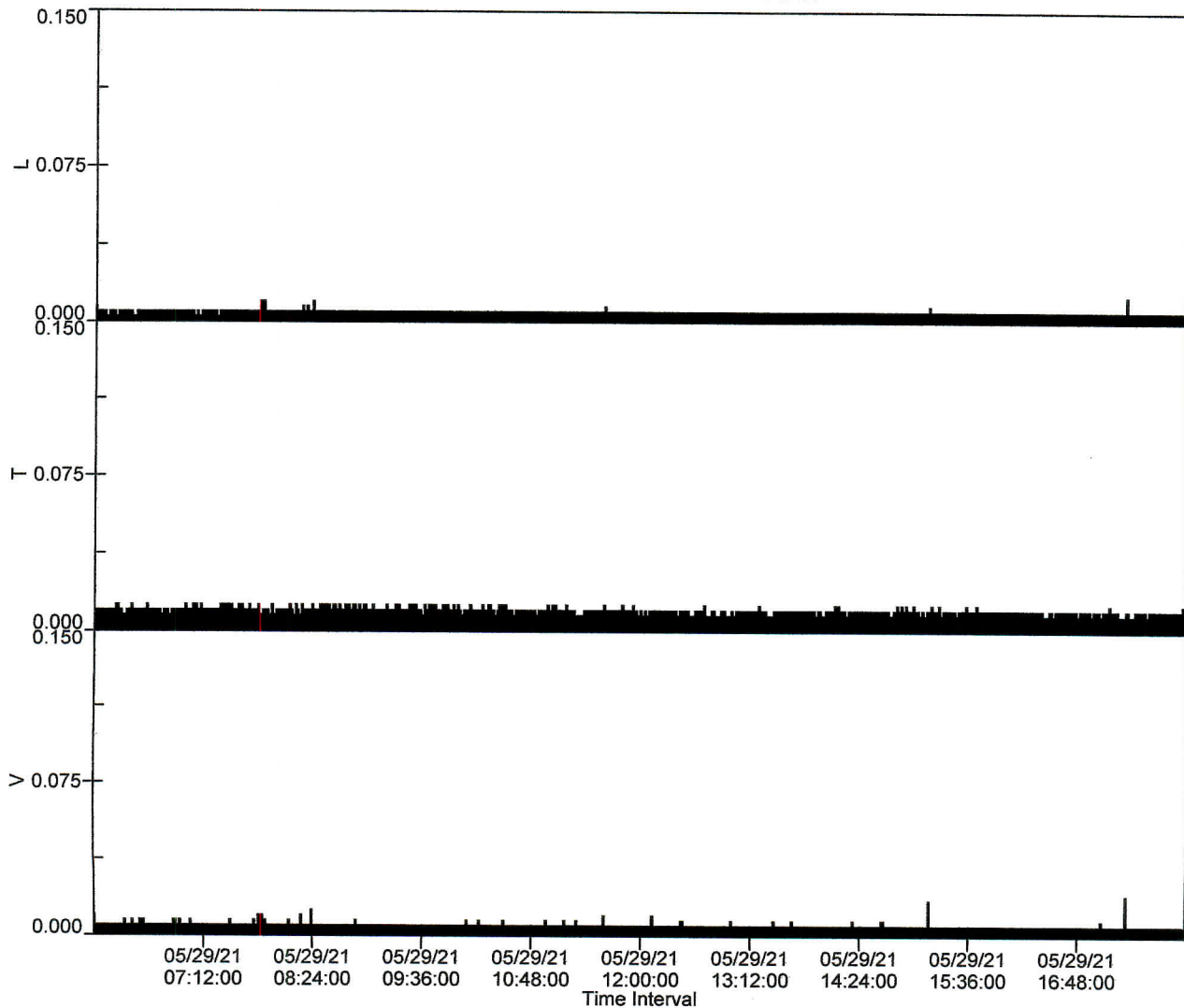
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 110

Record Max PPV: 0.020 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 05/30/2021 **Time:** 06:01:00
Event: 111
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.008	0.015	0.010
FREQ (Hz)	.3	250.0	.3
Peak Air Pressure:	79 db		

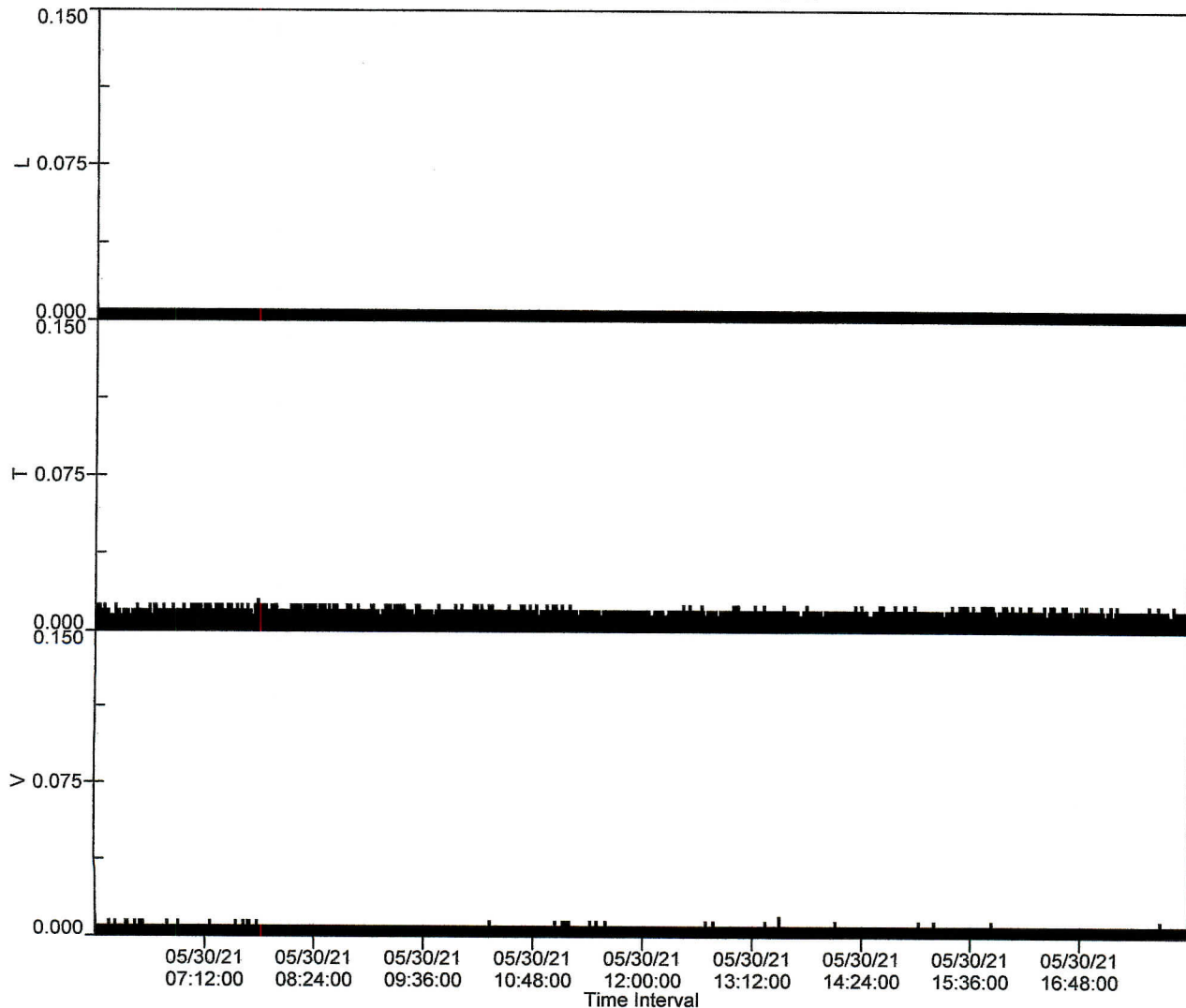
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 111

Record Max PPV: 0.015 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 05/31/2021 **Time:** 06:01:00
Event: 112
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.008	0.015	0.015
FREQ (Hz)	2.2	250.0	13.5
Peak Air Pressure:	79 db		

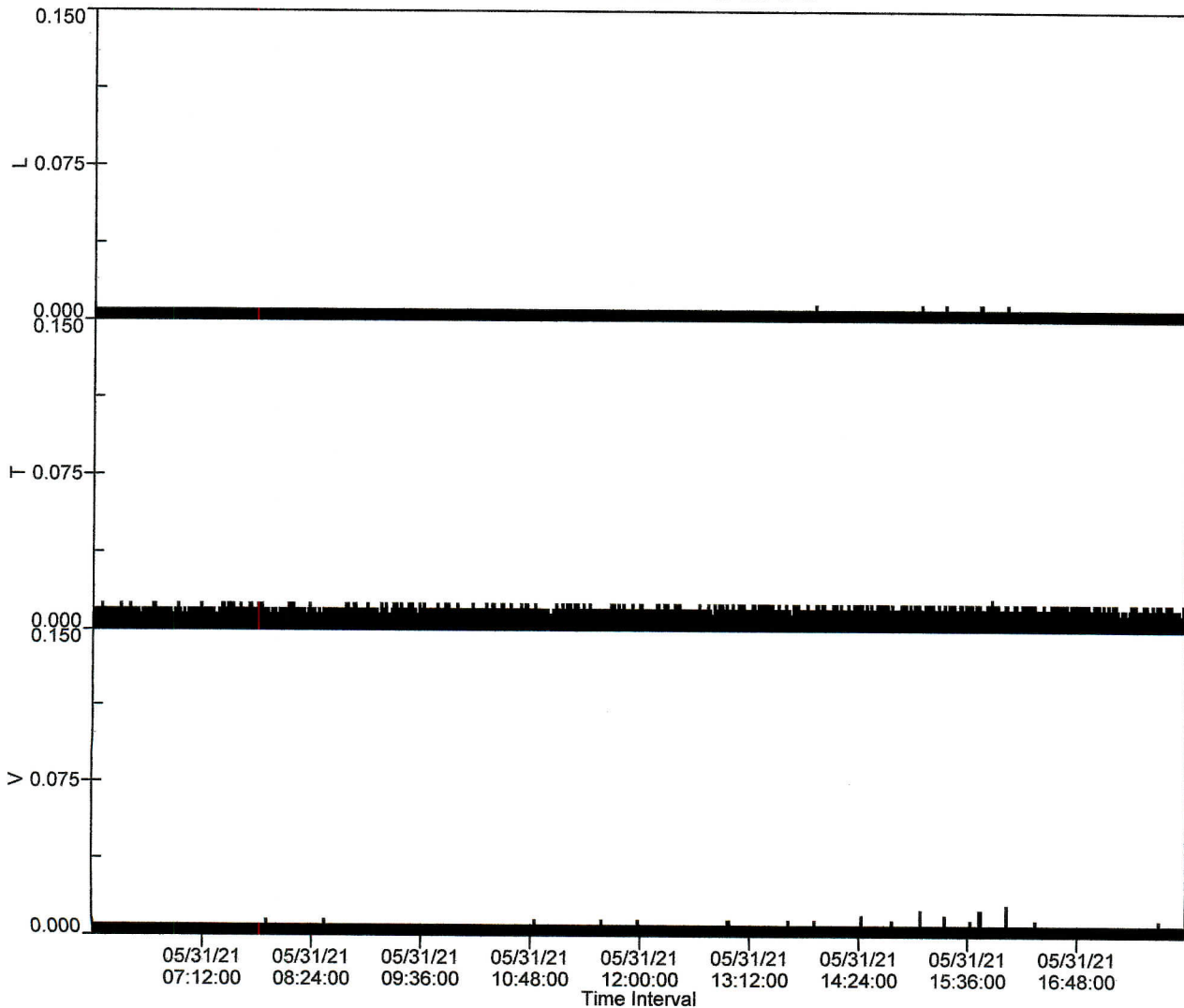
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 112

Record Max PPV: 0.015 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 06/01/2021 **Time:** 06:01:00
Event: 113
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

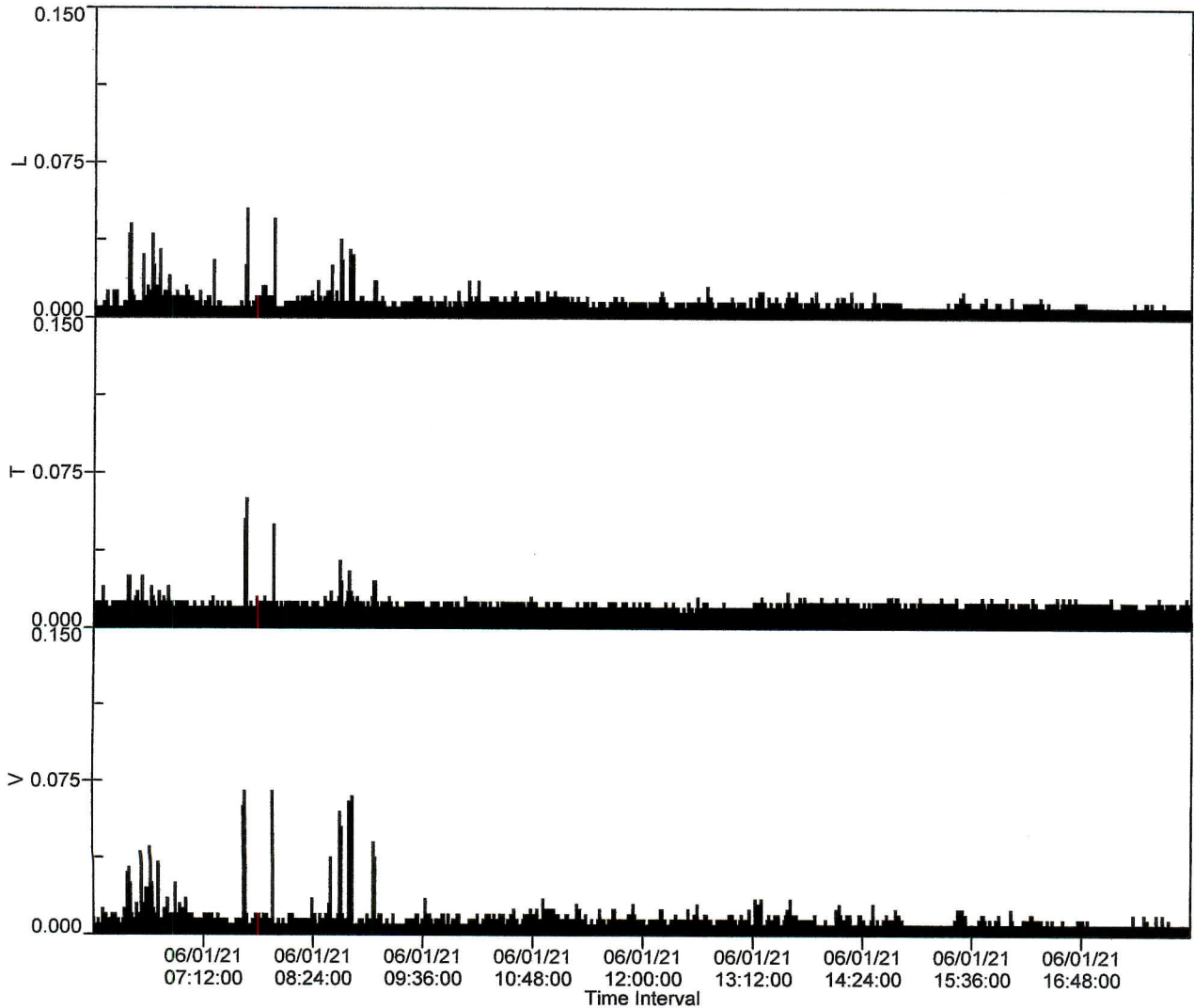
	L	T	V
PPV (in/s)	0.053	0.063	0.070
FREQ (Hz)	17.2	15.6	16.7
Peak Air Pressure:	103 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 113

Record Max PPV: 0.070 in/s Record Max DB: 103 db



SN: 3817 v3.22
Date: 06/02/2021 **Time:** 06:01:00
Event: 114
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.030	0.030	0.038
FREQ (Hz)	11.9	13.2	10.9
Peak Air Pressure:	79 db		

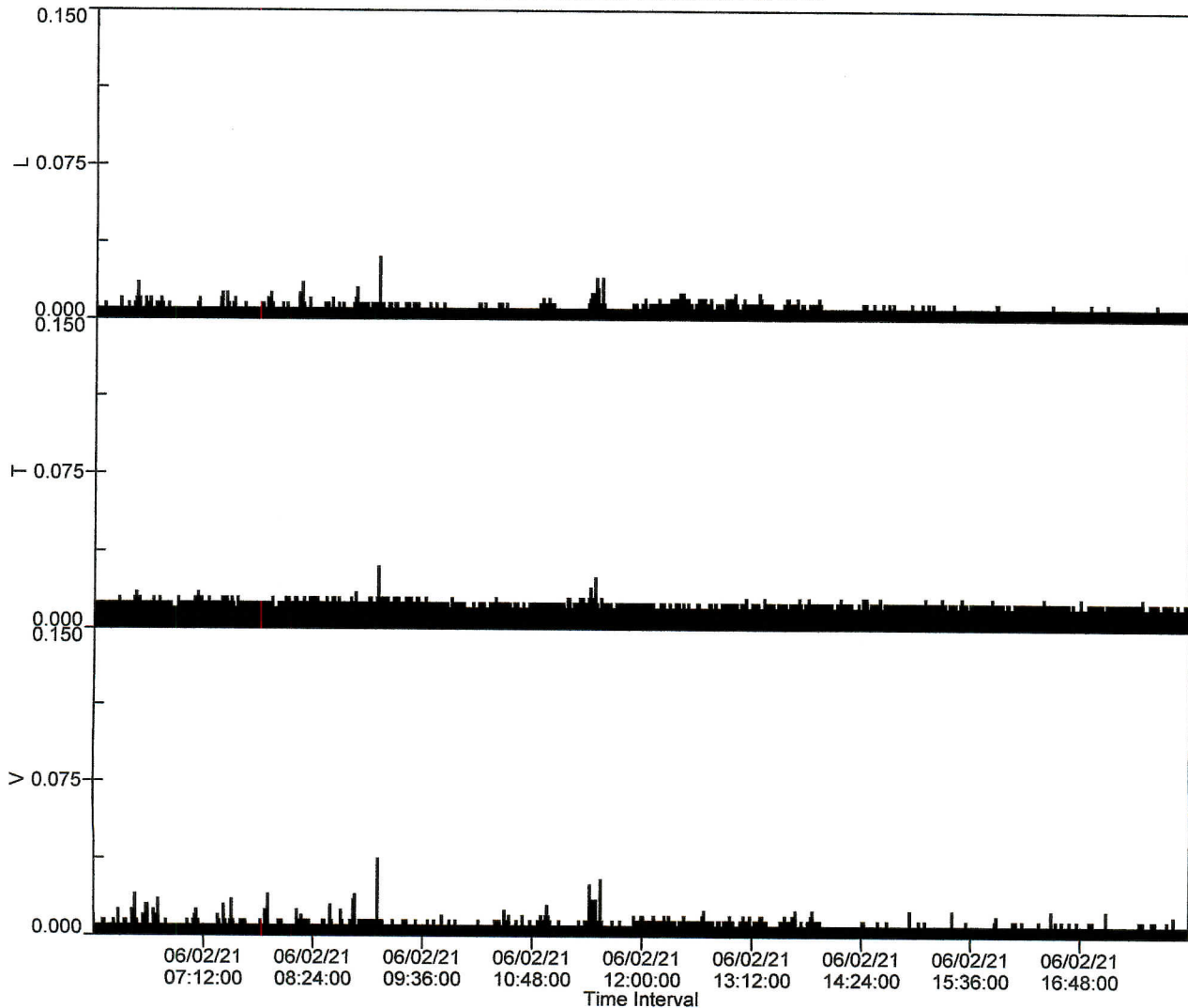
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 114

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



SN: 3817 v3.22
Date: 06/03/2021 **Time:** 06:01:00
Event: 115
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.023	0.015	0.035
FREQ (Hz)	20.8	20.8	17.2
Peak Air Pressure:	79 db		

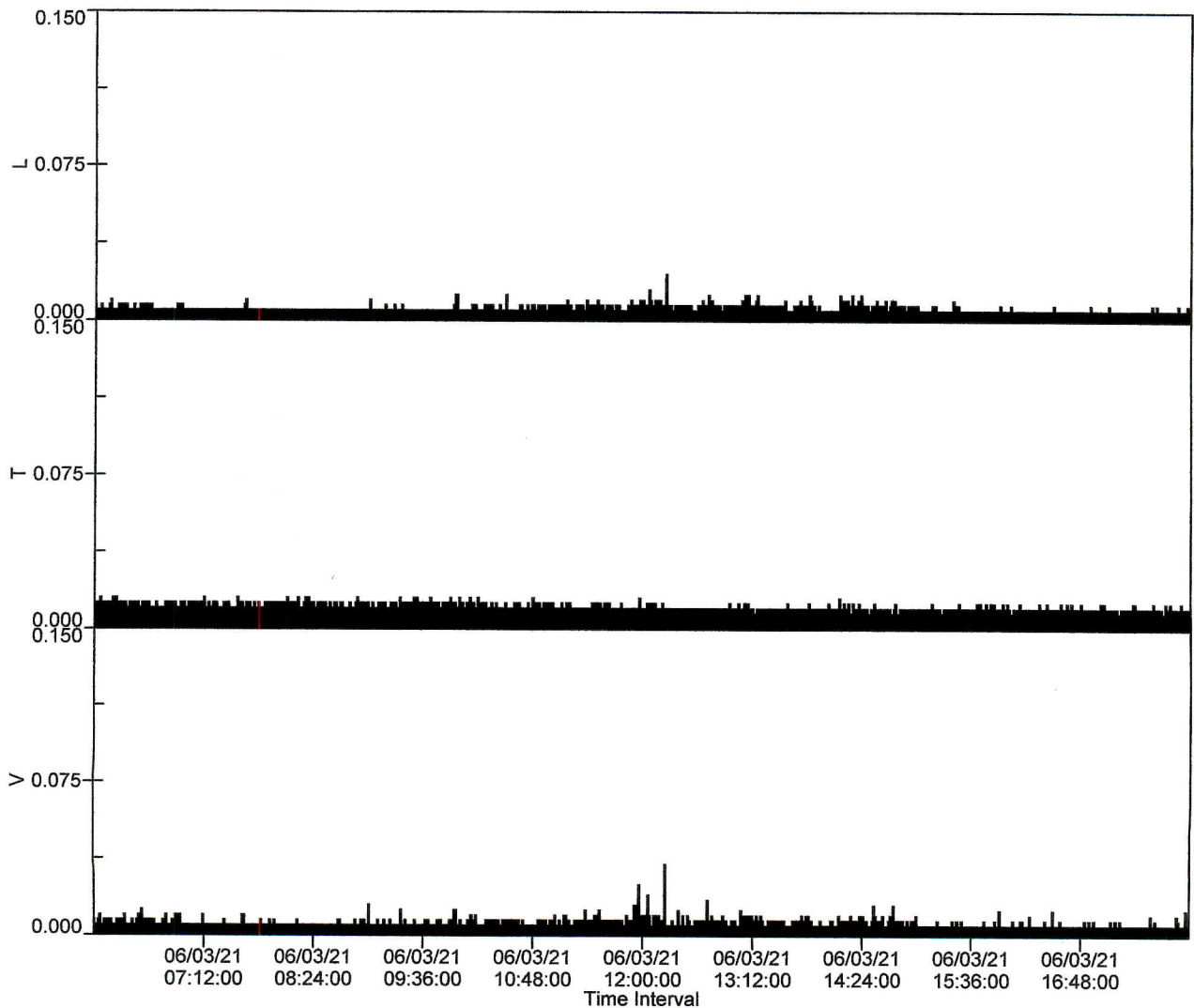
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 115

Record Max PPV: 0.035 in/s Record Max DB: 79 db



SN: 3817 v3.22
Date: 06/04/2021 **Time:** 06:01:00
Event: 116
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.018	0.020	0.025
FREQ (Hz)	31.3	27.8	33.3
Peak Air Pressure:	84 db		

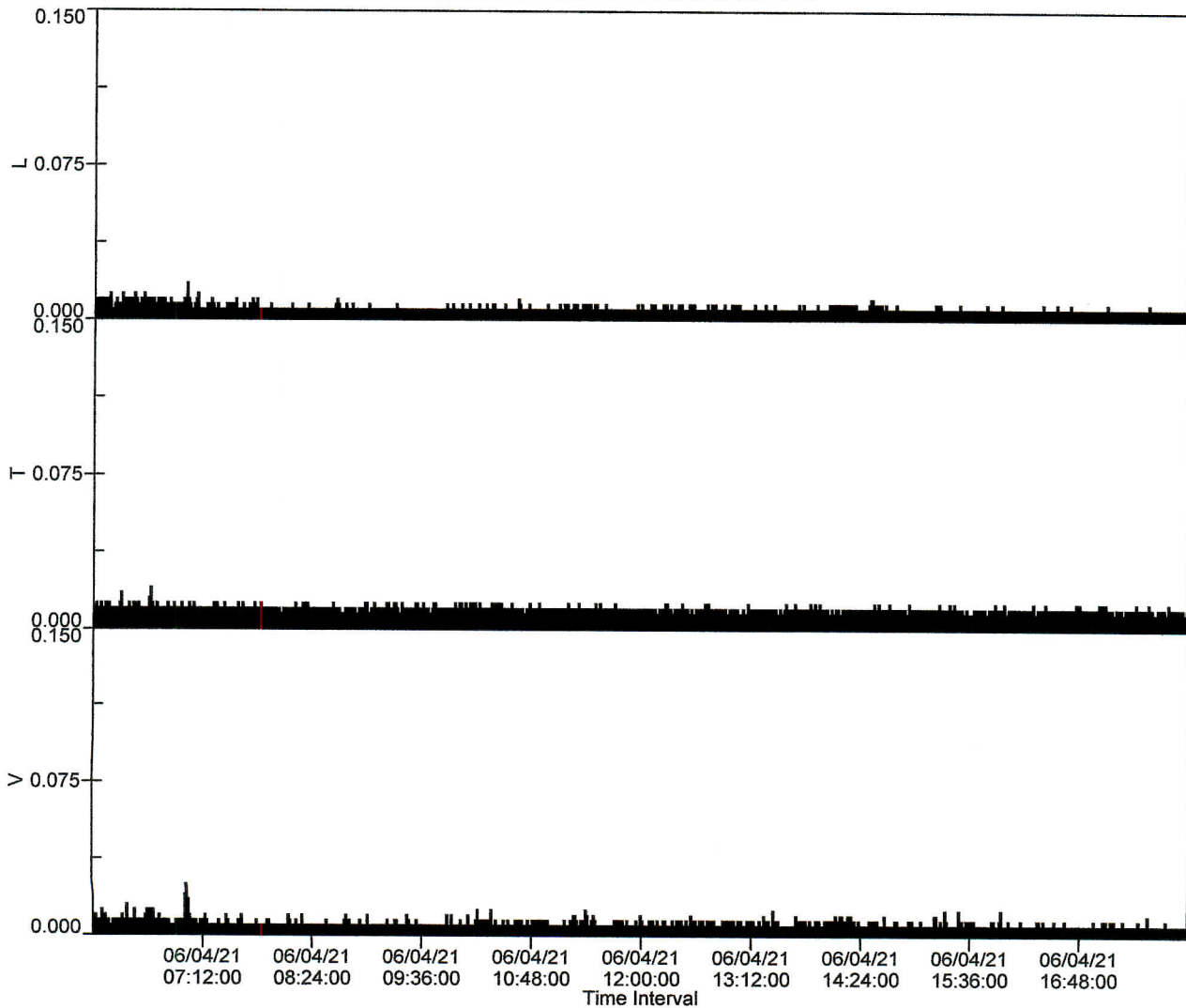
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 116

Record Max PPV: 0.025 in/s Record Max DB: 84 db



SN: 3817 v3.22
Date: 06/05/2021 **Time:** 06:01:00
Event: 117
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.008	0.013	0.010
FREQ (Hz)	.7	250.0	17.2
Peak Air Pressure:	78 db		

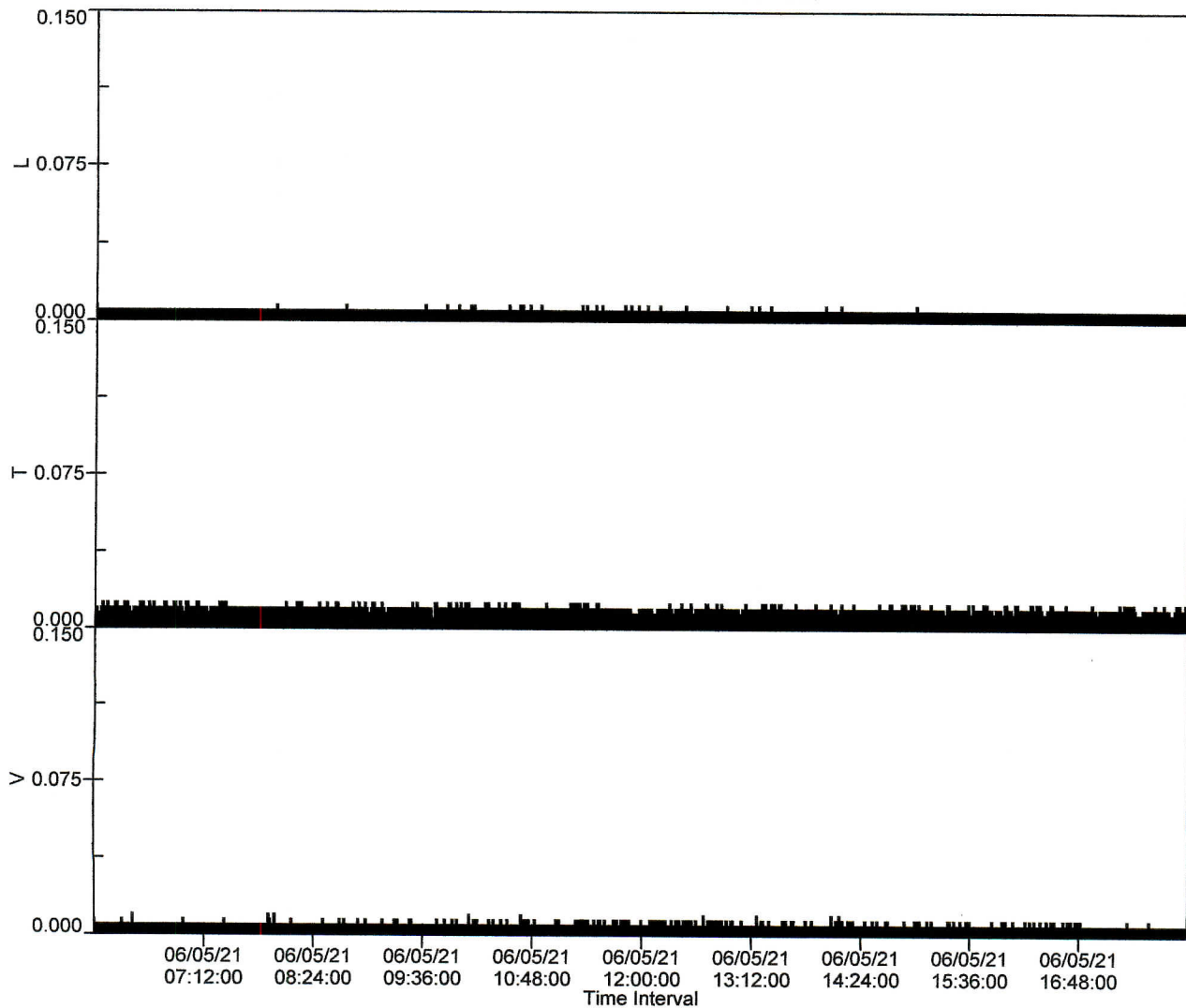
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 117

Record Max PPV: 0.013 in/s Record Max DB: 78 db



SN: 3817 v3.22
Date: 06/06/2021 **Time:** 06:01:00
Event: 118
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.008	0.013	0.013
FREQ (Hz)	23.8	250.0	14.3
Peak Air Pressure:	78 db		

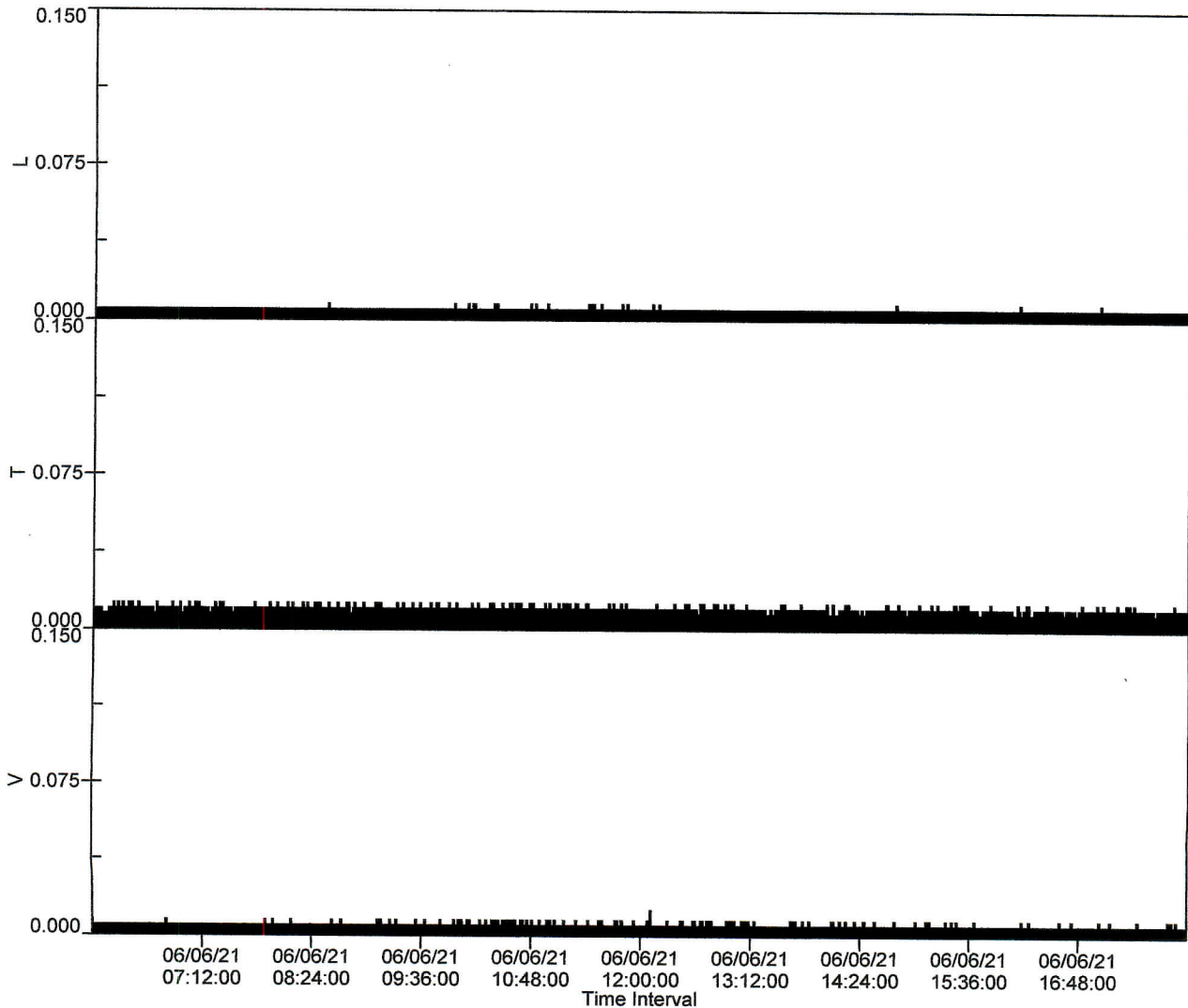
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 118

Record Max PPV: 0.013 in/s Record Max DB: 78 db



SN: 3817 v3.22
Date: 06/07/2021 **Time:** 06:01:00
Event: 119
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 491 SKOKIE BLVD

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.020	0.015	0.033
FREQ (Hz)	45.5	33.3	38.5
Peak Air Pressure:	79 db		

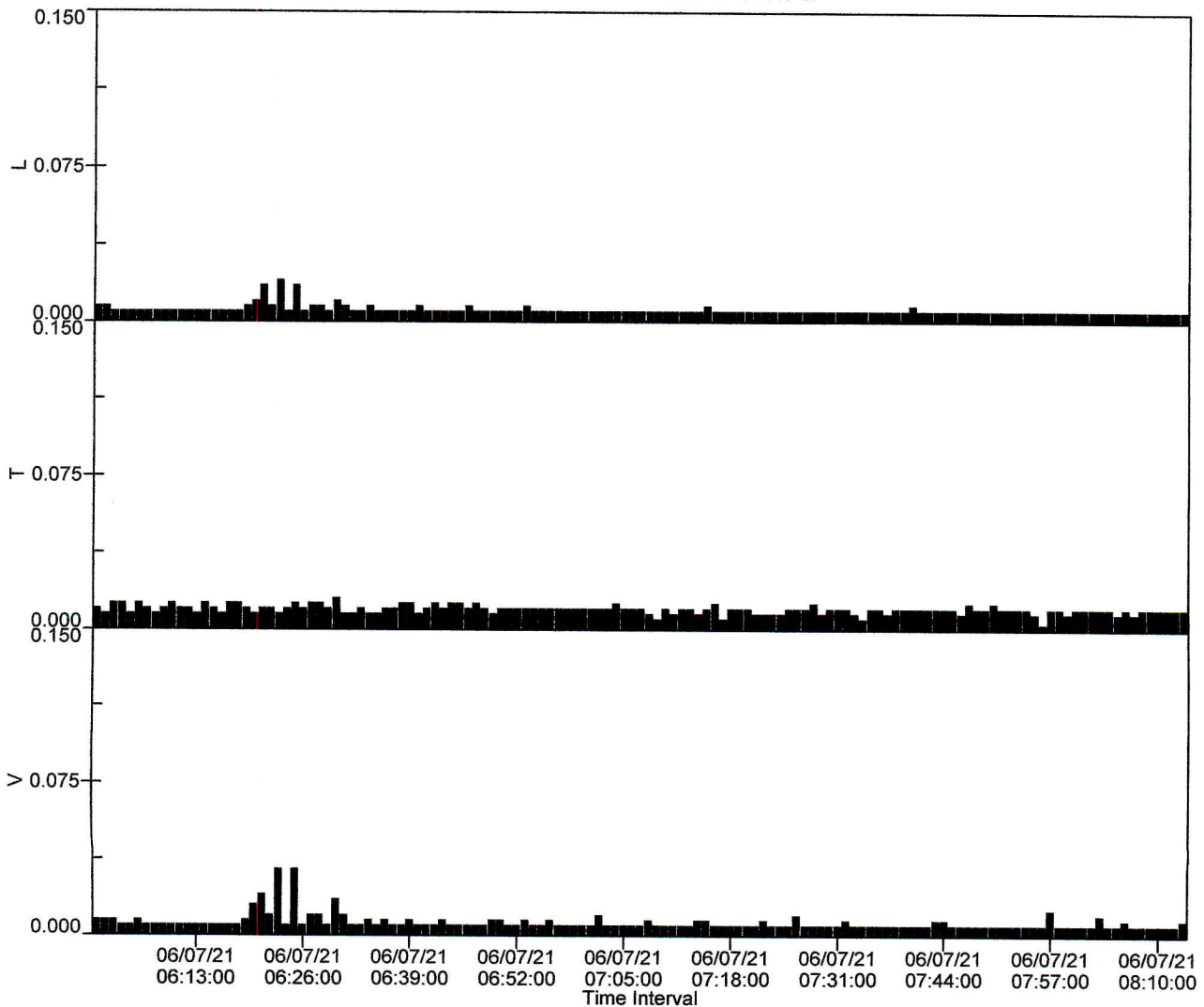
Recording Time: 133 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3817 Event: 119

Record Max PPV: 0.033 in/s Record Max DB: 79 db



SN: 3559 v2.75
Date: 05/24/2021 **Time:** 07:45:00
Event: 107
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.050	0.043	0.030
FREQ (Hz)	22.7	22.7	29.4
Peak Air Pressure:	76 db		

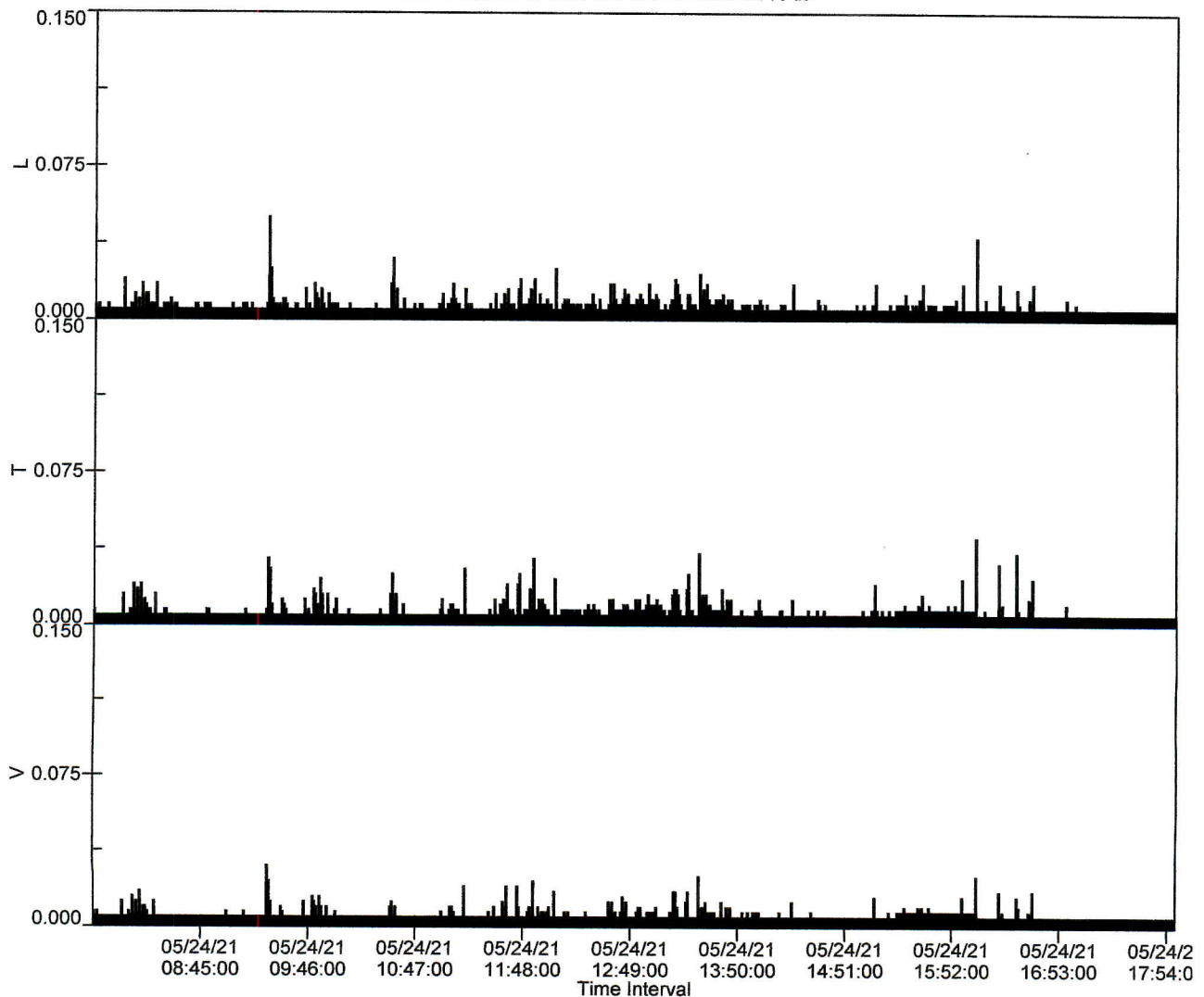
Recording Time: 614 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 107

Record Max PPV: 0.050 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 05/25/2021 **Time:** 06:01:00
Event: 108
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.075	0.053	0.043
FREQ (Hz)	50.0	25.0	20.8
Peak Air Pressure:	76 db		

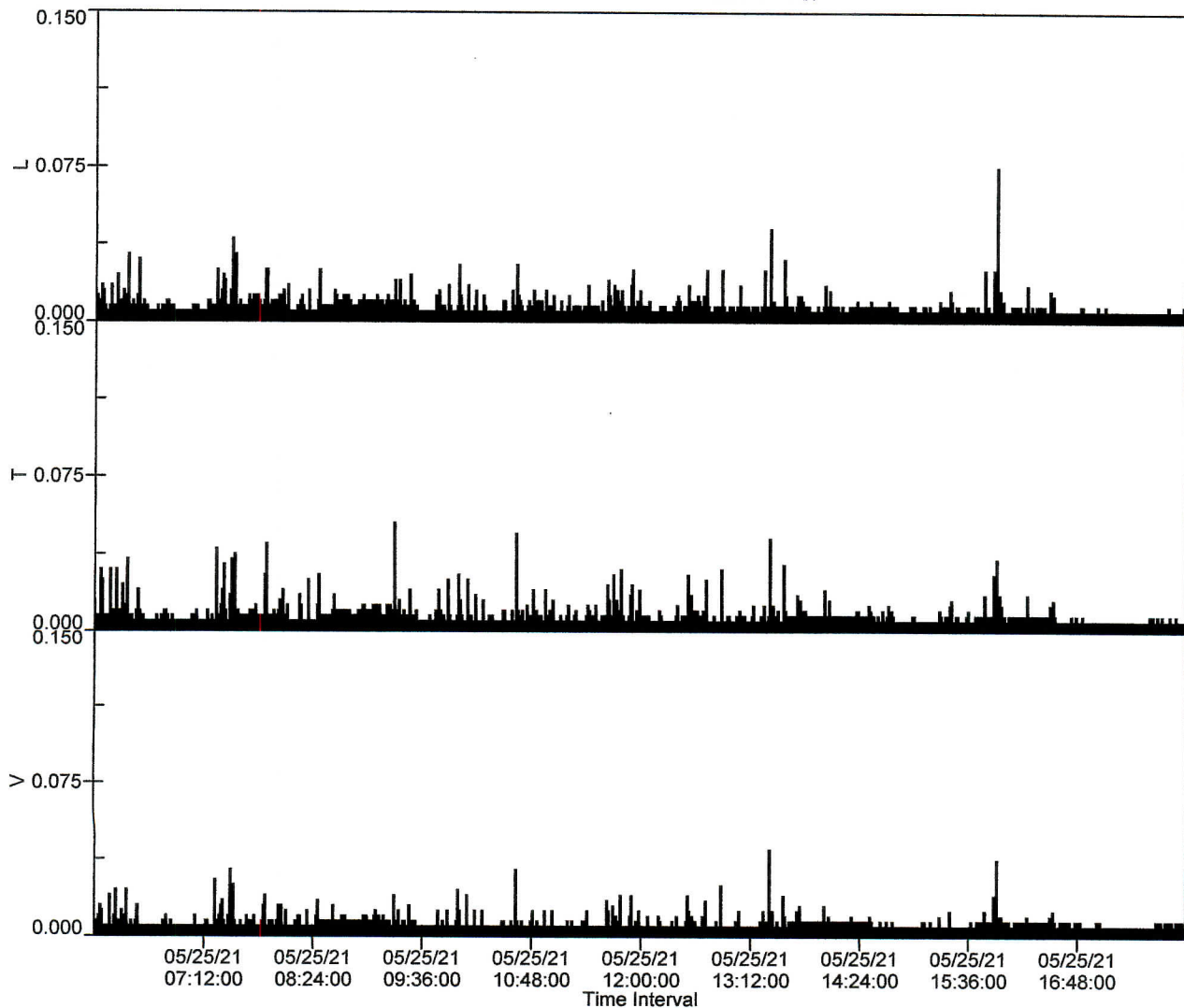
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 108

Record Max PPV: 0.075 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 05/26/2021 **Time:** 06:01:00
Event: 109
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.098	0.145	0.083
FREQ (Hz)	21.7	21.7	21.7
Peak Air Pressure:	84 db		

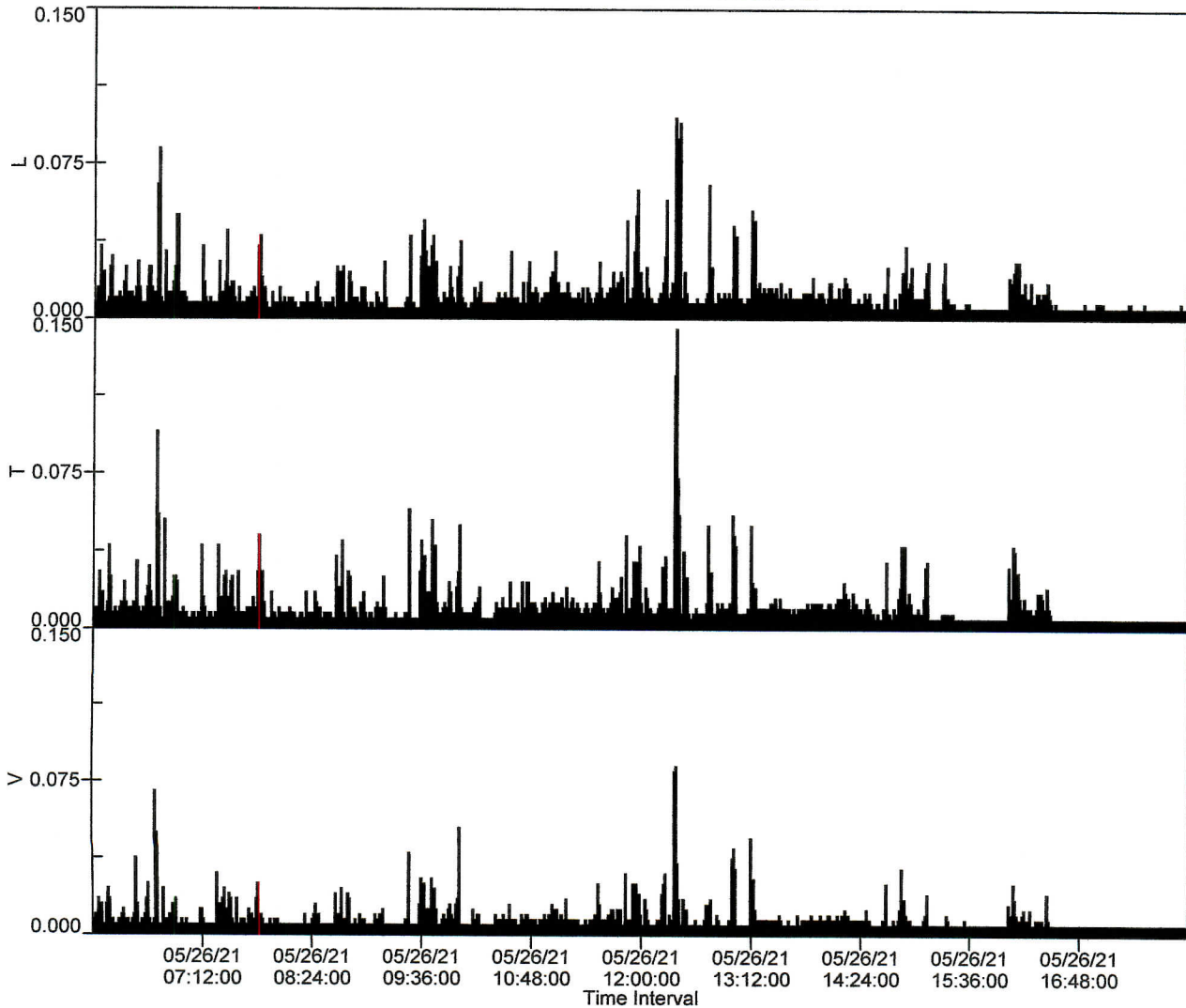
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 109

Record Max PPV: 0.145 in/s Record Max DB: 84 db



SN: 3559 v2.75
Date: 05/27/2021 **Time:** 06:01:00
Event: 110
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.143	0.213	0.110
FREQ (Hz)	22.7	22.7	29.4
Peak Air Pressure:	76 db		

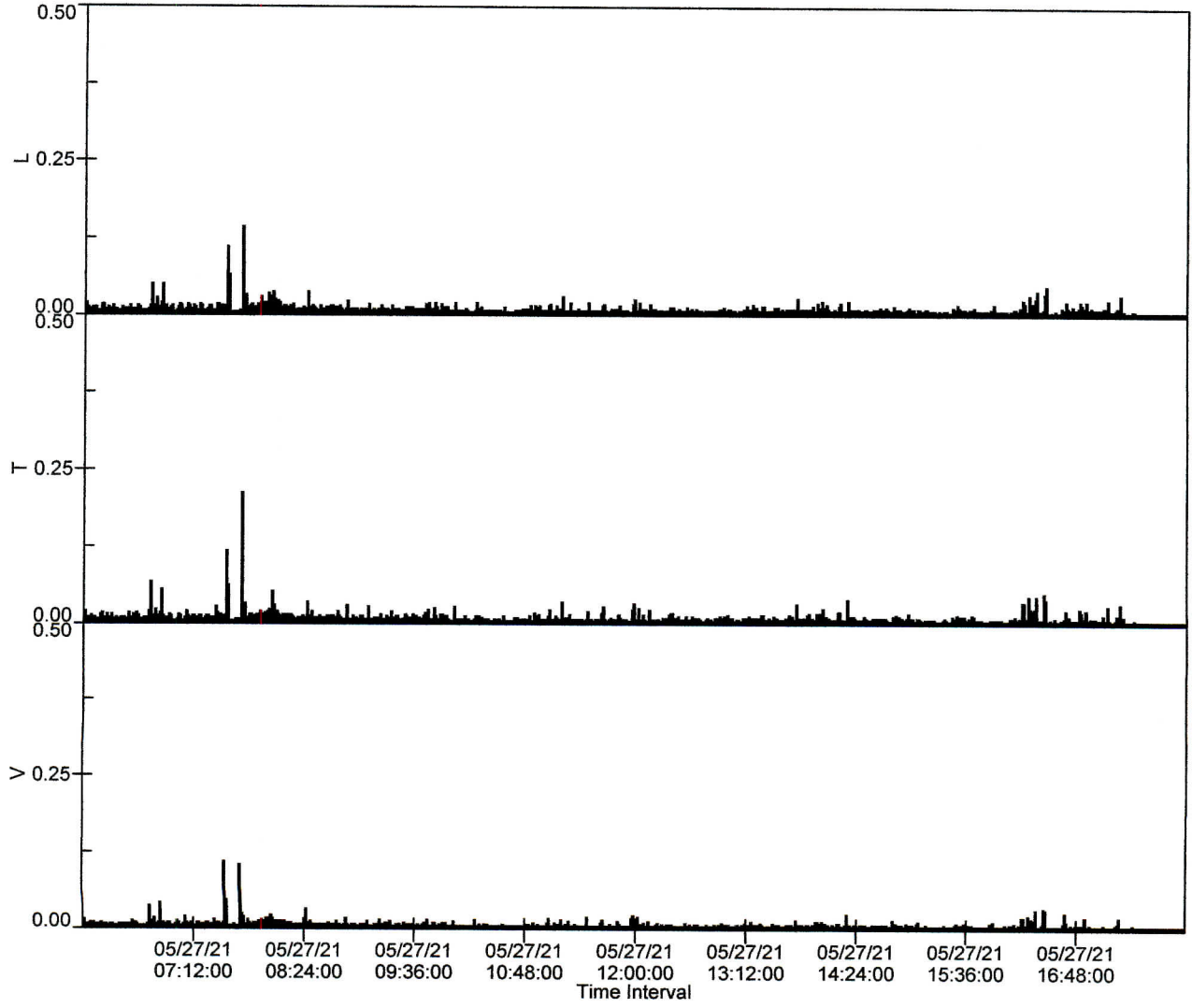
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 110

Record Max PPV: 0.213 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 05/28/2021 **Time:** 06:01:00
Event: 111
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.100	0.053	0.100
FREQ (Hz)	16.7	20.8	19.2
Peak Air Pressure:	76 db		

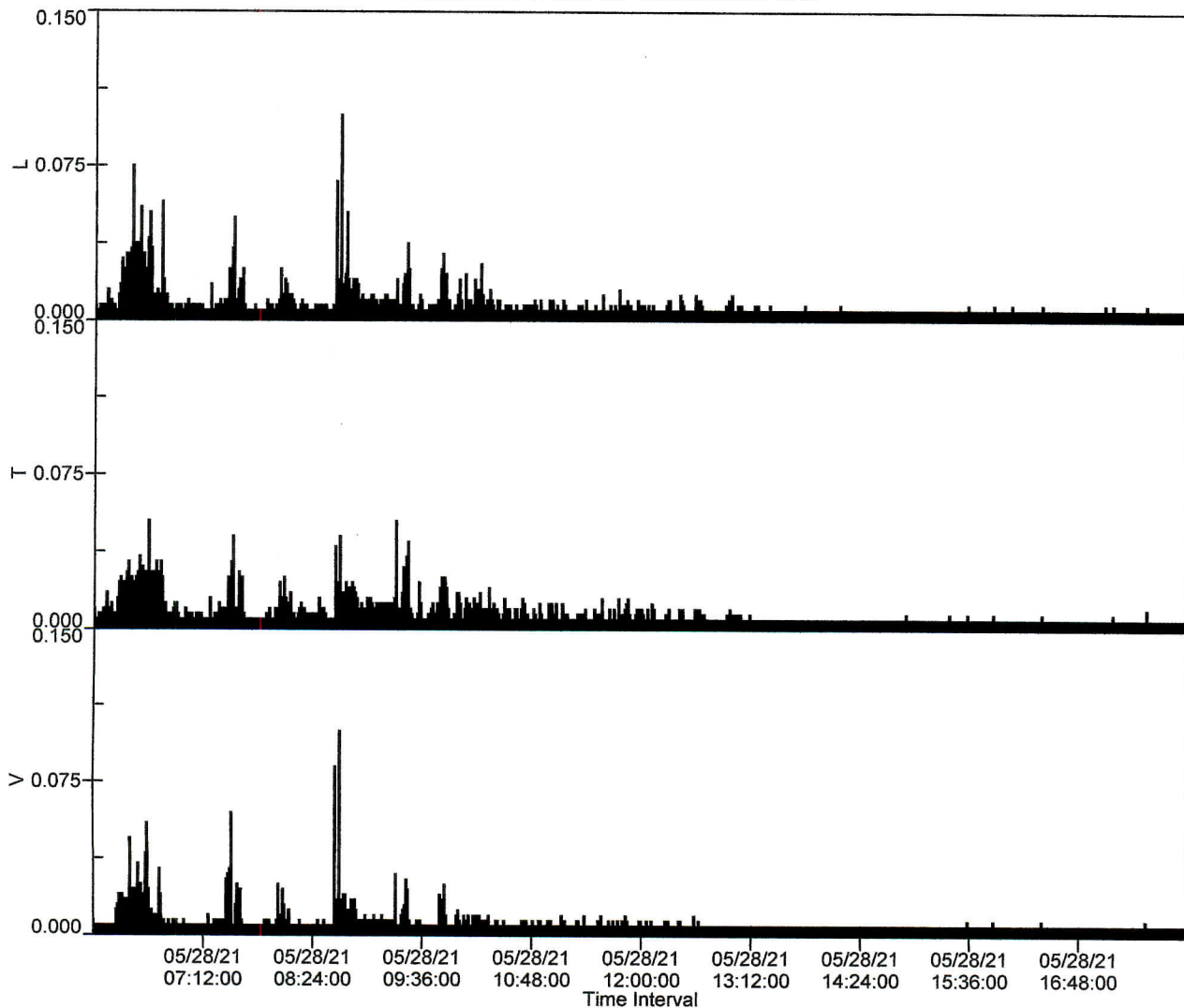
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 111

Record Max PPV: 0.100 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 05/29/2021 **Time:** 06:01:00
Event: 112
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.010	0.013	0.010
FREQ (Hz)	17.9	17.9	15.6
Peak Air Pressure:	76 db		

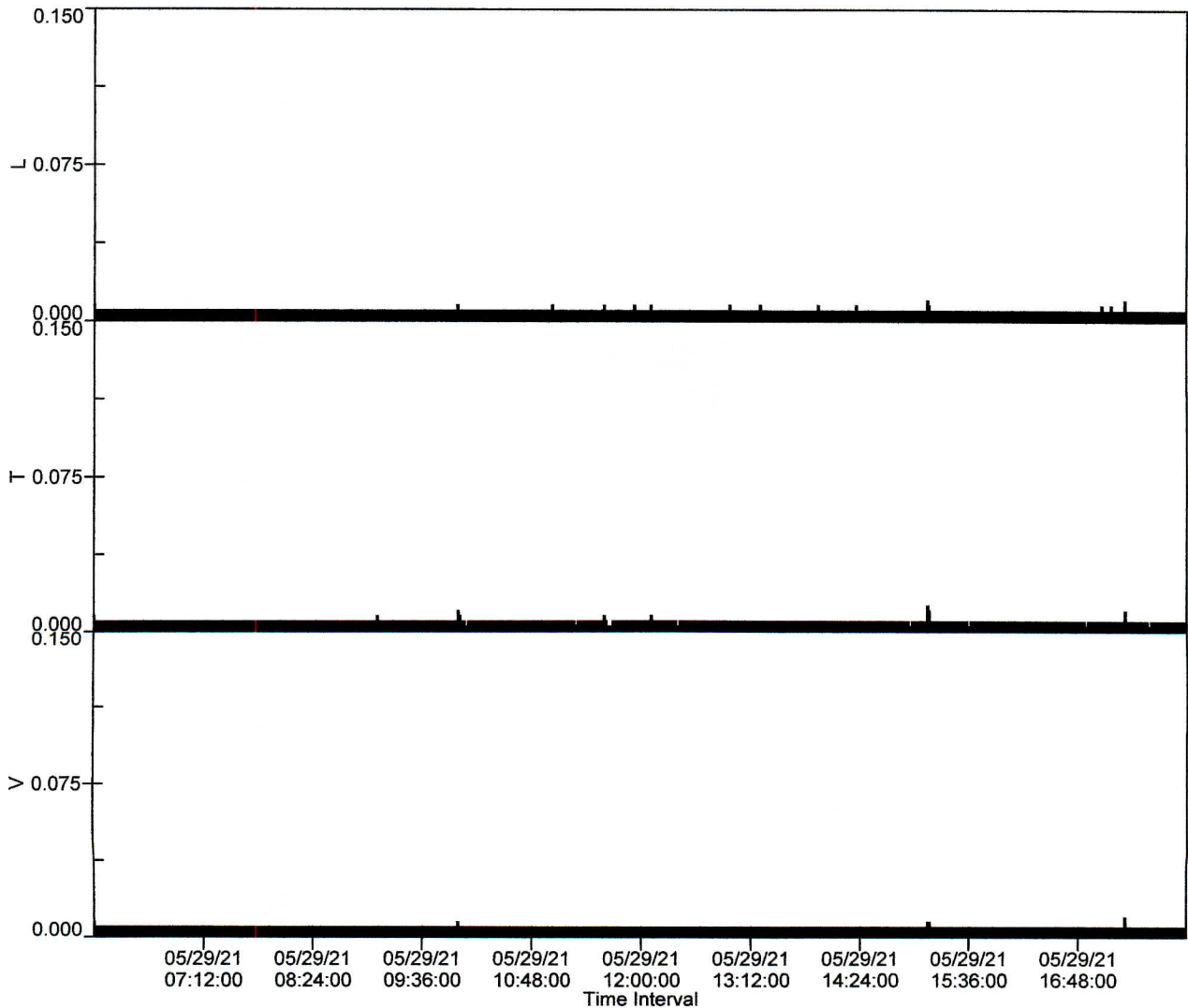
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 112

Record Max PPV: 0.013 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 05/30/2021 **Time:** 06:01:00
Event: 113
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.028	0.033	0.033
FREQ (Hz)	55.6	55.6	55.6
Peak Air Pressure:	79 db		

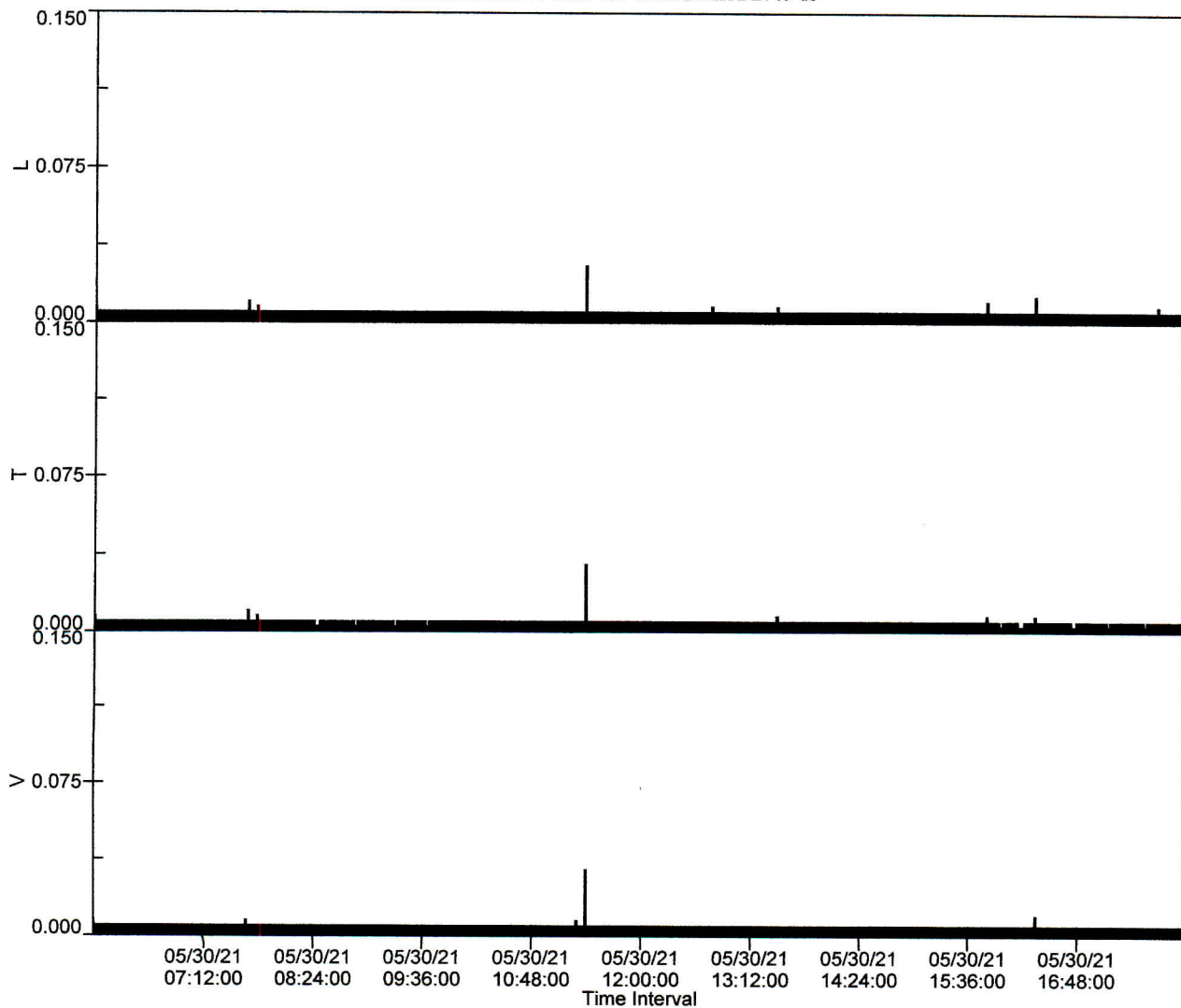
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 113

Record Max PPV: 0.033 in/s Record Max DB: 79 db



SN: 3559 v2.75
Date: 05/31/2021 **Time:** 06:01:00
Event: 114
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.015	0.013	0.010
FREQ (Hz)	15.6	18.5	13.2
Peak Air Pressure:	76 db		

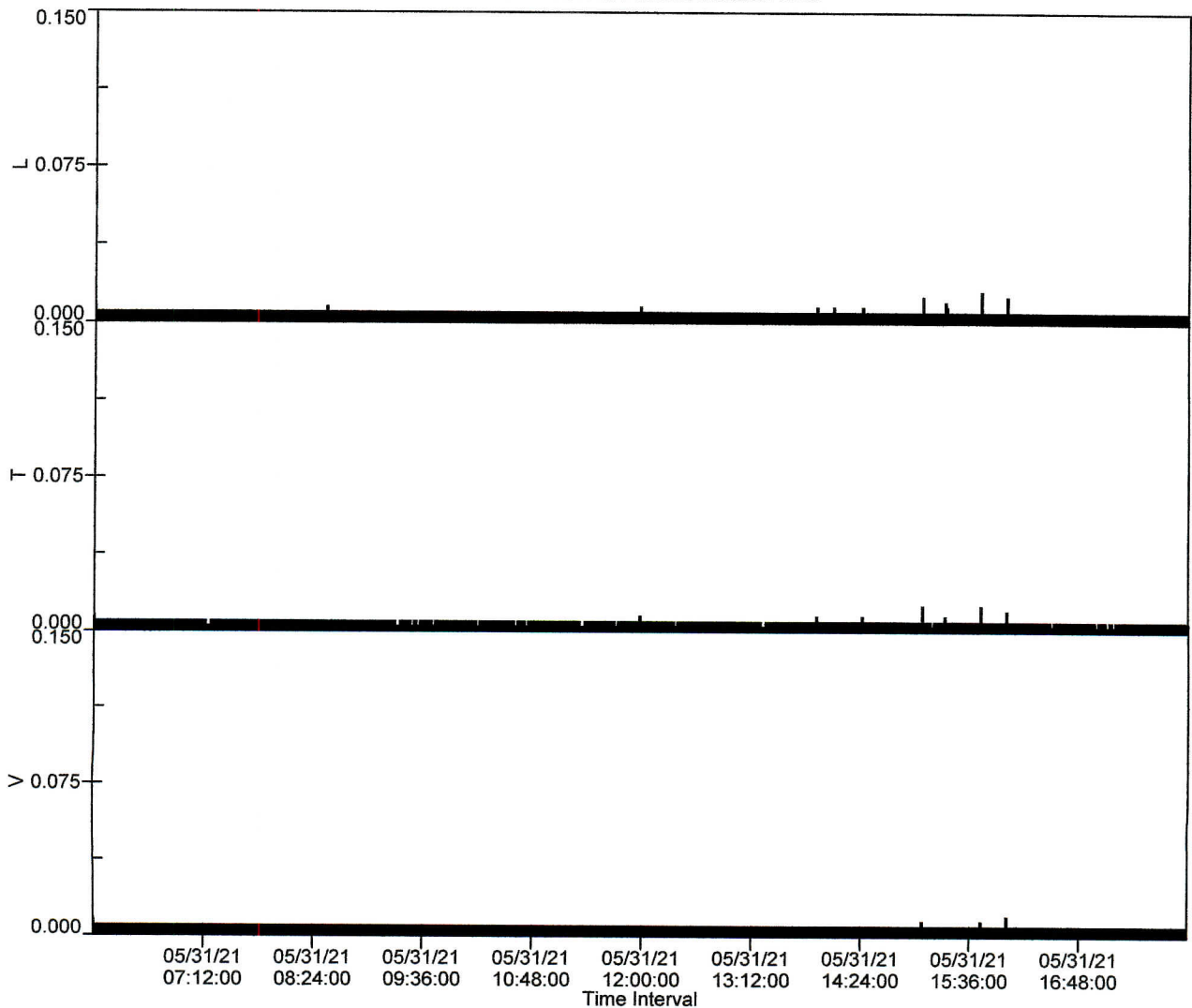
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 114

Record Max PPV: 0.015 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 06/01/2021 **Time:** 06:01:00
Event: 115
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.263	0.190	0.170
FREQ (Hz)	17.9	20.0	18.5
Peak Air Pressure:	76 db		

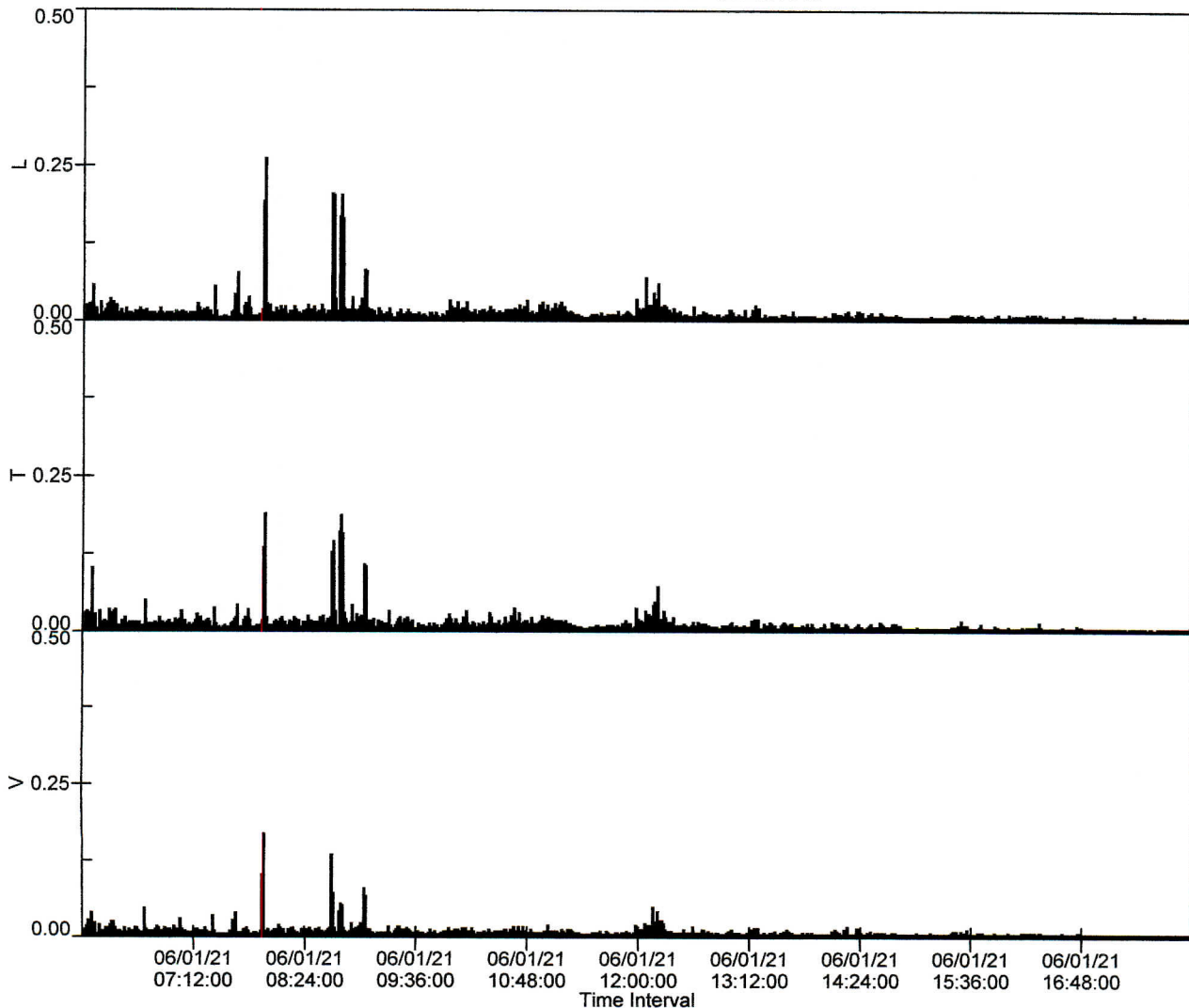
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 115

Record Max PPV: 0.263 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 06/02/2021 **Time:** 06:01:00
Event: 116
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.025	0.030	0.023
FREQ (Hz)	12.8	41.7	9.6
Peak Air Pressure:	76 db		

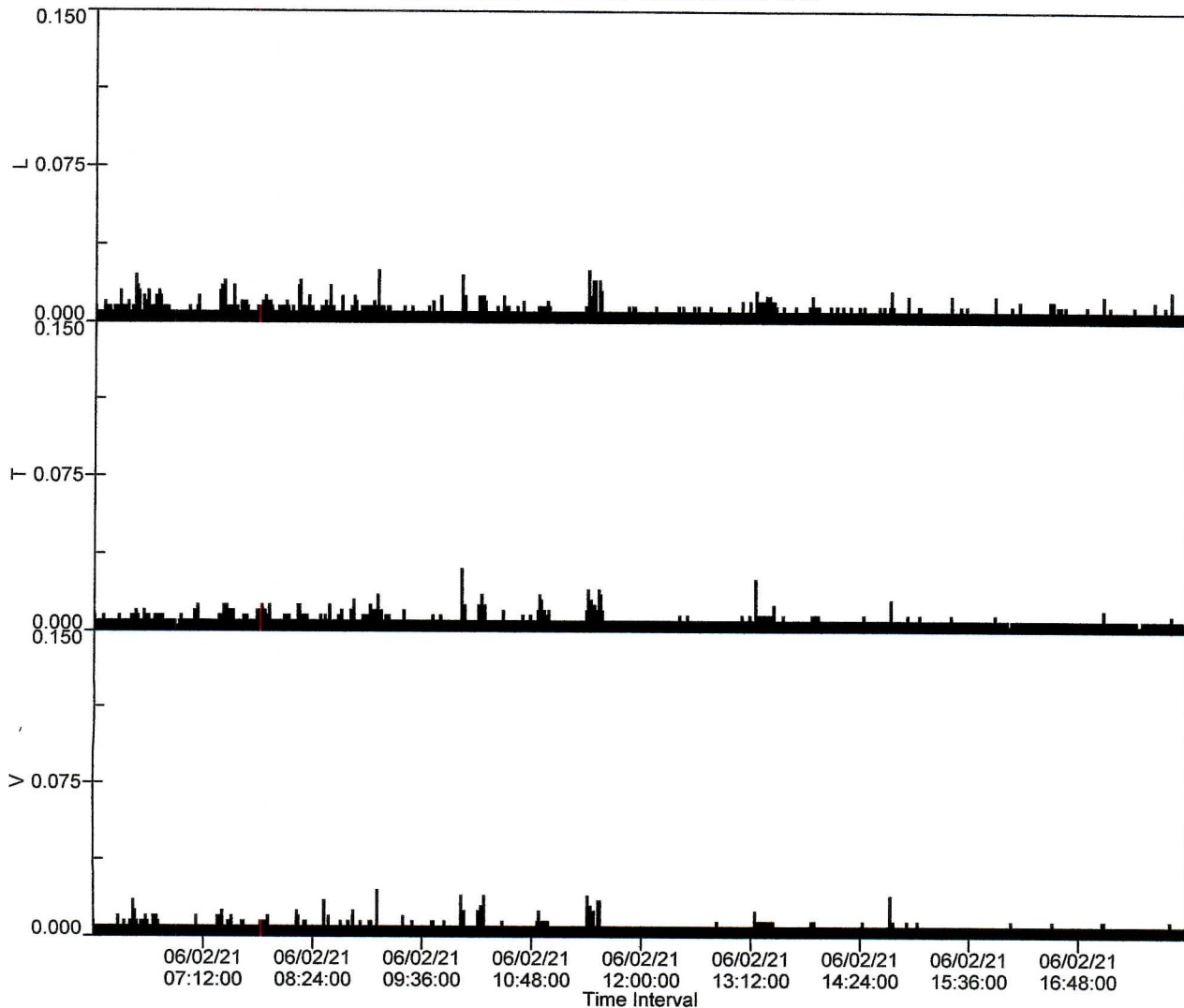
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 116

Record Max PPV: 0.030 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 06/03/2021 **Time:** 06:01:00
Event: 117
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.103	0.078	0.060
FREQ (Hz)	20.8	22.7	27.8
Peak Air Pressure:	76 db		

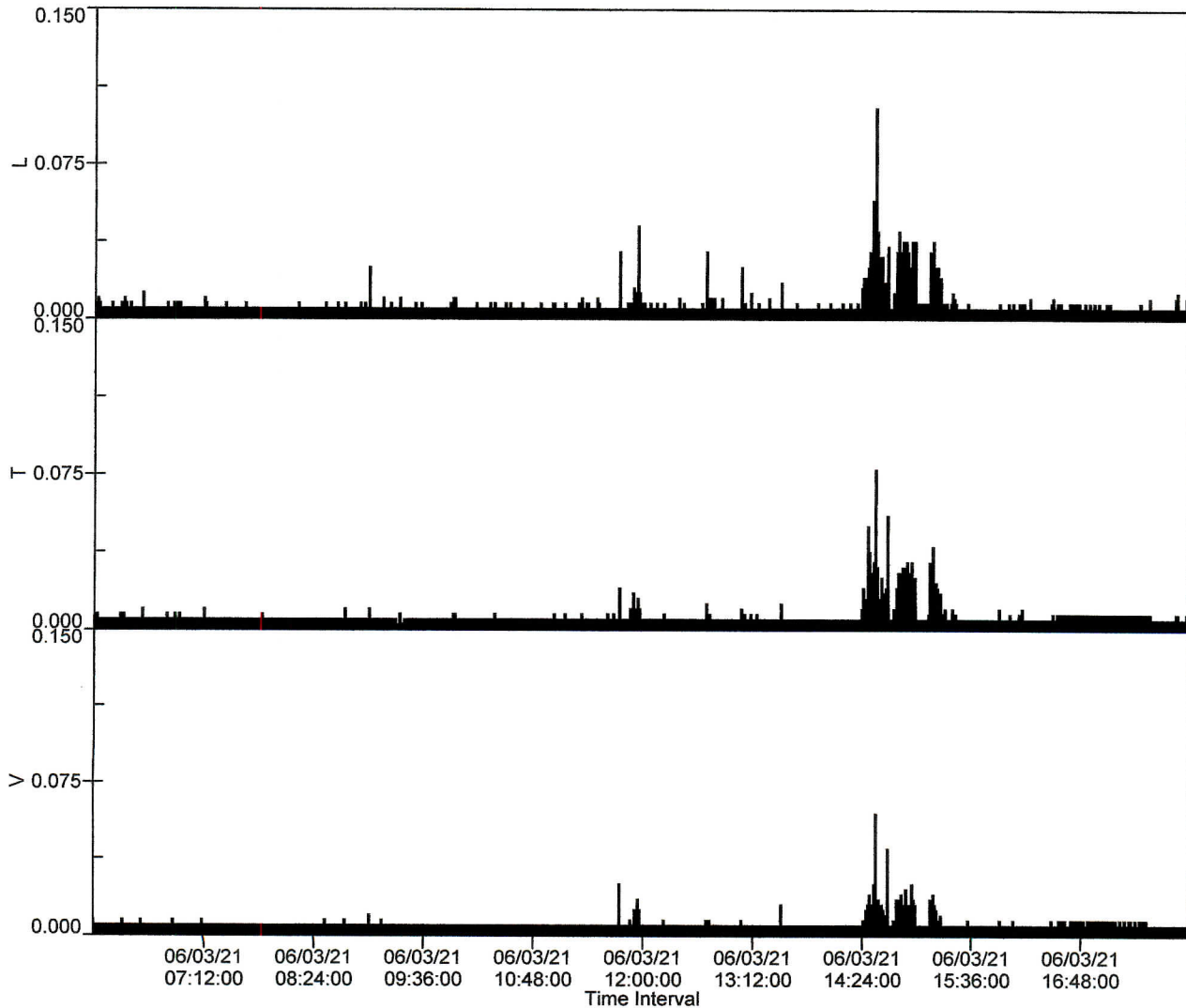
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 117

Record Max PPV: 0.103 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 06/04/2021 **Time:** 06:01:00
Event: 118
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.063	0.060	0.053
FREQ (Hz)	23.8	29.4	29.4
Peak Air Pressure:	76 db		

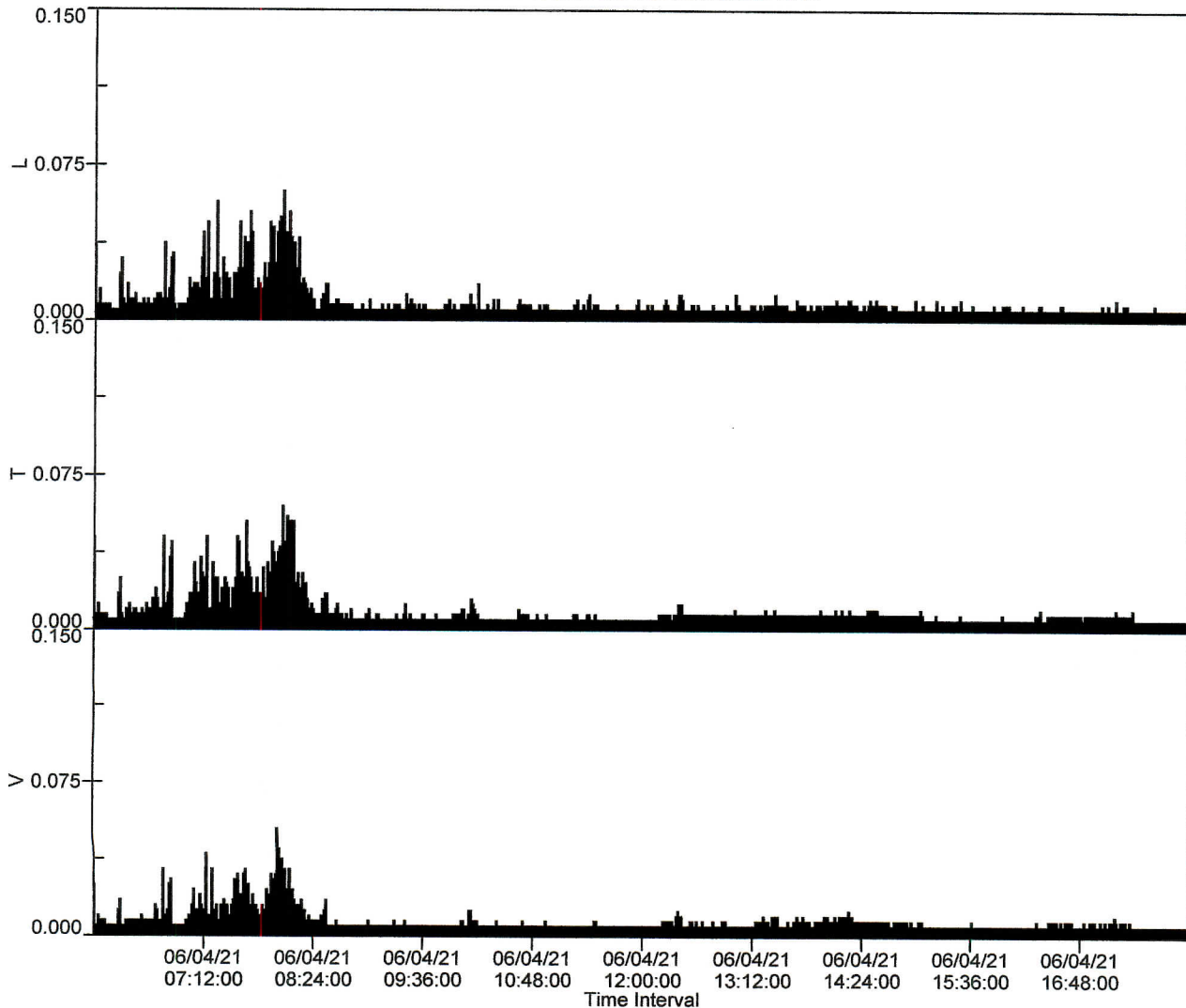
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 118

Record Max PPV: 0.063 in/s Record Max DB: 76 db



SN: 3559 v2.75
Date: 06/05/2021 **Time:** 06:01:00
Event: 119
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.133	0.098	0.163
FREQ (Hz)	9.4	6.8	5.3
Peak Air Pressure:	81 db		

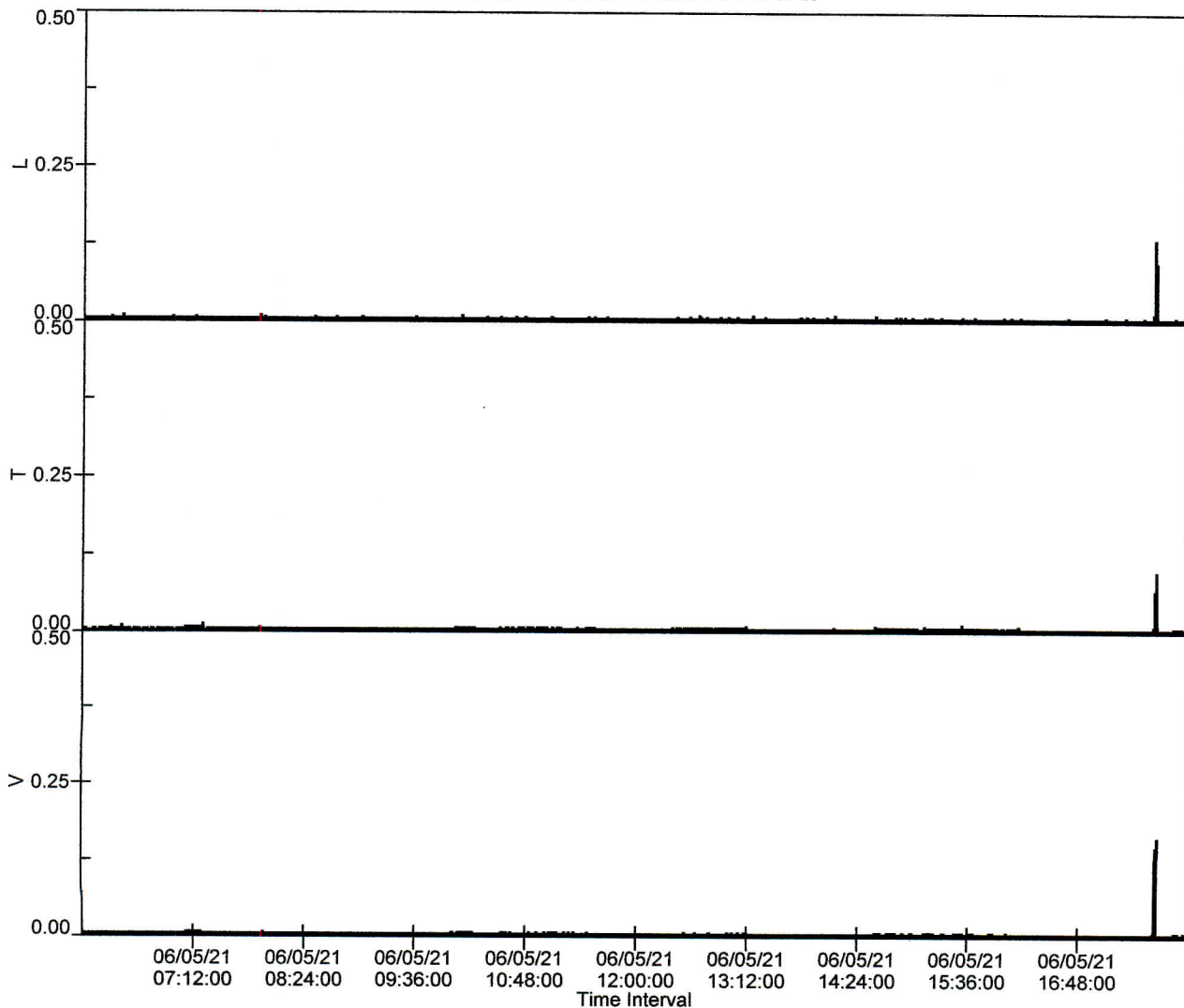
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 119

Record Max PPV: 0.163 in/s Record Max DB: 81 db



SN: 3559 v2.75
Date: 06/06/2021 **Time:** 06:01:00
Event: 120
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.013	0.015	0.008
FREQ (Hz)	17.2	29.4	1.2
Peak Air Pressure:	78 db		

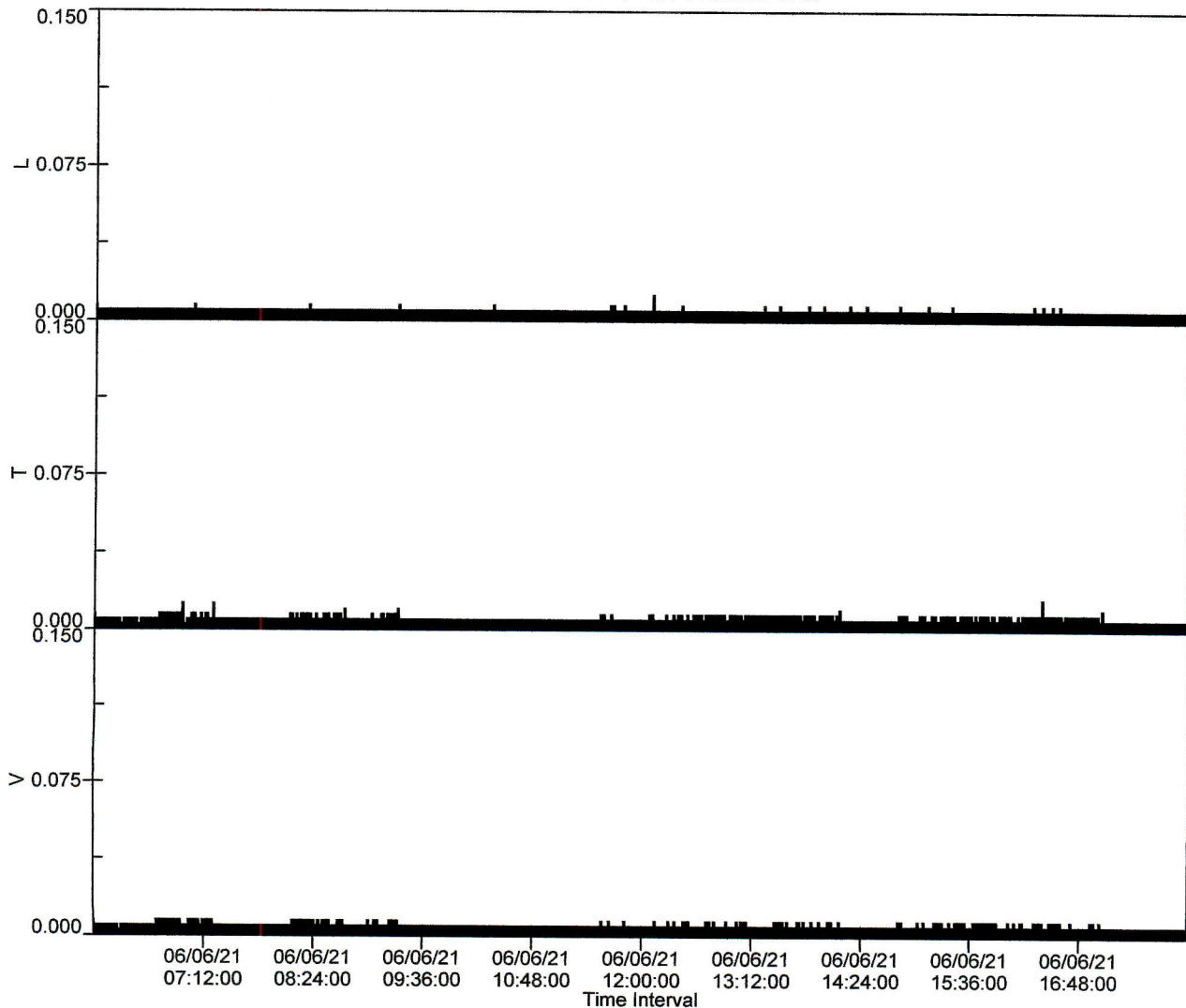
Recording Time: 718 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 120

Record Max PPV: 0.015 in/s Record Max DB: 78 db



SN: 3559 v2.75
Date: 06/07/2021 **Time:** 06:01:00
Event: 121
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3005 WILMETTE AVENUE

**Continuous Monitor Recording
Summary Data**

	L	T	V
PPV (in/s)	0.015	0.013	0.008
FREQ (Hz)	17.2	100.0	.5
Peak Air Pressure: 78 db			

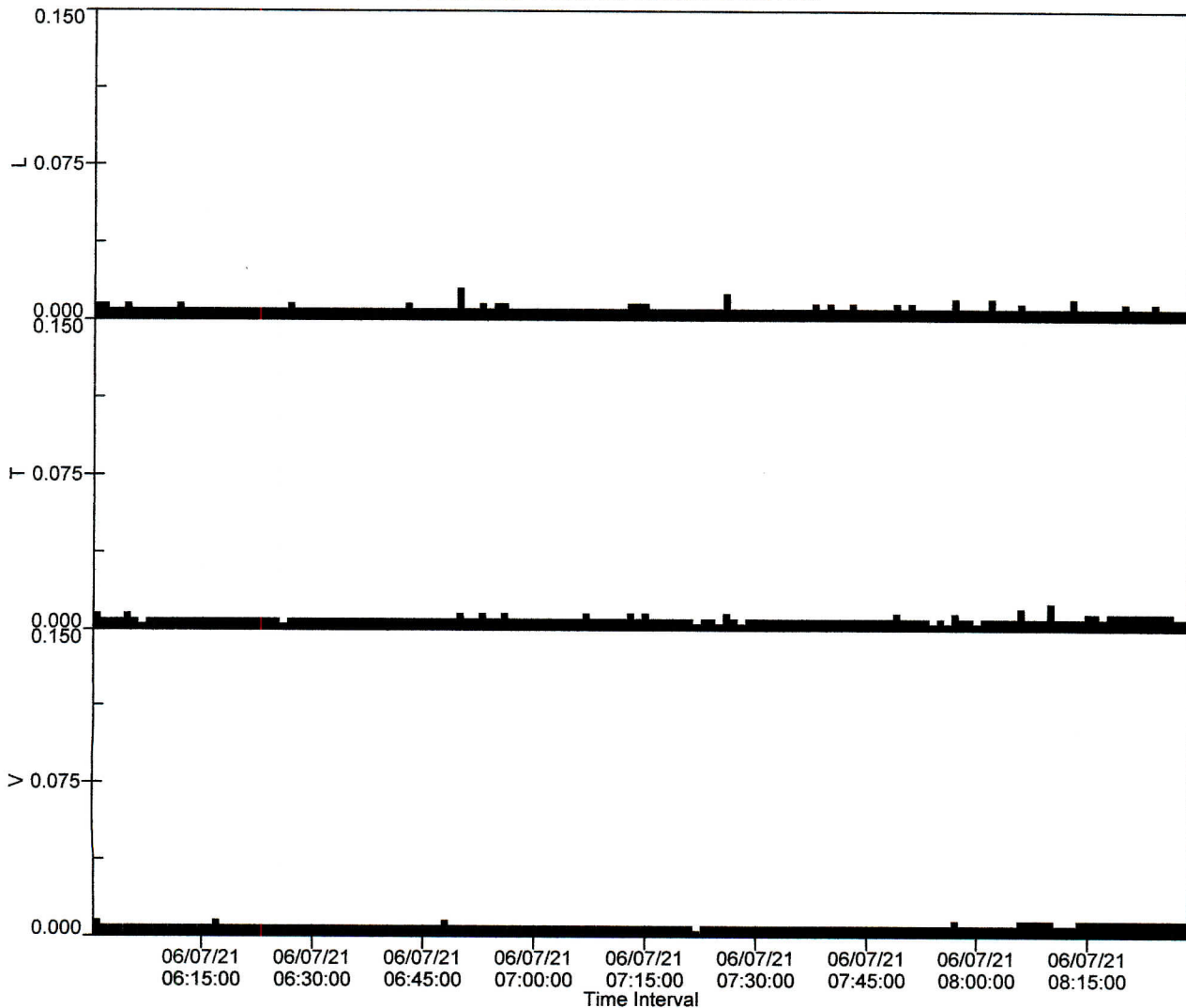
Recording Time: 148 minutes
Sample Size: 1440
Interval Size: 60 seconds

Additional Info:

Shaketable Calibrated: 03/27/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3559 Event: 121

Record Max PPV: 0.015 in/s Record Max DB: 78 db



SN: 3734 v3.22
Date: 05/24/2021 **Time:** 06:52:00
Event: 105
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

**Continuous Monitor Recording
Summary Data**

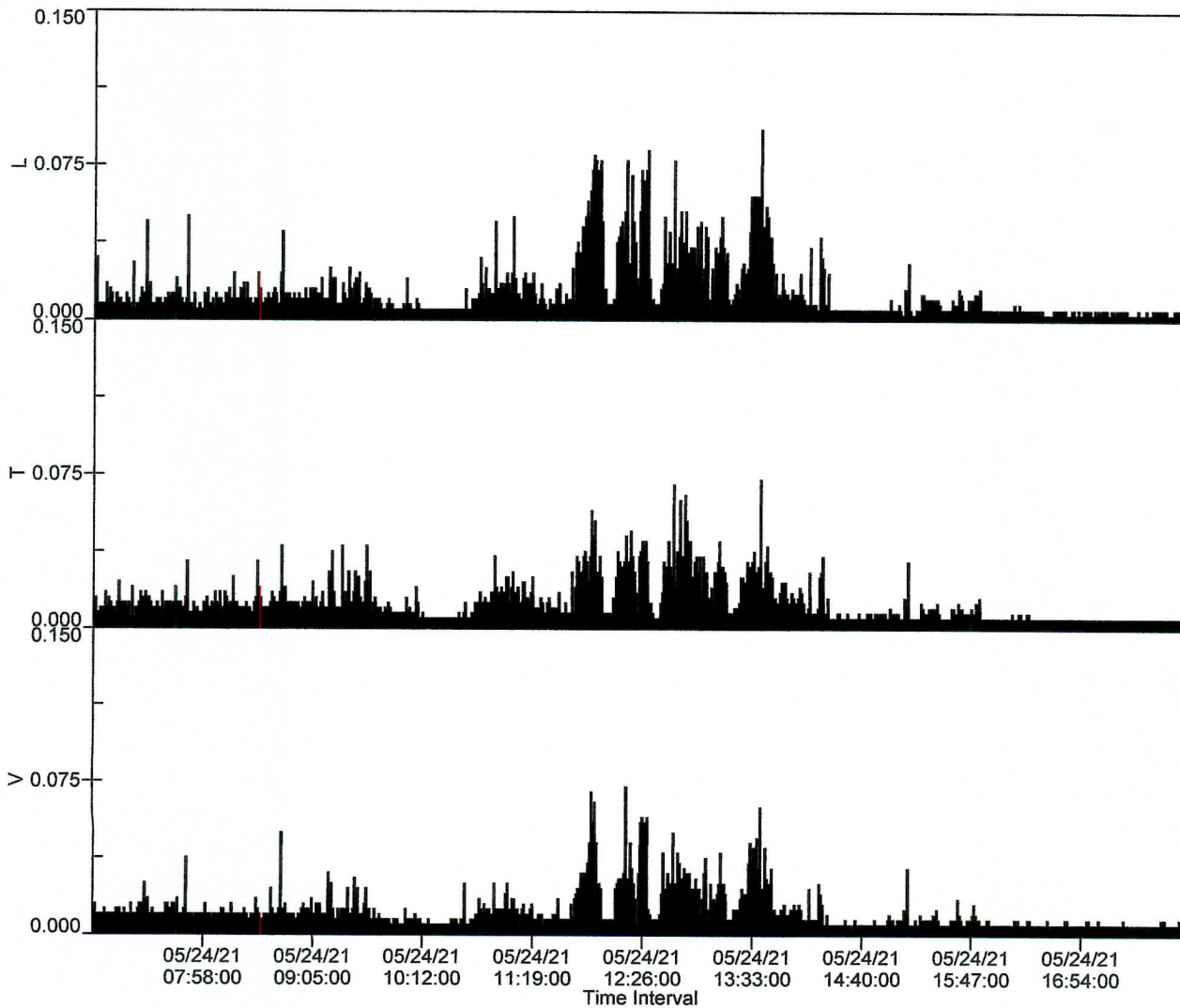
	L	T	V
PPV (in/s)	0.093	0.073	0.073
FREQ (Hz)	22.7	26.3	27.8
Peak Air Pressure:	79 db		
Recording Time:	667 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 105

Record Max PPV: 0.093 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 05/25/2021 **Time:** 06:01:00
Event: 106
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

**Continuous Monitor Recording
Summary Data**

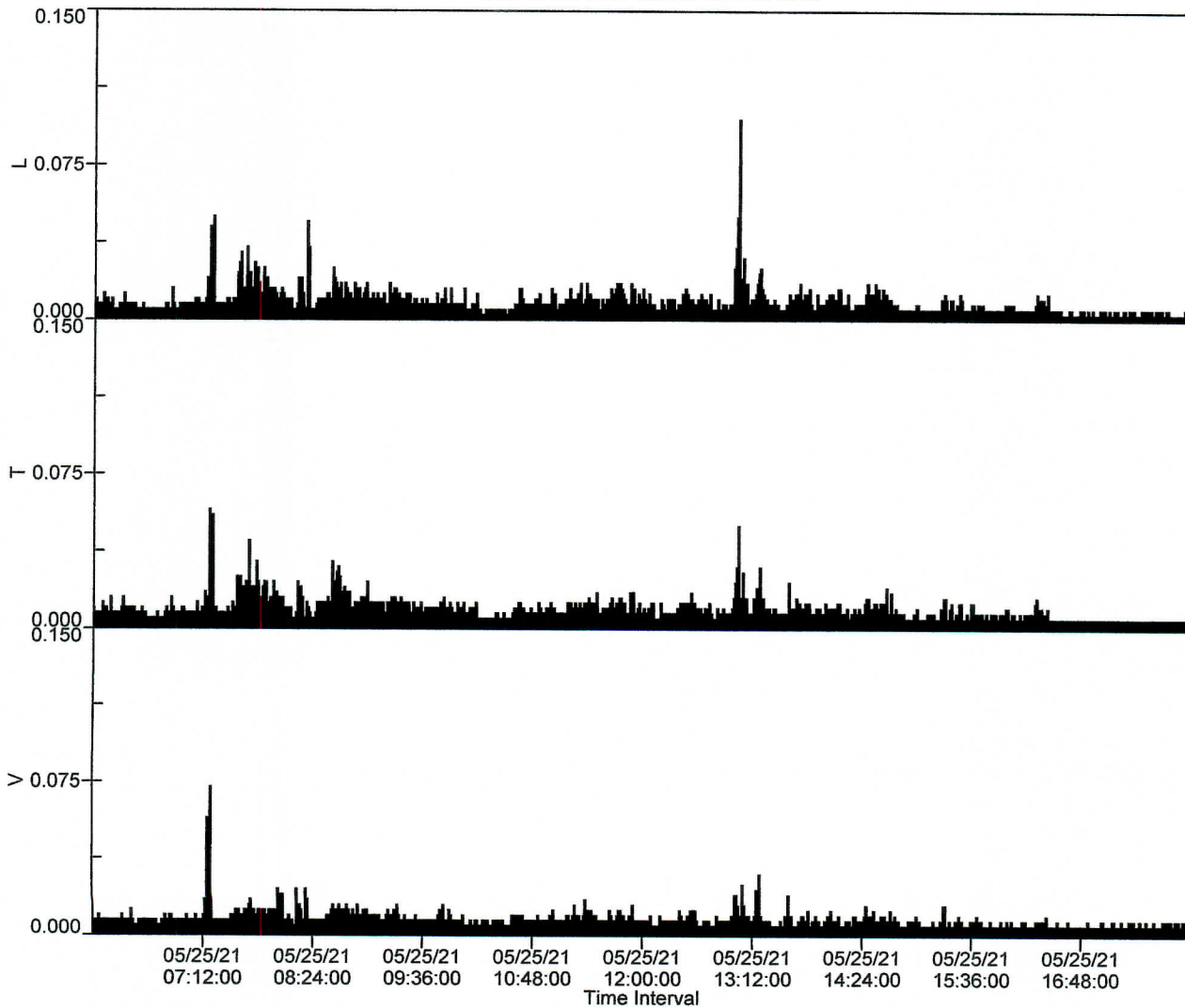
	L	T	V
PPV (in/s)	0.098	0.058	0.073
FREQ (Hz)	41.7	29.4	83.3
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 106

Record Max PPV: 0.098 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 05/26/2021 **Time:** 06:01:00
Event: 107
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

**Continuous Monitor Recording
Summary Data**

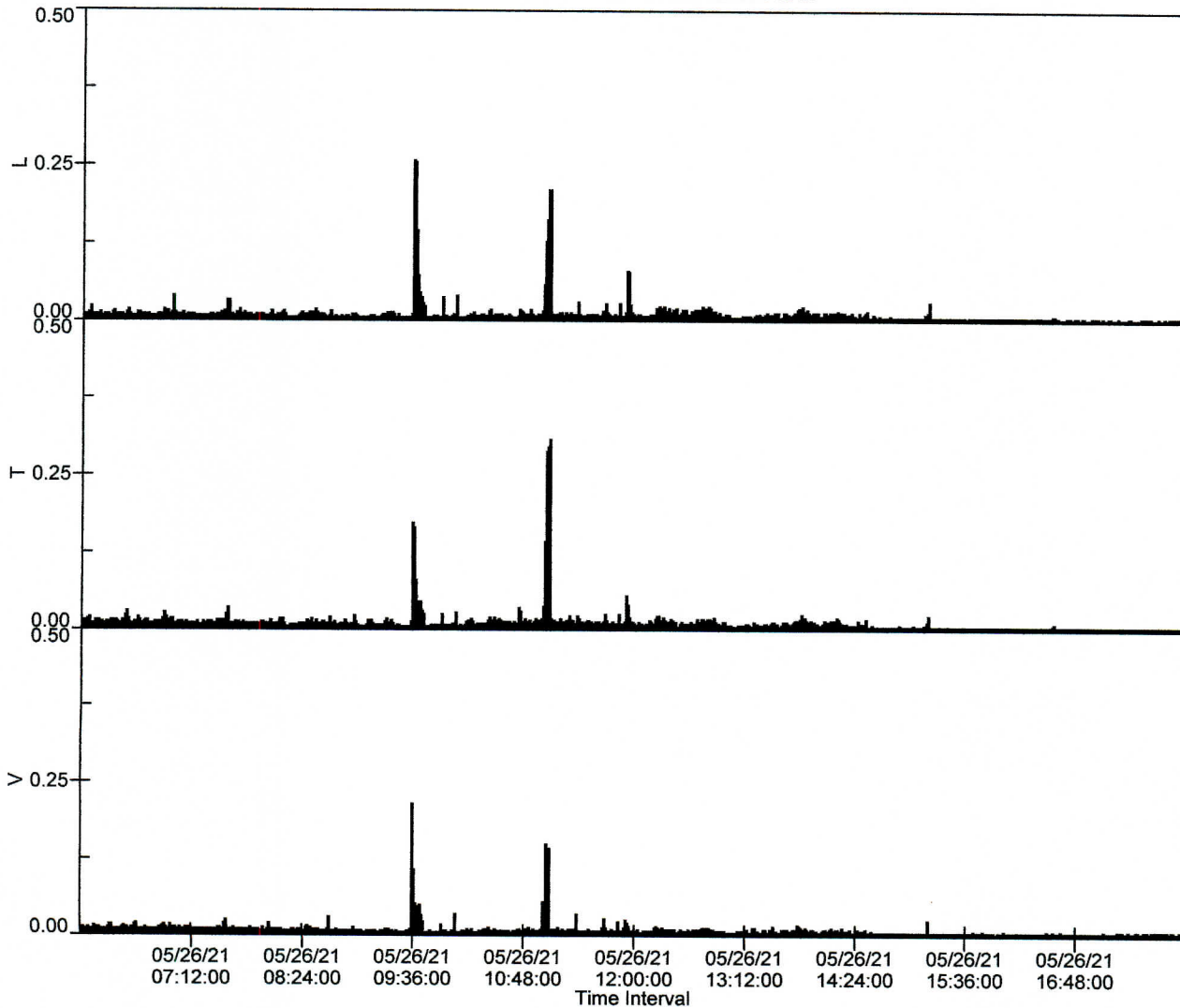
	L	T	V
PPV (in/s)	0.258	0.308	0.215
FREQ (Hz)	21.7	25.0	35.7
Peak Air Pressure:	82 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 107

Record Max PPV: 0.308 in/s Record Max DB: 82 db



SN: 3734 v3.22
Date: 05/27/2021 **Time:** 06:01:00
Event: 108
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

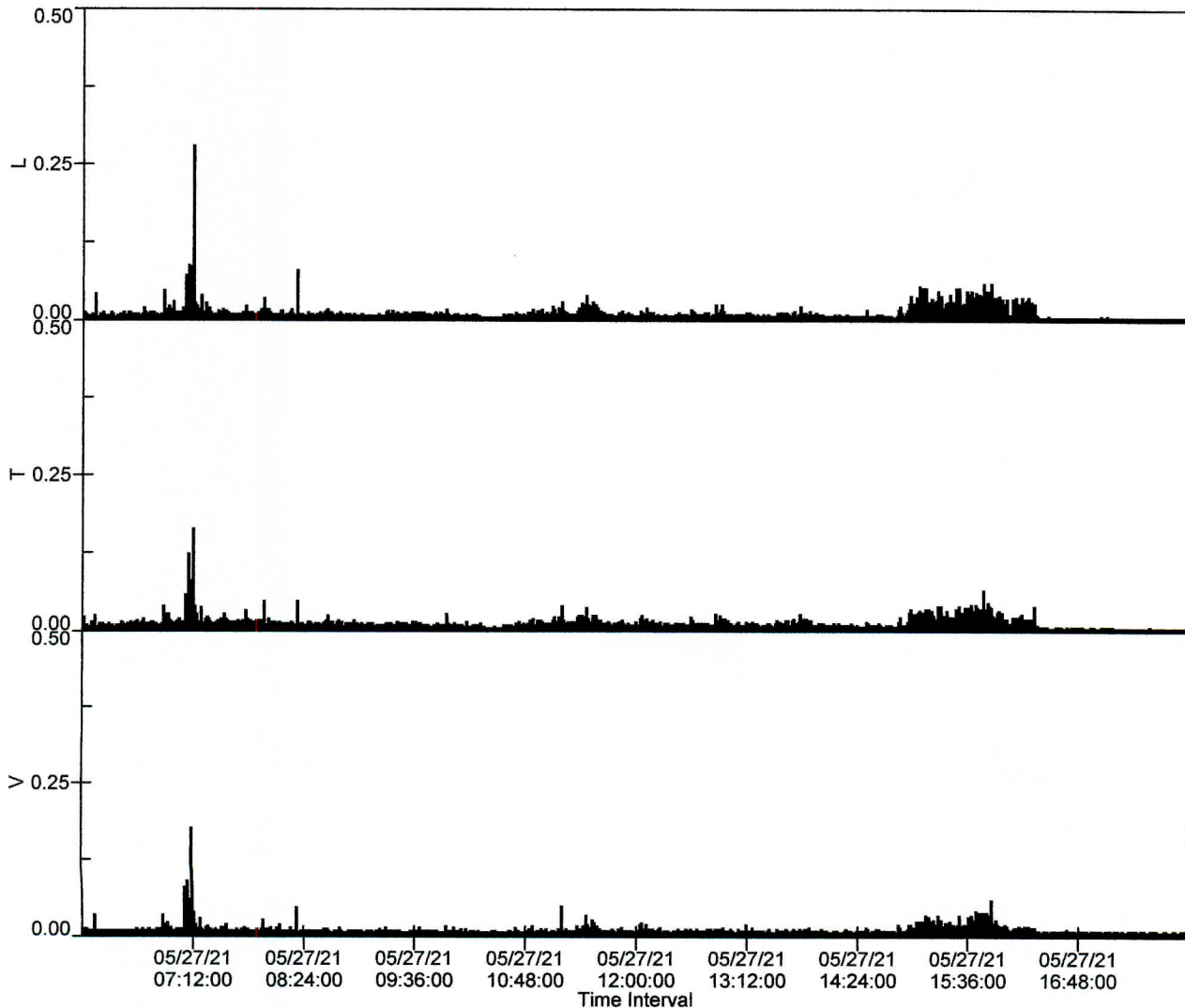
	L	T	V
PPV (in/s)	0.280	0.163	0.178
FREQ (Hz)	23.8	20.8	20.8
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 108

Record Max PPV: 0.280 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 05/28/2021 **Time:** 06:01:00
Event: 109
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

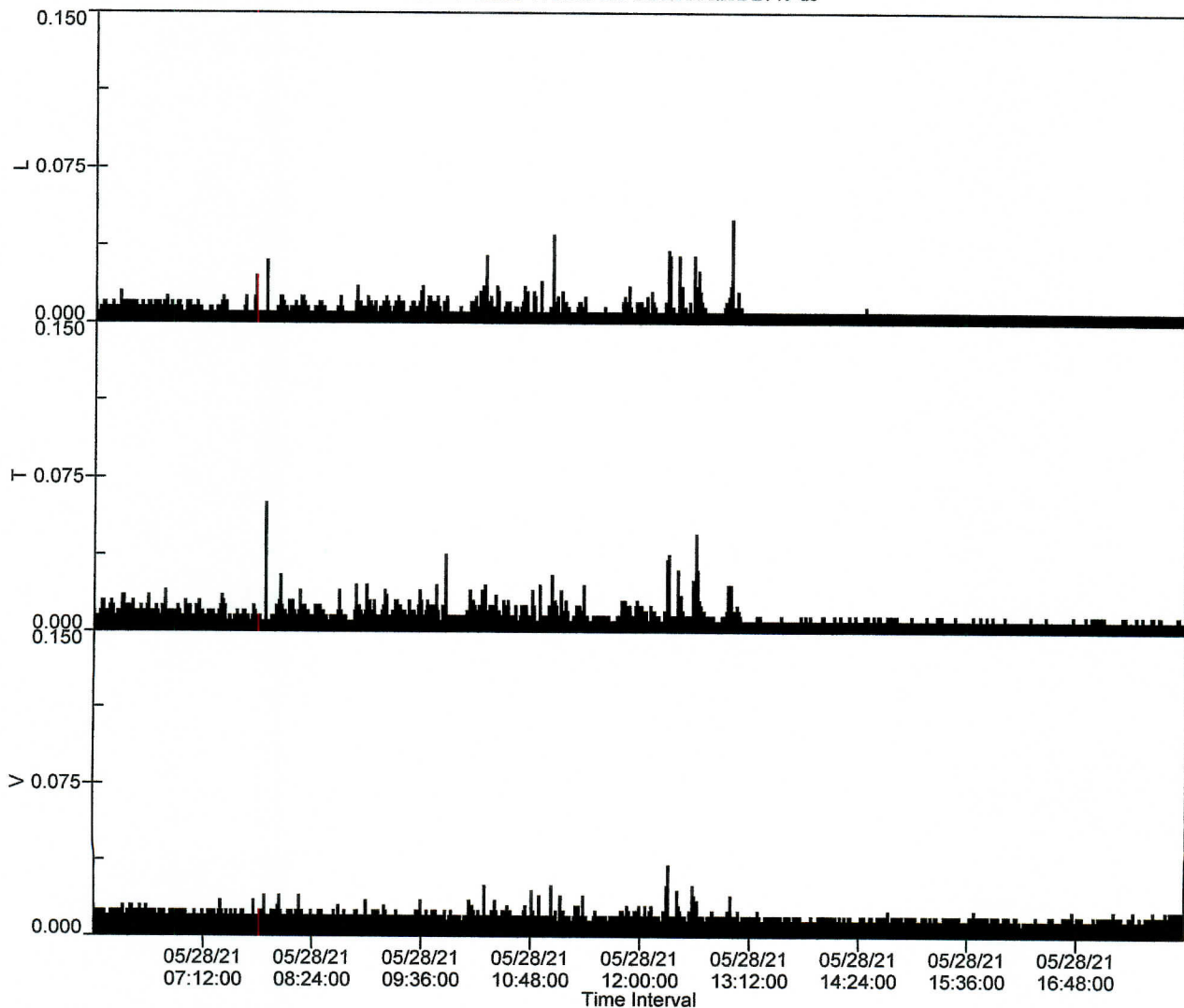
	L	T	V
PPV (in/s)	0.050	0.063	0.035
FREQ (Hz)	21.7	19.2	16.1
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 109

Record Max PPV: 0.063 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 05/29/2021 **Time:** 06:01:00
Event: 110
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

**Continuous Monitor Recording
Summary Data**

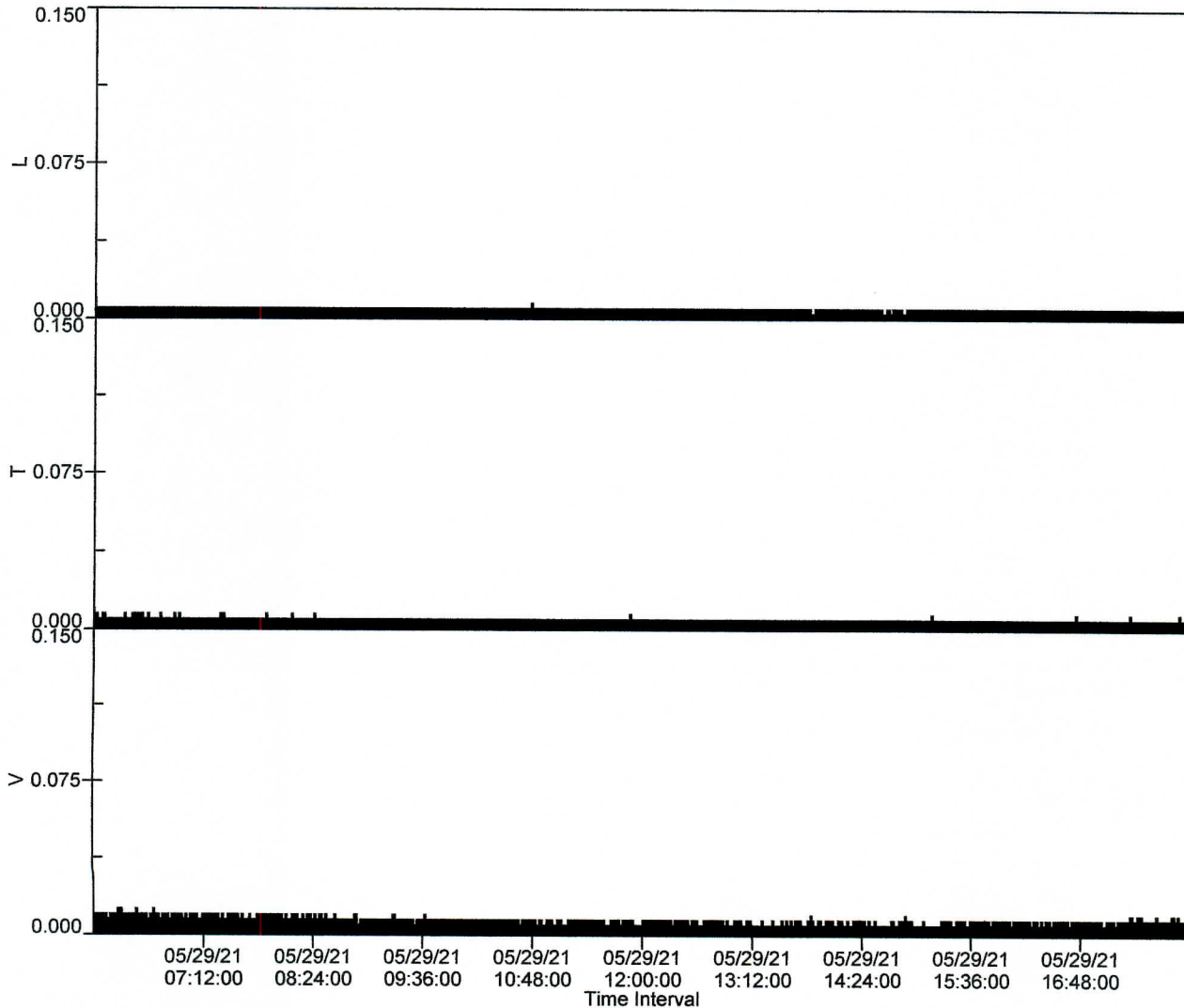
	L	T	V
PPV (in/s)	0.010	0.010	0.013
FREQ (Hz)	.3	3.9	27.8
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 110

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



SN: 3734 v3.22
Date: 05/30/2021 **Time:** 06:01:00
Event: 111
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

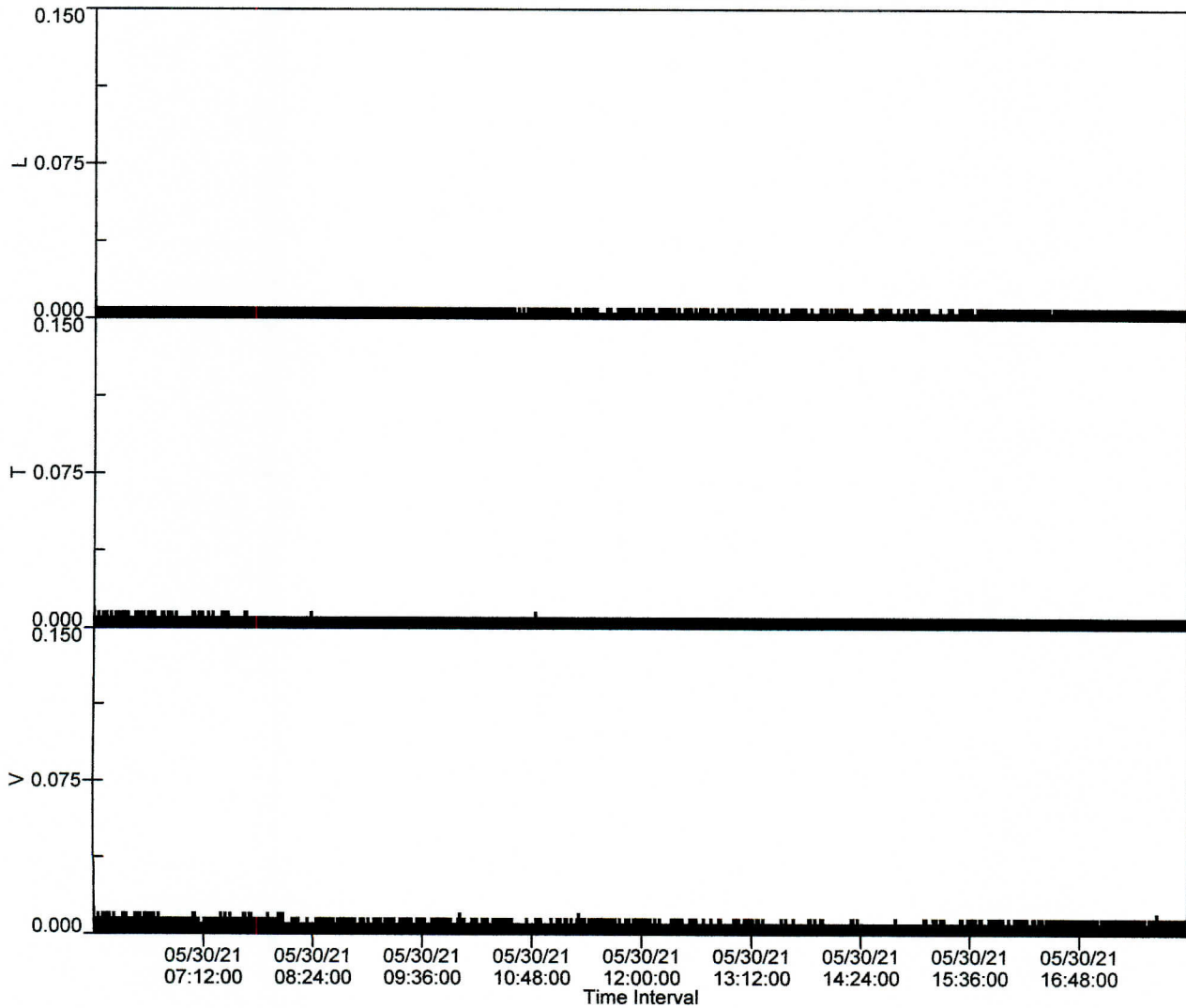
	L	T	V
PPV (in/s)	0.010	0.010	0.013
FREQ (Hz)	.3	1.9	.2
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 111

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



SN: 3734 v3.22
Date: 05/31/2021 **Time:** 06:01:00
Event: 112
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

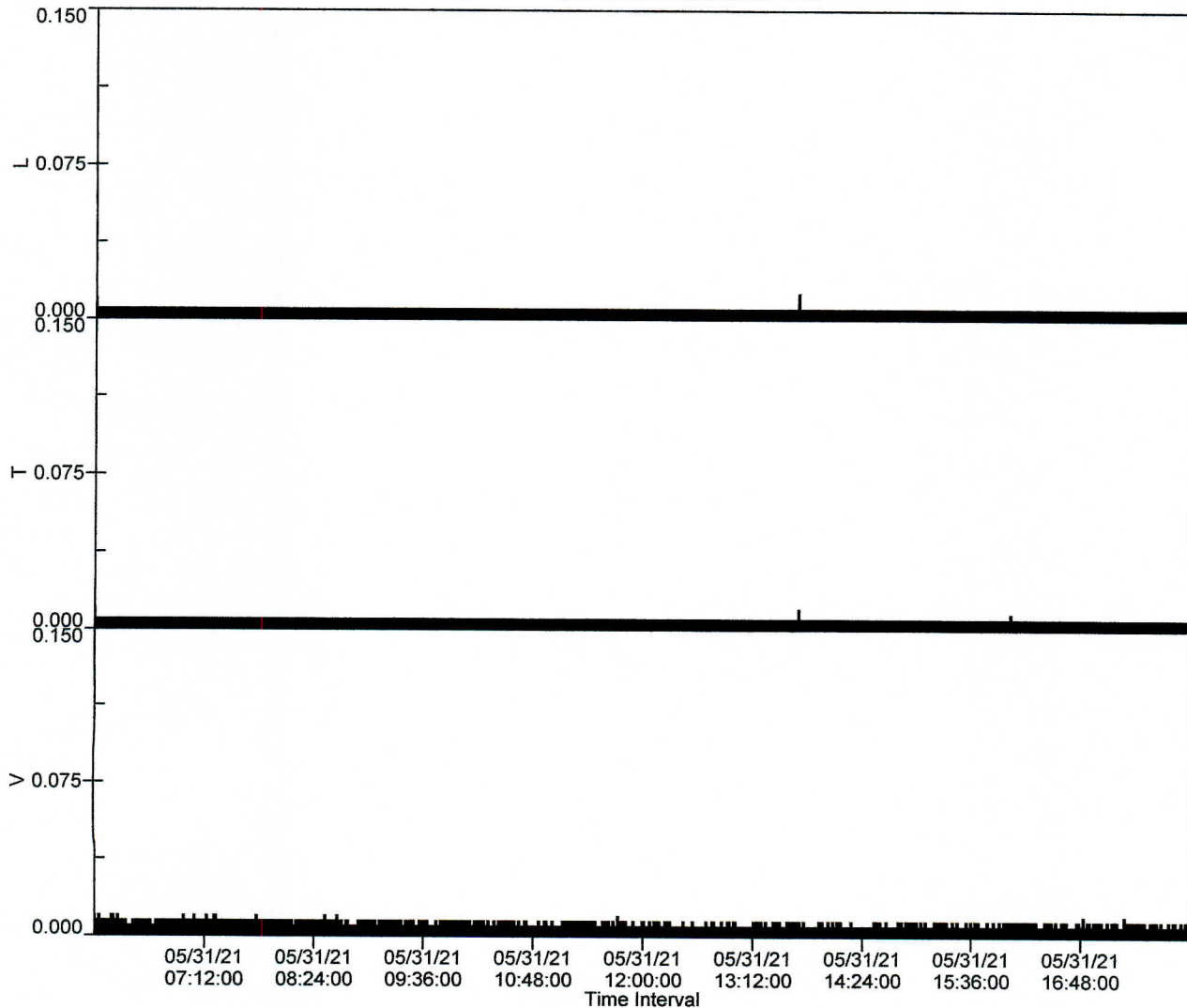
	L	T	V
PPV (in/s)	0.013	0.010	0.010
FREQ (Hz)	41.7	2.3	166.7
Peak Air Pressure:	78 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 112

Record Max PPV: 0.013 in/s Record Max DB: 78 db



SN: 3734 v3.22
Date: 06/01/2021 **Time:** 06:01:00
Event: 113
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

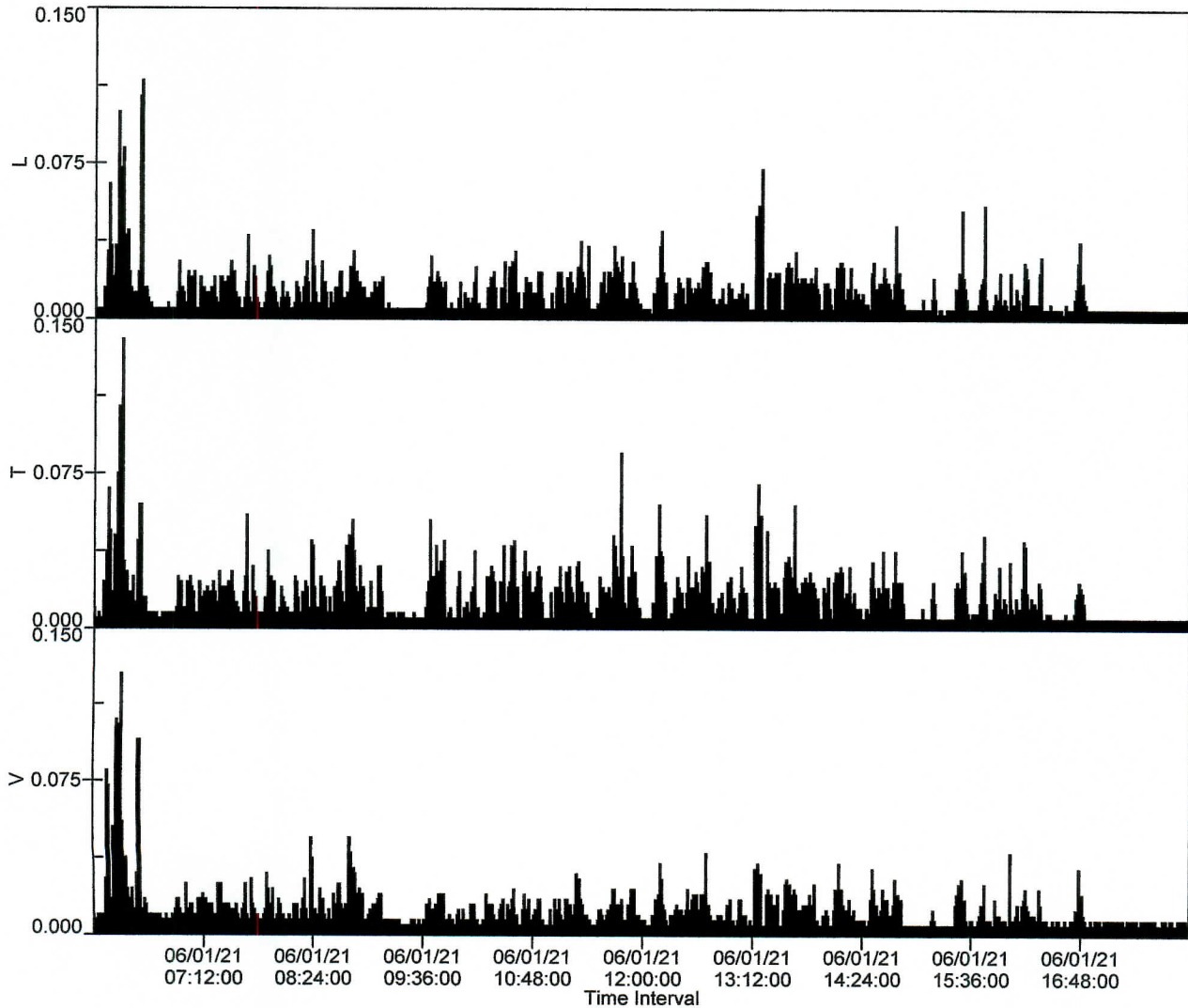
	L	T	V
PPV (in/s)	0.115	0.140	0.128
FREQ (Hz)	50.0	41.7	55.6
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 113

Record Max PPV: 0.140 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 06/02/2021 **Time:** 06:01:00
Event: 114
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

**Continuous Monitor Recording
Summary Data**

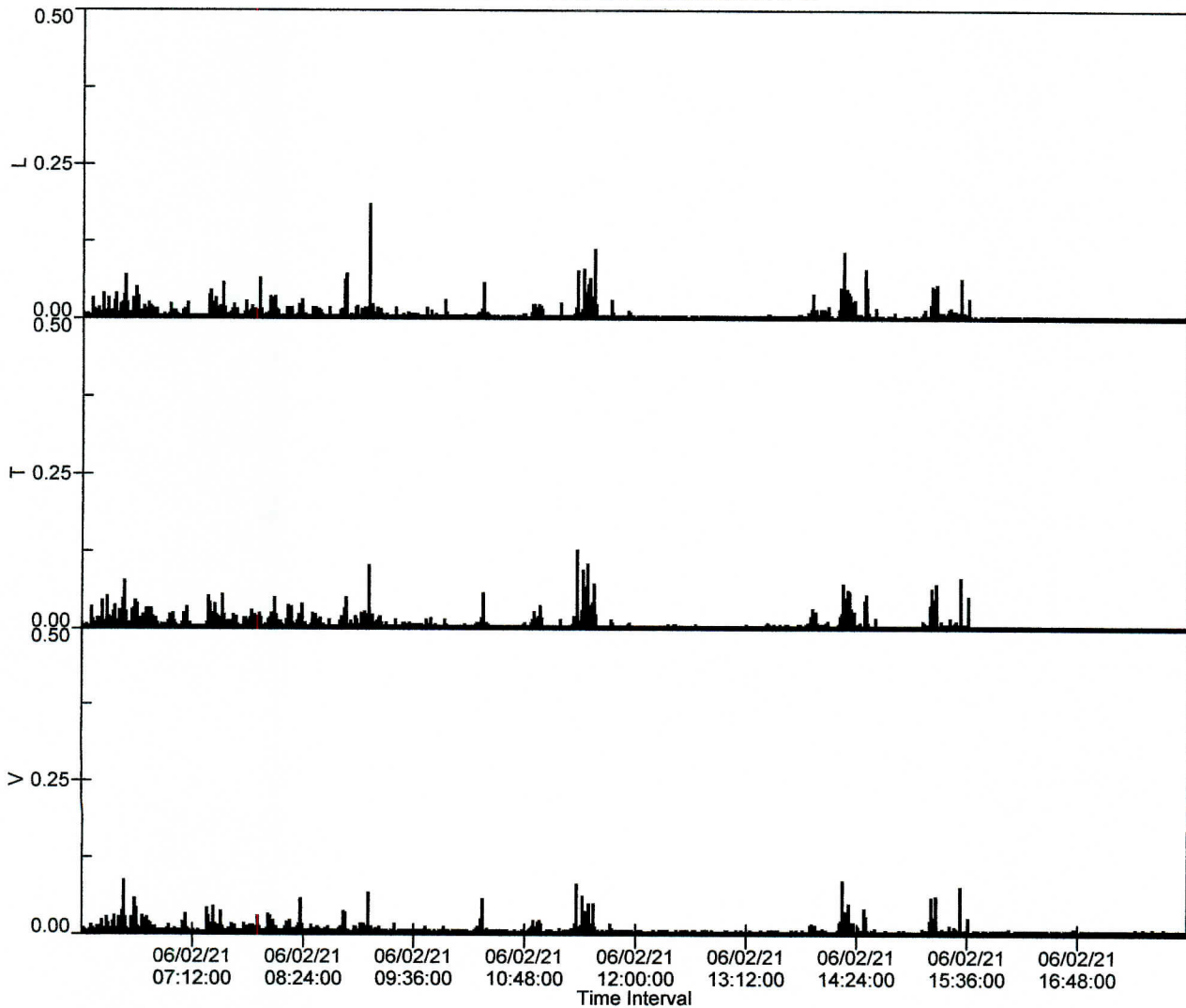
	L	T	V
PPV (in/s)	0.185	0.128	0.088
FREQ (Hz)	14.3	125.0	15.2
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 114

Record Max PPV: 0.185 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 06/03/2021 **Time:** 06:01:00
Event: 115
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

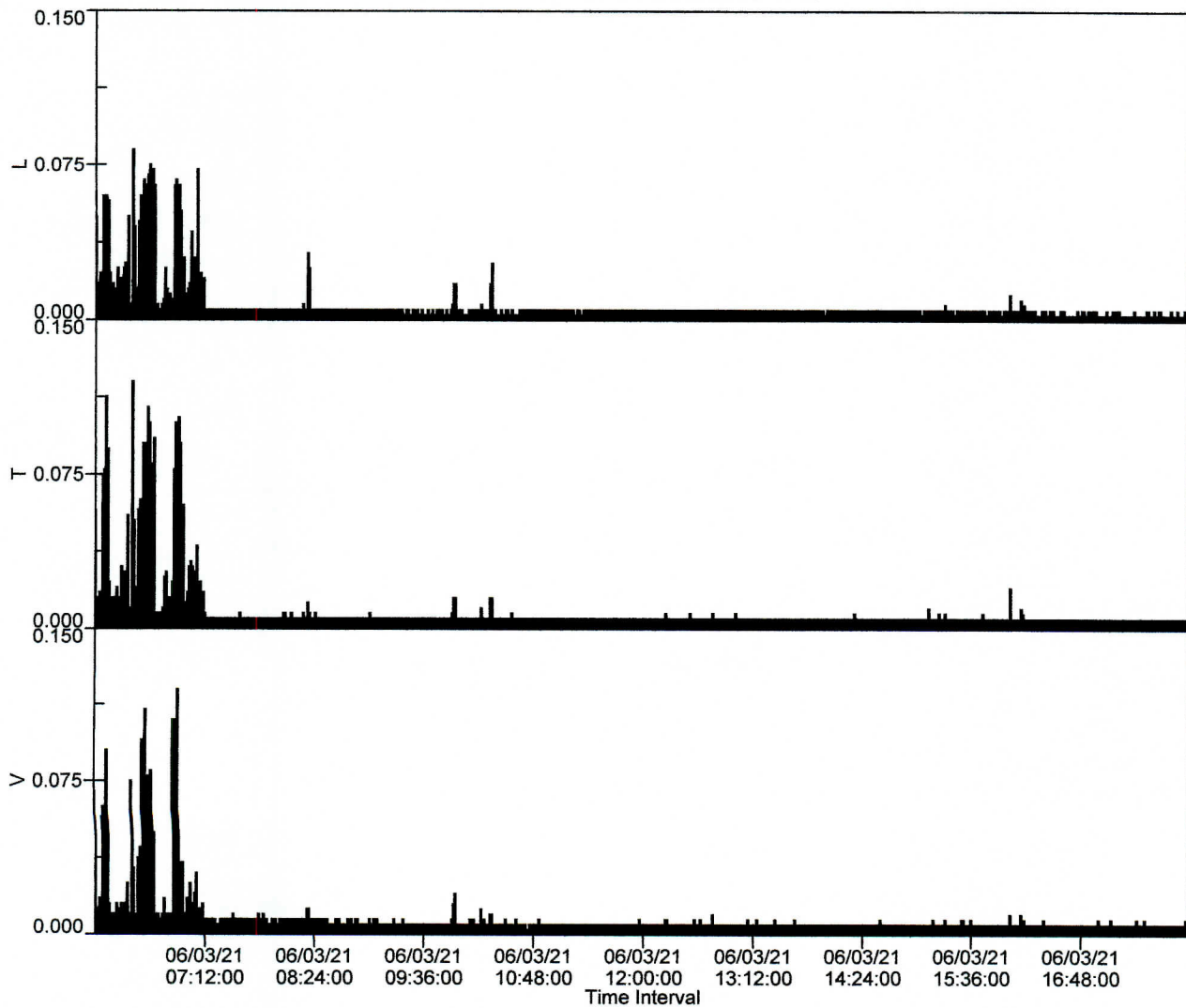
	L	T	V
PPV (in/s)	0.083	0.120	0.120
FREQ (Hz)	31.3	31.3	50.0
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 115

Record Max PPV: 0.120 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 06/04/2021 **Time:** 06:01:00
Event: 116
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

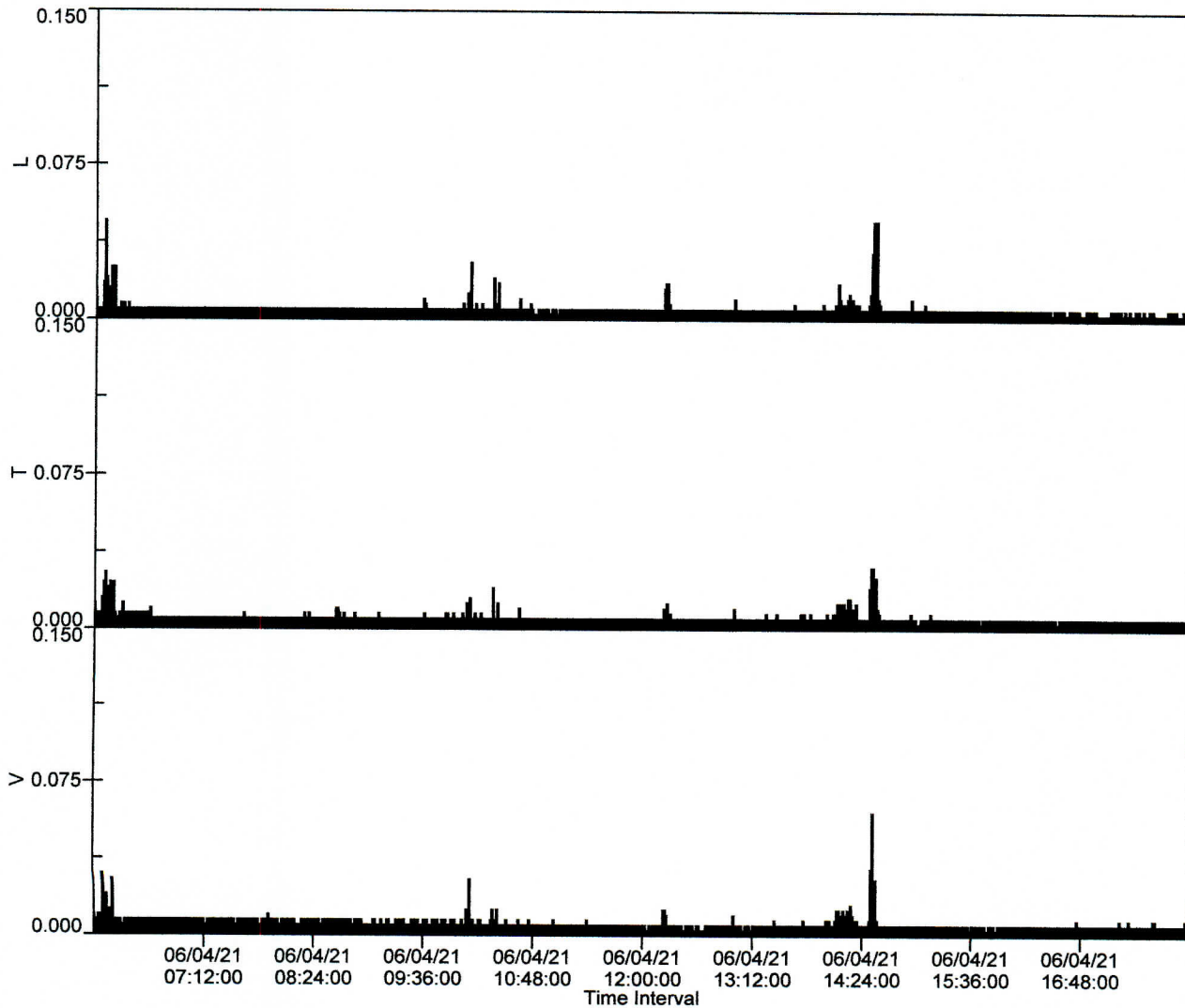
	L	T	V
PPV (in/s)	0.048	0.030	0.060
FREQ (Hz)	17.9	26.3	25.0
Peak Air Pressure:	84 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 116

Record Max PPV: 0.060 in/s Record Max DB: 84 db



SN: 3734 v3.22
Date: 06/05/2021 **Time:** 06:01:00
Event: 117
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

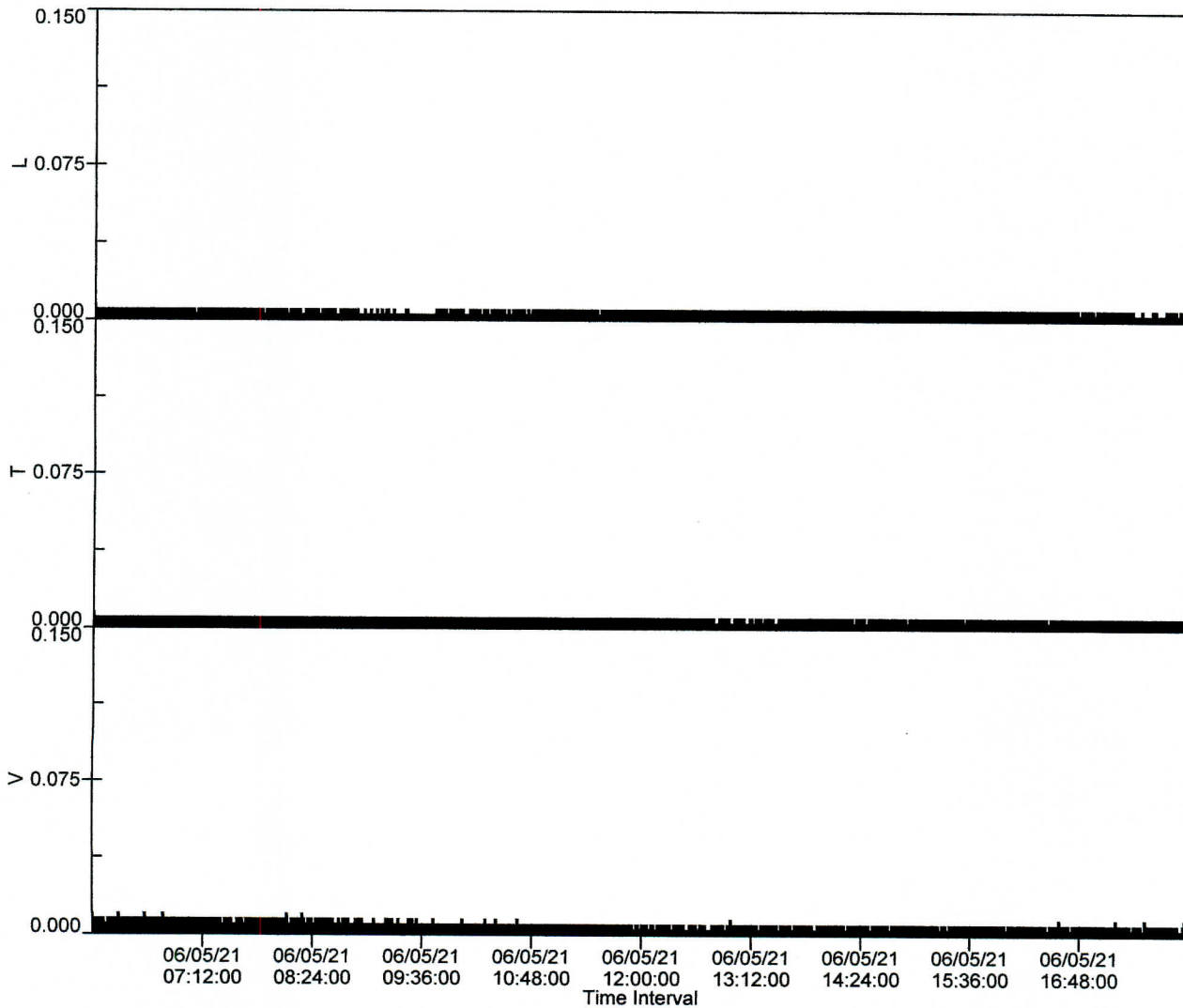
	L	T	V
PPV (in/s)	0.008	0.008	0.010
FREQ (Hz)	.3	3.9	.3
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 117

Record Max PPV: 0.010 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 06/06/2021 **Time:** 06:01:00
Event: 118
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

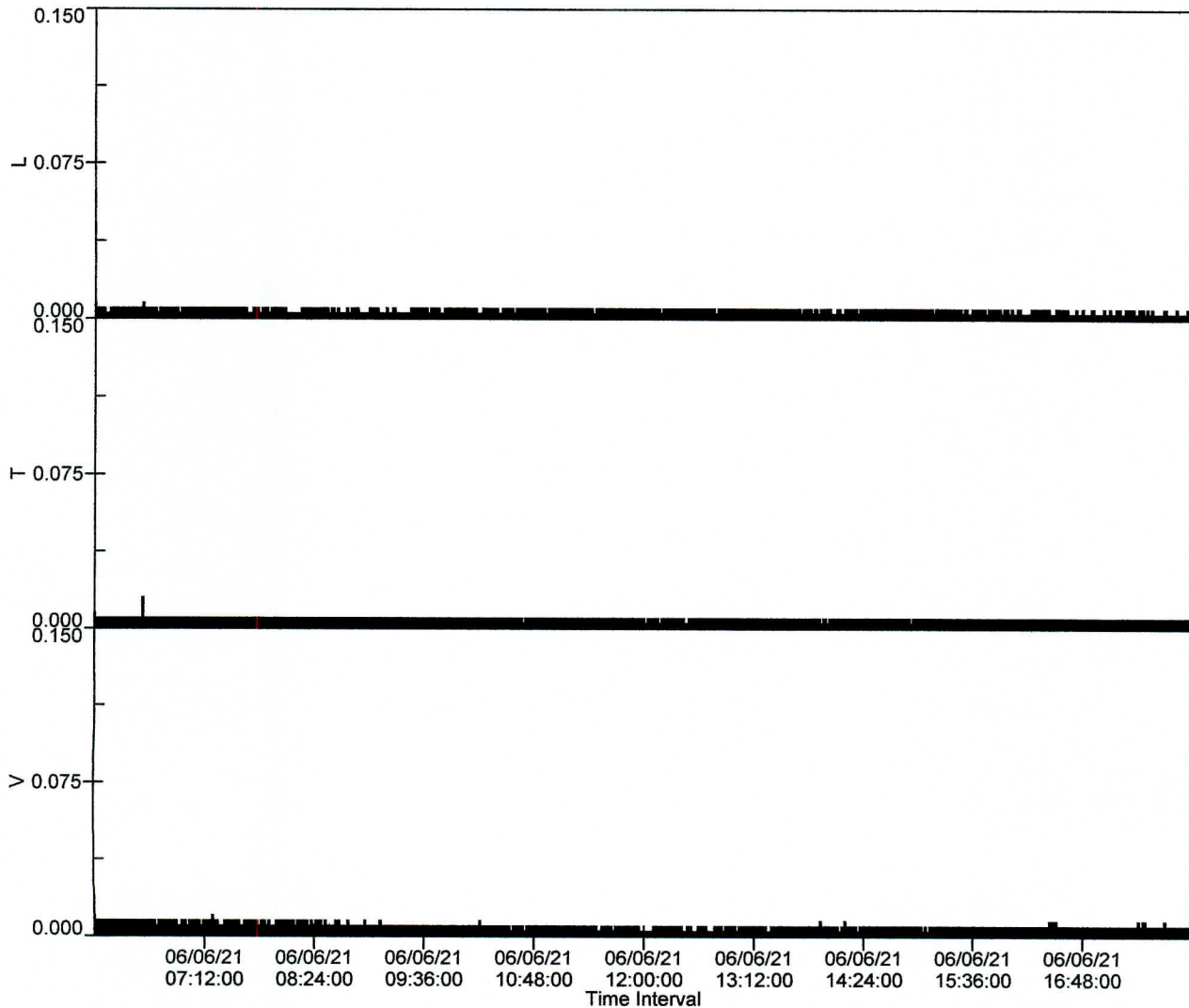
	L	T	V
PPV (in/s)	0.008	0.015	0.010
FREQ (Hz)	11.4	166.7	.3
Peak Air Pressure:	79 db		
Recording Time:	718 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 118

Record Max PPV: 0.015 in/s Record Max DB: 79 db



SN: 3734 v3.22
Date: 06/07/2021 **Time:** 06:01:00
Event: 119
Client: V3 COMPANIES
Operation: CONSTRUCTION
Location: HIBBARD PARK
Distance: 15.
Operator: CTI INC
Comment: 3000 HILL STREET

Continuous Monitor Recording

Summary Data

	L	T	V
PPV (in/s)	0.010	0.013	0.010
FREQ (Hz)	33.3	250.0	.3
Peak Air Pressure:	79 db		
Recording Time:	141 minutes		
Sample Size:	1440		
Interval Size:	60 seconds		

Additional Info:

Shaketable Calibrated: 10/14/2020
By: GeoSonics Inc.
 359 Northgate Drive
 Warrendale, PA 15086 U.S.A.
 TEL: 724.934.2900 FAX: 724.934.2999

SN: 3734 Event: 119

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

