Paul Carpenter Associates, Inc.

A Certified Women-Owned Business Enterprise

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248 Columbia Turnpike
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July 5, 2011

Mr. Curt Mitchell
R.E. Pierson Construction Co.
P.O. Box 430
Woodstown, New Jersey 08098

Re: R.E. Pierson Construction Co. Noise Analysis

Dear Mr. Mitchell,

Paul Carpenter Associates, Inc. (PCA) was retained by R.E. Pierson Construction Co. to conduct a noise analysis related to a Class B Recycling Facility and Ready-Mix Concrete Plant proposed at the R.E. Pierson Construction Co.'s existing Sand Washing Facility in Dennis Township, Cape May County, NJ. The purpose of the analysis was to ensure that cumulative operations of two proposed facilities in addition to the existing Sand Washing operations would not contravene the statewide Noise Control Code set forth under New Jersey Administrative Code 7:29 (N.J.A.C. 7:29).

The existing Sand Washing Facility is located primarily within Block 224, Lot 78.04. The existing facility entrance is located along Woodbine Oceanview Road. As detailed within zoning maps, properties bordering this site include residential (R-3 & R-10), commercial (B) and conservation (C) land-use. The existing Sand Washing Facility includes dredge operations within the on-site ponds.

Applicable Noise Codes

The existing Sand Washing Facility is located in Dennis Township, Cape May County. The New Jersey Department of Environmental Protection (NJDEP) has not approved a Dennis Township noise ordinance however, Cape May County Health Department enforces the statewide Noise Control Code (N.J.A.C. 7:29). This Code regulates continuous airborne sound from industrial, commercial, public service and community facilities by establishing both A-weighted and octave band center frequency (31.5, 63, 125, 250, 500, 1000, 2000, 4000, 8000) maximum permissible sound level limits between the hours of 7:00 AM and 10:00 PM (daytime) and 10:00 PM and 7:00 AM (nighttime). The code also establishes a maximum permissible sound level limit for impulsive sound during daytime and nighttime hours. It should be noted that current and future operations within the R.E. Pierson Construction Co. site are restricted to daytime hours only, and therefore the nighttime limits would not apply. Table 1 includes the applicable maximum permissible noise level limits for both continuous and impulsive sound caused by industrial, commercial, public service and community facilities at a residential property line. Per the definitions in N.J.A.C. 7:29, the proposed and existing operations at the Dennis Township facility classifies as industrial.

Table 1-Daytime Noise Control Code (N.J.A.C. 7:29)

A-Weighted (dBA)	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Impulsive (dBA)
65	96	82	74	67	63	60	57	55	53	80

Hz - Hertz

Noise Monitoring Study
Existing Sand Washing Facility – Dennis Township, NJ
Per N.J.A.C. 7:29-1.1, a residential property refers to that which is used for human habitation. The closest residential property line to Block 224, Lot 78.04 is a campground (Outdoor World) directly to the north. As such, existing noise levels were monitored along the property line of this campground to determine the compliance status of the Sand Washing Facility as well as to obtain a reference value for use in identifying the cumulative noise levels at the campground property line with all three operations (i.e. the existing sand washing/dredger operation and proposed Class B Recycling and Ready-Mix Concrete facilities).

Existing noise levels were monitored on May 23rd, 2011 using a Larson Davis 824 (Type I) Sound Level Meter (SLM). Calibration certificates for the SLM and microphone are included within Appendix A. Figure 1 depicts the location of the monitoring site at the campground property boundary, and Graph 1 depicts the monitored results. Appendix B includes a photo of the monitoring location at the campground property boundary.

Weather conditions play an important role in documenting valid noise data. Weather data documented at Millville Municipal Airport during the monitoring period were reviewed and are included within Appendix C. Weather conditions were acceptable during the monitoring period, except after 8PM when observations indicate trace amounts of rainfall. Plant records indicate dredging operations ceased on that day at 4:00 PM. As shown in Graph 1, the existing sand washing and associated dredging operation result in noise levels below the daytime (7:00 AM to 10:00 PM) maximum permissible A-weighted noise level limit of 65 dBA.

Class B Recycling Facility and Ready-Mix Concrete Plant – Winslow, NJ
To obtain reference data for the proposed Class B Recycling Facility and the Ready-Mix Concrete Plant, measurements were conducted at R.E. Pierson Construction Co.'s facility in Winslow, NJ on May 25th, 2011. Both A-weighted and octave band measurements were conducted using a Cesva SC-30 (Type I) SLM, set approximately 5 feet high on a tripod-mount. Calibration certificates for the SLM and microphone are included within Appendix A. During the monitoring period, noise levels for one facility were documented while the other was shut down in order to isolate each source (i.e. the Class B Recycling Facility and the Ready-Mix Concrete Plant). Noise measurements were conducted around the perimeter at reference distances to obtain values for the propagation model. Weather conditions during the monitoring period were considered acceptable (see Appendix D).

While performing the Class B Recycling Facility noise monitoring, it was noted that the two (2) loudest pieces of equipment associated with the operation were the crusher and impacter, which shake significantly. Further, it was noted that the Class B Recycling Facility creates both continuous and impulsive sound, where the impulsive sound is a result of a front end loader dumping concrete into the empty steel bed of a crusher.

While performing the Ready-Mix Concrete Facility noise monitoring, it was noted that the loudest noise levels occur while a concrete mixer truck receives ready-mixed concrete concurrent with a cement truck pumping powdered cement into the silo of the facility. Impulsive noise was not noted at the Ready-Mix Concrete Facility. Appendix B includes photos depicting the operations at the two facilities and specific reference locations where peak noise levels were documented.

Noise Assessment
Maximum continuous and impulsive sound levels documented at the R.E. Pierson Construction Co.'s Winslow facility were reviewed. Reference noise levels (i.e. measured noise levels at known distances) were then propagated to the campground property line using standard propagation equations based purely on geometrical spreading. More specifically, the operations were treated as stationary point sources of noise, whereby sound radiates uniformly outward from the source in a spherical pattern. Such a radiation pattern results in an attenuation

rate of 6 dB per doubling of distance[1]. For example, if a noise source produces a sound level of 80 dBA at 50 feet, the resultant noise level at 100 feet would be 74 dBA based solely on the geometry of the source (i.e. not accounting for additional attenuation by ground and air absorption). This approach is considered to be conservative, such that worst-case noise levels are predicted.

To calculate the noise levels from the proposed facilities at the campground property boundary, the distance from the approximate center locations of the proposed facilities to the closest point along the campground property boundary were measured from the conceptual site plan provided. The closest distance to the campground property boundary from the approximate center of the Class B Recycling Facility is approximately 1007 feet (see Appendix D Noise Calculation Worksheet). The closest distance to the campground property boundary from the approximate center of the Ready-Mix Concrete Plan is approximately 992 feet (see Appendix D Noise Calculation Worksheet). Subsequently, these distances were used in conjunction with the reference distance at which maximum noise levels emanating from the Class B Recycling Facility and Ready-Mix Concrete Plant were measured in order to determine noise levels at the campground property boundary. The maximum reference noise levels that were propagated to the campground property boundary are shown in Table 2 for the Class B Recycling Facility and Table 3 for the Ready-Mix Concrete Plant.

Based on the conceptual site plan provided by R.E. Pierson Construction Co., an approximate 15-foot high vegetated berm is proposed just north of the Class B Recycling Facility that could reduce noise levels from this operation only. The proposed berm would not shield any noise from the Ready-Mix Concrete Plant. Noise levels predicted in this analysis do not include potential attenuation from this berm as the distance between the berm and the campground property boundary is approximately 840 feet. At large distances, meteorological effects play a role in the refraction (i.e. bending) of sound waves that could alter the effectiveness of this berm. Therefore, a conservation analysis was performed without utilizing any noise reduction as a result of breaking the line-of-sight of activities associated with the Class B Recycling Facility.

Proposed facility noise levels propagated to the campground property boundary via the aforementioned methodology were then logarithmically added to the existing sand washing/dredger operations to represent cumulative A-weighted noise levels at the campground property line. Based on the results, the cumulative operation of all three facilities (i.e. Class B Recycling Facility, Ready-Mix Concrete Plant and Sand Washing Facility with dredger) would result in contravention of the maximum permissible noise levels for continuous airborne sound set forth in N.J.A.C. 7:29.

In order to avoid daytime noise exceedances, PCA was informed that R.E. Pierson Construction Co. would restrict site operations such that the Class B Recycling Facility would operate independently (i.e. on days when the Ready-Mix Concrete Plant and Sand Washing Facility with dredger are not operating). Further, R.E. Pierson Construction Co. would only operate the plant during daytime hours. As such, the Dennis Township facility would not contravene the daytime maximum permissible continuous airborne sound level limits set forth in N.J.A.C. 7:29 (See Appendix D Noise Calculation Worksheet).

Additionally, the maximum impulsive sound level from the Class B Recycling Facility was propagated to the campground property line. Impulsive noise levels would not exceed the impulsive sound level limit set forth in N.J.A.C 7:29 at the campground property line. Predicted noise levels at the campground property boundary to the north resulting from operation of the Class B Recycling Facility are depicted in Table 2 while noise levels resulting from the concurrent operation of the Ready-Mix Concrete Facility and Sand Washing Facility with dredger are shown in Table 3. Detailed calculations are included within Appendix D.

[1] Cowan, James P., Handbook of Environmental Acoustics, Van Nostrand Reinhold, 1994, p 35.

Table 2-Noise Levels at Campground Property Boundary from Class B Recycling Facility

Noise Descriptor	Class B Recycling Facility Reference Sound Pressure Level	Class B Recycling Facility - Property Boundary Sound Pressure Level (dB)	Noise Level Limits	Exceedance?
A-Weighted	89.8	**62**	65	NO
31.5 Hz	89.6	**62**	96	NO
63 Hz	89.3	**62**	82	NO
125 Hz	92.2	**65**	74	NO
250 Hz	89.9	**62**	67	NO
500 Hz	88.8	**61**	63	NO
1000 Hz	84.7	**57**	60	NO
2000 Hz	82.0	**54**	57	NO
4000 Hz	78.5	**51**	55	NO
8000 Hz	71.1	**44**	53	NO
Impulsive	94.6	**67**	80	NO

Table 3-Noise Levels at Campground Property Boundary from Concrete Plant + Dredger

Noise Descriptor	Ready-Mix Concrete Plant Sound Levels										Cumulative Sound Levels - Concrete + Dredger
	A-Weighted	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	A-Weighted
Reference Sound Pressure Levels	85.8	84.8	84.0	86.4	88.6	83.3	81.2	77.2	74.5	68.2	61.5
Property Boundary Sound Pressure Levels	**60**	**59**	**58**	**60**	**63**	**57**	**55**	**51**	**49**	**42**	**63.8**
Limits	65	96	82	74	67	63	60	57	55	53	65
Exceedance?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

If you have any questions regarding the noise monitoring study and analysis, please do not hesitate to contact me.

Respectfully,

PAUL CARPENTER ASSOCIATES, INC.

Dayna Sherwood

Dayna Sherwood
Project Manager

AERIAL MAPPING PROVIDED BY NEW JERSEY GEOGRAPHIC INFORMATION NETWORK

PROJECT NORTH

LEGEND

X Location of Noise Monitor

Noise Monitoring Locarion Number

Noise analysis based on conceptual engineering

0 150 300 600 Feet

Date June 15, 2011

R.E. Pierson Construction Co.

Dennis Township, New Jersey

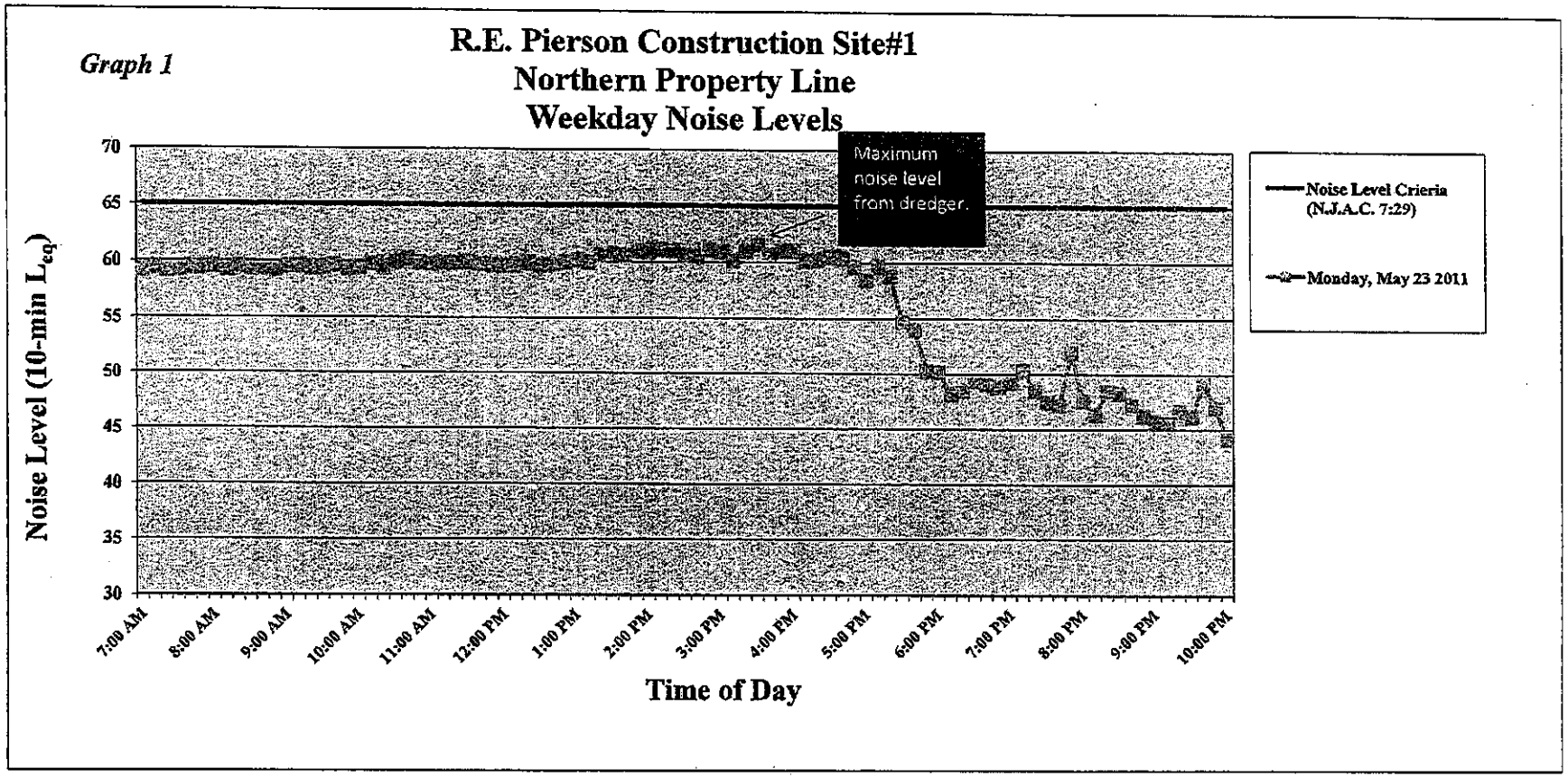
Figure 1

Noise Monitoring Location

Drawn by: G. Druckenmiller Checked by: S.P. Carpenter

Paul Carpenter Associates, Inc.

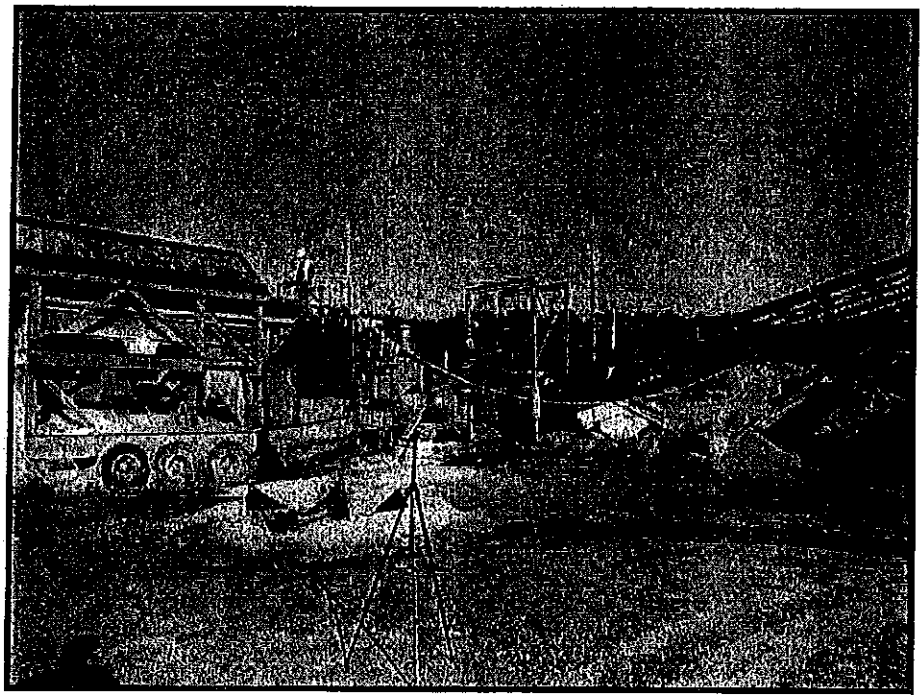
Graph 1


R.E. Pierson Construction Site#1
Northern Property Line
Weekday Noise Levels
Maximum noise level from dredger.
Noise Level Crieria (N.J.A.C. 7:29)
Monday, May 23 2011
Noise Level (10-min L_{eq})
70
65
60
55
50
45
40
35
30
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
Time of Day

APPENDIX A
Noise Monitoring Site Photos

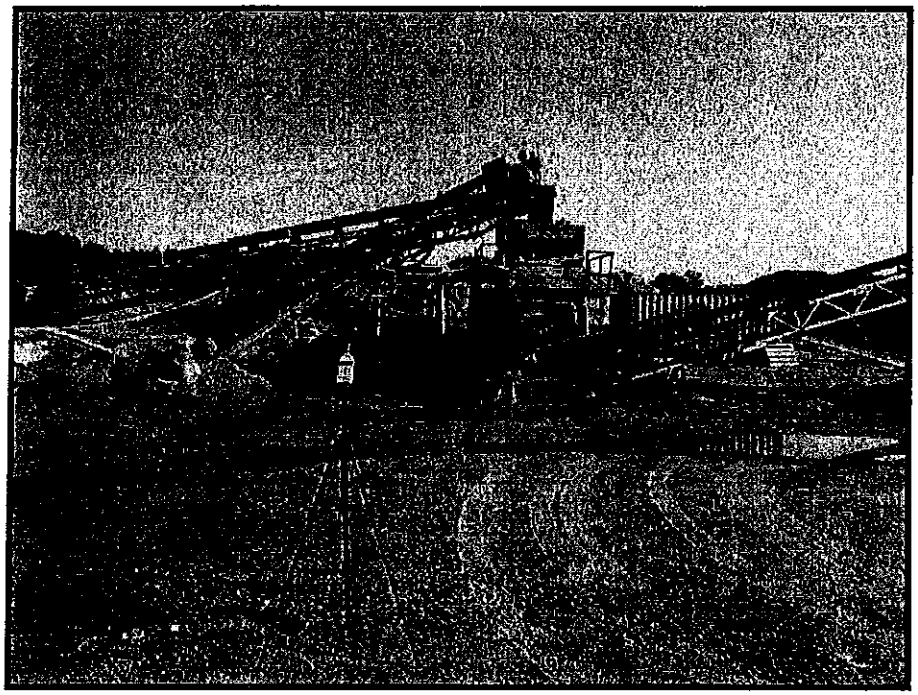
NOISE MONITORING PHOTOS

Site #1 – Campground Property Boundary, View Facing North

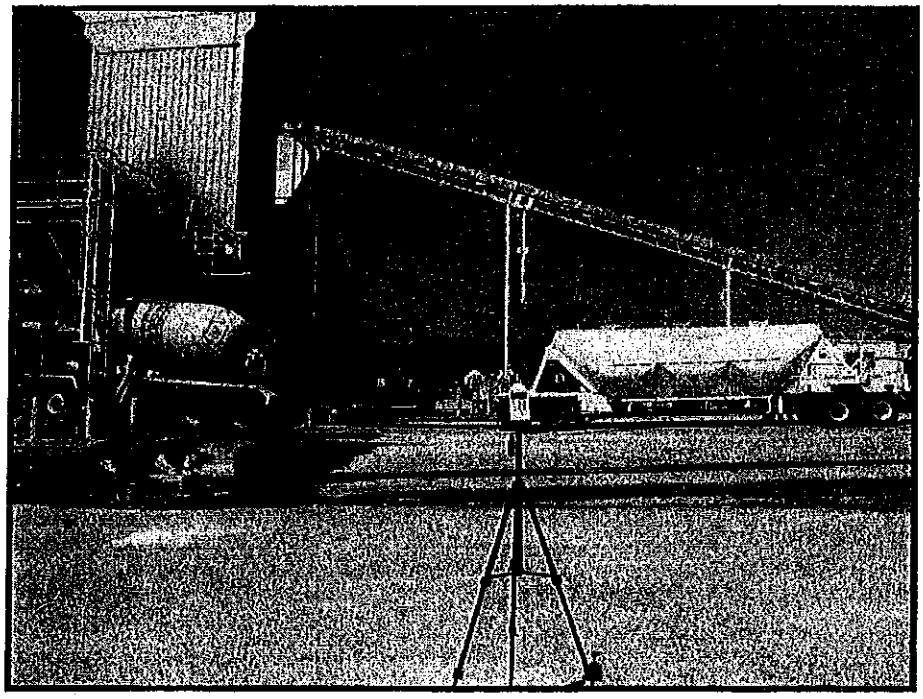


Class B Recycling Facility – View of Crusher Facing Northwest

NOISE MONITORING PHOTOS (Cont.)



Class B Recycling Facility – View of Impactor Facing North



Ready Mix Concrete Plant – View Facing West

APPENDIX B
Noise Monitor Calibration Certificates

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2011-141157

Instrument Model 824, Serial Number 1586, was calibrated on 23MAR2011. The instrument meets factory specifications per Procedure D0001.8046, IEC 61672-1:2002 Class 1; IEC 60651-2001, 60804-2000 and ANSI S1.4-1983 Type 1 1/3, 1/1 Oct. Filters; S1.11-1986 Type 1C; IEC61260-am1-2001 Class 1 .

Instrument found to be in calibration as received: YES
Date Calibrated: 23MAR2011
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LDSigGn/2209	0617 / 0104	12 Months	14JAN2012	2011-138543

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 23 ° Centigrade

Relative Humidity: 23 %

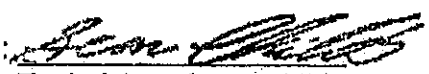
Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the Item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"As received" data is the same as shipped data.
Tested with PRM902 S/N 4740

Signed: 

Technician: Sean Childs

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

~ *Certificate of Calibration and Compliance* ~

Microphone Model: 377B20 Serial Number: 119025 Manufacturer: PCB

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Reference Equipment

Manufacturer	Model #	Serial #	PCB Control #	Cal Date	Due Date
Hewlett Packard	34401A	MY41045214	LD-001	3/17/10	3/17/11
Bruel & Kjaer	4192	2493415	LD-028	10/15/10	10/15/11
Newport	BTH-W/N	8410668	CA1187	not required	not required
Larson Davis	PRM915	135	CA-1433	8/16/10	8/16/11
Larson Davis	PRM902	3750	CA-864	8/26/10	8/26/11
Larson Davis	2559LF	3216	CA-883	not required	not required
Larson Davis	ADP005	1	LD-017	not required	not required
Larson Davis	PRM916	129	CA-1084	2/12/10	2/12/11
Larson Davis	CAL250	5095	CA-1403	6/16/10	6/16/11
Larson Davis	2201	143	CA-1206	12/14/09	12/14/10
Larson Davis	2900	1079	CA-521A	6/11/09	6/11/11
Larson Davis	PRA951-4	241	CA1448	10/13/10	10/13/11
0	0	0	0	not required	not required
0	0	0	0	not required	not required

Frequency sweep performed with B&K UA0033 electrostatic actuator.

Condition of Unit

As Found: N/A

As Left: New unit in tolerance

Notes

1. Calibration of reference microphone is traceable through PTB.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 9001, ISO 10012-1, ANSI/NCSL Z540-1-1994 and ISO 17025.
4. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
5. Open circuit sensitivity is measured using the insertion voltage method following procedure AT603-5.
6. Measurement uncertainty (95% confidence level with coverage factor of 2) for sensitivity is +/-0.20 dB.
7. Unit calibrated per ACS-20.

Technician: Julianna Vega Date: October 22, 2010

ACCREDITED
CALIBRATION CERT #1962.01

PCB PIEZOTRONICS
VIBRATION DIVISION
3425 Walden Avenue, Depew, New York, 14043
TEL: 888-684-0013 FAX: 716-685-3886 www.pcb.com

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2011-141156

Instrument Model PRM902, Serial Number 4740, was calibrated on 23MAR2011. The instrument meets factory specifications per Procedure D0001.8126.

Instrument found to be in calibration as received: NO
Date Calibrated: 23MAR2011
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Hewlett Packard	34401A	US36033460	12 Months	19JUN2011	4816110
Larson Davis	LDSigGn/2209	0617 / 0104	12 Months	14JAN2012	2011-138543

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 23 ° Centigrade

Relative Humidity: 23 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

This calibration complies with the requirements of ISO 17025 and ANSI Z540. The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"As received" data unavailable due to unit failure.

Signed: _____

Technician: Sean Childs

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2000 Certified

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2005, ANSI/NCSL Z540:1994 Part 1 and relevant requirements of ISO 9002:1994 ACCREDITED by NVLAP (an ILAC and APLAC signatory)

NVLAP®
NVLAP Lab Code: 200625-0

Calibration Certificate No.23082

Instrument:	**Sound Level Meter**	*Date Calibrated:*	**12/20/2010** *Cal Due:*
Model:	**SC-30**	*Status:*	**Received** / **Sent**
Manufacturer:	**Cesva**	*In tolerance:*	X / X
Serial number:	**T226927**	*Out of tolerance:*	
Tested with:	**Microphone C-130 s/n 9442**	*See comments:*	
	Preamplifier PA13 s/n 1946	*Contains non-accredited tests:*	__Yes X No
Type (class):	**1**	*Calibration service:*	__ Basic X Standard
Customer:	**Paul Carpenter Associates, Inc.**	*Address:*	**248 Columbia Turnpike, Bldg. 3, Suite 115**
Tel/Fax:	**973-822-8221 / 973-833-9221**		**Florham Park, NJ 07932**

Tested in accordance with the following procedures and standards:
Calibration of Sound Level Meters, Scantek Inc., 06/07/2005
SLM & Dosimeters – Acoustical Tests, Scantek Inc., 06/15/2005

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	25747	Dec 24, 2009	Scantek, Inc./ NVLAP	Dec 24, 2010
DS-360-SRS	Function Generator	61646	Nov 13, 2009	ACR Env. / A2LA	Nov 13, 2011
34401A-Agilent Technologies	Digital Multimeter	MY41022043	Nov 17, 2010	ACR Env. / A2LA	Nov 17, 2011
HM30-Thommen	Meteo Station	1040170	Jun 26, 2010	ACR Env. / A2LA	Dec 26, 2011
HMP233-Vaisala Oyj	Humidity & Temp. Transmitter	V3820001	Nov 25, 2009	ACR Env. / A2LA	May 25, 2011
PC Program 1019 Norsonic	Calibration software	v.5.0	Validated July 2009	-	-
1253-Norsonic	Calibrator	25726	Dec 7, 2010	Scantek, Inc./ NVLAP	Dec 7, 2011

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric Pressure (kPa)	Relative Humidity (%)
23.7 °C	100.18 kPa	36.2 %RH

Calibrated by	Valentin Buzduga	Checked by	Mariana Buzduga
Signature		Signature	
Date	12/20/2010	Date	12/20/2010

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2005, ANSI/NCSL Z540:1994 Part 1
and relevant requirements of ISO 9002:1994
ACCREDITED by NVLAP (an ILAC and APLAC signatory)

NVLAP®

NVLAP Lab Code: 200625-0

Calibration Certificate No.23083

Instrument: **Microphone**
Model: **C-130**
Manufacturer: **Cesva**
Serial number: **9442**

Date Calibrated: **12/20/2010** *Cal Due:*

Status:	Received	Sent
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: __Yes _X_ No

Customer: **Paul Carpenter Associates, Inc.**
Tel/Fax: **973-822-8221/973-833-9221**
Address: **248 Columbia Turnpike, Bldg. 3, Suite 115 Florham Park, NJ 07932**

Tested in accordance with the following procedures and standards:
Procedure for Calibration of Measurement Microphones, Scantek Inc., 06/15/2005

Instrumentation used for calibration: N-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	25747	Dec 24, 2009	Scantek, Inc./ NVLAP	Dec 24, 2010
DS-360-SRS	Function Generator	61648	Nov 13, 2009	ACR Env. / A2LA	Nov 13, 2011
34401A-Agilent Technologies	Digital Multimeter	MY41022043	Nov 17, 2010	ACR Env. / A2LA	Nov 17, 2011
HM30-Thommen	Meteo Station	1040170	Jun 26, 2010	ACR Env. / A2LA	Dec 26, 2011
HMP233-Vaisala Oyj	Humidity & Temp. Transmitter	V3620001	Nov 25, 2009	ACR Env./ A2LA	May 25, 2011
PC Program 1017 Norsonic	Calibration software	v.5.0	Validated July 2009	-	-
1253-Norsonic	Calibrator	28326	Dec 6, 2010	Scantek, Inc./ NVLAP	Dec 6, 2011
1203-Norsonic	Preamplifier	14059	Jan 4, 2010	Scantek, Inc./ NVLAP	Jan 4, 2011
4180-Brüel&Kjær	Microphone	2246115	Dec 14, 2009	NPL (UK) / UKAS	Dec 14, 2011

Instrumentation and test results are traceable to SI - BIPM through standards maintained by NPL (UK) and NIST (USA)

Calibrated by	Valentin Buzduga	Checked by	Mariana Buzduga
Signature		Signature	
Date	12/20/2010	Date	12/20/2010

Document stored as: Z:\Calibration Lab\Mic 2010\CesvaC130_9442_M1.doc

APPENDIX C
Meteorological Data

Hourly Obs
Month/Year: 05/2011
Station Location: MILLVILLE MUNICIPAL ARPT (13735)
Lat: 39.366
Lon: -75.078
Elev: 58 ft. above sea level

WBAN	Date	Time	Date	Time	StationTyp	SkyCondit	SkyCondit	Visibility	DryBulbFa	DryBulbCe	WindSpeed	Direction	urlyPrecip	Filter Out?
13735	20110523	1054	5/23/2011	54	12	BKN060	BI	10	61	16.1	6	120		
13735	20110523	1154	5/23/2011	154	12	OVC060		10	62	16.7	7	140		
13735	20110523	1254	5/23/2011	247	12	BKN013	BI	10	63	17	8	140		
13735	20110523	1354	5/23/2011	254	12	BKN013	BI	10	62	16.7	8	140		
13735	20110523	1454	5/23/2011	320	12	SCT011	BI	10	63	17	8	140		
13735	20110523	1554	5/23/2011	351	12	BKN011	BI	10	63	17	7	140		
13735	20110523	1654	5/23/2011	354	12	BKN011	BI	10	62	16.7	8	140	T	Y
13735	20110523	1754	5/23/2011	432	12	SCT011	BI	10	63	17	8	130		
13735	20110523	1854	5/23/2011	454	12	SCT011	BI	10	62	16.7	6	140		
13735	20110523	1954	5/23/2011	527	12	FEW009		10	63	17	10	140		
13735	20110523	2046	5/23/2011	554	12	CLR		10	62	16.7	8	140		
13735	20110523	2052	5/23/2011	608	12	FEW009		10	63	17	8	140		
13735	20110523	2054	5/23/2011	628	12	BKN013	BI	10	63	17	6	150		
13735	20110523	2101	5/23/2011	654	12	OVC013		10	63	17.2	8	130		
13735	20110523	2112	5/23/2011	754	12	OVC011		10	65	18.3	6	VR		
13735	20110523	2154	5/23/2011	850	12	OVC009		9	66	19	8	180		
13735	20110523	2254	5/23/2011	854	12	OVC009		9	66	18.9	7	VR		
13735	20110523	2303	5/23/2011	916	12	OVC011		10	66	19	7	VR		
13735	20110523	2312	5/23/2011	949	12	OVC009		9	66	19	6	VR		
13735	20110523	2320	5/23/2011	954	12	OVC009		10	66	18.9	6	VR	T	Y
13735	20110523	2354	5/23/2011	1054	12	OVC009		8	67	19.4	3	VR		
13735	20110523	0054	5/23/2011	1154	12	BKN009	O	9	71	21.7	7	VR		
13735	20110523	0114	5/23/2011	1202	12	OVC011		9	72	22	7	VR		
13735	20110523	0154	5/23/2011	1252	12	SCT013		9	73	23	8	160		
13735	20110523	0254	5/23/2011	1254	12	SCT013		9	75	23.9	7	150		
13735	20110523	0354	5/23/2011	1354	12	FEW017		9	76	24.4	11	140		
13735	20110523	0439	5/23/2011	1454	12	FEW048		9	77	25	7	VR		
13735	20110523	0451	5/23/2011	1554	12	FEW044		8	77	25	7	VR		
13735	20110523	0454	5/23/2011	1654	12	SCT046		7	73	22.8	6	VR		
13735	20110523	0509	5/23/2011	1754	12	CLR		6	71	21.7	3	170		
13735	20110523	0525	5/23/2011	1854	12	CLR		6	70	21.1	5	160		
13735	20110523	0554	5/23/2011	1954	12	FEW085	B	6	70	21.1	3	VR		
13735	20110523	0622	5/23/2011	2009	12	FEW040	S	5	70	21	6	170		
13735	20110523	0654	5/23/2011	2050	12	CLR		4	70	21	5	VR		
13735	20110523	0754	5/23/2011	2054	12	CLR		4	70	21.1	0		0.01	Y
13735	20110523	0854	5/23/2011	2154	12	CLR		4	68	20	3	VR		
13735	20110523	0954	5/23/2011	2254	12	CLR		4	70	21.1	3	VR	0.01	Y
13735	20110523	1054	5/23/2011	2354	12	CLR		4	70	21.1	3	VR		

Hourly Obs
Month/Year: 05/2011
Station Location: MILLVILLE MUNICIPAL ARPT (13735)
Lat: 39.366
Lon: -75.078
Elev: 58 ft. above sea level

WBAN	Date	Time	Date	Time	StationTyp	SkyCondit	SkyCondit	Visibility	DryBulbFa	DryBulbCe	WindSpeed	Direction	urlyPrecip	Filter Out?
13735	20110525	1354	5/25/2011	54	12	CLR		10	71	21.7	3	280		
13735	20110525	1454	5/25/2011	154	12	CLR		10	71	21.7	0	0		
13735	20110525	1554	5/25/2011	254	12	BKN120		10	68	20	0	0		
13735	20110525	1654	5/25/2011	354	12	CLR		7	64	17.8	3	250		Y
13735	20110525	1754	5/25/2011	454	12	CLR		5	65	18.3	0	0		
13735	20110525	1854	5/25/2011	554	12	CLR		5	68	20	0	0		
13735	20110525	1954	5/25/2011	654	12	CLR		8	74	23.3	3	VR		
13735	20110525	2054	5/25/2011	754	12	CLR		9	76	23.9	7	30		
13735	20110525	2154	5/25/2011	854	12	CLR		10	76	24.4	8	80		
13735	20110525	2254	5/25/2011	954	12	CLR		10	78	25.6	5	150		
13735	20110525	2327	5/25/2011	1054	12	CLR		10	79	26.1	5	VR		
13735	20110525	2338	5/25/2011	1154	12	FEW041		10	80	26.7	0	0		
13735	20110525	2354	5/25/2011	1254	12	BKN042 O		10	80	26.7	7	100		
13735	20110525	0052	5/25/2011	1354	12	BKN046		10	82	27.8	8	120		
13735	20110525	0054	5/25/2011	1454	12	OVC046		10	83	28.3	6	VR		
13735	20110525	0114	5/25/2011	1554	12	CLR		10	81	27.2	7	160		
13735	20110525	0136	5/25/2011	1654	12	CLR		10	80	26.7	7	160		
13735	20110525	0154	5/25/2011	1754	12	CLR		10	76	24.4	7	140		
13735	20110525	0205	5/25/2011	1854	12	CLR		10	71	21.7	6	120		
13735	20110525	0254	5/25/2011	1954	12	CLR		10	68	20	6	120		
13735	20110525	0354	5/25/2011	2054	12	CLR		8	66	18.9	6	140		
13735	20110525	0454	5/25/2011	2154	12	CLR		7	65	18.3	5	140		
13735	20110525	0527	5/25/2011	2254	12	CLR		5	64	17.8	3	140		
13735	20110525	0554	5/25/2011	2354	12	CLR		3	63	17.2	0	0		Y

APPENDIX D
Noise Calculation Worksheet

R.E. PIERSON CONSTRUCTION CO.
NOISE CALCULATION WORKSHEET

Noise Descriptor	Class B Recycling Facility Reference Sound Pressure Level[1]	Class B Recycling Facility Property Boundary Sound Pressure Level (dB)[2]	Ready-Mix Concrete Plant Reference Sound Pressure Level[1]	Ready-Mix Concrete Plant - Property Boundary Sound Pressure Level (dB)[2]	Cumulative - Concrete + Dredger Sound Pressure Level (dB)[3]	Limits
A-Weighted	89.8	62	85.8	60	63.8	65.0
31.5 Hz	89.6	62	84.8	59		96.0
63 Hz	89.3	62	84.0	58		82.0
125 Hz	92.2	65	86.4	60		74.0
250 Hz	89.9	62	88.6	63		67.0
500 Hz	88.8	61	83.3	57		63.0
1000 Hz	84.7	57	81.2	55		60.0
2000 Hz	82.0	54	77.2	51		57.0
4000 Hz	78.5	51	74.5	49		55.0
8000 Hz	71.1	44	68.2	42		53.0
Impulsive	94.6	67	N/A	N/A	N/A	80.0

1 - Reference sound pressure level represents maximum A-weighted and octave band levels from facility operations based on various perimeter measurements at reference distances.

2 - Sound Pressure Level @Property Boundary = Reference Sound Pressure Level + 20*LOG(Ref Dist/Dist to Prop Bound)

3 - Cumulative Sound Pressure Level = $10*LOG(10^{(SPL_1/10)}+10^{(SPL_2/10)}+10^{(SPL_3/10)}+10^{(SPL_4/10)}+...)$; cumulative level along northern property boundary

Proposed Facilities - Location Information

Source	Reference Distance (feet)	Distance to Campground Property Line (feet)
Class B Recycling Facility	42.0	1007
Ready-Mix Concrete Plant	50.0	992

Dredger Reference Level at Propery Boundary

Source	Reference Level (dBA)
Dreger	61.5