



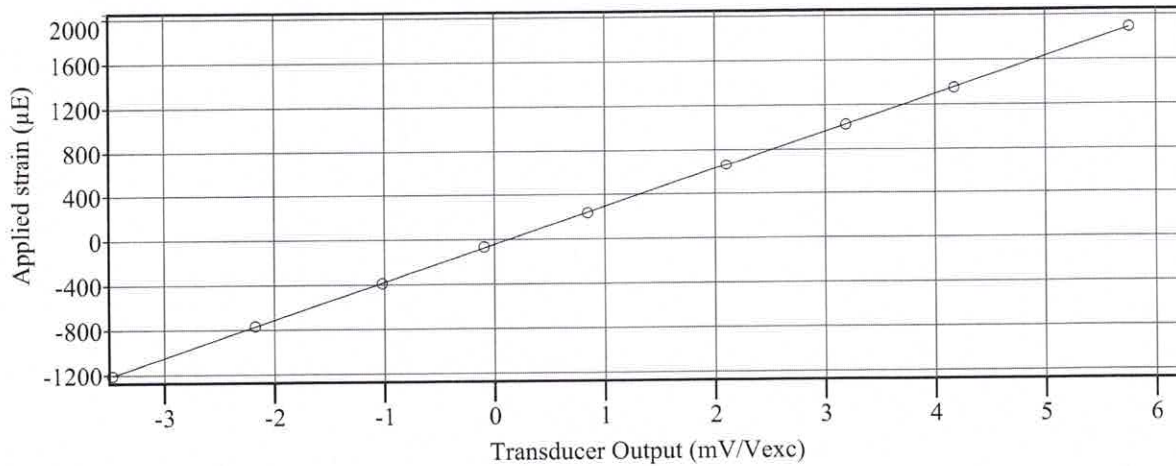
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: Z812
 PDI Gage Factor: 96.8
 Mean Linear Correlation Coefficient: 0.999976

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-1209.5	-3.473	662.7	2.103
-767.7	-2.174	1023.6	3.190
-387.1	-1.021	1351.7	4.171
-65.6	-0.093	1892.0	5.760
236.2	0.846		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: Paul Hartman

Signature: Paul Hartman

PDI Gage: Z812

Calibration Date: APR 15 2024



Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on

APR 15 2024

Serial No: K13935 Temperature: 23.0 °C
 Model: PR Humidity: 41%
 Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

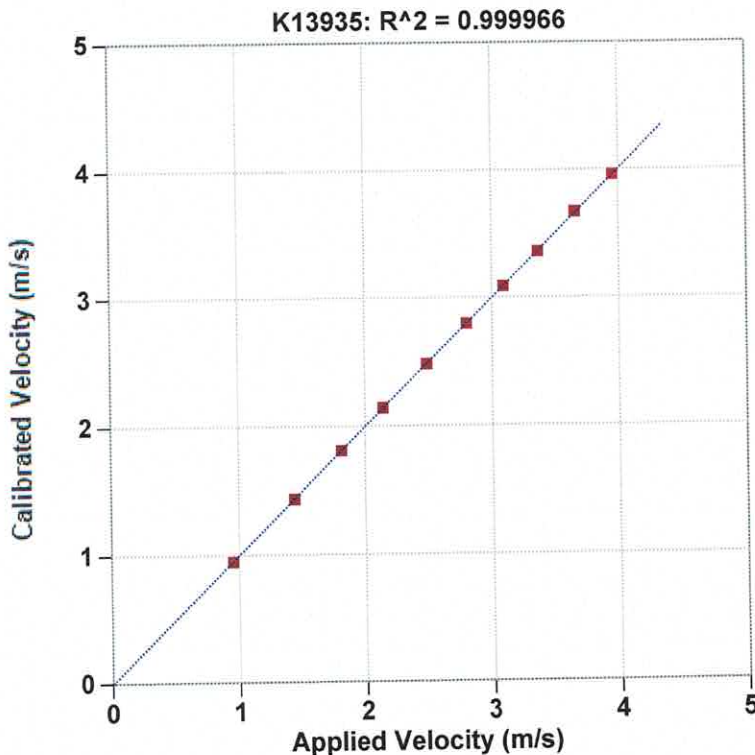
359.6 mv/5000g
 (71.9 μv/g)
 R²: 0.999966 [Chip programmed]

Operator: William Johnson

Ref Acc 1: 78268! Cal on: 11Jan2024
 986 g's/volt
 Ref Acc 2: 78270! Cal on: 11Jan2024
 971 g's/volt

William Johnson
 Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K13935 Velocity
m/s	m/s
0.952	0.946
1.438	1.433
1.808	1.807
2.141	2.139
2.486	2.481
2.802	2.797
3.092	3.093
3.367	3.362
3.657	3.669
3.956	3.959

Maximum Acceleration: 838 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
Calibration performed on

APR 15 2024

Serial No: K13936 Temperature: 23.0 °C
Model: PR Humidity: 41%
Calibrated on: Channel 4 on 8G 5161 LE

PDA CALIBRATION FACTOR

372.2 mv/5000g
(74.4 μ v/g)
R²: 0.999922 [Chip programmed]

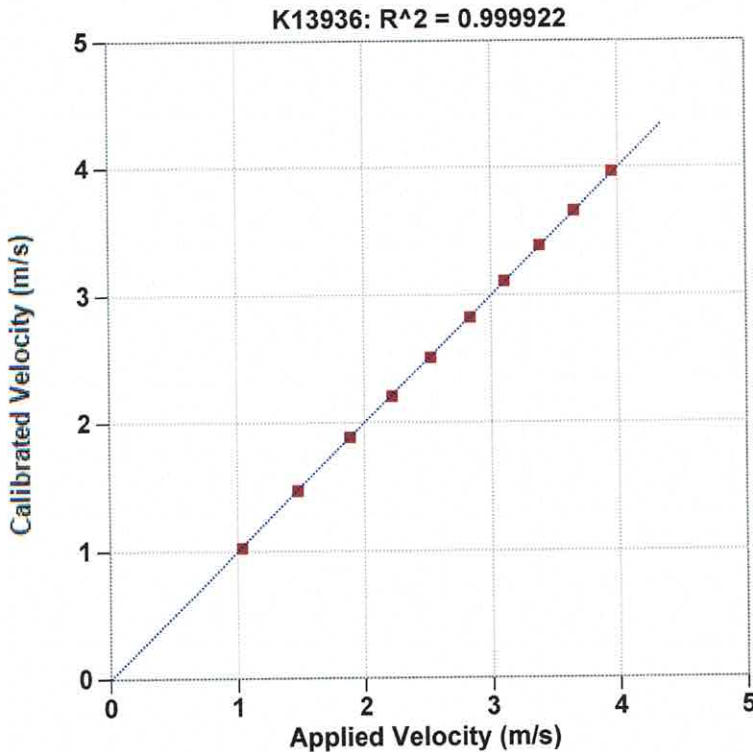
Ref Acc 1: 78268! Cal on: 11Jan2024
986 g's/volt
Ref Acc 2: 78270! Cal on: 11Jan2024
971 g's/volt

Operator: William Johnson

Signed



Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K13936 Velocity
m/s	m/s
1.036	1.023
1.474	1.469
1.885	1.885
2.220	2.210
2.523	2.513
2.834	2.827
3.105	3.109
3.383	3.386
3.657	3.660
3.952	3.966

Maximum Acceleration: 837 g's

Accelerometer Calibration Certificate

Pile Dynamics, Inc.



Calibrated by Pile Dynamics, Inc.
 Calibration performed on **APR 15 2024**

Serial No: K13939 **Temperature:** 23.0 °C
Model: PR **Humidity:** 41%
Calibrated on: Channel 3 on 8G 5161 LE

PDA CALIBRATION FACTOR

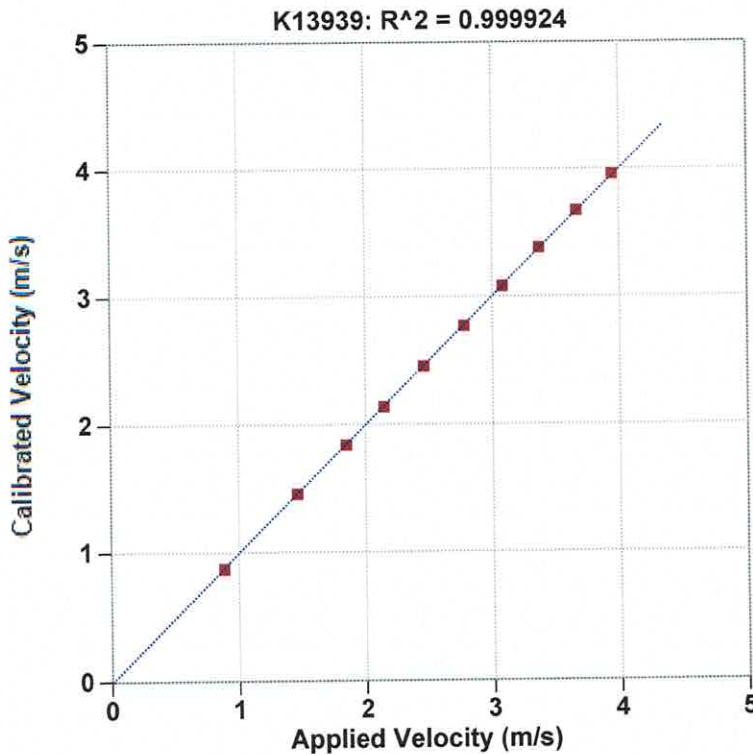
380.8 mv/5000g
 (76.2 $\mu\text{v/g}$)
 R²: 0.999924 [Chip programmed]

Ref Acc 1: 78268! **Cal on:** 11Jan2024
 986 g's/volt
Ref Acc 2: 78270! **Cal on:** 11Jan2024
 971 g's/volt

Operator: William Johnson


 Signed

Reference accelerometer calibrations are traceable to the United States National Institute of Standards and Technology (NIST).



Reference Velocity	S/N K13939 Velocity
m/s	m/s
0.884	0.875
1.464	1.457
1.847	1.839
2.147	2.139
2.462	2.455
2.777	2.769
3.083	3.080
3.371	3.380
3.665	3.671
3.945	3.958

Maximum Acceleration: 833 g's



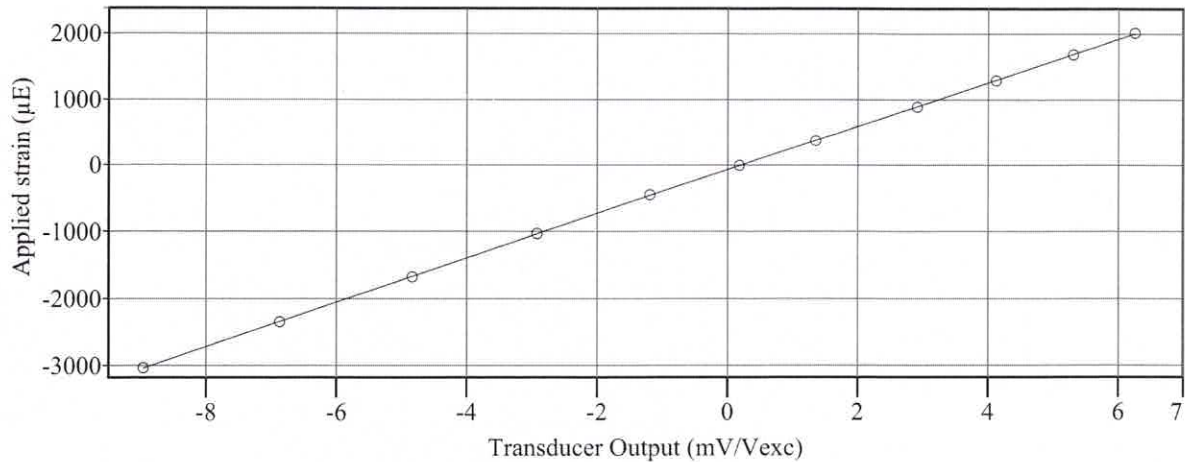
Certificate of Calibration

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: Z942
 PDI Gage Factor: 95.7
 Mean Linear Correlation Coefficient: 0.999985

Table 1: Representative Calibration Data

Applied strain (μE)	Gage Output (mV/Vexc)	Applied strain (μE)	Gage Output (mV/Vexc)
-3031.5	-8.969	374.0	1.353
-2349.1	-6.872	892.4	2.915
-1673.2	-4.835	1292.7	4.121
-1030.2	-2.919	1686.4	5.311
-452.8	-1.188	2014.4	6.254
-6.6	0.183		

Calibration Curve

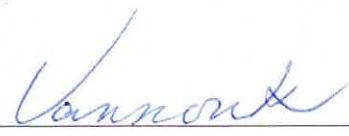


PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: VANNA OUK

Signature: 

PDI Gage: Z942

APR 15 2024

Calibration Date: _____



Certificate of Calibration



Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: Z943
 PDI Gage Factor: 94.5

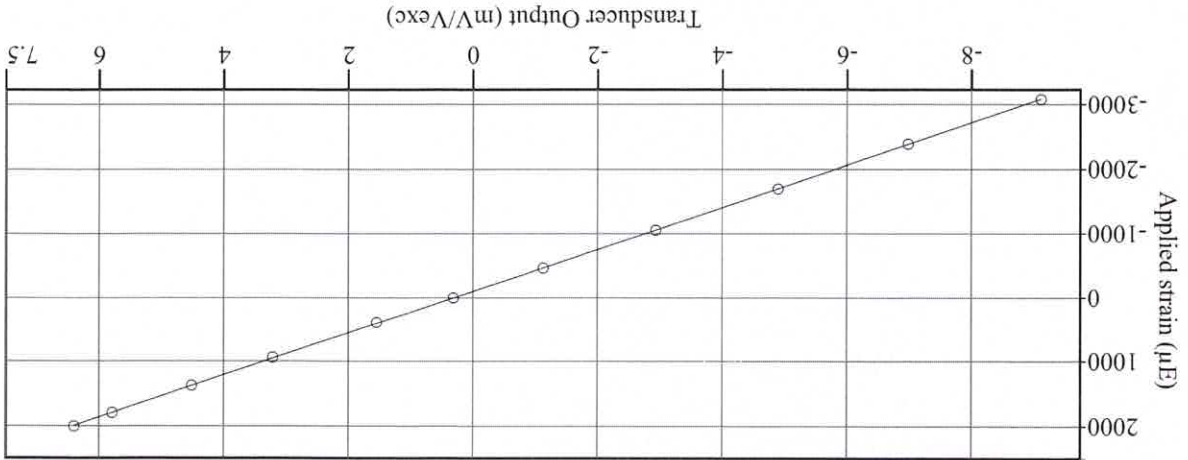
Mean Linear Correlation Coefficient: 0.999980

Pile Dynamics, Inc.

Table 1: Representative Calibration Data

Applied strain (µE)	Gage Output (mV/Vexc)	Applied strain (µE)	Gage Output (mV/Vexc)
-3077.4	-9.119	393.7	1.546
-2388.5	-6.983	938.3	3.215
-1699.5	-4.897	1378.0	4.511
-1056.4	-2.930	1797.9	5.791
-465.9	-1.126	2007.9	6.401
0.0	0.310		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Excitation Voltage for Calibration:	5.0 VDC
Transducer Gage Length:	3 inches (76.2mm)
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Signature: *Vananna Ouk*

Calibrated By: VANNA OUK

PDI Gage: Z943

APR 15 2024

Calibration Date:



Certificate of Calibration

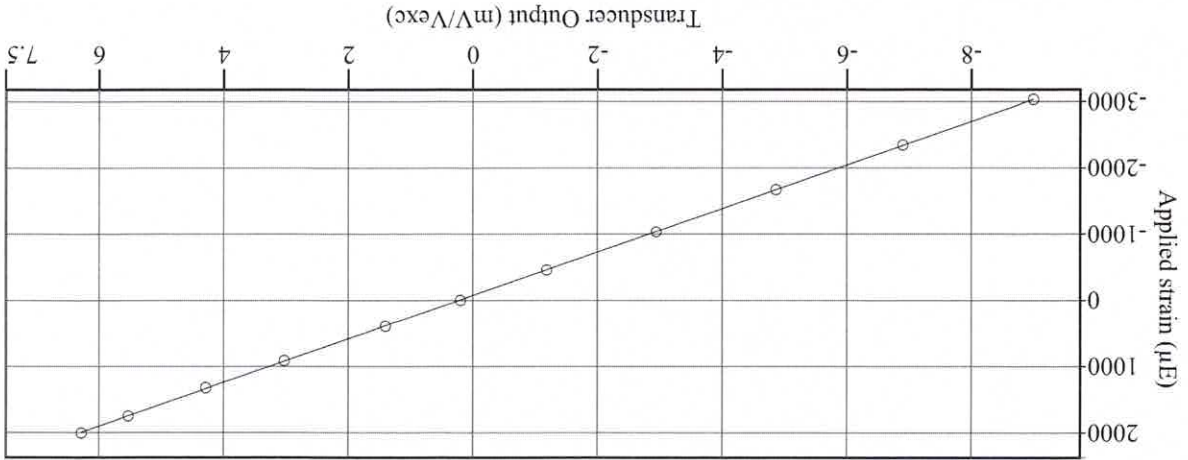
Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: Z944
 PDI Gage Factor: 95.0
 Mean Linear Correlation Coefficient: 0.999984



Table 1: Representative Calibration Data

Applied strain (µE)	Gage Output (mV/Vexc)	Applied strain (µE)	Gage Output (mV/Vexc)
-3031.5	-9.001	393.7	1.406
-2349.1	-6.901	914.3	3.028
-1673.2	-4.863	1325.5	4.288
-1036.7	-2.942	1745.4	5.533
-459.3	-1.181	2001.3	6.280
0.0	0.196		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)	
PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.

Calibrated By: VANNA OUR
 PDI Gage: Z944
 Calibration Date:

APR 15 2024

Vananna



Certificate of Calibration



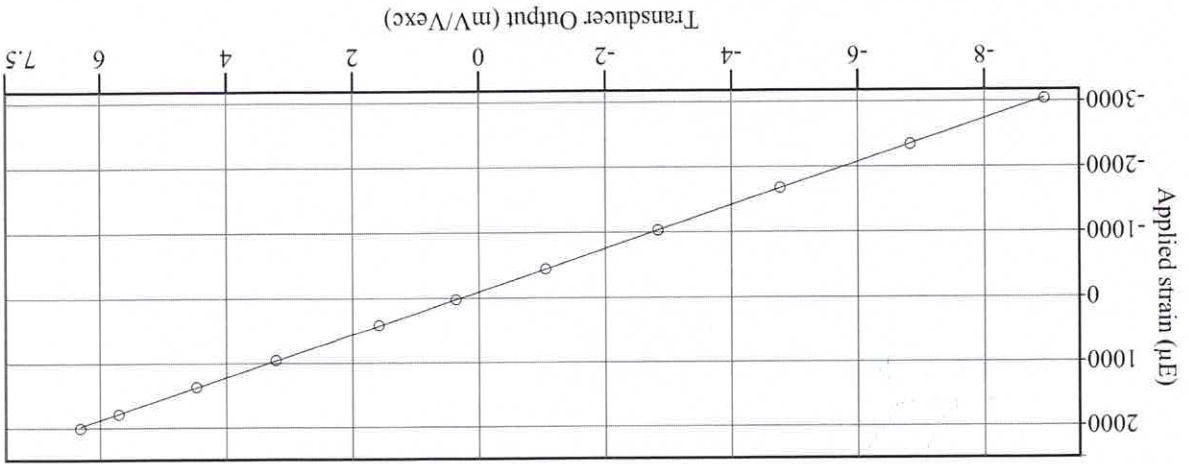
PDI Dynamics, Inc.

Pile Dynamics, Inc.
 Transducer Model: PDI Strain Transducer
 Serial Number: Z945
 PDI Gage Factor: 95.2
 Mean Linear Correlation Coefficient: 0.999955

Table 1: Representative Calibration Data

Applied strain ($\mu\epsilon$)	Gage Output (mV/Vexc)	Applied strain ($\mu\epsilon$)	Gage Output (mV/Vexc)
-3038.1	-8.951	413.4	1.587
-2342.5	-6.828	951.4	3.221
-1673.2	-4.768	1364.8	4.477
-1030.2	-2.830	1789.2	5.707
-448.4	-1.049	2007.9	6.315
19.7	0.367		

Calibration Curve



PDI Strain Transducer Calibration System (PDI STCS)

PDI STCS Serial Number:	1000HA
Firmware version number:	0.9.0.0
Transducer Gage Length:	3 inches (76.2mm)
Excitation Voltage for Calibration:	5.0 VDC

PDI certifies the above STCS instrument meets or exceeds published specifications and has been verified using standards and instruments whose accuracies are traceable to the National Institute of Standards and Technology (NIST), an accepted value of a natural physical constant or a ratio calibration technique.



[Signature]

Signature:

APR 15 2024

Calibrated By: VANNA OUK

PDI Gage: Z945

Calibration Date: