

Department of the Army New York District Corps of Engineers Jacob K. Javits Federal Building 26 Federal Plaza New York, NY 10278-0090

Week of November 04 - November 10, 2013

The following pages display the results from the USACE-NYD real-time website for the week of Monday, November 04, through Sunday, November 10, 2013.

There were 8 blasts this week in the S-AK-3 project area.

We recorded vibrations in S-AK-3 project area. The maximum vibration recorded was 0.0975 in/s recorded at Elizabeth Marina on November 07. Table 1 summarizes the blasts this week.

Page 2 summarizes dredge locations for this week. The map shows the week's last dredge locations by colored symbols, connected by colored lines to the week's previous locations marked by gray symbols. Drillboat Apache and operated in S-AK-3 all week.

The remaining odd pages display the home page showing the maximum vibration measured in all of the stations for the most recent event for each day:

November 04

November 05

November 06

November 07

November 08

November 09

November 10

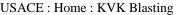
The even pages show the maximum vibration observed at each station along easting for each event.

The results for this week show the measurements at the three active stations: New York Container Terminal (NYCT), Elizabethport, and Elizabeth Marina. The station locations are on each page.

Ground vibrations at NYCT were all below 0.035 in/s. Vibrations at Elizabethport were all below 0.030 in/s. Vibrations at Elizabeth Marina were all below 0.100 in/s. All blast vibration measurements are below the contract vibration limits for this site.

Table 1. Blast Summary for this week

Blast	Date & Time	Distance from blast	e4s Max.
	EST/EDT of blast	to e4s stations (feet)	vibration (in/s)
AK-100	2013-11-04 14:59	0,990 - 2,280	0.0856
AK-101	2013-11-05 11:14	1,120 - 2,420	0.085
AK-102	2013-11-06 09:05	1,250 - 2,570	0.0869
AK-103	2013-11-07 09:06	1,400 - 2,730	0.0975
AK-104	2013-11-08 09:06	1,270 - 2,900	0.0975
AK-105	2013-11-08 15:30	1,260 - 2,920	0.0144
AK-106	2013-11-09 09:16	1,430 - 3,030	0.0562
AK-107	2013-11-09 15:00	1,420 - 3,050	0.0375





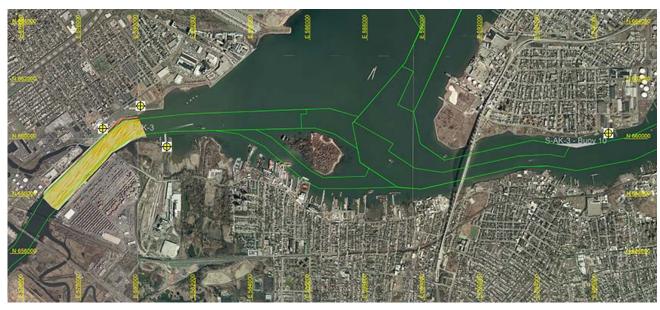
Stations: Dredges Home **Event Summary** History Links

Dredge Position Summary

This page summarizes dredge positions for the week. The Arthur Kill contract area is mapped with a top-of-rock map. The navigation grid is superimposed. The map shows dredge locations by colored symbols, connected by colored lines to the week's past locations marked by gray symbols. The map resets beginning the Monday of each week.

Mousing over a dredge location produces a pop-up text box giving dredge name, date of location, and easting and northing coordinates of the location in the NAD83 New Jersey State Plane coordinate system.

Click on a station for station information.



Todays Dredge Position

Latest Week's **Dredge Position Summary**

Project History List

The table below lists the date, name, easting, northing, and notes for the week's dredge positions. The position is the last reported dredge position

Dredge	Location	Table

Date	Dredge Name	Easting	Northing	Notes
2013-11-10 Sun				No Activity
2013-11-09 Sat				No Activity
2013-11-08 Fri				No Activity
2013-11-07 Thu				No Activity
2013-11-06 Wed				No Activity
2013-11-05 Tue				No Activity
2013-11-04 Mon				No Activity

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482 www.e4sciences.com

11/11/2013 1:23 PM 1 of 1



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

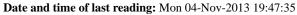
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

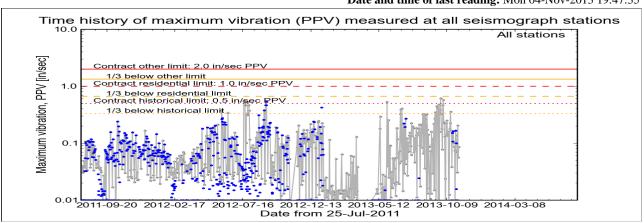
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
Ambient	Sun 03-Nov-2013	21:02:35	0.0562	Elizabeth Marina
Ambient	Sat 02-Nov-2013	19:47:33	0.2040	Elizabeth Marina
Ambient	Fri 01-Nov-2013	20:22:47	0.0306	NYCT
Ambient	Thu 31-Oct-2013	13:47:35	0.0700	Elizabeth Marina
Blast	Wed 30-Oct-2013	15:02:34	0.1000	Elizabeth Marina
	e4sciences Earthwork	5, LLC 27 Glen Ro	ad, Sandy Hook, CT 064	82 www.e4sciences.com

1 of 1



Home **Event Summary** Stations: Dredges History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

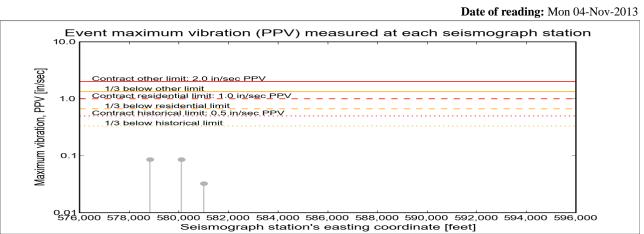
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Mon 04-Nov-2013	19:47:35	0.0856	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Mon 04-Nov-2013 Mon 04-Nov-2013	19:47:35 19:52:45	0.0856 0.0325	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:29 PM



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

New York District

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

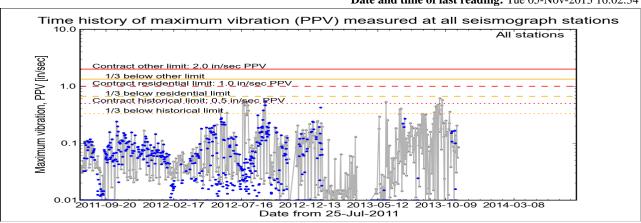
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
Ambient	Sun 03-Nov-2013	21:02:35	0.0562	Elizabeth Marina
Ambient	Sat 02-Nov-2013	19:47:33	0.2040	Elizabeth Marina
Ambient	Fri 01-Nov-2013	20:22:47	0.0306	NYCT
Ambient	Thu 31-Oct-2013	13:47:35	0.0700	Elizabeth Marina
	e4sciences Earthworks	, LLC 27 Glen Road, S	andy Hook, CT 064	www.e4sciences.com

1 of 1 11/11/2013 1:28 PM



Home

Event Summary

Stations:

Dredges

History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

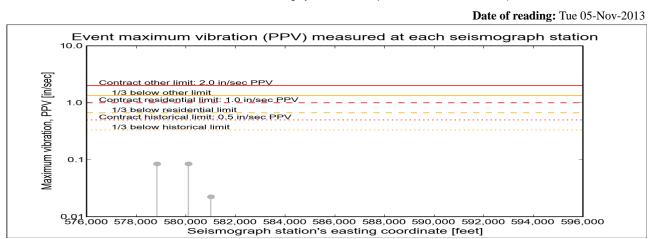
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Tue 05-Nov-2013	16:02:34	0.085	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Tue 05-Nov-2013 Tue 05-Nov-2013	16:02:34 16:08:05	0.085 0.0225	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:30 PM



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

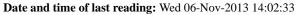
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

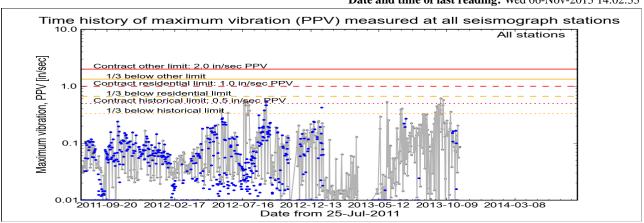
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Wed 06-Nov-2013	14:02:33	0.0869	Elizabeth Marina
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
Ambient	Sun 03-Nov-2013	21:02:35	0.0562	Elizabeth Marina
Ambient	Sat 02-Nov-2013	19:47:33	0.2040	Elizabeth Marina
Ambient	Fri 01-Nov-2013	20:22:47	0.0306	NYCT
e	4sciences Earthworks,	LLC 27 Glen Road, Sa	indy Hook, CT 064	82 www.e4sciences.com

1 of 1 11/11/2013 1:28 PM



Event Summary

Stations:

Dredges

History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

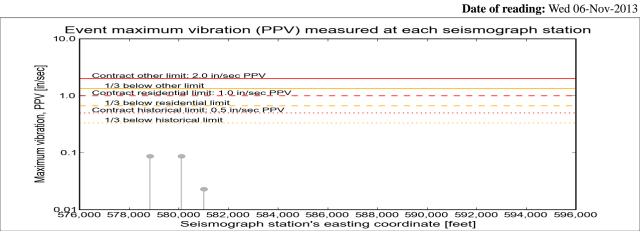
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Wed 06-Nov-2013	14:02:33	0.0869	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Wed 06-Nov-2013 Wed 06-Nov-2013	14:02:33 13:52:46	0.0869 0.0231	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:30 PM



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

New York District

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

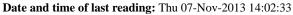
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

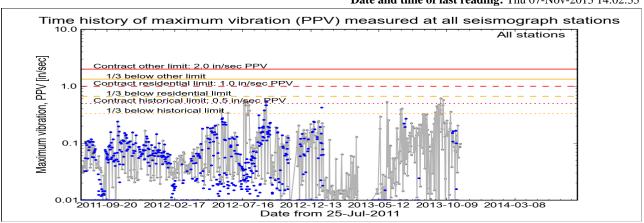
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Thu 07-Nov-2013	14:02:33	0.0975	Elizabeth Marina
Ambient	Wed 06-Nov-2013	14:02:33	0.0869	Elizabeth Marina
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
Ambient	Sun 03-Nov-2013	21:02:35	0.0562	Elizabeth Marina
Ambient	Sat 02-Nov-2013	19:47:33	0.2040	Elizabeth Marina
e	4sciences Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	82 www.e4sciences.com

1 of 1



Home

Event Summary

Stations:

Dredges

History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

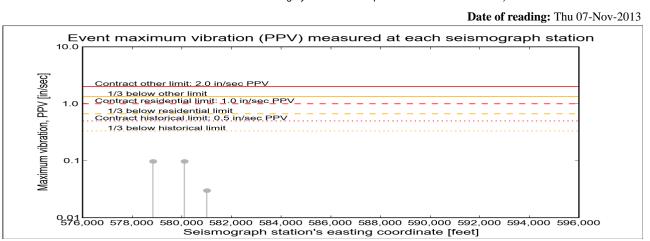
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Thu 07-Nov-2013	14:02:33	0.0975	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Thu 07-Nov-2013 Thu 07-Nov-2013	14:02:33 14:38:05	0.0975 0.03	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:31 PM



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

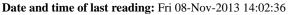
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

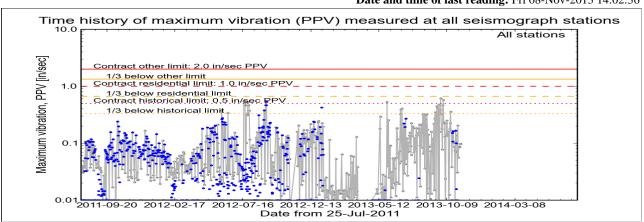
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Fri 08-Nov-2013	14:02:36	0.0975	Elizabeth Marina
Ambient	Thu 07-Nov-2013	14:02:33	0.0975	Elizabeth Marina
Ambient	Wed 06-Nov-2013	14:02:33	0.0869	Elizabeth Marina
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
Ambient	Sun 03-Nov-2013	21:02:35	0.0562	Elizabeth Marina
, e	e4sciences Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	www.e4sciences.com

1 of 1 11/11/2013 1:27 PM



Event Summary Stations: Dredges History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

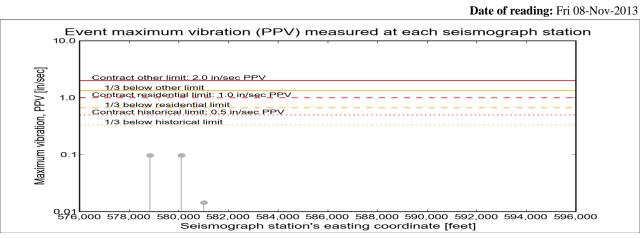
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Fri 08-Nov-2013	14:02:36	0.0975	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Fri 08-Nov-2013 Fri 08-Nov-2013	14:02:36 20:22:44	0.0975 0.0144	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:31 PM



Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

New York District

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

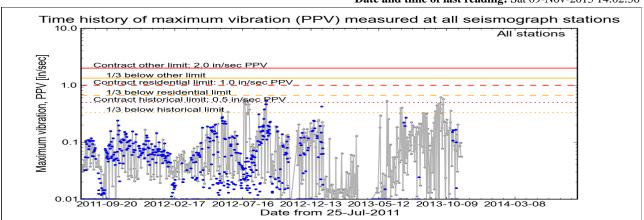
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sat 09-Nov-2013	14:02:36	0.0562	Elizabeth Marina
Ambient	Fri 08-Nov-2013	14:02:36	0.0975	Elizabeth Marina
Ambient	Thu 07-Nov-2013	14:02:33	0.0975	Elizabeth Marina
Ambient	Wed 06-Nov-2013	14:02:33	0.0869	Elizabeth Marina
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
Ambient	Mon 04-Nov-2013	19:47:35	0.0856	Elizabeth Marina
e	4sciences Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	82 www.e4sciences.com

1 of 1 11/11/2013 1:27 PM



Event Summary

Stations:

Dredges

History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

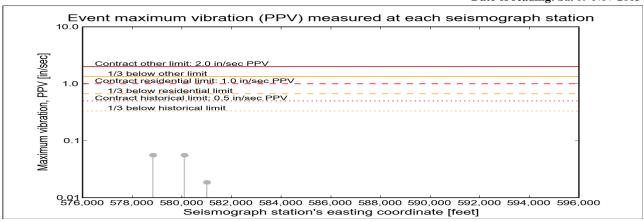
Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambient-vibration level. Black stems indicate blast-vibration level.)

Date of reading: Sat 09-Nov-2013



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sat 09-Nov-2013	14:02:36	0.0562	Ambient
Elizabeth Port - e4s009 NYCT - e4s008	Sat 09-Nov-2013 Sat 09-Nov-2013	14:02:36 14:07:45	0.0562 0.0187	Ambient Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:31 PM





Home Event Summary Stations: Dredges History Links

Arthur Kill Blast Vibration Summary

This site summarizes the measured ground vibrations in northwest Staten Island, from rock blasting in the Arthur Kill and other possible sources. The site is updated daily. The data are intended for the sole use of the US Army Corps of Engineers - New York District, for managing and monitoring the performance of NYNJ Harbor Deepening Project Contract in Arthur Kill starting 25 July 2011.

This page represents the most recent observations.

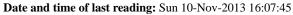
The Arthur Kill contract area is mapped below in light gray. The navigation grid is superimposed. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

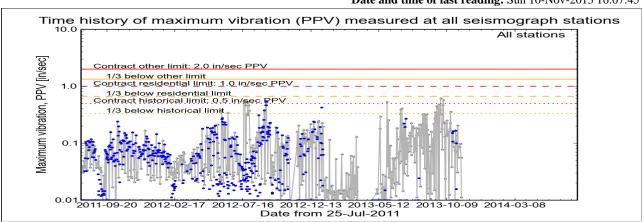
Click station for station information or click channel for event summary.



Latest Event Summary

The graph below is a plot of the maximum vibration recorded by any and all of the numerous seismograph stations during the current observation event (ambient or blast). The horizontal axis gives the date from the start of the project on 25 July 2011. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). The red curves show the project's contract limits; the orange curves show one-third (1/3) below these contract limits. (The light gray curve is ambient-vibration level. The blue dots are blast-vibration levels.)





(Click on graph or here for larger view)

The table below lists the date, time, level, and station of the maximum-vibration recording for each and every event. Selecting an event activates its event page.

Blast ID	Date	Time	Max PPV (in / second)	Max PPV Station
Ambient	Sun 10-Nov-2013	16:07:45	0.0112	NYCT
Ambient	Sat 09-Nov-2013	14:02:36	0.0562	Elizabeth Marina
Ambient	Fri 08-Nov-2013	14:02:36	0.0975	Elizabeth Marina
Ambient	Thu 07-Nov-2013	14:02:33	0.0975	Elizabeth Marina
Ambient	Wed 06-Nov-2013	14:02:33	0.0869	Elizabeth Marina
Ambient	Tue 05-Nov-2013	16:02:34	0.0850	Elizabeth Marina
e	4 <mark>sciences</mark> Earthworks,	LLC 27 Glen Road, Sa	andy Hook, CT 064	82 www.e4sciences.com

1 of 1 11/11/2013 1:26 PM



Home

Event Summary

Stations:

Dredges

History Links

Arthur Kill Blasting Event Summary

This page summarizes measurements of ground vibrations for the selected event. This page displays the maximum vibration recorded at each and every seismograph station during this event.

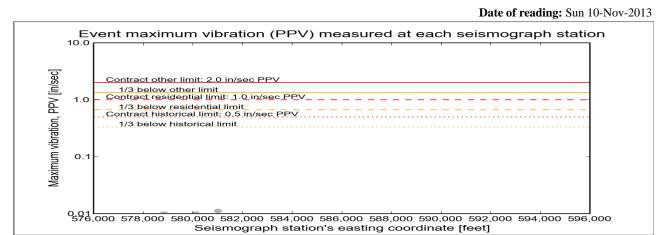
The Arthur Kill contract area is mapped below with a top-of-rock map. Today's dredge locations are marked by colored symbols, connected by colored lines to this week's past locations marked by gray symbols. The drilling and blasting barge location is marked in red. The easting and northing map coordinates in the New Jersey State Plane coordinate system are in yellow. The locations of active seismograph stations are marked by yellow station symbols. (e4sciences stations are circles. CDB stations are triangles.) Selecting a station activates its station page.

Click station for more information about the station.



Selected Event Summary

The graph below plots the maximum vibration during the selected event period (blast or ambient) recorded at each and every seismograph station along the easting positions. The vertical axis gives the maximum vibration in peak particle velocity (PPV) in units of inches per second (in/sec). If the maximum vibration level at a station is below 0.01 in/sec, the marker is a v-shaped triangle at 0.01 in/sec. (Light-gray stems indicate ambientvibration level. Black stems indicate blast-vibration level. Dark-gray stems indicate predicted blast-vibration level.)



(Click on graph or here for larger view)

The table below lists the date, time, and level of the maximum-vibration recording at each station for the selected event.

Station	Date	Time	Max PPV (in / second)	Vibration Type
Elizabeth Marina - e4s010	Sun 10-Nov-2013	16:47:33	0.00937	Ambient
Elizabeth Port - e4s009	Sun 10-Nov-2013	16:47:33	0.00937	Ambient
NYCT - e4s008	Sun 10-Nov-2013	16:07:45	0.0112	Ambient

e4sciences | Earthworks, LLC 27 Glen Road, Sandy Hook, CT 06482

1 of 1 11/11/2013 1:32 PM