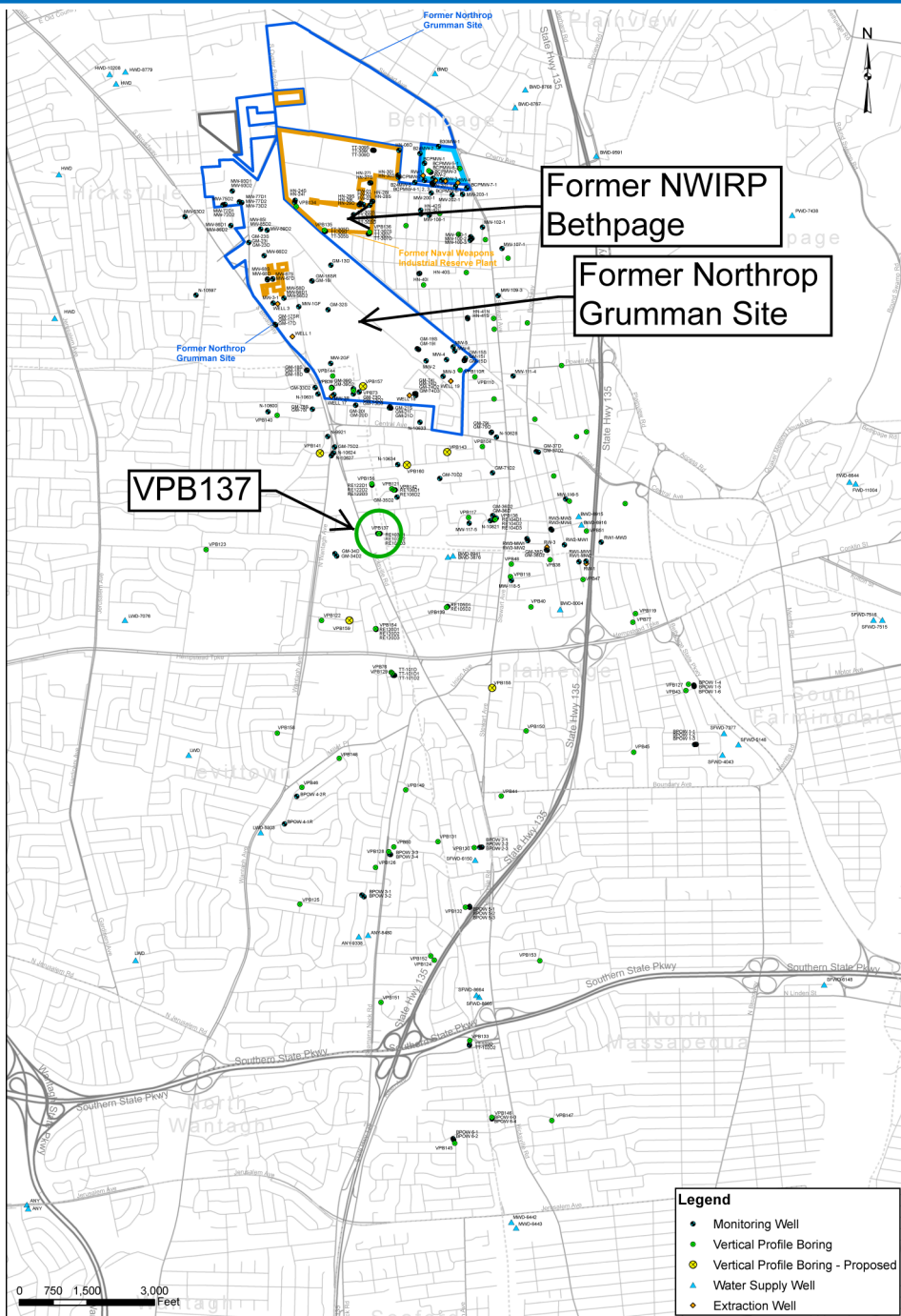


Vertical Profile Boring Installation Summary
Installed December 2012

Historic storage and/or disposal practices at the former **Naval Weapons Industrial Reserve Plant Bethpage (NWIRP Bethpage)** and adjacent former Northrop Grumman properties resulted in groundwater contamination in the local area. Over the last several decades, **volatile organic compounds (VOCs)** that originated from these facilities have moved into the groundwater and off-property with the groundwater flow. The contamination has generally moved to the south while sinking downward to greater depths.

The Navy estimates the VOC contamination covers approximately 3,000 acres, but it is not distributed evenly throughout the area. Instead of a single, contiguous plume, there are multiple widely dispersed plumes or "fingers", meaning VOCs are present in the groundwater at different concentrations and different depths in different areas.

The Navy is conducting a groundwater investigation that includes the installation of **vertical profile borings (VPB)** to gather more information on the location, depth, and concentration of contaminants in the groundwater plume. Installation of a VPB involves drilling a deep hole (up to approximately 1,000 feet below ground surface [bgs]) and taking samples of the groundwater at various depths. One to three permanent monitoring wells are typically installed adjacent to the VPB hole, and the depth of the well(s) is determined based on the results of the sampling conducted during the VPB installation.



Please note the VPB investigation is sampling raw groundwater, meaning it has not been treated to remove contaminants. Raw groundwater is not what is distributed by the water districts to the public. All water distributed by the water districts is collected from their own water supply wells, and is regularly tested and treated by the districts to ensure a safe water supply.

Vertical Profile Boring Installation Summary

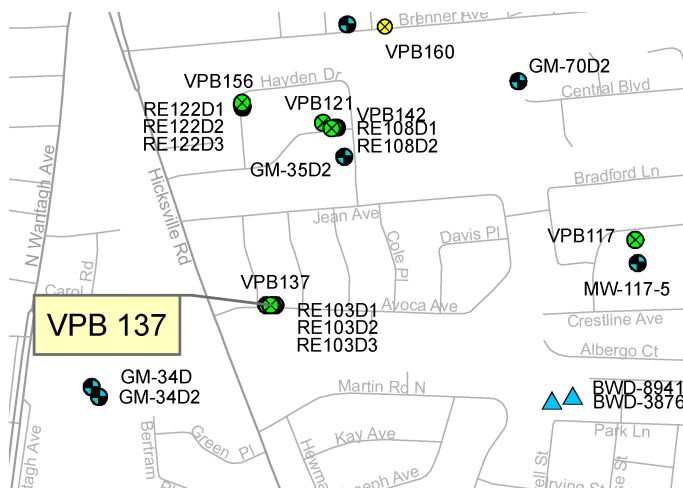
Installed December 2012

The VPB137 investigation focused on **Trichloroethene (TCE)** and **Tetrachloroethene (PCE)**, which are two primary VOCs in the NWIRP Bethpage groundwater contamination. The groundwater results were compared with **Maximum Contaminant Levels (MCLs)**, which are used by the New York State Department of Health for determining when water is safe for distribution. The MCL for both TCE and PCE is 5 micrograms per liter (ug/L) or parts per billion.

VPB137 Investigation Summary

- VPB137 was completed between November 6, 2012 and December 18, 2012;
- The final boring was 890 feet (ft) deep and reached the Raritan Clay below the Magothy Aquifer;
- 30 groundwater screening samples were collected at different depths;
- The table contains TCE and PCE levels; **bolding indicates an exceedance of the NYSDEC MCL**. ND denotes there were no detections in the sample.

Three permanent wells were installed at VPB137 (RE103D1, RE103D2 and RE103D3) between January and February, 2013 and are monitored quarterly as part of the Navy's Environmental Restoration Program. Results of monitoring will be discussed at the RAB meetings and will be available on-line at the information repository website for review.



Depth interval (ft bgs)	TCE (ug/L)	PCE (ug/L)
58 - 60 ft	ND	ND
98 - 100 ft	ND	ND
158 - 160 ft	0.90	ND
198 - 200 ft	ND	ND
218 - 220 ft	0.54	ND
238 - 240 ft	3.9	0.76
258 - 260 ft	3.6	1.5
318 - 320 ft	4.5	ND
328 - 330 ft	0.45	ND
358 - 360 ft	0.94	ND
388 - 390 ft	3.2	ND
398 - 400 ft	16	2.2
418 - 420 ft	11	ND
438 - 440 ft	13	1.4
468 - 470 ft	21	1.4
478 - 480 ft	27	2.5
498 - 500 ft	12	2.8
520 - 522 ft	22	1.4
538 - 540 ft	330	2.4
558 - 560 ft	1100	1.4
580 - 582 ft	520	2.0
598 - 600 ft	1700	5.8
648 - 650 ft	280	0.51
668 - 670 ft	1800	4.3
693 - 695 ft	400	0.47
698 - 700 ft	11	ND
718 - 720 ft	0.57	ND
738 - 740 ft	1.6	ND
763 - 765 ft	ND	ND
838 - 840 ft	ND	ND

FOR MORE INFORMATION

Copies of all official environmental program documents are available for review at an information repository located at Bethpage Public Library, 47 Powell Avenue, Bethpage, NY 11714 (514)931-3907.

Additional information on the NWIRP Bethpage Environmental Restoration Program is available online at <http://go.usa.gov/DyXF> or by contacting: Public Affairs, NAVFAC Mid-Atlantic, 9324 Virginia Ave, Norfolk VA 23511-3095, 757-341-1411.