AECOM Environment

Prepared for:
Superfund Standby Program
NYSDEC
Albany, NY

Prepared by:
AECOM
Chestnut Ridge, NY
60277021
April 2013

2012 Periodic Review Report
Dzus Fasteners Site, Site #1-52-033
Work Assignment No. D007626-17

Final

2012 Periodic Review Report
Dzus Fasteners Site, Site #1-52-033
Work Assignment No. D007626-17

Final

Engineering Certification

I, Scott A. Underhill, certify that I am currently a NYS registered professional engineer and that this Periodic Review Report for the Dzus Fasteners Site (Site Number # 1-52-033) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Respectfully submitted,

AECOM Technical Services Northeast, Inc.

April 10, 2013

Scott Underhill
Registered Professional Engineer
New York License No. 075332

Date

Contents

List of Tables

List of Figures

List of Appendices

Executive Summary

AECOM Technical Services Northeast, Inc (AECOM) has prepared this Periodic Review Report (PRR) for the Dzus Fasteners Site (the Site) in West Islip, Suffolk County, NY (Figure 1). The period of review for this report is November 2011 to December 2012.

The Dzus Fastener facility was used to manufacturer fasteners and springs from 1932 to the present. Discharge of oils, heavy metals and salts via on-site leaching pools led to the contamination of soil, groundwater, and nearby surface waters and sediment in Willetts Creek and Lake Capri. An initial site inspection took place in August 1983. Contamination was discovered later in August 1983 and a preliminary site assessment was completed in September 1984. A phase I investigation was completed and a phase II investigation was submitted by Dzus in August of 1990. The primary contaminant of concern at the Site, and in Willetts Creek and Lake Capri, is cadmium. Dzus completed an Interim Remedial Measure (IRM) in October 1990. During the IRM a leach field on the eastern side of the site was removed. A remedial investigation / feasibility study (RI/FS) was initiated on the site in 1992. The site was then broken up into the two Operable Units (OU1: the Dzus facility; and OU2: the offsite localities including Willetts Creek and Lake Capri). A Record of Decision (ROD) for OU1 was issued for the site in March 1995, and a ROD for OU2 was issued for the site in October 1997. In response to the ROD for OU1, the remedy for contaminated groundwater in the vicinity of the Dzus facility consisted of source removal and ongoing natural attenuation. An asphalt cover at the eastern parking lot at the Dzus manufacturing facility was constructed to eliminate the potential for direct human contact with the underlying contaminated soils at the site, and to eliminate or reduce the mobility of soil contaminants that would cause further groundwater degradation. In response to the ROD for OU2, Lake Capri and a portion of Willetts Creek were dredged in 1999 and riprap was used to cover portions identified as having deeper zones of contamination in order to prevent future erosion.

In accordance with the remedial design, the fish population of Lake Capri was eradicated using Rotenone, a NYSDEC approved fish eradicant, in July 1999. In 2000 after completion of the remedial activities, the lake was restocked with silversides; bluegill, *Lepomis macrochirus*; and largemouth bass, *Microptera salmoides*.

The periodic review (PR) process is used for determining if a remedy continues to be properly managed, as set forth in the ROD and continues to be protective of human health and the environment. The results of PR have lead to the determination that the site is in general compliance with the applicable requirements as presented in the ROD.

Conclusions

Site Maintenance: Groundwater monitoring well MW-1 could not be located. The asphalt cover located at the Dzus Fasteners Facility currently has vegetation growing through cracks in the pavement. The current maintenance status of the riprap in Willetts Creek and Lake Capri is

unknown. The LTMP laid out guidelines for monitoring the riprap but there are no written records of its condition and maintenance.

- Groundwater: The only metal of concern found consistently in off-site wells above the Class GA criteria is cadmium. The majority of the exceedances are concentrated along the eastern side of the Site. Concentrations of iron, manganese, and sodium have exceeded the criterion in numerous wells but these compounds are typically found in groundwater on Long Island and are most likely representative of background conditions and not Site-related.
- Surface Water: Seven metals have been detected at concentrations above their Class A Surface Water criteria including antimony, cadmium, iron, manganese, selenium, sodium and thallium. Cadmium concentrations did not exceed the criterion in any of the surface water samples during the September 2012 sampling event. Antimony, iron, manganese, sodium concentrations do not appear to be Site related. Selenium and thallium have not been detected in the past two sampling rounds.
- Sediments**:** The sediment sample data indicate that the surficial sediments in Lake Capri and Willetts Creek remain contaminated with metals concentrations above the applicable NYSDEC Technical Guidance for Sediment Criteria. Copper, lead and several other metals (i.e., antimony, arsenic, chromium, iron, manganese, mercury, nickel, and zinc) have been detected sporadically at concentrations exceeding the criteria during the five sampling events.
- Fish Tissue: Fish samples collected were well below the target of 80 samples of at least 100 g and as a consequence, most samples consisted of numerous small fish. Fish size and numbers were inadequate for the assessment of cadmium contamination of fish tissues.

Recommendations

- Locate the damaged/destroyed monitoring well MW-1 and assess conditions.
- Establish the inspection protocol of the asphalt cover at the Dzus Fasteners facility.
- Perform an evaluation of the riprap erosion controls currently in place in Willetts Creek and in Lake Capri.
- Continue sampling on a five-quarter basis.
- Re-evaluate the current fish sampling protocol.
- Remove cyanide from the list of chemical analyses.
- The extent of elevated cadmium concentrations in sediments from Willetts Creek and Lake Capri needs to be assessed.
- Prepare a Site Management Plan (SMP).
- Perform five-year periodic review of the Site in 2016.

1.0 Introduction

1.1 Site History and Remedial Program

The Dzus Fastener Manufacturing Facility (Site) is located at 425 Union Boulevard in West Islip, Suffolk County, New York (Figure 1). The Dzus Fastener facility, a manufacturer of fastener and springs since 1932, was responsible for the release of oils, heavy metals, and salts via onsite leaching pools used for the disposal of hazardous waste and former discharge into Upper Willetts Creek, located immediately east of the facility. These operations led to soil and groundwater contamination at the Dzus facility and downstream groundwater, sediment, and surface water contamination of nearby Willetts Creek and Lake Capri, an eight-acre man-made lake.

An Interim Remedial Measure (IRM) conducted in 1991 resulted in removal of a leach pool at the eastern side of the Site. The project was divided into two operable units. Operable Unit 1 (OU1) consisted of the manufacturing facility itself. A Record of Decision (ROD) for OU1 was issued for the Site by New York State Department of Environmental Conservation (NYSDEC) in March 1995. The selected remedy consisted of the following:

- In-situ stabilization/solidification for soils containing cadmium at concentrations greater than 10 parts per million (ppm). Three areas on the western portion of the facility were excavated and mixed with the soils to be treated on the eastern portion of the Site;
- Design and installation of a final topsoil/asphalt cover at the eastern portion of the Site, which would protect the treatment cells from erosion;
- Implementation of institutional controls, such as deed restrictions at the Site.

The second operable unit, Operable Unit 2 (OU2) consisted of offsite contamination, including sediment and water contamination of Willetts Creek and Lake Capri. A ROD for OU2 was issued for the Site by NYSDEC in October 1997. The selected remedy consisted of the following:

- Dredging, dewatering and off-site disposal of contaminated sediments from Lake Capri;
- Excavation and off-site disposal of approximately 100 cubic yards of sediment from Willetts Creek, corresponding to levels of cadmium exceeding 9 ppm;
- A long-term monitoring program to evaluate the effectiveness of the on-site remedy and to verify that existing groundwater plume does not impact public health or environment.

An Operation, Maintenance and Monitoring (OM&M) program for the Site was based on NYSDEC Draft DER-10 – Technical Guidance for Site Investigation and Remediation (December 2002). As part of the OM&M, a long-term monitoring plan (LTMP) was developed for OU1 and OU2 with regard to monitoring of groundwater, surface water, sediment, and the asphalt cover (engineering control) in the manufacturing facility's eastern parking lot. The Final Sampling and Analysis Plan (SAP), dated June 2007, outlines the most recent sample collection procedures.

The primary contaminant of concern at the Site is cadmium, but several other metals including antimony, arsenic, chromium, iron, lead, manganese, sodium, and thallium have been found in exceedance of published standards in soil and groundwater at the Dzus facility and in the water and sediments of nearby Willetts Creek and Lake Capri.

1.2 Remedy Evaluation and Recommendations Summary

In summary, this Periodic Review Report (PRR) is intended to evaluate the ongoing management of the selected remedial program for OU1 and OU2, as designed. Based on information reviewed as part of this PRR, implementation of investigation and maintenance activities is required in order to ensure that the remedy is performing properly and effectively, and is protective of public health and the environment.

In order to return to compliance with the requirements presented in the ROD and OM&M program, a summary of recommended investigation and maintenance activities is provided below. Details with regard to these recommendations are also provided in Section 5.0 of this Report.

- Continue sampling on a five-quarter basis in order to better evaluate temporal trends for cadmium and other metals found in exceedance of the NYSDEC groundwater, surface water, and sediment criteria.
- Monitoring results of sediment sampling of Willetts Creek indicate that cadmium concentrations continue to exceed the cleanup goal of 9 mg/kg. It is AECOM's recommendation to re-sample the length of Willetts Creek to determine if the current sampling locations are appropriate and sufficient for characterizing the long-term effectiveness of remedial actions.
- Sediment monitoring results of Lake Capri also indicate exceedances of the 9 mg/kg cleanup goal. AECOM recommends re-sampling the lake to determine if hotspots are present and to evaluate current sampling locations.
- Re-evaluate the current fish sampling protocol. Currently, Lake Capri does not provide fish of sufficient number or of sufficient size to meet the SAP requirements for fish tissue sampling. Other options for obtaining accurate cadmium levels in edible sized fish should be considered (e.g., towed gill nets or a more robust trapping program). Also evaluate whether the restocking program was successful in reestablishing a large healthy fishy population in Lake Capri. The current NYSDOH fish advisory applies only to carp. Several rounds of fish collection have failed to capture any carp. NYSDOH should consider revising the fish advisory to include other species.
- Re-evaluate the need to include cyanide on the analyte list for future sampling events based on the contaminants of concern indentified in the ROD for OU1 and OU2.
- Locate damaged or destroyed monitoring wells MW-1 and MW-17 and either repair or properly abandon the wells. If either well is abandoned, a replacement well should be considered.
- Establish the inspection protocol of the asphalt cover at the Dzus Fasteners facility. The evaluation can be completed and reported along with the sampling program on a five-quarter basis.

- Perform an evaluation of the riprap erosion controls currently in place in Willetts Creek and in Lake Capri. The evaluation can be completed along with the re-sampling effort in the creek and lake scheduled for 2013.
- Evaluate the implemented remedies' effectiveness towards moving the Site to closure.
- Perform annual, desktop periodic reviews of the Site.

Total annual costs for completion of all the required monitoring is approximately $25,000, based on costs incurred in calendar year 2011 (this excludes the cost of fish monitoring).

2.0 Site Overview

AECOM has prepared this PRR for the Dzus Fastener Manufacturing Site, located in the Town of West Islip, Suffolk County, New York. This PRR covers the period of November 2011 through December 2012. This work was performed for the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment D004445-14.3 of AECOM's Superfund Standby Contract with NYSDEC. The NYSDEC has assigned the Site the ID No. 1-52-033 on the NYSDEC's registry of inactive hazardous waste sites. Dzus Fastener is a Class 4 site. A Class 4 site is a site that has been remediated but requires continued OM&M.

2.1 Objectives of the Periodic Review

The periodic review process is used for determining if a remedy continues to be properly managed as set forth in the guidance documents for the Site, and is protective of human health and the environment. The objectives of the periodic review for sites in the State Superfund Program are as follows:

- Determine if the remedy remains in place, is performing properly and effectively, and is protective of public health and the environment;
- Evaluate compliance with the decision document(s) and the SMP;
- Evaluate the condition of the remedy;
- Verify, if appropriate, that the intent of Institutional Controls (IC) continues to be met, and that Engineering Controls (EC) remain in place, are effective and protective of public health and the environment;
- Evaluate the implemented remedies' effectiveness towards moving the Site to closure; and,
- Evaluate costs.

2.2 Remedial History

The Dzus Fasteners facility was used to manufacture fasteners and springs from 1932 to the present. Discharge of oils, heavy metals and salts via onsite leaching pools led to the contamination of soil, groundwater, and nearby surface waters and sediment. The principal containment of concern is cadmium, reported as high as 1,100 parts per billion (ppb) during groundwater sampling in 1998, and in the Lake Capri and upper Willetts Creek sediments at maximum concentrations of 407 parts per million (ppm). Other constituents, such as chromium and cyanide in groundwater, and zinc, iron and lead in surface water, were also present, but at frequencies and concentrations of lesser environmental concern. Of the 36 groundwater wells identified in the 1998 Pre-Design Investigation (PDI), 14 are currently used for groundwater monitoring (one of the wells used for monitoring was damaged between the 2007 and 2008 sampling events), eight have been covered over or abandoned, two were not found, and 12 are not currently a part of the regular monitoring at the Dzus facility. Due

to contamination in Lake Capri and Willetts Creek, limits were placed on consumption of fish species from the lake to no greater than one meal per month.

The initial site inspection took place in August 1983. The contamination was discovered later in August 1983 and the preliminary site assessment was completed in September 1984. A Phase I investigation was completed and a Phase II investigation was submitted by Dzus in August of 1990. Dzus then completed an Interim Remedial Measure (IRM) in October 1990. During the IRM a leach field on the eastern side of the site was removed. A remedial investigation / feasibility study (RI/FS) was initiated on the site in 1992. The site was then broken up into the two Operable Units: OU1, the Dzus facility; and OU2, the offsite localities including Willetts Creek and Lake Capri. A ROD for OU1 was issued for the site in March 1995. The remedial goals as specified in the OU1 ROD are as follows (NYSDEC, 1995):

Eliminate the potential for direct human contact with the contaminated soils at the site;

- Eliminate or reduce the mobility of contaminants in on-site soils that would cause further groundwater contamination; and,
- Eliminate the hazardous wastes on-site or treat them to render them as non-hazardous.

The remedy for contaminated groundwater in the vicinity of the Dzus facility consisted of source removal and ongoing natural attenuation. The remedy for contaminated soils at the Site (OU1), included solidification of on-site soils containing greater than 10 ppm cadmium which was completed in 1996. An asphalt cover at the eastern parking lot at the Dzus manufacturing facility was constructed to eliminate the potential for direct human contact with the underlying contaminated soils at the site, and to eliminate or reduce the mobility of soil contaminants that would cause further groundwater degradation.

A ROD for OU2 was issued for the site in October 1997. The remedial goals are as follows:

- Manage contaminated groundwater to prevent human exposure and to minimize impacts to the environment;
- Reduce cadmium concentrations in sediments to levels that are protective of human health and the environment; and,
- Eliminate the potential for direct human or animal contact with contaminated sediments.

In response to the ROD for OU2, Lake Capri and a portion of Willetts Creek were dredged in 1999 and riprap was used to cover portions identified as having deeper zones of contamination in order to prevent future erosion. Per the remedial design, fish population was eradicated from Lake Capri. Following the remedial measures for OU1 and OU2, the long term monitoring plan (LTMP) was developed in 2000. The Final Sampling and Analysis Plan (SAP) dated June 2007 is the most recent document outlining sampling procedures. Groundwater, surface water, and sediment sampling was completed in 2006, 2007, 2008, 2010, 2011 and 2012. Fish Tissue sampling was completed in 2006, 2007, 2010 and 2012. Below is a detailed description of remedial activities implemented at OU2.

Willetts Creek

Blue Water Environmental, Inc. (BWE) of Farmingdale, Long Island, New York, was the contractor who performed the dredging. BWE mechanically excavated impacted portions of Willetts Creek using a low ground pressure excavator and transporting excavated sediments directly to roll-offs. Water within the creek was controlled using isolation pumps.

Post excavation sampling and analysis were conducted after dredging of an area was complete to determine if the Willetts Creek target cleanup level of 9 mg/kg cadmium had been reached. The sampling results are provided in Appendix B and Figure 1A. They largely confirmed successful removal of targeted sediments for the excavated portions of Willetts Creek with the exception of the northern region (Earth Tech, 2000a). With approval from NYSDEC further remediation to that region involved placement of a non-woven geo-textile, 2-inch minus stone and 4 to 6-inch riprap to serve as an erosion barrier.

Lake Capri

Lake Capri, including the 0.25 acre lagoon in the northwest corner of the lake, was dredged using hydraulic dredging methods where possible, and mechanical excavation where the minimum draft of the dredge could not be met, and where maneuverability of the dredge was hampered by obstacles or debris. The east shoreline, north shoreline and the lagoon were mechanically excavated as well as regions around a small island in the northern part of the lake. The Design Analysis Report (DAR) estimated that approximately 19,000 cubic yards (cy) of sediment would be removed from Lake Capri and the lagoon. Actual sediments removed were approximately 17,095 cy, estimated from comparison of pre- and post-excavation hydrographic surveys. A model SP 920 Mudcat dredge was deployed in Lake Capri using an 8-inch diameter cutter head attachment and 100 hp booster pump for conveying the dredge slurry to the processing facility setup in the nearby high school parking lot.

Post excavation sampling and analysis were conducted for Lake Capri following the dredging to ensure removal of contaminated sediment. Additional excavation was performed in the areas which still contained variable amounts of cadmium-contaminated sediments to reach a set-up goal of 1 mg/kg of cadmium. The sampling results are provided in Appendix B

Sediments removed by mechanical or hydraulic dredge were sampled on a per load basis for total and/or TCLP cadmium for waste classification, and processed and disposed offsite in a manner complying with a NYSDEC Research, Design and Development (RD&D) permit allowing BWE to mix/process Lake Capri sediments. All the waste material from the Site was classified as non-hazardous. The resultant material was deemed a “beneficial use” under the permit specifications. The liquid portion of the dredged material was processed in a temporary water treatment system. Treated effluent was discharged back in to the lake under NYSDEC authorized State Pollutant Discharge Elimination System (SPDES) permit limits. Both the liquid and solid treatment procedures and treatment system parameters are described in the Construction Certification Report (October 2000).

Per the remediation design, in July 1999 the fish population of Lake Capri was eradicated using a concentration of 20 milligrams per liter (mg/L) of Rotenone, a NYSDEC approved fish eradicant. 5,800 pounds of fish carcasses were removed via netting and collected in a vacuum truck for transport and disposal. In 2000 after completion of the remedial activities, the lake was restocked with silversides, bluegill (*Lepomis macrochirus*) and largemouth bass (*Microptera salmoides)*.

3.0 Evaluate Remedy Performance, Effectiveness, and Protectiveness

A SAP (Earth Tech, 2007a) and Project Management Plan (Earth Tech, February 2007b) were developed under a previous work assignment (D004445-14). The SAP outlines the following activities on a five-quarter basis:

- Monitoring well inspection: Inspect the 14 monitoring wells designated for groundwater sampling and complete the NYSDEC Monitoring Well Field Inspection Log for each. Obsolete and damaged wells need to be properly abandoned.
- Groundwater monitoring: 14 wells are designated for periodic groundwater sampling and analysis of target analyte list (TAL) metals (Figure 2).
- Surface water monitoring: surface water sampling at six locations, two from Willetts Creek and four from Lake Capri (Figure 2) and analyzed for TAL metals.
- Sediment monitoring: sediment sampling at six designated locations co-located with the surface water samples (Figure 2) and analyzed for TAL metals.
- Fish tissue sampling: collect fish tissue samples at the north and south ends of Lake Capri (Figure 2).

3.1 Operation and Maintenance Plan Compliance Report

The current operation and monitoring (O&M) program at the Site consists of groundwater monitoring well inspection and repair.

3.1.1 O&M Plan Compliance

The following summarizes operation and maintenance activities undertaken at the Site from 2006 through 2012:

Activity	Required Frequency (X)			Compliance Dates
	Annually	Five-Quarter	As needed	
Groundwater Monitoring Well Inspection and Maintenance		X		2006, 2007, 2008, 2010, 2011 and 2012

3.1.2 Evaluation of O&M Activities

Logs of monitoring well inspections have been submitted to NYSDEC as part of periodic groundwater sampling reports (Earth Tech, 2006, 2007, 2009 and AECOM, 2010, 2011 and 2012). Monitoring well

MW-1 was destroyed and therefore was not sampled in 2008, 2010 or 2011. A site visit of AECOM personnel on August 22, 2012 (Appendix C) to the Dzus Fasteners facility revealed that vegetation was growing within cracks in the asphalt cover. Regular inspection of the asphalt cover and rip rap is needed to ensure proper protection of human health and wildlife; this is currently not included in the SAP.

3.2 Monitoring Plan Compliance Report

The Final Project Management Plan (Earth Tech, February 2007a) and Final SAP (Earth Tech, 2007b) are referenced as the Site guidance documents. This PRR assesses whether the site has been managed as set forth in these documents. To date, six sampling events (groundwater, surface water and sediment) have been conducted at the Site and four rounds of fish tissue samples have been collected. Analysis performed during each sampling event included TAL metal analysis for groundwater, sediment, surface water, and cadmium analysis for fish tissue sampling. Three recent reports outline the data analysis and results for the Site and nearby Willetts Creek and Lake Capri. Data reports were finalized in 2006, 2007, 2009, 2010, 2011 and 2012. The August/September 2012 sampling event reports for groundwater, surface water, sediment are currently in review.

The current monitoring program is as follows:

- Water levels measurements are collected from all Site monitoring wells on a five quarter basis;
- Groundwater sampling is conducted from 14 monitoring wells on a five-quarter basis and analyzed for TAL metals. During the 2011 and 2012 sampling events, both filtered and unfiltered metals samples were collected; however, this is not part of the long-term monitoring program. The 14 monitoring wells are MW-1, MW-2, MW-3, MW-9, MW-9B, MW-13A, MW-13B, MW-15A, MW-15B, MW-18, MW-22A, MW-22B, MW-23A, and MW-23B. Field measurements of temperature, pH, conductivity, oxygen reduction potential, dissolved oxygen and turbidity are recorded during each sampling event;
- Sediment and surface water sampling is conducted on a five quarter basis and analyzed for TAL metals;
- Fish samples are currently collected on a five quarter basis and analyzed for cadmium. Fish sampling was suspended by NYSDEC during the 2008 sampling event but restarted in 2010; and,
- Preparation of sampling reports that summarize analytical results of each sampling round;

In June 2006, August 2007, November 2008, March 2010, May 2011 and August 2012, AECOM conducted sampling events at the Dzus Fastener facility, Willetts Creek, and Lake Capri. Sampling for 2006 was directed in accordance with the SAP prepared by Earth Tech, dated April 2006. On June 8, 2006, Earth Tech (now AECOM) conducted groundwater sampling at the following wells: MW-1, MW-2, MW-3, MW-9, MW-9B, MW-13A, MW-13B, MW-15A, MW-15B, MW-18, MW-22A, MW-22B, MW-23A, and MW-23B. A summary of well construction data is presented in Table 1. Groundwater samples were analyzed for TAL metals. Prior to sampling, a synoptic round of water

level measurements was collected from the 14 selected monitoring wells. The locations of the wells are shown on Figure 2**.** On June 21, 2006, sediment and surface water samples were collected at six co-located locations and analyzed for TAL metals. These sampling locations are also shown on Figure 2. Fish samples were collected from the north and south parts of Lake Capri in July 2006. Fish were collected using electro shocking, gill nets and traps, and analyzed for cadmium on a wet weight basis.

The second round of sampling occurred August 22 and 23, 2007. Water levels and groundwater sampling were conducted on the same 14 wells that were sampled in June 2006. The samples were analyzed for TAL metals. Surface water and sediment sampling took place at the same six co-located locations as in 2006 and were also analyzed for metals. Fish sampling took place on May 10, 2007 and samples were analyzed for cadmium. Fish were collected using electro shocking, traps, and baited lines. Sampling was conducted in accordance with the June 2007 SAP.

The third round of sampling occurred November 11 through 15, 2008. Water levels and groundwater sampling were conducted on the same wells as the two previous years with the exception of MW-1, which was not located and is believed to have been damaged or destroyed by snowplowing. The samples were analyzed for TAL metals; surface water and sediment sampling took place at six co-located locations as in previous years. Based on discussion with NYSDEC, fish monitoring was not conducted due to low number and inadequate size of fish collected during sampling in 2006 and 2007.

The fourth round of groundwater sampling occurred March 9 and 10, 2010. The fourth round of surface water and sediment sampling was conducted on March 4, 2010. Of the 14 monitoring wells identified for long-term sampling, only 12 were sampled in March 2010; MW-1 was destroyed during the winter of 2007/2008, and MW-15B, located in the parking lot of Ace Hardware, was covered by several pallets of mulch and could not be accessed during the sampling event. Groundwater samples were analyzed for TAL metals. Surface water and co-located sediment samples were collected at the same locations as during previous years and were also analyzed for TAL metals. Fish tissue samples were collected on October 13 and 14, 2010. Fish were collected using electroshocking and traps. All sampling was conducted in accordance with the June 2007 SAP.

The fifth round of groundwater sampling occurred on May 25, 2011. The fifth round of surface water and sediment sampling occurred on May 22, 2011. Of the 14 monitoring wells identified for long-term sampling, 13 were sampled in May 2011. MW-1 was destroyed as noted above and was not sampled. In an effort to better understand the metals data collected from monitoring well samples, Round 5 groundwater samples were filtered in the field using 0.45 micron filters and both total and dissolved samples were analyzed for TAL metals. Surface water and co-located sediment samples were collected at the same locations as during previous years and were also analyzed for TAL metals. All sampling was conducted in accordance with the June 2007 SAP.

The sixth round of groundwater sampling occurred in August 2012. The sixth round of surface water and sediment sampling occurred in September 2012. Of the 14 monitoring wells identified for

long-term sampling, 13 were sampled in August 2012. As noted above, MW-1 was destroyed and was not sampled. As during Round 5, groundwater samples were also filtered in the field using 0.45 micron filters and both total and dissolved samples were analyzed for TAL metals. Surface water and co-located sediment samples were collected at the same locations as during previous years and were also analyzed for TAL metals. All sampling was conducted in accordance with the June 2007 SAP. For Round 6 groundwater sampling, NYSDEC requested that all groundwater samples be collected using low-flow techniques. Previous sampling was performed using the volumetric method. A peristaltic pump with dedicated poly tubing was used to purge each well prior to sampling. The flow rate was set to between 200 to 500 milliliters per minute (mL/min). Field measurements of pH, temperature, specific conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP) were collected at five-minute intervals until all parameters were stabilized. Fish tissue samples were collected on September 17, 18 and 19, 2012. Fish were collected using bailed lines, gill nets and traps. All sampling was conducted in accordance with the June 2007 SAP.

3.2.1 Monitoring Plan Compliance Report

The following summarizes monitoring activities at the Site conducted to-date in accordance with the SAP. AECOM conducted sampling events at the Dzus Fastener facility, Willetts Creek, and Lake Capri in June 2006, August 2007, November 2008, March 2010, May 2011 and August 2012:

Activity	Required Frequency (X)	Compliance Dates
	Five Quarter	
Groundwater Monitoring	X	2006-2012
Water Level Monitoring	X	2006-2012
Surface Water Sampling	X	2006-2012
Sediment Sampling	X	2006-2012
Fish Tissue Sampling[1]	X	2006, 2007, 2010, 2012

1 Fish tissue sampling was not conducted in 2008 at the request of NYSDEC due to the small number of fish collected in 2006 and 2007.

Groundwater Level Measurement

Groundwater level measurements from 2006 through 2012 in the 14 monitoring wells (13 in 2008 through 2012) are presented in Table 2. Comparison of the groundwater elevations in the monitoring wells shows that the general groundwater flow direction is towards the south-southwest. A groundwater contour map is presented in Figure 3 and was constructed using data from the August

2012 sampling event. A groundwater hydrograph is shown in Figure 3A. As shown on this figure, the elevations in each well tend to rise and fall in sync.

3.2.2 Confirm that Performance Standards are Being Met

The sections below discuss the results of the groundwater, surface water, sediment, and fish tissue sampling conducted in accordance with the guidance documents and provide a summary of the results.

Groundwater

Fourteen monitoring wells are included in the long term monitoring plan: MW-1, MW-2, MW-3, MW-9, MW-9B, MW-13A, MW-13B, MW-15A, MW-15B, MW-18, MW-22A, MW-22B, MW-23A, and MW-23B and are shown on Figure 2. Laboratory analytical results for the TAL metal analyses have been provided in the groundwater monitoring reports in for the four sampling events that occurred in 2006, 2007, 2008, 2010, 2011 and 2012. The summary of groundwater results for these sampling events is presented in Table 3. A summary of groundwater results is presented in Figure 4.

Ten metals have been detected at concentrations above their Class GA criteria at least once during the six rounds of groundwater sampling at the Site. These metals include antimony, arsenic, cadmium, chromium, iron, lead, manganese, selenium, sodium, and thallium. Out of these metals, only antimony, cadmium, chromium, iron, manganese, sodium and thallium were detected at concentrations above Class GA criteria in August 2012.

Antimony – Class GA criterion of 3 µg/L

June 2006 – Detected in four of 14 monitoring wells; one exceedance: 3.2 µg/L at MW-23B.

August 2007 – Detected in four of 14 monitoring wells; four exceedances: maximum 7.3 µg/L in MW-2.

November 2008 – Detected in one of 13 monitoring wells; one exceedance: 5.1 µg/L in MW-18.

March 2010 – Detected in seven of 12 monitoring wells; seven exceedances: maximum of 13 in MW-22A.

May 2011 – Not detected in any of the 13 filtered or unfiltered monitoring well samples.

August 2012 – Detected in two of 13 unfiltered monitoring well samples; two exceedances: maximum of 10.7 µg/L in MW-3. Not detected in any of the 13 filtered monitoring well samples.

Arsenic – Class GA criterion of 25 µg/L

June 2006 – Detected in nine of 14 monitoring wells; one exceedance: 32.6 µg/L in MW-9.

August 2007 – Detected in five of 14 monitoring wells; no exceedances.

November 2008 – Detected in two of 13 monitoring wells; no exceedances.

March 2010 – Detected in seven of 12 monitoring wells; no exceedances.

May 2011 – Detected in 7 of 13 unfiltered samples and 5 of 13 filtered samples. No exceedances.

August 2012 – Not detected in any of the 13 unfiltered or filtered monitoring well samples.

Cadmium – Class GA criterion of 5 µg/L

June 2006 – Detected in all 14 monitoring wells; ten exceedances: maximum of 320 µg/L at MW-23B.

August 2007 – Detected in all 14 monitoring wells; ten exceedances: maximum 702 µg/L in MW-23A.

November 2008 – Detected in all 13 monitoring wells: eight exceedances: maximum of 1,080 µg/L in MW-23A.

March 2010 – Detected in 12 of 13 monitoring wells; nine exceedances: maximum of 704 µg/L in MW-23A.

May 2011 – Detected in nine of 13 unfiltered samples; seven exceedances: maximum of 924 µg/L in MW-23A. Detected in six of 13 filtered samples; six exceedances, maximum of 13.1 µg/L in MW-3.

August 2012 – Detected in seven of 13 unfiltered samples; five exceedances: maximum of 93.5 µg/L in MW-13A. Detected in seven of 13 filtered samples; four exceedances, maximum of 64.4 µg/L in MW-13A.

Chromium – Class GA criterion of 50 µg/L

June 2006 – Detected in all 14 monitoring wells; two exceedances: maximum 125 µg/L in MW-9.

August 2007 – Detected all 14 monitoring wells; one exceedance: 62.2 µg/L in MW-9.

November 2008 – Detected in five of 13 monitoring wells; no exceedances.

March 2010 – Detected in all 12 monitoring wells; two exceedances: maximum of 62.7 µg/L in MW-9.

May 2011 – Detected in 12 of 13 unfiltered samples; one exceedance in MW-9 at 85.5 µg/L. Detected in five of 13 filtered samples, no exceedances.

August 2012 – detected in ten of 13 unfiltered samples; no exceedances. Detected in eight of 13 filtered samples; no exceedances.

Iron – Class GA criterion of 300 µg/L

June 2006 – Detected in all 14 monitoring wells; 14 exceedances: maximum 70,400 µg/L in MW-22A.

August 2007 – Detected in all 14 monitoring wells; 13 exceedances: maximum of 29,700 µg/L in MW-23A.

November 2008 – Detected in 12 of 13 monitoring wells; eight exceedances: maximum of 23,300 µg/L in MW-2.

March 2010 – Detected in all 12 monitoring wells; ten exceedances: maximum of 61,100 µg/L in MW-22A.

May 2011 – detected in all 13 unfiltered samples; ten exceedances, maximum of 88,900 µg/L in MW-2. Detected in seven of 12 usable filtered samples; six exceedances, maximum of 17,600 µg/L in MW-2. Note that the reported concentration of 36,100 µg/L in MW-23B is not considered usable (see discussion in Section 4.5).

August 2012 - detected in 11 of 13 unfiltered samples; six exceedances: maximum of 3,690 µg/L in MW-13A. Detected in six of 13 filtered samples; four exceedances: maximum of 2,690 µg/L in MW-22A.

Lead – Class GA criterion of 25 µg/L

June 2006 – Detected in ten of 14 monitoring wells; one exceedance: 35.7 µg/L in MW-23B.

August 2007 – Detected in 13 of 14 monitoring wells; no exceedances.

November 2008 – Detected in eight of 13 monitoring wells; no exceedances.

March 2010 – Detected in ten of 12 monitoring wells; one exceedance: 43.9 µg/L in MW-23B.

May 2011 – Detected in five of 23 unfiltered samples, no exceedances. Detected below the criterion in one filtered sample.

August 2012 – Not detected in any of the 13 unfiltered or filtered monitoring well samples.

Manganese – Class GA criterion of 300 µg/L

June 2006 – Detected in all 14 monitoring wells; ten exceedances: maximum 9,560 µg/L in MW-13A.

August 2007 – Detected in all 14 monitoring wells; 11 exceedances: maximum 8,040 µg/L in MW-13A.

November 2008 – Detected in all 13 monitoring wells; seven exceedances: maximum 16,400 µg/L in MW-13A.

March 2010 – Detected in all 12 monitoring wells; nine exceedances: maximum of 33,900 µg/L in MW-13A.

May 2011 – Detected in all 13 unfiltered samples; eight exceedances, maximum of 61,600 µg/L in MW-13A. Detected in nine of 13 filtered samples; four exceedances, maximum of 1,720 µg/L in MW-13A.

August 2012 – Detected in 12 of 13 unfiltered samples; maximum of 6,190 µg/L in MW-13A. Detected in ten of 13 filtered samples; four exceedances: maximum of 3,430 µg/L in MW-13A.

Selenium – Class GA criterion of 10 µg/L

June 2006 – Detected in four of 14 monitoring wells; no exceedances.

August 2007 – Detected in five of 14 monitoring wells; no exceedances.

November 2008 – Not detected in any of the 13 monitoring wells.

March 2010 – Detected in seven of 12 monitoring wells; seven exceedances: maximum 24.3 µg/L in MW-22A.

May 2011 – Not detected in any of the 13 unfiltered or filtered samples.

August 2012 - Not detected in any of the 13 unfiltered or filtered samples.

Sodium – Class GA criterion of 20,000 µg/L

June 2006 – Detected in all 14 monitoring wells; eight exceedances: maximum 95,200 µg/L in MW-22A.

August 2007 – Detected in all 14 monitoring wells; ten exceedances: maximum 77,500 µg/L in MW-13A.

November 2008 – Detected in all 13 monitoring wells; five exceedances: maximum 43,900 µg/L in MW-15B.

March 2010 – Detected in all 12 monitoring wells; six exceedances: maximum 247,000 µg/L in MW-15B.

May 2011 – Detected in all 13 unfiltered samples; seven exceedances, maximum of 100,000 µg/L in MW-22A. Detected in all 13 filtered samples; seven exceedances, maximum of 134,000 µg/L in MW-22A.

August 2012 - Detected in all 13 unfiltered samples; seven exceedances, maximum of 74,100 µg/L in MW-23A. Detected in all 13 filtered samples; seven exceedances, maximum of 73,400 µg/L in MW-23A.

Thallium – Class GA criterion of 0.5 µg/L

June 2006 – Detected in eight of 14 monitoring wells. Eight exceedances: maximum 44 µg/L in MW-13A.

August 2007 – Detected in four of 14 monitoring wells. Four exceedances: maximum 6.3 µg/L in MW-2.

November 2008 – Detected in one of 13 monitoring wells. One exceedance: 11.7 µg/L in MW-13.

March 2010 – Detected in five of 12 monitoring wells. Five exceedances: maximum 88.2 µg/L in MW-13A.

May 2011 – Not detected in any of the 13 unfiltered or filtered samples.

August 2012 – Detected in one of 13 unfiltered samples. One exceedance: 9.2 µg/L in MW-13A. Not detected in any of the 13 filtered samples.

Filtered versus Unfiltered Metals Groundwater Samples

Concentrations of total metals in groundwater samples at the Site tended to be highly variable between sampling events, as did field measurements of turbidity at time of sample collection. Turbidity is typically correlated with the presence of suspended matter (e.g., entrained soil particles in the sample). Therefore, both total metals (unfiltered) and dissolved metals (field filtered) groundwater samples were collected during this sampling event to evaluate the effect of turbidity on the metals concentrations.

The NYSDEC criterion for filtering groundwater samples is provided in DER-10 Section 2.1(g). At the Dzus Fasteners Site, the turbidity was below 50 NTU at the time of sampling in all 13 samples (Table 4). The turbidity was zero NTU in eight samples, and between 27.6 and 41.2 NTU in the other five.

Table 4 presents a comparison of the total metals and the dissolved metals data for the 13 filtered/ unfiltered sample pairs collected at the Dzus Fasteners Site. The "percent dissolved" shown on the table is the ratio of the filtered sample concentration to the total (unfiltered) sample concentration. Where a metal was not detected in the filtered sample, no calculation was made.

Concentrations of total metals tended to be higher in the more turbid samples though this was not consistently the case. Overall, no clear relationship between turbidity (ranging from 0 to 41.25 NTUs) and total metals concentrations could be developed.

For samples with low turbidity, only small differences between the total metals and dissolved metals concentrations was observed (MW-3, MW-13, MW-15, Mw-18, and MW-22 all had less than 5 NTUs with no detectable aluminum in either unfiltered or filtered), with only MW-2 having detectable concentration of aluminum (328 µg/L) with a turbidity of 0 NTU. As expected, wells with higher turbidities had consistently lower concentrations of metals associated with particles in the filtered samples. The only exceptions were metals detected at concentrations below the contract required reporting limit (nickel in samples MW-9, MW-13A, and MW-15B, and zinc in MW-15B).

As expected, concentrations of metals that typically exist primarily in the dissolved phase (sodium, potassium, and calcium) were generally similar in the filtered and unfiltered samples, regardless of the sample turbidity.

Surface Water Analytical

Six surface water samples were collected from Lake Capri and Willetts Creek at the locations shown on Figure 2. A summary of the detections is presented in Table 5. The results were compared to the NYSDEC Class A surface water criteria. A summary of the exceedances is presented on Figure 5. Detections and criteria exceedances for the six sampling events are summarized below. During the September 2012 sampling, manganese and sodium exceeded surface water criteria at all locations, and iron exceeded the criterion at SW-5 and SW-6, the two Willetts Creek sampling locations.

Surface water sample SW-1 was collected on the north end of Lake Capri near the mouth of Willetts Creek. Four metals, including antimony, iron, manganese and sodium, were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Antimony was only detected in the Round 3 sample at a concentration of 6 µg/L, which exceeded the Class A criterion of 3 µg/L.
- Iron was detected in all six samples at concentrations ranging from 172 µg/L to 738 µg/L, five of which exceeded the Class A criterion of 300 µg/L.
- Manganese was detected in all six samples at concentrations ranging from 552 µg/L to 1,610 µg/L, all of which exceeded the criterion of 300 µg/L.
- Sodium detected in all six samples but only exceeded the criterion of 20,000 µg/L during event 4 and 6 (22,500 µg/L and 24,600 µg/L).
- **September 2012 sampling event: exceedances of manganese and sodium.**

Surface water sample SW-2 was collected on the north end of Lake Capri near the mouth of Willetts Creek (south of SW-1). Five metals, including antimony, iron, manganese, sodium and thallium, were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Antimony was only detected during Round 4 at a concentration of 5.7 µg/L which exceeded the Class A criterion of 3 µg/L.
- Iron was detected in all six samples at concentrations ranging from 176 µg/L to 819 µg/L, five of which exceeded the Class A criterion of 300 µg/L.
- Manganese was detected in all six samples at concentrations ranging from 564 µg/L to 1,560 µg/L, all of which exceeded the criterion of 300 µg/L.
- Sodium was detected in all six samples but only exceeded the 20,000 µg/L criterion during the Round 4 and 6 sampling events (22,000 µg/L and 23,800 µg/L).
- Thallium was only detected during Round 4 at a concentration of 7.2 µg/L which exceeded the criterion of 0.5 µg/L.
- **September 2012 sampling event: exceedances of manganese and sodium.**

Surface water sample SW-3 was collected on the south end of Lake Capri just west of the spillway. Five metals, including antimony, iron, manganese, sodium and thallium were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Antimony was only detected during Round 4 at a concentration 7.2 µg/L which exceeded the criterion of 3 µg/L.
- Iron was detected in all six samples at concentrations ranging from 144 µg/L to 788 µg/L, four of which exceeded the Class A criterion of 300 µg/L.
- Manganese was detected in all six samples at concentrations ranging from 73.9 µg/L to 1,790 µg/L, five of which (all except Round 2) exceed the criterion of 300 µg/L.
- Sodium was detected during all six sampling events but only exceeded the 20,000 µg/L criterion during the Rounds 4 and 6 (23,300 µg/L and 23,500 µg/L).
- Thallium was only detected during Round 4 at a concentration of 5.9 µg/L which exceeded the criterion of 0.5 µg/L.
- **September 2012 sampling event: exceedances of manganese and sodium.**

Surface water sample SW-4 was collected on the south end of Lake Capri just east of the spillway. Three metals, including iron, manganese and sodium were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Iron was detected in all six samples at concentrations ranging from 152 µg/L to 741 µg/L, five of which (all except Round 6) exceeded the 300 µg/L criterion.
- Manganese was detected in all six samples at concentrations ranging from 135 µg/L to 1,630 µg/L, five of which (all except Round 2) exceeded the 300 µg/L criterion.
- Sodium was detected in all six samples but only exceeded the 20,000 µg/L criterion during the Round 4 and 6 sampling events (22,900 µg/L and 23,900 µg/L).

- **September 2012 sampling event: exceedances of manganese and sodium.**

Surface water sample SW-5 was collected from Willetts Creek just north of the footbridge behind the middle school. Five metals, including antimony, cadmium, iron, manganese and sodium were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Antimony was detected during Rounds 1 and 2 at concentrations of 1.5 µg/L and 4.4 µg/L but only the Round 2 concentration exceeded the Class A criterion of 3 µg/L. Antimony was not detected in sampling events 3, 4, 5 or 6.
- Cadmium was detected in all six samples at concentrations ranging from 3 µg/L to 8.8 µg/L, four of which (all except Round 3 and 5) exceeded the Class A criterion of 5 µg/L.
- Iron was detected above the Class A criterion of 300 µg/L during all six sampling events at concentrations ranging from 599 µg/L to 4,080 µg/L.
- Manganese was detected above the Class A criterion of 300 µg/L during all six sampling events at concentrations ranging from 450 µg/L to 1,420 µg/L.
- Sodium was detected during all six sampling events at concentrations ranging from 18,100 µg/L to 28,100 µg/L, five of which (all except Round 3) exceeded the Class A criterion of 20,000 µg/L.
- **September 2012 sampling event: exceedances of iron, manganese and sodium.**

Surface water sample SW-6 was collected from Willetts Creek just south of the Blockbuster Video store in the small shopping center. Six metals, including antimony, cadmium, iron, manganese, selenium and sodium, were detected at concentrations above the Class A criteria during at least one of the five sampling events.

- Antimony was only detected during Round 2 at a concentration of 8 µg/L which exceeded the Class A criterion of 3 µg/L.
- Cadmium was detected during the first three sampling rounds but only exceeded the Class A criterion of 5 µg/L criterion during the Round 3 sampling event at a concentration of 75.4 µg/L.
- Iron (Class A criterion of 300 µg/L) was detected above the criterion during all six sampling events at concentrations ranging from 639 µg/L to 6,840 µg/L.
- Manganese (Class A criterion of 300 µg/L) was detected above the criterion during all six sampling events at concentrations ranging from 406 µg/L to 2,610 µg/L.
- Selenium was only detected during Round 4 at a concentration of 10.5 µg/L, which exceeded the Class A criterion of 10 µg/L.
- Sodium (Class A criterion of 20,000) was detected above the criterion during all six sampling events at concentrations ranging from 20,500 µg/L, 33,800 µg/L.
- **September 2012 sampling event: exceedances of iron, manganese and sodium.**

Sediment Analytical

Immediately following dredging activities in 1999, sediment samples were collected and analyzed for cadmium. The results of the post-dredging sediment samples are presented in Appendix B. If sampling indicated cadmium levels continued to be in exceedance after dredging, the area was re-dredged and then re-sampled for cadmium. Cadmium concentrations in an upper reach of Willetts Creek exceeded 9 ppm. A variable and deep depositional region existed here due to an outfall in the creek at this location. The decision by the NYSDEC was to encapsulate this region of the creek with geotextile, stone, and riprap. A deeper zone of contamination was also identified in Lake Capri, and riprap was used to isolate it from the environment.

Six co-located sediment samples were collected at the same locations as the surface water samples as shown on Figure 2. The data presented in Table 6 were compared to the NYSDEC Technical Guidance for Sediment Criteria lowest effects values. The laboratory data summary packages are also included in Appendix C. A summary of the exceedances is presented on Figure 6.

Sample SED-1 was collected on the north end of Lake Capri near the mouth of Willetts Creek. Eleven metals, including antimony, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, and zinc, were detected at concentrations above the guidance values.

- Antimony was detected during four of six sampling events, and the Round 3 (2.2 mg/kg) and Round 4 (6.4 mg/kg) concentrations exceeded the guidance value of 2 mg/kg.
- Arsenic was detected during all six sampling events at concentrations ranging from 1.5 mg/kg to 18.1 mg/kg, five of which (all except Round 2) exceeded the guidance value of 6.0 mg/kg.
- Cadmium exceeded the guidance value of 0.6 mg/kg during all six sampling events at concentrations ranging from 11.6 mg/kg to 89.8 mg/kg.
- Chromium was detected during all six sampling events at concentrations ranging from 2.8 mg/kg to 57.4 mg/kg, four of which exceeded the guidance value of 26 mg/kg.
- Copper was detected above the guidance value of 16 mg/kg during all six sampling events at concentrations ranging from 38.6 mg/kg to 144 mg/kg.
- Iron was detected during all six sampling events at concentrations ranging from 3,880 mg/kg to 44,600 mg/kg, three of which exceeded the guidance value of 20,000 mg/kg.
- Lead was detected during all six sampling events at concentrations ranging from 19.3 mg/kg to 289 mg/kg, five of which (all except Round 2) exceeded the guidance value of 31 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 181 mg/kg to 22,600 mg/kg, five of which (all except Round 3) exceeded the guidance value of 460 mg/kg.
- Mercury was detected during all six sampling events at concentrations ranging from 0.0071 mg/kg to 0.52 mg/kg, five of which (all except Round 2) exceeded the guidance value of 0.15 mg/kg).

- Nickel was detected during all six sampling events at concentrations ranging from 3 mg/kg to 27.3 mg/kg, four of which exceeded the guidance value of 16 mg/kg.
- Zinc was detected during all six sampling events at concentrations ranging from 71.6 mg/kg to 642 mg/kg, five of which (all except Round 2) exceeded the guidance value of 120 mg/kg.
- **September 2012 sampling event: exceedances of arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and zinc.**

Sample SED-2 was collected on the north end of Lake Capri near the mouth of Willetts Creek, just south of SED-1. Ten metals, including arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, and zinc, were detected at concentrations above the guidance values at least once during the five sampling events.

- Arsenic was detected during all six sampling events at concentrations ranging from 1.8 mg/kg to 20.2 mg/kg, four of which exceeded the guidance value of 6 mg/kg.
- Cadmium was detected above the guidance value of 0.6 mg/kg during all six sampling events at concentrations ranging from 12.5 mg/kg to 133 mg/kg.
- Chromium was detected during all six sampling events at concentrations ranging from 6.5 mg/kg to 49.4 mg/kg, four of which exceeded the guidance value of 26 mg/kg.
- Copper was detected during all six sampling events at concentrations ranging from 15.6 mg/kg to 210 mg/kg, five of which exceeded the guidance value of 16 mg/kg.
- Iron was detected during all six sampling events at concentrations ranging from 3,850 mg/kg to 27,500 mg/kg, three of which exceeded the guidance value of 20,000 mg/kg.
- Lead was detected during all six sampling events at concentrations ranging from 25.8 mg/kg to 408 mg/kg, five of which (all except Round 3) exceeded the guidance value of 31 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 153 mg/kg to 3,790 mg/kg, five of which (all except Round 1) exceeded the guidance value of 460 mg/kg.
- Mercury was detected during all six sampling events at concentrations ranging from 0.18 mg/kg to 0.5 mg/kg, four of which exceeded the guidance value of 0.15 mg/kg.
- Nickel was detected during all six sampling events at concentrations ranging from 3.2 mg/kg to 22 mg/kg, four of which exceeded the guidance value of 16 mg/kg.
- Zinc was detected during all six sampling events at concentrations ranging from 67.9 mg/kg to 526 mg/kg, five of which exceeded the guidance value of 120 mg/kg.
- **September 2012 sampling event: exceedances of arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and zinc.**

Sample SED-3 was collected on the south end of Lake Capri just west of the spillway. Four metals have been detected above the guidance values including cadmium, copper, lead, and manganese.

- Cadmium was detected above the guidance value of 0.6 mg/kg during all six sampling events at concentrations ranging from of 1.5 mg/kg to 27.7 mg/kg.
- Copper was detected during all six sampling events at concentrations ranging from 2.7 mg/kg to 32.5 mg/kg, three of which exceeded the guidance value of 16 mg/kg.
- Lead was detected during all six sampling events at concentrations ranging from 9.2 mg/kg to 85.9 mg/kg, four of which exceeded the guidance value of 31 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 89.9 mg/kg to 1,090 mg/kg, three of which exceeded the guidance value of 460 mg/kg.
- **September 2012 sampling event: one exceedance of cadmium.**

Sample SED-4 was collected on the south end of Lake Capri just east of the spillway. Seven metals were detected at concentrations that exceed the guidance values including arsenic, cadmium, copper, lead, manganese, mercury, nickel, silver, and zinc.

- Arsenic was detected in all six sampling events at concentrations ranging from 1.9 µg/L to 6.2 µg/L, one of which exceeded the guidance value of 6 µg/L.
- Cadmium was detected above the guidance value of 0.6 mg/kg during all six sampling events at concentrations ranging from 14.8 mg/kg to 79.5 mg/kg.
- Chromium was detected in all six sampling events at concentrations ranging from 6.8 µg/L to 45.4 µg/L, one of which exceeded the criterion of 26 µg/L.
- Copper was detected above the guidance value of 16 mg/kg during all six sampling events at concentrations ranging from 17.1 mg/kg to 117 mg/kg.
- Lead was detected above the guidance value of 31 mg/kg during all six sampling events at concentrations ranging from 60.6 to 297 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 272 mg/kg to 11,700 mg/kg, five of which (all except Round 4) exceeded the guidance value of 460 mg/kg.
- Mercury was detected during all six sampling events at concentrations of 0.21 mg/kg and 0.39 mg/kg, three of which exceeded the guidance value of 0.15 µg/L.
- Silver was only detected during Round 3 at a concentration of 1.1 mg/kg which exceeds the guidance value of 1 mg/kg.
- Zinc was detected during all six sampling events at concentrations ranging from 71.3 mg/kg to 323 mg/kg, four of which exceeded the guidance value of 120 mg/kg.
- **September 2012 sampling event: exceedances of arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel and zinc.**

Sample SED-5 was collected from Willetts Creek approximately 30 feet north of the footbridge behind the middle school. Ten metals have been detected above the guidance values at this location, including arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, and zinc.

- Arsenic was detected during all six sampling events at concentrations ranging from 0.52 mg/kg to 9.3 mg/kg, three of which exceeded the guidance value of 6 mg/kg.

- Cadmium was detected during all six sampling events at concentrations ranging from 0.43 mg/kg to 73.5 mg/kg, five of which (all except Round 1) exceeded the guidance value of 0.6 mg/kg.
- Chromium was detected during all six sampling events at concentrations ranging from 2.7 to 44 mg/kg, but only exceeded the guidance value of 26 mg/kg during Round 3 and 5 at concentrations of 33.3 mg/kg and 44 mg/kg.
- Copper was detected during all six sampling events at concentrations ranging from 4.7 mg/kg to 166 mg/kg, three of which exceeded the guidance value of 16 mg/kg.
- Iron was detected during all six sampling events at concentrations ranging from 3,400 mg/kg to 39,900 mg/kg, three of which exceeded the guidance value of 20,000 mg/kg.
- Lead was detected during all six sampling events at concentrations ranging from 4.9 mg/kg to 229 mg/kg, three of which exceeded the guidance value of 31 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 174 mg/kg to 3,750 mg/kg, three of which exceeded the guidance value of 460 mg/kg.
- Mercury was detected during all six sampling events at concentrations ranging from 0.0055 mg/kg to 0.48 mg/kg, three of which exceeded the guidance value of 0.15 mg/kg.
- Nickel was detected during all six sampling events at concentrations ranging from 1.0 to 22.5 mg/kg but only exceeded the guidance value of 16 mg/kg during Rounds 3 and 5 at concentrations of 19.2 mg/kg and 22.5 mg/kg.
- Zinc was detected during all six sampling events at concentrations ranging from 13.2 mg/kg to 440 mg/kg, three of which exceeded the guidance value of 120 mg/kg.
- **September 2012 sampling event: one exceedance of cadmium.**

Sample SED-6 was collected from Willetts Creek just south of the Blockbuster Video store in the small shopping center. Eleven metals were detected above the guidance values at this location, including antimony, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and zinc.

- Antimony was detected in five of six sampling at concentrations ranging from not detected to 2.6 mg/kg but only exceeded the guidance value of 2 mg/kg during Round 3 at a concentration of 2.6 mg/kg.
- Arsenic was detected during all six sampling events at concentrations ranging from 0.79 to 6.4 mg/kg but only exceeded the guidance value of 6 mg/kg during Round 3 at a concentration of 6.4 mg/kg.
- Cadmium was detected during five of the six sampling events at concentrations ranging from not detected to 101 mg/kg but only exceeded the guidance value of 0.6 mg/kg during Round 3 at a concentration of 101 mg/kg. Cadmium was not detected in the Round 5 sample.
- Chromium was detected during all six sampling events at concentrations ranging from 2.4 to 41.8 mg/kg but only exceeded the guidance value of 26 during Round 3 at a concentration of 41.8 mg/kg.
- Copper was detected during all six sampling events at concentrations ranging from 6.3 mg/kg to 77.3 mg/kg, three of which exceeded the guidance value of 16 mg/kg.

- Iron was detected during all six sampling events at concentrations ranging from 2,120 to 36,900 mg/kg but only exceeded the guidance value of 20,000 mg/kg during Rounds 3 and 5 at concentrations of 25,600 mg/kg and 36,900 mg/kg.
- Lead was detected during all six sampling events at concentrations ranging from 7.9 mg/kg to 109 mg/kg, two of which exceeded the guidance value of 31 mg/kg.
- Manganese was detected during all six sampling events at concentrations ranging from 16.2 to 978 mg/kg but only exceeded the guidance value of 460 mg/kg during Round 3 at a concentration of 978 mg/kg.
- Mercury was detected in four of the six sampling events. Three samples were less than the guidance value and the Round 3 sample equaled the guidance value of 0.15 mg/kg.
- Nickel was detected during all six sampling events at concentrations ranging from 1.8 to 17.2 mg/kg, but only exceeded the guidance value of 16 mg/kg during Round 3 at a concentration of 17.2 mg/kg.
- Zinc was detected during all six sampling events at concentrations ranging from 17.2 to 409 mg/kg, but only exceeded the guidance value of 120 mg/kg during Round 3 at a concentration of 409 mg/kg.
- **September 2012 sampling event: no exceedances.**

Fish Tissue Analytical

Fish Tissue sampling events in Lake Capri were conducted in July 2006, May 2007, October 2010 and September 2012. No fish sampling was conducted in 2008 or 2009 upon discussion with NYSDEC due to low number and inadequate size of fish collected during 2006 and 2007 monitoring events. According to the Final SAP, the original objectives for fish tissue sampling were to collect fish samples from two stations. Station 1 is located at the north end of Lake Capri, south of the footbridge over the east branch of Willetts Creek, in the general vicinity of sediment samples SED-1 and SED-2. Station 2 is located at the south end of Lake Capri near the lake outfall, and in the general vicinity of sediment samples SED-3 and SED-4.

American eel, bluegill, carp and largemouth bass were the target species for the fish tissue sampling efforts. A target of ten samples for each of species was to be collected from each station: If a targeted species was not available, the sample goal was ten samples across four species. If less than four species were available, the total samples should still be equal to 40 samples per station for the available species. A total of 80 samples (40 per station) were to be analyzed for cadmium only. A minimum samples mass of 100 g was desired (either from an individual fish or from a composite of a single species).

Cadmium analysis on the fish samples for 2006, 2007, 2010 and 2012 was performed by Pace Laboratories in Wisconsin. The samples were prepared in accordance with NYSDEC guidelines and cadmium was analyzed using the SW846 M3050 preparation method, and the SW846 6020 analysis method.

The results of the fish sampling efforts are shown in Table 7. During the fish sampling in 2006, four fish species were collected: largemouth bass, bluegill, American eel, and pumpkinseed. During the fish sampling in 2007, two fish species were collected: bluegill and American eel. During the fish sampling in 2010, four species were collected: bluegill, American eel, largemouth bass and pumpkinseed. No carp were collected in 2006, 2007 or 2010. Fish collection numbers were below the target of 40 per station.

For 2006, fish sample size was also below the target of 100 g per sample for all but three of the collected samples. A total of 12 fish samples were analyzed in 2006, four from the south and eight from the north. These samples were collected from 62 individuals. Only three of the samples (South 1, South 2, North 1, and North 3) were comprised of edible sized fish. The other nine samples were composite samples from more than one individual. Cadmium concentrations in the edible sized fish were as follows: South 1 with 28 µg/kg; South 2 with 28 µg/kg; and North 1 with 80 µg/kg. The nine composite samples reported cadmium concentrations ranging from 39 µg/kg to 270 µg/kg.

A total of six fish samples were analyzed in 2007, all samples came from the North of Lake Capri. These samples were collected from 46 individuals. Only two samples (North 1 and North 3) were comprised of edible sized fish and only the North 3 sample weighed greater than 100 g. Three of the remaining samples were composite samples from more than one individual. Cadmium concentrations for both the edible sized fish were 170 µg/kg. Cadmium concentrations for the other four fish tissue samples ranged from 190 to 230 µg/kg.

Of the six fish samples collected in 2010, only samples DF-F2-LB-1 and DF-F1-PS-1 were comprised of edible sized fish. These samples also had cadmium concentrations of 0.0076 and 0.038 mg/kg, respectively. The higher concentrations recorded in the other samples, which often consisted of yearlings, ranged from 0.096 mg/kg to 0.37 mg/kg. However, this range may be a result of the low weights of the samples, many of which are below the 100 g sample requirement, and that 13 of 15 samples contain whole body analysis not just fillets. For example, the number of individual fish comprising samples DF-F1-PS-3, DF-F2-BG-3, and DF- F2-PS-2, were 40, 46, and 46, respectively. However, a review of the data shows that there is no discernable trend regarding differences in cadmium concentrations between the north and south locations, for both edible sized fish and the smaller yearlings. A similar range of data was also observed in previous fish sampling efforts in 2006 and 2007 (Table 7). No variation amongst species was observed; however it should be noted that the one edible size bass that was captured represents a fish at the top of the lake's food chain.

A total of five species comprising the 44 samples were obtained from Lake Capri in September 2012. Four freshwater species and one catadromous species were captured during the sampling. The freshwater fish species included: blue gill, largemouth bass, pumpkinseed, and one red ear sunfish, *Lepomis microlophus*. The catadromous species was an American eel. All of these fish species are piscivorous, however, due to their size blue gills, pumpkinseeds, and red ear sunfish would only prey on very small fish no bigger than the size of small minnows (2 cm) in length. These species also prey upon a variety of insects, benthic invertebrates and other food sources. Eels and largemouth bass

prey upon the sunfish and other fish species and aquatic fauna. Largemouth bass also have been known to feed on crustaceans (e.g., cray fish), small waterfowl, and small mammals.

Due to the small numbers and small sizes of fish collected, statistical analysis was not possible. The New York State Department of Health (NYSDOH) fish advisory for cadmium in Lake Capri fish tissue is 1 mg/kg in carp. Though no carp were collected, all fish sample cadmium results were well below the advisory limit. The current NYSDOH fish advisory recommends eating no more than one meal per month of American eel and carp. In addition to cadmium, the fish advisory lists the manufactured pesticide chlordane as a chemical of concern for Lake Capri. Chlordane is not believed to be associated with the Dzus Fastener facility.

3.3 IC/EC Certification Plan Report

Engineering controls at the Site currently consist of environmental monitoring to determine effectiveness of the remedy. There are no institutional controls.

Comparison of DER-10, Unified Information System and Actual Site Conditions

DER-10	Unified Information System	Actual Site Conditions
Source Removal	IRM completed in October 1990, removed approximately 1,960 cubic yards of contaminated soils	Contaminated soil removed from area of former oil/water separator and former dry wells
Source Control when removal is not feasible	OU1, approximately 8,100 cubic yards of contaminated soils were treated through in-situ stabilization/solidification, completed in December 1996	OU1 in-situ stabilization/solidification of eastern corner of the Site (includes former oil/water separator)
Containment / Isolation	Not mentioned	Soil and asphalt cap over the treatment cell in the eastern corner of the Site (includes the former oil/water separator, former dry wells, laterals from former dry well #4, and drain line to Willetts Creek)
Source removal	OU2 dredging and offsite disposal of sediment from Lake Capri and portions of Willetts Creek	OU2 dredging and offsite disposal of sediment from Lake Capri and portions of Willetts Creek
Containment / Isolation	Not mentioned	Riprap was placed in portions of Lake Capri and Willetts Creek to cover areas where cadmium concentrations exceeded the cleanup goals of 9 mg/kg (1999 remediation of Lake Capri and Willetts Creek).
Long Term Monitoring	Long term monitoring of groundwater	Long term monitoring of groundwater

Long Term Monitoring	Long term monitoring of sediment and surface water in Lake Capri and Willetts Creek	Long term monitoring of sediment and surface water in Lake Capri and Willetts Creek
Long Term Monitoring	Long term monitoring of fish tissue in lake Capri	Long term monitoring of fish tissue in Lake Capri

3.3.1 IC/EC Requirements and Compliance

Determination of compliance with the IC/EC at the Site is made based on the following criteria:

- The EC(s) applied at the site are in place and unchanged from the previous certification,
- Nothing has occurred that would impair the ability of such controls to protect the public health and the environment, or constitute a violation or failure to comply with any element of the SMP for such controls,
- Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of such controls (*future access cannot be guaranteed, but access for maintenance and inspections has not been an issue to date, and is not anticipated to become one*).

Currently, certification that the site ECs are in compliance with the requirements stated above, cannot be completed because of the following deficiencies:

- The environmental well network includes one well (MW-1) rendered ineffective and is in need of replacement and/or proper abandonment. This well is one of the 14 wells listed for regular site monitoring.
- The asphalt cap on the eastern side of the Dzus Fastener currently is damaged and needs to be repaired.

Detailed descriptions of the deficiencies identified at the Site and the severity presented is included in Section 5.0, including a proposed schedule to utilize in bringing the Site into compliance with the EC Certification requirements.

3.3.2 IC/EC Certification Forms

See Appendix A.

4.0 Evaluate Costs

4.1 Summary of Costs

A total annual cost for the required monitoring is approximately $39,000, based on costs incurred in calendar year 2012.

This includes all costs associated with the completion of one round of groundwater monitoring, surface water sampling, sediment sampling and fish tissue sampling conducted in August and September 2012, including subcontractor, AECOM field labor, and lab fees. The cost also includes the preparation of one fish tissue sampling report and one groundwater sampling report. Estimated OM&M costs presented in the 1997 ROD were projected to be $21,950 per year for the first ten years of operation, actual cost incurred during the most recent sampling event are higher than the original ROD estimate.

5.0 Conclusions and Recommendations

5.1 Conclusions

5.1.1 Operations and Maintenance

Groundwater monitoring well MW-1 has not been sampled since August 2007. This well is believed to have been destroyed by a snowplow. This well has not been properly abandoned and the loss of this well results in a data gap for determining current site contamination. This problem is categorized as moderate as the damaged well could allow for direct infiltration of precipitation.

The asphalt cover located at the Dzus Fasteners Facility currently has vegetation growing through cracks in the pavement. This deficiency is categorized as low and in its current a state (see Appendix C) may result in increased contaminant mobility. The LTMP laid out guidelines for monitoring the asphalt cover but there are no written records of cap maintenance. The SAP does not cover cap monitoring or maintenance.

The current maintenance status of the riprap in Willetts Creek and Lake Capri is unknown. The LTMP laid out guidelines for monitoring the riprap but there are no written records of its condition and maintenance. The current SAP does not cover riprap monitoring and maintenance but this item will be addressed in the SMP. This problem is categorized as moderate and results in a lack of knowledge in regards to site contamination.

5.1.2 Monitoring

A Summary of cadmium results in each media sampled (groundwater, surface water and sediment) during the long-term monitoring is show on Table 8.

Groundwater

The first four sampling events collected only unfiltered groundwater samples. During the Round 5 and Round 6 sampling events, both unfiltered and field filtered samples were collected to determine the percentage of each dissolved metals compared to the total metals.

Cadmium has been detected in the majority of unfiltered samples collected during the six sampling events with exceedances of New York Class GA Groundwater criteria noted in ten samples during Round 1, ten samples during Round 2, eight samples during Round 3, nine samples in Round 4, seven unfiltered samples during Round 5 and five unfiltered samples in Round 6. Only six filtered samples exceeded the criteria during Round 5, with the highest concentration at 13.3 µg/L (criterion is 5 µg/L). Only four filtered samples exceeded the criterion in Round 6, with the highest concentration noted at MW-13A (64.4 µg/L). The majority of the exceedances are concentrated along the eastern side of the Site in wells MW-3, MW-9, MW-13A, MW-15A, MW-22A, MW-23A, and MW-23B. The

majority of the samples (both unfiltered and filtered) collected from these seven wells during the previous six sampling events have exceeded the criterion as shown on Figures 7 and 8. Most of these wells are showing a downward trend in concentration.

During Round 5, six samples had concentrations of cadmium in both the filtered and unfiltered samples allowing for a comparison of the results. The percent dissolved phase ranged from 1 percent to 50.8 percent. Filtering only changed one result from exceeding the 5 µg/L criterion to less than the criterion. However, the degree of exceedance is significantly lower in the filtered samples, as the filtered sample concentrations exceeding the criterion ranged from 6 to 1 µg/L in the filtered samples. During Round 6, the percent dissolved phase ranged from 10.4 percent to 92.6 percent. Filtering changed one result from exceeding to less than the criterion.

Chromium has been detected in the majority of samples collected at the Site during the six sampling rounds but has only exceeded the 50 µg/L criterion in two wells, MW-9 (four of six samples) and MW-23B (two of six samples). Based on two sets of filtered versus unfiltered data, the percent dissolved in MW-9 was 3.4 and 89.8 percent and in MW-23B was 67.5 and 72.9 percent.

Concentrations of iron, manganese, and sodium have exceeded the criterion in numerous wells but these compounds are typically found in groundwater on Long Island and are most likely representative of background conditions and not Site-related. There have been sporadic exceedances of antimony, arsenic, lead, selenium and thallium but the concentrations and locations of the exceedances have not been replicated during the six sampling events and are most likely a result of entrained sediment in the samples and are not representative of the dissolved groundwater concentrations. The Round 5 and Round 6 filtered sample data suggest that field-measured turbidity is not a good predictor of the fraction of metals detected in a sample which are in the dissolved phase in a sample (i.e., concentration detected in the filtered sample).

The only metal of concern found consistently in off-site wells above the Class GA criteria is cadmium. Dissolved concentrations in off-site wells ranged from 9.7 µg/L at MW-15A (200 ft south of the Site) to 3.3 µg/L in shallow well MW-23A and 33.1 µg/L in deep well MW-23B (approximately 1,200 ft south of the Site). An isoconcentration map of the dissolved cadmium groundwater values from the August 2012 sampling event is shown on Figure 9.

Surface Water

Seven metals have been detected at concentrations above their Class A Surface Water criteria including antimony, cadmium, iron, manganese, selenium, sodium and thallium.

Antimony has been sporadically detected during the six sampling events in five of six surface water samples, with most detections exceeding the 3 µg/L criterion. However, the exceedances have not been duplicated in any sample. Antimony concentrations do not appear to be Site related.

Cadmium was detected in three of six sampling events in Willetts Creek sample SW-6. However, the only exceedance was during Round 3, which was anomalously high at 75.4 µg/L. Cadmium has not

been detected during the last three sampling events in SW-6. Cadmium was detected in all six rounds in Willetts Creek sample SW-5 and slightly exceeded the criterion in four samples. The highest concentration detected was 8.8 µg/L during Round 5. Cadmium concentrations did not exceed the criterion in any of the four Lake Capri samples during the six sampling events.

With a few exceptions, iron and manganese were detected in all six surface water samples above the criterion during all six sampling events. This is most likely a result of natural conditions in Willetts Creek and not Site related.

During the six sampling rounds, selenium has been detected twice in two surface water samples with one exceedance. The selenium concentration in Willetts Creek surface water sample SW-6 slightly exceeded the criterion during Round 4.

Sodium concentrations have exceeded the criterion in the two Willetts Creek samples (SW-5 and SW-6) in the majority of the samples. Sodium concentrations in the four Lake Capri samples were below the criterion during rounds 1, 2, 3 and 5 but all four exceeded the criterion during Round 4 and Round 6. It is probable that the high sodium concentrations noted in Lake Capri during March 2010 were the result of surface water runoff containing high concentrations of road salt.

Sediments

The sediment sample data indicate that the surficial sediments in Lake Capri and Willetts Creek remain contaminated with metals concentrations above the applicable NYSDEC Technical Guidance for Sediment Criteria. Cadmium has been detected above the lowest effects criterion in 30 of 36 samples collected during the six rounds of sampling and above the highest effects level in 26 of 36 samples as shown on Figures 7 and 8. The four lake samples indicate that cadmium is still a contaminant of concern for the lake bottom sediments. The lower Willetts Creek sample (SED-5) indicates that cadmium contamination is still present in the lower reach of the creek. The sediment sample nearest the Site, SED-6, has mostly been below the guidance values.

Copper has been detected above the lowest effects criterion in 24 of 30 samples collected. Of these, six were above the highest effects level. Copper results are shown on Figure 10. The highest concentrations appear to be along the southern end of the lake (SED-1 and SED-2).

Lead has been detected above the lowest effects criterion in 25 of 36 samples collected as shown on Figure 11. Of these, 14 were above the highest effects level. The highest concentrations appear to be along the southern end of the lake (SED-1 and SED-2).

Several other metals including antimony, arsenic, chromium, iron, manganese, mercury, nickel, and zinc, have been detected sporadically at concentrations exceeding the criteria during the five sampling events.

There was a significant increase in the number of metal concentrations that exceeded the criterion in the two Willetts Creek sediment samples collected during Round 3. At upstream sample SED-6, there

was one exceedance during Round 1, no exceedances during Round 2, 11 exceedances during Round 3, no exceedances for any metal in Round 4, three exceedances during Round 5 and no exceedances during Round 6. With the exception of the Round 5 iron concentration, the concentrations of metals detected in Rounds 4 and 5 have been much lower than those reported in Round 3, and are generally similar to the concentrations detected in Rounds 1 and 2.

At downstream sample SED-5, there were no exceedances during Round 1, one exceedance in Round 2, ten exceedances during Round 3, eight exceedances in Round 4, ten exceedances in Round 5 and one exceedance during Round 6. The highest concentrations of eight of the ten metals exceeding criteria (all except mercury and manganese) were detected in the Round 5 sample at SED-5. If the sample concentrations in SED-5 are compared to the highest effects level criteria, there are still exceedances of cadmium, copper, iron, lead, manganese and zinc.

Fish Tissue

Fish samples collected were well below the target of 80 samples of at least 100 g (40 from the north and 40 from the south). The majority of fish caught were also below the 100 g sample size and as a consequence, most samples consisted of numerous small fish. Fish size and numbers were inadequate for the assessment of cadmium contamination of fish tissues.

5.2 Recommendations

In order to return to compliance with the requirements presented in the ROD and OM&M program, a summary of the recommended investigation and maintenance activities is provided below:

- Continue sampling on a five-quarter basis in order to better evaluate temporal trend for cadmium and other metals found in exceedance of the NYSDEC groundwater, surface water and sediment criteria.
- Continue monitoring the current site to evaluate cadmium concentrations. Sediment monitoring results of Lake Capri show elevated cadmium concentrations above cleanup level and suggest that remedial actions undertaken at the lake may not be completely effective.
- Re-evaluate the current fish sampling protocol. Currently, Lake Capri does not provide fish of sufficient number or of sufficient size to meet the current requirements for fish tissue sampling. Other options for obtaining accurate cadmium levels in edible sized fish should be considered (e.g., towed gill nets or a more robust trapping program). Also evaluate whether the restocking program was successful in re-establishing a large healthy fish population in Lake Capri.
- Re-evaluate the need to include cyanide on the analytical list for future sampling events based on COCs indicated in the RODs for OU1 and OU2.
- Locate the damaged/destroyed monitoring well MW-1 and properly abandon or repair the well. If the well is abandoned, a replacement should be considered.
- Upgradient monitoring well MW-17 could not be located by the field crew during the May 2011 sampling event. Additional effort is needed to locate this well. Once located, the well should be assessed for future sampling or properly abandoned if found to be damaged.

- Establish the inspection protocol of the asphalt cover at the Dzus Fasteners facility. The evaluation can be completed and reported along with the sampling program on a five-quarter basis.
- Perform an evaluation of the riprap erosion controls currently in place in Willetts Creek and in Lake Capri. The evaluation can be completed and reported along with the sampling program on a five-quarter basis.
- Elevated concentrations of several metals have been detected in Willetts Creek. The extent of this contamination in Willetts Creek needs to be assessed. The entire length of the creek from the Dzus Facility to Lake Capri will be surveyed to determine if other locations are more appropriate for future sampling and if additional sampling locations are needed to evaluate the effectiveness of the dredging performed in 1999.
- Elevated concentrations of several metals have been detected in Lake Capri sediment samples. The lake bottom will be sampling on a grid pattern to establish whether hot spots continue to exist in the lake. The sampling will also aid in establishing whether the current sampling locations are sufficient to monitor the lake.
- Prepare a Site Management Plan.
- Perform five-year periodic review of the Site in 2016.

6.0 References

AECOM Technical Services Northeast, Inc., 2009. Final Groundwater Sampling Report (November 2008 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, August 2009.

AECOM Technical Services Northeast, Inc., 2010. Final Groundwater Sampling Report (March 2010 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, September 2010.

AECOM Technical Services Northeast, Inc., 2011a. Periodic Review Report. Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, March 2011.

AECOM Technical Services Northeast, Inc., 2011b. Final Groundwater Sampling Report (May 2011 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, October 2011.

AECOM Technical Services Northeast, Inc., 2013. Lake Capri Fish Sampling Report (September 2012 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, January 2013.

Earth Tech of New York, Inc., 2000a. Construction Certification Report, Dzus Fasteners Site (OU2). Construction and Remediation of Lake Capri and Willetts Creek. Prepared for Superfund Standby Program, NYSDEC. October 2000.

Earth Tech of New York, Inc., 2000b. Long Term Monitoring Plan, Dzus Fasteners Site (OU2). NYSDEC site No. 1-52-033, Lake Capri/Willetts Creek. Prepared for Superfund Standby Program, NYSDEC. November 2000.

Earth Tech Northeast, Inc., 2006. Final Semiannual Sampling Reports (June 2006 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, October 2006.

Earth Tech Northeast, Inc., 2007a. Final Sampling and Analysis Plan, Multi Site G, operation, Maintenance and Monitoring. Prepared for Superfund Standby Program, NYSDEC. June 2007.

Earth Tech Northeast, Inc., 2007b. Final Project Management Plan, Multi Site G, Operation, Maintenance and Monitoring. Prepared for Superfund Standby Program, NYSDEC. February 2007.

Earth Tech Northeast, Inc., 2007c. Final Groundwater Sampling Reports (August 2007 Sampling Event). Multi Site G, Operation, Maintenance and Monitoring. Dzus Fasteners Site, West Islip, Suffolk County, NY, Site 1-52-033. Prepared for Superfund Standby Program, NYSDEC, November 2007.

NYSDEC, 1995. Record of Decision, Dzus Fastener Company, Operable Unit 01, Inactive hazardous Waste Site, Site Number 152033. March 1995.

NYSDEC, 1997. Record of Decision, Dzus Fastener Site, Operable Unit #2, West Islip, Suffolk County, Site Number 1-52-033.

NYSDEC, 1999. Technical Guidance for Screening Contaminated Sediments, Division of Fish and Wildlife and Marine Resources. January 1999.

NYSDEC, 2002. Draft DER-10 Technical Guidance for Site Investigation and Remediation. December 2002.

NYSDEC, 2006. Rules and Regulations, 6 NYCRR Subpart 376-6, Remedial Program Soil Cleanup Objectives. December 14, 2006.

NYSDEC, 2008. Rules and Regulations, 6 NYCRR Subpart 703, Surface Water and groundwater Quality Standards and groundwater Effluent Limitations, January 17, 2008.

NYS Department of Health, 2009. Chemicals in Sport Fish and Game: 2009-2010 Health Advisories. http://www.health.ny.us/environmental/outdoors/fish/fish.htm.

Tables

TABLE 1
DZUS FASTENERS SITE (1-52-033)
WELL CONSTRUCTION DATA

Well Number	Latitude	Longitude	Ground Elevation	Top of Riser Elevation	Top of Casing Elevation	Total Depth of Well
MW-1	40° 42.49	73° 18.10	22.44	22.03	22.44	15.3
MW-2	40° 42.45	73° 18.10	22.16	21.42	22.16	14.3
MW-3	40° 42.49	73° 18.02	20.23	19.71	20.23	15.0
MW-9	40° 42.50	73° 18.02	19.14	18.83	19.14	11.5
MW-9B	40° 42.49	73° 18.01	19.08	18.75	19.08	44.5
MW-13A	40° 42.44	73° 17.100	16.34	16.02	16.34	10.7
MW-13B	40° 42.43	73° 17.99	16.14	15.82	16.14	44.3
MW-15A	40° 42.49	73° 17.97	19.45	19.09	19.45	28.8
MW-15B	40° 42.50	73° 17.96	19.35	19.06	19.35	84.7
MW-17						
MW-18			14.69	14.31	14.66	13.5
MW-22A	40° 42.491	73° 17.941	20.49	20.09	20.49	14.4
MW-22B	40° 42.491	73° 17.941	20.35	19.95	20.35	44.5
MW-23A	40° 42.402	73° 17.991	17.57	17.34	17.57	14.3
MW-23B	40° 42.403	73° 17.987	17.54	17.29	17.54	44.5

Notes:
All elevations and depths are in feet
Vertical datum: on-site benchmark from previous survey.
Latitude / Longitude taken from a previous report
Survey performed by YEC, Inc., on April 18, 2007

TABLE 2
DZUS FASTENERS SITE (1-52-033)
GROUNDWATER ELEVATIONS

Well #	Reference Elevation	Date	Depth To Water	Water Table Elevation	Comments
MW-1	22.03	6/8/06	8.00	14.03	
		8/22/07	8.62	13.41	
		11/11/08	NC		could not be located, damaged during snow
		3/10/10	NC		removal
		5/25/11	NC		
		8/22/12	NC		
MW-2	21.42	6/8/06	8.15	13.27	
		8/22/07	8.50	12.92	
		11/11/08	8.30	13.12	
		3/10/10	7.43	13.99	
		5/25/11	7.77	13.65	
		8/22/12	8.33	13.09	
MW-3	19.71	6/8/06	5.77	13.94	
		8/22/07	6.30	13.41	
		11/11/08	6.25	13.46	
		3/10/10	5.36	14.35	
		5/25/11	5.62	14.09	
		8/22/12	6.23	13.48	
MW-9	18.83	6/8/06	4.59	14.24	
		8/22/07	5.15	13.68	
		11/11/08	5.01	13.82	
		3/10/10	4.19	14.64	
		5/25/11	4.45	14.38	
		8/22/12	5.05	13.78	
MW-9B	18.75	6/8/06	4.50	14.25	
		8/22/07	5.05	13.70	
		11/11/08	4.93	13.82	
		3/10/10	4.11	14.64	
		5/25/11	4.36	14.39	
		8/22/12	5.00	13.75	
MW-13A	16.02	6/8/06	2.59	13.43	
		8/22/07	3.02	13.00	
		11/11/08	2.90	13.12	
		3/10/10	2.27	13.75	
		5/25/11	2.51	13.51	
		8/22/12	2.93	13.09	

TABLE 2
DZUS FASTENERS SITE (1-52-033)
GROUNDWATER ELEVATIONS

Well #	Reference Elevation	Date	Depth To Water	Water Table Elevation	Comments
MW-13B	15.82	6/8/06	2.39	13.43	
		8/22/07	2.85	12.97	
		11/11/08	2.69	13.13	
		3/10/10	2.08	13.74	
		5/25/11	2.32	13.50	
		8/22/12	2.77	13.05	
MW-15A	19.09	6/7/06	5.48	13.61	
		8/22/07	5.80	13.29	
		11/11/08	5.64	13.45	
		3/10/10	4.95	14.14	
		5/25/11	5.15	13.94	
		8/22/12	5.69	13.40	
MW-15B	19.06	6/7/06	5.35	13.71	
		8/22/07	5.70	13.36	
		11/11/08	5.58	13.48	
		3/10/10	NC		unable to access, ACE Hardware
		5/25/11	5.10	13.96	
		8/22/12	5.65	13.41	
MW-17		5/25/11			Could not be located
MW-18	14.31	6/8/06	7.93	6.38	
		8/23/07	5.05	9.26	
		11/11/08	4.98	9.33	
		3/10/10	4.52	9.79	
		5/25/11	4.70	9.61	
		8/22/12	4.92	9.39	
MW-22A	20.09	6/7/06	6.00	14.09	
		8/22/07	6.44	13.65	
		11/11/08	6.38	13.71	
		3/10/10	5.78	14.31	
		5/25/11	5.92	14.17	
		8/22/12	6.45	13.64	
MW-22B	19.95	6/7/06	5.82	14.13	
		8/22/07	6.30	13.65	
		11/11/08	6.20	13.75	
		3/10/10	5.61	14.34	
		5/25/11	5.74	14.21	
		8/22/12	6.28	13.67	

TABLE 2
DZUS FASTENERS SITE (1-52-033)
GROUNDWATER ELEVATIONS

Well #	Reference Elevation	Date	Depth To Water	Water Table Elevation	Comments
MW-23A	17.34	6/7/06	4.59	12.75	
		8/22/07	4.80	12.54	
		11/11/08	4.62	12.72	
		3/10/10	4.16	13.18	
		5/25/11	4.38	12.96	
		8/22/12	5.30	12.04	
MW-23B	17.29	6/7/06	4.51	12.78	
		8/22/07	5.05	12.24	
		11/11/08	4.59	12.70	
		3/10/10	4.06	13.23	
		5/25/11	4.31	12.98	
		8/22/12	4.62	12.67	

Notes:
All measurements in feet from top of casing
Veritcal data NGVD

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-1		MW-1		MW-1		MW-1		MW-1		MW-1		
Sample ID	Class GA	MW-1		DMW-1		DMW-1		DMW-1		DMW-1		DMW-1		
Laboratory ID	Ground	E0773-05A		F1193-01A		destroyed		destroyed		destroyed		destroyed		
Sample Date	Water	6/8/06		8/22/07		11/11/08		3/10/10		5/25/11		8/22/12		
Filtered/Unfiltered	Criteria	Unfiltered		Unfiltered										
		conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	
Aluminum	NC	4,180		3,160		NA		NA		NA		NA		
Antimony	3	ND		ND		NA		NA		NA		NA		
Arsenic	25	4.3	B	3.8	B	NA		NA		NA		NA		
Barium	1,000	80.2	B	73.3	B	NA		NA		NA		NA		
Beryllium	3	0.42	B	0.25	B	NA		NA		NA		NA		
Cadmium	5	***23.9***		***5.1***		NA		NA		NA		NA		
Calcium	NC	8,790		7,150		NA		NA		NA		NA		
Chromium	50	8.0	B	5.0	B	NA		NA		NA		NA		
Cobalt	NC	5.1	B	6.9	BE	NA		NA		NA		NA		
Copper	200	18.3	B	16.0	B	NA		NA		NA		NA		
Iron	300	***13,200***		***12,600***		NA		NA		NA		NA		
Lead	25	3.9	B	9.8	B	NA		NA		NA		NA		
Magnesium	35,000	3,010		2,420		NA		NA		NA		NA		
Manganese	300	210		158		NA		NA		NA		NA		
Mercury	0.7	ND		ND		NA		NA		NA		NA		
Nickel	100	8.7	B	8.7	B	NA		NA		NA		NA		
Potassium	NC	1,760		1,680		NA		NA		NA		NA		
Selenium	10	ND		5.4	B	NA		NA		NA		NA		
Silver	50	ND		ND		NA		NA		NA		NA		
Sodium	20,000	***22,500***		***23,100***		NA		NA		NA		NA		
Thallium	0.5	***1.9***	***B***	***5.5***	***B***	NA		NA		NA		NA		
Vanadium	NC	7.8	B	8.2	B	NA		NA		NA		NA		
Zinc	2,000	244		196		NA		NA		NA		NA		

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2
Sample ID	Class GA	MW-2	DMW-2	DMW-2	DMW-2	DMW-2	DMW-2	DMW-2	DMW-2F
Laboratory ID	Ground	E0773-10A	F1193-04A	G2114-01	J0429-10A	K0942-01	K0942-02	L1807-19	L1808-15
Sample Date	Water	6/7/06	8/22/07	11/11/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	7,090	1,580	242	3,880 E	1,500	ND	328	ND
Antimony	3	ND	***7.3*** B	ND	***9.4 B***	ND	ND	ND	ND
Arsenic	25	3.9 B	6.3 B	ND	7.7 B	12.4 B	5.0 B	ND	ND
Barium	1,000	96.5 B	212	38.7 B	47.9 B	51.1 B	34.2 B	20.4 B	18.4 B
Beryllium	3	0.4 B	0.71 B	0.27 B	0.51 B	0.33 B	ND	ND	ND
Cadmium	5	4.2 B	***8.6***	2.7 B	***10.4***	ND	ND	ND	ND
Calcium	NC	15,500	28,200	14,500	11,100	38,700	34,500	12,500 E	12,300
Chromium	50	8.8 B	3.1 B	ND	6.8 B	2.2 B	ND	0.73 B	ND
Cobalt	NC	18.3 B	27 BE	13.8 B	9.3 B	11.4 B	7.6 B	1.2 B	1.0 B
Copper	200	19.3 B	8.3 B	12.6 B	34.9	7.9 B	ND	ND	ND
Iron	300	***14,900***	***25,200***	***23,300***	***12,000*** N	***88,900***	***17,600***	***1,590 E***	***1,060***
Lead	25	14.7	4.2 B	5.2 B	6.9 B	7.5 B	ND	ND	ND
Magnesium	35,000	3,740	4,690	2,700	2,810	3,690	3,510	1,850	1,790
Manganese	300	***518***	***989***	***2,150***	***768***	***882***	***655***	124	115
Mercury	0.7	ND	ND	ND	0.084 B	ND	ND	ND	ND
Nickel	100	13.3 B	9.0 B	4.7 B	13.5 B	6.5 B	2.8 B	1.7 B	1.3 B
Potassium	NC	2,140	2,780	1,880	1,450	2,470	2,410	1,440	1,430
Selenium	10	1.4 B	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***21,500***	***66,200***	18,600	18,200	***25,200***	***24,100***	***24,400 E***	***23,500***
Thallium	0.5	***2.3 B***	***6.3 B***	ND	ND	ND	ND	ND	ND
Vanadium	NC	11.9 B	4.0 B	ND	16.2 B	2.5 B	ND	ND	ND
Zinc	2,000	138	82.8	64.3	109	111	30.5 B	18.4 B	5.2 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
NA - Not analyzed
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
N - Matrix spike recovery falls outside of the control limit
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Sample ID	Class GA	MW-3	DMW-3	DMW-3	DMW-3	DMW-3	DMW-3	DMW-3	DMW-3F
Laboratory ID	Ground	E0773-07A	F1193-07A	G2114-04	J0429-11A	K0942-03	K0942-04	L1807-20	L1808-17
Sample Date	Water	6/8/06	8/22/07	11/11/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	5,650	620	314	2,890 E	8,520	ND	ND	ND
Antimony	3	ND	ND	ND	***7.2 B***	ND	ND	***10.7*** B	ND
Arsenic	25	2.9 B	ND	ND	3.2 B	7.1 B	6.3 B	ND	ND
Barium	1,000	90.9 B	37.2 B	28.3 B	35.3 B	59.7 B	20.3 B	29.0 B	28.0 B
Beryllium	3	0.26 B	ND	ND	0.25 B	0.7 B	ND	ND	ND
Cadmium	5	***77.4***	***74.4***	***70.8***	***98.4***	***73.5***	***13.1***	***16.3***	***15.1***
Calcium	NC	17,800	17,200	11,800	10,600	11,000	9,750	11,100 E	10,700
Chromium	50	9.2 B	1.6 B	ND	6.4 B	11.4 B	ND	ND	0.90 B
Cobalt	NC	4.4 B	1.6 BE	ND	2.2 B	4.7 B	ND	ND	ND
Copper	200	16.1 B	5.4 B	ND	6.8 B	9.7 B	ND	ND	ND
Iron	300	***4,430***	***649***	253	***3,680 N***	***7,430***	ND	50.5 B	ND
Lead	25	ND	3.8 B	2.7 B	3.9 B	7.5 B	ND	ND	ND
Magnesium	35,000	4,160	3,820	2,650	2,670	2,890	1,970	2,220	2,180
Manganese	300	***423***	***301***	262	***553***	***980***	ND	ND	ND
Mercury	0.7	ND	ND	ND	0.067 B	0.057 B	ND	ND	ND
Nickel	100	6.8 B	2.1 B	1.6 B	7.4 B	5.0 B	ND	0.92 B	ND
Potassium	NC	2,630	2,050	1,420	1,500	2,170	1,790	2,420	2,400
Selenium	10	ND	8.4 B	ND	***10.6 B***	ND	ND	ND	ND
Silver	50	ND	3.5 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	***27,700***	***31,000***	***25,000***	***20,700***	***20,400***	19,400	***23,400 E***	***23,000***
Thallium	0.5	***2.5 B***	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	8.1 B	1.1 B	ND	4 B	9.6 B	ND	ND	ND
Zinc	2,000	87.0	29.4 B	26.2 B	29.0 B	34.0 B	18.9 B	ND	7.1 B

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
NA - Not analyzed
E - Estimated due to matrix interference
ND - Not Detected
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9
Sample ID	Class GA	MW-9	DMW-9	DMW-9	DMW-9	DMW-9	DMW-9	DMW-9	DMW-9F
Laboratory ID	Ground	E0773-09A	F1193-06A	G2114-02	J0429-12A	K0942-05	K0942-06	L1807-21	L1808-19
Sample Date	Water	6/8/06	8/22/07	11/11/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	16,800	3,520	611	2,300 E	2,850	ND	163 B	ND
Antimony	3	ND	ND	ND	ND	ND	ND	***9.5 B***	ND
Arsenic	25	***32.6***	16.2 B	ND	11.4 B	11.5 B	4.9 B	ND	ND
Barium	1,000	102 B	44.7 B	30.2 B	39.2 B	71.0 B	49.2 B	17.8 B	17.0 B
Beryllium	3	0.63 B	ND	0.21 B	0.29 B	0.42 B	ND	ND	ND
Cadmium	5	***32.8***	***22.4***	***15.5***	***17.5***	***18.7***	***9.5***	4.9 B	4.4 B
Calcium	NC	16,000	15,100	10,800	21,900	29,000	25,600	13,900 E	13,700
Chromium	50	***125***	***62.2***	35.3	***62.7***	***85.5***	2.9 B	8.3 B	4.0 B
Cobalt	NC	5.2 B	4.9 BE	1.5 B	2.0 B	2.5 B	ND	ND	ND
Copper	200	62.3	41.4	17.3 B	32.5	41.1	ND	ND	ND
Iron	300	***21,600***	***12,400***	***3,670***	***11,300 N***	***11,600***	***1,760***	***556 E***	ND
Lead	25	11.6	10.6	5.9 B	8.1 B	9.9 B	ND	ND	ND
Magnesium	35,000	3,170	1,550	2,690	4,210	4,110	3,900	3,300	3,220
Manganese	300	151	117	62.6	124	149	15.3 B	ND	ND
Mercury	0.7	ND	ND	ND	0.088 B	ND	ND	ND	ND
Nickel	100	18.3 B	7.3 B	3.3 B	8.0 B	6.5 B	2.4 B	1.4 B	2.3 B
Potassium	NC	3,270	4,830	1,720	3,950	6,310	5,210	1,420	1,390
Selenium	10	2.7 B	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***25,500***	***52,100***	16,100	***29,100***	***72,800***	***68,700***	***26,300 E***	***25,900***
Thallium	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	33.1 B	13.4 B	5.5 B	10.4 B	12.8 B	ND	ND	ND
Zinc	2,000	170	73.1	55.9	82.8	90.9	36.6 B	12.9 B	11.8 B

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-9B	MW-9B	MW-9B	MW-9B	MW-9B	MW-9B	MW-9B	MW-9B
Sample ID	Class GA	MW-9B	DMW-9B	DMW-9B	DMW-9B	DMW-9B	DMW-9B	DMW-9B	DMW-9BF
Laboratory ID	Ground	E0773-08A	F1193-05A	G2114-03	J0429-14A	K0942-07	K0942-08	L1807-22	L1808-18
Sample Date	Water	6/8/06	8/22/07	11/11/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	213	177 B	ND	49.5 BE	99.1 B	ND	ND	ND
Antimony	3	1.8 B	***4.6 B***	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	6.2 B	ND	ND
Barium	1,000	45.5 B	25.5 B	27.1 B	17.1 B	14.4 B	12.8 B	22.2 B	21.1 B
Beryllium	3	ND	ND	ND	0.051 B	ND	ND	ND	ND
Cadmium	5	2.9 B	1.2 B	0.23 B	3.6 B	ND	ND	ND	ND
Calcium	NC	10,800	11,900	8,180	6,950	8,580	8,480	9,300 E	8,330
Chromium	50	2.2 B	3.4 B	ND	2.4 B	1.4 B	ND	0.82 B	ND
Cobalt	NC	2.6 B	1.5 BE	ND	ND	ND	ND	ND	ND
Copper	200	28.8 B	14.8 B	ND	ND	ND	ND	ND	ND
Iron	300	***561***	***429***	134 B	286 N	528	31.8 B	39.5 B	ND
Lead	25	ND	6.0 B	ND	ND	ND	ND	ND	ND
Magnesium	35,000	1,640	1,630	1,330	1,380	1,490	1,430	1,680	1,480
Manganese	300	211	***306***	171	69.5	92.4	ND	ND	ND
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	8.6 B	2.9 B	ND	1.9 B	1.8 B	0.88 B	ND	ND
Potassium	NC	2,140	2,050	1,940	1,950	1,910	1,670	1,800	1,790
Selenium	10	ND	ND	ND	***12.7 B***	ND	ND	ND	ND
Silver	50	ND	2.2 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	8,070	10,100	11,800	7,660	6,730	6,650	***21,400 E***	19,700
Thallium	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.83 B	ND	ND	ND	ND	ND	ND
Zinc	2,000	83.7	36.0 B	35.3 B	23.3 B	27.1 B	25.4 B	ND	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits
ND - Not Detected

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-13A	MW-13A	MW-13A	MW-13A	MW-13A	MW-13A	MW-13A	MW-13A
Sample ID	Class GA	MW-13A	DMW-13A	DMW-13A	DMW-13A	DMW-13A	DMW-13A	DMW-13A	DMW-13AF
Laboratory ID	Ground	E0773-13A	F1193-14A	F1193-14A	J0429-15A	K0942-17	K0942-18	L1807-15	L1808-25
Sample Date	Water	6/8/06	8/22/07	11/12/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered conc. Q	Unfiltered conc.	Unfiltered conc.	Unfiltered conc.	Unfiltered conc.	Filtered conc.	Unfiltered conc.	Filtered conc.
Aluminum	NC	15,000	2,560	258	529 E	2,100	ND	204	ND
Antimony	3	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	5.7 B	ND	ND	ND	13.1 B	ND	ND	ND
Barium	1,000	176 B	94.0 B	185 B	605	886	20.5 B	77.9 B	31.4 B
Beryllium	3	0.53 B	ND	ND	0.073 B	ND	ND	ND	ND
Cadmium	5	***174***	***94.1***	***67.7***	***267***	***373***	***10.3***	***93.5***	***64.4***
Calcium	NC	37,900	23,300	19,900	43,700	27,500	24,900	7,850	7,800
Chromium	50	12.9 B	2.7 B	ND	3.9 B	22.1	ND	2.8 B	1.9 B
Cobalt	NC	55.8	45.4 BE	35.4 B	144	268	1.1 B	33.7 B	15.1 B
Copper	200	34.3	ND	ND	17.9 B	20.8 B	ND	6.7 B	ND
Iron	300	***12,700***	***3,490***	***300***	***749 N***	***2,310***	ND	***3,690***	***1,580***
Lead	25	5.7 B	2.5 B	ND	5.3 B	ND	ND	ND	ND
Magnesium	35,000	5,580	3,640	2,630	4,570	3,820	3,340	936	960
Manganese	300	***9,560***	***8,040***	***16,400***	***33,900***	***61,600***	***1,720***	***6,190***	***3,430***
Mercury	0.7	ND	ND	ND	0.063 B	ND	ND	ND	ND
Nickel	100	9.4 B	2.1 B	ND	2.6 B	3.3 B	ND	1.1 B	2.7 B
Potassium	NC	7,430	6,390	3,680	7,510	6,700 E	5,990 E	2,250 E	2,140
Selenium	10	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.5 B	ND	ND	12.1 B	ND	ND	ND
Sodium	20,000	***94,500***	***77,500***	***21,700***	***247,000***	***38,400***	***37,500***	***47,000***	***46,900***
Thallium	0.5	***44***	ND	***11.7*** B	***88.2***	ND	ND	***9.2*** B	ND
Vanadium	NC	17.6 B	3.7 B	ND	2.7 B	6.4 B	ND	ND	ND
Zinc	2,000	53.3	16.8 B	20.8 B	27.4 B	36.1 B	18.0 B	9.5 B	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-13B	MW-13B	MW-13B	MW-13B	MW-13B	MW-13B	MW-13B	MW-13B
Sample ID	Class GA	MW-13B	DMW-13B	DMW-13B	DMW-13B	DMW-13B	DMW-13B	DMW-13B	DMW-13BF
Laboratory ID	Ground	E0773-14A	F1193-13A	G2114-13	J0429-16A	K0942-19	K0942-20	L1807-27	L1808-23
Sample Date	Water	6/8/06	8/22/07	11/12/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	330	133 B	ND	114 BE	106 B	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	54.3 B	29.0 B	33.4 B	21.5 B	14.4 B	12.6 B	23.1 B	22.4 B
Beryllium	3	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	5	***15***	***9.8***	2.3 B	4.2 B	2.2 B	ND	1.5 B	1.1 B
Calcium	NC	10,700	9,840	11,700	8,880	10,900	10,900	11,300 E	10,600
Chromium	50	27.8	27.2	22.3	17.8 B	11.7 B	10.7 B	21.2	21.4
Cobalt	NC	3.9 B	1.9 BE	ND	ND	ND	ND	ND	ND
Copper	200	19.3 B	13.8 B	ND	ND	6.5 B	ND	ND	ND
Iron	300	***614***	***404***	106 B	286 N	***469***	ND	ND	ND
Lead	25	ND	7.7 B	3.1 B	ND	ND	ND	ND	ND
Magnesium	35,000	1,710	1,600	1,910	1,350	1,560	1,530	1,630	1,550
Manganese	300	***621***	***426***	153	243	148	ND	54.3	19.7 B
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	9.8 B	4.2 B	ND	1.3 B	1.5 B	ND	ND	ND
Potassium	NC	2,410	1,820	2,100	1,570	1,910 E	1,680 E	1,340	1,360
Selenium	10	ND	6.2 B	ND	ND	ND	ND	ND	ND
Silver	50	ND	2.3 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	7,880	6,710	9,280	8,060	6,720	6,880	9,260 E	8,950
Thallium	0.5	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	1.3 B	0.96 B	ND	0.54 B	ND	ND	ND	ND
Zinc	2,000	45.9 B	33.2 B	24.3 B	24.3 B	32.7 B	32.5 B	ND	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A
Sample ID	Class GA	MW-15A	DMW-15A	DMW-15A	DMW-15A	DMW-15A	DMW-15A	DMW-15A	DMW-15AF
Laboratory ID	Ground	E0773-03A	F1193-15A	G2114-08	J0429-17A	K0942-21	K0942-22	L1807-25	L1808-21
Sample Date	Water	6/7/06	8/22/07	11/12/08	3/9/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	773	ND	ND	335 E	ND	ND	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	53.7 B	15.5 B	20.1 B	30.8 B	23.1 B	16.4 B	15.9 B	15.0 B
Beryllium	3	ND	ND	ND	0.074 B	ND	ND	ND	ND
Cadmium	5	***28.8***	***29.1***	***33.9***	***62.3***	***63***	***12.2***	***16.8***	***9.7***
Calcium	NC	18,900	13,700	12,100	14,800	16,300	16,600	13,500 E	13,400
Chromium	50	3 B	0.45 B	ND	4.6 B	1.3 B	ND	ND	1.2 B
Cobalt	NC	3.2 B	1.3 BE	ND	0.9 B	ND	ND	ND	ND
Copper	200	38	4.8 B	ND	8.4 B	9.8 B	ND	ND	ND
Iron	300	***2,320***	158 B	ND	***1,000 N***	164 B	ND	ND	ND
Lead	25	9.9 B	1.7 B	ND	5.2 B	ND	ND	ND	ND
Magnesium	35,000	3,170	2,240	1,890	2,780	2,410	2,380	2,460	2,440
Manganese	300	***370***	***929***	***895***	***2,850***	***1,510***	56	238	41.1 B
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	7.1 B	0.85 B	ND	3.6 B	1.7 B	ND	ND	1.1 B
Potassium	NC	2,090	1,960	1,610	2,140	2,290 E	2,290 E	2,110	2,230
Selenium	10	ND	ND	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.4 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	18,000	13,300	9,040	17,100	19,500	19,800	***20,400 E***	***20,400***
Thallium	0.5	***1.9 B***	ND	ND	***7.3 B***	ND	ND	ND	ND
Vanadium	NC	2.6 B	ND	ND	0.69 B	ND	ND	ND	ND
Zinc	2,000	155	18.8 B	24.3 B	33.5 B	31.7 B	25.9 B	ND	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B	MW-15B
Sample ID	Class GA	MW-15B	DMW-15B	DMW-15B	DMW-15B	DMW-15B	DMW-15B	DMW-15B	DMW-15BF
Laboratory ID	Ground	E0773-04A	F1193-10A	G2114-07	Inaccessible	K0942-23	K0942-24	L1807-24	L1808-20
Sample Date	Water	6/7/06	8/22/07	11/12/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	224	58.6 B	ND	NA	ND	ND	ND	ND
Antimony	3	ND	ND	ND	NA	ND	ND	ND	ND
Arsenic	25	1.7 B	ND	ND	NA	5.5 B	4.8 B	ND	4.3 B
Barium	1,000	83.6 B	40.6 B	45.0 B	NA	34.6 B	34.4 B	32.4 B	29.4 B
Beryllium	3	ND	ND	0.19 B	NA	ND	ND	ND	ND
Cadmium	5	3.6 B	0.54 B	0.29 B	NA	ND	ND	ND	ND
Calcium	NC	16,400	13,700	13,700	NA	12,000	11,900	12,200 E	11,500
Chromium	50	2.1 B	0.56 B	ND	NA	ND	ND	ND	ND
Cobalt	NC	5.5 B	2.7 BE	1.9 B	NA	1.4 B	1.2 B	1.5 B	1.4 B
Copper	200	20.4 B	2.5 B	ND	NA	ND	ND	ND	18.1 B
Iron	300	***4,780***	***1,320***	***875***	NA	***1,410***	***1,130***	***1,510 E***	48.4 B
Lead	25	3.3 B	ND	3.6 B	NA	ND	ND	ND	ND
Magnesium	35,000	5,930	5,290	5,240	NA	4,860	4,920	4,700	4,490
Manganese	300	239	228	267	NA	182	182	189	174
Mercury	0.7	ND	ND	ND	NA	ND	ND	ND	ND
Nickel	100	11.5 B	1.4 B	2.2 B	NA	1.9 B	2.0 B	1.5 B	2.7 B
Potassium	NC	2,450	1,500	1,980	NA	1,890 E	1,860 E	1,470	1,510
Selenium	10	ND	ND	ND	NA	ND	ND	ND	ND
Silver	50	ND	2.5 B	1.0 B	NA	ND	ND	ND	ND
Sodium	20,000	***46,600***	***45,200***	***43,900***	NA	***40,600***	***40,600***	***40,800 E***	***39,100***
Thallium	0.5	***3.0 B***	ND	ND	NA	ND	ND	ND	ND
Vanadium	NC	0.72 B	ND	ND	NA	ND	ND	ND	ND
Zinc	2,000	129	16.8 B	38.9 B	NA	37.3 B	33.7 B	12.1 B	23.7 B

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
NA - Not analyzed
ND - Not Detected
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18
Sample ID	Class GA	MW-18	DMW-18	DMW-18	DMW-18	DMW-18	DMW-18	DMW-18	DMW-18F
Laboratory ID	Ground	E0773-06A	F1193-16A	G2114-06	J0429-18A	K0942-25	K0942-26	L1807-18	L1808-28
Sample Date	Water	6/8/06	8/23/07	11/11/08	3/9/10	5/25/11	5/25/11	8/23/12	8/23/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	1,430	829	88.1 B	2,270	3,280	ND	ND	ND
Antimony	3	ND	ND	***5.1*** B	***12.2*** B	ND	ND	ND	ND
Arsenic	25	ND	ND U	ND	5.9 B	7.0 B	ND	ND	ND
Barium	1,000	168 B	71.3 B	166 B	283	109 B	13.4 B	19.7 B	17.0 B
Beryllium	3	ND	ND	ND	0.31 B	0.29 B	ND	ND	ND
Cadmium	5	3 B	1.2 B	***9.8***	***18.1***	1.3 B	ND	ND	ND
Calcium	NC	13,900	9,790	12,600	27,000	19,000	18,400	14,000	14,300
Chromium	50	2.2 B	0.63 B	ND	5 B	3.9 B	ND	0.75 B	ND
Cobalt	NC	7.3 B	5.5 BE	2.0 B	11.6 B	9.2 B	ND	ND	ND
Copper	200	17.7 B	3.5 B	11.1 B	112	12.2 B	ND	ND	ND
Iron	300	***1,150***	***1,320***	114 B	***4,620***	***2,890***	ND	35.3 B	ND
Lead	25	ND	1.9 B	ND	19	ND	ND	ND	ND
Magnesium	35,000	2,340	1,550	2,440	4,130	3,300	3,070	2,360	2,410
Manganese	300	***6,270***	***4,490***	***2,870***	***10,100*** *	***3,450***	ND	113	23.4 B
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	17.5 B	13.0 B	29.3 B	48.0 BE	15.7 B	ND	ND	ND
Potassium	NC	1,520	1,180	1,540	4,120 E	2,050 E	1,860 E	2,310 E	2,410
Selenium	10	ND	ND	ND	***16.4 B***	ND	ND	ND	ND
Silver	50	ND	1.5 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	7,870	6,020	12,100	10,600	16,800	17,300	17,900	18,700
Thallium	0.5	***26.5***	ND	ND	***64.5***	ND	ND	ND	ND
Vanadium	NC	2.6 B	1.4 B	ND	5.0 B	3.9 B	ND	ND	ND
Zinc	2,000	235	89.0	265	366	192	22.2 B	ND	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A
Sample ID	Class GA	MW-22A	DMW-22A	DMW-22A	DMW-22A	DMW-22A	DMW-22A	DMW-22A	DMW-22AF
Laboratory ID	Ground	E0773-11A	F1193-09A	G2114-09	J0429-19A	K0942-11	K0942-12	L1807-17	L1808-27
Sample Date	Water	6/7/06	8/22/07	11/12/08	3/9/10	5/25/11	5/25/11	8/23/12	8/23/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	4,320	2,870	2,620	1,060	159 B	ND	ND	ND
Antimony	3	1.7 B	***5.2 B***	ND	***13.0 B***	ND	ND	ND	ND
Arsenic	25	16.0 B	3.8 B	7.2 B	15.4 B	7.5 B	4.5 B	ND	ND
Barium	1,000	167 B	76.9 B	69.6 B	109 B	106 B	111 B	36.1 B	37.8 B
Beryllium	3	0.15 B	ND	0.21 B	0.19 B	ND	ND	ND	ND
Cadmium	5	***38.9***	***22.1***	***13.5***	***13.7***	***6.8***	ND	ND	ND
Calcium	NC	52,100	37,500	55,700	104,000	114,000	96,400	27,600	28,200
Chromium	50	18.0 B	12.8 B	13.0 B	8.8 B	2.8 B	0.76 B	2.2 B	1.7 B
Cobalt	NC	2.2 B	5.2 BE	ND	1.4 B	ND	ND	ND	ND
Copper	200	32.3	24.0 B	19.3 B	21.5 B	7.9 B	ND	ND	ND
Iron	300	***70,400***	***22,400***	***22,000***	***61,100***	***16,700***	***2,260***	***2,700***	***2,690***
Lead	25	8.6 B	13.1	11.3	12.4	ND	ND	ND	ND
Magnesium	35,000	8,300	5,580	7,860	13,800	15,600	13,100	4,060	4,210
Manganese	300	***1,280***	***1,190***	***1,030***	***912*** *	***683***	***780***	***437***	***443***
Mercury	0.7	ND	ND	ND	0.094 B	ND	ND	ND	ND
Nickel	100	6.0 B	3.7 B	2.6 B	4.7 BE	2.4 B	1.4 B	ND	ND
Potassium	NC	4,560	3,530	3,980	3,430 E	4,520 E	5,120 E	2,980 E	3,040
Selenium	10	8.7 B	ND	ND	***24.3 B***	ND	ND	ND	ND
Silver	50	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***95,200***	***69,400***	***39,900***	***57,800***	***100,000***	***134,000***	***59,700***	***61,000***
Thallium	0.5	ND	***2.8 B***	ND	ND	ND	ND	ND	ND
Vanadium	NC	17.4 B	9.2 B	7.0 B	6.3 B	3.1 B	ND	ND	ND
Zinc	2,000	1,650	1,170	714	1,360	1,000	546	16.9 B	16.1 B

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-22B	MW-22B	MW-22B	MW-22B	MW-22B	MW-22B	MW-22B	MW-22B
Sample ID	Class GA	MW-22B	DMW-22B	DMW-22B	DMW-22B	DMW-22B	DMW-22B	DMW-22B	DMW-22BF
Laboratory ID	Ground	E0773-12A	F1193-08A	G2114-11	J0429-20A	k0942-13	k0942-13	L1807-16	L1808-26
Sample Date	Water	6/7/06	8/22/07	11/12/08	3/9/10	5/25/11	5/25/11	8/23/12	8/23/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	763 B	151 B	ND	56.3 B	ND	ND	ND	ND
Antimony	3	ND	***4.7 B***	ND	***8.7 B***	ND	ND	ND	ND
Arsenic	25	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1,000	76.6 B	48.2 B	41.3 B	57.6 B	43.3 B	35.6 B	39.6 B	40.5 B
Beryllium	3	ND	ND	ND	0.039 B	ND	ND	ND	ND
Cadmium	5	***29.0*** B	4.4 B	1.2 B	1.7 B	ND	ND	ND	ND
Calcium	NC	12,800	20,400	27,200	21,400	19,500	19,700	22,400	22,500
Chromium	50	7.9 B	1.5 B	ND	1.6 B	0.66 B	ND	ND	ND
Cobalt	NC	17.4 B	3.9 BE	1.5 B	1.0 B	ND	ND	ND	ND
Copper	200	118 B	4.0 B	ND	ND	ND	ND	ND	ND
Iron	300	***4,600***	***1,120***	***518***	***358***	164 B	ND	110 B	ND
Lead	25	8.6 B	3 B	2.4 B	3.3 B	ND	ND	ND	ND
Magnesium	35,000	2,660 B	3,130	5,090	3,510	3,230	3,300	3,860	3,950
Manganese	300	***2,310***	***2,440***	***775***	***940*** *	***589***	***342***	***748***	***726***
Mercury	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	100	28.0 B	2.7 B	6.5 B	2.0 BE	0.85 B	ND	ND	ND
Potassium	NC	3,000 B	2,500	1,910	4,220 E	4,740 E	4,260 E	4,470 E	4,270
Selenium	10	ND	ND	ND	***19.0 B***	ND	ND	ND	ND
Silver	50	ND	4.2 B	ND	ND	ND	ND	ND	ND
Sodium	20,000	8,170 B	17,100	11,300	14,400	12,700	13,600	19,200	19,000
Thallium	0.5	***20.1*** B	***3.5 B***	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	0.49 B	ND	ND	ND	ND	ND	ND
Zinc	2,000	194 B	39.4 B	29.8 B	34.6 B	20.1 B	17.6 B	5.7 B	ND

Notes: All values in µg/L
NC - No Criteria ND - Not Detected
BOLD/Italics - exceeds criterion
NA - Not analyzed
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
N - Matrix spike recovery falls outside of the control limit
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-23A	MW-23A	MW-23A	MW-23A	MW-23A	MW-23A	MW-23A	MW-23A
Sample ID	Class GA	MW-23A	DMW-23A	DMW-23A	DMW-23A	DMW-23A	DMW-23A	DMW-23A	DMW-23AF
Laboratory ID	Ground	E0773-01A	F1193-12A	G2114-14	J0429-21A	K0942-15	K0942-16	L1807-28	L1808-24
Sample Date	Water	6/7/06	8/22/07	11/12/08	3'10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	941	2,440	3,200	3,790	5,060	ND	161 B	ND
Antimony	3	1.8 B	***5.8 B***	ND	***9.5 B***	ND	ND	ND	ND
Arsenic	25	2.0 B	4.1 B	5.8 B	7.9 B	7.4 B	ND	ND	ND
Barium	1,000	87.5 B	51.2 B	40.1 B	47.8 B	47.4 B	34.6 B	28.0 B	27.3 B
Beryllium	3	ND	ND	0.29 B	0.23 B	ND	ND	ND	ND
Cadmium	5	***110***	***702***	***1,080***	***704***	***924***	***9.5***	***31.7***	3.3 B
Calcium	NC	34,200	40,900	31,000	38,600	29,300	27,800	26,700 E	26,400
Chromium	50	3.6 B	4.9 B	3.6 B	6.4 B	6.4 B	0.97 B	1.2 B	4.0 B
Cobalt	NC	3.2 B	6.1 BE	ND	0.76 B	ND	ND	ND	ND
Copper	200	33.2	35.9	47.6	137	190	ND	6.7 B	ND
Iron	300	***10,300***	***29,700***	***13,100***	***11,500***	***15,200***	***2,030***	***1,860 E***	***602***
Lead	25	ND	6.6 B	9.5 B	11.2	5.6 B	ND	ND	ND
Magnesium	35,000	6,660	6,280	9,020	8,010	5,160	5,100	4,950	4,750
Manganese	300	***1,100***	***612***	***1,390***	***1,410*** *	***1,600***	***1,480***	***1,110***	***1,170***
Mercury	0.7	0.065 B	ND	ND	0.12 B	0.035 B	ND	ND	ND
Nickel	100	9.3 B	7.1 B	2.2 B	6.3 BE	3.7 B	1.2 B	ND	2.0 B
Potassium	NC	7,070	5,200	6,780	6,930 E	6,270 E	6,420 E	5,770	5,790
Selenium	10	1.3 B	6.1 B	ND	***13.5 B***	ND	ND	ND	ND
Silver	50	0.92 B	ND	ND	ND	ND	ND	ND	ND
Sodium	20,000	***60,200***	***32,400***	***37,800***	***64,600***	***67,900***	***70,800***	***74,100 E***	***73,400***
Thallium	0.5	***9.3*** B	ND	ND	***11.3 B***	ND	ND	ND	ND
Vanadium	NC	5.5 B	12.6 B	20.5 B	11.4 B	16.4 B	ND	1.1 B	ND
Zinc	2,000	181	26.9 B	42.7 B	48.3 B	70.5	15.6 B	ND	5.9 B

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 3
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH AUGUST 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-23B	MW-23B	MW-23B	MW-23B	MW-23B	MW-23B	MW-23B	MW-23B
Sample ID	Class GA	MW-23B	DMW-23B	DMW-23B	DMW-23B	DMW-23B	DMW-23B	DMW-23B	DMW-23BF
Laboratory ID	Ground	E0773-02A	F1193-11A	G2114-15	J0429-22A	K0942-27	K0942-28	L1807-26	L1808-22
Sample Date	Water	6/7/06	8/22/07	11/12/08	3/10/10	5/25/11	5/25/11	8/22/12	8/22/12
Filtered/Unfiltered	Criteria	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Unfiltered	Filtered	Unfiltered	Filtered
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	2,450	632	406	2,820	1,810	ND	103 B	ND
Antimony	3	***3.2 B***	ND	ND	***6.2 B***	ND	ND	ND	ND
Arsenic	25	4.1 B	ND	ND	6.7 B	ND	ND	ND	ND
Barium	1,000	215	86.4 B	64.6 B	77.4 B	64.8 B	150 B	29.0 B	26.8 B
Beryllium	3	0.21 B	ND	0.13 B	0.3 B	ND	ND	ND	ND
Cadmium	5	***320***	***60.0***	***42.2***	***43.8***	***40.1***	***5.8***	***69.6***	***33.1***
Calcium	NC	21,500	25,100	15,700	24,400	24,800	21,700	18,100 E	17,700
Chromium	50	***74.9***	13.9 B	4.3 B	***61.6***	12.6 B	8.5 B	10.7 B	7.8 B
Cobalt	NC	4.8 B	2.4 BE	ND	3.5 B	1.7 B	0.91 B	ND	ND
Copper	200	94.6	19.8 B	24.6 B	54.8	25.6 B	13.9 B	4.1 B	ND
Iron	300	***8,220***	***2,140***	***1,270***	***7,870***	***5,200***	***36,100***	279 E	117 B
Lead	25	***35.7***	10.3	17.7	***43.9***	22.6	ND	ND	ND
Magnesium	35,000	1,890	1,290	1,590	2,730	4,150	2,460	2,950	2,910
Manganese	300	***548***	***508***	52.1	***398*** *	126	169	138	135
Mercury	0.7	0.11 B	ND	ND	0.11 B	ND	ND	ND	ND
Nickel	100	68.8	16.7 B	20.5 B	23.2 BE	14.8 B	10 B	2.4 B	1.3 B
Potassium	NC	2,400	1,970	1,660	1,650 E	2,450 E	2,110 E	1,760	1,820
Selenium	10	ND	8.6 B	ND	***19.3 B***	ND	ND	ND	ND
Silver	50	ND	5.0 B	0.81 B	ND	ND	ND	ND	ND
Sodium	20,000	2,390	3,870	2,200	***84,400***	18,900	18,500	15,000 E	14,700
Thallium	0.5	***3.1 B***	ND	ND	***6.1 B***	ND	ND	ND	ND
Vanadium	NC	17.7 B	9.0 B	5.9 B	12.1 B	12.9 B	ND	ND	ND
Zinc	2,000	417	145	198	376	410	47 B	17.7 B	ND

Notes: All values in µg/L
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
N - Matrix spike recovery falls outside of the control limit
NC - No Criteria
ND - Not Detected
NA - Not analyzed
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 4
DZUS FASTENERS SITE (1-52-033)
AUGUST 2012 SAMPLING EVENT
TOTAL VERSUS DISSOLVED METALS CONCENTRATIONS IN GROUNDWATER

Sample Location	NYSDEC	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3	MW-9	MW-9	MW-9
Sample ID	Class GA	DMW-2	DMW-2F		DMW-3	DMW-3F		DMW-9	DMW-9F	
Laboratory ID	Ground	L1807-19	L1808-15		L1807-20	L1808-17		L1807-21	L1808-19	
Sample Date	Water	8/22/12	8/22/12		8/22/12	8/22/12		8/22/12	8/22/12	
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent
Metal		conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved
Aluminum	NC	328	ND	NC	ND	ND	NC	163 B	ND	NC
Antimony	3	ND	ND	NC	***10.7 B***	ND	NC	***9.5 B***	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Barium	1,000	20.4 B	18.4 B	90.2%	29.0 B	28.0 B	96.6%	17.8 B	17.0 B	95.5%
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	***16.3***	***15.1***	92.6%	4.9 B	4.4 B	89.8%
Calcium	NC	12,500 E	12,300	98.4%	11,100 E	10,700	96.4%	13,900 E	13,700	98.6%
Chromium	50	0.73 B	ND	NC	ND	0.9 B	NC	8.3 B	4.0 B	48.2%
Cobalt	NC	1.2 B	1 B	83.3%	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC	ND	ND	NC
Iron	300	***1,590 E***	***1,060***	66.7%	50.5 B	ND	NC	***556 E***	ND	NC
Lead	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Magnesium	35,000	1,850	1,790	96.8%	2,220	2,180	98.2%	3,300	3,220	97.6%
Manganese	300	124	115	92.7%	ND	ND	NC	ND	ND	NC
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	1.7 B	1.3 B	76.5%	0.92 B	ND	NC	1.4 B	2.3 B	164.3%
Potassium	NC	1,440	1,430	99.3%	2,420	2,400	99.2%	1,420	1,390	97.9%
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	***24,400 E***	***23,500***	96.3%	***23,400 E***	***23,000***	98.3%	***26,300*** E	***25,900***	98.5%
Thallium	0.5	ND	ND	NC	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	18.4 B	5.2 B	28.3%	ND	7.1 B	NC	12.9 B	11.8 B	91.5%
Turbidity	50 NTU	0.0			0.0			34.1		

Notes: ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
NC - both filtered and unfiltered result was "not detected"
BOLD/Italics - exceeds criterion

TABLE 4
DZUS FASTENERS SITE (1-52-033)
AUGUST 2012 SAMPLING EVENT
TOTAL VERSUS DISSOLVED METALS CONCENTRATIONS IN GROUNDWATER

Sample Location	NYSDEC	MW-9B	MW-9B	MW-9B	MW-13A	MW-13A	MW-13A	MW-13B	MW-13B	MW-13B
Sample ID	Class GA	DMW-9B	DMW-9BF		DMW-13A	DMW-13AF		DMW-13B	DMW-13BF	
Laboratory ID	Ground	L1807-22	L1808-18		L1807-15	L1808-25		L1807-27	L1808-23	
Sample Date	Water	8/22/12	8/22/12		8/22/12	8/22/12		8/22/12	8/22/12	
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent
Metal		conc. Q	conc. Q	Dissolved	conc.	conc.	Dissolved	conc. Q	conc. Q	Dissolved
Aluminum	NC	ND	ND	NC	204	ND	NC	ND	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Barium	1,000	22.2 B	21.1 B	95.0%	77.9 B	31.4 B	40.3%	23.1 B	22.4 B	97.0%
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	***93.5***	***64.4***	68.9%	1.5 B	1.1 B	73.3%
Calcium	NC	9,300 E	8,330	89.6%	7,850	7,800	99.4%	11,300 E	10,600	93.8%
Chromium	50	0.82 B	ND	NC	2.8 B	1.9 B	67.9%	21.2	21.4	100.9%
Cobalt	NC	ND	ND	NC	33.7 B	15.1 B	44.8%	ND	ND	NC
Copper	200	ND	ND	NC	6.7 B	ND	NC	ND	ND	NC
Iron	300	39.5 B	ND	NC	***3,690***	***1,580***	42.8%	ND	ND	NC
Lead	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Magnesium	35,000	1,680	1,480	88.1%	936	960	102.6%	1,630	1,550	95.1%
Manganese	300	ND	ND	NC	***6,190***	***3,430***	55.4%	54.3	19.7 B	36.3%
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	1.1 B	2.7 B	245.5%	ND	ND	NC
Potassium	NC	1,800	1,790	99.4%	2,250 E	2,140	95.1%	1,340	1,360	101.5%
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	***21,400 E***	19,700	92.1%	***47,000***	***46,900***	99.8%	9,260 E	8,950	96.7%
Thallium	0.5	ND	ND	NC	***9.2 B***	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	9.5 B	ND	NC	ND	ND	NC
Turbidity	50 NTU	27.6			41.2			0.0		

Notes: ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
NC - both filtered and unfiltered result was "not detected"
BOLD/Italics - exceeds criterion

TABLE 4
DZUS FASTENERS SITE (1-52-033)
AUGUST 2012 SAMPLING EVENT
TOTAL VERSUS DISSOLVED METALS CONCENTRATIONS IN GROUNDWATER

Sample Location	NYSDEC	MW-15A	MW-15A	MW-15A	MW-15B	MW-15B	MW-15B	MW-18	MW-18	MW-18
Sample ID	Class GA	DMW-15A	DMW-15AF		DMW-15B	DMW-15BF		DMW-18	DMW-18F	
Laboratory ID	Ground	L1807-25	L1808-21		L1807-24	L1808-20		L1807-18	L1808-28	
Sample Date	Water	8/22/12	8/22/12		8/22/12	8/22/12		8/23/12	8/23/12	
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent
Metal		conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved
Aluminum	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	4.3 B	NC	ND	ND	NC
Barium	1,000	15.9 B	15.0 B	94.3%	32.4 B	29.4 B	90.7%	19.7 B	17.0 B	86.3%
Beryllium	3	ND	ND	NC	ND	ND	NC	ND	ND	NC
Cadmium	5	***16.8***	***9.7***	57.7%	ND	ND	NC	ND	ND	NC
Calcium	NC	13,500 E	13,400	99.3%	12,200 E	11,500	94.3%	14,000	14,300	102.1%
Chromium	50	ND	1.2 B	NC	ND	ND	NC	0.75 B	ND	NC
Cobalt	NC	ND	ND	NC	1.5 B	1.4 B	93.3%	ND	ND	NC
Copper	200	ND	ND	NC	ND	18.1 B	NC	ND	ND	NC
Iron	300	ND	ND	NC	***1,510 E***	48.4 B	3.2%	35.3 B	ND	NC
Lead	25	ND	ND	NC	ND	ND	NC	ND	ND	NC
Magnesium	35,000	2,460	2,440	99.2%	4,700	4,490	95.5%	2,360	2,410	102.1%
Manganese	300	238	41.1 B	17.3%	189	174	92.1%	113	23.4 B	20.7%
Mercury	0.7	ND	ND	NC	ND	ND	NC	ND	ND	NC
Nickel	100	ND	1.1 B	NC	1.5 B	2.7 B	180.0%	ND	ND	NC
Potassium	NC	2,110	2,230	105.7%	1,470	1,510	102.7%	2,310 E	2,410	104.3%
Selenium	10	ND	ND	NC	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC	ND	ND	NC
Sodium	20,000	***20,400 E***	***20,400***	100.0%	***40,800 E***	***39,100***	95.8%	17,900	18,700	104.5%
Thallium	0.5	ND	ND	NC	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	ND	ND	NC	12.1 B	23.7 B	195.9%	ND	ND	NC
Turbidity	50 NTU	0.0			32.3			0.0		

Notes: ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
NC - both filtered and unfiltered result was "not detected"
BOLD/Italics - exceeds criterion

TABLE 4
DZUS FASTENERS SITE (1-52-033)
AUGUST 2012 SAMPLING EVENT
TOTAL VERSUS DISSOLVED METALS CONCENTRATIONS IN GROUNDWATER

Sample Location	NYSDEC	MW-22A	MW-22A	MW-22A	MW-22B	MW-22B	MW-22B
Sample ID	Class GA	DMW-22A	DMW-22AF		DMW-22B	DMW-22BF	
Laboratory ID	Ground	L1807-17	L1808-27		L1807-16	L1808-26	
Sample Date	Water	8/23/12	8/23/12		8/23/12	8/23/12	
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent
Metal		conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved
Aluminum	NC	ND	ND	NC	ND	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC
Barium	1,000	36.1 B	37.8 B	104.7%	39.6 B	40.5 B	102.3%
Beryllium	3	ND	ND	NC	ND	ND	NC
Cadmium	5	ND	ND	NC	ND	ND	NC
Calcium	NC	27,600	28,200	102.2%	22,400	22,500	100.4%
Chromium	50	2.2 B	1.7 B	77.3%	ND	ND	NC
Cobalt	NC	ND	ND	NC	ND	ND	NC
Copper	200	ND	ND	NC	ND	ND	NC
Iron	300	***2,700***	***2,690***	99.6%	110 B	ND	NC
Lead	25	ND	ND	NC	ND	ND	NC
Magnesium	35,000	4,060	4,210	103.7%	3,860	3,950	102.3%
Manganese	300	***437***	***443***	101.4%	***748***	***726***	97.1%
Mercury	0.7	ND	ND	NC	ND	ND	NC
Nickel	100	ND	ND	NC	ND	ND	NC
Potassium	NC	2,980 E	3,040	102.0%	4,470 E	4,270	95.5%
Selenium	10	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC
Sodium	20,000	***59,700***	***61,000***	102.2%	19,200	19,000	99.0%
Thallium	0.5	ND	ND	NC	ND	ND	NC
Vanadium	NC	ND	ND	NC	ND	ND	NC
Zinc	2,000	16.9 B	16.1 B	95.3%	5.7 B	ND	NC
Turbidity	50 NTU	35.2			0.0		

Notes: ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
NC - both filtered and unfiltered result was "not detected"
BOLD/Italics - exceeds criterion

TABLE 4
DZUS FASTENERS SITE (1-52-033)
AUGUST 2012 SAMPLING EVENT
TOTAL VERSUS DISSOLVED METALS CONCENTRATIONS IN GROUNDWATER

Sample Location	NYSDEC	MW-23A	MW-23A	MW-23A	MW-23B	MW-23B	MW-23B
Sample ID	Class GA	DMW-23A	DMW-23AF		DMW-23B	DMW-23BF	
Laboratory ID	Ground	L1807-28	L1808-24		L1807-26	L1808-22	
Sample Date	Water	8/22/12	8/22/12		8/22/12	8/22/12	
Filtered/Unfiltered	Criteria	Unfiltered	Filtered	Percent	Unfiltered	Filtered	Percent
Metal		conc. Q	conc. Q	Dissolved	conc. Q	conc. Q	Dissolved
Aluminum	NC	161 B	ND	NC	103 B	ND	NC
Antimony	3	ND	ND	NC	ND	ND	NC
Arsenic	25	ND	ND	NC	ND	ND	NC
Barium	1,000	28.0 B	27.3 B	97.5%	29.0 B	26.8 B	92.4%
Beryllium	3	ND	ND	NC	ND	ND	NC
Cadmium	5	***31.7***	3.3 B	10.4%	***69.6***	***33.1***	47.6%
Calcium	NC	26,700 E	26,400	98.9%	18,100 E	17,700	97.8%
Chromium	50	1.2 B	4.0 B	333.3%	10.7 B	7.8 B	72.9%
Cobalt	NC	ND	ND	NC	ND	ND	NC
Copper	200	6.7 B	ND	NC	4.1 B	ND	NC
Iron	300	***1,860 E***	***602***	32.4%	279 E	117 B	41.9%
Lead	25	ND	ND	NC	ND	ND	NC
Magnesium	35,000	4,950	4,750	96.0%	2,950	2,910	98.6%
Manganese	300	***1,110***	***1,170***	105.4%	138	135	97.8%
Mercury	0.7	ND	ND	NC	ND	ND	NC
Nickel	100	ND	2.0 B	NC	2.4 B	1.3 B	54.2%
Potassium	NC	5,770	5,790	100.3%	1,760	1,820	103.4%
Selenium	10	ND	ND	NC	ND	ND	NC
Silver	50	ND	ND	NC	ND	ND	NC
Sodium	20,000	***74,100 E***	***73,400***	99.1%	15,000 E	14,700	98.0%
Thallium	0.5	ND	ND	NC	ND	ND	NC
Vanadium	NC	1.1 B	ND	NC	ND	ND	NC
Zinc	2,000	ND	5.9 B	NC	17.7 B	ND	NC
Turbidity	50 NTU	0.0			0.0		

Notes: ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
NC - both filtered and unfiltered result was "not detected"
BOLD/Italics - exceeds criterion

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC	Lake	Lake	Lake	Lake	Lake	Lake
	Class A	Capri	Capri	Capri	Capri	Capri	Capri
Sample ID	Surface	SW-1	SW-1	SW-1	SW-1	SW-1	SW-1
Laboratory ID	Water	E0868-01A	F1193-20A	G2136-11	J0376-01A	K0911-08	L1949-01
Sample Date	Criteria	6/21/06	8/23/07	11/14/08	3/4/10	5/22/11	09/17/12
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	31.9 B	40.1 B	ND	29.6 B	ND	ND
Antimony	3	ND	ND	***6.0*** B	ND	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Barium	1,000	13.2 B	23.1 B	31.8 B	22.4 B	13.6 B	20.8 B
Beryllium	3	ND	ND	ND	ND	ND U	ND
Cadmium	5	1.1 B	2.3 B	1.5 B	2.6 B	1.6 B	ND
Calcium	NC	15,100	14,100	14,300	15,300	13,900	14,900
Chromium	50	0.6 B	0.95 B	ND	0.52 B	1.3 B	ND
Cobalt	NC	0.94 B	1.4 BE	ND	0.76 B	0.77 B	ND
Copper	200	8.9 B	3.1 B	ND	ND	ND	ND
Iron	300	***691***	***738***	***598***	***387***	***416***	172 B
Lead	50	ND	2.1 B	ND	ND	ND	ND
Magnesium	35,000	3,500	2,860	3,570	3,420	2,960	3,420
Manganese	300	***1,050***	***862***	***1,610***	***996***	***1,000***	***552***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	1.3 B	0.6 B	ND	1.6 B	ND	ND
Potassium	NC	2,000	1,930	2,250	2,070	2,040	2,300
Selenium	10	ND	6 B	ND	ND	ND	ND
Silver	50	1.8 B	2.8 B	0.98 B	ND	ND	ND
Sodium	20,000	18,500	15,800	19,000	***22,500***	18,700	***24,600***
Thallium	0.5	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.78 B	0.79 B	ND	2.6 B	ND	ND
Zinc	2,000	22.4 B	22.8 B	22.3 B	38 B	22.3 B	10.1 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC	Lake	Lake	Lake	Lake	Lake	Lake
	Class A	Capri	Capri	Capri	Capri	Capri	Capri
Sample ID	Surface	SW-2	SW-2	SW-2	SW-2	SW-2	SW-2
Laboratory ID	Water	E0868-03A	F1194-02A	G2136-09	J0376-02A	K0911-09	L1949-02
Sample Date	Criteria	6/21/06	8/23/07	11/14/08	3/4/10	5/22/11	09/17/12
		conc. Q	conc.	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	16.8 B	98.4 B	ND	33.2 B	ND	ND
Antimony	3	ND	ND	ND	***5.7 B***	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Barium	1,000	12.2 B	24.3 B	32.4 B	24.2 B	12.9 B	20.2 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	1.0 B	2.1 B	2.0 B	2.8 B	1.7 B	ND
Calcium	NC	14,900	13,300	14,300	16,100	13,900	14,700
Chromium	50	0.52 B	1.2 B	ND	0.86 B	0.72 B	ND
Cobalt	NC	0.92 B	1 B	ND	1 B	ND	ND
Copper	200	ND	4.4 B	ND	6.2 B	ND	ND
Iron	300	***649***	***819***	***675***	***478***	***508***	176 B
Lead	50	ND	3.1 B	2.4 B	ND	ND	ND
Magnesium	35,000	3,490	2,940	3,530	3,700	2,940	3,360
Manganese	300	***1,010***	***819 E***	***1,560***	***968***	***1,080***	***564***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	1.1 B	0.81 B	ND	2.4 B	ND	ND
Potassium	NC	1,990	1,990	2,320	2,080	1,990	2,330
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	1.6 B	3.1 B	ND	ND	ND	ND
Sodium	20,000	18,100	16,200 E	19,500	***22,000***	18,600	***23,800***
Thallium	0.5	ND	ND	ND	***7.2 B***	ND	ND
Vanadium	NC	ND	0.88 B	1.1 B	3.3 B	ND	ND
Zinc	2,000	15.6 B	27.4 B	21 B	34.5 B	20.3 B	5.3 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC	Lake	Lake	Lake	Lake	Lake	Lake
	Class A	Capri	Capri	Capri	Capri	Capri	Capri
Sample ID	Surface	SW-3	SW-3	SW-3	SW-3	SW-3	SW-3
Laboratory ID	Water	E0868-05A	F1194-04A	G2136-13	J0376-03A	K0911-10	L1949-03
Sample Date	Criteria	6/21/06	8/23/07	11/14/08	3/4/10	5/22/11	09/17/12
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	69.5 B	37 U	ND	27 B	ND	ND
Antimony	3	ND	ND	ND	***7.2 B***	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Barium	1,000	7.9 B	12.6 B	38.6 B	19.6 B	10.1 B	17.2 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	1.9 B	0.32 B	0.97 B	2.8 B	1.4 B	ND
Calcium	NC	15,200	13,100	14,000	15,000	13,900	14,500
Chromium	50	0.58 B	0.7 B	ND	0.59 B	0.67 B	ND
Cobalt	NC	0.72 B	1.0 B	ND	ND	ND	ND
Copper	200	ND	3.9 B	ND	ND	ND	ND
Iron	300	***788***	280	***772***	***332***	***311***	144 B
Lead	50	0.92 B	ND	ND	ND	ND	ND
Magnesium	35,000	3,540	2,990	3,440	3,380	3,030	3,310
Manganese	300	***882***	73.9 E	***1,790***	***911***	***990***	***355***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	0.96 B	ND	ND	1.3 B	ND	ND
Potassium	NC	2,000	2,020	2,290	2,000	2,000	2,210
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	1.3 B	3.4 B	0.64 B	ND	ND	ND
Sodium	20,000	18,300	16,800 E	17,700	***23,300***	18,800	***23,500***
Thallium	0.5	ND	ND	ND	***5.9 B***	ND	ND
Vanadium	NC	0.7 B	0.42 B	ND	2.8 B	ND	ND
Zinc	2,000	21.5 B	14 B	16.4 B	33.4 B	18.9 B	ND

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC	Lake	Lake	Lake	Lake	Lake	Lake
	Class A	Capri	Capri	Capri	Capri	Capri	Capri
Sample ID	Surface	SW-4	SW-4	SW-4	SW-4	SW-4	SW-4
Laboratory ID	Water	E0868-07A	F1194-06A	G2136-15	J0376-04A	K0911-11	L1949-04
Sample Date	Criteria	6/21/06	8/23/07	11/14/08	3/4/10	5/22/11	09/17/12
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	ND	ND	ND	27.4 B	ND	ND
Antimony	3	ND	ND	ND	ND	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Barium	1,000	5.7 B	14 B	31.9 B	20.2 B	9.8 B	19.6 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	0.89 B	0.77 B	0.63 B	2.6 B	1.4 B	ND
Calcium	NC	14,600	12,900	14,000	15,300	13,700	13,900
Chromium	50	ND	0.88 B	ND	0.51 B	0.75 B	ND
Cobalt	NC	0.37 B	1.2 B	ND	ND	ND	ND
Copper	200	11.7 B	4.9 B	ND	ND	ND	ND
Iron	300	***610***	***609***	***741***	***344***	***322***	152 B
Lead	50	ND	2.2 B	ND	ND	ND	ND
Magnesium	35,000	3,510	2,950	3,490	3,420	2,980	3,190
Manganese	300	***786***	135 E	***1,630***	***943***	***918***	***463***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	0.6 B	ND	ND	0.88 B	ND	ND
Potassium	NC	1,950	2,040	2,310	1,980	1,960	2,150
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	2.8 B	ND	ND	ND	ND
Sodium	20,000	18,100	16,600 E	17,800	***22,900***	18,700	***23,900***
Thallium	0.5	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	ND	2 B	ND	ND
Zinc	2,000	20.2 B	18 B	9.7 B	31.9 B	18.9 B	5.3 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC Class A Surface Water Criteria	Willetts Creek SW-5	Willetts Creek SW-5	Willetts Creek SW-5	Willetts Creek SW-5	Willetts Creek SW-5	Willetts Creek SW-5
Sample ID		SW-5	SW-5	SW-5	SW-5	SW-5	SW-5
Laboratory ID		E0868-09A	F1193-18A	G2114-20	J0376-05A	K0911-12	L1949-05
Sample Date		6/21/06	8/23/07	11/12/08	3/4/10	5/22/11	09/18/12
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	15.3 B	ND	ND	79.3 B	305	ND
Antimony	3	1.5 B	***4.4 B***	ND	ND	ND	ND
Arsenic	50	ND	ND	ND	5.2 B	ND	ND
Barium	1,000	36.9 B	36.4 B	26.2 B	24.6 B	40.7 B	31.4 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	***5.7***	***5.6***	3 B	***5.1***	***8.8***	4.1 B
Calcium	NC	14,400	16,100	12,500	17,800	19,200	15,200
Chromium	50	ND	0.39 B	ND	0.99 B	2.6 B	ND
Cobalt	NC	0.82 B	1.9 BE	ND	ND	1.8 B	ND
Copper	200	ND	1.7 B	ND	5.6 B	11.3 B	3.8 B
Iron	300	***632***	***599***	***1,060***	***959***	***4,080***	***690***
Lead	50	ND	ND	ND	ND	10.2	ND
Magnesium	35,000	3,550	3,420	3,100	3,960	4,020	3,510
Manganese	300	***1,420***	***1,110***	***956***	***450***	***923***	***519***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	0.98 B	0.85 B	ND	1.1 B	1.4 B	ND
Potassium	NC	2,080	2,040	1,780	2,070	2,340	2,240
Selenium	10	ND	ND	ND	ND	ND	ND
Silver	50	ND	3.1 B	ND	ND	ND	ND
Sodium	20,000	***21,100***	***21,800***	18,100	***20,300***	***26,900***	***28,100***
Thallium	0.5	ND	ND	ND	ND	ND	ND
Vanadium	NC	ND	ND	0.99 B	12.1 B	6.9 B	ND
Zinc	2,000	22 B	21.2 B	10.4 B	38.5 B	98.7	15.9 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 5
DZUS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SURFACE WATER SAMPLES

Sample Location	NYSDEC Class A Surface Water Criteria	Willetts Creek	Willetts Creek	Willetts Creek	Willetts Creek	Willetts Creek	Willetts Creek
Sample ID		SW-6	SW-6	SW-6	SW-6	SW-6	SW-6
Laboratory ID		E0868-11A	F1194-08A	G2114-16	J0376-06	K0911-13	L1949-06
Sample Date		6/21/06	8/23/07	11/12/08	3/4/10	5/22/11	09/17/12
		conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	40.5 B	ND	190 B	63.9 B	103 B	84.4 B
Antimony	3	ND	***8.0 B***	ND	ND	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Barium	1,000	35.5 B	40.6 B	37.7 B	22.8 B	27.8 B	23.6 B
Beryllium	3	ND	ND	ND	ND	ND	ND
Cadmium	5	0.55 B	2.8 B	***75.4***	ND	ND	ND
Calcium	NC	26,700	27,200	20,100	19,200	25,100	21,400
Chromium	50	0.99 B	0.88 B	7.2 B	1.5 B	0.73 B	1.7 B
Cobalt	NC	3.1 B	2.8 B	ND	ND	ND	ND
Copper	200	ND	2.8 B	ND	ND	ND	ND
Iron	300	***5,400***	***2,170***	***4,010***	***639***	***2,280***	***6,840***
Lead	50	ND	2.5 B	9.8 B	ND	ND	ND
Magnesium	35,000	5,130	5,290	4,080	4,320	4,960	4,860
Manganese	300	***2,610***	***1,510 E***	***1,040***	***406***	***869***	***1,160***
Mercury	0.7	ND	ND	ND	ND	ND	ND
Nickel	100	1.4 B	1.5 B	ND	1.8 B	ND	0.91 B
Potassium	NC	2,230	2,480	2,830	2,250	2,810	2,460
Selenium	10	ND	ND	ND	***10.5 B***	ND	ND
Silver	50	ND	5.9 B	ND	ND	ND	ND
Sodium	20,000	***29,200***	***33,600 E***	***26,000***	***20,500***	***33,800***	***32,100***
Thallium	0.5	ND	ND	ND	ND	ND	ND
Vanadium	NC	1.1 B	0.63 B	1.6 B	1.6 B	ND	ND
Zinc	2,000	35.6 B	32.2 B	48.2 B	43.3 B	35.8 B	21.3 B

Notes: All values in µg/L
NC - No Criteria
ND - Not Detected
BOLD/Italics - exceeds criterion
B - Estimated value (greater than MDL but less than RL)
E - Estimated due to matrix interference
* - Replicate RPDs were not within QC limits

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Lake Capri SED-1		Lake Capri SED-1		Lake Capri SED-1		Lake Capri SED-1		Lake Capri SED-1	
Sample ID												
Laboratory ID			E0868-02A		F1193-19A		G2136-10		J0376-09A		K0911-01		L1949-09	
Sample Date	Lowest Effect	Highest Effect	6/21/06 conc.	Q	8/23/07 conc.	Q	11/14/08 conc.	Q	3/4/10 conc.	Q	5/22/11 conc.	Q	9/17/12 conc.	Q
Aluminum	NC	NC	5,020		895		7630	*	6,730	E	9,620		10,800	
Antimony	2.0	25	0.7	B	0.41	B	***2.2***	BN	***6.4***		ND		ND	
Arsenic	6.0	33	***7.9***		1.5		***8.7***		***16.1***		***15.2***	*	***18.1***	
Barium	NC	NC	81.2		31.9		67.7	B*E	175		445		203	
Beryllium	NC	NC	0.5	B	0.074	B	0.64	B	0.75	BE	0.87	B	0.34	B
Cadmium	0.6	9	***47.8***		***11.6***		***61.4***	N*E	***69.2***		***81.2***	*	***89.8***	
Calcium	NC	NC	2,540		646		3,140	*	5,180	*	7,440	*	3,340	
Chromium	26	110	20.7		2.8		***27.1***	E	***39.1***	*	***50***	*	***57.4***	
Cobalt	NC	NC	7.6		3.7		20.2	E	20.9		29.4	E	19.7	B
Copper	16	110	***38.6***		***86.3***		***65.7***		***127***	*	***121***	*	***144***	
Iron	20,000	20,000	10,300		3,880		19,700	E	***36,000***		***44,600***	*	***26,700***	
Lead	31	110	***170***		19.3		***176***	N*E	***225***		***226***	N*	***289***	
Magnesium	NC	NC	1,300		217		1,260	*E	1,770		2,100	*E	2170	
Manganese	460	1,100	***1,290***		***1,200***		181	*	***2,250***		***22,600***	*	***3,620***	
Mercury	0.15	1.3	***0.21***		0.0071	B	***0.34***		***0.38***		***0.33***	B	***0.52***	
Nickel	16	50	11.4		3.0		***19.4***		***24.1***	***E***	***24.1***	*****	***27.3***	
Potassium	NC	NC	514		91.9		465	*	429		748		660	
Selenium	NC	NC	1.6	B	0.64	B	ND		5.0	B	ND		6.1	B
Silver	1.0	2.2	ND		ND		ND		ND		2.7	B	ND	
Sodium	NC	NC	117		44.2	B	136	B	339		433		388	B
Thallium	NC	NC	5.8		ND		ND		12.7		3.8	B	8.6	B
Vanadium	NC	NC	29.4		5.1		39.9	E	78.7	E	99.2		90.5	
Zinc	120	270	***215***		71.6		***445***	*E	***493***	*	***572***	*	***642***	

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Lake Capri		Lake Capri		Lake Capri		Lake Capri		Lake Capri	
Sample ID			SED-2		SED-2		SED-2		SED-2		SED-2	
Laboratory ID			E0868-04A		F1194-01A		G2136-08		J0376-10A		K0911-02		L1949-10	
Sample Date	Lowest Effect	Highest Effect	6/21/06 conc.	Q	8/23/07 conc.	Q	11/14/08 conc.	Q	3/4/10 conc.	Q	5/22/11 conc.	Q	9/17/12 conc.	Q
Aluminum	NC	NC	15,500		1,850		2,800	*	9,050	E	8,310		8,300	
Antimony	2.0	25	0.92	B	0.82	B	0.19	BN	1.3	B	ND		ND	
Arsenic	6.0	33	***19.7***		2	B	1.8		***20.2***		***13.4***	*	***19.2***	
Barium	NC	NC	89.8		57.9		40.8	*E	173		108		209	
Beryllium	NC	NC	1.2		0.16	B	0.16	B	0.89	E	0.75	B	0.40	B
Cadmium	0.6	9	***133***		***21.2***		***12.5***	N*E	***111***		***96.6***	*	***122***	
Calcium	NC	NC	2,860		1,320		1,400	*	3,810	*	4,330	*	4,090	
Chromium	26	110	***33.7***		7.7		6.5	E	***49.4***	*	***45.2***	*	***47.7***	
Cobalt	NC	NC	12.1		8.1		3	BE	17.8		11.1	E	16.5	
Copper	16	110	***210***		***19.6***		15.6		***97.7***	*	***80.2***	*	***91.0***	
Iron	20,000	20,000	***20,300***		8,940		3,850	E	***27,500***		17,300	*	***25,400***	
Lead	31	110	***315***		***40.7***		25.8	N*E	***375***		***315***	N*	***408***	
Magnesium	NC	NC	1,510		404		305	*E	1,690		1,360	*E	1,500	
Manganese	460	1,100	153		***1,300***		***769***	*	***3,510***		***1,480***	*	***3,790***	
Mercury	0.15	1.3	***0.45***		0.047	BN	0.018	B	***0.35***		***0.5***		***0.49***	
Nickel	16	50	***17.6***		6.8	E	3.2	B	***22***	E	***17.6***	*	***21.9***	
Potassium	NC	NC	555		200	E	123	*	373		389		428	
Selenium	NC	NC	2.2	B	1.2	B	ND		ND		ND		6.2	B
Silver	1.0	2.2	0.33	B	ND		ND		ND		ND		ND	
Sodium	NC	NC	143		92.5	B	46.5	B	200		219		228	
Thallium	NC	NC	0.39	B	ND		ND		20.5		2.5	B	9.8	
Vanadium	NC	NC	55.9		11.9		5.8	E	61.3	E	54.0		60.8	
Zinc	120	270	***402***		***138***		67.9	*E	***495***	*	***406***	*	***526***	

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Lake Capri	Lake Capri	Lake Capri	Lake Capri	Lake Capri	Lake Capri
Sample ID			SED-3	SED-3	SED-3	SED-3	SED-3	SED-3
Laboratory ID			E0868-06A	F1194-03A	G2136-14	J0376-11A	K0911-03	L1949-11
Sample Date	Lowest Effect	Highest Effect	6/21/06	8/23/07	11/14/08	3/4/10	5/22/11	9/17/12
			conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	NC	690	2,010	5,860 *	3,490 E	5,890	1,580
Antimony	2.0	25	ND	0.35 B	0.63 BN	ND	ND	ND
Arsenic	6.0	33	0.31 B	3.1	4.2 B	2.4	5.7 *	2.3
Barium	NC	NC	6.7	29.7	88.2 *E	23.1	65.1	10.2 B
Beryllium	NC	NC	0.047 B	0.18 B	0.30 B	0.29 BE	0.50	0.037 B
Cadmium	0.6	9	***1.5***	***27.7***	***1.7*** N*E	***22.3***	***16.1*** *	***14.1***
Calcium	NC	NC	104	605	11,700 *	1,260 *	2,940 *	199
Chromium	26	110	1.5	7.9	9.6 E	13.7 *	9.1 *	3.7
Cobalt	NC	NC	0.66 B	4.7	12.6 E	3.6	5.7 E	2.4 B
Copper	16	110	2.7	***16.7***	***32.4***	***32.5*** *	10.9 *	8.5
Iron	20,000	20,000	920	5,730	10,900 E	3,770	6,240 *	1,830
Lead	31	110	9.2	***44.2***	***34.0*** N*E	***85.9***	***46.0*** N*	21.4
Magnesium	NC	NC	121	326	4,200 *E	527	675 *E	158
Manganese	460	1,100	89.8	***568***	***908*** *	357	***1,090*** *	132
Mercury	0.15	1.3	0.016 B	0.049 BN	0.074 B	0.11	0.061 B	0.032 B
Nickel	16	50	1.6 B	5.0 E	8.5 B	7.4 E	5.8 *	2.4 B
Potassium	NC	NC	115	168 E	1,010 *	173	254	68.7
Selenium	NC	NC	0.2 B	1.2 B	ND	ND	ND	ND
Silver	1.0	2.2	ND	ND	ND	ND	ND	ND
Sodium	NC	NC	13.7 B	51.5 B	528	90.5	103	21.8 B
Thallium	NC	NC	0.33 B	ND	ND	1.7	1.1 B	0.36 B
Vanadium	NC	NC	1.8	9.5	36.4 E	12.5 E	10.7	3.3
Zinc	120	270	10.0	110	71.3 *E	106 *	73.5 *	44.7

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Lake Capri		Lake Capri		Lake Capri		Lake Capri		Lake Capri	
Sample ID			SED-4		SED-4		SED-4		SED-4		SED-4	
Laboratory ID			E0868-08A		F1194-05A		G2136-16		J0376-12A		K0911-04		L1949-12	
Sample Date	Lowest Effect	Highest Effect	6/21/06		8/23/07		11/14/08		3/4/10		5/22/11		9/17/12	
			conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	NC	2,730		3,290		1,790	*	2,170	E	5,850		11,700	
Antimony	2.0	25	0.22	B	0.76	B	0.42	BN	0.3	B	ND		ND	
Arsenic	6.0	33	3.4		4.0		3.9		1.9		4.4	*	***6.2***	***B***
Barium	NC	NC	41.5		47.8		177	*E	18.7		64.8		103	
Beryllium	NC	NC	0.2	B	0.22	B	0.13	B	0.19	BE	0.45	B	0.36	B
Cadmium	0.6	9	***32.3***		***32.3***		***15.8***	N*E	***14.8***		***47.3***	*	***79.5***	
Calcium	NC	NC	588		1,240		8,090	*	758	*	2,560	*	3,200	
Chromium	26	110	8.6		12.5		6.8	E	8.1	*	21.7	*	***45.4***	
Cobalt	NC	NC	4.9		10.0		7.0	E	3.1		9.5	E	13.3	B
Copper	16	110	***21.6***		***35.7***		***17.1***		***22.6***	*	***49.5***	*	***117***	
Iron	20,000	20,000	4,450		9,330		7,280	E	2,540		9,170	*	12,800	
Lead	31	110	***71.2***		***193***		***34.3***	N*E	***60.6***		***129***	N*	***297***	
Magnesium	NC	NC	352		519		653	*E	304		868	*E	1,650	
Manganese	460	1,100	***837***		***845***		***11,700***	*	272		***1,150***	*	***1,820***	
Mercury	0.15	1.3	0.096		0.059	BN	***0.21***		0.082		***0.18***		***0.39***	
Nickel	16	50	6.0		10.7	E	6.3		4.8	E	13	*	***25.3***	
Potassium	NC	NC	145		236	E	281	*	103		383		623	
Selenium	NC	NC	0.76	B	1.9	B	3.3		ND		ND		4.6	B
Silver	1.0	2.2	ND		ND		***1.1***	B	ND		ND		ND	
Sodium	NC	NC	35.4	B	87.0		131		56	B	145	B	312	B
Thallium	NC	NC	3.7		ND		2.8		1.6		1.7	B	4.6	B
Vanadium	NC	NC	9.2		16.9		7.4	E	7.2	E	26.6		41.2	
Zinc	120	270	***122***		***186***		110	*E	71.3	*	***232***	*	***323***	

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Willetts Creek		Willetts Creek		Willetts Creek		Willetts Creek		Willetts Creek	
Sample ID			SED-5		SED-5		SED-5		SED-5		SED-5	
Laboratory ID			E0868-10A		F1193-17A		G2114-21		J0376-13A		K0911-05		L1949-13	
Sample Date	Lowest Effect	Highest Effect	6/21/06		8/23/07		11/14/08		3/4/10		5/22/11		9/18/12	
			conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	NC	1,060		552		5,150		2,540	E	6,300		345	
Antimony	2.0	25	0.074	B	0.27	B	1.1	BN	0.68	B	1.4	BN	ND	
Arsenic	6.0	33	0.6	B	0.52	B	***8.2***		***6.5***		***9.3***	*	1.6	
Barium	NC	NC	12.1		13.6		96.6		84.6		114		15.1	
Beryllium	NC	NC	0.083	B	0.03	B	0.34	B	0.24	BE	0.57	B	0.010	B
Cadmium	0.6	9	0.43		***1.6***		***52***		***28.8***		***73.5***	*	***1.7***	
Calcium	NC	NC	228		1,430		4,150		3,470	*	7,960	*	330	
Chromium	26	110	3.8		2.7		***33.3***		18.5	*	***44.0***	*	3.5	
Cobalt	NC	NC	1.2	B	1.1	B	7.8		7.4		13.3	E	1.1	B
Copper	16	110	4.7		4.7		***103***		***54***	*	***166***	*	9.0	
Iron	20,000	20,000	3,400		3,410		***23,900***		***25,800***		***39,900***	*	4,180	
Lead	31	110	7.9		4.9		***215***	E	***83.3***		***229***	N*	9.4	
Magnesium	NC	NC	604		864		1,370		701		1,370	*E	75.8	
Manganese	460	1,100	174		291		***2,140***		***3,750***		***1,210***	*	417	
Mercury	0.15	1.3	0.016	B	0.0055	B	***0.48***		***0.26***		***0.37***		0.023	B
Nickel	16	50	1.6		1.0	B	***19.2***		8.0	E	***22.5***	*	1.9	B
Potassium	NC	NC	135		58.3		320		188		360		29.6	B
Selenium	NC	NC	0.28	B	0.56	B	ND		2.3	B	ND		0.87	B
Silver	1.0	2.2	ND		ND		ND		0.52	B	ND		0.084	B
Sodium	NC	NC	18.3	B	102		204		141		323		11.7	B
Thallium	NC	NC	0.56	B	ND		2.1	B	20.1		1.9	B	0.76	B
Vanadium	NC	NC	5.6		4.5		54.2		44.6	E	175		7.8	
Zinc	120	270	13.2		26.2		***290***	E	***171***	*	***440***	*	24.2	

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 6
DUZS FASTENERS SITE (1-52-033)
JUNE 2006 THROUGH SEPTEMBER 2012 SAMPLING EVENTS
SUMMARY OF TAL METALS IN WILLETTS CREEK AND LAKE CAPRI SEDIMENT SAMPLES

Sample Location	NYSDEC Technical Guidance for Sediment Criteria		Willetts Creek		Willetts Creek		Willetts Creek		Willetts Creek		Willetts Creek	
Sample ID			SED-6		SED-6		SED-6		SED-6		SED-6	
Laboratory ID			E0868-12A		F1194-07A		G2114-17		J0376-14		K0911-06		L1949-14	
Sample Date	Lowest Effect	Highest Effect	6/21/06 conc.	Q	8/23/07 conc.	Q	11/14/08 conc.	Q	3/4/10 conc.	Q	5/22/11 conc.	Q	9/18/12 conc.	Q
Aluminum	NC	NC	1,030		775		7,700		802	E	1,370		574	
Antimony	2.0	25	0.076		0.38	B	***2.6***	N	0.38	B	0.44	BN	ND	
Arsenic	6.0	33	0.97		0.84	B	***6.4***		0.79		2.7	*	0.64	B
Barium	NC	NC	7.4		4.7	B	89.7		3.6	B	10.4		2.7	B
Beryllium	NC	NC	0.094		0.049	B	0.36	B	0.069	BE	0.11	B	ND	
Cadmium	0.6	9	0.23		0.31		***101***		0.31		ND		0.30	
Calcium	NC	NC	4,760		599		7,690		2,450	*	4,670	*	299	
Chromium	26	110	2.4		3.4		***41.8***		4.4	*	15.9	*	5.4	
Cobalt	NC	NC	1.8		0.77	B	8.1		0.65	B	1.9	BE	0.50	B
Copper	16	110	***28.3***		6.3		***77.3***		9.4	*	***21.5***	*	8.0	
Iron	20,000	20,000	3,290		2,900		***25,600***		2,810		***36,900***	*	2,120	
Lead	31	110	7.9		10.3		***109***	E	9.5		***39.7***	N*	8.7	
Magnesium	NC	NC	2,930		468		1,980		1,410		1,290	*E	263	
Manganese	460	1,100	102		30.4		***978***		21.3		118	*	16.2	
Mercury	0.15	1.3	0.036	B	ND		***0.15***		ND		0.019	B	0.011	B
Nickel	16	50	1.8		1.9	BE	***17.2***		1.8	BE	10.1	*	2.0	B
Potassium	NC	NC	118		122	E	528		66.4		97.5		54.2	B
Selenium	NC	NC	ND		0.69	B	ND		ND		ND		ND	
Silver	1.0	2.2	ND		ND		ND		ND		ND		0.080	B
Sodium	NC	NC	24.9	B	70.7		414		47.7		51.8		22.0	B
Thallium	NC	NC	0.25	B	0.36	B	0.98	B	ND		ND		ND	
Vanadium	NC	NC	9.9		6.0		42.4		4.2	E	8.5		3.2	
Zinc	120	270	17.2		24.2		***409***	E	31.0	*	68.9	*	38.9	

Notes: All values in mg/kg
NC - No Criteria
ND - Not Detected
B - Estimated value (greater than MDL but less than RL)
BOLD/Italics - exceeds lowest effects criterion
E - Replicate RPDs were not within QC limits
* - Percent recovery for duplicates were not within QC limits
N - Spike recoveries were not within QC limts

TABLE 7
DZUS FASTENERS SITE (SITE # 1-52-033)
JULY 2006, MAY 2007, OCTOBER 2010 & SEPTEMBER 2012
SUMMARY OF CADMIUM IN FISH TISSUE

Sampling Event	Sample	Common Name	Total Weight (g)	Cadmium Concentration (µg/kg)
July 2006	South 1	Largemouth bass	700	28
	South 2	Largemouth bass	240	28
	South 3*	Bluegill	24**	190
	South 4*	Largemouth bass	6**	270
	North 1	Pumpkinseed	110	80
	North 2	Pumpkinseed	24**	120
	North 3	Bluegill	124	39
	North 4	Bluegill	61**	76
	North 5	American eel	51**	120
	North 6*	Pumpkinseed	61**	130
	North 7*	Largemouth bass	30**	160
	North 8*	Bluegill	60**	140
May 2007	North 1	American eel	56**	170
	North 2	Bluegill	33**	230
	North 3	American eel	152	170
	North 4*	American eel	33**	220
	North 5*	Bluegill	24.5**	190
	North 6*	Bluegill	20**	190
October 2010	DF-F1-BG-1*	Bluegill	94**	260
	DF-F1-BG-2*	Bluegill	78**	120
	DF-F1-BG-3*	Bluegill	64**	200
	DF-F1-BG-4*	Bluegill	41**	160
	DF-F1-EE-1*	American eel	15**	370
	DF-F1-PS-1	Pumpkinseed	138	7.6
	DF-F1-PS-2*	Pumpkinseed	50**	170
	DF-F1-PS-3*	Pumpkinseed	140	96
	DF-F2-BG-1*	Bluegill	102	210
	DF-F2-BG-2*	Bluegill	140	230
	DF-F2-BG-3*	Bluegill	144	120
	DF-F2-EE-1*	American eel	31**	250
	DF-F2-LB-1	Largemouth bass	649	38
	DF-F2-LB-2*	Largemouth bass	71**	150
	DF-F2-PS-1	Pumpkinseed	50.5**	270
	DF-F2-PS-2*	Pumpkinseed	177.5	120
September 2012	DF-N-AE-01	American Eel	697	0.39
	DF-N-BG-01	Blue gill	103 (0.5-7)	0.14
	DF-N-BG-02	Blue gill	110 (1-5)	0.22
	DF-N-BG-03	Blue gill	120	0.18
	DF-N-BG-04	Blue gill	104	0.15
	DF-N-BG-05	Blue gill	235	<0.0089
	DF-N-PS-01	Pumpkinseed	136	0.19
	DF-N-SF-01	Sun Fish (mixed specie	93 (1-5)**	0.11
	DF-S-BG-01	Blue gill	196	0.011J

TABLE 7
DZUS FASTENERS SITE (SITE # 1-52-033)
JULY 2006, MAY 2007, OCTOBER 2010 & SEPTEMBER 2012
SUMMARY OF CADMIUM IN FISH TISSUE

Sampling Event	Sample	Common Name	Total Weight (g)	Cadmium Concentration (µg/kg)
September 2012	DF-S-BG-02	Blue gill	126	0.32
	DF-S-BG-03	Blue gill	199	0.027J
	DF-S-BG-04	Blue gill	140	0.24
	DF-S-BG-05	Blue gill	209	0.19
	DF-S-BG-06	Blue gill	108	0.17
	DF-S-BG-07	Blue gill	245	0.017J
	DF-S-BG-08	Blue gill	158	0.25
	DF-S-BG-09	Blue gill	191	0.015J
	DF-S-BG-10	Blue gill	236	0.1
	DF-S-BG-11	Blue gill	214	0.012J
	DF-S-BG-12	Blue gill	132	0.11
	DF-S-BG-13	Blue gill	142	0.23
	DF-S-BG-14	Blue gill	231	<0.010
	DF-S-BG-15	Blue gill	131	0.21
	DF-S-BG-16	Blue gill	150	0.24
	DF-S-BG-17	Blue gill	74**	0.43
	DF-S-BG-18	Blue gill	392	0.027J
	DF-S-BG-19	Blue gill	244	<0.0097
	DF-S-BG-20	Blue gill	165	0.18
	DF-S-LB-01	Largemouth Bass	73 (7-14)**	0.083J
	DF-S-LB-02	Largemouth Bass	1032	<0.0090
	DF-S-LB-03	Largemouth Bass	103	0.17
	DF-S-PS-01	Pumpkinseed	113	0.26
	DF-S-PS-02	Pumpkinseed	152	0.27
	DF-S-PS-03	Pumpkinseed	136	0.48
	DF-S-PS-04	Pumpkinseed	115	0.24
	DF-S-PS-05	Pumpkinseed	147	0.35
	DF-S-PS-06	Pumpkinseed	186	0.28
	DF-S-PS-07	Pumpkinseed	81**	0.22
	DF-S-PS-08	Pumpkinseed	190	0.041J
	DF-S-PS-09	Pumpkinseed	142	0.26
	DF-S-PS-10	Pumpkinseed	138	0.17
	DF-S-PS-11	Pumpkinseed	117	0.31
	DF-S-PS-12	Pumpkinseed	179	0.55
	DF-S-RB-01	Red ear sunfish	227	0.019J

Notes: * Sample comprised of more than one individual.
** Total sample weight below the 100g minimum sample requirement

TABLE 8
DZUS FASTENERS SITE (SITE # 1-52-033)
JULY 2006, AUGUST 2007, NOVEMBER 2008, MARCH 2010, MAY 2011 & SEPTEMBER 2012
SUMMARY OF CADMIUM RESULTS

Media	Cleanup Criterion	Number of Samples Collected	Number of Detections	Range of Detections	# Detections Above Criterion	Comments
Groundwater	5 µg/L	79 unfiltered	69	0.23 - 924	49	Exceedances are mostly on the eastern side of the site. There is a downard trend in concentration in most wells.
		26 filtered	13	1.1 - 64.4	10	
Surface Water (µg/L)	5 µg/L	36	29	0.32 - 8.8	5	Exceedances are limited to creek samples.
Sediment						3 of 4 lake samples are consistently above the criterion as is 1 creek sample.
Lowest effects	0.6 mg/kg	42	41	0.23 - 122	30	
Highest effects*	9 mg/kg	42	41	0.23 - 122	26	

Notes:

* - Cleanup criterion for Lake Capri and Willetts Creek sediment is the highest effects level, 9 mg/kg.

Figures

USGS NY Bay Shore West Quadrangle

U.S.G.S. 1:24 000 SCALE TOPOGRAPHIC MAP

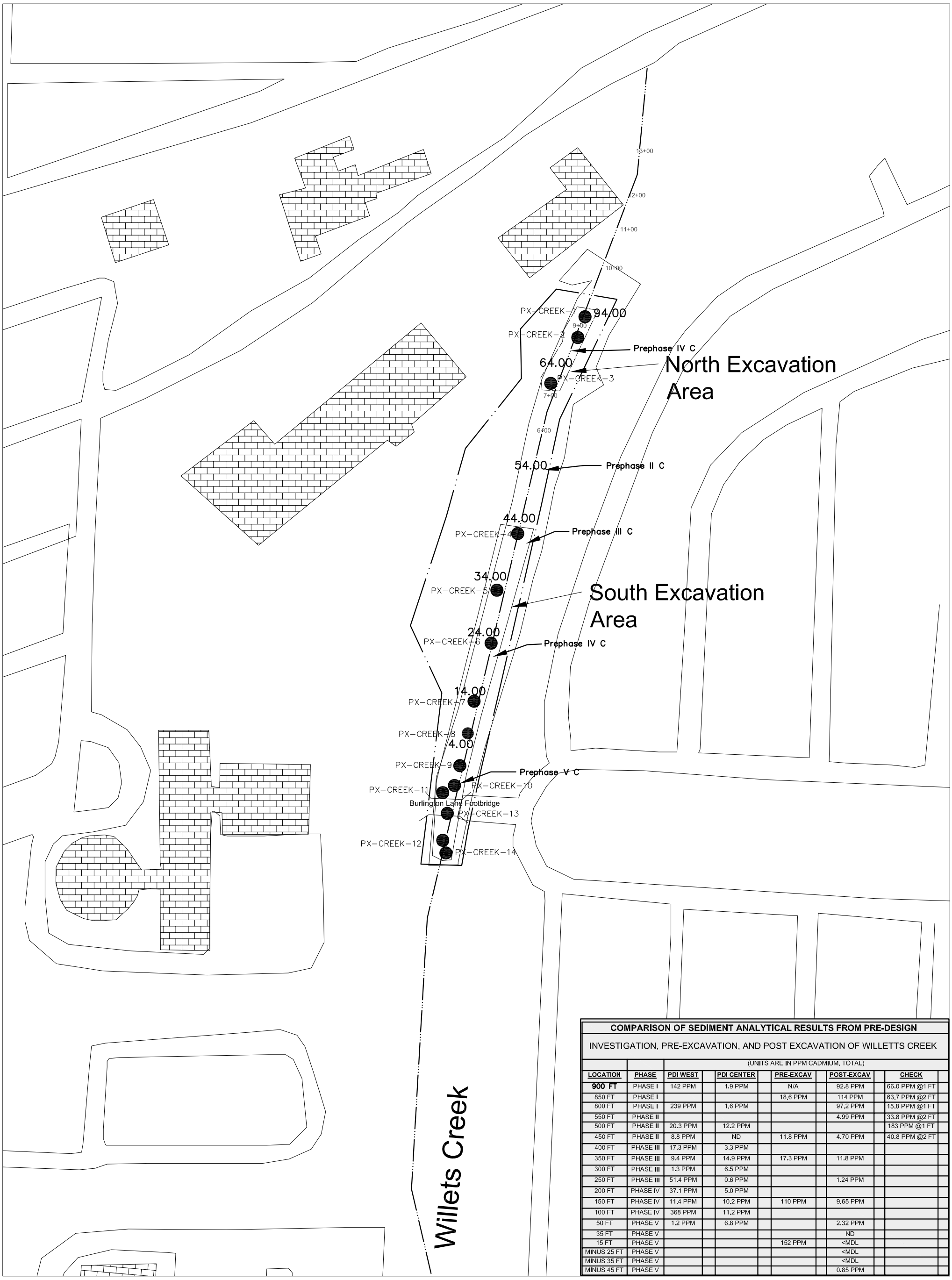
Prepared by: AECOM

Prepared for: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Multi Site G
Operation, Maintenance & Monitoring

Site Location
Dzus Fasteners Site

Date:	Scale:	Figure No. :
January 2013	1 inch = 2,500 feet	1



COMPARISON OF SEDIMENT ANALYTICAL RESULTS FROM PRE-DESIGN

INVESTIGATION, PRE-EXCAVATION, AND POST EXCAVATION OF WILLETTS CREEK

		(UNITS ARE IN PPM CADMIUM, TOTAL)				
LOCATION	PHASE	PDI WEST	PDI CENTER	PRE-EXCAV	POST-EXCAV	CHECK
900 FT	PHASE I	142 PPM	1.9 PPM	N/A	92.8 PPM	66.0 PPM @1 FT
850 FT	PHASE I			18.6 PPM	114 PPM	63.7 PPM @2 FT
800 FT	PHASE I	239 PPM	1.6 PPM		97.2 PPM	15.8 PPM @1 FT
550 FT	PHASE II				4.99 PPM	33.8 PPM @2 FT
500 FT	PHASE II	20.3 PPM	12.2 PPM			183 PPM @1 FT
450 FT	PHASE II	8.8 PPM	ND	11.8 PPM	4.70 PPM	40.8 PPM @2 FT
400 FT	PHASE III	17.3 PPM	3.3 PPM			
350 FT	PHASE III	9.4 PPM	14.9 PPM	17.3 PPM	11.8 PPM	
300 FT	PHASE III	1.3 PPM	6.5 PPM			
250 FT	PHASE III	51.4 PPM	0.6 PPM		1.24 PPM	
200 FT	PHASE IV	37.1 PPM	5.0 PPM			
150 FT	PHASE IV	11.4 PPM	10.2 PPM	110 PPM	9.65 PPM	
100 FT	PHASE IV	368 PPM	11.2 PPM			
50 FT	PHASE V	1.2 PPM	6.8 PPM		2.32 PPM	
35 FT	PHASE V				ND	
15 FT	PHASE V			152 PPM	<MDL	
MINUS 25 FT	PHASE V				<MDL	
MINUS 35 FT	PHASE V				<MDL	
MINUS 45 FT	PHASE V				0.85 PPM	

Legend

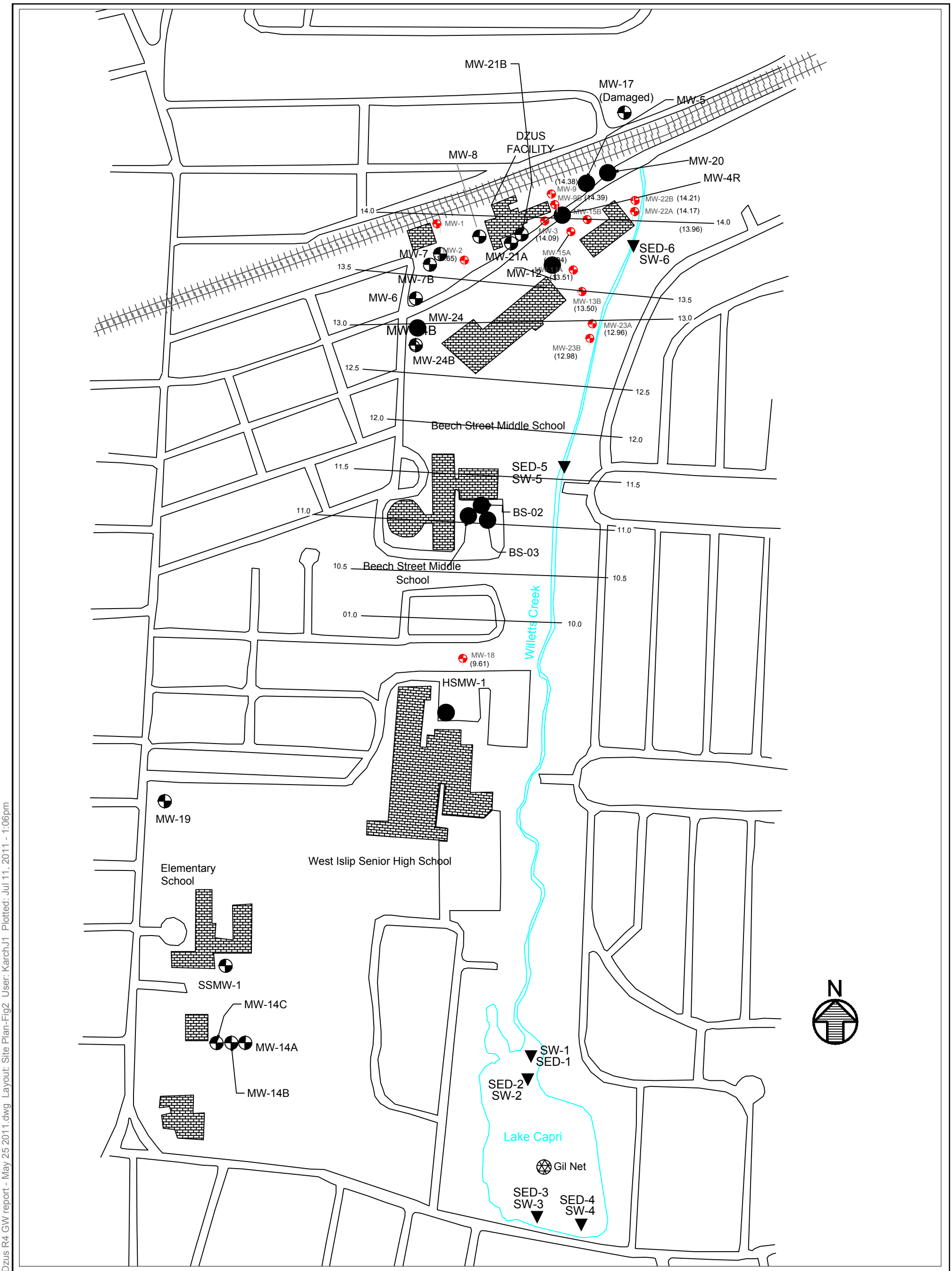
- Excavation Boundary
- Project Boundary
- Approximate Centerline of Creek Bed
- Wetlands Boundary

N

AECOM

Comparison of Pre and Post Excavation Results for Willett's Creek (adopted from Figure 4, Construction and Certification Report (OU2), 2000

Multi Site G	PROJECT NO. 95900.03	DWG NO. Figure 1A	REV 1
Dzus Fasteners	SCALE Not to Scale		SHEET



LEGEND:

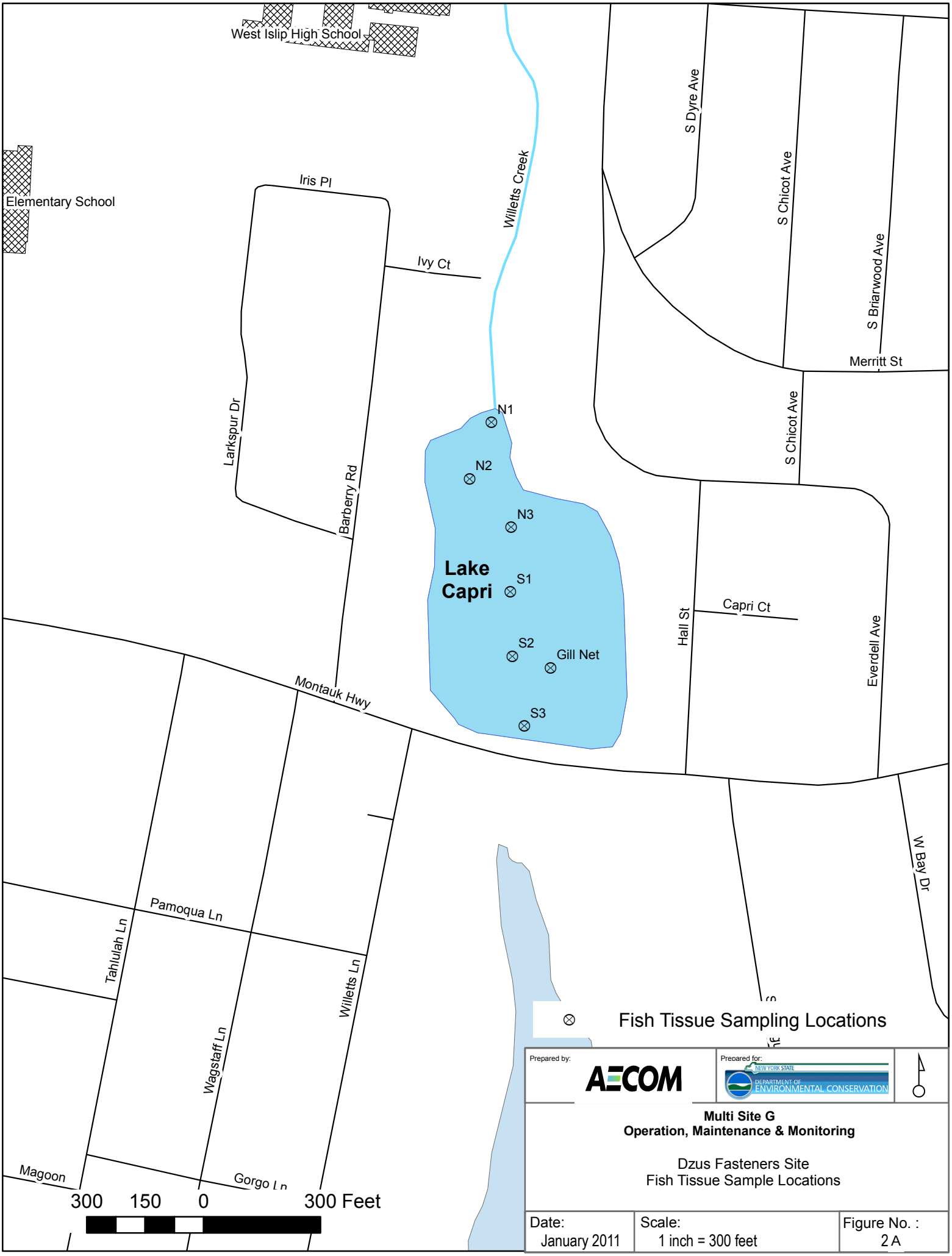
- EXISTING MONITORING WELLS
- EXISTING WELLS INCLUDED IN LONG TERM MONITORING (MW-1 was damaged in December 2007.)
- MISSING MONITORING WELLS
- SURFACE WATER AND SEDIMENT SAMPLE LOCATION
- RAILROAD TRACKS

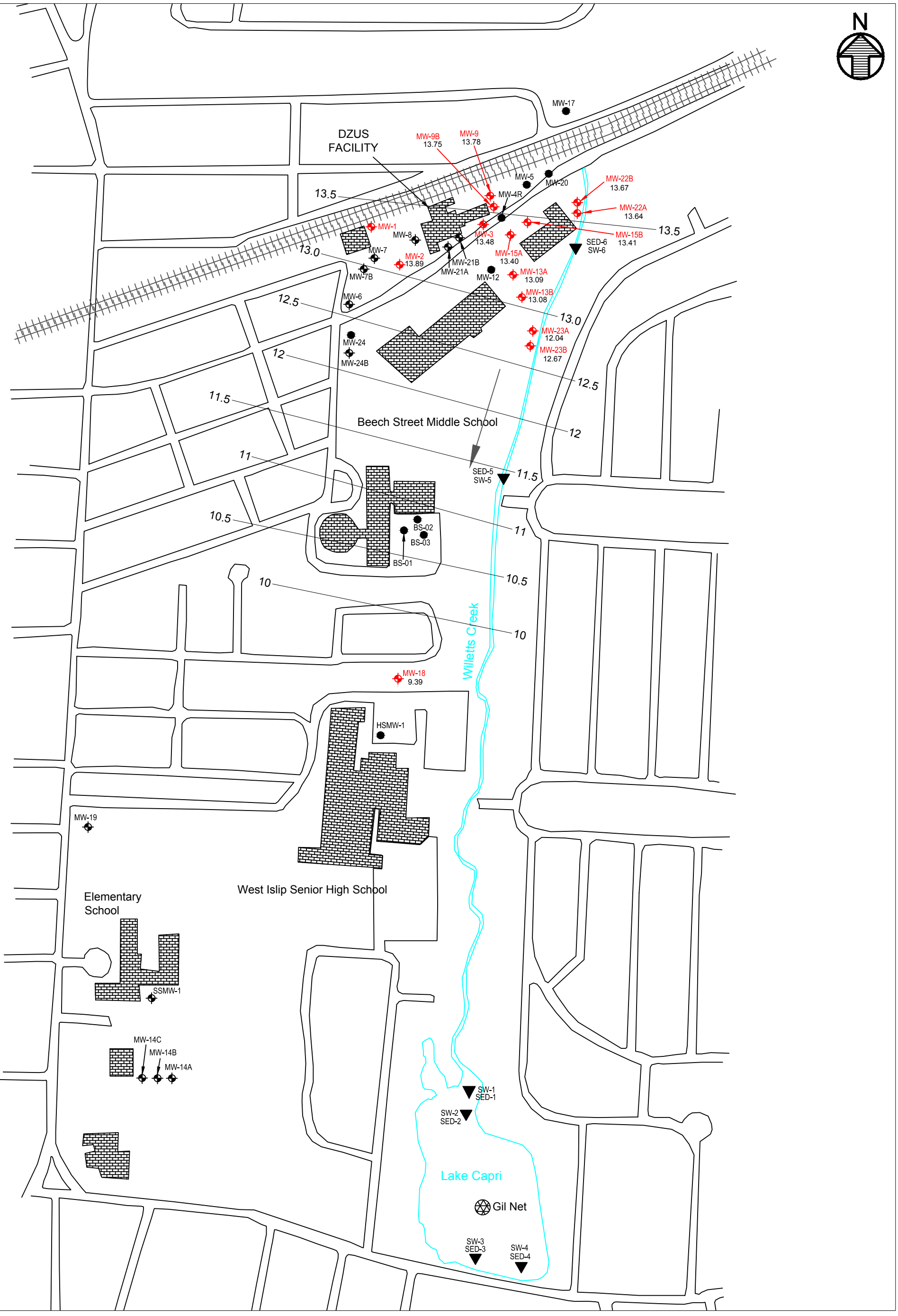
GRAPHIC SCALE

800 400 0 400 800

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - Dzus Fasteners SITE NO. 1-52-033
DRAWN BY : SC	**SITE PLAN**
APPROVED BY : PK	DATE : JUNE 2010 / SCALE : AS SHOWN / DRAWING NO. : 2


West Islip High School
Elementary School
Iris Pl
Ivy Ct
Willetts Creek
S Dyre Ave
S Chicot Ave
S Briarwood Ave
Merritt St
Larkspur Dr
Barberry Rd
N1
N2
N3
Lake Capri
S1
S2
Gill Net
S3
Hall St
Capri Ct
Everdell Ave
Montauk Hwy
W Bay Dr
Pamoqua Ln
Tahlulah Ln
Wagstaff Ln
Willetts Ln
Magoon
Gorgo Ln
300 150 0 300 Feet
Fish Tissue Sampling Locations
Prepared by:
AECOM
Prepared for:
NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
Multi Site G
Operation, Maintenance & Monitoring
Dzus Fasteners Site
Fish Tissue Sample Locations
Date:
January 2011
Scale:
1 inch = 300 feet
Figure No. :
2 A



LEGEND:

- EXISTING WELLS INCLUDED IN LONG TERM MONITORING (MW-1 was damaged in December 2007.)
- EXISTING MONITORING WELLS
- MISSING MONITORING WELLS
- RAILROAD TRACKS
- (9.39) GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL
- 10.0 GROUNDWATER CONTOUR INTERVAL - 0.5 ft
- DIRECTION OF GROUNDWATER FLOW

GRAPHIC SCALE

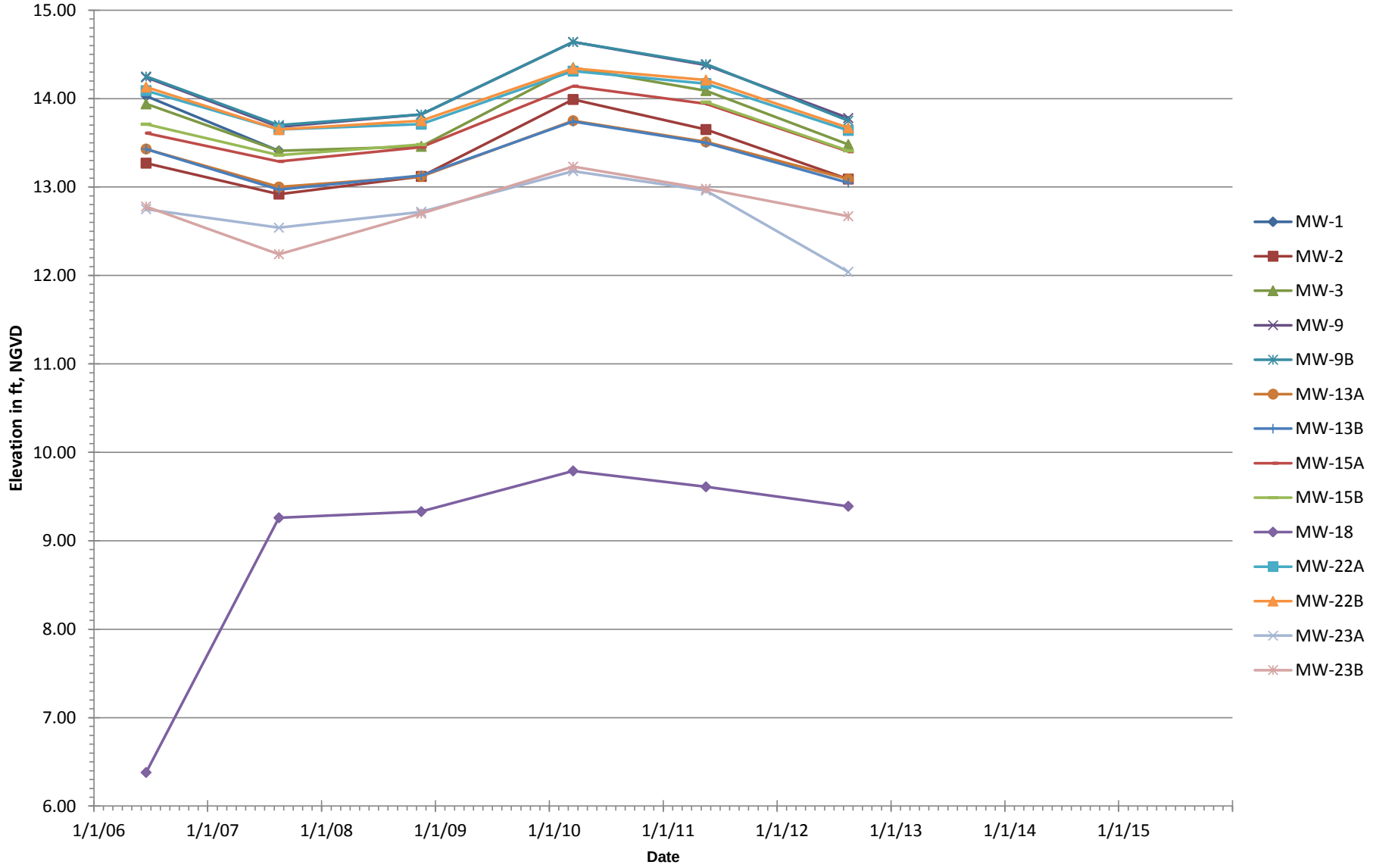
800 400 0 400 800

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - Dzus Fasteners SITE NO. 1-52-033
DRAWN BY : SC/jk	**GROUNDWATER CONTOUR MAP AUGUST 22 2012**
APPROVED BY : PK	DATE : NOV. 2012 / SCALE : AS SHOWN / DRAWING NO. : 3

File: J:\Project\Dzus\Cadd\Drawings\GwContour-2012-11-13.dwg Layout: Fig3 User: karchj1 Plotted: Nov 13, 2012 - 1:57pm

Figure 3A
Dzus Fasteners (1-52-077)
Groundwater Hydrograph



MW-1 was destroyed in December 2007

MW-9B

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	1.8 B	***4.6 B***	ND	ND	ND	ND	ND	ND
Iron	***561***	***429***	134 B	286 N	528	31.8 B	39.5 B	ND
Manganese	211	***306***	171	69.5	92.4	ND	ND	ND
Sodium	8,070	10,100	11,800	7,660	6,730	6,650	***21,400 E***	19,700
Selenium	ND	ND	ND	***12.7 B***	ND	ND	ND	ND

MW-1

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	Aug-12
	U	U				
Cadmium	***23.9***	***5.1***	NA	NA	NA	NA
Iron	***13,200***	***12,600***	NA	NA	NA	NA
Sodium	***22,500***	***23,100***	NA	NA	NA	NA
Thallium	***1.9 B***	***5.5 B***	NA	NA	NA	NA

MW-2

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	ND	***7.3*** B	ND	***9.4 B***	ND	ND	ND	ND
Cadmium	4.2 B	***8.6***	2.7 B	***10.4***	ND	ND	ND	ND
Iron	***14,900***	***25,200***	***23,300***	***12,000*** N	***88,900***	***17,600***	***1,590 E***	***1,060***
Manganese	***518***	***989***	***2,150***	***768***	***882***	***655***	124	115
Sodium	***21,500***	***66,200***	18,600	18,200	***25,200***	***24,100***	***24,400*** E	***23,500***
Thallium	***2.3 B***	***6.3 B***	ND	ND	ND	ND	ND	ND

MW-3

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	ND	ND	ND	***7.2 B***	ND	ND	10.7 B	ND
Cadmium	***77.4***	***74.4***	***70.8***	***98.4***	***73.5***	***13.1***	***16.3***	***15.1***
Iron	***4,430***	***649***	253	***3,680 N***	***7,430***	ND	51 B	ND
Manganese	***423***	***301***	262	***553***	***980***	ND	ND	ND
Selenium	ND	8.4 B	ND	***10.6 B***	ND	ND	ND	ND
Sodium	***27,700***	***31,000***	***25,000***	***20,700***	***20,400***	19,400	***23,400 E***	***23,000***
Thallium	***2.5 B***	ND	ND	ND	ND	ND	ND	ND

MW-13A

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Cadmium	***174***	***94.1***	***67.7***	***267***	***373***	***10.3***	***93.5***	***64.4***
Iron	***12,700***	***3,490***	***300***	***749 N***	***2,310***	ND	***3,690***	***1580***
Manganese	***9,560***	***8,040***	***16,400***	***33,900***	***61,600***	***1,720***	***6,190***	***3,430***
Sodium	***94,500***	***77,500***	***21,700***	***247,000***	***38,400***	***37,500***	***47,000***	***46,900***
Thallium	***44***	ND	***11.7*** B	***88.2***	ND	ND	***9.2 B***	ND

MW-13B

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Cadmium	***15***	***9.8***	2.3 B	4.2 B	2.2 B	ND	1.5 B	1.1 B
Iron	***614***	***404***	106 B	286 N	***469***	ND	ND	ND
Manganese	***621***	***426***	153	243	148	ND	54.3	19.7 B

MW-18

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	ND	ND	***5.1*** B	***12.2*** B	ND	ND	ND	ND
Cadmium	3 B	1.2 B	***9.8***	***18.1***	1.3 B	ND	ND	ND
Iron	***1,150***	***1,320***	114 B	***4,620***	***2,890***	ND	35.3 B	ND
Manganese	***6,270***	***4,490***	***2,870***	***10,100*** *	***3,450***	ND	113	23.4 B
Selenium	ND	ND	ND	***16.4 B***	ND	ND	ND	ND
Thallium	***26.5***	ND	ND	***64.5***	ND	ND	ND	ND

MW-9

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Arsenic	***32.6***	16.2 B	ND	11.4 B	4.9 B	ND	ND	ND
Cadmium	***32.8***	***22.4***	***15.5***	***17.5***	***18.7***	***9.5***	4.9 B	4.4 B
Chromium	***125***	***62.2***	35.3	***62.7***	***85.5***	2.9 B	8.3 B	4 B
Iron	***21,600***	***12,400***	***3,670***	***11,300 N***	***11,600***	***1,760***	***556 E***	ND
Sodium	***25,500***	***52,100***	16,100	***29,100***	***72,800***	***68,700***	***26,300 E***	***25,900***

MW-22B

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	ND	***4.7 B***	ND	***8.7 B***	ND	ND	ND	ND
Cadmium	***29*** B	4.4 B	1.2 B	1.7 B	ND	ND	ND	ND
Iron	***4,600***	***1,120***	***518***	***358***	164 B	ND	110 B	ND
Manganese	***2,310***	***2,440***	***775***	***940*** *	***589***	***342***	***748***	***726***
Selenium	ND	ND	ND	***19 B***	ND	ND	ND	ND
Thallium	***20.1*** B	***3.5 B***	ND	ND	ND	ND	ND	ND

MW-22A

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	1.7 B	***5.2 B***	ND	***13 B***	ND	ND	ND	ND
Cadmium	***38.9***	***22.1***	***13.5***	***13.7***	***6.8***	ND	ND	ND
Iron	***70,400***	***22,400***	***22,000***	***61,100***	***16,700***	***2,260***	***2,700***	***2,690***
Manganese	***1,280***	***1,190***	***1,030***	***912*** *	***683***	***780***	***437***	***443***
Selenium	8.7 B	ND	ND	***24.3 B***	ND	ND	ND	ND
Sodium	***95,200***	***69,400***	***39,900***	***57,800***	***100,000***	***134,000***	***59,700***	***61,000***
Thallium	ND	***2.8 B***	ND	ND	ND	ND	ND	ND

MW-15B

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Iron	***4,780***	***1,320***	***875***	NA	***1,410***	***1,130***	***1,510 E***	48.4 B
Sodium	***46,600***	***45,200***	***43,900***	NA	***40,600***	***40,600***	***40,800 E***	***39,100***
Thallium	***3 B***	ND	ND	NA	ND	ND	ND	ND

MW-15A

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Cadmium	***28.8***	***29.1***	***33.9***	***62.3***	***63***	***12.2***	***16.8***	***9.7***
Iron	***2,320***	158 B	ND	***1,000 N***	164 B	ND	ND	ND
Manganese	***370***	***929***	***895***	***2,850***	***1,510***	55.7	238	41.1 B
Sodium	18,000	13,300	9,040	17,100	19,500	19,800	***20,400 E***	***20,400***
Thallium	***1.9 B***	ND	ND	***7.3 B***	ND	ND	ND	ND

MW-23A

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	1.8 B	***5.8 B***	ND	***9.5 B***	ND	ND	ND	ND
Cadmium	***110***	***702***	***1,080***	***704***	***924***	***9.5***	***31.7***	3.3 B
Iron	***10,300***	***29,700***	***13,100***	***11,500***	***15,200***	***2,030***	***1,860 E***	***602***
Manganese	***1,100***	***612***	***1,390***	***1,410*** *	***1,600***	***1,480***	***1,110***	***1,170***
Selenium	1.3 B	6.1 B	ND	***13.5 B***	ND	ND	ND	ND
Sodium	***60,200***	***32,400***	***37,800***	***64,600***	***67,900***	***70,800***	***74,100 E***	***73,400***
Thallium	***9.3*** B	ND	ND	***11.3 B***	ND	ND	ND	ND

MW-23B

Compound	Jun-06	Aug-07	Nov-08	Mar-10	May-11	May-11	Aug-12	Aug-12
	U	U	U	U	U	F	U	F
Antimony	***3.2 B***	ND	ND	***6.2 B***	ND	ND	ND	ND
Cadmium	***320***	***60***	***42.2***	***43.8***	***40.1***	***5.8***	***69.6***	***33.1***
Chromium	***74.9***	13.9 B	4.3 B	***61.6***	12.6 B	8.5 B	10.7 B	7.8 B
Iron	***8,220***	***2,140***	***1,270***	***7,870***	***5,200***	***36,100***	279 E	117 B
Lead	***35.7***	10.3	17.7	***43.9***	22.6	ND	ND	ND
Manganese	***548***	***508***	52.1	***398*** *	126	169	138	135
Selenium	ND	8.6 B	ND	***19.3 B***	ND	ND	ND	ND
Sodium	2,390	3,870	2,200	***84,400***	18,900	18,500	15,000 E	14,700
Thallium	***3.1 B***	ND	ND	***6.1 B***	ND	ND	ND	ND

Compound	NYSDEC Criteria
Antimony	3
Arsenic	25
Cadmium	5
Chromium	50
Iron	300
Lead	25
Manganese	300
Selenium	10
Sodium	20,000
Thallium	0.5

U - Unfiltered sample
F - Filtered sample

LEGEND:

- EXISTING WELLS INCLUDED IN LONG TERM MONITORING (MW-1 was damaged in December 2007.)
- EXISTING MONITORING WELLS
- MISSING MONITORING WELLS
- ALL CONCENTRATIONS IN mg/Kg
- **BOLD** RESULTS EXCEED CRITERION
- RAILROAD TRACKS

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC/jk

APPROVED BY : PK

MULTI SITE G - Dzus Fasteners
SITE NO. 1-52-033

SUMMARY OF TAL METALS IN GROUNDWATER AUGUST 22, 2012

DATE : NOV. 2012

SCALE : AS SHOWN

DRAWING NO. : 4

File: J:\Project\Dzus\Cadd\Drawings\GW tal Metal 2012-11-13.dwg Layout: GW tal Metal_Fig4 User: karchi1 Plotted: Nov 14, 2012 - 4:36pm

N

DZUS FACILITY

MW-1
MW-2
MW-3
MW-9
MW-9B
MW-15A
MW-15B
MW-22A
MW-22B
MW-13A
MW-13B
MW-23A
MW-23B
MW-18

SED-6 SW-6
SED-5 SW-5
SW-1 SED-1
SW-2 SED-2
SW-3 SED-3
SW-4 SED-4

Willetts Creek

Beech Street Middle School

West Islip Senior High School

Elementary School

Lake Capri

Gil Net

Compound	SW-6 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	ND	***8*** ***B***	ND	ND	ND	ND
Cadmium	0.55 B	2.8 B	***75.4***	ND	ND	ND
Iron	***5,400***	***2,170***	***4,010***	***639***	***2,280***	***6,840***
Manganese	***2,610***	***1,510*** ***E***	***1,040***	***406***	***869***	***1,160***
Selenium	ND	ND	ND	***10.5*** ***B***	ND	ND
Sodium	***29,200***	***33,600*** ***E***	***26,000***	***20,500***	***33,800***	***32,100***

Compound	SW-5 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	1.5 B	***4.4*** ***B***	ND	ND	ND	ND
Cadmium	***5.7***	***5.6***	3 B	***5.1***	***8.8***	4.1 B
Iron	***632***	***599***	***1,060***	***959***	***4,080***	***690***
Manganese	***1,420***	***1,110***	***956***	***450***	***923***	***519***
Sodium	***21,100***	***21,800***	18,100	***20,300***	***26,900***	***28,100***

Compound	SW-1 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	ND	ND	***6*** B	ND	ND	ND
Iron	***691***	***738***	***598***	***387***	***416***	172 B
Manganese	***1,050***	***862***	***1,610***	***996***	***1,000***	***552***
Sodium	18,500	15,800	19,000	***22,500***	18,700	***24,600***

Compound	SW-2 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	ND	ND	ND	***5.7*** ***B***	ND	ND
Iron	***649***	***819***	***675***	***478***	***508***	176 B
Manganese	***1,010***	***819*** ***E***	***1,560***	***968***	***1,080***	***564***
Sodium	18,100	16,200 E	19,500	***22,000***	18,600	***23,800***
Thallium	ND	ND	ND	***7.2*** ***B***	ND	ND

Compound	SW-3 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	ND	ND	ND	***7.2*** ***B***	ND	ND
Iron	***788***	280	***772***	***332***	***311***	144 B
Manganese	***882***	73.9 E	***1,790***	***911***	***990***	***355***
Sodium	18,300	16,800 E	17,700	***23,300***	18,800	***23,500***
Thallium	ND	ND	ND	***5.9*** ***B***	ND	ND

Compound	SW-4 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Iron	***610***	***609***	***741***	***344***	***322***	152 B
Manganese	***786***	135 E	***1,630***	***943***	***918***	***463***
Sodium	18,100	16,600 E	17,800	***22,900***	18,700	***23,900***

LEGEND:

- EXISTING WELLS INCLUDED IN LONG TERM MONITORING (MW-1 was damaged in December 2007.)
- ALL CONCENTRATIONS IN mg/Kg
- **BOLD** RESULTS EXCEED CRITERION
- RAILROAD TRACKS
- SURFACE WATER, SEDIMENT SAMPLE LOCATION

Compound	Surface Water Criteria
Antimony	3
Cadmium	5
Iron	300
Lead	50
Manganese	300
Selenium	10
Sodium	20,000
Thallium	0.5

GRAPHIC SCALE

800 400 0 400 800

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC/jk

APPROVED BY : PK

MULTI SITE G - Dzus Fasteners
SITE NO. 1-52-033

SUMMARY OF TAL METALS IN SURFACE WATER

DATE : NOVEMBER 2012

SCALE : AS SHOWN

DRAWING NO. : 5

File: J:\Project\Dzus\Cadd\Drawings\SurfW_tal Metal-2012-11-13.dwg Layout: SW_tal Metal -Fig5 User: karchj1 Plotted: Nov 19, 2012 - 11:31am

DZUS FACILITY

Beech Street Middle School

Elementary School

West Islip Senior High School

Willetts Creek

Lake Capri

Gil Net

MW-1 MW-2 MW-3 MW-9 MW-9B MW-15A MW-15B MW-18 MW-22A MW-22B MW-13A MW-13B MW-23A MW-23B

SED-6 SW-6

SED-5 SW-5

SW-1 SED-1

SW-2 SED-2

SW-3 SED-3

SW-4 SED-4

Compound	SED-6 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	0.076	0.38 B	***2.6*** N	0.38 B	0.44 BN	ND
Arsenic	0.97	0.84 B	***6.4***	0.79	2.7 *	0.64 B
Cadmium	0.23	0.31	***101***	0.31	ND	0.30
Chromium	2.4	3.4	***41.8***	4.4 *	15.9 *	5.4
Copper	***28.3***	6.3	***77.3***	9.4 *	***21.5*** *	8.0
Iron	3,290	2,900	***25,600***	2,810	***36,900*** *	2,120
Lead	7.9	10.3	***109*** E	9.5	***39.7*** N*	8.7
Manganese	102	30.4	***978***	21.3	118 *	16.2
Mercury	0.036 B	ND	***0.15***	ND	0.019 B	0.011 B
Nickel	1.8	1.9 BE	***17.2***	1.8 BE	10.1 *	2.0
Zinc	17.2	24.2	***409*** E	31 *	68.9 *	38.9

Compound	SED-5 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Arsenic	0.6 B	0.52 B	***8.2***	***6.5***	***9.3*** *	1.6
Cadmium	0.43	***1.6***	***52***	***28.8***	***73.5*** *	***1.7***
Chromium	3.8	2.7	***33.3***	18.5 *	***44*** *	3.5
Copper	4.7	4.7	***103***	***54*** *	***166*** *	9.0
Iron	3,400	3,410	***23,900***	***25,800***	***39,900*** *	4,180
Lead	7.9	4.9	***215*** E	***83.3***	***229*** N*	9.4
Manganese	174	291	***2,140***	***3,750***	***1,210*** *	417
Mercury	0.016 B	0.0055 B	***0.48***	***0.26***	***0.37***	0.023 B
Nickel	1.6	1 B	***19.2***	8 E	***22.5*** *	1.9
Zinc	13.2	26.2	***290*** E	***171*** *	***440*** *	24.2

Compound	SED-1 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Antimony	0.7 B	0.41 B	***2.2*** BN	***6.4***	ND	ND
Arsenic	***7.9***	1.5	***8.7***	***16.1***	***15.2*** *	***18.1***
Cadmium	***47.8***	***11.6***	***61.4*** N*E	***69.2***	***81.2*** *	***89.8***
Chromium	20.7	2.8	***27.1*** E	***39.1*** *	***50*** *	***57.4***
Copper	***38.6***	***86.3***	***65.7***	***127*** *	***121*** *	***144***
Iron	10,300	3,880	19,700 E	***36,000***	***44,600*** *	***26,700***
Lead	***170***	19.3	***176*** N*E	***225***	***226*** N*	***289***
Manganese	***1,290***	***1,200***	181 *	***2,250***	***22,600*** *	***3,620***
Mercury	***0.21***	0.0071 B	***0.34***	***0.38***	***0.33*** B	***0.52***
Nickel	11.4	3	***19.4***	***24.1*** ***E***	***24.1*** *******	***27.3***
Zinc	***215***	71.6	***445*** *E	***493*** *	***572*** *	***642***

Compound	SED-4 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Arsenic	3.4	4.0	3.9	1.9	4.4 *	***6.2*** ***B***
Cadmium	***32.3***	***32.3***	***15.8*** N*E	***14.8***	***47.3*** *	***79.5***
Chromium	8.6	12.5	6.8 E	8.1 *	21.7 *	***45.4***
Copper	***21.6***	***35.7***	***17.1***	***22.6*** *	***49.5*** *	***117***
Lead	***71.2***	***193***	***34.3*** N*E	***60.6***	***129*** N*	***297***
Manganese	***837***	***845***	***11,700*** *	272	***1,150*** *	***1,820***
Mercury	0.096	0.059 BN	***0.21***	0.082	***0.18***	***0.39***
Silver	ND	ND	***1.1*** B	ND	ND	ND
Zinc	***122***	***186***	110 *E	71.3 *	***232*** *	***323***

Compound	SED-2 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Arsenic	***19.7***	2 B	1.8	***20.2***	***13.4*** *	***19.2***
Cadmium	***133***	***21.2***	***12.5*** N*E	***111***	***96.6*** *	***122***
Chromium	***33.7***	7.7	6.5 E	***49.4*** *	***45.2*** *	***47.7***
Copper	***210***	***19.6***	15.6	***97.7*** *	***80.2*** *	***91.0***
Iron	***20,300***	8,940	3,850 E	***27,500***	17,300 *	***25,400***
Lead	***315***	***40.7***	25.8 N*E	***375***	***315*** N*	***408***
Manganese	153	***1,300***	***769*** *	***3,510***	***1,480*** *	***3,790***
Mercury	***0.45***	0.047 BN	0.018 B	***0.35***	***0.50***	***0.49***
Nickel	***17.6***	6.8 E	3.2 B	***22*** E	***17.6*** *	***21.9***
Zinc	***402***	***138***	67.9 *E	***495*** *	***406*** *	***526***

Compound	SED-3 Jun-06	Aug-07	Nov-08	Mar-10	May-11	Sep-12
Cadmium	***1.5***	***27.7***	***1.7*** N*E	***22.3***	***16.1*** *	***14.1***
Copper	2.7	***16.7***	***32.4***	***32.5*** *	10.9 *	8.5
Lead	9.2	***44.2***	***34*** N*E	***85.9***	***46*** N*	21.4
Manganese	89.8	***568***	***908*** *	357	***1,090*** *	132

LEGEND:

EXISTING WELLS INCLUDED IN LONG TERM MONITORING
(MW-1 was damaged in December 2007.)

ALL CONCENTRATIONS IN mg/Kg

BOLD RESULTS EXCEED CRITERION

RAILROAD TRACKS

SURFACE WATER, SEDIMENT SAMPLE LOCATION

Compound	NYSDEC Sediment Criteria Lowest Effect	Highest Effect
Antimony	2.0	25
Arsenic	6.0	33
Cadmium	0.6	9
Chromium	26	110
Copper	16	110
Iron	20,000	20,000
Lead	31	110
Manganese	460	1,100
Mercury	0.15	1.3
Nickel	16	50
Zinc	120	270

GRAPHIC SCALE

800 400 0 400 800

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC/jk

APPROVED BY : PK

MULTI SITE G - Dzus Fasteners
SITE NO. 1-52-033

SUMMARY OF TAL METALS IN SEDIMENT

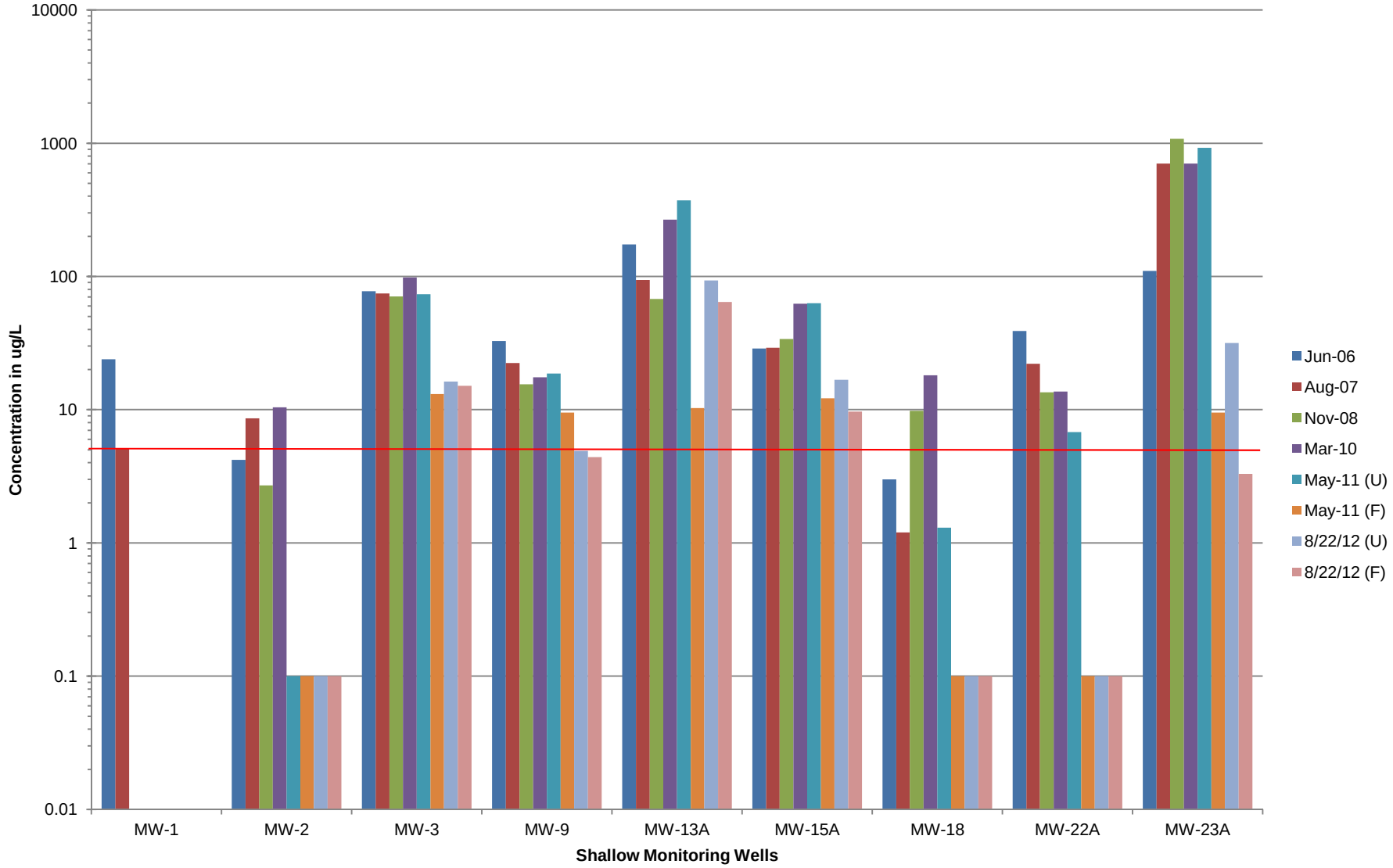
DATE : NOV. 2012

SCALE : AS SHOWN

DRAWING NO. : 6

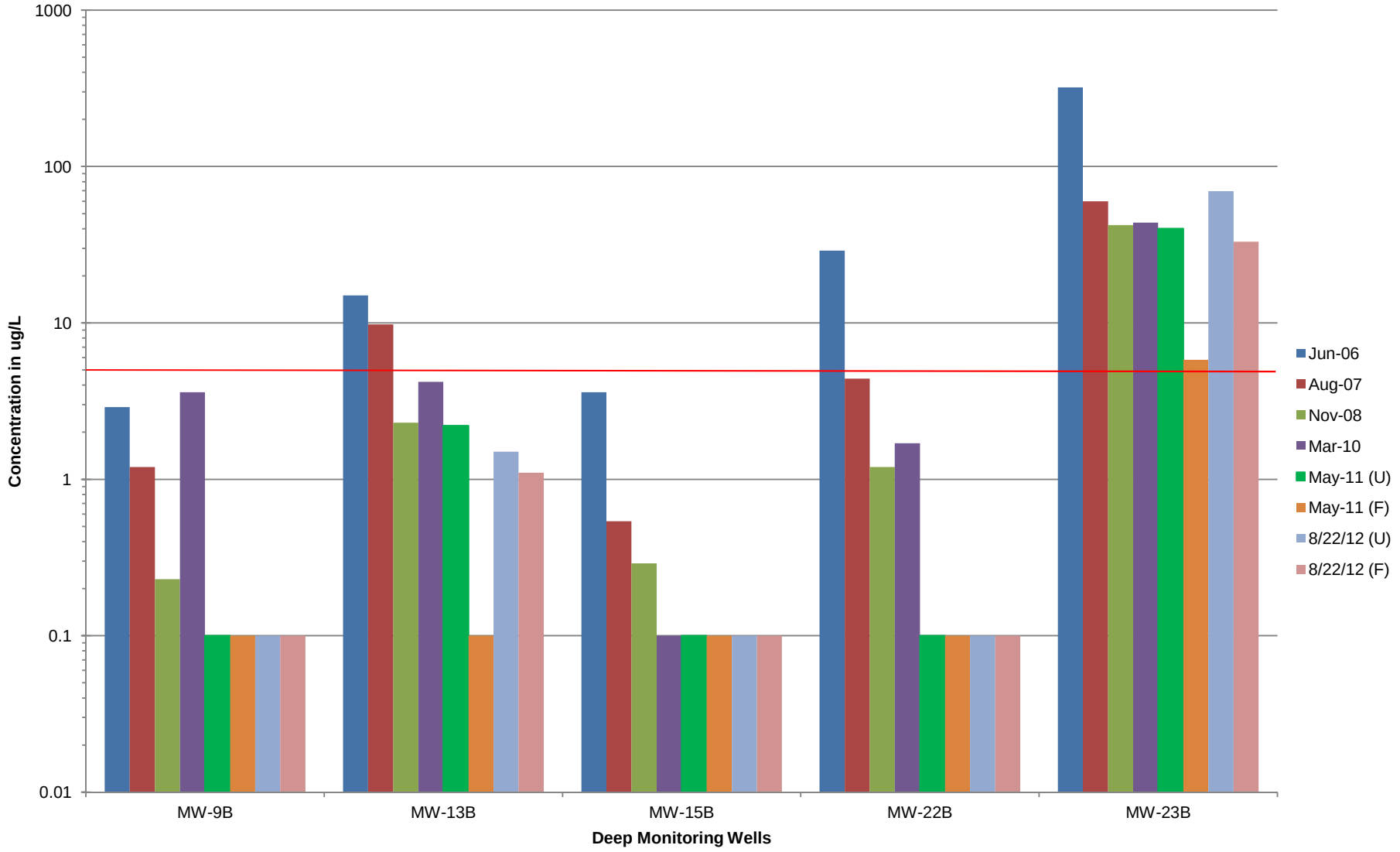
File: J:\Project\Dzus\Cadd\Drawings\Sed_tal Metal-2012-11-13.dwg Layout: Sed_tal Metal -Fig6 User: karchj1 Plotted: Nov 19, 2012 - 11:24am

Figure 7
Cadmium Concentrations in Shallow Monitoring Wells
Dzus Fasteners Site (1-52-033)



Cadmium Class GA criterion is 5 ug/L
ND values set to 0.1 ug/L for plotting purposes

Figure 8
Cadmium Concentrations in Deep Monitoring Wells
Dzus Fasterners Site (1-52-033)



Cadmium Class GA criterion is 5 ug/L
ND values set to 0.1 ug/L for plotting purposes

N

DZUS FACILITY

MW-17

MW-5

MW-20

(4.4)
MW-9

MW-9B
(ND)

MW-4R

MW-22B
(ND)

MW-22A
(ND)

MW-15B
(ND)

MW-3
(15.1)

MW-1
(NA)

MW-8

MW-21B

MW-21A

MW-15A
(9.7)

SED-6
SW-6

MW-7

MW-2
(ND)

MW-7B

MW-12

MW-13A
(64.4)

5

10

MW-6

MW-13B
(1.1)

MW-24

MW-23A
(3.3)

MW-24B

MW-23B
(33.1)

Beech Street Middle School

SED-5
SW-5

BS-02

BS-01

BS-03

Willetts Creek

MW-18
(ND)

LEGEND:

- EXISTING WELLS INCLUDED IN LONG TERM MONITORING (MW-1 was damaged in December 2007.)
- EXISTING MONITORING WELLS
- MISSING MONITORING WELLS
- SURFACE WATER AND SEDIMENT SAMPLE LOCATION

NA NOT ANALYZED

ND NOT DETECTED

(9.7) FILTERED CADMIUM CONCENTRATION IN ug/L

10 CADMIUM ISOCONCENTRATION LINE. CONTOUR INTERVAL IS 5ug/L. DASHED WHERE INFERRED

RAILROAD TRACKS

GRAPHIC SCALE

400 200 0 200 400

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC/jk

APPROVED BY : PK

MULTI SITE G - Dzus Fasteners
SITE NO. 1-52-033

FILTERED CADMIUM ISOCONCENTRATION MAP AUGUST 2012

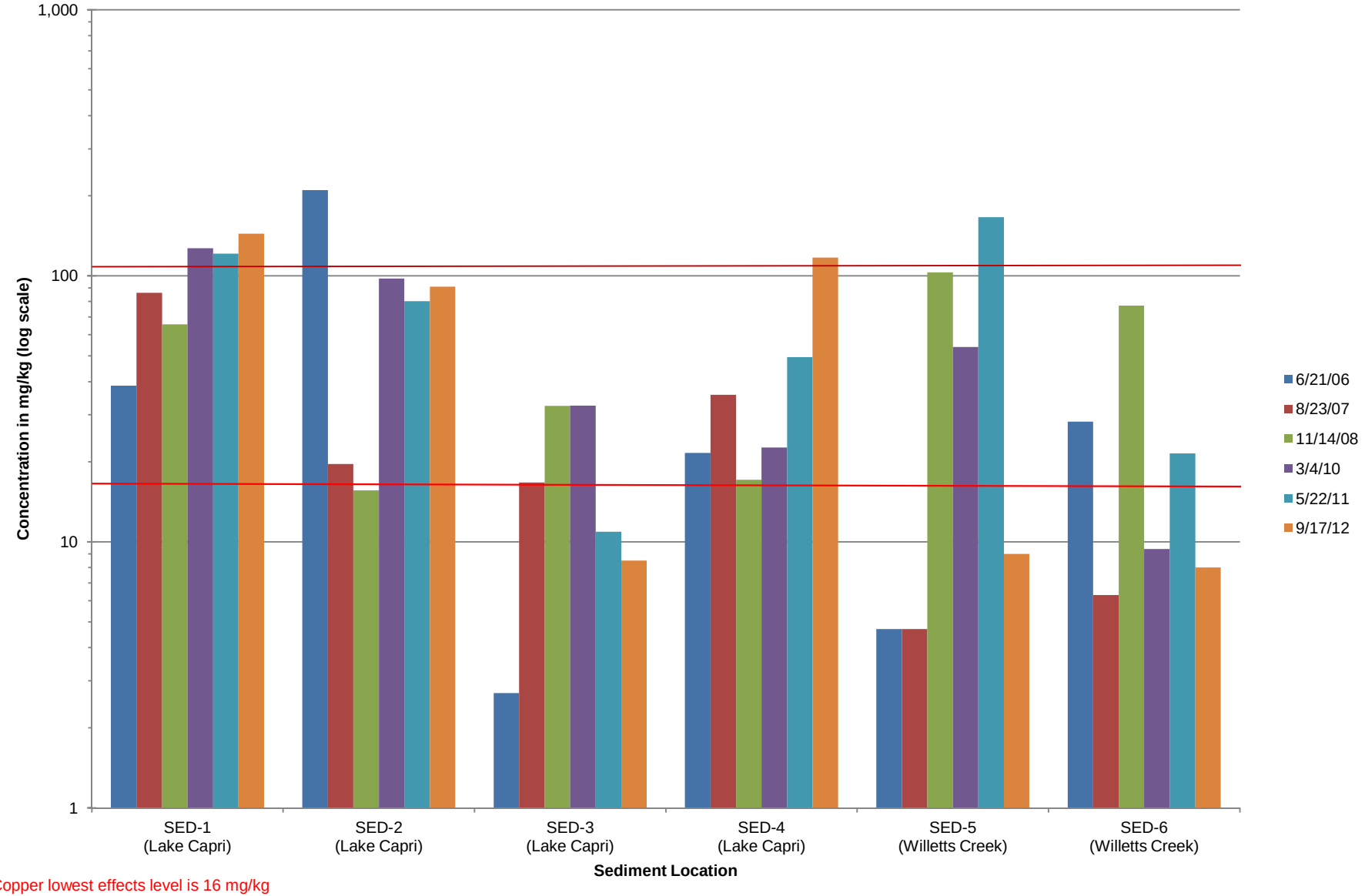
DATE : NOV. 2012

SCALE : AS SHOWN

DRAWING NO. : 9

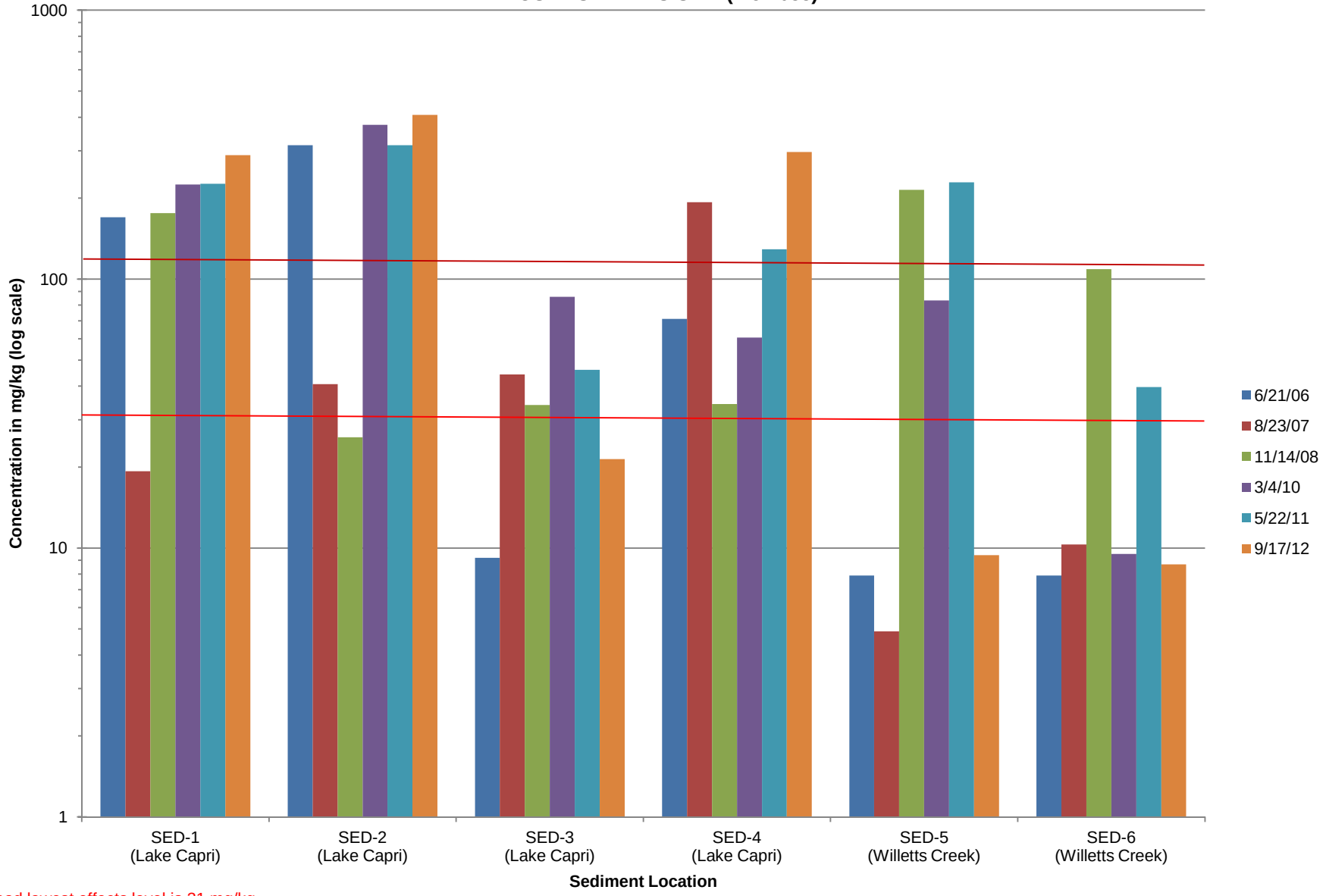
File: J:\Project\Dzus\Cadd\Drawings\FltCadmiumIsoMap-2012-11-13.dwg Layout: Fig8 User: karchj1 Plotted: Nov 13, 2012 - 1:56pm

FIGURE 10
COPPER CONCENTRATIONS IN LAKE CAPRI & WILLETTS CREEK SEDIMENT SAMPLES
DZUS FASTENERS SITE (1-52-033)



Copper lowest effects level is 16 mg/kg
Copper highest effects level is 110 mg/kg

FIGURE 11
LEAD CONCENTRATIONS IN SEDIMENT SAMPLES
DZUS FASTENERS SITE (1-52-033)



Lead lowest effects level is 31 mg/kg
Lead highest effects level is 110 mg/kg

Appendix A

IC/EC Certification

Enclosure 1
Engineering Controls - Engineering Standby Contractor Certification Form

Site Details **Box 1**

Site No. 152033

Site Name Dzus Fastener Co., Inc.

Site Address: 425 Union Boulevard Zip Code: 11795
City/Town: West Islip
County: Suffolk
Site Acreage: 1.0

Reporting Period: November 01, 2011 to December 31, 2013

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. To your knowledge is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Engineering Standby Contractor Date

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted

YES	NO
☒	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

Signature of Engineering Standby Contractor

Date

SITE NO. 152033

Description of Institutional Controls

Parcel	Owner	Institutional Control
455000100063000	Stephen Meshover	Site Management Plan Landuse Restriction

+deed restriction-Restricting land use and ground water use
+Site Management Plan-Including Groundwater monitoring, Surface Water Monitoing, Sediment monitoring, Biota monitoring Plans, Soil Management plan, Institional contol/engineering control plan.

455000100064000	Stephen Meshover	Landuse Restriction Site Management Plan

+deed restriction-Restricting land use and ground water use
+Site Management Plan-Including Groundwater monitoring, Surface Water Monitoing, Sediment monitoring, Biota monitoring Plans, Soil Management plan, Institional contol/engineering control plan.

Description of Engineering Controls

Parcel	Engineering Control
455000100063000	Cover System

+topsoil/asphalt cover at the eastern portion of the Site, which would protect the treatment cells from erosion
+long-term monitoring program to evaluate the effectiveness of the on-site remedy and to verify that existing groundwater plume does not impact public health or environment.

455000100064000	Cover System

+topsoil/asphalt cover at the eastern portion of the Site, which would protect the treatment cells from erosion
+long-term monitoring program to evaluate the effectiveness of the on-site remedy and to verify that existing groundwater plume does not impact public health or environment.

IC/EC CERTIFICATIONS

Box 6

Professional Engineer Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Scott A. Underhill at AECOM
print name

40 British American Blvd

Latham, NY 12110,
(print business address)

am certifying as a Professional Engineer.

Scott A. Underhill
Signature of Professional Engineer

Seal
(Required for PE)

4-19-13
Date

Enclosure 2

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the "YES/NO" questions in the Verification of Site Details Section. The Engineering Standby Contractor may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (Boxes 3, 4, and 5)

1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Engineering Standby Contractor should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered. The DEC PM should be contacted to begin development of a plan of proposed corrective measures and an associated schedule for completing the corrective measures, including detailed cost information in a proposed budget. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule and budget, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a revised Periodic Review Report (with a signed IC/EC Certification) must be submitted which covers both the period for which a certification initially could not be provided and the ensuing time period until the correction measure was completed. This revised PRR should be submitted within 45 days after completion of the corrective measures to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6):

Where the site has Institutional and Engineering Controls, the certification statement in Box 6 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

If you certified "YES" for each Institutional and Engineering Control, please complete and sign the IC/EC Certification page.

IV. Certification Form Modifications

Changes to the Certification Form shall be discussed with the Project Manager prior to submission. Any approved changes must be made on the Certification Form provided by Site Control and supporting documentation or reasoning shall be attached.

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)

A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.

B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;

1. whether all requirements of each plan were met during the reporting period
2. any requirements not met
3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals

1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix B

Post-Dredging Results

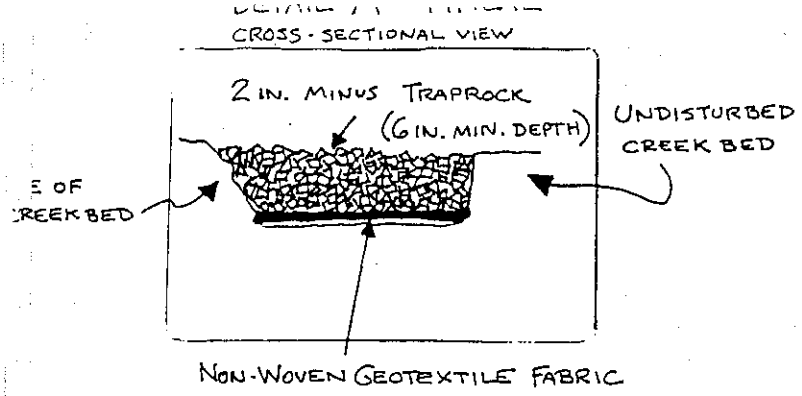
DZUS Fastener Site
NYSDEC Site ID Number 1-52-033

COMPARISON OF ANALYTICAL RESULTS FROM PRE-DESIGN INVESTIGATION, PRE-EXCAVATION, AND POST-EXCAVATION OF WILLETTS CREEK

Location (In Feet)	PDI West	PDI Centerline	Pre-Excavation	Post-Excavation
900	142 ppm	1.9 ppm		92.8 ppm
850			18.6 ppm	114.0 ppm
800	239 ppm	1.6 ppm		97.2 ppm
550				4.99 ppm
500	20.3 ppm	12.2 ppm		
450	8.8 ppm	ND	11.8 ppm	4.70 ppm
400	17.3 ppm	3.3 ppm		
350	9.4 ppm	14.9 ppm	17.3 ppm	11.8 ppm
300	1.3 ppm	6.5 ppm		
250	51.4 ppm	0.6 ppm		1.24 ppm
200	37.1 ppm	5.0 ppm		
150	11.4 ppm	10.2 ppm	110 ppm	9.65 ppm
100	368 ppm	11.2 ppm		
50	1.2 ppm	6.8 ppm		2.32 ppm, ND*
00	37.6 ppm	9.7 ppm	152 ppm	<MDL*
-50				

* These samples were not taken exactly at 50 ft north of bridge, but within 15 - 35 feet north of bridge.

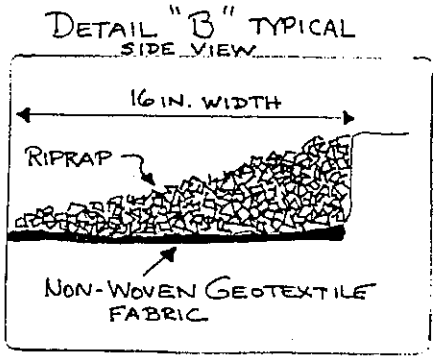
NOTE: The analytical results was the basis for decision to encapsulate per detail "Willets Creek Backfill Detail".

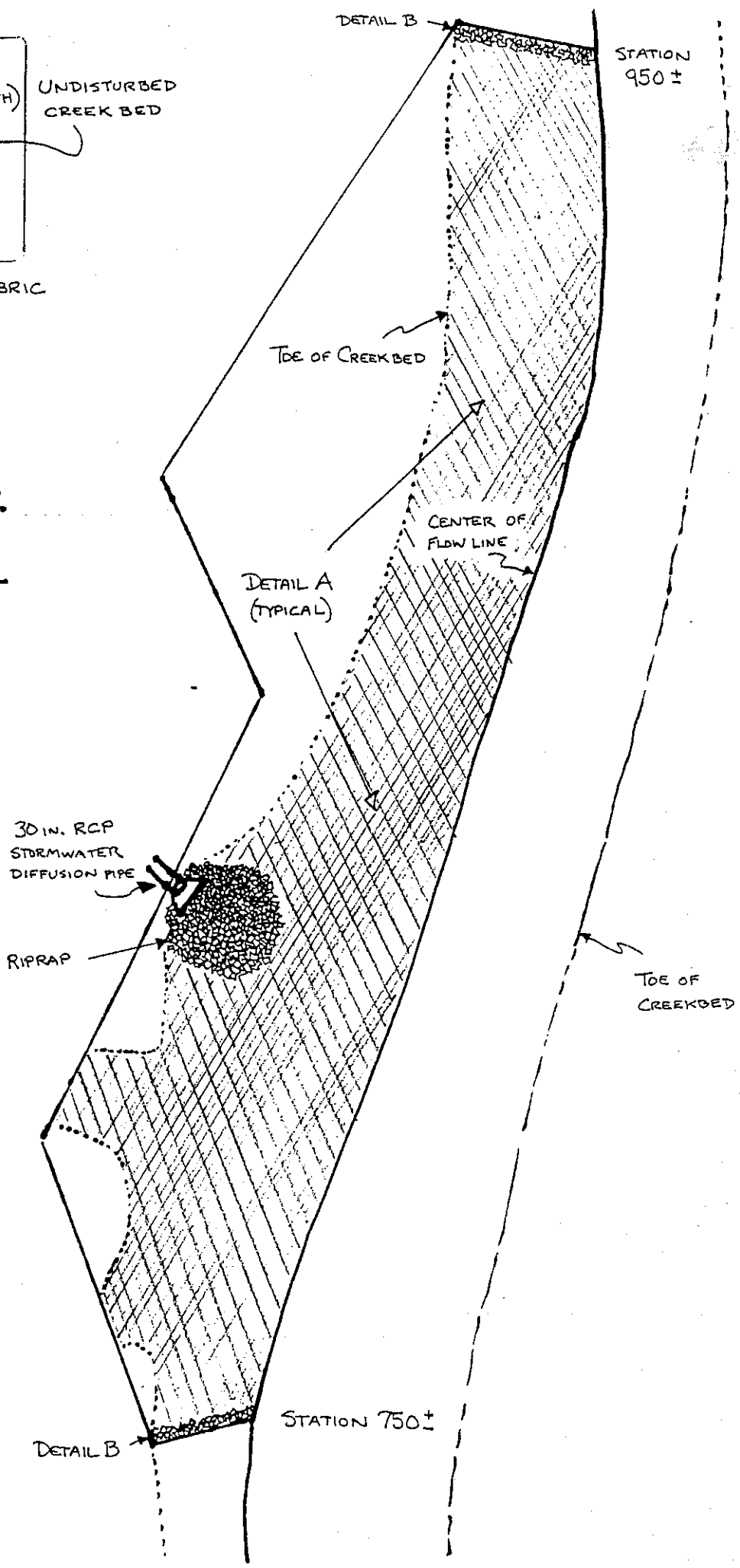


WILLETTS CREEK

BACKFILL DETAIL

[N.T.S.]





CONSTRUCTION CERTIFICATION REPORT

DZUS FASTENER SITE (OU2)

APPENDIX D

POST DREDGING/EXCAVATON DATA

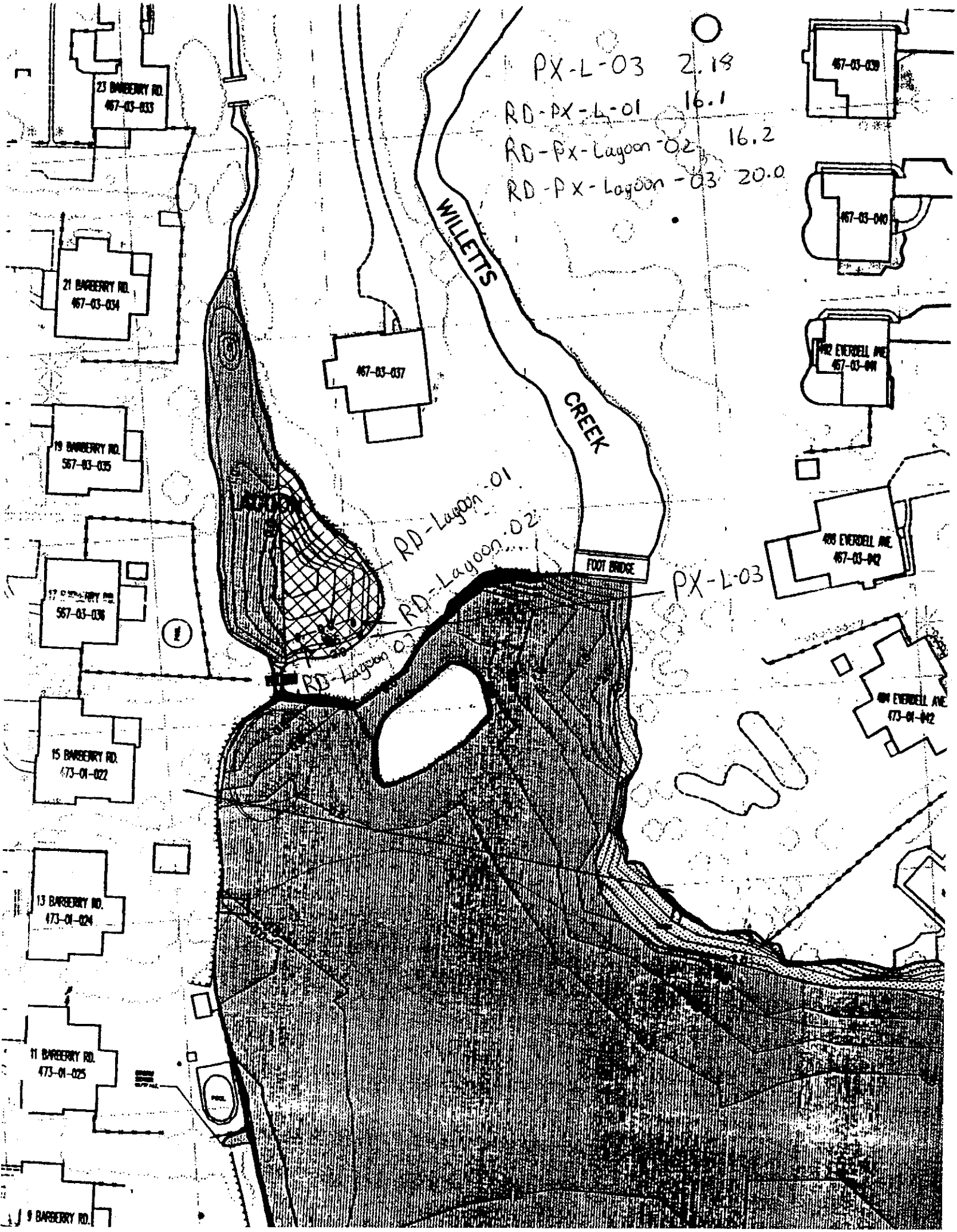
LAGOON ANALYTICAL DATA SUMMARY

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033
POST- EXCAVATION SAMPLING REQUIREMENTS

NORTH LAGOON AREA

POST EXCAVATION SAMPLES

ID#	Collection Date	Collected By	Collection Time	Analytical Results		Comments
PX-L-01	07/20/99	JShn	1455 hrs.	<0.5 ppm Cd total		
PX-L-02	07/22/99	JShn	1400 hrs.	0.42 ppm		
PX-L-03	07/22/99	JShn	1415 hrs	2.18 ppm		
				11.7 ppm	(SciLab)	split check
RD-PX-L-01	07/28/99	JShn	1515 hrs	16.1 ppm		post redredge
				6.5 ppm	(SciLab)	split check
RD-PX-L-02	08/03/99	Jwolf	1540 hrs	18.2 ppm		6ft under H20
				12.7 ppm	(SciLab)	
RD-PX-L-03	08/03/99	Jwolf	1550 hrs	20.0 ppm		8ft under H20
				24.3 ppm	(SciLab)	
RD-PX-L-04	09/10/99	Jwolf	1330 hrs	50.5 ppm		
RD-PX-L-05	09/10/99	Jwolf	1340 hrs	131 ppm		
RD-PX-L-06	09/10/99	Jwolf	1350 hrs	1.14 ppm		
RD-PX-L-07	09/10/99	Jwolf	0400 hrs	0.30 ppm		
RD-PX-L-08	09/13/99	Jwolf	1500 hrs	0.17 ppm		
				2.3 ppm	(SciLab)	
RD-PX-L-09	09/13/99	Jwolf	1515 hrs	0.23 ppm		
				0.93 ppm	(SciLab)	


PX-L-03 2.18
RD-PX-L-01 16.1
RD-PX-Lagoon-02 16.2
RD-PX-Lagoon-03 20.0
WILLETTS
CREEK
RD-Lagoon-01
RD-Lagoon-02
RD-Lagoon-03
FOOT BRIDGE
PX-L-03
23 BARBERRY RD. 467-03-033
21 BARBERRY RD. 467-03-034
19 BARBERRY RD. 567-03-035
15 BARBERRY RD. 473-01-022
13 BARBERRY RD. 473-01-024
11 BARBERRY RD. 473-01-025
9 BARBERRY RD.
467-03-037
467-03-039
467-03-040
492 EVERDELL AVE. 467-03-041
488 EVERDELL AVE. 467-03-042
484 EVERDELL AVE. 473-01-042

CONSTRUCTION CERTIFICATION REPORT

DZUS FASTENER SITE (OU2)

APPENDIX D

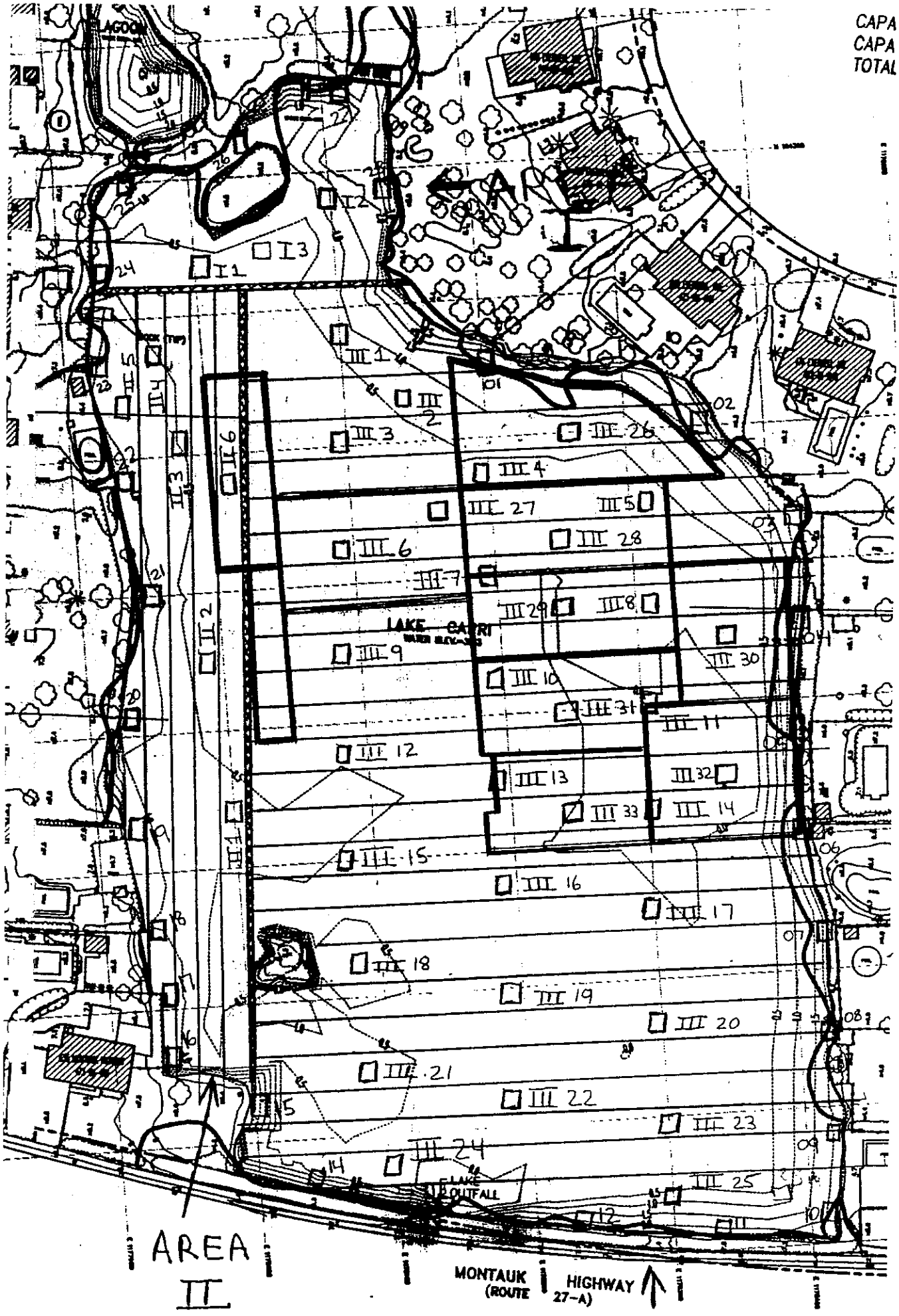
POST DREDGING/EXCAVATION DATA

LAKE CAPRI ANALYTICAL DATA SUMMARY

Lake

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033
SHORELINE POST-EXCAVATION SAMPLES - Total Cd (ppm)

PX	Dry	Wet	Wet + 4hr	QA/QC
1	1.02	0.41		
2	0.71	0.70		
3	0.11	0.45		
4	9.96	0.17		
4d	1.13			
4s	8.60			
5	0.98	0.55		
6	0.70	1.13		
7	0.89	1.56		1.30
8	1.98		2.07	
9	NA		1.59	0.90
10	NA	1.73		
11	NA	61.20	3.37	
12	NA	0.47	6.47	
13	NA		1.77	
14	NA			
15	NA			
16	NA			
17	NA			
18	NA	1.43		0.80
19	NA	0.29		
20	NA	0.62		
21	NA	0.74	0.86	0.70
22	NA	0.25	0.70	
23	NA	0.82	0.22	<0.1
24	NA	2.45		
25	NA	0.18		
26	NA			
27	NA	0.31		
28	NA	1.00		



Shoreline Samples: PX - Shoreline - 01 → PX - Shoreline - 28

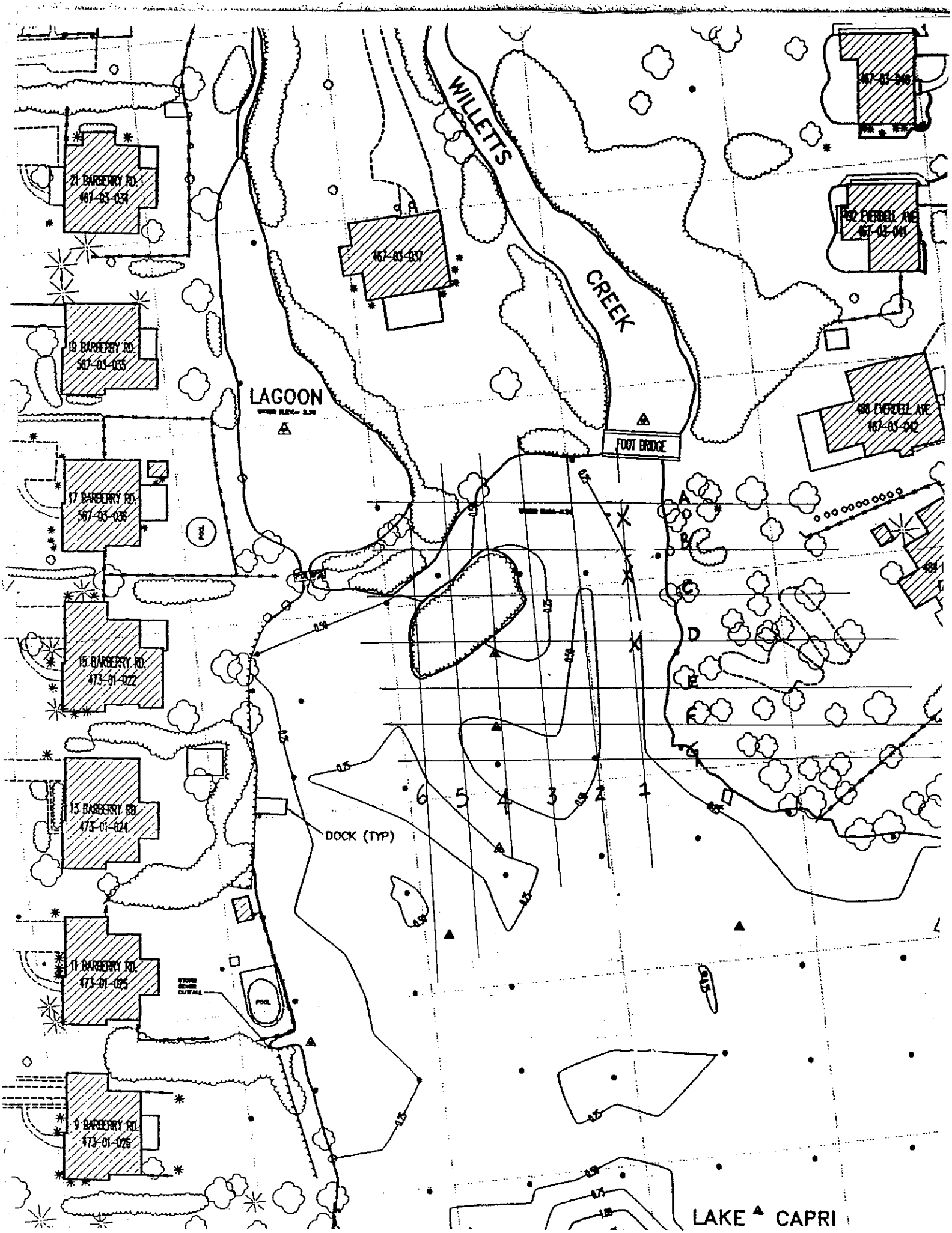
Lake Samples: PX - Lake - I - 1
Area ↑ ↑ Sample #

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033
ANALYTICAL RESULTS FOR NORTHEAST COVE AREA

GRID LOCATION	*AT GRADE*	*12 in < GRADE*	*30 in < GRADE*
A1	0.12 ppm	<MDL	
B1			
C1	37.8 ppm	0.4 ppm	3.7 ppm
D1			
E1	11.5 ppm	0.7 ppm	
F1		0.3 ppm	
G1			
A2			
B2	12.4 ppm	1.2 ppm	73 ppm
C2			6.5 ppm
D2	24.1 ppm	11.0 ppm	1.0 ppm /1.7 ppm
E2			
F2	5.96 ppm	0.1 ppm	<MDL
G2			
A3	28.6 ppm	1.1 ppm	
B3			
C3	10.3 ppm	2.7 ppm	
D3			
E3	44.9 ppm		0.20 ppm
F3		3.9 ppm	
G3	31.0 ppm		
A4			
B4			
C4			
D4			
E4			0.70 ppm
F4			

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033
ANALYTICAL RESULTS FOR NORTHEAST COVE AREA

GRID LOCATION	*AT GRADE*	*12 in < GRADE*	*30 in < GRADE*
G4			
A5			
B5			
C5			
D5			
E5			
F5	135 ppm	0.1 ppm	
G5			
A6			
B6			
C6			
D6			
E6			
F6			
G6	1.0 ppm /4.0 ppm		
A7			
B7			
C7			
D7			
E7			
F7			
G7			
A8			
B8			
C8			
D8			
E8			


WILLETTS
CREEK
LAGOON
FOOT BRIDGE
21 BARBERRY RD.
467-03-034
19 BARBERRY RD.
467-03-035
17 BARBERRY RD.
467-03-036
15 BARBERRY RD.
473-01-022
13 BARBERRY RD.
473-01-024
11 BARBERRY RD.
473-01-025
9 BARBERRY RD.
473-01-026
467-03-037
692 EVERGELL AVE.
467-03-041
688 EVERGELL AVE.
467-03-042
DOCK (TYP)
POOL
A
B
C
D
E
F
6
5
4
3
2
1
LAKE CAPRI

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033

POST EXCAVATION (TOTAL CADMIUM) LABORATORY ANALYTICAL RESULTS

Chain of Custody #	ERM Sample ID	Date Collected	Date Analyzed	Date Data Received	Date Cat B Package Received	Earth Tech Analytical Results (ppm)	ERM/BWE Analytical Results (ppm)	Notes
COC E								
I 7116-1	Dup 091799	09/17/99	09/18/99	09/20/99	10/15/99		34.8	
I 7116-2	PX-Cove-A1	09/17/99	09/18/99	09/20/99	10/15/99		0.13	J - Concentration detected below MDL
I 5258-1	PX-Cove-A1-RD	10/28/99	10/29/99	10/29/99	12/08/99		0.44	J - Concentration detected below MDL Revised 12/2/99 Orig. reported as 0.34 ppm U
I 7116-3	PX-Cove-C1	09/17/99	09/18/99	09/20/99	10/15/99		37.8	
I 5258-2	PX-Cove-C1-RD	10/28/99	10/29/99	10/29/99	12/08/99		2.71	
I 7116-4	PX-Cove-E1	09/17/99	09/18/99	09/20/99	10/15/99		11.5	
I 5258-3	PX-Cove-E1-RD	10/28/99	10/29/99	10/29/99	12/08/99		2.01	
I 7116-9	PX-Cove-B2	09/17/99	09/18/99	09/20/99	10/15/99		12.4	
J 5254-2	PX-Cove-B2-RD	10/27/99	10/28/99	10/28/99	12/02/99		1.95	Experimental Sample 1' below grade Revised 11/29/99 Orig. reported as 1.95 ppm
I 7116-7	PX-Cove-D2	09/17/99	09/18/99	09/20/99	10/15/99		24.1	
J 5254-1	PX-Cove-D2-RD	10/26/99	10/28/99	10/28/99	12/02/99		174.1	Experimental Sample 1' below grade Revised 11/29/99
I 7116-5	PX-Cove-F2	09/17/99	09/18/99	09/20/99	10/15/99		6.02	
J 5254-3	PX-Cove-F2-RD	10/27/99	10/28/99	10/28/99	12/02/99		57.3	Experimental Sample 1' below grade Revised 11/29/99
I 7116-10	PX-Cove-A3	09/17/99	09/18/99	09/20/99	10/15/99		28.6	
I 7116-11	PX-Cove-A3 MS/MSD	09/17/99	09/18/99	09/20/99	10/15/99		28.5	
J 5253-3	PX-Cove-A3-RD	10/26/99	10/28/99	10/28/99	12/02/99		60.8	Experimental Sample 1' below grade Revised 11/29/99 Orig. reported as 60.9 ppm
I 7116-8	PX-Cove-C3	09/17/99	09/18/99	09/20/99	10/15/99		10.4	
J 5253-2	PX-Cove-C3-RD	10/26/99	10/28/99	10/28/99	12/02/99		8.63	Experimental Sample 1' below grade Revised 11/29/99

File: L:\work\32419\certrpt tables\post ex data 122299.xls

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033

POST EXCAVATION (TOTAL CADMIUM) LABORATORY ANALYTICAL RESULTS

Chain of Custody #	ERM Sample ID	Date Collected	Date Analyzed	Date Data Received	Date Cat B Package Received	Earth Tech Analytical Results (ppm)	ERM/BWE Analytical Results (ppm)	Notes
I 7116-6	PX-Cove-E3	09/17/99	09/18/99	09/20/99	10/15/99		44.8	
J 5253-1	PX-Cove-E3-RD	10/26/99	10/28/99	10/28/99	12/02/99		38.0	Experimental Sample 1' below grade Revised 11/29/99
LAKE BOTTOM								
I 5160-1	PX-LB-201	10/09/99	10/11/99	10/12/99	11/19/99		0.22	J - Concentration detected below MDL
J 3965-1	PX-Lake-25A	12/10/99	12/13/99	12/15/99	01/19/00		14.1	
J 4623-1	PX-Lake-25A +4	12/17/99	10/20/99	12/21/99	01/19/00	.80/.90/.90	1.99	Revised 1/13/00 Orig. reported as 1.98 ppm
SHORELINE								
I 9836-1	PX-Shoreline-01	09/29/99	09/29/99	09/30/99	11/19/99		0.41	
I 9836-2	PX-Shoreline-02	09/29/99	09/29/99	09/30/99	11/19/99		0.70	
I 9836-3	PX-Shoreline-03	09/29/99	09/29/99	09/30/99	11/19/99		0.45	
I 9836-4	PX-Shoreline-04	09/29/99	09/29/99	09/30/99	11/19/99		0.17	
I 9836-5	PX-Shoreline-05	09/29/99	09/29/99	09/30/99	11/19/99		0.55	
I 9836-6	PX-Shoreline-06	09/29/99	09/29/99	09/30/99	11/19/99		1.13	
J 3953-2	PX-Shoreline-07 +4	12/05/99	12/07/99	12/07/99	01/19/00	1.3	1.59	Revised 1/11/00 Orig. reported as 1.56 ppm
J 3956-2	PX-Shoreline-08 +4	12/08/99	12/10/99	12/13/99	01/19/00		2.06	Revised 1/12/00 Orig. reported as 2.07 ppm
J 3962-2	PX-Shoreline-09 +4	12/09/99	12/13/99	12/14/99	01/19/00	0.9	1.59	
J 3946-2	PX-Shoreline-10	12/03/99	12/04/99	12/06/99	01/19/00		1.73	Prior to Augering
J 3946-3	PX-Shoreline-11	12/03/99	12/04/99	12/06/99	01/19/00		61.0	Revised 1/11/00 Orig reported as 61.2 ppm Prior to Augering
J 3964-2	PX-Shoreline-11 +4	12/10/99	12/14/99	12/14/99	01/19/00		3.37	Revised 1/12/00 Orig. reported as 3.40 ppm
J 4619-4	PX-Shoreline-11 +4 RS	12/15/99	12/16/99	12/16/99	01/19/00		1.58	Revised 1/13/00 Orig. reported as 1.6 ppm
J 3946-4	PX-Shoreline-12	12/03/99	12/04/99	12/06/99	01/19/00		0.92	Prior to Augering J - Concentration detected below MDL

File: L:\work\32419\certrpt tables\post ex data 122299.xls

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033

POST EXCAVATION (TOTAL CADMIUM) LABORATORY ANALYTICAL RESULTS

Chain of Custody #	ERM Sample ID	Date Collected	Date Analyzed	Date Data Received	Date Cat B Package Received	Earth Tech Analytical Results (ppm)	ERM/BWE Analytical Results (ppm)	Notes
J 3964-3	PX-Shoreline-12 +4	12/10/99	12/14/99	12/14/99	01/19/00		6.47	
J 4620-1	PX-Shoreline-12 +4 RD	12/15/99	12/16/99	12/16/99	01/19/00		0.46	
J 3964-4	PX-Shoreline-13 +4	12/10/99	12/14/99	12/14/99	01/19/00		1.76	Revised 1/12/00 Orig. reported as 1.77 ppm
J 3966-2	PX-Shoreline-14	12/10/99	12/13/99	12/15/99	01/24/00		69.8	
J 4620-3	PX-Shoreline-14 +4	12/15/99	12/16/99	12/16/99	01/19/00		1.63	
J 3966-3	PX-Shoreline-15	12/10/99	12/13/99	12/15/99	01/24/00		2.09	
J 4619-1	PX-Shoreline-15 +4	12/15/99	12/16/99	12/16/99	01/19/00		2.51	Revised 1/13/00 Orig. reported as 2.52 ppm
J 4619-2	PX-Shoreline-16 +4	12/15/99	12/16/99	12/16/99	01/19/00		2.75	Revised 1/13/00 Orig. reported as 2.76 ppm
J 4618-2	PX-Shoreline-17 +4	12/14/99	12/15/99	12/15/99	01/19/00	0.2	0.69	
J 3414-3	PX-Shoreline-18	11/13/99	11/18/99	11/19/99	01/07/00	0.8	1.43	
J 3414-2	PX-Shoreline-19	11/13/99	11/18/99	11/19/99	01/07/00		0.48	
J 3414-1	PX-Shoreline-20	11/13/99	11/18/99	11/19/99	01/07/00		0.62	
J 3411-1	111299 Dup	11/12/99	11/18/99	11/18/99	01/07/00		0.47	J - Concentration detected below MDL
J 3411-2	PX-Shoreline-21	11/12/99	11/15/99	11/18/99	01/07/00		0.75	Revised 1/04/00 Orig. reported as 0.74 ppm
J 3415-3	PX-Shoreline-21 +4	11/13/99	11/21/99	11/22/99	01/07/00	0.7	0.86	
J 3411-3	PX-Shoreline-22	11/12/99	11/15/99	11/18/99	01/07/00		0.49	J - Concentration detected below MDL
J 3415-2	PX-Shoreline-22 +4	11/13/99	11/21/99	11/22/99	01/07/00		0.70	
I 5165-1	PX-Shoreline-23	10/14/99	10/18/99	10/20/99	12/02/99		1.05	Revised 11/29/99 Orig. reported as 0.82 ppm
J 3415-1	PX-Shoreline-23 +4	11/13/99	11/21/99	11/22/99	01/07/00	BDL	0.48	J - Concentration detected below MDL
I 5164-1	PX-Shoreline-24	10/14/99	10/15/99	10/18/99	11/19/99		2.44	
I 5162-1	PX-Shoreline-25	10/13/99	10/15/99	10/18/99	11/19/99		0.18	J - Concentration detected below MDL
I 5075	PX-Shoreline 26 is PX-Lake-01	07/26/99					1.02	

File: L:\work\32419\certrpt tables\post ex data 122299.xls

DZUS Fastener Site
NYSDEC Site ID Number 1-52-033

POST EXCAVATION (TOTAL CADMIUM) LABORATORY ANALYTICAL RESULTS

Chain of Custody #	ERM Sample ID	Date Collected	Date Analyzed	Date Data Received	Date Cat B Package Received	Earth Tech Analytical Results (ppm)	ERM/BWE Analytical Results (ppm)	Notes
I 5257-1	PX-Shoreline-27	10/27/99	10/29/99	10/29/99	12/08/99		0.47	J - Concentration detected below MDL
I 5261-1	PX-Shoreline-28	10/28/99	10/29/99	10/29/99	12/08/99		1.00	
LAKE I								
I 5256-1	PX-Lake-I-2	10/27/99	10/29/99	10/29/99	12/02/99		35.8	Revised 11/29/99 Orig. reported as 37.2 ppm
I 5256-2	102799	10/27/99	10/29/99	10/29/99	12/02/99		30.6	Duplicate Revised 11/29/99 Orig. reported as 30.3 ppm
I 7123-1	PX-Lake-I-2-RD	11/05/99	11/10/99	11/11/99	12/08/99		2.98	Revised 12/2/99 Orig. reported as 2.99 ppm
J 3416-2	PX-Lake-I-3 +4	11/15/99	11/18/99	11/19/99	01/07/00		0.43	U - Analytical value is a non-detect
LAKE II								
I 7126-2	PX-Lake-II-1	11/08/99	11/10/99	11/16/99	12/08/99		0.450	J - Concentration detected below MDL Revised 12/2/99 Orig. reported as 0.34 ppm U
J 3415-4	PX-Lake-II-1 +4	11/13/99	11/21/99	11/22/99	01/07/00	1.7	1.45	
I 7126-3	PX-Lake-II-2	11/09/99	11/10/99	11/16/99	12/08/99		0.45	J - Concentration detected below MDL
J 3415-5	PX-Lake-II-2 +4	11/13/99	11/21/99	11/22/99	01/07/00		0.43	
J 3409-1	PX-Lake-II-3	11/11/99	11/15/99	11/17/99	01/19/00		0.43	U - Analytical value is a non-detect
J 3415-6	PX-Lake-II-3 +4	11/13/99	11/21/99	11/22/99	01/07/00		0.45	J - Concentration detected below MDL
J 3409-2	PX-Lake-II-4	11/11/99	11/15/99	11/17/99	01/19/00		0.42	J - Concentration detected below MDL
J 3415-7	PX-Lake-II-4 +4	11/13/99	11/21/99	11/22/99	01/07/00		0.51	
J 3411-4	PX-Lake-II-5	11/12/99	11/15/99	11/18/99	01/07/00		0.45	J - Concentration detected below MDL
J 3415-8	PX-Lake-II-5 +4	11/13/99	11/21/99	11/22/99	01/07/00		0.45	J - Concentration detected below MDL
I 7126-1	PX-Lake-II-6	11/08/99	11/10/99	11/16/99	12/08/99		0.45	J - Concentration detected below MDL
J 3415-9	PX-Lake-II-6 +4	11/13/99	11/21/99	11/22/99	01/07/00	0.1	0.83	Revised 01/04/00 Orig. reported as 1.48 ppm
LAKE III								

File: L:\work\32419\certrpt tables\post ex data 122299.xls

Appendix C

Site Inspection Photos

AECOM

PHOTOGRAPHIC LOG

Client Name: Dzus Fasteners NYS DEC Work Order D007626-17	Site Location: Dzus Fasteners Site, West Islip, NY	Project No. 60277021

Photo No. 1	Date: 08/22/12

Direction Photo Taken:
Facing east

Description:

Willetts Creek near MW-22A and MW-22B

Photo No. 2	Date: 08/22/12

Direction Photo Taken:

Facing east

Description:

Willetts Creek near MW-22A and MW-22B

AECOM

PHOTOGRAPHIC LOG

Client Name: Dzus Fasteners NYS DEC Work Order D007626-17	Site Location: Dzus Fasteners Site, West Islip, NY	Project No. 60277021

Photo No. 3	Date: 08/19/09

Direction Photo Taken:
Facing east

Description:

DZUS Fasteners site, asphalt cap.

Photo No. 4	Date: 08/22/12

Direction Photo Taken:
Facing north

Description:
Dzus Parking lot near MW-9 and MW-9B

AECOM

PHOTOGRAPHIC LOG

Client Name: Dzus Fasteners NYS DEC Work Order D007626-17	Site Location: Dzus Fasteners Site, West Islip, NY	Project No. 60277021

Photo No. 5	Date: 08/19/09

Direction Photo Taken:
Facing north

Description:

Willetts Creek, immediately north of the Edmore Lane bridge

Photo No. 6	Date: 08/19/09

Direction Photo Taken:

Facing North-west

Description:

Lake Capri

Appendix D

Well Sampling Logs

EarthTech

A tyco International Ltd. Company

WELL NO. MW-1

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **1.15** WELL TD: **15.06** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	8		14.5	0.138	6.09	5.47	247.8	46	
12:00			13.79	0.138	6.77	5.59	226.7	20	Purge Volume 3.456 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-2

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **1.00** WELL TD: **14.3** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	8.15		14.79	0.206	3.4	5.95	193.1	1.23	
14:35			14.34	0.172	6.01	5.97	119.1	1.79	Purge Volume 3.0 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-3

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : WELL TD: **15.03** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.77		16.65	0.193	7.19	5.8	227.4	1.8	
9:20			16.1	0.226	6.44	5.76	229.1	1.6	

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-9

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **1.19** WELL TD: **11.93** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.59		17.5	0.067	7.75	6.72	183.3	4.52	
8:50			16.61	0.202	7.5	6.04	211.8	2.68	Purge Volume 3.59 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-9B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **6.48** WELL TD: **44.22** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.5		18.19	0.089	7.03	5.91	222.8	2.37	
9:10			15.8	0.15	3.96	5.66	235.8	1.06	Purge Volume 19.44 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-13A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : WELL TD: **10.65** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
	2.59		19.07	0.342	2.72	6.62	196.9	110	
7:50			17.1	0.622	2.32	6.86	232.7	92	

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-13B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : WELL TD: **44.95** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	2.39		16.2	0.101	8.49	6.63	226.4		
8:04			15.53	0.098	5.55	5.77	238		

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-15A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **3.754** WELL TD: **28.55** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.48		15.97	0.186	1.16	5.68	188.3	3.27	
11:42			14.54	0.18	4.8	5.99	180.9	1.62	Purge Volume 11.26 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-15B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **12.88** WELL TD: **84.31** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.35		15.95	0.305	2.79	5.34	178.3	3.85	
11:15	5.41		14.25	0.297	2.92	5.43	189	1.67	Purge Volume 38.659 gal

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-18

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/8/06	DATE WELL COMPLETED: 6/8/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **0.898** WELL TD: **13.43** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	7.93		14.68	0.099	7.74	6.16	217.5	4.86	
11:15			13.63	0.111	4.19	6.11	218.2	2.2	Purge Volume 2.693 gal

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-22A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : WELL TD: **14.4** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	6		13.65	0.615	2.54	6.31	19.1	1.36	
9:50			13.27	0.677	2.76	6.43	23.2	1.41	Duplicate

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-22B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : WELL TD: **14.4** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.82		14.1	0.106	5.84	5.6	184.1	1.38	
10:00			14.32	0.104	5.76	5.43	180.6	1.25	MS
									MSD

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-23A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **1.628** WELL TD: **14.57** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.59		17.45	0.404	1.4	6.43	3.6	170	
9:30			17	0.449	3.17	6.3	18.5		Purge Volume 4.886 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-23B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 87616 / 03	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY, #1-52-033		DATE WELL STARTED: 6/7/06	DATE WELL COMPLETED: 6/7/06
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Kevin Seise, Jason Klein	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : **6.55** WELL TD: **44.67** PUMP INTAKE DEPTH:

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.51		18.62	0.056	6.68	6.86	75.4	200	
9:40			16.56	0.048	6.45	6.52	62.4	12.3	Purge Volume 19.66 gal.

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-1

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1 WELL TD: 15.3 ft PUMP INTAKE DEPTH: 16 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
8:50	8.62								Static water level
8:55	8.6		18.1	0	9.21	7.36	152	34.9	Pump on
9:00	9		17.1	0	9.4	6.41	165	0	
									Purged approx 3.5 gal
9:00									Collected sample DMW-1
									MS. MSD, Duplicate (DMW-101)
									also collected

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-2

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 2 WELL TD: 14.3 ft PUMP INTAKE DEPTH: 15 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:25	8.5								Static water level
9:30	8.5		22.7	0	8.05	6.5	-5	> 1000	Pump on
9:35	-		20.5	0.41	7.2	6.4	-40	475	
9:40	9		20.8	8.42	5.31	6.37	-41	500	
									Purged approx 6 gal
9:40									Collected sample DMW-2

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-3

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1 WELL TD: 15 ft PUMP INTAKE DEPTH: 12 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	6.3								Static water level
10:55	6.3		23.8	0.29	8.3	6.16	76	118	Pump on
11:00			20	0.26	8.6	6.3	120	240	
11:10									
11:15									Collected sample DMW-3

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-9

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1 WELL TD: 11.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.15								Static water level
10:35	5.15		21.9	0.259	8.55	5.98	109	285	Pump on
10:40	5.22		23.6	0.261	8.5	6.09	53	16.6	
10:45	5.25		24.5	0.269	7.83	6.2	75	160	
									Purged approx 5 gal
10:50									Collected sample DMW-9

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-9B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.9 WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.05								Static water level
10:15	5.05		21.1	0	8.43	6.7	49	93	Pump on
10:20	5.26		15.2	0.2	10.4	6.3	112	40	
10:25	5.3		15	0.184	8.3	5.83	149	64	
									Purged approx 21 gal
10:30									Collected sample DMW-9B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-13A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1 WELL TD: 10.72 ft PUMP INTAKE DEPTH: 6 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	3.02								Static water level
	3.02		24	0.52	8.08	6.38	57	131	Pump on
	3.02		22.3	0.555	8.28	6.25	59	81	
									Purged approx 4 gal
15:10									Collected sample DMW-13A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-13B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.89 WELL TD: 44.25 ft PUMP INTAKE DEPTH: 6 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	2.85								Static water level
14:25	2.85		16.8	0.123	9.4	6.52	147	80	Pump on
14:30	2.9		17.2	0.123	9.1	5.72	191	481	
14:35	2.96		17.5	0.131	8.6	5.35	210	129	
14:40	2.98		17.6	0.13	9.94	5.3	224	134	Purged approx 22 gal
14:50									Collected sample DMW-13B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-15A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 4 WELL TD: 28.8 ft PUMP INTAKE DEPTH: 11 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.8								Static water level
15:30	5.8		23	0.246	7.21	6.83	97	269	Pump on
15:35	5.82		19.5	0.198	8.35	5.9	171	241	
15:40	5.88		17.3	0.185	8.15	5.54	209	51.3	
15:45	5.9		17.2	0.186	6.25	5.27	260	260	Purged approx 15 gal
15:50									
15:50									Collected sample DMW-15

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-15B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 13 WELL TD: 84.7 ft PUMP INTAKE DEPTH: 9 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.7								Static water level
12:20	5.7		28.6	0.37	7.6	6.4	113	69	Pump on
12:30	7		15.4	0.36	9.75	6.1	148	0	
12:40	6.9		16.5	0.37	9.75	5.6	154	0	
									Purged approx 40 gal
12:50									Collected sample DMW-15B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-18

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/23/07	DATE WELL COMPLETED: 8/23/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.8 WELL TD: 13.45 ft PUMP INTAKE DEPTH: 9 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	5.05								Static water level
8:30	5.05		18.9	0.11	7.3	5.64	228	155	Pump on
8:35	5.1		19.6	0.9	7.59	6.02	212	124	
8:40	5.31		18.3	0.103	6.02	6.08	186	220	
8:45									Purged approx 4.5 gal
8:45									Collected sample DMW-18

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-22A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1 WELL TD: 14.4 ft PUMP INTAKE DEPTH: 11 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:00	6.44		20.5	0.36	8.4	6.14	71	446	Static water level
12:00	6.45		19.8	0.41	9.1	6.3	21	110	Pump on
12:05	6.56								
12:10									
									Purged approx 5.5 gal
12:10									Collected sample DMW-22A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-22B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6 WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
11:35	6.3								Static water level
11:35	6.31		17.7	0.22	9.3	6.15	139	770	Pump on
11:40	6.4		17	0.28	8.9	6.07	136	20	
11:45	6.41		18.3	0.282	9.33	6.04	123	15.3	
11:50	6.42		15.5	0.264	5.76	6	170	59.5	Purged approx 21 gal
11:55									Collected sample DMW-22B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-23A

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 2 WELL TD: 14.3 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:00	4.8								Static water level
14:00	4.8		23.8	0.39	6.12	5.88	30	445	Pump on
14:10	4.99		23.6	0.502	5.64	6.24	27	534	
									Purged approx 6 gal
14:15									Collected sample DMW-23A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

EarthTech

A tyco International Ltd. Company

WELL NO. MW-23B

WELL SAMPLING FORM	PROJECT: MULTI SITE-G	PROJECT No.: 95900 - 30	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fastners, West Islip, NY #1-52-033		DATE WELL STARTED: 8/22/07	DATE WELL COMPLETED: 8/22/07
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: Mihir Chokshi, Saby Chatterjee	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.59 WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.75								Static water level
13:25	4.75		16.4	0.06	9.7	5.85	160	261	Pump on
13:35	4.8		21.8	0.174	8.73	5.94	143	623	
13:40	4.82		16	0.187	7.93	5.73	196	147	
13:50	4.91		16	0.178	4.48	5.46	217	219	Purged approx 22 gal
13:55									Collected sample DMW-23B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL Metals

Earth Tech | AECOM

WELL NO. MW- 1

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : Gallons WELL TD: ft PUMP INTAKE DEPTH: ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
									Static water level
									pump on
									Well was destroyed during snow
									removal in December 2007

Pump Type:

Analytical Parameters:

Earth Tech | AECOM

WELL NO. MW- 2

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.0 Gallons WELL TD: 14.3 ft PUMP INTAKE DEPTH: 13.5 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
11:50	8.30								Static water level
12:30	8.30	0.3	15.89	289	9.52	6.81	-82	342	pump on
12:35	8.40		14.89	300	7.5	6.8	-110	661	
12:40	8.42		15.9	348	7.9	6.7	-116	41	
12:45	8.42	0.3	16	325	7.62	6.7	-123	18	
12:50									Collect sample DMW-2

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 3

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF SHEETS: 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.4 Gallons WELL TD: 15.0 ft PUMP INTAKE DEPTH: 12.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:45	6.25								Static water level
14:55	6.25	0.4	20.1	199	9.58	6.12	93	16	Pump on
15:00	6.25		22	238	8.98	6.07	82	24	
15:05	6.25		21.9	245	8.9	6.06	97	16	Purged 6 gal
15:10	6.25	0.4	21.95	250	8.95	6.07	97	10	
15:15									Collect sample DMW-3
									Duplicate DMW-53

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: VOCs, TAL metals

Earth Tech | AECOM

WELL NO. MW- 9

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.1 Gallons WELL TD: 11.5 ft PUMP INTAKE DEPTH: 10.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
13:40	5.01								Static water level
13:50	5.08	0.3	19.42	287	9	6.66	-66	51	Pump on
13:55	5.08		19.4	323	8.26	6.68	-92	525	
14:00	5.12		22.3	176	8.23	6.31	-70	191	
14:05	5.12	0.3	22.14	177	9.37	6.28	-60	42	Purged approx 5 gal
14:10									Collect sample DMW-9

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 9B

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.4 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
	4.93								Static water level
14:20	5.05	1.7	22.28	285	8.96	6.46	10.6	37	Pump on
14:25	5.08		16.8	141	10.1	6.19	32	6	
14:30	5.12		15.28	139	8.93	6.03	74	5	
14:35	5.12	1.5	16.12	141	9.22	5.98	86	1	Purged approx 25 gal
14:40									Collect sample DMW-9B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 13A

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.3 Gallons WELL TD: 10.7 ft PUMP INTAKE DEPTH: 6.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
11:40	2.90								Static water level
11:50	2.90	0.3	19.58	310	8.7	6.99	21	42	Pump on
11:55	2.93		21.9	374	8.5	6.92	26	108	
12:00	2.93		21.8	355	8.26	7	44	300	
12:05	2.93	0.3	21.9	348	7.82	7.02	48	310	Purged approx 5 gal
12:10									Collect sample DMW-13A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: VOCs, TAL metals

Earth Tech | AECOM

WELL NO. MW- 13B

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.8 Gallons WELL TD: 44.3 ft PUMP INTAKE DEPTH: 6.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
11:40	2.73								Static water level
12:20	2.73	1	20.71	224	8.67	6.74	76	13	Pump on
12:25	2.80		18	176	9.28	5.98	106	5	
12:30	2.80		17.9	177	9.2	5.8	127	9	
12:35	2.80		18.17	181	9.28	5.81	135	11	Purged approx 22 gal
12:40	2.80	1	19	184	9.58	5.82	137	11	
12:45									Collect sample DMW-13B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 15A

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 3.8 Gallons WELL TD: 28.8 ft PUMP INTAKE DEPTH: 11.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
07:25	5.66								Static water level
08:55	5.68	1.6	18.5	293	9.86	5.92	25	12	Pump on
09:00	5.70		21.5	179	9.46	6.09	64	40	
9:05	5.70		22	192	9.45	6.25	34	1	
9:10	5.70		21	186	9.81	6.16	100	1	Purged approx 12 gal
9:15	5.70	1.6	20.8	185	9.35	6.08	108	3	
9:20									Collect sample DMW-15A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: VOCs, TAL metals

Earth Tech | AECOM

WELL NO. MW- 15B

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 12.9 Gallons WELL TD: 84.7 ft PUMP INTAKE DEPTH: 9.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
7:25	5.62								Static water level
8:10	5.69	0.6	11.01	267	11.8	7.2	42	20	Pump on
8:15	6.85		15.63	345	10.05	5.77	77	6	
8:20	7.10		15.92	356	9.67	5.59	102	5	
8:25	7.10		14.26	350	9.5	5.54	91	11	Purged approx 40 gal
8:30	7.08		15.35	347	9.31	5.61	94	9	
8:35	7.88	0.6	15.12	342	9.61	5.52	93	1	
8:40									Collect sample DMW-15B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 18

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/11/08	DATE WELL COMPLETED: 11/11/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.4 Gallons WELL TD: 13.5 ft PUMP INTAKE DEPTH: 9.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
15:55	4.98								Static water level
16:00	5.00	0.3	20.9	250	9.22	6.64	33	29	Pump on
16:05	5.03		22.5	214	9.42	6.55	58	86	
16:10	5.03		22.63	203	9.3	6.55	88	10	
16:15	5.03	0.3	23	209	8.28	6.6	91	7	Purged approx 5 gal
16:20									Collect sample DMW-18

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 22A

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.3 Gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 11.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
09:50	6.4								Static water level
10:10	6.4	0.3	18.93	374	10.04	6.53	27	210	Pump on
10:15	6.48		21	481	9.24	6.55	-37	170	
10:20	6.6		22.2	483	9.08	6.67	-58	40	
10:25	6.58	0.3	21.87	504	8.84	6.65	-72	19	Purged approx 5 gal
10:30									Collect sample DMW-22A
									MS/MSD
									Duplicate DMW-72

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 22B

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.2 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
09:50	6.23								Static water level
10:40	6.22	1	21.6	348	9.1	7.06	-105	49	Pump on
10:45	6.31		18.25	258	9.63	7.01	-84	23	
10:50	6.31		16.7	251	8.5	6.36	23	10	
10:55	6.31		17	253	8.7	6.31	58	3	Purged approx 20 gal
11:00	6.31	1	17.14	254	9.2	6.35	62	6	
11:05									Collect sample DMW-22B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 23A

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.6 Gallons WELL TD: 14.3 ft PUMP INTAKE DEPTH: 10.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
13:05	4.64								Static water level
13:20	4.64	0.4	20.16	252	8.75	6.27	49	10	Pump on
13:25	4.7		22	513	8.12	6.54	-43	27	
13:30	4.7		22.5	580	8.18	6.69	-70	40	
13:35	4.7	0.4	23.4	618	8.02	6.72	-83	60	Purged approx 6 gal
13:40									Collect sample DMW-23A

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

Earth Tech | AECOM

WELL NO. MW- 23B

WELL SAMPLING FORM	PROJECT: Multi Site G	PROJECT No.: 95900	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY #1-52-033		DATE WELL STARTED: 11/12/08	DATE WELL COMPLETED: 11/12/08
CLIENT: New York State Department of Environmental Conservation		NAME OF INSPECTOR: MA / SC	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.5 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10.0 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
13:05	4.58								Static water level
13:50	4.58	1	21.86	450	8.23	6.74	-53	33	Pump on
13:55	4.70		22.08	112	9	7.07	-85	24	
14:00	4.75		28.38	201	9.21	6.34	-29	23	
14:05	4.75		17.2	213	8.74	5.9	50	41	Purged approx 20 gal
14:10	4.75	1	16.8	212	8.8	5.83	70	8	
14:15									Collect sample DMW-23B

Pump Type: Centrifugal pump with black poly tubing

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 2

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.87 Gallons WELL TD: 14.3 ft PUMP INTAKE DEPTH: 15 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
14:41	7.43								Static water level
14:47	7.44								pump on
14:53	7.51	1.38							Purged 5 gal
14:57	7.58	1.38							Purged 10 gal
14:59	7.58	1.38							Purged 15 gal
15:02	7.58	1.38							Purged 20 gal
15:05	7.58	1.38							Purged 25 gal Turned off
Sampled at 15:06									
	HORIBA BROKEN								

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-3

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.73 Gallons WELL TD: 15 ft PUMP INTAKE DEPTH: 12 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
14:25	5.36								Static water level
14:31	5.42	1 gal/min							pump on
14:34	5.45	1 gal/min							
14:36	5.44	1 gal/min							purged 5 gal
14:38	5.42	1 gal/min							
14:41	5.38	1 gal/min							purged 10 gal
14:44	Collected Sample								
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL m Metals & HG

AECOM

WELL NO. MW- 9

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.19 Gallons WELL TD: 11.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
13:37	4.19								Static water level
13:50	4.21	0.55							pump on
13:57	4.22	0.55							2 gal pruged
13:58	4.28	0.55							3 gal purged
14:00	4.3	0.55							5 gal purged
14:01	Turned off								6 gal total purge
14:04	DMW-9-20100310								
14:05	DMW-59-20100310 Dupl								
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 9B

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.58 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
13:38	4.11	1.32							Static water level
13:49	4.15	1.32							pump on
13:55	4.22	1.32							5 gal purge
13:58	4.22	1.32							10 gal purge
14:01	4.29	1.32							15 gal purge
14:03	4.27	1.32							20 gal purge
14:07	4.28	1.32							25 gal purge
14:08									Turned off
14:10									collected sample
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 13A

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.33 Gallons WELL TD: 10.7 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
15:17	2.27								Static water level
15:27	2.29	0.71							pump on
15:28	2.36	0.71							
15:30	2.32	0.71							
15:32	2.39	0.71							
15:34	2.35	0.71							
15:37									Turned off 5 gal purged and sampled
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 13B

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.88 Gallons WELL TD: 44.3 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
15:15	2.08								Static water level
15:26	2.19	2.27							pump on
15:29	2.3	2.27							5 gal purge
15:31	2.31	2.27							10 gal purge
15:33	2.31	2.27							15 gal purge
15:35	2.3	2.27							20 gal purge
15:37	2.05	2.27							25 gal purge pump off
15:41									collected sample
			HORIBA BROKEN						

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 15A

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 3.96 Gallons WELL TD: 28.81 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
13:48	4.51								Static water level
14:03	4.93	0.94	13.13	0.211	9.58	5.86	145	0	pump on
14:08	4.98	0.94	13.72	0.241	9.11	5.41	156	0	
14:16	4.99	0.94	14.15	0.212	8.71	5.44	146	0	
14:19									15 gal purged- pump off
14:22									collected sample

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 18

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.47 Gallons WELL TD: 13.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
12:57	4.47								Static water level
13:02	4.55	0.7	11.9	0.234	10.39	6.22	134	67.7	pump on
13:04	4.53	0.7	11.1	0.217	10.76	5.95	140	114	
13:06	4.55	0.7	11.37	0.212	10.49	5.52	150	0	
13:07									7 gal purged turned off
13:09									sample collected

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 22A

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.41 Gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
14:46	5.75								Static water level
14:48	5.9	0.6	10.84	0.584	9.69	5.87	145	46	pump on
14:51	5.98	0.6	10.42	0.999	9.383	6.26	148	68	
14:57	5.98	0.6	10.16	0.999	9.92	6.02	146	57	
14:58	5.98	0.6	10.28	0.668	9.78	5.83	142	7.9	6 gal purged turned off
15:01									sample collected

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 22B

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.35 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 11 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:37	5.55								Static water level
14:40	5.8	2	11.89	0.245	10.03	5.23	169	0	pump on
14:42	5.83	2	12.83	0.268	9.36	5.6	175	0	5 gal purge
14:44	5.8	2	13.21	0.288	9.07	5.78	172	0	10 gal purge
14:46	5.79	2	13.62	0.269	8.76	5.66	170	0	15 gal purge
14:48	5.8	2	13.16	0.265	8.81	5.6	169	0	20 gal purge turned off
14:53									sample collected

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 23A

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 15.5 Gallons WELL TD: 14.3 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
15:53	4.15								Static water level
15:56	4.16	1							pump on
16:01	4.31	1							
16:02	4.31	1							
16:03	4.31	1							
16:06	4.1	1							total 10 gal purged
16:10									sample collected
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 23B

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1
LOCATION: Dzus Fasteners, West Islip, NY 1-52-033		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Celeste Foster & Staci Birnbaum	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 6.59 Gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
15:47	4.09								Static water level
15:55	4.11	1.64							pump on
16:01	4.24	1.64							purged 5 gal
16:03	4.39	1.64							purged 10 gal
16:05	4.39	1.64							purged 15 gal
16:07	4.39	1.64							purged 20 gal
16:09	4.12	1.64							purged 25 gal and turned off
16:11									collected sample
		HORIBA BROKEN							

Pump Type: Grundfos Redi Flo 2 with poly tubing, Teflon bailer

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 02

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.1 gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	REMARKS
1125	7.77						static water level
1135	8.02	1	14.95	0.360	6.32	4.78	pump on
1145	8.02	1	13.74	0.388	6.28	8.3	
1150	8.02	1	13.82	0.410	6.19	8.5	Turned off pump, 15 gallons purged
1155							Samples collected:
							unfiltered sample DMW-02U and
							field filtered sample DMW-02F

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 03

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.5 gallons WELL TD: 15.0 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	REMARKS
1315	5.62						static water level
1320	5.62	0.8	16.93	0.188	6.21	167	hand bailed 8 gallons for purge
1330	5.62	0.8	16.03	1.190	6.09	331	
1335							Samples collected:
							unfiltered sample DMW-03U and
							field filtered sample DMW-03F

Pump Type: Hand bailed

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 09

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.2 gallons WELL TD: 12.0 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1215	4.45						static water level
1225							pump on
1230	4.60	1	15.84	0.545	6.30	57.9	
1234	4.61	1	15.27	0.546	6.06	12.0	
1236	4.61	1					Turned off pump, 12 gallons purged
1240							Samples collected:
							unfiltered sample DMW-09U and
							field filtered sample DMW-09F
1242							Blind duplicates collected:
							unfiltered sample DMW-59U and
							field filtered sample DMW-59F

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW- 09B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 6.5 gallons WELL TD: 44.1 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1220	4.36						static water level
1230							pump on
1232	4.51	2.5	15.10	0.151	6.14	15	
1245	4.51	1	14.93	0.133	5.76	0	
1250	4.53	1	14.91	0.133	5.51	0	
1255	4.53	1	15.00	0.131	5.45	0	
1258							Turned off pump, 50 gallons purged
1305							Samples collected:
							unfiltered sample DMW-09BU and
							field filtered sample DMW-09BF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-13A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.3 gallons WELL TD: 10.7 ft PUMP INTAKE DEPTH: 4.5 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1445	2.51						static water level
1458							pump on
1500	2.59	0.7	16.32	0.622	7.05	153	
1505	2.60	0.7	15.67	0.540	6.79	30	Turned off pump, 10 gallons purged
1510							Samples collected:
							unfiltered sample DMW-13AU and
							field filtered sample DMW-13AF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-13B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 7 gallons WELL TD: 44.4 ft PUMP INTAKE DEPTH: 4.5 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1450	2.32						static water level
1457							pump on
1502	2.44	1	15.26	0.154	6.80	10	
1510	2.44	1	15.26	0.151	5.76	0	
1515	2.46	1	15.06	0.145	5.60	0	
1520							25 gallons
1525							Turned off pump, 30 gallons purged
1530							Samples collected:
							unfiltered sample DMW-13BU and
							field filtered sample DMW-13BF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-15A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 4 gallons WELL TD: 28.8 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	REMARKS
930	5.15						static water level
1000	5.31	1.3	13.88	0.248	5.55	12	pump on
1010	5.31	1.3	13.89	0.242	5.59	10.0	
1015	5.31	1.3	13.86	0.243	5.56	8.0	Turned off pump, 20 gallons purged
1020							Samples collected:
							unfiltered sample DMW-15AU and
							field filtered sample DMW-15AF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-15B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 12 gallons WELL TD: 83.7 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
930	5.1						static water level
945							pump on
950	8.1	2.7	14.85	0.363	5.66	8.0	
955	8.1	2.7	13.91	0.358	5.43	8.0	
1000	8.1	2.7	13.97	0.358	5.40	8.0	Turned off pump, 40 gallons purged
1005							Samples collected:
							unfiltered sample DMW-15BU and
							field filtered sample DMW-15BF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-18

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.5 gallons WELL TD: 13.4 ft PUMP INTAKE DEPTH: 4.7 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1715	4.70						static water level
1715	4.70	0.5	14.67	0.222	6.15	95	hand bailed
1730	4.70	0.5	14.55	0.220	6.03	40	
							10 gallons purged
1740							Samples collected:
							unfiltered sample DMW-18U and
							field filtered sample DMW-18F

Pump Type: Hand bailed

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-22A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.4 gallons WELL TD: 14.2 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1355	5.92						static water level
1410							pump on
1413	6.07	1.2	14.51	1.25	6.41	90.1	
1416	6.08	1.2	13.93	1.43	6.51	13.6	
1420							Turned off pump, 12 gallons purged
1425							Samples collected:
							unfiltered sample DMW-22AU and
							field filtered sample DMW-22AF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-22B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 6.3 gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1400	5.74						static water level
1410							pump on
1412	5.91	1	14.73	0.238	6.11	10	
1417	5.91	1	14.15	0.288	6.43	10	
1421	5.91	1	14.07	0.250	5.95	10	
1422							Turned off pump, 20 gallons purged
1430							Samples collected:
							unfiltered sample DMW-22BU and
							field filtered sample DMW-22BF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-23A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 1.6 gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 7 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1545	4.38						static water level
1602							pump on
1605	4.61	2	15.87	0.589	6.66	30	
1608	4.61	2	15.72	0.604	6.67	15	Turned off pump, 10 gallons purged
1615							Samples collected:
							unfiltered sample DMW-23AU and
							field filtered sample DMW-23AF
							Collected MS and MSD samples for both

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-23B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners (1-52-033)	PROJECT No.: 60135736	SHEET: 1 OF SHEETS: 1
LOCATION: West Islip, Suffolk County, NY		DATE: 5/25/2011	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster/Stephen Wright	

ONE WELL VOLUME : 6.5 gallons WELL TD: 44.2 ft PUMP INTAKE DEPTH: 7 ft

Time	Depth to Water (ft)	Purge Rate (gal/min)	FIELD MEASUREMENTS				REMARKS
			Temp. (C)	Conduct. (ms/cm)	pH	Turbidity (ntu)	
1550	4.31						static water level
1600							pump on
1607	4.54	2.3	15.08	0.183	5.99	26.6	
1610	4.54	2.3	14.91	0.176	5.75	2.6	
1613	4.54	2.3	14.62	0.173	5.61	0	Turned off pump, 30 gallons purged
1620							Samples collected:
							unfiltered sample DMW-23BU and
							field filtered sample DMW-23BF

Pump Type: Grundfos/hand bailer for sample collection

Analytical Parameters: TAL metals

AECOM

WELL NO. MW-2

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1 SHEETS
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 0.99 gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 9.4 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:00	8.33								Static water level
9:15									pump on
9:25	8.33	200	20.15	0.228	2.71	6.03	124	0.0	clear
9:35	8.33	200	20.03	0.208	1.80	5.99	114	0.0	
9:45	8.33	200	19.94	0.206	1.75	5.99	120	0.0	
9:55	8.33	200	20.05	0.209	1.83	6.03	119	0.0	
10:15									Unfiltered Sample DMW-2 Collected
									+MS/MSD
10:20									Filtered Sample DMW-2F Collected
									+MS/MSD
10:25									Duplicate Unfiltered DMW-52 Collected
10:30									Dupicate Filtered DMW-52F Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-3

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.43 gallons WELL TD: 15.0 ft PUMP INTAKE DEPTH: 12 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:54	6.23								Static water level
11:00	6.23								pump on
11:05	6.23	350	19.61	0.226	9.53	5.90	158	42.3	
11:15	6.23	350	19.02	0.202	3.23	5.76	194	0.0	
11:25	6.23	350	18.98	0.202	3.10	5.70	217	0.0	
11:35	6.23	350	19.00	0.201	0.31	5.66	223	0.0	
11:45	6.23	350	19.10	0.202	2.99	5.64	226	0.0	
11:50									Unfiltered Sample DMW-3 Collected
11:55									Filtered Sample DMW-3F Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-9

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.12 gallons WELL TD: 11.95 ft PUMP INTAKE DEPTH: 9 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:10	5.05								Static water level
12:14	5.05								pump on
12:15	5.05	275	22.42	0.218	3.29	5.94	195	61.9	clear
12:25	5.05	275	22.43	0.234	3.33	6.03	210	45.7	
12:35	5.05	275	22.49	0.234	3.29	6.00	215	36.6	
12:40	5.05	275	22.44	0.235	3.20	5.98	212	34.1	
12:45									Filtered Sample DMW-9F Collected
12:50									Unfiltered Sample DMW-9 Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-9B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 6.38 gallons WELL TD: 44.1 ft PUMP INTAKE DEPTH: 42 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:45	5.00								Static water level
10:59	5.00								pump on
11:00	5.00	250	18.29	0.158	6.27	5.69	225	61.2	clear
11:10	5.00	250	18.23	0.171	4.18	5.59	222	66.1	
11:20	5.00	250	17.86	0.175	3.75	5.53	222	54.3	
11:30	5.00	250	17.64	0.177	3.58	5.50	225	51.9	
11:40	5.00	250	17.54	0.178	3.59	5.48	226	36.0	
11:50	5.00	250	17.58	0.177	3.58	5.51	229	27.6	
12:00									Filtered Sample DMW-9BF Collected
12:05									Unfiltered Sample DMW-9B Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-13A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.74 gallons WELL TD: 10.70 ft PUMP INTAKE DEPTH: 8 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
17:40									Static water level
17:50									pump on, no water
18:00									water
18:10	2.95	275	21.36	0.257	0.54	7.02	-38	156.0	
18:20	2.95	275	21.23	0.266	0.59	7.04	-66	21.1	
18:30	2.95	275	21.17	0.270	0.56	7.02	-66	14.7	
18:40	2.95	275	21.16	0.270	0.59	7.01	-66	14.2	
18:45									Unfiltered Sample DMW-13A Collected
18:50									Filtered Sample DMW-13AF Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-13B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 6.79 gallons WELL TD: 44.4 ft PUMP INTAKE DEPTH: 39.4 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
16:15	2.77								Static water level
16:25									pump on
16:35	2.79	275	17.80	0.129	19.02	5.76	254	8.5	clear
16:45	2.77	275	18.72	0.135	15.93	5.76	255	4.3	
16:55	2.77	275	18.43	0.135	15.69	5.68	260	0.0	
17:05	2.77	275	18.98	0.136	14.82	5.67	263	0.0	
17:15	2.77	275	18.85	0.136	14.49	5.69	262	0.0	
17:20									Unfiltered Sample DMW-13B Collected
17:25									Filtered Sample DMW-13BF Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-15A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 2.14 gallons WELL TD: 18.8 ft PUMP INTAKE DEPTH: 27 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:20	5.69								Static water level
14:30									pump on
14:35	5.69	300	19.12	0.203	2.61	5.74	240	0.0	clear
14:45	5.69	300	19.11	0.212	2.62	5.67	245	0.0	
14:55	5.69	300	19.01	0.212	4.48	5.63	252	0.0	
15:05	5.69	300	18.48	0.213	4.08	5.61	258	0.0	
15:15	5.69	300	18.44	0.214	4.08	5.60	260	0.0	
15:25	5.69	300	18.44	0.214	4.09	5.60	261	0.0	
15:30									Unfiltered Sample DMW-15A Collected
15:35									Filtered Sample DMW-15AF Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-15B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 12.80 gallons WELL TD: 84.2 ft PUMP INTAKE DEPTH: 76.2 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:10	5.65								Static water level
14:25	5.70								pump on
14:35	5.70	275	18.82	0.314	1.49	5.32	248	5.8	clear
14:45	5.70	275	18.77	0.314	1.39	5.27	256	121	light brown
14:55	5.70	275	18.62	0.313	1.80	5.25	260	10.4	clear
15:05	5.70	275	18.60	0.311	1.81	5.23	263	35.4	
15:15	5.70	275	18.14	0.311	1.89	5.21	269	32.3	
15:20									Filtered Sample DMW-15BF Collected
15:25									Unfiltered Sample DMW-15B Collected
									1/4" (OD) poly tubing would not go back
									into well, discarded

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-18

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1 SHEETS
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/23/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.38 gallons WELL TD*: 13.4 ft PUMP INTAKE DEPTH: 10 ft

*difficult to get past 6.7 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
17:30	4.92								Static water level
17:35									pump on
17:40	4.92	300	19.62	0.255	6.71	6.61	181	228	
17:50	4.92	300	18.94	0.218	1.96	6.29	190	0.0	
18:00	4.92	300	18.89	0.214	2.01	6.17	197	0.0	
18:10	4.92	300	18.80	0.214	1.99	6.14	199	0.0	
18:20	4.92	300	18.78	0.212	1.99	6.14	200	0.0	
18:25									Filtered Sample DMW-18F Collected
18:30									Unfiltered Sample DMW-18 Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-22A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1 SHEETS
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/23/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.28 gallons WELL TD: 14.32 ft PUMP INTAKE DEPTH: 10 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:30	6.45								Static water level
14:35	6.45								pump on
14:45	6.45	250	30.08	0.310	1.32	6.68	-37	0.0	
14:55	6.45	250	27.90	0.303	0.94	6.58	-66	147	rust colored
15:05	6.45	250	27.40	0.310	0.76	6.63	-90	349	
15:15	6.45	250	27.67	0.311	0.70	6.65	-100	200	
15:25	6.45	250	27.57	0.375	0.76	6.62	-99	15.9	
15:35	6.45	250	27.02	0.404	0.72	6.61	-100	31.5	
15:45	6.45	250	27.03	0.407	0.75	6.69	-108	49.8	
16:05	6.45	250	27.07	0.409	0.75	6.68	-106	36.3	
16:15	6.45	250	27.03	0.409	0.77	6.68	-108	35.2	
16:20									Filtered Sample DMW-22AF Collected
16:25									Unfiltered Sample DMW-22A Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-22B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/23/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 6.23 gallons WELL TD: 44.5 ft PUMP INTAKE DEPTH: 40 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
14:30	6.28								Static water level
14:40	6.28								pump on
14:50	6.28	250	17.16	0.290	4.15	6.26	185	0.0	
15:00	6.28	250	17.31	0.289	2.13	6.22	187	0.0	
15:10	6.28	250	17.08	0.278	1.06	6.12	191	0.0	
15:20	6.28	250	16.89	0.275	0.96	6.10	190	0.0	
15:30	6.28	250	16.56	0.275	0.86	6.10	189	0.0	
15:40	6.28	250	16.75	0.274	0.81	6.14	183	0.0	
15:50	6.28	250	16.50	0.272	0.70	6.13	181	0.0	
16:00	6.28	250	16.55	0.272	0.68	6.12	180	0.0	
16:10	6.28	250	16.58	0.272	0.64	6.10	180	0.0	
16:12									Unfiltered Sample DMW-22B Collected
16:17									Filtered Sample DMW-22BF Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-23A

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 1.48 gallons WELL TD: 14.4 ft PUMP INTAKE DEPTH: 12 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
17:20	5.30								Static water level
17:25	5.30								pump on
17:30	5.30	275	22.45	0.522	4.10	6.47	-75	0.0	
17:40	5.30	275	22.49	0.494	1.25	6.52	-44	0.0	
17:50	5.30	275	22.58	0.492	1.20	6.53	-50	0.0	
18:00	5.20	275	22.60	0.491	1.21	6.56	-59	0.0	
18:05									Filtered Sample DMW-23AF Collected
18:10									Unfiltered Sample DMW-23A Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)

AECOM

WELL NO. MW-23B

WELL SAMPLING FORM	PROJECT: Dzus Fasteners	PROJECT No.: 60135736	SHEET: 1 OF 1
LOCATION: West Islip, NY		DATE WELL SAMPLED: 8/22/2012	
CLIENT: NYSDEC		NAME OF INSPECTOR: Celeste Foster and Rita Papagian	

ONE WELL VOLUME : 6.45 gallons WELL TD: 44.2 ft PUMP INTAKE DEPTH: 40 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (℃)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
16:10	4.62								Static water level
16:15	4.60								pump on
16:25	4.60	250	19.06	0.184	1.28	6.12	-88	0.0	clear
16:35	4.60	250	19.23	0.203	1.24	5.91	-45	0.0	
16:45	4.60	250	19.17	0.207	1.00	5.91	-6	0.0	
16:55	4.60	250	19.11	0.207	1.03	5.94	-1	0.0	
17:05	4.60	250	19.10	0.208	1.06	5.91	-8	0.0	
17:10									Filtered Sample DMW-23BF Collected
17:15									Unfiltered Sample DMW-23B Collected
									1/4" poly tubing put back into the well.

Pump Type: Peristaltic Pump

Analytical Parameters: TAL Metals (Total and Field Filtered)