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May 2, 2013

Project #: 146899/07

Ms. Karen Stromberg
Massachusetts Department of Environmental Protection
205B Lowell Street
Wilmington, Massachusetts 01887

Subject: Phase V Remedy Operation Status - Inspection & Monitoring Report
October 1, 2012 through March 31, 2013
Former Varian Facility Site
Beverly, Massachusetts
MADEP # 3-0485

Dear Ms. Stromberg:

On behalf of Varian Medical Systems, Inc., Shaw Environmental, Inc. (a CB&I company) has prepared the enclosed Phase V Remedy Operation Status - Inspection & Monitoring Report summarizing the activities conducted from October 1, 2012 through March 31, 2013 for the former Varian Facility Site in Beverly, Massachusetts. A copy of this report has also been provided to the Varian Public Involvement Plan (PIP) repository at the Beverly City Library, the City of Beverly Board of Health, and the Beverly Conservation Commission. An e-copy of this report will shortly be posted on the web site maintained for the former Varian Facility Site (http://www.beverlycleanup.varian.com). A notice of availability for this document has also been issued to the PIP mailing list established for this Site.

If you have any questions regarding the report, please do not hesitate to contact me.

Sincerely,

Raymond J. Cadorette
Project Manager
Shaw Environmental, Inc.
(A CB&I Company)

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MASSACHUSETTS CONTINGENCY PLAN
PHASE V REMEDY OPERATION STATUS
INSPECTION & MONITORING REPORT
October 1, 2012 through March 31, 2013

FORMER VARIAN FACILITY SITE
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS 01915

MADEP Site # 3-0485

April 30, 2013

Shaw Environmental, Inc.
(A CB&I Company)

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1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

On behalf of Varian Medical Systems, Inc. (Varian), Shaw Environmental, Inc. (Shaw), a CB&I company, has prepared this semi-annual Remedy Operation Status (ROS) Inspection and Monitoring Report for the former Varian facility located at 150 Sohier Road and other properties located in the vicinity (the Site) in Beverly, Massachusetts. This report is being submitted for Release Tracking Number (RTN) 3-0485 in accordance with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.000). As discussed in section 1.3, RTN 3-28531 has been linked to RTN 3-0485. A Site Location Map illustrating the location of the former Varian facility is attached as **Figure 1,** and a Site Plan is attached as **Figure 2**.

This semi-annual report summarizes activities conducted during the period of October 1, 2012 through March 31, 2013. Results of remedial activities and monitoring conducted during this reporting period are presented in this report. As required, the Massachusetts Department of Environmental Protection (MADEP) Comprehensive Response Action Transmittal Form (BWSC108) and Remedial Monitoring Reports (RMR) associated with this submittal were submitted electronically to MADEP. Copies of BWSC108 and the RMRs are included in **Appendix A**. This Inspection and Monitoring Report has been formatted to reference the requirements outlined in Section 310 CMR 40.0892(2) of the Massachusetts Contingency Plan (MCP).

1.2 Background

Based on the Phase II Comprehensive Site Assessment (CSA) completed in 2000 (IT, 2000), a condition of No Significant Risk existed at the Site with the exception of potential future significant risk associated with groundwater use in the area identified as a Potentially Productive Aquifer (PPA) north of Route 128. Groundwater concentrations in this area were above applicable Massachusetts Drinking Water Standards. As a result, one of the stated remedial action goals in the December 2001 Phase IV Remedial Implementation Plan (Phase IV Plan) submitted to MADEP for the above-referenced Site, was to achieve Drinking Water Standards in this area of the site (IT, 2001).

The Phase IV Plan proposed remedial actions for addressing volatile organic compounds (VOCs) in soil and groundwater at the subject Site. *In situ* oxidation of VOCs in soil and groundwater using permanganate solution was chosen as the best remedial alternative for the Site. The Phase IV Plan proposed treatment in the “source areas” to achieve these objectives. The Potential Source Location (PSL) areas at the former facility identified in the Phase IV Plan as potentially affecting the GW-1 area are listed below:

- PSL 5 – Potential former septic tank near Building 3
- PSL 6 – Building 6 - Potential former septic tank/leach field
- PSL 9 – Inspection pit near Building 3
- PSL 11 – Building 3 laboratory
- PSL 12 – Potential former lime pit near Building 3

Other PSL areas that do not impact the PPA and certain other downgradient areas have been included in the *in situ* oxidation program to expedite groundwater cleanup. These areas include PSL 7--Building 5 Lab, PSL 10--open field at south end of 150 Sohier Road, and downgradient treatment areas at 31 Tozer Road and in the Longview/Hill Street area.

Implementation of the Comprehensive Response Actions, including the injection of permanganate solution, began in July 2002 and a Phase IV As-Built and Final Inspection Report (Shaw, 2002a) detailing initial Phase IV activities including permitting, well installation, construction of the remedial treatment system, and initial implementation of remedial actions was submitted to MADEP in October 2002. The Phase IV As-Built and Final Inspection Report also provided results of additional soil and groundwater analyses, identified minor modifications made to the Phase IV Plan, and documented the final inspection of the remedial system.

In December 2002, Varian submitted a Remedy Operation Status Opinion (Shaw, 2002b), which stated that the performance standards for ROS, as specified in 310 CMR 40.0893(2), have been achieved and will be maintained at the Site. A Response Action Outcome (RAO) has not yet been achieved at the Site, and the operation and maintenance of the remedial action will proceed under Remedy Operation Status.

The sodium permanganate treatment conducted at the Site since 2002 has produced significant reductions in chlorinated VOC levels at multiple depths in groundwater across the Site. These remedial activities are reported to MADEP in regular semi-annual ROS reports. As detailed in the October 2006 status report, bioremediation was proposed as a supplemental remedial approach to address two small VOC impacted areas in the northeast corner of the Site (Shaw, 2006). The first area includes shallow groundwater with residual trichloroethene (TCE) impacts located close to the Unnamed Stream to the northeast of Building 9 (**Figure 3**). Bioremediation was used to address the shallow groundwater near the Unnamed Stream because permanganate treatment may affect the stream. The second area is northeast of Building 3 where deep overburden groundwater is impacted with residual 1,1,1-trichloroethane (TCA).

Subsequent to the start of Comprehensive Response Actions, the PPA designation for the area to the north of Route 128 was removed by MADEP and, as a result, Drinking Water Standards no longer apply to this area. Therefore, the Remedial Action Goal specified in the Phase IV Plan to achieve drinking water standards in downgradient wells in the PPA area such as BR-1 is no longer applicable. As presented in the October 30, 2010 status report (Shaw, 2010b), the following updated remedial action goals will be used for ongoing response actions being conducted under Phase V ROS at the Site:

1. Maintain compliance with Upper Concentration Limit (UCLs);
2. Achieve a condition of No Significant Risk for site workers in site buildings, by remediating, where necessary, elevated VOC concentrations in soil and groundwater beneath buildings;
3. Limit rebound in VOC source areas such that potential impacts to indoor air in downgradient areas continue to pose No Significant Risk;
4. Demonstrate that VOC concentrations in groundwater at the Site do not represent an uncontrolled source for impacts to surface water; and
5. Demonstrate that VOC concentrations in soil and groundwater at the Site continue to pose No Significant Risk in accordance with current MADEP requirements.

To achieve these goals, the previously proposed remediation planning criteria will continue to be applied to focus remediation activities at the Site. The goals include the decrease of target VOC concentrations in certain source area wells to 50 percent or less of the UCL and the reduction of target VOC concentrations (including breakdown products) in treatment areas by at least 50 percent below pretreatment levels in order to mitigate potential post-remediation rebound effects. These goals are consistent with MADEP guidance (Policy #WSC-04-160) on the feasibility of achieving background concentrations which indicates that a reduction of risk to 50% of a level where No Significant Risk is achieved will be considered approaching background conditions and appropriate site closure criteria with Presumptive Certainty (MADEP, 2004b).

1.3 MCP Status Updates

The following sections describe other recent MCP activities conducted at the former Varian site.

1.3.1 Phase III and IV Modification for Building 5 Area

On December 17, 2012, Shaw submitted a modification of the Phase III Remedial Action Plan (RAP) and Phase IV Plan for RTN 3-0485 (Shaw, 2012e). This modification addressed the Building 5 remedial area, located in the central portion of the former Varian facility (**Figure 2**). The Building 5 treatment area was not previously included in the original Phase III RAP and Phase IV Plan submitted to MADEP in 2001 (IT, 2001). Indoor air sampling results from 2011 and 2012 in Building 5 suggest that indoor air concentrations are variable and the estimated hazards are at, but do not exceed, the MCP risk limits. However, it is likely that a Permanent Solution for the Building 5 area may not be achieved without some VOC remediation at Building 5 to reduce potential risk to site workers. Therefore, the Phase III RAP was modified to identify, evaluate, and select remedial action alternatives to reduce potential risk associated with indoor air exposure in the Building 5 area.

Applicable sections of the original RAP for RTN 3-0485 were modified to include technologies that are reasonably likely to achieve a Permanent or Temporary Solution at the Site. In accordance with the MCP, an initial screening and a detailed evaluation were conducted to identify remedial action alternatives that are reasonably likely to be feasible based on the oil and hazardous materials (OHM) present, impacted media, and site characteristics. Soil Vapor Extraction (SVE) was selected as the preferred remedial alternative. The goal of the selected remedial action alternative in the Modified Phase III RAP was to control exposures and reduce VOC concentrations remaining in shallow soil that have the potential to migrate into the indoor air of Building 5. Soil Vapor Extraction with In Situ Chemical Oxidation was selected as a contingent remedial alternative in the event that treatment of shallow groundwater was also needed to reduce potential risk.

The December 17, 2012 submittal also included modifications to the existing Phase IV Plan (IT, 2001). The Modified Phase IV Plan provided detail engineering designs, waste management plans, and initial operation and maintenance activities for the selected SVE remedial alternative (Shaw, 2012e). Details regarding the Building 5 SVE installation will be presented in the next status report which will include a Phase IV Completion Statement and Final LSP Inspection Opinion.

1.3.2 Building 3 Area

During Comprehensive Response Actions for RTN 3-0485 in 2009, elevated concentrations of VOCs were detected in the soil vapor samples collected beneath Building 3, located in the northeast corner of the former Varian facility (**Figure 2**). This data suggested the potential for indoor air impacts inside the building. To further assess potential indoor air impacts, indoor air concentrations were estimated using the Johnson and Ettinger Model, soil vapor analytical results and conservative assumptions. This evaluation indicated the potential presence of an Imminent Hazard associated with potential worker exposure inside Building 3. As a result, verbal notice of this two-hour reporting condition was provided to MADEP on May 28, 2009. RTN 3-28531 was issued by MADEP to manage Immediate Response Actions (IRA) in the Building 3 Area and verbal approval of the IRA was granted. Subsequent indoor air sampling did indicate the potential presence of an Imminent Hazard due to indoor air impacts in the Building 3 Area.

In December 2009, a SVE system was installed and activated by Varian in the Building 3 Area under the approved IRA Plan for RTN 3-28531. The SVE system is being operated to reduce VOC impacts in shallow soil as well as depress ambient pressure under the Building 3 floor to further control potential vapor intrusion into the building.

Phase II CSA and Phase III Remedial Action Plan reports were submitted for RTN 3-28531 in May 2012 (Shaw, 2012b and Shaw, 2012c). The Phase II and Method 3 Risk Assessment (Shaw, 2012b) concluded that a Condition of No Significant Risk had been achieved with the operation of the existing SVE system which is effectively reducing VOC levels in indoor air in the Building 3 Area Site. Indoor air sampling results demonstrated that operation of the SVE system had resulted in a condition of No Significant Risk to human health, public welfare, and the environment. The Phase II concluded that continued remedial action, such as operation of the SVE system, is necessary at the Site based on the current conditions in order to maintain a level of No Significant Risk. The Phase III report identified operation of the existing SVE system with some minor modifications as the selected remedial alternative for the Building 3 Area (Shaw, 2012c).

An Immediate Response Action Completion Report was submitted for RTN 3-28531 in February 2013 (Shaw, 2013). The IRA Completion Report concluded that the primary objective of the IRA (to assess and mitigate the potential impacts to indoor air in the Building 3 Area and thereby eliminate the potential for an Imminent Hazard) had been met by conducting IRA activities. Response actions for RTN 3-28531 had been effective in decreasing indoor air concentrations to below levels that would constitute an Imminent Hazard. However, continued operation of the SVE system is necessary to maintain a level of No Significant Risk at the Site. The IRA Completion Report linked RTN 3-28531 to RTN 3-0485 and also included a Phase IV Remedy Implementation Plan, Phase IV Completion Report, and Phase V Remedy Operation Status Opinion. The Phase IV Plan, Final Inspection Report, and Phase IV Completion Statement documented that the remedial system and other remedial activities selected as Comprehensive Response Actions to mitigate the potential impacts to indoor air in the area of Building 3 have been successfully implemented at the Site. The Phase IV Plan for the Building 3 Area provided a detailed plan to reduce OHM concentrations at the site to a level of No Significant Risk and is expected to achieve a Permanent Solution at the site as defined by the MCP. The combined report for RTN 3-28531 closed this RTN and concluded that continued response actions (including the operation of the existing

SVE system) would be conducted in conjunction with Comprehensive Response Actions under Phase V ROS for RTN 3-0485.

2.0 DESCRIPTION OF OPERATION, MAINTENANCE, AND/OR MONITORING ACTIVITIES (310 CMR 40.0892 (2)(a))

The following sections summarize Remedy Operation Status activities that were conducted during the reporting period of October 1, 2012 through March 31, 2013.

2.1 Permanganate Injection and Monitoring Activities

Injection locations for the 2012 permanganate treatment program included: deep overburden wells OB12-DO (north of Building 3), AP26-DO (west of Building 1), AP12-DO (east of Building 3) and OB35-DO (beneath Building 5), AP27-DO (east of Building 5), and also included bedrock wells OB25-BR (west of Building 1) and OB27-BR (southwest corner of Building 7). Well locations are illustrated on **Figures 2** and **3**.

The 2012 permanganate injection program was initiated on July 25, 2012 and injections through September 30, 2012 were described in the October 2012 ROS report (Shaw, 2012d). During this reporting period, additional permanganate injections were conducted between October 1, 2012 and October 12, 2012. Volumes of sodium permanganate injected during this reporting period as well as total volumes injected during the 2012 injection period are summarized on **Table 1**. The permanganate solution was applied to the target wells manually under gravity flow conditions. Monitoring of the permanganate treatment program continued during this reporting period and results are discussed in later sections of this report.

During this reporting period, 40 percent sodium permanganate solution was delivered to the Site in 250-gallon totes which were stored in an on-site shed with secondary containment. Prior to conducting treatment activities, the permanganate was diluted to an approximate 20 percent solution. A tote placed in the bed of a pickup truck was used to transport the 20 percent permanganate solution to the majority of individual injection wells and then allowed to flow by gravity into the wells. Applications of permanganate at select well locations and at wells located inside facility buildings were performed by transferring the 20 percent permanganate solution into 5-gallon containers which were manually transported to a well.

The permanganate totes, drums, hoses, portable containers, pumps, and associated equipment were periodically inspected during this reporting period to ensure no leaks occurred. Additionally, the spill containment features of the storage shed were inspected periodically during this monitoring period. No problems or releases were reported.

Personal protective equipment (PPE) generated during permanganate injections as well as liquids produced during the neutralization and cleaning of permanganate injection equipment were placed into 55-gallon polyethylene drums onsite. These drums were stored within the storage shed equipped with spill containment and inspected periodically. These drums were transported to Enpro Services of Maine

for proper off-site disposal under a Non-Hazardous Waste Manifest on February 14, 2013. A copy of the Non-Hazardous Waste Manifest is included in **Appendix B**.

The Phase IV Plan (IT, 2001) detailed monitoring activities for the various permanganate treatment areas of the Site. As discussed in previous monitoring reports, monitoring activities have been adjusted, based upon changing site conditions. Groundwater physical parameters were monitored biweekly during permanganate injection in select monitoring wells in active treatment areas. Monitoring activities typically completed for the permanganate treatment program include:

- visual observation of groundwater color for identification of residual permanganate;
- depth-to-groundwater measurements; and
- measurement of oxidation-reduction potential (ORP), and pH using a down-well water parameter probe (if no residual permanganate is observed, which could damage the probe).

Groundwater monitoring completed as part of the bioremediation program was conducted concurrently with sampling events and included measurement of ORP, dissolved oxygen (DO), pH, and conductivity.

Results of water quality parameter measurements collected from monitoring wells during this reporting period are presented in **Appendix C**.

2.2 Bioremediation Injection and Monitoring Activities

The original bioremediation program proposed for a portion of the Site was detailed in the October 2006 ROS report and included treatment at eight wells in the Building 9 area near the Unnamed Stream, as shown on **Figure 3**. As discussed in previous status reports, the bioremediation program has been periodically modified based upon site conditions and monitoring results. .

Emulsified vegetable oil (EVO) application was performed during the previous reporting period in 2012 at shallow overburden wells BW-2, BW-5, BW-8, BW-9, OB9-S and OB15-S to facilitate continued complete reductive dechlorination of residual VOC daughter products in the area. In addition to these wells, EVO applications were also performed at nearby well MW-9 and BW-6 due to low injection flow in OB15-S and OB9-S. These bioremediation activities were described in the October 2012 ROS report. No new bioremediation injections were conducted during this reporting period.

2.3 Building 3 SVE System

As previously discussed, RTN 3-28531 for the Building 3 Area has been linked to this Site (RTN 3-0485). Operation of the Building 3 SVE system is now included in this ROS. The Building 3 SVE system was installed in December 2009 and system startup was completed in January 2010 (Shaw, 2010a). The SVE system was designed to reduce VOC concentrations in vadose zone soil beneath Building 3 as well as to depress the pressure under the floor to further control potential vapor intrusion into the building.

The SVE system consists of the following components:

- two horizontal soil vapor extraction wells (BLDG3-SVE1 & BLDG3-SVE2) installed beneath Building 3;
- one 5 horsepower blower;
- one moisture knock-out drum; and
- two 2,000-pound granular activated carbon (GAC) vessels piped in series.

The locations of the two SVE wells and the treatment system trailer are shown on **Figure 4**. The March 2010 IRA status report included an Operation & Maintenance (O&M) Manual developed to ensure that the system is operated properly to meet the intended design criteria and achieve site remedial goals. The O&M Manual includes manufacturer's literature and specific procedures for individual components for proper operation and maintenance. As-built drawings for the SVE system, a site-specific data collection form, preventive maintenance charts for key equipment and appropriate system start-up and shutdown procedures were also included.

Based on additional soil analytical data collected in the Building 3 Area during 2012 showing residual VOC impacts in soil boring BLDG3-SB-100 (**Figure 4**), it was recommended that modifications be made to the existing horizontal SVE wells to focus treatment and enhance removal of residual VOCs from overburden soil beneath Building 3. To help focus soil vapor extraction in the area of BLDG3-SB-100 where PCE was detected at 15 milligram per kilogram (mg/kg), a 20 foot long, inflatable well packer was installed between 30 and 50 feet from the well head inside horizontal SVE well BLDG3-SVE1 on August 15, 2012. A packer is an expandable plug used to isolate a section of a well. The packer installation in BLDG3-SVE1 resulted in a reduction of the exposed well screen from 60 feet to 25 feet and focused the vacuum on the shorter length of well screen near soil boring BLDG3-SB-100. On September 18, 2012, another packer was installed from 21 to 41 feet from the end of the well head at BLDG3-SVE2. The packer installation at BLDG3-SVE2 resulted in a reduction of the exposed well from 60 feet to 16 feet, again focusing the vacuum on a shorter length of well screen near soil boring BLDG3-SB-100. The packer locations are illustrated on **Figure 4**.

The following section presents data regarding the operation of the Building 3 SVE system since the submittal of the IRA Completion Report in February 2013, which included O&M data through December 2012.

2.3.1 Building 3 SVE System Operation and Maintenance

During this monitoring period, regular twice-monthly O&M site visits were performed by Shaw personnel. Activities performed during regular O&M visits include checking and recording information from system alarms, gauges and meters, and screening soil vapor recovered by the system with a photo ionization detector (PID) to assess VOC recovery and off-gas treatment removal efficiency. The results of regular O&M system monitoring conducted from January 1 to March 31, 2013 are summarized in **Table 2**. O&M data prior to January 1, 2013 were provided in the February 2013 IRA Completion report. From January 1 to March 31, 2013, the average total flow rate for the SVE system was approximately 147 cubic feet per minute (cfm), with an average pretreatment total VOC concentration of 7.6 part per million (ppm). VOC recovery continues to be higher at BLDG3-SVE2, with an average concentration of approximately 10.5 ppm.

Table 2 also includes calculated off-gas removal efficiency, which demonstrates that with the exception noted below, greater than 95 percent removal of VOCs from the vapor discharge was maintained by the carbon treatment vessels as required by MADEP (MADEP, 1994).

During O&M site visits, the applied vacuum on the SVE wells was adjusted to optimize VOC recovery from beneath Building 3. This included increasing or decreasing applied vacuum on the individual SVE wells or adjusting the ambient air dilution valve to increase or decrease the total applied vacuum. Other activities performed during this reporting period included draining condensation from lines in the system and monitoring vacuum influence at the sub-slab soil vapor points inside Building 3.

On January 2, 2013, the SVE system had an unscheduled shutdown due to a high vacuum level potentially resulting from ice buildup in the exterior system hoses. Shaw personnel were already onsite. Following ice removal and a system inspection, the SVE system was reactivated and operated normally.

On January 4, 2013, PID screening of soil vapor between primary and secondary carbon treatment vessels indicated potential breakthrough of the primary carbon (**Table 2**). Monitoring of the secondary carbon effluent (discharge to atmosphere) on this date indicated greater than 95 percent treatment of VOCs was maintained. The primary carbon vessel was taken offline, the secondary vessel was used as the new primary vessel and the stand-by carbon vessel was brought into service as the new secondary treatment vessel. The SVE system was then reactivated and operated normally.

On January 24, 2013, the SVE system had an unscheduled shutdown due to a high vacuum level potentially resulting from ice buildup in the exterior system hoses. Shaw personnel arrived onsite on January 25, 2013 and attempted to remove ice from the exterior hoses. This was not successful due to the cold weather and the system was not restarted. Shaw returned to the Site on January 27, 2013 and following ice removal the SVE system was reactivated and operated normally.

On February 7, 2013, PID screening of soil vapor recovered by the SVE system indicated potential breakthrough at the secondary carbon effluent. Further PID screening indicated that the primary carbon was removing greater than 99 percent of VOC from the vapor stream. Therefore, the secondary carbon was switched to primary treatment and primary carbon was switched to secondary treatment to maintain greater than 95 percent VOC treatment at the system effluent. Once this carbon switch was completed, PID screening of soil vapor indicated the SVE system was operating in compliance with the MADEP 95 percent VOC removal requirement (**Table 2**). The SVE system was reactivated and operated normally.

On February 14, 2013, approximately 4,800 pounds of spent carbon were removed from two vessels and transported off site for regeneration at Siemens Water Technologies Corporation in Parker, Arizona. A copy of the Uniform Hazardous Waste Manifest for the shipment of carbon is provided in **Appendix B**. After the removal of the spent carbon, new carbon was installed in the two vessels. Once the new carbon was installed the secondary vessel was switched to be the primary treatment vessel and a fresh carbon vessel was brought into service as the new secondary treatment vessel. One fresh carbon vessel remains on Site as a stand-by in the event that vapor screening indicates carbon breakthrough.

2.3.2 Building 3 SVE System Performance

Field screening results measured with a PID from soil vapor recovered by the SVE system are used to approximate the VOC mass removed by the treatment system. Both the mass removal rate and total mass removed are presented in **Table 3** and illustrated in **Figure 5**. Through the end of this reporting period, the SVE system has removed an estimated 1,200 pounds of VOCs from beneath Building 3.

As noted, packers were installed in the two SVE wells to focus treatment on soil impacts in BLDG3-SB-100. Based on VOC screening of vapor recovered from BLDG-SVE1, it appears that the installation of the packer has increased VOC recovery at this well. Prior to packer installation at BLDG1-SVE1, VOCs were typically non-detect in vapor recovered at BLDG3-SVE1. However, VOCs have consistently been detected in vapor recovered at BLDG3-SVE1 after the installation of the packer. Recent vapor screening has indicated an average VOC concentration of 2.0 ppm at BLDG3-SVE1, with a high VOC level of 4.5 ppm observed (**Table 2**).

Based on VOC screening of vapor recovered from BLDG-SVE2, it appears that the installation of the packer decreased VOC recovery at this well. After monitoring the system on January 17, 2013, the packer at BLDG-SVE2 was deflated. During subsequent site visits PID monitoring has indicated higher VOC concentrations in soil vapor recovered from BLDG-SVE2 (up to 20 ppm).

Monitoring the vacuum beneath the building floor is conducted at six sub-slab vapor monitoring points (VP-1, VP-2, VP-3, VP-5, VP-6, and VP-7) installed inside Building 3 (**Figure 4**). During a previous reporting period, it was determined that the screen at sub-slab vapor monitoring point VP-4 had become clogged and readings could not be collected from this location. The remaining vapor points surround the two horizontal soil vapor extraction wells BLDG3-SVE1 and BLDG3-SVE2, and are also shown on **Figure 4**. The monitoring data indicates that vacuum influence from operation of the SVE system is present at each vapor monitoring location, including VP-6, which is located approximately 22 feet to the south of BLDG3-SVE2, demonstrating vapor control beneath this portion of the Building 3 floor slab.

2.4 Building 5 SVE System

Indoor air sampling results from 2011 and 2012 in Building 5 suggest that indoor air concentrations are variable and the estimated hazards are at, but do not exceed, the MCP risk limits. However, it is likely that a Permanent Solution for the Building 5 area may not be achieved without some VOC remediation below Building 5 to reduce potential risk to site workers. A modification to the Phase III and IV was submitted in December 2012 and SVE was selected as the preferred remedial alternative for the Building 5 Area. Modifications to the original Phase IV Plan (IT, 2001), including detail engineering designs, waste management plans, and initial operation and maintenance activities were provided for the selected SVE remedial alternative (Shaw, 2012e).

2.4.1 Building 5 SVE Installation

Installation of the Building 5 SVE system was completed in March 2013 and incorporated the three SVE trench wells installed beneath the building during the plant shutdown in July and August 2012 (**Figure 6**). The SVE system is comprised of a regenerative vacuum blower, associated piping, filters, silencers, instrumentation and controls. Off-gas treatment for the SVE system is accomplished with two vapor

phase carbon vessels. The SVE system equipment is housed in a trailer located outside Building 5 along the eastern side of the building. Installation was conducted in accordance with design drawings included in the Phase IV and met the objective of the Phase IV Plan. Details regarding the Building 5 SVE installation will be included in the next status report which will include a Phase IV Completion Statement and Final LSP Inspection Opinion report.

2.4.2 Building 5 SVE Start-up

Building 5 SVE system start up was initiated on March 11, 2013. Preliminary results of monitoring the SVE system revealed VOC concentrations up to 45 ppm in vapor recovered from beneath Building 5. In addition, vacuum influence has been observed at sub-slab vapor monitoring points beneath the building. This indicates that the system should meet the objective of the Phase IV Plan. Details regarding the SVE system startup and Operation & Maintenance activities will be included in a forthcoming Phase IV Completion and Final Inspection Report.

2.5 Sampling at Off-Site Tozer Road Properties

2.5.1 Soil Vapor and Indoor Air Sampling 30 Tozer Road

Groundwater analytical data from monitoring well OB42-S at 30 Tozer Road indicate concentrations of TCE, tetrachloroethene (PCE), and cis-1,2,- dichloroethene (DCE) above MCP GW-2 standards (**Figure 2** and **7**). In addition, analytical results of the sub-slab soil vapor sample collected outside the 30 Tozer Road building footprint in January 2012 adjacent to OB42-S indicated a concentration of TCE that suggested additional assessment of potential indoor air impacts was warranted (SV-3 30 Tozer, see **Figure 7**). Based on these detections in groundwater and subsurface soil vapor, Shaw installed one soil vapor monitoring point (SV-4 30 Tozer) inside the building located at the 30 Tozer Road property on May 11, 2012.

Sub-slab soil vapor sampling results from May 2012 were reported in the October 2012 ROS report and indicated TCE and PCE concentrations above MADEP soil vapor screening values (MADEP, 2011). To further assess potential indoor air impacts at this property Shaw installed two additional soil vapor monitoring points (SV-5 30 Tozer and SV-6 30 Tozer) inside the building located at the 30 Tozer Road property in early November 2012. Installation of soil vapor points consisted of coring a hole through the concrete floor slab and driving a three quarter inch diameter metal probe using hand tools to a depth of approximately 1.5 feet below the floor. The annular space around the soil vapor point was sealed to prevent short circuiting and was finished with a flush-mounted road box. The location of the soil vapor points inside the 30 Tozer Road building are shown on **Figure 7**.

On November 21, 2012, three sub-slab soil vapor samples were collected from beneath the building slab at SV-4 30 Tozer, SV-5 30 Tozer, and SV-6 30 Tozer, using evacuated Summa® canisters over a period of approximately two hours. Concurrent with the soil vapor sampling, three indoor air samples were collected at 30 Tozer-1, 30 Tozer-2, and 30 Tozer-3 (**Figure 7)** using evacuated Summa® canisters over a period of approximately four hours. The soil vapor and indoor air samples collected were submitted to ALS Environmental in Rochester, New York (ALS) for analysis of site specific VOCs by EPA Method TO-15. A complete copy of the Laboratory analytical report is included in **Appendix D**.

Analytical results of the soil vapor and indoor air samples collected inside the 30 Tozer Road building are summarized in **Table 4**. Analytical results from November 2012 indicate:

- 1,1,1-trichloroethane was detected at a concentration of 29 micrograms per meter cubed (ug/m^3) in one sub-slab soil vapor sample (SV-4 30 Tozer)
- TCE was detected in soil vapor samples at concentrations ranging from 9.1 ug/m^3 at SV-6 30 Tozer Road to 12,000 ug/m^3 at SV-5 30 Tozer
- PCE was detected in sub-slab soil vapor samples at concentrations ranging from 130 ug/m^3 at SV-6 30 Tozer Road to 2,100 ug/m^3 at SV-5 30 Tozer
- Acetone was detected in sub-slab soil vapor samples at concentrations of 1600 ug/m^3 at SV-5 30 Tozer Road and 780 ug/m^3 at SV-6 30 Tozer Road.

The detected concentrations of TCE and PCE in SV-4 30 Tozer and SV-5 30 Tozer exceeded MADEP soil vapor screening levels.

Analytical results of the indoor air samples collected in November 2012 at the 30 Tozer Road building showed concentrations of VOCs including acetone, carbon tetrachloride and cis-1,2-dichloroethane below the MADEP Commercial/Industrial Threshold Values, which are screening criteria recommended by the MADEP for initial evaluation of indoor air data in commercial or industrial settings (MADEP, 2011). Low concentrations of chloromethane and trichloroflouromethane, which do not have established MADEP Commercial/Industrial Threshold Values, were also present. In addition, analytical results of the indoor air samples collected in November 2012 at the 30 Tozer Road building indicate:

- TCE was detected in indoor air at concentrations ranging from 3.5 ug/m^3 at 30 Tozer-2 to 4.8 ug/m^3 at 30 Tozer-1, which exceed the MADEP Commercial/Industrial Threshold Value of 1.8 ug/m^3
- PCE was detected in indoor air at concentrations ranging from 0.7 ug/m^3 at 30 Tozer-2 to 0.77 ug/m^3 at 30 Tozer-1 and 30 Tozer-3, which are below the Commercial/Industrial Threshold Value of 4.1 ug/m^3

A second round of soil vapor and indoor air sampling was conducted in February 2013 to assess conditions during the winter, which MADEP considers a worst case scenario for potential vapor migration into a building. On February 14, 2013, three sub-slab soil vapor samples were collected from beneath the building slab at SV-4 30 Tozer, SV-5 30 Tozer, and SV-6 30 Tozer, and three concurrent indoor air samples were collected at 30 Tozer-1, 30 Tozer-2, and 30 Tozer-3. These samples were submitted to ALS for analysis of site specific VOCs by EPA Method TO-15. Analytical results of the sub-slab soil vapor and indoor air samples collected inside the 30 Tozer Road building on February 14, 2013 are summarized in the attached **Table 4**. A complete copy of the Laboratory analytical report is included in **Appendix D**.

Analytical results of soil vapor samples from February 2013 indicated the presence of VOCs including 1,1,1-trichloroethane, carbon tetrachloride, acetone, ethylbenzene, xylenes, and trichloromethane at concentrations well below screening values. In addition, the February 2013 sub-slab soil samples from the 30 Tozer Road building indicate:

- TCE was detected in soil vapor at concentrations ranging from 0.51 ug/m^3 at SV-6 30 Tozer to 13,000 ug/m^3 at SV-4 30 Tozer; and
- PCE was detected in soil vapor at concentrations ranging from 140 ug/m^3 at SV-6 30 Tozer Road to 1,300 ug/m^3 at SV-5 30 Tozer Road.

Analytical results of the indoor air samples collected inside the 30 Tozer Road building in February 2013 showed generally similar results to November 2012 with low concentrations of certain VOCs detected, including TCE and PCE (**Table 4**). VOCs detected in indoor air at concentrations below the MADEP Commercial/Industrial Threshold Value included acetone, carbon tetrachloride, cis-1,2-dichloroethane, ethyl benzene and xylenes. Low concentrations of chloromethane and trichloroflouromethane, which do not have established MADEP Commercial/Industrial Threshold Values, were also present. In addition, analytical results of the indoor air samples collected in February 2013 at the 30 Tozer Road building indicate:

- TCE was detected in indoor air at concentrations ranging from 2.7 ug/m^3 at 30 Tozer-3 to 5.7 ug/m^3 at 30 Tozer-1, which exceed the MADEP Commercial/Industrial Threshold Value of 1.8 ug/m^3
- PCE was detected at concentrations ranging from 2.8 ug/m^3 at 30 Tozer-1 to 3.5 ug/m^3 at both 30 Tozer-2 and 30 Tozer-3, which are below the Commercial/Industrial Threshold Value of 4.1 ug/m^3

Consistent with MADEP guidance (MADEP, 2011), an indoor air risk evaluation was conducted to estimate the potential risk to workers from exposure to VOCs detected at the 30 Tozer road property using procedures specified by MADEP.

2.5.2 30 Tozer Road Indoor Air Evaluation

Consistent with MADEP guidance, an indoor air risk evaluation was conducted to estimate the potential risk to workers from exposure to VOCs detected at the 30 Tozer road property using procedures provided by MADEP. This evaluation was conservatively conducted assuming that the potential exposure point concentrations were the maximum concentrations detected in either the November 2012 or February 2013 sampling round. Exposures were assumed to occur for 40 hours per week, 50 weeks per year, over 27 years (MADEP, 2008). Each chemical detected in indoor air was included in the evaluation, although some may not be related to vapor intrusion. The assumptions, equations, and results of this evaluation are summarized in **Table 5.** This evaluation demonstrated that there is No Significant Risk associated with VOCs from the former Varian Site at the 30 Tozer Road property. The estimated lifetime cancer risk (2.5×10^{-6}) and the cumulative non-cancer hazard (0.71) are both below MADEP limits, which are 1×10^{-5} and 1, respectively. Given the conservative nature of this risk evaluation and multiple rounds of indoor air testing conducted, further evaluation of this property is not planned unless increased VOC concentrations are observed in shallow monitoring well OB42-S, located adjacent to the 30 Tozer Road building.

2.5.3 32 Tozer Road Indoor Air Evaluation

No new activities were conducted at 32 Tozer Road during this reporting period by Varian. Currently, building renovations are underway by the owners and the majority of the building is unoccupied. According to the property owner (Cell Signal Technology), renovations to the 32 Tozer Road building will include significant changes to the floor plan and may include installation of a seal on the concrete floor in part to minimize potential vapor intrusion. Varian and Shaw understand that, during building renovations,

appropriate measures will be taken by the property owner and their environmental consultant to monitor potential exposure to construction workers. According to the property owner, the building renovations may be complete in May 2013. Shaw expects to complete soil vapor and indoor air sampling within the 32 Tozer building at that time. The soil vapor and indoor air analytical data collected will be evaluated in an effort to confirm that the condition of No Significant Risk documented in the Phase II Report for RTN 3-0485 (IT, 2000) and the October 2011 ROS report (Shaw, 2011), continues to exist for site workers at this downgradient property.

2.5.4 Soil Vapor and Indoor Air Sampling at 39 Tozer Road

Groundwater analytical results from monitoring well OB41-S, located approximately 30 feet from the north end of the 39 Tozer Road building (**Figures 2** and **8**), indicate concentrations of TCE above the MCP GW-2 standard. Consistent with MADEP policy (MADEP, 2011), additional evaluation of potential indoor air exposure was conducted at 39 Tozer Road. On January 17, 2013, Shaw installed a soil vapor monitoring point (SV-1 39 Tozer) inside the building located at the 39 Tozer Road property. Installation consisted of coring a hole through the building floor and driving a three quarter inch diameter metal probe using hand tools to a depth of approximately 2 feet below the floor. The annular space around the soil vapor point was sealed to prevent short circuiting and was finished with a flush-mounted road box. The location of the soil vapor point inside the 39 Tozer Road building is shown on **Figure 8**.

On January 24, 2013 a sub-slab soil vapor sample was collected from beneath the building slab at SV-1 39 Tozer using an evacuated Summa® canister over a period of approximately two hours. A concurrent indoor air sample was collected at SV Ambient 39 Tozer using an evacuated Summa® canister over a period of approximately four hours. These samples were submitted to ALS for analysis of site specific VOCs by EPA Method TO-15. A complete copy of the laboratory analytical report is included in **Appendix D**. Analytical results of the sub-slab soil vapor and indoor air samples collected at the 39 Tozer Road building are summarized in **Table 6**.

Analytical results of the sub-slab soil vapor sample from 39 Tozer Road indicated concentrations of 1,1-dichloroethane and 1,1-dichloroethene well below the MADEP screening values. The sub-slab soil vapor sample also indicated concentrations of cis-1,2-dichloroethene (2,100 ug/m^3), PCE (420 ug/m^3), TCE (2,200 ug/m^3) and vinyl chloride (29 ug/m^3), which exceeded the MADEP screening value.
Analytical results of the indoor air sample collected inside the 39 Tozer Road building indicated low concentrations of carbon tetrachloride (0.12 ug/m^3), cis-1,2-dichloroethene (2 ug/m^3), TCE (2.1 ug/m^3) and PCE (2.1 ug/m^3). As illustrated in **Table 6**, with the exception of TCE, detected concentrations of VOCs in the indoor air sample from 39 Tozer Road were below the Commercial/Industrial Threshold Value. Consistent with MADEP guidance, an indoor air risk evaluation was conducted to estimate the potential risk to workers from exposure to VOCs detected at the 39 Tozer road property using procedures specified by MADEP.

2.5.5 39 Tozer Road Indoor Air Evaluation

Consistent with MADEP guidance, an indoor air risk evaluation was conducted to estimate the potential risk to workers from exposure to VOCs detected at the 39 Tozer Road property. This evaluation was conducted as described above for 30 Tozer Road. The results of this evaluation are summarized in **Table 7.** This evaluation, which is based on one sampling event demonstrated that there is No

Significant Risk associated with VOCs from the former Varian Site at the 39 Tozer Road property as the estimated lifetime cancer risk (8.3×10^{-7}) and the cumulative non-cancer hazard (0.25) are both below MADEP limits (1×10^{-5} and 1, respectively). Additional indoor air sampling at 39 Tozer Road may be conducted if increased VOC concentrations are observed at shallow monitoring well OB-41S, located adjacent to the 39 Tozer Road Building.

2.6 Site-Wide Groundwater and Surface Water Sampling

2.6.1 Sample Collection and Analysis

Groundwater sampling to monitor groundwater conditions across the Site and the progress of both the permanganate and bioremediation programs was conducted in November 2012 and February 2013 during this reporting period. The November 2012 sampling event monitored VOC trends and groundwater conditions at select wells across the Site. The February 2013 sampling event was a more limited scope focused on monitoring bioremediation progress following the July 2012 injection of EVO. A summary of samples collected during these monitoring events and sampling rationale is provided on **Tables 8A** and **8B**. These sampling events also included select stream surface water locations previously requested by the Beverly Conservation Commission in various Orders of Condition (Beverly, 2002; 2003; 2004). Sampling locations are shown on **Figures 2** and **3**.

Depth-to-groundwater, total-well-depth measurements, and gauging for potential dense non-aqueous phase liquid (DNAPL) at selected wells were performed when the PDB samplers were deployed. The electronic interface probe used during these monitoring activities did not detect DNAPL at monitoring wells gauged during this reporting period. Water level monitoring data from the November 2012 and February 2013 sampling events are summarized in **Appendix C**.

Groundwater VOC sampling of monitoring and application wells during this reporting period utilized passive diffusion bag (PDB) samplers, with the exception of stream monitoring points and certain wells where alternative sampling methods were used, as discussed below. For wells sampled utilizing the PDB method, the sampling apparatus was deployed in each groundwater monitoring well for a minimum two-week equilibration period, after which the samples were collected.

Surface water stream samples were collected directly from the sample locations with a bailer or laboratory-supplied containers.

At locations where analyses of dissolved metals (manganese and/or iron) and chloride were performed, samples were collected using a conventional bailer, since these constituents cannot be accurately assessed using PDB samplers. Dissolved manganese and iron samples were field-filtered using a 0.45-micron filter prior to analysis consistent with MADEP policy.

Groundwater and surface water samples were submitted to ALS for analysis of site specific VOCs (by EPA Method 8260B), dissolved iron and manganese, methane, ethane, ethene, total organic carbon, and chloride as outlined on **Tables 8A** and **8B.** Additionally, groundwater samples collected from select

bioremediation wells were submitted for analysis of *Dehalococcoides sp.* bacteria (DHC) at Shaw's Technology Development Laboratory in Knoxville, Tennessee.

During the November 2012 sampling event, groundwater samples from select permanganate injection and monitoring wells were also collected for bench-top colorimetric permanganate concentration analysis. These groundwater samples were field filtered using a 0.45-micron filter prior to permanganate concentration analysis. Samples that were collected for colorimetric analysis of residual permanganate were analyzed by Shaw using a Hach DR/890 colorimeter. The colorimeter utilizes a spectrophotometric method to determine the permanganate concentration based on a permanganate color calibration standard.

VOC analytical results from the November 2012 and February 2013 sampling events are summarized on **Table 9**. Results of chloride, iron, and manganese samples collected during the sampling events are summarized on **Table 10**. Results of bioremediation parameter analysis (i.e., methane, ethane, ethene, total organic carbon, and DHC bacteria) are summarized on **Table 11**. Results of bench-top colorimetric analysis of residual permanganate are included in **Table 12**. Complete laboratory analytical reports for samples collected in November 2012 and February 2013 are provided in **Appendix D**. Sampling results are discussed below.

2.6.2 VOC Monitoring Results

In general, the analytical results of groundwater samples collected during the November 2012 and February 2013 sampling events (**Table 9**) show decreasing or consistent concentrations of TCE and PCE at monitoring wells across the Site. However, concentrations of cis-1,2-DCE have been more variable. This variability may be due to the higher mobility of cis-1,2-DCE in groundwater compared to TCE and PCE and the generation of this daughter compound during natural attenuation and/or bioremediation processes.

Graphs illustrating concentration trends over time for TCE, PCE, cis-1,2-DCE, TCA, and vinyl chloride for numerous injection and monitoring wells are provided in **Appendix E**. Graphs for shallow overburden, deep overburden, and bedrock monitoring wells that are located in proximity to each other are grouped together for comparative purposes. These graphs indicate that data from many of the wells monitored continue to show decreasing concentration trends or sustained reductions in VOC concentrations as a result of Varian's remedial activities. These trends indicate that the remedial program is effectively treating groundwater and the Site is progressing toward a Permanent Solution as defined by the MCP.

A more detailed discussion of VOC results for the various treatment areas at the Site is presented below.

North of Route 128

Historically, VOC concentrations in the area north of Route 128 have been low or non-detect in the shallow and deep overburden aquifers. Impacts have been noted in the bedrock aquifer north of Route 128. Permanganate injection has not been performed directly in this area, but source area treatment south of Route 128 was conducted to address downgradient impacts north of the former Varian facility. The groundwater sampling results for this area demonstrate that:

- At bedrock well CL02-BR, TCE and PCE concentrations were non-detect from October 2009 until a low concentration of TCE was detected in April 2012 (0.011 milligrams per liter (mg/L)). The detected TCE concentration increased to 0.17 mg/L in November 2012. Daughter products at CL02-BR continue to show fluctuating concentrations, with vinyl chloride decreasing to non-detect in November 2012 and cis-1,2-DCE detected at a concentration of 0.29 mg/L in November 2012.

Building 3/6 Treatment Areas

Permanganate injection was conducted during this reporting period at wells AP12-DO, AP26-DO, OB12-DO, OB27-BR and OB25-BR in the Building 3/6 treatment area as presented in Section 2.1. Bioremediation has conducted in July 2012 in the shallow overburden near the Unnamed Stream as discussed in the previous ROS report. Significant target VOC reductions have been maintained at a number of monitoring wells, including AP30R-DO, MW-9, MW-9A, OB9-S, OB9-DO and OB37-DO. TCE concentrations at these wells have been reduced by as much as 99 percent from historical highs. Groundwater sampling results for this area are summarized below:

- At shallow well OB9-S, located adjacent to the Unnamed Stream, bioremediation has decreased TCE from pre-treatment concentrations over 50 mg/L to non-detect in April 2008. Low concentrations of TCE were present in November 2012 at this well (0.033 mg/L), but the TCE concentration decreased to non-detect in February 2013. Low concentrations of breakdown products vinyl chloride and cis-1,2-DCE were detected in November 2012 and vinyl chloride reduced to non-detect in February 2012. The presence of these breakdown products and the presence of ethene at nearby well BW-6 in November 2012 indicate reductive dechlorination is continuing in this area. Chloroethane, a TCA breakdown product, has decreased from 0.27 mg/L in April 2012 to 0.0056 mg/L in February 2013.

- At deep overburden well OB9-DO, TCE and PCE concentrations decreased to non-detect in January 2012 and remained non-detect through February 2013. At bedrock well OB9-BR, TCE and PCE levels show an overall decrease since the start of treatment and were non-detect in October 2011 and January 2012. Concentrations of TCE and PCE increased in April 2012, but remained below pre-treatment concentrations. TCE and PCE concentrations remained at a similar level in the two sampling event during this reporting period (3.1 mg/L and 2.1 mg/L, respectively in February 2013). At both OB9-DO and OB9-BR, concentrations of breakdown products vinyl chloride and cis-1,2-DCE exhibited fluctuating levels over recent sampling events. These fluctuations are likely the result of bioremediation processes and/or water table fluctuations.

- In shallow overburden wells adjacent to the Unnamed Stream east of Building 3, emulsified vegetable oil application was conducted in July 2012 to continue reductive dechlorination. Sampling results from November 2012 and February 2013 indicate decreased concentrations of degradation products cis-1,2-DCE and vinyl chloride and the presence of ethene, indicating that complete breakdown of TCE and PCE is continuing in the shallow overburden in this areas. At wells BW-8 and BW-9, detected concentrations of 1,1,1-TCA have been non-detect since April 2012. Concentrations of breakdown products 1,1-dichloroethane and chloroethane have decreased over the sampling events from April 2012 to February 2013, indicating that complete degradation of 1,1,1-TCA is occurring in the shallow overburden in this areas.

- At deep overburden well OB12-DO, located north of Building 3, significant VOC concentration reductions were observed following the 2009 permanganate injections (e.g. 99 percent reduction in TCE). However, concentrations of TCE have rebounded following several more

recent permanganate treatment events. For example, the TCE concentrations increased to 37 mg/L in April 2012, once permanganate in the area of OB12-DO was consumed. This TCE concentration still represents an approximate 70 percent reduction from the highest detected TCE concentration at OB12-DO, but the April 2012 TCE concentration was above the remedial planning criteria and further treatment was determined to be warranted. Permanganate injections were conducted at OB12-DO during the 2012 treatment period and TCE concentrations decreased to non-detect in November 2012. Analytical data from April 2013 will be reviewed to assess if further treatment is warranted.

- At shallow well OB15-S, adjacent to the Unnamed Stream east of Building 3, PCE and TCE concentrations have decreased significantly since January 2009, when they were 6.1 mg/L and 4.3 mg/L, respectively. In April 2012, PCE and TCE were non-detect. Breakdown products cis-1,2-DCE and vinyl chloride were present and EVO injections were conducted in July 2012 to enhance further dechlorination. Vinyl chloride and cis-1,2-DCE have indicated decreasing concentrations since EVO application. For example cis-1,2-DCE decreased from 1.4 mg/L in April 2012 to 0.035 mg/L in February 2013. Although low levels of TCE were detected in February 2013 (0.004 mg/L), the presence of ethane at nearby well MW-9 and the decreased concentration of daughter products indicate that complete degradation is occurring in the area.

- At deep overburden well OB19-DO, located just west of Building 1, VOC concentrations have been relatively consistent since an order of magnitude decrease in TCE and PCE was observed in July 2010. However the TCE concentration increased from 3.1 mg/L in April 2012 to 24 mg/L in November 2012 (approaching the planning criteria of 25 mg/L). The concentration of PCE increased over this same period from 0.8 mg/L to 12 mg/L. It does not appear that OB19-DO is benefitting from treatment in nearby well AP26-DO and further treatment will be evaluated.

- At bedrock well OB25-BR, located west of Building 1, the concentrations of cis-1,2-DCE and vinyl chloride detected in April 2009 increased and remained elevated in July and October 2010. Because the detected concentration of cis-1,2-DCE at this well was above the remedial planning criterion (67 mg/L in October 2010), permanganate treatment was conducted at OB25-BR in January and February 2011. In response to this treatment, concentrations of VOC reduced to non-detect in April 2011. VOC concentrations increased at OB25-BR as the permanganate was consumed by VOC destruction and in April 2012 the cis-1,2-DCE concentration was 30 mg/L, above remedial planning criteria. Permanganate injections were conducted at OB25-BR during the 2012 treatment period. VOC concentrations responded well to treatment with PCE, TCE and cis-1,2-DCE concentrations decreasing to non-detectable levels in November 2012. Analytical data from April 2013 will be reviewed to assess if further treatment is warranted.

- Bedrock well OB27-BR, located near the south west corner of Building 7, received permanganate injection in 2010 and early 2011 to address increased concentrations of VOCs. As a result of this treatment, TCE, PCE, and cis-1,2-DCE concentrations were reduced significantly in April 2010, were non-detect in October 2010, and only indicated a low concentration of PCE in April 2011 (0.0026 mg/L). In October 2011, VOC concentrations showed an increase with PCE detected at 7.4 mg/L and TCE present at 22 mg/L, both similar to historic high levels. The TCE concentration remained similar in April 2012 (20 mg/L) and therefore it was determined that further treatment was warranted. Permanganate injections were conducted at OB27-BR during the 2012 treatment period. VOC concentrations responded well to treatment and in November 2012 the TCE and PCE concentrations were both non-detect. Analytical data from April 2013 will be reviewed to assess if further treatment is warranted.

- Deep overburden well OB34-DO, located just north of Building 3, last received permanganate treatment in August 2009. Although permanganate addition was not conducted in 2010, the TCE concentrations decreased at this well in October 2010 and remained relatively low in April 2011, suggesting that benefits of permanganate injections at nearby wells AP30R-DO, AP31-DO and AP32-DO were being observed in the area of OB34-DO. In October 2011, the TCE concentration increased to 11 mg/L, but remained below the remedial planning criteria. The TCE concentration at OB34-DO decreased slightly in April 2012 to 8.5 mg/L. Permanganate treatment was not conducted at AP30R-DO, AP31-DO, and AP32-DO in 2012. Despite this, the concentration of TCE at OB34-DO remained similar at 9.5 mg/L in November 2012. VOC concentrations appear to have stabilized below the remedial criteria indicating that further treatment may not be warranted.

- Deep overburden well OB36-DO, located beneath the Building 6 loading dock, last received permanganate treatment in 2005. VOC concentrations at this well have been relatively consistent over recent sampling events with TCE detected at 9.1 mg/L in November 2012. This represents an approximate 90 percent reduction from the historic TCE concentration at OB36-DO. Since April 2008, with the exception of October 2009, VOC levels at OB36-DO have remained below the remedial planning criteria and it appears that additional treatment at this well is not warranted at this time.

- At deep overburden well AP12-DO, located near the southeast corner of Building 6, permanganate treatment was conducted in 2004 and TCE concentrations remained non-detect until residual permanganate from treatment in the Building 6 area was consumed and an increase was observed in April 2010. Although the concentrations of TCE and PCE at AP12-DO increased, they remained below the remedial planning criteria until October 2011, when the TCE concentration measured 27 mg/L. The TCE concentration increased further in April 2012, to 39 mg/L. This TCE level suggested that further treatment was warranted and permanganate injections were conducted at AP12-DO during the 2012 treatment period. VOC concentrations responded well to permanganate treatment with the detected TCE and PCE concentrations decreasing to non-detect in November 2012. Analytical data from April 2013 will be reviewed to assess if further treatment is warranted. At bedrock well AP12-BR, concentrations of PCE and TCE were non-detect for the sixth sampling event in November 2012.

- Deep overburden well AP26-DO, located west of Building 2, last received permanganate treatment in 2004. Concentrations of VOCs at this well have fluctuated over recent sampling events, with the level of TCE detected in 2011 and 2012 near the remedial planning criteria. In April 2012, the concentration of TCE was 27 mg/L and the level of PCE was 11 mg/L. Therefore, permanganate injections were conducted at AP26-DO during the 2012 treatment period. VOC concentrations responded well to permanganate injections in 2012, with the detected concentration of TCE decreasing to non-detect in November 2012 and the concentration of PCE decreasing to 0.35 mg/l in November 2012. Analytical data from April 2013 will be reviewed to assess if further treatment is warranted.

- Deep overburden wells AP30R-DO, AP31-DO and AP32-DO, located just north of Building 3, responded well to the permanganate treatment conducted in 2010 and 2011. Concentrations of TCE and PCE at AP30R-DO decreased from pre-treatment levels of 680 mg/L and 59 mg/L, respectively to non-detect in November 2011. The concentration of TCE remained non-detect in November 2012 while PCE increased slightly to 0.073 mg/L. TCE at AP31-DO decreased from a pretreatment concentration of 940 mg/L in 2010 to non-detect in November 2011 and PCE decreased from 71 mg/L in February 2010 to 0.043 mg/L in November 2011. In April 2012 the TCE concentration increased to 43 mg/L and PCE was present at 1.9 mg/L. However, TCE and PCE concentrations decreased to non-detect in November 2012. Concentrations of VOCs exhibited a significant decrease after treatment in AP32-DO, for

example TCE decreased from a 950 mg/L pre-treatment concentration (November 2010) to 0.15 mg/L in April 2011. However, as permanganate in the area has been consumed, the TCE concentration has increased and was detected at 170 mg/L in November 2012. The concentration of TCE at AP32-DO is above the remedial planning criteria, indicating that further treatment is warranted.

- Deep overburden well MW-13, located north of Building 3 adjacent to Route 128, received permanganate injections in 2010 and early 2011. Significant reductions in PCE and TCE were observed in April 2010 in response to the permanganate treatment. These reductions were maintained in November 2012, when the TCE concentration was 0.026 mg/L and the PCE concentration was 0.058 mg/L. TCE and PCE concentrations reflect a greater than 99 percent reduction from the levels detected in April 2009.

- In the stream adjacent to Building 9, the Unnamed Stream sample location continues to indicate fluctuating concentrations of VOCs. This is expected due to the ongoing bioremediation program in the adjacent shallow groundwater aquifer. Just downstream at the STR-3 stream sample location, TCE and PCE concentrations remain low with concentrations of 0.032 mg/L and 0.013 mg/L, respectively detected in February 2013. The non-detect and low levels of VOCs detected at STR-3 indicate that fluctuations in surface water VOC concentrations are limited to the area immediately adjacent to the active bioremediation treatment zone. The continued presence of ethene in adjacent shallow well samples indicates that complete VOC degradation is occurring.

Building 5 Treatment Area

Permanganate application in the Building 5 treatment area was conducted at well AP27-DO, located east of Building 5, in 2004, 2005 and 2012, and at OB-35DO, located beneath Building 5, from 2005 to 2008, in 2011, and in 2012. The most recent groundwater sampling results for this area demonstrate that:

- VOC concentrations at well AP27-DO decreased significantly after treatment in 2004. In October 2011 TCE concentrations increased to 12 mg/L and remained similar in April 2012 at 13 mg/L. To address the increased level of TCE and the VOCs noted at AP27-DO and nearby well OB35-DO, permanganate treatment was conducted at AP27-DO in 2012. VOC concentrations responded well to treatment with TCE at AP27-DO decreasing to non-detect in November 2012.

- Following previous treatment at well OB35-DO, the PCE concentration increased in October 2010 to 34 mg/L and remained similar in April 2011 (32 mg/L), which is above the baseline concentration at this well. Additional treatment was conducted during the summer 2011 treatment period. October 2011 analytical results showed a slight decrease in concentrations of PCE to 29 mg/L and in April 2012 the PCE concentrations decreased to 19 mg/L. The concentration of TCE at OB35-DO was 5.4 mg/L in April 2012, reflecting a significant reduction from 440 mg/L in May 2005. Additional permanganate treatment was conducted during the 2012 treatment period to further reduce PCE concentrations at this well to a level below baseline. VOC concentrations did not show a positive response after treatment in 2012. Between April 2012 and November 2012, the PCE concentration increased from 19 mg/L to 32 mg/L. Based on this data, further treatment in the area is warranted.

- TCE and PCE concentrations at deep overburden well OB38-DO, located on the east side of Building 5, have been relatively consistent over recent sampling events. In November 2012, TCE was detected at 0.19 mg/L and PCE was present at 0.24 mg/L. The detected VOCs at this well are below prior concentrations and the remedial planning criteria.

PSL 10 Treatment Area

This area is located to the south of the main buildings, adjacent to the 32 Tozer Road property. Permanganate injection was conducted in this area from 2002 to 2004 and 2006 through 2008. Additional permanganate injections were conducted in this area at wells AP-19 and AP-22 during the summer 2011 treatment period. The most recent groundwater sampling results for this area demonstrate that:

- VOC concentrations at shallow overburden well CL10-S, located just downgradient of PSL 10 on the 32 Tozer Road property, continued to exhibit seasonal fluctuations. Higher concentrations of PCE are noted in the spring sampling with a lower level observed in the fall. Over recent years, the magnitude of the increases observed in April has generally decreased. For example, in April 2012, the concentration of PCE was 0.13 mg/L compared to a historic high of 2.2 mg/L in April 2008 and a concentration of 0.87 mg/L in April 2011. In November 2012 the PCE concentration decreased to 0.013 mg/L.

- VOC levels were non-detect in April 2012 at deep overburden well CL10-DO and bedrock well CL10-BR remained non-detect in November 2012.

- Concentrations of PCE and TCE at deep overburden well AP-19 have generally been consistent over recent sampling events at concentrations below the historical high for his well. At shallow well AP-20, the November 2012 sampling event indicated an increase in the PCE concentration from 0.96 mg/L in April 2012 to 2.1 mg/L. This PCE concentration reflects a historic high at AP-20. At deep overburden well AP-21 and shallow overburden well AP-22 concentrations of PCE and TCE have been non-detect over multiple events.

- Concentrations of VOCs at deep overburden monitoring well MW2-32Tozer, located west of AP-21 and AP-22 on the 32 Tozer Road property, have been relatively consistent since the well was installed in 2011. The concentrations of PCE and TCE detected in November 2012 at MW2-32Tozer, 16 mg/L and 4.3 mg/L, respectively, did reflect a slight increase. These concentrations are comparable to the levels observed at deep overburden well CL10-DO prior to the start of treatment in PSL 10 (e.g. PCE and TCE were present at 9.2 mg/L and 16 mg/L, respectively in May 2003). Downgradient from well MW2-32Tozer, VOC concentrations are lower comparatively. For example, VOCs were non-detect at MW4-32Tozer in November 2012 and the PCE concentration detected at MW5-32Tozer was 0.0053 mg/L in November 2012.

Tozer Road Treatment Area South of 128

No permanganate injections have been performed at 28 Tozer Road since 2006. Monitoring in this area during this reporting period was limited to shallow monitoring wells along Tozer Road. The most recent groundwater sampling results for this area demonstrate that:

- Well OB43-S was installed at 27 Tozer to assess compliance with GW-2 standards at this property. VOC results at this well were non-detect in April 2012 and indicated low concentrations of TCE and PCE in November 2012 (0.003 mg/L and 0.0021 mg/L, respectively).

- At shallow monitoring well W-1, located at 30 Tozer Road, VOCs concentrations have been relatively stable over recent sampling events. The TCE concentration detected in November 2012 at this well was 0.17 mg/L.

- At well OB42-S, located at 30 Tozer just downgradient of W-1, VOC results in November 2012 indicate the presence of TCE, PCE, and cis-1,2-DCE at concentrations of 2.6 mg/L, 0.11 mg/L and 0.79 mg/L, respectively. These concentrations are generally consistent with the levels observed in the previous sampling events in 2011 and 2012 at OB42-S.

31 Tozer Road Treatment Area

Shallow groundwater treatment was conducted in 2002 and 2003 and deep overburden permanganate injection occurred in this area in 2004. The most recent groundwater sampling results for this area demonstrate that:

- Three shallow wells located at 31 Tozer Road were sampled during the November 2012 event. VOC concentrations were non-detect at well AP15-S in November 2012 and the previous three sampling rounds. Concentrations of TCE and PCE decreased to non-detect for the first time in November 2012 at GZ-4. Concentrations of VOCs were non-detect in November 2012 in shallow well OB18-S and have been non-detect three of the past four sampling rounds.

- Shallow well OB8-S, located at 39 Tozer Road, was also sampled to assess shallow overburden impacts. VOC concentrations at this well have been relatively consistent over a number of years, with the TCE present at 0.27 mg/L and cis-1,2-DCE present at 0.12 mg/L in November 2012.

- Shallow monitoring well OB41-S is located at 39 Tozer just downgradient of OB8-S. VOC results from OB41-S in November 2012 indicate VOC concentrations that are lower than the concentration noted at OB8-S. For example, TCE was detected at OB41-S at 0.082 mg/L compared to 0.27 mg/L for this compound at OB8-S.

- Stream points STRHA-7A (Stream A on the 39 Tozer Road property) and STRHA-7B (Unnamed Stream on the 39 Tozer Road property) are sampled to monitor VOC impacts to surface water. Detected VOC concentrations at these sample points have been generally consistent over the last two years at a relatively low concentration. For example, TCE was detected at a concentration of 0.033 mg/L at STRHA-7A and 0.034 mg/L at STRHA-7B in November 2012

Longview/Hill Street Treatment Area

In the Longview/Hill Street area, permanganate injections were conducted at wells AP3-DO and AP4-DO during 2004, and at AP3-DO and AP3-BR in 2005. The most recent groundwater sampling results for this area demonstrate that:

- Several monitoring wells in this area of the site are sampled to assess shallow overburden impacts. These include wells P-9R and P-19A on Hill Street just south of Longview Road, and OB20-S by Stream A, south of Sonning Road. VOCs remained non-detect at shallow wells P-9R and OB20-S in November 2012. At well P-19A, concentrations of PCE, TCE, and cis-1,2-DCE have remained relatively consistent and at low levels, with cis-1,2-DCE detected at the highest concentration (0.39 mg/L in November 2012).

- At stream monitoring point STRM-A-SCDS (located east of Longview Terrace) the VOC concentration remained low in November 2012. TCE was detected at a concentration of 0.012 mg/L and PCE was detected at 0.0038 mg/L.

2.6.3 Permanganate Parameter Monitoring Results

Permanganate application occurred during this reporting period as outlined in Section 2.1 and **Table 1**. Sampling for analytical parameters associated with permanganate treatment during this monitoring period was completed in November 2012, after treatment was completed as part of the 2012 treatment program. In addition, groundwater samples were collected from select wells in November 2012 for bench-top colorimetric permanganate concentration analysis, after 2012 permanganate injections. The permanganate analysis results are provided in **Table 12**. As would be expected, samples from wells where permanganate injection was conducted in 2012 indicated residual permanganate was present. For example, permanganate was detected in November 2012 at a concentration of 17,000 mg/L in OB-25BR located west of Building 1 and 2.

Typically, the dissolved iron concentrations (**Table 10**) are expected to decrease in treatment areas due to the oxidizing nature of permanganate and associated iron precipitation from the treated groundwater. Results of monitoring in areas where permanganate treatment has occurred generally demonstrate low or non-detect dissolved iron concentrations. For example, in OB-27BR located west of Building 7, where permanganate injections were conducted during the summer/fall of 2012, dissolved iron was non-detectable November 2012.

Generally, elevated dissolved manganese concentrations (**Table 10**) are noted where unreacted permanganate was observed. For example, at well OB-12DO located north of Building 3, permanganate was present at approximately 2,000 mg/L in November 2012 and dissolved manganese was detected at 790 mg/L in November 2012. Outside of the permanganate treatment areas, dissolved manganese concentrations are generally low or non-detect. At deep overburden well OB19-DO, located adjacent to Building 1 and 2 and downgradient of well AP26-DO, where permanganate injection was conducted in 2012, the dissolved manganese concentration was 4.9 mg/L in November 2012.

Baseline chloride concentrations at the site were highly variable (**Table 10**). As a result of permanganate treatment, chloride levels in groundwater are typically increased from the destruction of the chlorinated VOCs. For example, at AP12-DO, located near the southeast corner of Building 6, where permanganate treatment was conducted in 2012 and significant decreases in VOCs were observed (TCE decreased from 39 mg/L to non-detect), chloride increased from 34.4 mg/L when it was last analyzed in 2010 to 538 mg/L in November 2012.

2.6.4 Bioremediation Parameter Monitoring Results

VOCs and bioremediation parameters in groundwater samples are analyzed quarterly to monitor reductive dechlorination processes. During this reporting period, sampling was conducted in November 2012 and February 2013 in the bioremediation area near the Unnamed Stream and Building 3. These parameters included oxidation reduction potential, DO, methane, ethane, ethene and total organic carbon and are summarized on **Table 11**.

The previously observed reductions in TCE and PCE concentrations noted in the shallow overburden groundwater near OB9-S and MW-9 located by the Unnamed Stream are the result of reductive dechlorination. The remaining breakdown products present (i.e., cis-1,2-DCE and vinyl chloride) are continuing to degrade further. Observed decreases in the detected concentrations of 1,1,1-TCA in select

shallow overburden wells are also the result of reductive dechlorination. Monitoring results that continue to support this conclusion include the following:

- Favorable conditions for reductive dechlorination were established and maintained in the subsurface (dissolved oxygen levels <1.0 mg/L and negative ORP readings).
- Increased or continuing elevated ethene concentrations were observed in well MW-9 and other shallow wells in the Unnamed Stream area. Ethene is the non-toxic end product of complete dechlorination of VOCs, including vinyl chloride.

- Increased or continuing elevated ethane concentrations were observed in well MW-9 and other shallow wells in the area. Ethane is an end product resulting from the complete degradation of1,1,1-TCA.

- Methane concentrations have increased or remained elevated in OB9-S, MW-9, and other shallow wells in the Unnamed Stream area. The presence of methane is indicative of methanogenic conditions that favor the biodegradation of target VOCs via reductive dechlorination.

- November 2012 and February 2013 analytical results showed a healthy *Dehalococcoides* bacteria population is present at the Site.

2.7 Quality Assurance/Quality Control (QA/QC)

In general, the environmental data collected by Shaw during these remedial monitoring activities meets the "presumptive certainty" criteria described in MADEP guidance (MADEP, 2004a). Based on a data usability assessment of the laboratory analytical reports, the data are appropriate for use in this ROS report. The laboratory reports were reviewed by Shaw to determine if samples were analyzed within holding times and to ensure that surrogate recoveries and internal laboratory standards were within QA/QC limits. Copies of Data Usability Worksheets that document this review are included with each laboratory analytical report in **Appendix D**. If applicable, results from samples reported beyond the calibration range of the laboratory instrument are flagged with an "E" (estimated) qualifier in the laboratory analytical report and associated data tables in this report. However, these samples were reanalyzed by the laboratory as a secondary diluted sample. A "D" (diluted) qualifier in the laboratory analytical report and on the data tables indicates compounds that are reported from a secondary diluted sample.

Potential QA/QC issues identified during this reporting period included surrogate recovery exceedences in ALS submission number R1301045. All surrogate standard recoveries were within QC limits except 4-Bromofluorobenzene for SV-6 30Tozer. The recovery was within QC limits on the re-analysis at a larger dilution. Because of the high surrogate recovery, positive detects for sample SV-6 30 Tozer have been flagged in with a "J" to indicate an estimated result.

In summary, no data collected during this reporting period were rejected and the data generally meet the QA/QC requirements of the MCP.

3.0 SIGNIFICANT MODIFICATIONS TO THE OPERATION, MAINTENANCE, AND/OR MONITORING PROGRAM (310 CMR 40.0892 (2)(b))

The original Phase IV Plan (IT, 2001) detailed groundwater remediation and monitoring activities for the various permanganate treatment areas of the Site. Minor adjustments to the remedial monitoring plan continue to be made as site conditions warrant and as reported in the ROS reports.

Details of the bioremediation monitoring activities have been presented in previous ROS status reports. No major modifications to the bioremediation monitoring plan were made during this reporting period.

During this reporting period, a Modification of the Phase III RAP and Phase IV Plan was submitted in December 2012 to include operation of an SVE system in the Building 5 Area (Shaw, 2012e). In addition, operation and maintenance of the Building 3 SVE system has been incorporated into this ROS program. Therefore, Operation, Maintenance, and Monitoring activities associated with these two SVE systems will be provided in future ROS reports.

4.0 EVALUATION OF THE PERFORMANCE OF REMEDIAL ACTIVITIES (310 CMR 40.0892 (2)(c))

As described in the preceding sections, groundwater remedial activities are progressing at the former Varian Facility Site in general accordance with the Phase IV Plan (IT, 2001). Consistently lower VOC levels and decreasing VOC concentration trends have been observed at monitoring wells across the Site as a result of the permanganate injection program. In addition, a limited bioremediation program began at the Site in 2006 and has resulted in significant decreases in VOC levels in the shallow groundwater near the Unnamed Stream. Site data continue to show that the remedial program is treating Site groundwater consistent with remedial objectives.

The Building 3 and Building 5 SVE systems are being operated in accordance with their respective Phase IV plans (Shaw, 2012e and Shaw, 2013). Monitoring of vacuum beneath the building floor in each area is conducted to demonstrate that soil vapor control is maintained beneath the building. Field screening is conducted at each system to monitor VOC recovery by the SVE systems. VOCs screening of the influent, midpoint, and effluent of each system is also conducted to demonstrate that greater than 95 percent removal of VOCs is maintained by the carbon off-gas treatment system.

The following sections present plans for each part of the Comprehensive Response Action based on an evaluation of recent analytical data, operation of the SVE systems at Building 3 and Building 5, and additional data from downgradient properties on Tozer Road.

4.1 Permanganate Treatment

The permanganate injection program for 2012 was started in July 2012 and was completed in October 2012 with injection volumes presented in **Table 1**. As discussed permanganate injections were conducted to treat VOCs in groundwater in the vicinity of Building 3 and 6, as well as inside and around Building 5.

Permanganate injections were conducted during 2012 in wells AP12-DO, AP-26DO, OB12-DO, OB-27BR, and OB-25BR in the Building 3/6 area. These wells have responded well to permanganate injections in the past and VOC concentrations have significantly decreased after injections. However, many of these wells showed rebounding VOC concentrations once permanganate in the area of the injection well had been consumed. April 2013 groundwater analytical data will be evaluated to determine where additional treatment is warranted. Permanganate treatment will be conducted in 2013 to maintain control of potential downgradient migration of VOCs. For example, at OB19-DO the TCE concentration increased to 24 mg/L in November 2012. In addition, at deep overburden well AP32-DO, located north of Building 3, TCE increased to 170 mg/L in November 2012. Although not sampled in November 2012, sample results from AP13-DO, AP23-DO, and AP24-DO indicated TCE concentrations well above the remedial planning criteria in April 2012. The VOC concentrations at these wells indicating additional treatment is warranted.

In the Building 5 Area, injections were conducted in AP27-DO and OB35-DO in 2012. VOC concentrations in AP27-DO decreased in response to permanganate injections in 2012, decreasing to non-detectable levels in November 2012. PCE was detected at 32 mg/L at OB-35DO, beneath Building 5, in November 2012. This indicates that further treatment may be warranted in this area.

4.2 Bioremediation Treatment

Bioremediation activities were conducted in the summer of 2012 and were described in the October 2012 ROS report. The bioremediation program appears to have addressed the shallow overburden impact of TCE and PCE in the area of the Unnamed Stream. Based on an evaluation of data through February 2013, active reductive dechlorination is continuing to address residual VOC daughter products in the shallow overburden near the Unnamed Stream. The data suggests that additional treatment is not warranted at this time. April 2013 analytical data will be reviewed and additional activities will be conducted as necessary.

4.3 Building 3 SVE System

Operation of the existing SVE system is effectively reducing VOC levels in indoor air in the Building 3 Area Site. Indoor air sampling results demonstrate that operation of the SVE system has resulted in a condition of No Significant Risk to human health, public welfare, and the environment in the Building 3 Area. Operation of the SVE system will continue in order to maintain the level of No Significant Risk. It is anticipated that the operation of the SVE at Building 3 will achieve a Permanent Solution. Should indoor air concentrations not be reduced adequately following SVE system operation to achieve a condition of No Significant Risk and a Permanent Solution, then permanganate treatment may be implemented to reduce VOC concentrations in shallow groundwater and/or soil such that a Permanent Solution will be achieved.

4.4 Building 5 SVE System

An SVE system was installed in the Building 5 Area and system start up was initiated on March 11, 2013. Initial results from operation of the Building 5 SVE system indicate this system should meet the objectives

of the Phase IV Plan. Complete details of the system startup and system data will be included in an upcoming ROS report. Varian will continue to assess and evaluate the potential indoor air conditions in the Building 5 Area and make adjustments to the SVE system as necessary.

5.0 MEASURES TAKEN TO ADDRESS PROBLEMS AFFECTING THE PERFORMANCE OF THE REMEDIAL ACTION (310 CMR 40.0892 (2)(d))

No problems affecting the performance of the selected remedial actions were identified during this reporting period. Minor modifications to the original Phase IV Remedial Implementation Plan (IT, 2001) continue to be made as needed based on site conditions and are reported to MADEP in regular status reports. As demonstrated by the analytical data contained in this ROS report, significant remedial progress continues to be made with lower VOC concentrations measured across the Site. The performance of on-going remedial actions will continue to be documented in future ROS reports.

6.0 REFERENCES

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7.0 LIMITATIONS ON WORK PRODUCT

The information contained in this report, including its conclusions, is based upon the information that was made available to Shaw during the investigation and obtained from the services described, which were performed within time and budgetary restraints.

Shaw makes no representation concerning the legal significance of its findings or of the value of the property investigated. Shaw has no contractual liability to any third parties for the information or opinions contained in this report.

Unless and until the parties agree otherwise in writing, the use of this report or any information contained therein by any third party shall be at such third party's sole risk. Such use shall constitute an agreement to release, defend and indemnify Varian Medical Systems, Inc. and Shaw from and against any and all liability in connection therewith.

TABLES

Table 1
Permanganate Injection Volume
2012 Treatment Program
Former Varian Facility Site
150 Shohier Road
Beverly, MA

Location	Soduim Permanganate Injection Volume (in gallons of 20% solution)	
	Total Volume This Reporting Period [1]	Total Volume July 2012 through October 2012 [2]
AP-12DO	75	411
AP-26DO	55	435
OB-12DO	75	411
OB-35DO	15.75	80.5
OB-27BR	55	400
OB-25BR	65	410
AP-27DO	155	155
Total	**495.75**	**2277.5**

1 - This injection period includes October 1, 2012 to Ocotber 12, 2012
2 - Total injection includes total gallons from July 25 to October 12, 2012

TABLE 2
Operation and Maintenance Data
Building 3
Soil Vapor Extraction System

Former Varian Facility Site
Beverly, Massachusetts

Location	Extraction Well BLDG3-SVE1		Extraction Well BLDG3-SVE2		Carbon Influent	Carbon Midpoint	Carbon Effluent		VOC Off-gas Reduction [2]
Date	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	VOC (ppm)	VOC (ppm)	VOC (ppm)	Total Vapor Flow (cfm)[1]	
1/4/2013	7.032	2.5	6.195	6.9	3.8	0.3[3]	ND	150	>99%
1/17/2013[4]	7.5	1.3	6	8.0	7.0	ND	ND	155	>99%
2/7/2013	6.6	2.0	5.9	20.0	11.0	ND	5[5]	143	54%
2/7/2013	6.6	2.0	5.9	20.0	11.0	1.2	ND	143	>99%
2/27/2013[6]	6.7	4.5	6.3	9.3	12.0	ND	ND	144	>99%
3/15/2013	7.15	0.5	6.38	12.5	7.5	ND	ND	144	>99%
3/29/2013	7.14	1.2	6.67	6.2	4.5	ND	ND	144	>99%

Notes:

"wc = inches of water column

VOC = volatile organic compounds measured with a photoionization detector

ppm = parts per million

cfm = cubic feet per minute

ND = non-detect

NA = not available or applicable

(1) = Not adjusted for temperature

(2) = target reduction is 95%

(3) = primary carbon removed from service, secondary carbon switched to primary treatment, new stand-by vessel added as secondary treatment

(4) = after monitoring the system, the packer in BLDG3-SVE2 was deflated to allow vapor extraction from entire well screen

(5) = secondary carbon switched to primary treatment, primary carbon switched to secondary treatment to achieve >95% removal in second reading

(6) = fresh carbon installed in two vessels on 2/14/13, one new vessel brought into service as secondary treatment, second new vessel on stand-by

TABLE 3
VOC Mass Removal Estimate Summary
Building 3 SVE System

Fromer Varian Facility Site
150 Sohier Road
Beverly, MA

Sample Date	Vapor Influent Concentration (ppm(v))	Flow (scfm)	Days Operational	VOC Mass Removal Rate (lb/day)	Total VOC Mass Removed (lb)
12/10/2009	17.0	97	0	0.00	0.0
12/11/2009	15.1	97	1	0.93	0.9
12/14/2009	19.0	102	4	1.05	4.1
12/16/2009	27.5	120	6	1.67	7.4
12/18/2009	23.0	125	8	1.89	11.2
12/21/2009	6.6	125	11	1.11	14.5
12/23/2009	6.5	127	13	0.50	15.5
12/29/2009	6.6	125	19	0.49	18.5
1/6/2010	10.0	140	27	0.70	24.0
1/19/2010	58.0	133	28	2.72	26.7
2/4/2010	21.8	141	55	3.36	80.6
2/18/2010	21.8	140	69	1.83	106
3/5/2010	20.4	140	84	1.77	133
3/19/2010	9.7	138	98	1.25	150
3/29/2010	10.4	146	108	0.88	159
4/12/2010	9.5	146	120	0.87	169
4/27/2010	11.8	138	135	0.88	183
5/11/2010	2.4	133	149	0.57	191
5/27/2010	18.9	150	165	0.96	206
6/8/2010	29.6	150	177	2.18	232
6/25/2010	21.7	149	194	2.28	271
7/7/2010	21.7	149	206	1.93	294
7/9/2010	53.0	130	208	2.91	300
7/19/2010	32.6	129	218	3.32	333
8/2/2010	35.0	125	230	2.54	364
8/16/2010	0.0	131	244	1.38	383
8/30/2010	41.0	144	258	1.77	408
9/14/2010	27.1	145	273	2.97	452
9/28/2010	11.7	145	287	1.69	476
10/13/2010	21.0	147	302	1.44	498
10/26/2010	15.0	137	315	1.48	517
11/9/2010	34.0	138	329	2.03	545
11/24/2010	12.5	144	344	2.00	575
12/7/2010	19.0	139	355	1.31	590
12/22/2010	20.7	139	368	1.65	611
12/28/2010	12.7	160	374	1.60	621
1/3/2011	14.3	154	380	1.24	628
1/18/2011	15.4	160	395	1.42	650
2/4/2011	8.9	160	412	1.16	669
2/15/2011	3.0	160	423	0.57	676
2/22/2011	10.0	172	430	0.67	680
3/4/2011	7.2	172	440	0.89	689
3/15/2011	7.7	172	451	0.77	698
3/29/2011	35.0	167	465	2.13	728
4/12/2011	9.0	165	479	2.18	758
4/25/2011	5.8	165	492	0.73	768
5/10/2011	10.8	165	507	0.82	780
5/27/2011	18.5	163	524	1.43	804
6/7/2011	10.7	163	535	1.43	820
6/20/2011	7.5	164	548	0.89	832
7/7/2011	6.5	162	565	0.68	843
7/22/2011	2.9	161	580	0.45	850
8/1/2011	0.2	162	590	0.15	852
8/15/2011	2.0	163	604	0.11	853
9/6/2011	11.0	164	626	0.64	867
9/20/2011	10.0	164	640	1.03	882
10/3/2011	3.5	164	653	0.66	890
10/20/2011	2.3	164	670	0.29	895
11/2/2011	6.5	161	683	0.43	901
11/15/2011	1.6	135	695	0.33	905
12/5/2011	6.6	122	714	0.30	910
12/15/2011	10.7	127	724	0.66	917

TABLE 3
VOC Mass Removal Estimate Summary
Building 3 SVE System

Fromer Varian Facility Site
150 Sohier Road
Beverly, MA

	Vapor Influent Concentration	Flow	Days	VOC Mass Removal Rate	Total VOC Mass Removed
1/4/2012	0.1	149	742	0.48	926
1/24/2012	12.5	147	760	0.56	935
2/6/2012	0.0	143	772	0.54	942
2/21/2012	0.0	139	785	0.00	942
3/15/2012	5.5	144	795	0.45	946
3/28/2012	4.6	148	808	0.45	952
4/5/2012	4.4	149	816	0.40	955
4/17/2012	15.5	147	828	0.87	966
5/8/2012	11.5	157	849	1.27	992
5/22/2012	0.4	137	863	0.49	999
6/4/2012	0.0	156	876	0.02	1,000
6/19/2012	11.4	149	891	0.69	1,010
7/12/2012	18.5	149	914	1.33	1,041
7/24/2012	11.5	149	925	1.34	1,055
8/10/2012	6.3	149	942	0.79	1,069
8/22/2012	6.7	149	954	0.58	1,076
9/7/2012	7.7	135	970	0.58	1,085
9/18/2012	5.2	141	981	0.55	1,091
10/12/2012	5.7	152	1005	0.50	1,103
10/26/2012	5.6	152	1019	0.51	1,110
11/7/2012	5.8	152	1031	0.52	1,116
11/21/2012	2.2	152	1045	0.37	1,122
12/7/2012	3.4	153	1061	0.26	1,126
12/21/2012	9.4	152	1075	0.58	1,134
1/4/2013	3.8	139	1088	0.55	1,141
1/17/2013	7.0	144	1101	0.47	1,147
2/7/2013	11.0	135	1122	0.73	1,162
2/27/2013	12.0	134	1142	0.92	1,181
3/15/2013	7.5	135	1158	0.79	1,193
3/29/2013	4.5	134	1172	0.48	1,200

Notes:
ppm = parts per million
scfm = standard cubic feet per minute (see note 6)
lbs/day = pounds per day
lbs = pounds
VOC = volatile organic compounds

1. Vapor influent concentrations as measured with a photoionization detector (PID).
2. Total VOC mass removed (lbs) is calculated by multiplying the VOC Mass Removal Rate (lbs/day) on the sampling date by the # of operating days between visits.
3. VOS mass removal rate (lbs/day) = average VOC level between current and previous monitoring (ppm)/ 10E6 x 1 lbmole/379.4 cu ft x (158lbs/lbmole) x flow (ft^3/min) x (1440 min/day)
4. 158 lbs/lbmole is the weighted average molecular weight of the primary contaminants in the soil vapor (80% Tetrachloroethene, 19% Trichloroethene, and 1% acetone based on analytical results from recovered soil vapor).
5. VOC concentration not monitored on 2/4/10, assumed concentration noted on 2/18/10.
6. Flow rate (scfm) is calculated with the following equation:
   128.8 x Flow coefficient (K) x pipe diameter^2 (in) x sqrt (psia x differential pressure (IWC)temperature /(Temp (F) + 460) x Sp Gr @ 60°F)to adjust for system operating

Table 4
Soil Vapor and Indoor Air Analytical Results
30 Tozer Road
Former Varian Facility Site
Beverly, Massachusetts

	Indoor Air						MassDEP Commercial/ Industrial Threshold Values (1)	Sub-Slab Soil Vapor						MassDEP Commercial/ Industrial Sub-Slab Soil Gas Screening Values (2)
CONSTITUENT (ug/m3)	30 TOZER-1 11/21/2012	30 TOZER-1 2/14/2013	30 TOZER-2 11/21/2012	30 TOZER-2 2/14/2013	30 TOZER-3 11/21/2012	30 TOZER-3 2/14/2013		SV-4 30 TOZER 11/21/2012	SV-4 30 TOZER 2/14/2013	SV-5 30 TOZER 11/21/2012	SV-5 30 TOZER 2/14/2013	SV-6 30 TOZER 11/21/2012	SV-6 30 TOZER 2/14/2013	
1,1,1-Trichloroethane	<1.2	<1.1	<1.2	<1.1	<1.2	<1.1	4600	29	<160	<150	<44	<29	2.6 J	100000
1,1,2,2-Tetrachloroethane	<0.29	<0.26	<0.29	<0.27	<0.31	<0.26	0.2	<6.8	<39	<38	<11	<7.3	<0.32	4.1
1,1,2-Trichloroethane	<1.2	<1.1	<1.2	<1.1	<1.2	<1.1	0.71	<27	<160	<150	<44	<29	<1.3	15
1,1-Dichloroethane	<0.87	<0.79	<0.88	<0.80	<0.92	<0.79	440	<21	<120	<110	<33	<22	<0.95	11000
1,1-Dichloroethene	<0.85	<0.77	<0.86	<0.78	<0.90	<0.77	170	<20	<120	<110	<32	<21	<0.93	4100
1,2-Dichloroethane	<0.87	<0.79	<0.88	<0.80	<0.92	<0.79	0.44	<21	<120	<110	<33	<22	<0.95	9.1
1,2-Dichloropropane	<0.98	<0.89	<0.99	<0.91	<1.0	<0.90	0.6	<23	<130	<130	<37	<25	<1.1	13
Acetone	25	36	40	43	26	42D	700	<230	<1300	1600	<360	780	20 J	16000
Bromodichloromethane	<0.29	<0.26	<0.29	<0.27	<0.31	<0.26	0.64	<6.8	<39	<38	<11	<7.3	<0.32	13
Bromoform	<2.2	<2.0	<2.2	<2.0	<2.3	<2.0	10	<52	<300	<290	<83	<56	<2.4	220
Bromomethane	<0.83	<0.75	<0.84	<0.77	<0.88	<0.76	4.4	<20	<110	<110	<31	<21	<0.91	100
Carbontetrachloride	0.46	0.28	0.71	<0.12	0.53	0.29	1.9	<3.2	<18	<18	<5.1	<3.4	0.21 J	60
Chlorobenzene	<0.98	<0.89	<0.99	<0.91	<1.0	<0.90	17	<23	<130	<130	<37	<25	<1.1	410
Chloroethane	<1.1	<1.0	<1.1	<1.0	<1.2	<1.0	NA	<26	<150	<150	<42	<28	<1.2	NA
Chloroform	<1.0	<0.95	<1.1	<0.96	<1.1	<0.95	3	<25	<140	<140	<39	<26	<1.1	210
Chloromethane	1.1	1.4	1.1	1	1.1	1.3	NA	<21	<120	<110	<33	<22	<0.95	NA
cis-1,2-Dichloroethene	<0.85	1	<0.86	0.92	<0.90	1.1	31	<20	<120	<110	<32	<21	<0.93	700
cis-1,3-Dichloropropene	<1.9	<1.8	<2.0	<1.8	<2.0	<1.8	2.8	<46	<260	<250	<73	<49	<2.1	60
Dibromochloromethane	<0.37	<0.33	<0.37	<0.34	<0.39	<0.33	0.47	<8.7	<50	<48	<14	<9.3	<0.40	9.8
Dichloromethane	<0.73	<0.67	<0.74	<0.68	<0.77	<0.67	530	<17	<100	<95	<28	<19	<0.80	770
Ethylbenzene	<1.8	<1.7	<1.9	<1.7	<1.9	4.6	880	<43	<250	<240	<69	<46	5.5 J	20000
m/p-xylene	<3.7	3.7	<3.7	<3.4	<3.9	5.5	88	<87	<500	<480	<140	<93	17 J	2000
o-Xylene	<1.8	<1.7	<1.9	<1.7	<1.9	2.1	88	<43	<250	<240	<69	<46	6.1 J	2000
Tetrachloroethene	0.77	2.8	0.7	3.5	0.77	3.5	4.1	**1300**	**2200**	**2100**	**1300**	130	140 J	290
trans-1,2-Dichloroethene	<0.85	<0.77	<0.86	<0.78	<0.90	<0.77	61	<20	<120	<110	<32	<21	<0.93	1400
Trans-1,3-Dichloropropene	<0.96	<0.88	<0.98	<0.89	<1.0	<0.88	2.8	<23	<130	<130	<36	<24	<1.1	60
Trichloroethene	**4.8**	**5.7**	**3.5**	**5.1**	**3.8**	**2.7**	1.8	**2200**	**13000**	**12000**	**2700**	9.1	0.51 J	140
Trichlorofluoromethane	1.8	1.7	1.8	1.7	1.7	1.5	NA	<28	<160	<160	<45	<30	1.6 J	NA
Vinyl chloride	<0.12	<0.11	<0.12	<0.11	<0.12	<0.11	1.3	<2.7	<16	<15	<4.4	<2.9	<0.13	27
Xylene (total)	<3.7	3.7	<3.7	<3.4	<3.9	7.6	88	<87	<500	<480	<140	<93	23 J	2000

NA = not applicable

ug/m3 = micrograms per meter cubed

(1) MA DEP December 2011 Interim Final Vapor Intrusion Guidance WSC-11-435 Table I.2 Commercial/Industrial Treshold Values

(2) MA DEP December 2011 Interim Final Vapor Intrusion Guidance WSC-11-435 Table II.2 Commercial/Industrial Sub-Slab Soil Gas Screening Values

Bold values exceed threshold values or sub-slab soil gas screening values

J - estimated value

Table 5
Indoor Air Risk Evaluation - Site Workers - 30 Tozer Road
Indoor Air Sampling - November 2012 and February 2013

Former Varian Facility Site
150 Sohier Road
Beverly, MA

EXPOSURE ESTIMATES:

Inhalation of Volatiles

$$ADE = \frac{OHM_{air} * EF * ET * ED * C1}{AP_{nc}}$$

$$LADE = \frac{OHM_{air} * EF * ET * ED}{AP_{c}}$$

HI = ADE/RfC

ELCR = LADE * UR

Cumulative ELCR = 2.5E-06 **MassDEP Limit = 1E-05**
Cumulative HI = 0.71 **MassDEP Limit = 1**

Parameter		Description	Units	Value	Reference
ADE	=	Average daily exposure	m^3/mg	See below	Calculated
LADE	=	Lifetime average daily exposure	$\mu g/m^3$	See below	Calculated
HI	=	Hazard Index	unitless	See below	Calculated
ELCR	=	Excess lifetime cancer risk	unitless	See below	Calculated
RfC	=	Inhalation reference concentration	mg/m^3	See below	EPA (2012, 2013), MassDEP (2008)
UR	=	Inhalation Unit Risk	$m^3/\mu g$	See below	EPA (2012, 2013), MassDEP (2008)
OHM_{air}	=	Concentration in air	$\mu g/m^3$	See below	Measured
EF	=	Exposure frequency	days/year	250	5 days/week, 2 weeks vacation
ET	=	Exposure time	days/day	0.330	8 hours per day
ED	=	Exposure duration	years	27.0	MassDEP 2008
AP_{nc}	=	Averaging period, noncarcinogens	days	9,855	ED*365
AP_c	=	Averaging period, carcinogens	days	25,550	Lifetime
C1	=	Conversion factor	mg/µg	1.00E-03	Constant

Compound	OHM_{air} *	RfC *Chronic*	UR	ADE	HI	LADE	ELCR
Volatile Organic Compounds							
Acetone	4.60E+01	8.00E-01	--	1.04E-02	1.30E-02	4.01E+00	NC
Carbon tetrachloride	7.10E-01	1.00E-01	6.00E-06	1.60E-04	1.60E-03	6.19E-02	3.71E-07
Chloromethane	1.40E+00	9.00E-02	--	3.16E-04	3.52E-03	1.22E-01	NC
Ethylbenzene	4.60E+00	1.00E+00	--	1.04E-03	1.04E-03	4.01E-01	NC
Tetrachloroethene	3.50E+00	4.00E-02	2.60E-07	7.91E-04	1.98E-02	3.05E-01	7.93E-08
Trichloroethene	5.70E+00	2.00E-03	4.10E-06	1.29E-03	6.44E-01	4.97E-01	2.04E-06
Trichlorofluoromethane	1.80E+00	7.00E-01	--	4.07E-04	5.81E-04	1.57E-01	NC
Xylenes	7.60E+00	1.00E-01	--	1.72E-03	1.72E-02	6.63E-01	NC
cis-1,2-Dichloroethene	1.10E+00	3.50E-02	--	2.49E-04	7.10E-03	9.59E-02	NC
TOTAL RISK					**7.08E-01**		**2.49E-06**

Notes:

OHM_{air} is maximum indoor air concentration from Nov. 2012 and February 2013 sampling

Table 6
Soil Vapor and Indoor Air Analytical Results
39 Tozer Road
Former Varian Facility Site
Beverly, Massachusetts

	Indoor Air	MassDEP Commercial/ Industrial Threshold Values (1)	Sub-Slab Soil Vapor	MassDEP Commercial/ Industrial Sub-Slab Soil Gas Screening Values (2)
CONSTITUENT (ug/m3)	SV Ambient 39 Tozer 1/24/2013		SV-1 39 Tozer 1/24/2013	
1,1,1-Trichloroethane	<0.84	4600	<54	100000
1,1,2,2-Tetrachloroethane	<0.21	0.2	<14	4.1
1,1,2-Trichloroethane	<0.84	0.71	<54	15
1,1-Dichloroethane	<0.63	440	92	11000
1,1-Dichloroethene	<0.62	170	400	4100
1,2-Dichloroethane	<0.63	0.44	<41	9.1
1,2-Dichloropropane	<0.71	0.6	<46	13
Acetone	<7	700	<450	16000
Bromodichloromethane	<0.21	0.64	<14	13
Bromoform	<1.6	10	<100	220
Bromomethane	<0.6	4.4	<39	100
Carbon Tetrachloride	0.12	1.9	<6.4	60
Chlorobenzene	<0.71	17	<46	410
Chloroethane	<0.81	NA	<53	NA
Chloroform	<0.76	3	<49	210
Chloromethane	<0.63	NA	<41	NA
cis-1,2-Dichloroethene	2	31	**2100**	700
cis-1,3-Dichloropropene	<1.4	2.8	<91	60
Dibromochloromethane	<0.27	0.47	<17	9.8
Ethylbenzene	<1.3	880	<86	20000
Methylene Chloride	<0.53	NA	<34	NA
m/p-xylene	<2.7	88	<170	2000
o-Xylene	<1.3	88	<86	2000
Tetrachloroethene	0.68	4.1	**420**	290
trans-1,2-Dichloroethene	<0.62	61	<40	1400
Trans-1,3-Dichloropropene	<0.7	2.8	<45	60
Trichloroethene	**2.1**	1.8	**2200**	140
Trichlorofluoromethane	<0.87	NA	<56	NA
Vinyl chloride	<0.084	1.3	**29**	27
Xylene (total)	<2.7	88	<170	2000

NA = not applicable

ug/m3 = micrograms per meter cubed

(1) MA DEP December 2011 Interim Final Vapor Intrusion Guidance WSC-11-435 Table I.2 Commercial/Industrial Treshold Values

(2) MA DEP December 2011 Interim Final Vapor Intrusion Guidance WSC-11-435 Table II.2 Commercial/Industrial Sub-Slab Soil Gas Screening Values

Bold values exceed threshold values or sub-slab soil gas screening values

Table 7
Indoor Air Risk Evaluation - Site Workers - 39 Tozer Road
Indoor Air Sampling - January 2013

Former Varian Facility Site
150 Sohier Road
Beverly, MA

EXPOSURE ESTIMATES:

Inhalation of Volatiles

$$ADE = \frac{OHM_{air} * EF * ET * ED * C1}{AP_{nc}}$$

$$LADE = \frac{OHM_{air} * EF * ET * ED}{AP_{c}}$$

HI = ADE/RfC

ELCR = LADE * UR

Cumulative ELCR = 8.3E-07 **MassDEP Limit = 1E-05**
Cumulative HI = 0.25 **MassDEP Limit = 1**

Parameter		Description	Units	Value	Reference
ADE	=	Average daily exposure	m^3/mg	See below	Calculated
LADE	=	Lifetime average daily exposure	$\mu g/m^3$	See below	Calculated
HI	=	Hazard Index	unitless	See below	Calculated
ELCR	=	Excess lifetime cancer risk	unitless	See below	Calculated
RfC	=	Inhalation reference concentration	mg/m^3	See below	EPA (2012, 2013), MassDEP (2008)
UR	=	Inhalation Unit Risk	$m^3/\mu g$	See below	EPA (2012, 2013), MassDEP (2008)
OHM_{air}	=	Concentration in air	$\mu g/m^3$	See below	Measured
EF	=	Exposure frequency	days/year	250	5 days/week, 2 weeks vacation
ET	=	Exposure time	days/day	0.330	8 hours per day
ED	=	Exposure duration	years	27.0	MassDEP 2008
AP_{nc}	=	Averaging period, noncarcinogens	days	9,855	ED*365
AP_c	=	Averaging period, carcinogens	days	25,550	Lifetime
C1	=	Conversion factor	mg/µg	1.00E-03	Constant

Compound	OHM_{air} *	RfC *Chronic*	UR	ADE	HI	LADE	ELCR
Volatile Organic Compounds							
Carbon tetrachloride	1.20E-01	1.00E-01	6.00E-06	2.71E-05	2.71E-04	1.05E-02	6.28E-08
Tetrachloroethene	6.80E-01	4.00E-02	2.60E-07	1.54E-04	3.84E-03	5.93E-02	1.54E-08
Trichloroethene	2.10E+00	2.00E-03	4.10E-06	4.75E-04	2.37E-01	1.83E-01	7.51E-07
cis-1,2-Dichloroethene	2.00E+00	3.50E-02	--	4.52E-04	1.29E-02	1.74E-01	NC
TOTAL RISK					**2.54E-01**		**8.29E-07**

Notes:
OHM_{air} is indoor air concentration from January 2013 sampling

Table 8A
Water Quality Sample Summary
November 2012
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Location	Rationale for Sampling	Analysis Performed
Building 3/6 teatment area			
CL02-BR	16 Tozer	Monitor remediation and VOC trends	VOCs
AP-12-DO	East Building 6	Monitor injection & Site conditions	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-12-BR	East Building 6	Monitor injection & Site conditions	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-26-DO	West Building 1/2	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-30R-DO	North Building 3	Monitor remediation and VOC trends	VOCs
AP-31-DO	North Building 3	Monitor remediation and VOC trends	VOCs
AP-32-DO	North Building 3	Monitor remediation and VOC trends	VOCs
B-3	East Building 3	Monitor shallow VOC trends	VOCs
MW-009A	By Unnamed Stream	Monitor shallow VOC trends	VOCs
MW-013	North Building 3 by Rte 128	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
OB-12-DO	North Building 3 by Rte 128	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
OB-19-DO	West Building 1 & 2	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride
OB-25-BR	West Building 1 & 2	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride
			permanganate
OB-27-BR	West Building 7	Monitor VOC trends by Building 7	Dissolved Iron & Manganese VOCs Chloride permanganate
OB-32-DO	North Building 3	Monitor VOC trends	Dissolved Iron & Manganese Chloride permanganate
OB-34-DO	North Building 3	Monitor VOC trends	VOCs permanganate
OB-36-DO	North Building 3	Monitor VOC trends	VOCs permanganate
OB-37-DO	North Building 3	Monitor remediation and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
Building 5 Treatment Area			
B-2	East Building 5	Monitor shallow VOC trends	VOCs permanganate
OB-35-DO	Inside Building 5	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-27-DO	East Building 5	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
OB-38-DO	East Building 5	Monitor residual permanganate and VOC trends	VOCs
Tozer Road South Area			
OB-42-S	30 Tozer Rd	Monitor shallow VOC trends	VOCs
OB-43-S	27 Tozer Rd	Monitor shallow VOC trends	VOCs
W-1	30 Tozer Rd	Monitor shallow VOC trends	VOCs
31 Tozer Road Tretment Area			
GZ-4	31 Tozer Road	Monitor shallow VOC trends	VOCs
OB-08-S	29 Tozer Road	Monitor shallow VOC trends	VOCs
OB-18-S	31 Tozer Road	Monitor shallow VOC trends adjacent to building	VOCs
OB-41-S	39 Tozer Road	Monitor shallow VOC trends	VOCs
AP-15-S	31 Tozer Road	Monitor shallow VOC trends	VOCs
STRHA-07A	29 Tozer Road	Monitor VOC trends in surface water	VOCs
STRHA-07B	29 Tozer Road	Monitor VOC trends in surface water	VOCs
Longview/Hill Street Treatment Area			
P-09R	Hill Street	Monitor VOC trends	VOCs
P-19A	Hill Street	Monitor VOC trends	VOCs
OB-20-S	SCDS field	Monitor VOC trends	VOCs
STRM-A-SCDS	SCDS field	Monitor VOC trends in surface water	VOCs

Table 8A
Water Quality Sample Summary
November 2012
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Location	Rationale for Sampling	Analysis Performed
PSL 10 Area			
AP-19	PSL 10	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-20	PSL 10	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-21	PSL 10	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
AP-22	PSL 10	Monitor residual permanganate and VOC trends	Dissolved Iron & Manganese VOCs Chloride permanganate
MW-2_32-TOZER	32 Tozer Rd	Monitor VOC trends	VOCs
MW-4_32-TOZER	32 Tozer Rd	Monitor VOC trends	VOCs
MW-5_32-TOZER	32 Tozer Rd	Monitor VOC trends	VOCs
CL10-BR	32 Tozer Rd	Monitor VOC trends	VOCs
CL10-DO	32 Tozer Rd	Monitor VOC trends	VOCs
CL10-S	32 Tozer Rd	Monitor VOC trends	VOCs
Bioremediation Sampling			
BW-04	By Unnamed Stream	Monitor remediation and VOC trends	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
BW-05	By Unnamed Stream	Monitor remediation and VOC trends	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
BW-06	By Unnamed Stream	Monitor remediation and VOC trends	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
BW-08	By Unnamed Stream	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
BW-09	By Unnamed Stream	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
MW-008	By Unnamed Stream	Monitor remediation and VOC trends	VOCs
MW-009	By Unnamed Stream	Monitor remediation and VOC trends	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
OB-09-BR	By Unnamed Stream	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs Ethane, Ethene & Methane Total Organic Carbon
OB-09-DO	By Unnamed Stream	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs Ethane, Ethene & Methane Total Organic Carbon
OB-09-S	By Unnamed Stream	Monitor remediation and VOC trends	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
OB-10-S	East Building 4	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs
OB-12-S	North Building 3 by Rte 128	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs
OB-15-S	By Unnamed Stream	Monitor VOC trends and confirm no adverse impacts	VOCs Ethane, Ethene & Methane Total Organic Carbon Dehalococcoides sp.
STR-03	Unnamed Stream	Monitor VOC trends and confirm no adverse impacts to surface water, also Con Comm request	VOCs

Notes:
Total Organic Carbon, analysis by EPA Method 5310C
Dissolved Iron and Manganese, analysis by Method 6010C
VOCs = Volatile Organic Compounds, analysis by EPA Method 8260C
Methane, ethane, ethene analysis by RSK-175 Method
Dehalococcoides sp. analysis by polymerase chain reaction (PCR)
Permangante - bench-top colorimetric permanganate concentration analysis using a Hach DR/890 colorimeter

Table 8B
Water Quality Sample Summary
February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Rationale for Sampling	Analysis Performed
BW-04	Monitor remediation and VOC trends	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
BW-05	Monitor remediation and VOC trends	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
BW-06	Monitor remediation and VOC trends	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
BW-08	Monitor VOC trends and confirm no adverse downgradient impacts	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
BW-09	Monitor VOC trends and confirm no adverse downgradient impacts	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
MW-008	Monitor remediation and VOC trends	VOCs
MW-009	Monitor remediation and VOC trends	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
OB-09-BR	Monitor VOC trends and confirm no adverse downgradient impacts	Total Organic Carbon VOCs Ethane, Ethene & Methane
OB-09-DO	Monitor VOC trends and confirm no adverse downgradient impacts	Total Organic Carbon VOCs Ethane, Ethene & Methane
OB-09-S	Monitor remediation and VOC trends	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
OB-10-S	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs
OB-12-S	Monitor VOC trends and confirm no adverse downgradient impacts	VOCs
OB-15-S	Monitor VOC trends and confirm no adverse downgradient impacts	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.
STR-03	Monitor VOC trends and confirm no adverse impacts to surface water, also Con Comm request	VOCs
UNNAMED_STREAM	Monitor VOC trends and confirm no adverse impacts to surface water, also Con Comm requ	Total Organic Carbon VOCs Ethane, Ethene & Methane Dehalococcoides sp.

Notes:
Total Organic Carbon, analysis by EPA Method 5310C
VOCs = Volatile Organic Compounds, analysis by EPA Method 8260C
Methane, ethane, ethene analysis by RSK-175 Method
Dehalococcoides sp. analysis by polymerase chain reaction (PCR)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-02	6/3/2002	40	0.2	0.034	0.007	ND(0.0020)	0.003	ND(0.0020)	0.26	ND(0.010)	ND(0.010)	0.17	0.29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	56	0.21	0.042	0.008	ND(0.0020)	0.004	ND(0.0020)	0.27	ND(0.010)	ND(0.010)	0.24	0.41D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/17/2003	56	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.021	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	56	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.009	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	12/16/2003	56	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	56	0.014J	0.0021J	ND(0.0010)J	ND(0.0010)J	0.0031J	ND(0.0020)J	0.0022J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)J
	4/11/2007	56	0.18	0.053	ND(0.0020)	ND(0.0020)	0.017	ND(0.0040)	0.098	ND(0.0040)	ND(0.010)	0.032	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0020)
	4/22/2008	55	0.1	0.035	0.0012	ND(0.0010)	0.0015	ND(0.0020)	0.0049	ND(0.0020)	ND(0.0050)	0.068	0.036	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	24	0.16	0.023	ND(0.0020)	ND(0.0020)	0.042	ND(0.0020)	0.028	ND(0.0020)	ND(0.0020)	0.032	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-03-BR	9/21/2005	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.027	0.41	ND(0.010)	ND(0.020)	1.2	ND(0.010)
	1/6/2006	108	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	104	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	107	ND(0.0010)	0.0018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0027	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
AP-03-DO	1/3/2005	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0012	0.0041	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	42	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0014J	0.0038J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)J
	1/6/2006	45	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	41	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/1/2007	45	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0034	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	44	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
AP-04-BR	9/21/2005	NA	ND(0.010)	0.021	0.02	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.15	0.82	ND(0.010)	0.024	1.2	ND(0.010)
	1/6/2006	120	ND(0.0050)	0.01	0.0051	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0059	0.21	ND(0.0050)	0.011	0.66	ND(0.0050)
	3/30/2006	121	ND(0.0050)	0.013	0.0083	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.019	0.24	ND(0.0050)	0.014	0.64	ND(0.0050)
	4/12/2007	125	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.12	ND(0.010)	ND(0.020)	0.77	ND(0.010)
AP-04-DO	1/3/2005	42	ND(0.0010)	0.0014	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.018	0.07	ND(0.0010)	ND(0.0020)	0.016	ND(0.0010)
	5/2/2005	42	ND(0.0010)J	0.0027J	0.0023J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.031J	0.11J	ND(0.0010)J	ND(0.0020)J	0.024J	ND(0.0010)J
	2/1/2007	45	ND(0.0050)	0.011	0.0055	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0054	0.14	ND(0.0050)	0.011	0.61	ND(0.0050)
AP-06-BR	6/3/2002	55	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	ND(0.010)	ND(0.010)	0.009	0.034	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)
	6/3/2002	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.007	ND(0.010)	ND(0.010)	0.015	0.063	ND(0.0020)	ND(0.0020)	0.008	ND(0.0020)
	6/3/2002	99	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.006	ND(0.010)	ND(0.010)	0.011	0.059	ND(0.0020)	ND(0.0020)	0.007	ND(0.0020)
	1/24/2003	99	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.010)	0.005	0.02	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)
	5/14/2003	99	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.009	ND(0.0020)	ND(0.0020)	0.003	ND(0.0020)
	12/17/2003	99	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.012	ND(0.0010)	ND(0.0020)	0.0052	ND(0.0010)
	5/1/2004	98	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0048	ND(0.0010)	ND(0.0020)	0.0023	ND(0.0010)
	4/29/2005	96	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0010)
	3/31/2006	99	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0055	ND(0.0010)	ND(0.0020)	0.0024	ND(0.0010)
	4/11/2007	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0022	0.0082
	4/22/2008	75	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.01
	4/1/2009	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0010)	0.024	0.059	ND(0.0010)
AP-06-DO	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	44	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/24/2003	44	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	44	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	12/17/2003	44	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-08-DO	8/13/2003	NA	ND(0.0020)	0.003	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.034	0.12	ND(0.0020)	ND(0.0020)	0.026	ND(0.0020)
	12/23/2003	40	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0037	0.013	ND(0.0010)	ND(0.0020)	0.0017	ND(0.0010)
	5/3/2004	35	0.001	0.0066	0.006	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.19D	0.60D	ND(0.0010)	ND(0.0020)	0.13D	ND(0.0010)
	1/4/2005	39	ND(0.0050)	0.007	0.0079	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.2	0.53	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	4/29/2005	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0085	ND(0.0010)	ND(0.0020)	0.0039	ND(0.0010)
	3/29/2006	33	ND(0.0050)	0.0054	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.5	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	2/5/2007	40	ND(0.0050)	0.0066	0.0059	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.16	0.48	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	4/15/2007	40	ND(0.0050)	0.0056	0.0055	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.51	ND(0.0050)	ND(0.010)	0.15	ND(0.0050)
AP-09-DO	8/13/2003	NA	0.005	0.013	0.02	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.21	0.79	ND(0.010)	ND(0.010)	0.2	ND(0.0050)
	12/29/2003	40	ND(0.0050)	0.005	0.0079	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.11	0.45	ND(0.0050)	ND(0.010)	0.1	ND(0.0050)
	5/3/2004	36	ND(0.010)	ND(0.010)	0.015	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.24	0.87	ND(0.010)	ND(0.020)	0.22	ND(0.010)
	12/30/2004	37	0.0064	0.0097	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.66	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
	4/29/2005	36	0.013	0.011	0.017	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.23	0.93	ND(0.010)	ND(0.020)	0.23	ND(0.010)
	3/29/2006	35	0.019	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.29	1.1	ND(0.010)	ND(0.020)	0.28	ND(0.010)
	2/5/2007	40	0.011	0.01	0.014	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.26	0.98	ND(0.010)	ND(0.020)	0.25	ND(0.010)
	4/15/2007	40	0.0068	ND(0.0050)	0.0068	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.17	0.59	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
AP-12-BR	6/3/2002	70	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(1.0)	ND(0.40)	6.6	31	ND(0.40)	ND(0.40)	22	ND(0.20)
	6/3/2002	83	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.08	0.2	ND(0.10)	ND(0.10)	4.7	ND(0.050)
	1/24/2003	83	0.022	0.012	ND(0.0010)	ND(0.0020)	0.058	ND(0.0020)	0.046	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/13/2003	83	0.011	0.007	ND(0.0010)	ND(0.0020)	0.022	ND(0.0020)	0.025	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	12/17/2003	83	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	ND(0.0020)	0.02	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2004	80	0.002	0.0011	ND(0.0010)	ND(0.0010)	0.0023	ND(0.0020)	0.0072	ND(0.0020)	ND(0.0050)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2006	74	0.0066	0.0052	ND(0.0010)	ND(0.0010)	0.0035	ND(0.0020)	0.035	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/13/2007	82	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0054	ND(0.0020)	ND(0.0050)	0.012	0.0052	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	0.058	ND(0.10)	ND(0.25)	0.3	6.5	ND(0.050)	ND(0.10)	1.5	ND(0.050)
	4/3/2009	84	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.47	24	ND(0.20)	ND(0.20)	9.4	ND(0.20)
	10/26/2009	65	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.59	17	ND(0.20)	ND(0.20)	4.6	ND(0.20)
	10/26/2009	76	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	ND(0.13)	0.48	12	ND(0.13)	ND(0.13)	3.6	ND(0.13)
	4/20/2010	81	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0091	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/14/2010	81	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0046	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/14/2011	78	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/28/2011	74	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0031	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2012	80	0.0022J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0036J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J
	11/27/2012	81	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-12-DO	6/3/2002	45	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	19	26	ND(0.20)	ND(0.20)	0.2	ND(0.10)
	6/3/2002	58	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(1.0)	ND(0.40)	15	34	ND(0.40)	ND(0.40)	0.4	ND(0.20)
	1/24/2003	58	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	13	26	ND(0.20)	ND(0.20)	0.2	ND(0.10)
	5/13/2003	58	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	11	30	ND(0.20)	ND(0.20)	0.4	ND(0.10)
	12/17/2003	58	0.0078	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.051	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0067	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2004	57	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.45	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	4/29/2005	58	0.0034	0.0013	ND(0.0010)	ND(0.0010)	0.011	ND(0.0020)	0.053	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2006	54	0.0051	0.0015	ND(0.0010)	ND(0.0010)	0.023	ND(0.0020)	0.055	ND(0.0020)	ND(0.0050)	0.15	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/13/2007	58	0.0047	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.026	ND(0.0040)	0.045	ND(0.0040)	ND(0.010)	0.15	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0020)
	4/24/2008	51	0.0063	0.0023	ND(0.0010)	ND(0.0010)	0.024	ND(0.0020)	0.052	ND(0.0020)	ND(0.0050)	0.1	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	50	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.033	ND(0.010)	ND(0.010)	0.94	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	10/26/2009	50	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.004	ND(0.0025)	0.019	ND(0.0025)	ND(0.0025)	0.33	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
	4/20/2010	57	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	7.1	0.53	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
	10/14/2010	37	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	7.7	0.57	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
	4/14/2011	48	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	8.8	4.6	ND(0.10)	ND(0.10)	0.16	ND(0.10)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-12-DO (Cont.)	10/28/2011	44	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	10D	27D	ND(0.10)	ND(0.10)	2.7	ND(0.10)
	4/5/2012	56	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	14	39	ND(0.50)	ND(0.50)	4.2	ND(0.50)
	11/27/2012	57	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	ND(0.0020)	0.083	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-12-S	6/3/2002	30	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	12	7.2	ND(0.20)	ND(0.20)	ND(0.10)	ND(0.10)
	2/20/2003	30	0.011	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/13/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	12/17/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2004	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	30	0.028	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0046	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2006	21	0.015	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0020)	0.0016	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/13/2007	30	0.017	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0020)	0.0019	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.014	ND(0.0010)
	4/24/2008	29	0.013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/22/2008	30	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0031	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	26	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0032	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	29	0.0088	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/14/2011	31	0.008	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0044	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.50)
	4/5/2012	26	0.0062	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0032	ND(0.0020)	ND(0.0020)	0.016	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-13-DO	6/3/2002	50	0.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(3.0)	ND(1.0)	5.0	49	ND(1.0)	ND(1.0)	ND(0.50)	ND(0.50)
	6/3/2002	61	0.8	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(3.0)	ND(1.0)	9.5	110	ND(1.0)	ND(1.0)	0.9	ND(0.50)
	1/29/2003	61	20	1.8	1.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(3.0)	ND(1.0)	64	430DD	ND(1.0)	ND(1.0)	1.1	ND(0.50)
	5/13/2003	61	26	2.3	2.0	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(3.0)	ND(1.0)	54	540D	ND(1.0)	ND(1.0)	0.8	ND(0.10)
	12/16/2003	61	9.1	1.2	ND(0.10)	ND(0.10)	0.75	ND(0.20)	1.0	ND(0.20)	ND(0.50)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(2.0)
	5/1/2004	52	13	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(4.0)	ND(2.0)	ND(4.0)	ND(10)	38	220	ND(2.0)	ND(4.0)	ND(2.0)	ND(2.0)J
	5/2/2005	61	40J	2.4J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	120J	220J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(0.25)
	12/30/2005	61	27	0.89	ND(0.25)	ND(0.25)	0.58	ND(0.50)	1.4	ND(0.50)	ND(1.3)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.20)
	4/3/2006	46	32D	1.8	ND(0.20)	ND(0.20)	0.4	ND(0.40)	1.7	ND(0.40)	ND(1.0)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.50)
	4/11/2007	61	46	2.2	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	3.6	ND(1.0)	ND(2.5)	68	33	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)
	7/26/2007	59	34	2.0	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	56	100	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)
	11/12/2007	36	22	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	54	110	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)
	1/23/2008	36	36	2	ND(2.0)	ND(2.0)	ND(2.0)	ND(4.0)	ND(2.0)	ND(4.0)	ND(10)	78	240	ND(2.0)	ND(4.0)	ND(2.0)	ND(2.0)J
	4/21/2008	47	41J	2.4J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	88J	270J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(2.0)J
	7/28/2008	47	35J	2.1J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	100J	260J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(1.0)
	10/22/2008	51	29	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	88	130	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)
	1/14/2009	47	25	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	87	170	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)
	4/2/2009	51	28	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	86	200	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)
	10/26/2009	52	29	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	84	200	ND(2.0)	ND(2.0)	5.2	ND(4.0
	4/22/2010	60	27	ND(4.0	ND(4.0	ND(4.0	ND(4.0	ND(4.0	ND(4.0	ND(4.0	ND(4.0	72	290	ND(4.0	ND(4.0	ND(4.0	ND(2.0)J
	7/14/2010	60	28J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	70J	290J	ND(2.0)J	ND(2.0)J	5.8J	ND(5.0)
	10/12/2010	51	28	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	75	350	ND(5.0)	ND(5.0)	ND(5.0)	ND(2.0)
	1/4/2011	61	13	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	40	160	ND(2.0)	ND(2.0)	14	ND(4.0)
	4/5/2011	51.2	18	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	46	200	ND(4.0)	ND(4.0)	5.8	ND(2.0)
	7/28/2011	51	13	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	23	150	ND(2.0)	ND(2.0)	3.8	ND(2.0)
	10/25/2011	60	19	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	44	230D	ND(2.0)	ND(2.0)	7.2	ND(2.0)
	1/17/2012	51	29	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	53	360D	ND(2.0)	ND(2.0)	3.7	ND(0.0020)
	4/3/2012	51	25	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	59	320	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)
AP-13-S	6/3/2002	18	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.012	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/29/2003	18	0.023	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.36DD	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/13/2003	18	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.018	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.01	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-13-S (Cont.)	5/1/2004	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	---	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.032	0.0064	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	5/2/2005	18	0.0032J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.023J	0.014J	ND(0.0010)J	ND(0.0020)J	0.0023J	ND(0.0010)
	4/3/2006	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.001	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/21/2008	16	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.010J	0.0035J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/22/2008	16	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	0.0021	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0037	0.0034	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	16.1	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/26/2011	16	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0036	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/17/2012	16	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.10)
	4/5/2012	16	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-14-S	6/3/2002	35	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	39D	1.9	ND(0.20)	ND(0.20)	ND(0.10)	ND(0.0020)
	2/17/2003	35	0.081	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.1	ND(0.0020)	0.037	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	5/14/2003	35	0.17	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.43	ND(0.0050)	0.086	ND(0.030)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.010)	ND(0.0050)	ND(0.0050)
	12/16/2003	35	0.13	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.49	ND(0.010)	0.079	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	5/1/2004	33	0.36	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.63	ND(0.010)	0.089	ND(0.010)	ND(0.025)	0.0092	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0020)J
	5/2/2005	35	0.24J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.26J	ND(0.0040)J	0.046J	ND(0.0040)J	ND(0.010)J	0.022J	ND(0.0020)J	ND(0.0020)J	ND(0.0040)J	ND(0.0020)J	ND(0.0050)
	4/3/2006	32	0.48	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.39	ND(0.010)	0.025	ND(0.010)	ND(0.025)	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
	4/14/2007	35	1	ND(0.010)	ND(0.010)	ND(0.010)	0.67	ND(0.020)	0.092	ND(0.020)	ND(0.050)	0.018	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0020)
	4/25/2008	34	0.18	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.12	ND(0.0040)	0.016	ND(0.0040)	ND(0.010)	0.016	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0025)
	4/3/2009	32	0.19	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.14	ND(0.0025)	0.0091	ND(0.0025)	ND(0.0025)	0.28	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.010)
	4/21/2010	34	0.12	ND(0.010)	ND(0.010)	ND(0.010)	0.1	ND(0.010)	0.055	ND(0.010)	ND(0.010)	1.2	1.2	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)J
	4/6/2011	29.1	0.08J	ND(0.020)J	ND(0.020)J	ND(0.020)J	0.047J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	1.6J	0.58J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.0020)
	4/5/2012	29	0.0093	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0064	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.35	0.048	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
AP-15-S	8/26/2002	NA	ND(0.0020)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.025	0.16	ND(0.0020)	ND(0.0020)	0.089	ND(0.0020)
	9/18/2002	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.012	0.14	ND(0.0020)	ND(0.0020)	0.081	ND(0.0020)
	5/14/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.06	ND(0.0020)	ND(0.0020)	0.024	ND(0.0010)
	12/22/2003	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.016	ND(0.0010)	ND(0.0020)	0.0032	ND(0.0010)
	5/3/2004	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0027	0.012	ND(0.0010)	ND(0.0020)	0.0036	ND(0.0010)
	12/30/2004	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.0046	ND(0.0010)	ND(0.0020)	0.0015	ND(0.0010)
	4/29/2005	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0013	0.007	ND(0.0010)	ND(0.0020)	0.0022	ND(0.0010)
	3/29/2006	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0027	0.039	ND(0.0010)	ND(0.0020)	0.032	ND(0.0010)
	2/5/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0037	0.02	ND(0.0010)	ND(0.0020)	0.01	ND(0.0010)
	4/15/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/14/2007	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0074	0.11	ND(0.0010)	ND(0.0020)	0.062	ND(0.0010)
	5/8/2008	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0019	0.027	ND(0.0010)	ND(0.0020)	0.019	ND(0.0010)
	10/20/2008	12	0.0018	0.0045	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.014	0.083	ND(0.0010)	0.0034	0.07	ND(0.0010)
	4/2/2009	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.01	0.054	ND(0.0010)	ND(0.0010)	0.017	ND(0.0010)
	4/20/2010	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.012	0.036	ND(0.0010)	ND(0.0010)	0.0089	ND(0.0020)
	10/14/2010	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0036	0.025	ND(0.0020)	ND(0.0020)	0.0061	ND(0.0020)
	4/5/2011	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2012	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/12/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-19	6/25/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.095	0.03	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.23	0.048	ND(0.0020)	ND(0.0020)	0.002	ND(0.0010)
	12/15/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.015	0.0055	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)
	4/26/2004	30	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.7	0.2	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0010)
	4/28/2005	30	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.010)
	3/31/2006	29	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.4	0.17	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.025)
	4/12/2007	29	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	2.8	0.83	ND(0.025)	ND(0.050)	1.1	ND(0.010)
	4/24/2008	29	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.92	0.15	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0010)
	10/23/2008	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0036	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/6/2009	27	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.4	0.06	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0025)
	10/27/2009	27	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.32	0.054	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.010)
	4/21/2010	29	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1.1	0.13	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.0040)
	10/14/2010	28	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.22	0.024	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.010)
	4/6/2011	27.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.71	0.071	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.0040)
	10/27/2011	29	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.26	0.036	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.004
	4/5/2012	27	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.94	0.085	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	11/13/2012	19	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.28	0.03	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
AP-20	6/25/2002	20	0.002	0.004	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	1.7	1.6	ND(0.0020)	0.005	0.62	ND(0.10)
	5/14/2003	20	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.20)	ND(0.10)	ND(0.0010)
	12/15/2003	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.12	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/12/2007	19	ND(0.0050)	0.013	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.12	0.17	ND(0.0050)	ND(0.010)	0.53	ND(0.010)
	4/24/2008	19	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.89	0.092	ND(0.010)	ND(0.020)	0.044	ND(0.0010)
	10/23/2008	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.016	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	16	0.0021	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0050)
	4/21/2010	19	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.45	0.012	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)
	10/14/2010	15	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1	0.14	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.0040)
	4/6/2011	15.1	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.25	0.017	ND(0.0040)	ND(0.0040)	0.01	ND(0.0020)
	10/27/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.13
	4/5/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.96D	0.1	ND(0.0020)	ND(0.0020)	0.06	ND(0.0020)
	11/13/2012	19	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	2.1D	0.41	ND(0.020)	ND(0.020)	0.038	ND(0.020)
AP-21	6/25/2002	30	ND(0.0020)	0.5	ND(0.0010)	0.003	ND(0.0020)	0.003	ND(0.0020)	ND(0.010)	ND(0.010)	4.0	56	ND(0.0020)	0.1	32	ND(0.0020)
	5/14/2003	30	ND(0.0020)	0.012	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/15/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	3/31/2006	26	ND(0.0020)	0.25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0074	ND(0.0020)	0.089	ND(0.0040)	ND(0.0020)	ND(0.010)
	4/12/2007	29	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.96	0.095	ND(0.010)	ND(0.020)	0.044	ND(0.20)
	4/24/2008	29	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	3.2	3.6	ND(0.20)	ND(0.40)	19	ND(0.0010)
	10/23/2008	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.026	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	28	ND(0.0010)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0081	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0010)
	11/23/2009	28	ND(0.0010)	0.075	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0043	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.058	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/21/2010	29	ND(0.0010)	0.13	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0014	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.068	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/14/2010	29	ND(0.0020)	0.17	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)
	4/14/2011	24	ND(0.0040)	0.19	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0020)
	10/27/2011	29	ND(0.0020)	0.19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.01
	4/5/2012	22.2	ND(0.0020)	0.14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/13/2012	29	ND(0.0020)	0.15	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-22	6/25/2002	20	ND(0.010)	0.06	0.05	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.16	0.61	ND(0.020)	ND(0.020)	5.8	ND(0.0020)
	5/14/2003	20	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/15/2003	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)
	4/28/2005	18	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.6	0.19	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0050)
	3/31/2006	19	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.45	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	4/12/2007	19	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.42	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.025)
	4/24/2008	19	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	2.9	0.85	ND(0.025)	ND(0.050)	1.5	ND(0.0010)
	10/23/2008	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.02	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	17	ND(0.0010)	0.015	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0031	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0099	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/21/2010	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/14/2010	19	ND(0.0020)	0.017	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0055	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/14/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0063	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.4D	0.15	ND(0.0020)	ND(0.0020)	0.33D	ND(0.0020)
	10/27/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(2.0)
	4/5/2012	18	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/13/2012	19	ND(0.0020)	0.009	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0052	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-23-DO	9/23/2004	NA	2.1	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(4.0)	ND(2.0)	ND(4.0)	ND(10)	34	200	ND(2.0)	ND(4.0)	ND(2.0)	ND(0.010)
	12/29/2004	51	0.85	ND(0.010)	ND(0.010)	ND(0.010)	0.84	ND(0.020)	0.12	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)J
	5/2/2005	52	2.4J	ND(0.020)J	ND(0.020)J	ND(0.020)J	1.5JN	ND(0.040)J	0.28J	ND(0.040)J	ND(0.10)J	0.071J	0.030J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.025)
	12/30/2005	52	3.3	ND(0.025)	ND(0.025)	ND(0.025)	1.9	ND(0.050)	0.72	ND(0.050)	ND(0.13)	0.25	0.063	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.0025)
	4/3/2006	29	0.27	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.056	ND(0.0050)	0.049	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.020)
	1/31/2007	52	1.6	ND(0.020)	ND(0.020)	ND(0.020)	2.1	ND(0.040)	2.1	ND(0.040)	ND(0.10)	0.13	0.26	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.020)
	4/11/2007	52	1.5	ND(0.020)	ND(0.020)	0.039	2.2	ND(0.040)	2.4	ND(0.040)	ND(0.10)	0.98	0.028	ND(0.020)	ND(0.040)	ND(0.020)	ND(1.0)
	11/12/2007	48	3.4	ND(1.0)	ND(1.0)	ND(1.0)	1.9	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	53	100	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)
	1/23/2008	48	3.8	ND(1.0)	ND(1.0)	ND(1.0)	1.2	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	49	100	ND(1.0)	ND(2.0)	ND(1.0)	ND(1.0)J
	4/21/2008	48	2.4J	ND(1.0)J	ND(1.0)J	ND(1.0)J	ND(1.0)J	ND(2.0)J	ND(1.0)J	ND(2.0)J	ND(5.0)J	47J	120J	ND(1.0)J	ND(2.0)J	1.4J	ND(2.0)J
	7/28/2008	51	2.0J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	59J	210J	ND(2.0)J	ND(4.0)J	36J	ND(0.50)
	10/22/2008	48	0.63	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	20	58	ND(0.50)	ND(1.0)	3.8	ND(1.0)
	1/14/2009	51	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	35	140	ND(1.0)	ND(1.0)	8.2	ND(2.0)
	4/2/2009	47	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	34	210	ND(2.0)	ND(2.0)	7	ND(2.0)
	10/26/2009	48	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	41	210	ND(2.0)	4.2	29	ND(1.0)
	1/28/2010	51	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	1.0	ND(1.0)	ND(1.0)	32	150	ND(1.0)	4.8	30	ND(2.0)
	4/22/2010	51	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	40	270	ND(2.0)	ND(2.0)	7.1	ND(2.0)J
	7/14/2010	14	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	50J	330J	ND(2.0)J	ND(2.0)J	12J	ND(4.0)
	10/12/2010	47	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	46	270	ND(4.0)	ND(4.0)	17	ND(1.0)
	1/4/2011	51	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	11	86	ND(1.0)	5.2	20	ND(4.0)
	4/5/2011	47.4	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	20	230	ND(4.0)	ND(4.0)	6.2	ND(2.0)
	7/28/2011	47	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	2.0	ND(2.0)	ND(2.0)	20	140	ND(2.0)	2.7	7.4	ND(2.0)
	10/25/2011	51	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	23	240D	ND(2.0)	3.3	9.6	ND(2.0)
	1/17/2012	47.5	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	41	490D	ND(2.0)	ND(2.0)	4.7	ND(1.0)
	4/3/2012	47	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	21	350	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)
AP-24-DO	9/23/2004	NA	110	ND(1.0)	ND(1.0)	ND(1.0)	1.9	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.25)
	12/29/2004	52	32	ND(0.25)	ND(0.25)	ND(0.25)	1.0	ND(0.50)	0.49	ND(0.50)	ND(1.3)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)J
	5/2/2005	53	68J	ND(0.50)J	ND(0.50)J	ND(0.50)J	2.2J	ND(1.0)J	0.58J	ND(1.0)J	ND(2.5)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(1.0)J	ND(0.50)J	ND(0.50)
	12/30/2005	52	71	ND(0.50)	ND(0.50)	ND(0.50)	1.8	ND(1.0)	0.82	ND(1.0)	ND(2.5)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)
	4/3/2006	49	63	ND(0.50)	ND(0.50)	ND(0.50)	2.0	ND(1.0)	1.3	ND(1.0)	ND(2.5)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)
	1/30/2007	53	32	ND(0.50)	ND(0.50)	ND(0.50)	0.5	ND(1.0)	0.96	ND(1.0)	ND(2.5)	12	36	ND(0.50)	ND(1.0)	ND(0.50)	ND(2.0)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-24-DO (Cont.)	4/10/2007	53	55	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(4.0)	2.3	ND(4.0)	ND(10)	47	180	ND(2.0)	ND(4.0)	ND(2.0)	ND(1.0)
	8/9/2007	50	64	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	34	130N	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.50)
	11/12/2007	49	40	ND(0.50)	0.91	ND(0.50)	ND(0.50)	ND(1.0)	0.75	ND(1.0)	ND(2.5)	27	56	ND(0.50)	ND(1.0)	0.64	ND(1.0)
	1/23/2008	47	33	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	1.1	ND(2.0)	ND(5.0)	48	120	ND(1.0)	ND(2.0)	2.1	ND(2.0)J
	4/21/2008	47	21J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	65J	220J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(2.0)J
	7/28/2008	52	45J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(4.0)J	ND(10)J	61J	220J	ND(2.0)J	ND(4.0)J	ND(2.0)J	ND(1.0)
	10/22/2008	47	19	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	32	140	ND(1.0)	ND(2.0)	13	ND(2.0)
	1/14/2009	52	22	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	41	210	ND(2.0)	ND(2.0)	10	ND(2.0)
	4/2/2009	47	36	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	54	270	ND(2.0)	ND(2.0)	19	ND(2.0)
	10/26/2009	48	62	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	32	270	ND(2.0)	4.2	44	ND(2.0)
	1/28/2010	52	41	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	39	240	ND(2.0)	6.0	14	ND(2.0)
	4/22/2010	52	52	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	21	270	ND(2.0)	3.7	14	ND(2.0)J
	7/14/2010	15.5	38J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	ND(2.0)J	26J	260J	ND(2.0)J	15J	65J	ND(4.0)
	10/12/2010	47	27	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	13	190	ND(4.0)	27	41	ND(1.0)
	1/4/2011	52	9.5	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	19	9.8D	ND(1.0)	30	75	ND(4.0)
	4/5/2011	47.3	43	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	24	300	ND(4.0)	10	28	ND(0.20)
	7/28/2011	47	1.2	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.22	ND(0.20)	ND(0.20)	1.7	16	ND(0.20)	0.94	1.7	ND(0.20)
	10/25/2011	52	35D	ND(0.20)	1.2	ND(0.20)	ND(0.20)	ND(0.20)	0.74	ND(0.20)	ND(0.20)	31DJ	350DJ	ND(0.20)	6.9	12	ND(0.050)
	4/3/2012	47	27	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	26	240	ND(4.0)	26	80	ND(4.0)
AP-25-DO	9/23/2004	NA	5.3	ND(0.050)	ND(0.050)	ND(0.050)	0.84	ND(0.10)	0.44	ND(0.10)	ND(0.25)	0.054	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.0025)
	12/29/2004	51	0.27	0.012	ND(0.0025)	0.0039	0.0051	ND(0.0050)	0.0068	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.050)J
	5/2/2005	52	5.2J	ND(0.050)J	ND(0.050)J	ND(0.050)J	0.065J	ND(0.10)J	0.066J	ND(0.10)J	ND(0.25)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.020)
	12/30/2005	52	2.2	0.036	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	0.074	ND(0.040)	ND(0.10)	0.13	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.050)
	4/3/2006	47	7.1	0.14	ND(0.050)	ND(0.050)	0.16	ND(0.10)	0.32	ND(0.10)	ND(0.25)	0.058	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(1.0)
	1/30/2007	52	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	19	130	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.50)
	4/10/2007	52	0.64	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	0.72	11	ND(0.50)	ND(1.0)	36	ND(1.0)
	8/9/2007	36	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	ND(1.0)	ND(1.0)	ND(1.0)	14	91	0.023
	11/12/2007	47	0.029	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	0.54	1.6	0.0047
	1/23/2008	47	0.016	0.0049	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0026	0.012	ND(0.0010)	0.032	0.072	ND(0.10)J
	4/21/2008	47	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.20)J	ND(0.10)J	ND(0.20)J	ND(0.50)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	8.1J	13J	ND(0.0010)J
	7/28/2008	51	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0025J	0.010J	ND(0.0010)J	0.0038J	0.014J	ND(0.10)
	10/22/2008	47	0.37	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	ND(0.10)	ND(0.10)	ND(0.10)	4.0	7.3	ND(0.0050)
	1/14/2009	51	0.021	0.006	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0059	ND(0.0050)	0.56	0.62	ND(0.20)
	4/2/2009	47	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.24	1.6	ND(0.20)	2.2	17	0.0073
	10/26/2009	48	0.029	0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0056	ND(0.0050)	ND(0.0050)	0.48	0.74	ND(0.0010)
	1/28/2010	51	0.005	0.0054	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0025	0.01	ND(0.0010)	0.047	0.13	ND(0.10)J
	7/14/2010	51	0.14J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	2.3J	12J	ND(0.040)
	10/12/2010	47	0.054	0.052	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.8	3.7	ND(0.010)
	1/4/2011	51	0.029	0.065	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.8	0.66	ND(0.010)
	4/5/2011	46.7	0.011	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.012	0.062	ND(0.010)	0.13	0.45	ND(0.10)
	7/28/2011	46	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	2.6	5.4	ND(0.040)
	10/25/2011	51	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.6	2.7	ND(0.040)
	1/17/2012	46	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.049	ND(0.040)	0.73	2.1	ND(1.0)J
	4/3/2012	47	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.1	7.5D	ND(0.040)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-26-DO	7/27/2004	NA	ND(1.0)J	ND(1.0)J	ND(1.0)J	ND(1.0)J	ND(1.0)J	ND(2.0)J	ND(1.0)J	ND(2.0)J	ND(5.0)J	29J	70J	ND(1.0)J	ND(2.0)J	ND(1.0)J	ND(0.0010)
	12/28/2004	64	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	65	0.0073	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	1/3/2006	65	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.54	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
	5/17/2006	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.2	0.15	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.10)
	1/31/2007	65	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	8.4	11	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.0010)
	4/14/2007	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.20)
	11/16/2007	58	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	15	27	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.20)
	1/25/2008	68	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	13	26	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.20)
	4/28/2008	64	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	11	21	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.10)
	10/23/2008	64	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	5.0	9.2	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)
	4/3/2009	61	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	8.7	16	ND(0.20)	ND(0.20)	0.42	ND(0.10)
	10/26/2009	62	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	4.4	7.2	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20
	4/22/2010	64	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	13	25	ND(0.20	ND(0.20	ND(0.20	ND(0.20)J
	7/14/2010	64	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	9.2J	19J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.40)
	10/13/2010	61	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	8.7	21	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.20)
	4/5/2011	61.1	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	13	27D	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)
	10/26/2011	64	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	11	25D	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.25)J
	4/5/2012	61	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	11	27	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
	11/26/2012	64	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.35	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
AP-27-DO	7/22/2004	NA	ND(0.25)J	ND(0.25)J	ND(0.25)J	ND(0.25)J	ND(0.25)J	ND(0.50)J	ND(0.25)J	ND(0.50)J	ND(1.3)J	14J	32J	ND(0.25)J	ND(0.50)J	0.82J	ND(0.0010)
	12/28/2004	61	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/3/2005	62	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0032	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/3/2006	62	ND(0.0010)	0.0042	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2006	59	ND(0.0010)	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	1/31/2007	62	ND(0.0025)	0.0055	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.26	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.010)	ND(0.0010)
	4/13/2007	62	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.022	0.073	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0010)
	11/15/2007	60	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.021	0.042	ND(0.0010)	ND(0.0020)	0.0084	ND(0.025)
	4/25/2008	61	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.46	3.4	ND(0.025)	ND(0.050)	0.071	ND(0.050)
	10/22/2008	61	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.72	4.4	ND(0.050)	ND(0.10)	0.093	ND(0.0010)
	4/9/2009	60	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.003	0.019	ND(0.0010)	ND(0.0010)	0.0023	ND(0.0010)
	10/28/2009	57	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	0.022	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)
	4/21/2010	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0049
	10/14/2010	57.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.009	1.2D	ND(0.0020)	ND(0.0020)	0.01	ND(0.0020)J
	4/7/2011	57.2	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0027	0.027	ND(0.0020)J	ND(0.0020)J	0.01	0.037
	10/26/2011	61	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.17	12D	ND(0.0020)	0.0031	0.08	ND(0.0050)
	4/6/2012	57	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	13	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)
	11/27/2012	61	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
AP-28-DO	12/30/2004	44	0.0058	0.01	0.016	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.65	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
	4/29/2005	41	0.0088	0.011	0.016	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.66	ND(0.0050)	ND(0.010)	0.17	ND(0.010)
	3/29/2006	41	0.016	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.22	0.84	ND(0.010)	ND(0.020)	0.2	ND(0.010)
	2/5/2007	45	ND(0.010)	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.24	0.91	ND(0.010)	ND(0.020)	0.21	ND(0.010)
	4/15/2007	45	0.012	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.28	0.98	ND(0.010)	ND(0.020)	0.26	ND(0.010)
	12/30/2004	44	ND(0.010)	ND(0.010)	0.014	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.22	0.85	ND(0.010)	ND(0.020)	0.21	ND(0.010)
	4/29/2005	44	0.013	0.011	0.017	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.25	0.94	ND(0.010)	ND(0.020)	0.24	ND(0.010)
	3/29/2006	43	0.02	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.29	1.1	ND(0.010)	ND(0.020)	0.29	ND(0.010)
	2/5/2007	45	0.012	0.013	0.016	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.31	1.2	ND(0.010)	ND(0.020)	0.33	ND(0.010)
	4/15/2007	45	0.014	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.37	1.2	ND(0.010)	ND(0.020)	0.34	ND(0.010)
	11/13/2007	43	0.018	0.011	0.015	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.43	1.5	ND(0.010)	ND(0.020)	0.47	ND(0.020)
	4/25/2008	44	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.49	1.8	ND(0.020)	ND(0.040)	0.48	ND(0.010)
	4/2/2009	42	ND(0.010)	ND(0.010)	0.011	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.36	1.2	ND(0.010)	ND(0.010)	0.31	ND(1.2)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-30-DO	2/12/2010	NA	ND(1.2)	ND(1.6)	ND(1.5)	ND(1.1)	ND(0.90)	ND(1.1)	ND(0.45)	ND(0.88)	ND(2.4)	82	330	---	ND(1.3)	ND(1.2)	ND(2.5)
	5/24/2010	NA	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	59	680D	ND(2.5)	ND(2.5)	ND(2.5)	ND(0.050)J
AP-30R-DO	4/7/2011	67	2.4J	ND(0.050)J	ND(0.050)J	ND(0.050)J	6.4DJ	ND(0.050)J	5.5DJ	ND(0.050)J	ND(0.050)J	0.47J	0.082J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.0020)
	11/7/2011	27	0.085	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.19D	ND(0.0020)	0.18	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(1.2)
	4/17/2012	88	0.22	ND(0.010)	ND(0.010)	ND(0.010)	0.7	ND(0.010)	0.27	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	11/27/2012	28	0.95	0.017	ND(0.010)	ND(0.010)	1.9D	ND(0.010)	3.5D	ND(0.010)	ND(0.010)	0.073	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
AP-31-DO	2/11/2010	NA	ND(1.2)	ND(1.6)	ND(1.5)	ND(1.1)	ND(0.90)	ND(1.1)	ND(0.45)	ND(0.88)	ND(2.4)	71	940D	---	ND(1.3)	ND(1.2)	ND(0.0040)
	10/18/2010	89	1.3D	0.011	ND(0.0040)	ND(0.0040)	0.97D	ND(0.0040)	1.6D	ND(0.0040)	0.0062	0.053	0.015	0.0049	ND(0.0040)	ND(0.0040)	ND(0.0020)J
	4/6/2011	30	1.6J	0.034J	ND(0.0020)J	ND(0.0020)J	0.68DJ	0.0028J	2.1DJ	ND(0.0020)J	0.007J	0.082J	0.0099J	0.009J	ND(0.0020)J	ND(0.0020)J	ND(0.020)
	11/7/2011	38	1.8	0.041	ND(0.020)	ND(0.020)	0.52	ND(0.020)	1.9	ND(0.020)	ND(0.020)	0.043	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(1.2)
	4/17/2012	88	1.3	0.045	ND(0.040)	ND(0.040)	0.27	ND(0.040)	1.7	ND(0.040)	ND(0.040)	1.9	43D	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)
	11/27/2012	28	1.4	ND(0.020)	ND(0.020)	ND(0.020)	0.49	ND(0.020)	0.66	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)
AP-32-DO	2/11/2010	NA	ND(1.2)	ND(1.6)	ND(1.5)	ND(1.1)	ND(0.90)	ND(1.1)	ND(0.45)	ND(0.88)	ND(2.4)	91	950D	---	ND(1.3)	ND(1.2)	ND(0.10)
	10/18/2010	89	2.3	ND(0.10)	ND(0.10)	ND(0.10)	1.2	ND(0.10)	6.8	ND(0.10)	ND(0.10)	0.2	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)J
	4/7/2011	60	2.1J	ND(0.10)J	ND(0.10)J	ND(0.10)J	0.87J	ND(0.10)J	5.7J	ND(0.10)J	ND(0.10)J	6.2J	0.15J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(1.0)
	11/7/2011	34	1.8	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	3.3	ND(1.0)	ND(1.0)	41	81D	ND(1.0)	ND(1.0)	ND(1.0)	ND(0.0010)
	4/17/2012	88	1.4	ND(0.10)	ND(0.10)	ND(0.10)	0.55	ND(0.10)	2.4	ND(0.10)	ND(0.10)	62D	140D	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
	11/27/2012	25	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	3	ND(2.0)	ND(2.0)	31	170	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)
APBIO-01	8/2/2005	NA	ND(0.0010)	0.0013	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.019	0.066	ND(0.0010)	ND(0.0020)	0.054	ND(0.010)
	1/6/2006	79	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.024	ND(0.010)	ND(0.020)	0.91	ND(0.010)
	4/7/2006	79	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.011	0.077	ND(0.010)	ND(0.020)	0.85	ND(0.0050)
	4/12/2007	78	ND(0.0050)	0.0086	0.0085	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.068	0.39	ND(0.0050)	0.033	0.53	0.0044
	4/23/2008	77	ND(0.0020)	0.009	0.002	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0071	ND(0.0020)	0.093	0.16	0.0022
	4/6/2009	78	ND(0.0020)	0.007	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.027	ND(0.0020)	0.092	0.29	ND(0.010)
	4/23/2010	78	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.045	ND(0.010)	0.12	0.77	ND(0.010)
	4/6/2011	77	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.023	ND(0.010)	0.16	0.8	ND(0.0020)
	4/6/2012	77	ND(0.0050)	0.0084	0.012	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.024	0.076	ND(0.0050)	0.065	1.1D	ND(0.0050)
B-2	4/27/2005	14	0.013	0.013	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.031	0.2	ND(0.0020)	0.0072	0.091	0.0057
	3/28/2006	12	ND(0.0050)	0.0079	0.006	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.014	0.42	ND(0.0050)	ND(0.010)	0.33	ND(0.0050)
	1/31/2007	17	ND(0.0050)	0.0054	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.013	0.43	ND(0.0050)	ND(0.010)	0.37	ND(0.025)
	4/14/2007	13	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	2.4	1.2	ND(0.025)	ND(0.050)	0.18	0.0016
	11/16/2007	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.019	ND(0.0010)	0.012	0.065	0.0064
	4/25/2008	12	ND(0.0025)	0.0051	0.0048	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.0078	0.24	ND(0.0025)	ND(0.0050)	0.3	0.0054
	10/22/2008	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.16	ND(0.0050)	ND(0.010)	0.49	ND(0.0010)J
	4/9/2009	11	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.019J	ND(0.0010)J	ND(0.0010)J	0.022J	0.0049
	10/26/2009	11	ND(0.0025)	ND(0.0025)	0.0026	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.091	ND(0.0025)	ND(0.0025)	0.32	0.0056
	4/21/2010	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.29	ND(0.0050)	0.022	0.46	0.016
	10/14/2010	12	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.011	ND(0.010)	0.03	1.2D	0.007
	4/6/2011	15.7	ND(0.0040)	0.0044	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.092	ND(0.0040)	ND(0.0040)	0.23	0.0053
	10/27/2011	11.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.017	ND(0.0020)	0.19	0.18	ND(0.0020)
	4/6/2012	11.5	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0069	0.27D	ND(0.0020)	ND(0.0020)	0.26D	0.0038
	11/27/2012	12	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0055	0.22	ND(0.0040)	ND(0.0040)	0.32	ND(0.0040)
B-3	6/3/2002	15	0.42D	0.002	0.016	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.055	0.017	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/29/2003	15	0.088	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.041	0.008	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/13/2003	15	0.14	0.002	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.02	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	15	0.05	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.008	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	5/2/2004	15	0.16	ND(0.0020)	0.0044	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.04	0.017	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0020)
	4/27/2005	14	0.22	0.0021	0.0078	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.034	0.016	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0020)
	3/31/2006	13	0.24	ND(0.0020)	0.012	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.063	0.02	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0010)
	4/10/2007	15	0.11	0.0014	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.027	0.021	ND(0.0010)	ND(0.0020)	0.001	ND(0.0010)J
	4/21/2008	13	0.083J	0.0016J	0.0041J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.022J	0.014J	ND(0.0010)J	ND(0.0020)J	0.0020J	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
B-3 (Cont.)	10/22/2008	13	0.072	0.0017	0.0031	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.014	ND(0.0010)	ND(0.0020)	0.001	ND(0.0010)
	4/3/2009	12.5	0.09	0.0017	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.02	0.015	ND(0.0010)	ND(0.0010)	0.0011	ND(0.0010)
	10/26/2009	12.5	0.044	0.0016	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.013	0.0095	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/21/2010	14	0.056	0.001	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0062	0.01	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/12/2010	12.5	0.049	0.0021	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.016	0.011	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2011	12.5	0.042	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.015	0.0068	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0020)
	10/26/2011	12	0.069	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.016	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/3/2012	12.5	0.065	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.023	0.011	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/13/2012	14	0.043	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.018	0.0088	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-1_ZONE1	5/16/2003	205	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.010)	ND(0.010)	0.011	0.018	ND(0.0020)	ND(0.0020)	0.1	0.0011
	12/29/2003	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.057	0.092	ND(0.0010)	0.005	0.16DD	ND(0.0010)
	1/5/2005	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0050)	0.032	0.046	ND(0.0010)	0.03	0.053	ND(0.0010)
	5/3/2005	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0020)	ND(0.0050)	0.0025	0.0036	ND(0.0010)	0.028	0.063	ND(0.0010)
	1/5/2006	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	0.018	0.026	ND(0.0010)
	4/3/2006	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.001	ND(0.0010)	0.0037	0.014	ND(0.0010)
	4/12/2007	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	0.0026	ND(0.0010)
	8/9/2007	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0029	ND(0.0010)
	11/15/2007	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0010)
	4/24/2008	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	0.0016	0.009
	10/29/2009	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.028	0.067	ND(0.0010)	0.083	0.20D	ND(0.0010)
	4/22/2010	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0033
	10/18/2010	205	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	0.042	ND(0.0020)	0.036	0.11	0.027
	4/14/2011	205	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.056	ND(0.020)	0.43	1.5	0.0031
	10/24/2011	205	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.01	0.035	ND(0.0020)	0.041	0.19	0.006
	4/2/2012	205	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-1_ZONE2	5/16/2003	152	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.04	0.30D	ND(0.0020)	ND(0.0020)	0.21	0.0053
	12/29/2003	152	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.012	ND(0.0025)	ND(0.0050)	0.36	ND(0.0010)
	1/5/2005	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	0.022	ND(0.0010)
	5/3/2005	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0032	0.027	0.0033
	1/5/2006	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0024	ND(0.0010)	0.0033	0.013D	ND(0.0010)
	4/3/2006	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	0.0055	0.021	ND(0.0010)
	4/12/2007	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	0.004	ND(0.0010)
	8/9/2007	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0020)	0.0069	ND(0.0010)
	11/15/2007	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	0.0033	ND(0.0010)
	4/24/2008	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/29/2009	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0024	0.042	ND(0.0010)
	4/22/2010	152	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0065
	10/18/2010	152	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	0.013	0.23D	ND(0.0020)
	4/14/2011	152	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0046	ND(0.0020)	0.012	0.095	0.0031
	10/24/2011	152	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	ND(0.0020)	0.016	0.2	ND(0.0020)
	4/2/2012	152	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-1_ZONE3	5/16/2003	105	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	0.0094
	12/29/2003	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.013	ND(0.0010)	ND(0.0020)	0.36DD	ND(0.0010)
	1/5/2005	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/3/2005	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	0.0065	ND(0.0010)
	1/5/2006	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0053	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-1_ZONE3 (Cont.)	4/3/2006	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.004	ND(0.0010)	ND(0.0020)	0.0074	ND(0.0010)
	4/12/2007	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	0.0044	ND(0.0010)
	8/9/2007	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0020)	0.0024	ND(0.0010)
	11/15/2007	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	0.0021	ND(0.0010)
	4/24/2008	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/29/2009	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/22/2010	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/18/2010	105	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/14/2011	105	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/24/2011	105	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/2/2012	105	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-2_ZONE1	5/4/2004	146	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.029	0.088	ND(0.010)	0.23	1.3	ND(0.0050)
BR-2_ZONE2	5/4/2004	117	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0053	0.013	ND(0.0050)	ND(0.010)	0.55	ND(0.0050)
BR-2_ZONE3	5/4/2004	74	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.042	0.11	ND(0.0050)	ND(0.010)	0.47	ND(0.0010)
BR-3_ZONE1	12/22/2003	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2005	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	226	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	226	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/2/2012	226	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-3_ZONE2	12/22/2003	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2005	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	200	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	200	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/2/2012	200	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-3_ZONE3	12/22/2003	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2005	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/6/2006	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	167	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	167	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/2/2012	167	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-5_ZONE1	6/3/2002	209	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	ND(0.010)	0.01	ND(0.020)	0.72	0.1	ND(0.0020)
	1/31/2003	209	ND(0.0020)	ND(0.0020)	0.014	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.083	ND(0.0040)	0.55	0.5	ND(0.0020)J
	5/16/2003	209	ND(0.0020)J	0.010J	ND(0.0010)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.010)J	ND(0.010)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0050)
	12/19/2003	209	ND(0.0050)	ND(0.0050)	0.0082	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.2	ND(0.0050)	0.11	0.45	ND(0.010)
	5/4/2004	209	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.19	ND(0.010)	0.38	1.1	ND(0.0010)
	1/5/2005	209	ND(0.0010)	ND(0.0010)	0.0052	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.05	ND(0.0010)	0.035	0.058	ND(0.0025)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-5_ZONE1 (Cont.)	5/3/2005	209	ND(0.0025)	ND(0.0025)	0.01	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.17	ND(0.0025)	0.13	0.33	ND(0.0010)
	1/5/2006	209	ND(0.0010)	ND(0.0010)	0.004	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.05	ND(0.0010)	0.041	0.092	ND(0.0010)
	4/3/2006	209	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.005	ND(0.0010)	0.0076	0.0088	ND(0.0010)
	4/16/2007	209	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0027	ND(0.0010)	ND(0.0020)	0.0062	ND(0.0010)
	11/14/2007	209	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	0.0051	ND(0.0010)
	4/24/2008	209	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0020)	0.0015	ND(0.0025)
	4/7/2009	209	ND(0.0025)	ND(0.0025)	0.0069	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.055	ND(0.0025)	0.062	0.077	ND(0.0010)
	4/28/2010	209	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0014	ND(0.0020)
	4/14/2011	209	ND(0.0020)	ND(0.0020)	0.0055	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.047	ND(0.0020)	0.039	0.094	0.01
	4/4/2012	209	ND(0.0050)	ND(0.0050)	0.021	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.21	ND(0.0050)	0.32	0.48D	ND(0.0050)
BR-5_ZONE2	6/3/2002	172	ND(0.010)	0.01	0.02	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.05	0.34	ND(0.020)	2.2	2.1	0.004
	1/31/2003	172	ND(0.0020)	0.003	0.032	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.12	0.22	ND(0.0020)	0.60DD	0.80DD	ND(0.0050)
	5/16/2003	172	ND(0.0050)	ND(0.0050)	0.016	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.032	0.051	ND(0.010)	0.80D	1.1	ND(0.010)
	12/19/2003	172	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.08	ND(0.010)	0.5	1.0	ND(0.010)
	5/4/2004	172	ND(0.010)	ND(0.010)	0.012	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.011	0.24	ND(0.010)	0.35	1.2	0.0025
	1/5/2005	172	ND(0.0025)	ND(0.0025)	0.011	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.037	0.15	ND(0.0025)	0.16	0.33	ND(0.010)
	5/3/2005	172	ND(0.010)	ND(0.010)	0.014	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.023	0.3	ND(0.010)	0.26	0.72	ND(0.0050)
	1/5/2006	172	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.014	0.13	ND(0.0050)	0.13	0.35	ND(0.0010)
	4/3/2006	172	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.011	ND(0.0010)	0.018	0.048	ND(0.0010)
	4/16/2007	172	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0020)	0.0054	ND(0.0010)
	11/14/2007	172	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0032	ND(0.0010)	ND(0.0020)	0.0043	ND(0.0010)
	4/24/2008	172	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.003	ND(0.0010)	0.0097	0.032	ND(0.0050)
	4/7/2009	172	ND(0.0050)	ND(0.0050)	0.0095	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.17	ND(0.0050)	0.18	0.43	0.0013
	4/28/2010	172	ND(0.0010)	0.0021	0.0045	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	0.078	ND(0.0010)	0.089	0.064D	0.002
	4/14/2011	172	ND(0.0020)	0.0025	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0047	0.21D	ND(0.0020)	0.21D	0.34D	ND(0.050)
	4/4/2012	172	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	0.0062	0.012	ND(0.0020)
BR-5_ZONE3	6/3/2002	133	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.32	0.76	ND(0.10)	2.0	1.6	ND(0.0020)
	1/31/2003	133	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.004	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002
	5/16/2003	133	ND(0.0020)	ND(0.0020)	0.016	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.002	0.12	ND(0.0040)	0.30D	0.32	ND(0.0010)
	12/19/2003	133	ND(0.0010)	0.0044	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/4/2004	133	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	5/3/2005	133	ND(0.0025)	0.0025	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.018	0.026	ND(0.0025)	0.066	0.19	ND(0.010)
	1/5/2006	133	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.014	0.088	ND(0.010)	0.28	0.92	ND(0.0025)
	4/3/2006	133	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0045	ND(0.0025)	0.007	0.19	ND(0.0010)
	4/16/2007	133	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0020)	0.005	ND(0.0025)
	11/14/2007	133	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.0052	0.065	ND(0.0025)	0.13	0.51D	ND(0.0020)
	4/24/2008	133	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0024	0.029	ND(0.0020)	0.03	0.18	ND(0.0025)
	4/7/2009	133	ND(0.0025)	0.0028	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0063	0.048	ND(0.0025)	0.029	0.18	0.013
	4/14/2011	133	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.14	0.77	ND(0.010)	0.17	5.0D	ND(0.0020)
	4/4/2012	133	ND(0.0020)	0.0061	0.0039	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.064	0.27D	ND(0.0020)	0.093	0.83D	0.0036
BR-6_ZONE1	12/19/2003	94	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	0.14	0.13	ND(0.0025)
	1/5/2005	94	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.026	0.19	ND(0.0050)
	5/3/2005	94	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.0079	ND(0.0050)	0.017	0.36	ND(0.0025)
	1/5/2006	94	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0073	ND(0.0025)	0.024	0.29	ND(0.0025)
	4/3/2006	94	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0053	ND(0.0025)	0.035	0.28	0.0021
	4/13/2007	94	ND(0.0020)	0.0036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0044	ND(0.0020)	0.079	0.27	ND(0.0010)
	11/14/2007	94	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-6_ZONE1 (Cont.)	4/25/2008	94	ND(0.0020)	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0048	ND(0.0020)	0.054	0.15	0.0015
	10/23/2008	94	ND(0.0010)	0.0031	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0056	0.011	ND(0.0025)
	4/7/2009	94	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.058	0.22	ND(0.0025)
	11/2/2009	94	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.047	0.22	0.0014
	4/28/2010	94	ND(0.0010)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0084	0.0075	ND(0.0020)
	10/18/2010	94	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.015	0.17	ND(0.0050)
	4/19/2011	94	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.024	0.26D	ND(0.0020)
	10/27/2011	94	ND(0.0020)	0.0023	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.024	0.20D	ND(0.0050)
	4/2/2012	94	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0035	ND(0.0020)
BR-6_ZONE2	12/19/2003	62	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.012	ND(0.0050)	0.021	0.39	ND(0.0025)
	1/5/2005	62	ND(0.0025)	0.0026	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0077	ND(0.0025)	0.016	0.3	ND(0.0025)
	5/3/2005	62	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0062	ND(0.0025)	0.055	0.24	ND(0.0025)
	1/5/2006	62	ND(0.0025)	0.0026	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.012	ND(0.0025)	0.016	0.33	ND(0.0025)
	4/3/2006	62	ND(0.0025)	0.004	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0095	ND(0.0025)	0.038	0.37	ND(0.0050)
	4/13/2007	62	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.017	ND(0.0050)	0.018	0.46	0.0011
	11/14/2007	62	ND(0.0010)	0.004	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	4/25/2008	62	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.009	ND(0.0025)	0.013	0.31	0.0014
	10/23/2008	62	ND(0.0010)	0.0032	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0046	0.011	ND(0.0025)
	4/7/2009	62	ND(0.0025)	0.0025	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0052	ND(0.0025)	0.013	0.31	ND(0.0025)
	11/2/2009	62	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.04	0.21	ND(0.0025)
	4/28/2010	62	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.014	0.3	ND(0.0050)
	10/18/2010	62	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.046	0.31	ND(0.013)
	4/19/2011	62	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	ND(0.013)	0.023	0.37	ND(0.0050)
	10/27/2011	62	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.021	0.4	ND(0.0025)
	4/2/2012	62	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.11	0.19D	ND(0.0020)
BR-6_ZONE3	12/22/2003	42	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.014	ND(0.0025)	0.03	0.31	ND(0.0010)
	2/17/2005	42	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	0.0042	0.045	ND(0.0025)
	5/3/2005	42	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0061	ND(0.0025)	0.039	0.21	ND(0.0025)
	1/5/2006	42	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0092	ND(0.0025)	0.023	0.29	ND(0.0025)
	4/3/2006	42	ND(0.0025)	0.003	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0049	ND(0.0025)	0.019	0.28	ND(0.0010)
	4/13/2007	42	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0036	ND(0.0010)	0.046	0.11	0.001
	11/14/2007	42	ND(0.0010)	0.0031	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.028	0.031	0.0022
	4/25/2008	42	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0025	ND(0.0020)	0.044	0.2	0.0038
	10/23/2008	42	ND(0.0025)	0.0029	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.028	0.26	0.0026
	4/7/2009	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.06	0.15	ND(0.0010)
	11/2/2009	42	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0024	0.0012
	4/28/2010	42	ND(0.0010)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.038	0.04	ND(0.0020)
	10/18/2010	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0035	0.0057	ND(0.0050)
	4/19/2011	42	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0076	ND(0.0020)
	10/27/2011	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.017	0.061	ND(0.0050)
	4/2/2012	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BR-7_ZONE1	12/22/2003	152	ND(0.0050)	0.016	0.01	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.0054	ND(0.0050)	0.22	0.59	ND(0.0020)
	1/14/2005	152	ND(0.0020)	0.0066	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	0.22	ND(0.0010)
	1/4/2006	152	ND(0.0010)	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	0.074	0.1	0.0012
	4/20/2007	152	ND(0.0010)	0.0067	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.014	0.076	0.0013
	5/8/2008	152	ND(0.0010)	0.0073	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.036	0.12	ND(0.0010)
	4/7/2009	152	ND(0.0010)	0.0069	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.11	0.085	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-7_ZONE1 (Cont.)	4/28/2010	152	ND(0.0020)	0.0072	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.18	0.13	ND(0.0020)
	4/14/2011	152	ND(0.0020)	0.0034	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.051	0.012	ND(0.0050)
	4/4/2012	152	ND(0.0020)	0.0069	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.12	0.0048	ND(0.0020)
BR-7_ZONE2	12/22/2003	112	ND(0.0050)	0.013	0.0094	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.16	0.67	ND(0.010)
	1/14/2005	112	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	0.028	0.91	ND(0.010)
	1/4/2006	112	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.72	0.0012
	4/20/2007	112	ND(0.0010)	0.013	0.0044	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.10DD	0.23DD	ND(0.0010)
	5/8/2008	112	ND(0.0010)	0.012	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.28	0.26	ND(0.0050)
	4/7/2009	112	ND(0.0050)	0.0055	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.048	0.47	ND(0.0050)
	4/28/2010	112	ND(0.0050)	0.0054	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.039	0.5	ND(0.0040)
	4/14/2011	112	ND(0.0040)	0.0064	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.15	0.2	0.0032
	4/4/2012	112	ND(0.0040)	0.0069	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.2	0.0093	ND(0.0040)
BR-7_ZONE3	12/22/2003	69	ND(0.0020)	0.0098	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.096	0.14	ND(0.010)
	1/14/2005	69	ND(0.010)	0.015	0.02	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.017	ND(0.010)	0.027	1.1	ND(0.010)
	1/4/2006	69	ND(0.010)	0.011	0.011	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	0.032	0.95	0.0037
	4/20/2007	69	ND(0.0025)	0.011	0.0037	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.13	0.3	0.019
	5/8/2008	69	ND(0.0010)	0.016	0.021	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.011	ND(0.0010)	0.039	1.2D	ND(0.010)
	4/7/2009	69	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.029	0.84	ND(0.010)
	4/28/2010	69	ND(0.010)	ND(0.010)	0.012	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.021	1	ND(0.020)
	4/14/2011	69	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.036	1.1	ND(0.0010)
	4/4/2012	69	ND(0.010)	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.069	0.74	ND(0.010)
BR-8_ZONE1	12/29/2003	222	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
BR-8_ZONE2	12/29/2003	205	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
BR-8_ZONE3	12/29/2003	183	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
BW-01	4/10/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0034	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0010)
	7/19/2007	13.45	0.011	0.0056	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0026	ND(0.0050)	0.002	0.0077	ND(0.0010)	0.014	0.037	ND(0.0010)
	11/12/2007	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0062	0.0056	ND(0.0010)	ND(0.0020)	0.011	ND(0.0010)
	1/24/2008	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0047	0.0017	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0010)J
	4/21/2008	12	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0047J	0.0010J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)J
	7/28/2008	14	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0061J	0.0027J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)J
	10/21/2008	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0023	0.0017	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/13/2009	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/2/2009	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	7/14/2009	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0036	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	1/28/2010	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0050)
	4/22/2010	14	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.013	0.0073	ND(0.0050)	0.13	0.44	ND(0.0010)
BW-02	1/30/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.006	0.011	ND(0.0010)	ND(0.0020)	0.0052	ND(0.0010)
	4/10/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0021	0.0014	ND(0.0010)	ND(0.0020)	0.0026	ND(0.0020)
	7/19/2007	14.5	0.013	0.012	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0074	ND(0.0020)	0.055	0.14	ND(0.0010)
	11/12/2007	13.3	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0077	0.01	ND(0.0010)	ND(0.0020)	0.0096	ND(0.0010)
	1/24/2008	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0048	0.0014	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/21/2008	13	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0018J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	0.0018J	ND(0.0010)J
	7/28/2008	14	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0058J	0.0016J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/21/2008	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/13/2009	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/2/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BW-02 (Cont.)	7/14/2009	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0037	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0028	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	1/28/2010	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0050)
	4/22/2010	14	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.12	0.4	ND(0.0010)
BW-03	1/30/2007	16.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0044	0.0021	ND(0.0010)	ND(0.0020)	0.0087	ND(0.0010)
	4/10/2007	16.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0029	ND(0.020)
	7/19/2007	14.5	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	1.6	1.1	ND(0.0010)
	11/12/2007	13.4	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.014	ND(0.0010)	0.0022	0.021	ND(0.0010)
	1/24/2008	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.006	0.0028	ND(0.0010)	ND(0.0020)	0.002	ND(0.0010)J
	4/21/2008	13	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0012J	ND(0.0010)J	ND(0.0020)J	0.0040J	ND(0.0010)J
	7/28/2008	15.5	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0066J	0.0019J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/21/2008	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0019	0.0019	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0010)
	1/13/2009	15.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/2/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	7/14/2009	15.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0011	ND(0.0010)
	10/27/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.003	0.0018	ND(0.0010)	0.0037	0.0029	ND(0.0010)
	1/28/2010	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/22/2010	15.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)	0.04	0.11	ND(0.020)
	8/21/2012	15.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0087	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0064	0.0039	ND(0.0020)
BW-04	1/30/2007	14	0.046	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	1.7	1.3	ND(0.0025)
	4/10/2007	14	0.23	0.006	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	0.0053	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.1	0.052	ND(0.0010)
	7/19/2007	13.2	0.088	0.01	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0020)	ND(0.0050)	0.0023	0.0038	0.001	0.0043	0.0037	ND(0.0010)
	11/12/2007	12.5	0.0038	0.0081	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	0.003	0.003	0.072	0.025	ND(0.0010)
	1/22/2008	12	0.077	0.0074	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0020)	ND(0.0050)	0.003	0.0012	ND(0.0010)	0.0043	0.014	ND(0.0050)J
	4/21/2008	12	0.47J	0.044J	0.0097J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.010)J	ND(0.025)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	0.24J	0.34J	0.0010J
	7/28/2008	18	0.015J	0.0029J	0.0011J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.024J	0.0074J	ND(0.0010)J	0.036J	0.11J	ND(0.0010)
	10/21/2008	12	0.038	0.02	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	0.0032	0.0041	ND(0.0010)
	1/13/2009	13	0.0011	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.095	0.065	ND(0.0050)
	4/2/2009	12	0.0054	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.54	0.48	ND(0.0050)
	7/14/2009	13	0.0051	0.005	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.59	0.15	ND(0.0025)
	10/27/2009	12	0.05	0.035	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.3	0.02	ND(0.0010)
	1/28/2010	12	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	0.012	0.016	ND(0.010)
	4/22/2010	13	0.022	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.74	0.51	ND(0.0010)J
	7/14/2010	13	ND(0.0010)J	0.0016J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0014J	ND(0.0010)J	0.013J	0.0075J	ND(0.0020)
	10/12/2010	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0027	0.0044	ND(0.0020)
	1/4/2011	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.016	0.0081	ND(0.0020)
	4/5/2011	12.5	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.16	0.069	ND(0.0040)
	7/28/2011	13	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.21	0.066	ND(0.0020)
	10/25/2011	12	0.095	0.032	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0023	ND(0.0020)	ND(0.0020)	0.098	0.0031	ND(0.0020)
	1/18/2012	12.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	4/3/2012	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	8/21/2012	12.3	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.40D	0.16D	ND(0.0020)
	11/28/2012	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.052	0.01	ND(0.0020)
	2/6/2013	12.35	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0084	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
BW-05	1/30/2007	16	0.14	0.035	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.013	ND(0.0050)	0.65	0.18	ND(0.0050)
	4/10/2007	16	0.56	0.017	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.0076	ND(0.010)	ND(0.025)	0.005	ND(0.0050)	ND(0.0050)	0.073	0.059	0.0026
	7/19/2007	13.3	0.24	0.034	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0026	ND(0.0020)	0.018	0.013	ND(0.0010)
	11/12/2007	12.5	0.0028	0.0039	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0012	0.0019	0.0015	ND(0.0020)	0.0015	ND(0.050)
	1/22/2008	10	4.2	0.26	0.16	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	1.2	2.6	ND(0.050)J

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BW-05 (Cont.)	4/21/2008	10	3.9J	0.58J	0.15J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.10)J	ND(0.25)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	2.4J	6.9J	ND(0.050)J
	7/28/2008	15	0.68J	ND(0.050)J	0.12J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.10)J	ND(0.25)J	0.38J	0.32J	ND(0.050)J	2.9J	6.6J	0.0034
	10/21/2008	9	0.042	0.25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	0.0021	ND(0.050)
	1/13/2009	15	0.16	0.099	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	5.3	2.8	ND(0.0010)
	4/2/2009	9	0.019	0.018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.004	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0045	0.021	0.015	ND(0.0010)
	7/14/2009	15	0.018	0.011	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0064	0.002	0.002	0.0013	ND(0.0010)	ND(0.0020)
	10/27/2009	9	0.0043	0.17	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	0.0025	ND(0.0020)	ND(0.0010)
	1/28/2010	9	ND(0.0010)	0.02	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0047	0.074	0.011	ND(0.010)
	4/22/2010	15	0.33	0.02	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.014	ND(0.010)	ND(0.010)	0.73	0.67	ND(0.0010)J
	7/14/2010	15	ND(0.0010)J	0.0059J	ND(0.0010)J	0.0023J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0010J	0.0050J	ND(0.0010)J	0.052J	0.066J	ND(0.0020)
	10/12/2010	10	ND(0.0020)	0.0041	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/4/2011	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0047	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/5/2011	9.5	0.022	0.013	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.86	0.22	ND(0.0020)
	7/28/2011	9	ND(0.0020)	0.0049	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	9	1.5D	4.3D	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0047	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	0.97D	0.064	ND(0.0020)
	1/18/2012	9.5	ND(0.0020)	0.021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/3/2012	9	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	8/21/2012	9.4	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.019	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	0.02	0.014	ND(0.0020)
	11/28/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.006	ND(0.0020)
	2/6/2013	9.4	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)
BW-06	7/28/2011	13	0.024	0.038	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	0.0059	ND(0.0020)	ND(0.0020)
	10/25/2011	13	3.5D	1.1D	0.06	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.017	ND(0.0020)	0.027	0.019	ND(0.0020)	0.92D	0.1	ND(0.0020)
	1/18/2012	13	0.0027	0.14	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.1D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0050)
	4/3/2012	13	ND(0.0050)	0.012	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.38	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
	8/21/2012	13.3	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0065	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0045	0.0027	ND(0.0020)
	11/28/2012	15	ND(0.0020)	0.0023	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0033	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.011	0.007	ND(0.0020)
	2/6/2013	13.1	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	0.002	ND(0.0020)
BW-08	4/10/2007	16	0.014	0.61	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.015	ND(0.0050)	ND(0.010)
	7/19/2007	13.2	1.1	0.45	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.013	0.052	ND(0.010)	0.4	0.2	ND(0.0010)
	11/12/2007	13.7	0.0059	0.076	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0046	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0021	ND(0.0020)	0.0012	ND(0.0010)
	1/22/2008	14	ND(0.0010)	0.022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.025)J
	4/21/2008	14	3.2J	0.87J	0.14J	ND(0.025)J	ND(0.025)J	ND(0.050)J	ND(0.025)J	0.055J	ND(0.13)J	ND(0.025)J	0.034J	ND(0.025)J	0.80J	0.95J	0.025J
	7/28/2008	15	0.13J	2.0J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.050)J	ND(0.025)J	0.14J	ND(0.13)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	2.2J	0.90J	ND(0.020)
	10/21/2008	14	ND(0.020)	1.8	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	1.4	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.010)
	1/13/2009	15	0.39	0.42	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.096	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.78	0.072	ND(0.0020)
	4/2/2009	13	ND(0.0020)	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.25	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0010)
	7/14/2009	15	0.023	0.031	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.13J	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0088	ND(0.0010)	ND(0.0010)	ND(0.010)
	10/27/2009	13	ND(0.010)	0.046	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1.0	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.0050)
	1/28/2010	13	0.0053	0.05	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.41	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0058	ND(0.0050)	ND(0.020)
	4/22/2010	15	2.4	0.12	0.13	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.047	ND(0.020)	0.075	0.098	ND(0.020)	1.8	2.2	ND(0.0050)J
	7/14/2010	15	0.59J	0.56J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	0.090J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	0.045J	0.024J	ND(0.0020)
	10/12/2010	14	ND(0.0020)	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.045	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/5/2011	15	ND(0.0020)	0.031	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.051	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/5/2011	13.7	0.09	0.037	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.053	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.72	0.19	0.0023
	7/28/2011	13	ND(0.0020)	0.13	ND(0.0020)	0.0031	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	13.5	0.12	0.73D	0.0031	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.24D	ND(0.0020)	0.0096	0.017	ND(0.0020)	0.30D	0.012	ND(0.0020)
	1/18/2012	13.5	ND(0.0020)	3.5D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.95D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/3/2012	13	0.018	0.077	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	2.0D	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	8/21/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0054	0.018	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/28/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.044	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	ND(0.0020)
	2/6/2013	13.6	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BW-09	4/10/2007	16	0.0036	0.18	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	0.0064	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0050)
	8/9/2007	12	0.24	0.46	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	0.42	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.056	0.049	ND(0.0025)
	11/12/2007	11.8	0.014	0.22	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	0.065	ND(0.013)	ND(0.0025)	ND(0.0025)	0.0025	0.0053	0.0029	ND(0.0010)
	1/22/2008	12	0.0033	0.019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)J
	4/21/2008	12	2.2J	0.51J	0.086J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	0.093J	ND(0.10)J	0.027J	0.054J	ND(0.020)J	0.52J	0.58J	ND(0.010)J
	7/28/2008	15	0.27J	1.4J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	0.094J	ND(0.050)J	ND(0.010)J	0.031J	ND(0.010)J	0.77J	0.46J	ND(0.020)
	10/21/2008	12	ND(0.020)	0.31	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	2.0	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0025)
	1/13/2009	15	0.17	0.22	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.25	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.16	0.019	ND(0.0020)
	4/2/2009	11	0.0022	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.19	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	0.0013
	7/14/2009	15	0.0051	0.017	ND(0.0010)	0.0024	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.14J	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0087	ND(0.0010)	ND(0.0010)	ND(0.0050)
	10/27/2009	11	ND(0.0050)	0.017	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.62	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0072	ND(0.0050)	ND(0.0050)	ND(0.0050)
	1/28/2010	11	0.0062	0.07	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.46	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.018	ND(0.0050)	ND(0.010)
	4/22/2010	15	0.33	0.16	0.026	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.059	ND(0.010)	ND(0.010)	0.022	ND(0.010)	1.2	1.0	ND(0.0040)
	7/28/2011	12.5	ND(0.0040)	0.13	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.22	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0020)
	10/25/2011	12	0.0094	0.062	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.092	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)
	1/18/2012	12	0.012	1.1D	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	3.6D	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.010)
	4/3/2012	12	0.0067	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.7D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	8/21/2012	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0046	0.11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/28/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.057	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/6/2013	12.2	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL02-BR	6/3/2002	60	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.08	1.3	ND(0.020)	ND(0.020)	0.04	ND(0.010)
	6/3/2002	83	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.11	1.3	ND(0.020)	ND(0.020)	0.22	ND(0.0050)
	1/23/2003	83	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.051	0.75	ND(0.010)	ND(0.010)	0.12	ND(0.0050)
	5/14/2003	83	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.045	0.65	ND(0.010)	ND(0.010)	0.075	ND(0.0050)
	12/18/2003	83	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.58	ND(0.0050)
	5/2/2004	82	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.06	0.3	ND(0.0050)	ND(0.010)	0.4	ND(0.0050)
	12/29/2004	81	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.012	ND(0.0050)	0.045	0.47	ND(0.0025)
	4/29/2005	81	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.033	0.35	ND(0.0025)	ND(0.0050)	0.054	ND(0.0050)
	1/4/2006	83	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.0058	ND(0.0050)	0.013	0.37	ND(0.0025)
	3/31/2006	84	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.026	ND(0.0025)	0.015	0.28	ND(0.0025)
	2/1/2007	82	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.016	ND(0.0025)	0.05	0.21	ND(0.0010)
	4/11/2007	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0024
	11/14/2007	54	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0073	ND(0.0020)	0.044	0.25	ND(0.0020)
	4/24/2008	43	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.026	0.2	ND(0.0020)	ND(0.0040)	0.17	ND(0.0025)
	10/23/2008	42	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.074	ND(0.0025)	0.017	0.27	ND(0.0020)J
	4/27/2009	42	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.011J	0.086J	ND(0.0020)J	ND(0.0020)J	0.16J	ND(0.0020)
	10/26/2009	75	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.039	0.2	ND(0.0020)
	4/21/2010	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.084	0.15	ND(0.0020)
	10/18/2010	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0038	0.0033	ND(0.0020)
	10/24/2011	42	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0097	0.035	ND(0.10)
	4/3/2012	41.5	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.011	ND(0.0040)	0.011	0.2	ND(0.0040)
	11/12/2012	42	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.17	ND(0.0040)	ND(0.0040)	0.29	ND(0.0040)
CL03-BR	6/3/2002	95	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	2.5	21	ND(0.20)	ND(0.20)	8.8	ND(0.10)
	6/3/2002	111	ND(0.10)	ND(0.10)	0.1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	3.3	32E	ND(0.20)	ND(0.20)	14	ND(0.0020)
	1/29/2003	111	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	111	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	111	ND(0.0010)	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	111	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0059	0.0026	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/29/2006	111	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0054	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	111	ND(0.0010)	0.004	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.034	0.014	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0031
	4/24/2008	109	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.015	0.01	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL03-DO	6/3/2002	80	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	4.5	30	ND(0.20)	ND(0.20)	12	ND(0.0020)
	1/29/2003	80	ND(0.0020)	0.016	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	80	ND(0.0020)	0.026	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	80	ND(0.0010)	0.02	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	78	ND(0.0010)	0.034	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	77	ND(0.0010)	0.029	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/29/2006	80	ND(0.0010)	0.036	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.19
	4/14/2007	80	ND(0.025)	0.032	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.49	3.1	ND(0.025)	ND(0.050)	2.5	ND(0.0010)
	11/14/2007	77	ND(0.0010)	0.036	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.008	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	78	ND(0.0010)	0.037	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/20/2008	79	ND(0.0010)	0.035	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/2/2009	75	ND(0.0010)	0.033	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.010)
	10/27/2009	75	ND(0.010)	0.057	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.43	0.23	ND(0.010)	ND(0.010)	0.072	ND(0.0010)
	4/20/2010	79	ND(0.0010)	0.035	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.083	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/14/2010	76	ND(0.0020)	0.036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2011	75	ND(0.0020)	0.03	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.069	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/27/2011	79	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0089	ND(0.0020)	ND(0.0020)	0.0034	ND(0.0020)
	4/6/2012	76	ND(0.020)	0.035	0.024	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	6.0D	15D	ND(0.020)	0.29	6.9D	ND(0.020)
CL03-S	6/3/2002	20	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/29/2003	20	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	20	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.004	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/29/2006	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/20/2008	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/20/2010	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	18	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0038	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2012	18	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0043	0.0075	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL04-BR	6/3/2002	40	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.055	0.065	ND(0.0020)	ND(0.0020)	0.094	ND(0.0020)
	6/3/2002	55	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.023	0.04	ND(0.0020)	ND(0.0020)	0.089	ND(0.0020)
	5/14/2003	55	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.04	0.03	ND(0.0020)	ND(0.0020)	0.16	ND(0.0010)
	12/16/2003	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.018	0.022	ND(0.0010)	0.0036	0.13	ND(0.0010)
	4/26/2004	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.015	0.013	ND(0.0010)	ND(0.0020)	0.076	ND(0.0010)
	4/28/2005	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0035	0.0071	ND(0.0010)	ND(0.0020)	0.046	ND(0.0010)
	3/28/2006	57.8	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0011	0.01	ND(0.0010)	0.0032	0.043	ND(0.0010)
	4/11/2007	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.008	ND(0.0010)	ND(0.0020)	0.021	ND(0.0010)J
	4/21/2008	54	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0059J	ND(0.0010)J	ND(0.0020)J	0.016J	ND(0.0010)
	4/3/2009	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0045	ND(0.0010)	ND(0.0010)	0.017	ND(0.0010)
	4/21/2010	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0048	ND(0.0010)	0.0014	0.023	ND(0.0020)
	4/6/2011	54	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.023	ND(0.0020)
	4/4/2012	54.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.036	0.0021

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL04-DO	6/3/2002	28	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	28	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.012	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	28	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0041	ND(0.0010)	ND(0.0020)	0.0034	ND(0.0010)
	4/26/2004	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.021	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.019	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0010)
	3/28/2006	27.8	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0011	0.0063	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0072	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/21/2008	28	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0018J	0.020J	ND(0.0010)J	ND(0.0020)J	0.0017J	ND(0.0010)
	4/3/2009	27	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0015	0.019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/21/2010	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0014	0.0083	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/6/2011	27	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.10)
	4/4/2012	27.3	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0022	0.031	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL05-DOA	6/3/2002	40	3.4	0.7	0.5	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	64D	140D	ND(0.20)	ND(0.20)	3.7	ND(1.0)
	6/3/2002	55	4.0	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	75	200	ND(2.0)	ND(2.0)	5.0	ND(0.10)
	1/29/2003	55	10	0.1	ND(0.10)	ND(0.10)	0.6	ND(0.10)	0.2	ND(0.50)	ND(0.20)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.20)	ND(0.10)	ND(0.020)
	5/13/2003	55	4.3	0.1	ND(0.020)	ND(0.020)	0.31	ND(0.020)	0.09	ND(0.10)	ND(0.040)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.040)	ND(0.020)	ND(0.050)
	12/15/2003	55	7.3	ND(0.050)	ND(0.050)	ND(0.050)	0.64	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.020)
	5/2/2004	51	1.5	ND(0.020)	ND(0.020)	ND(0.020)	0.14	ND(0.040)	0.036	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0010)
	4/27/2005	51	0.068	0.011	ND(0.0010)	ND(0.0010)	0.0052	ND(0.0020)	0.0041	ND(0.0020)	ND(0.0050)	0.018	0.028	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	52	0.018	0.006	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0050)	0.053	0.087	ND(0.0010)	ND(0.0020)	0.015	ND(0.0010)
	4/13/2007	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2008	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	49	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
CL06-BR	5/15/2003	60	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/29/2003	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/2/2009	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/22/2010	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	68	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2012	68	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL06-DO	5/15/2003	34	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/29/2003	44	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/2/2009	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/22/2010	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	41	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/4/2012	41	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL08-BR_ZONE1	1/5/2005	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2009	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	159	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0028	0.0038	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	159	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/2/2012	159	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL08-BR_ZONE2	1/5/2005	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2009	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	102	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/2/2012	102	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL08-BR_ZONE3	1/5/2005	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2009	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/14/2011	70	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/2/2012	70	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL08-DO	12/23/2003	76	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0047	ND(0.0010)	ND(0.0020)	0.0022	ND(0.0010)
	1/4/2005	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0010)
	1/4/2006	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0010)
	4/15/2007	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0010)
	4/25/2008	58	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0020)	0.0019	ND(0.0010)
	4/6/2009	51	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)
	4/22/2010	52	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	0.0011	ND(0.0020)
	4/6/2011	51	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.050)
	4/5/2012	51.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL09-BR_ZONE1	5/16/2003	160	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	2.8	5.2	ND(0.10)	ND(0.10)	1.7	ND(0.020)
	12/19/2003	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.76	1.6	ND(0.020)	0.1	1.3	ND(0.025)
	5/3/2004	160	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	1.0	1.8	ND(0.025)	0.21	1.6	ND(0.020)
	1/4/2005	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.86	1.1	ND(0.020)	0.17	2.2	ND(0.020)
	5/3/2005	160	ND(0.020)	ND(0.020)	0.022	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.56	1.0	ND(0.020)	0.57	2.6	ND(0.020)
	1/5/2006	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.9	2.8	ND(0.020)	0.14	1.2	ND(0.025)
	4/3/2006	160	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.38	0.86	ND(0.025)	0.38	3.2	ND(0.050)
	4/12/2007	160	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.69	1.8	ND(0.050)	0.18	4.6	ND(0.10)
	11/15/2007	160	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.69	1.2	ND(0.10)	0.33	10	ND(0.025)J
	2/6/2008	160	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.050)J	ND(0.025)J	ND(0.050)J	ND(0.13)J	0.59J	0.73J	ND(0.025)J	ND(0.050)J	2.4J	ND(0.020)
	4/23/2008	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.8	2.6	ND(0.020)	ND(0.040)	0.51	ND(0.050)
	10/23/2008	160	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.66	1.3	ND(0.050)	0.18	5.7	ND(0.025)
	4/6/2009	160	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	1.3	2.2	ND(0.025)	ND(0.025)	0.4	ND(0.010)
	11/2/2009	160	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.58	1.1	ND(0.010)	0.069	1.0	ND(0.050)
	4/21/2010	160	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.7	1.7	ND(0.050)	ND(0.050)	5.7	ND(0.10)
	11/15/2010	160	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.62	1.1	ND(0.10)	0.13	11D	ND(0.020)
	4/14/2011	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.97	1.8	ND(0.020)	0.086	1.8	ND(0.020)
	10/24/2011	160	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.83	2.0D	ND(0.020)	ND(0.020)	1.0	ND(0.050)
	4/2/2012		ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.66	1.4	ND(0.040)	0.11	6.4D	ND(0.040)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL09-BR_ZONE2	6/3/2002	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.24	0.5	ND(0.10)	0.2	4.4	ND(0.050)
	5/16/2003	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.34	0.86	ND(0.10)	0.8	6.4	ND(0.025)
	12/19/2003	119	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.49	0.85	ND(0.025)	0.58	2.4	ND(0.050)
	5/3/2004	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.36	0.63	ND(0.050)	0.76	3.7	ND(0.010)
	1/4/2005	119	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.011	ND(0.020)	ND(0.050)	0.049	0.063	ND(0.010)	0.099	0.77	ND(0.050)
	5/3/2005	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.34	0.62	ND(0.050)	0.68	3.6	ND(0.025)
	1/5/2006	119	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.38	0.86	ND(0.025)	0.4	2.7	ND(0.025)
	4/3/2006	119	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.34	1.0	ND(0.025)	0.31	2.9	ND(0.020)
	4/12/2007	119	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.0	2.0	ND(0.020)	0.29	2.6	ND(0.10)
	11/15/2007	119	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.62	1.2	ND(0.10)	0.34	11	ND(0.020)J
	2/6/2008	119	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.040)J	ND(0.10)J	0.45J	0.76J	ND(0.020)J	0.19J	2.0J	ND(0.050)
	4/23/2008	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.59	1.2	ND(0.050)	0.28	3.5	ND(0.050)
	10/23/2008	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.61	1.4	ND(0.050)	0.19	5.8	ND(0.050)
	4/6/2009	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.81	1.5	ND(0.050)	0.12	5.9	ND(0.025)
	11/2/2009	119	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.43	0.94	ND(0.025)	0.078	2.9	ND(0.050)
	4/21/2010	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.68	1.3	ND(0.050)	0.084	5.2	ND(0.10)
	11/15/2010	119	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.42	0.75	ND(0.10)	0.12	7.7	ND(0.10)
	4/14/2011	119	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.42	0.76	ND(0.10)	0.14	9.8	ND(0.050)
	10/24/2011	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.33	1	ND(0.050)	0.067	2.7	ND(0.050)
	4/2/2012		ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.38	0.96	ND(0.050)	0.09	4.5	ND(0.050)
CL09-BR_ZONE3	6/3/2002	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.09	0.13	ND(0.10)	0.9	7.2	ND(0.010)
	5/16/2003	81	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.28	0.4	ND(0.020)	2.5D	0.77	ND(0.050)
	12/19/2003	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	1.2	5.4	ND(0.020)
	5/3/2004	81	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.079	0.16	ND(0.020)	0.91	2.4	ND(0.020)
	1/4/2005	81	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.11	0.15	ND(0.020)	1.4	0.26	ND(0.020)
	5/3/2005	81	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.039	0.076	ND(0.020)	1.6	1.1	ND(0.0050)
	1/5/2006	81	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.015	0.04	ND(0.0050)	0.65	0.41	ND(0.050)
	4/3/2006	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.15	0.46	ND(0.050)	0.76	6.2	ND(0.050)
	4/12/2007	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.46	1.4	ND(0.050)	0.1	3.8	ND(0.10)
	11/15/2007	81	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.67	1.2	ND(0.10)	0.37	10	0.014J
	2/6/2008	81	ND(0.013)J	ND(0.013)J	ND(0.013)J	ND(0.013)J	ND(0.013)J	ND(0.025)J	ND(0.013)J	ND(0.025)J	ND(0.063)J	0.21J	0.51J	ND(0.013)J	ND(0.025)J	1.4DJ	ND(0.050)
	4/23/2008	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.53	1.0	ND(0.050)	0.17	4.0	ND(0.10)
	10/23/2008	81	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.53	1.0	ND(0.10)	0.2	7.2	ND(0.050)
	4/6/2009	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.56	0.84	ND(0.050)	0.11	6.3	ND(0.0050)
	11/2/2009	81	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.21	0.29	ND(0.0050)	0.75	0.62	ND(0.050)
	4/21/2010	81	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.24	0.36	ND(0.050)	ND(0.050)	5.9	ND(0.040)
	11/15/2010	81	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.22	0.33	ND(0.040)	0.75	4.1D	0.016
	4/14/2011	81	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.048	0.036	ND(0.010)	0.063	0.98	0.014
	10/24/2011	81	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.05	0.09	ND(0.010)	1.2D	1.2D	ND(0.0020)
	4/2/2012		ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.12	0.31	ND(0.020)	0.3	2.6D	ND(0.020)
CL09-DO	6/3/2002	36	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/28/2003	36	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/15/2003	36	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	36	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.007	0.0079	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0037	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	5/2/2005	33	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0072J	0.016J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	4/7/2006	31	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	0.0044	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL09-DO (Cont.)	4/12/2007	36	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0017	0.0057	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.021	0.029	ND(0.0010)	ND(0.0020)	0.0057	ND(0.0010)
	4/2/2009	35	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.015	0.037	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)
	4/21/2010	35	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.024	0.061	ND(0.0010)	ND(0.0010)	0.0024	ND(0.0020)
	4/4/2011	32	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0020)
	4/2/2012	32.8	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.073	0.18	ND(0.0020)	ND(0.0020)	0.0061	ND(0.0020)
CL09-S	6/3/2002	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	0.006	ND(0.0010)
	5/1/2004	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0010)
	9/24/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.010)
CL10-BR	6/3/2002	47	ND(0.010)	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.57	0.93	ND(0.020)	ND(0.020)	2.3	0.004
	5/14/2003	47	ND(0.0020)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.16	0.25	ND(0.0040)	ND(0.0040)	0.50D	ND(0.010)
	12/16/2003	47	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.051	ND(0.010)	ND(0.020)	0.73	ND(0.0050)
	4/26/2004	47	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.083	0.13	ND(0.0050)	ND(0.010)	0.5	ND(0.0025)
	12/30/2004	46	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0064	ND(0.0025)	ND(0.0050)	0.34	ND(0.0010)
	4/28/2005	46	0.0058	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	44.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	47	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/10/2007	47	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	46	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/21/2008	46	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/21/2008	46	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.0016	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	44	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0011	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	44	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	46	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/14/2010	45	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2011	44	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	46	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0036	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0010)
	4/5/2012	44.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/12/2012	46	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL10-BR2	4/27/2004	98	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0092	ND(0.0010)
	4/27/2004	115	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0084	ND(0.050)
CL10-DO	6/3/2002	37	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	3.0	6.5	ND(0.10)	ND(0.10)	0.07	ND(0.10)
	5/14/2003	37	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	9.2	16	ND(0.20)	ND(0.20)	2.9	ND(0.020)
	12/16/2003	37	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.8	1.4	ND(0.020)	ND(0.040)	0.03	ND(0.10)
	4/26/2004	32	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	10	10	ND(0.10)	ND(0.20)	1.4	ND(0.0010)
	12/30/2004	33	0.0033	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	31	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0026	0.0039	ND(0.0010)	ND(0.0020)	0.098	ND(0.0010)
	3/28/2006	32.2	0.0059	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	37	0.0034	0.0021	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/10/2007	37	0.004	0.004	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	36	0.0031	0.0018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	36	0.0054	0.0056	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/21/2008	36	0.0024	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	30	0.0026	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	30	0.0021	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	36	0.0045	0.0041	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/14/2010	31	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2011	30	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/27/2011	36	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2012	30.5	ND(0.0020)	0.0034	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/12/2012	36	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

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150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL10-S	6/25/2002	16	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.65	0.21	ND(0.0020)	ND(0.0020)	0.034	ND(0.0050)
	5/14/2003	16	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.025)	0.70D	0.49	ND(0.010)	ND(0.010)	0.078	ND(0.0010)
	12/16/2003	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.086	0.0081	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.010)
	4/26/2004	16	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.2	0.23	ND(0.010)	ND(0.020)	0.065	ND(0.0050)
	12/30/2004	14	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.32	0.041	ND(0.0050)	ND(0.010)	0.017	ND(0.010)
	4/28/2005	15	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.3	0.19	ND(0.010)	ND(0.020)	0.085	ND(0.010)
	3/28/2006	13.9	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.1	0.12	ND(0.010)	ND(0.020)	0.044	ND(0.0010)
	10/19/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.044	0.003	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	1/31/2007	16	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.38	0.027	ND(0.0050)	ND(0.010)	0.0095	ND(0.010)
	4/10/2007	16	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.3	0.12	ND(0.010)	ND(0.020)	0.056	ND(0.0010)
	11/13/2007	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.023	0.0019	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)J
	4/21/2008	15	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.040)J	ND(0.10)J	2.2J	0.24J	ND(0.020)J	ND(0.040)J	0.095J	ND(0.0010)
	10/21/2008	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.014	0.0066	ND(0.0010)	ND(0.0020)	0.0019	ND(0.020)
	4/6/2009	13	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.4	0.12	ND(0.020)	ND(0.020)	0.048	ND(0.0010)
	10/27/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0064	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0050)
	4/21/2010	15	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.64	0.041	ND(0.0050)	ND(0.0050)	0.024	ND(0.0020)
	10/14/2010	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/5/2011	13	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.87	0.032	ND(0.010)	ND(0.010)	0.017	ND(0.0020)
	10/25/2011	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.045	0.0027	ND(0.0020)	ND(0.0020)	0.0096	ND(0.0010)
	4/5/2012	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.13	0.0035	ND(0.0020)	ND(0.0020)	0.0032	ND(0.0020)
	11/12/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL11-DO	4/11/2007	49	0.051	0.086	0.042	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.012	0.095	ND(0.0010)	ND(0.0020)	0.0028	ND(0.0010)
	4/23/2008	50	0.029	0.053	0.03	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.01	0.079	ND(0.0010)	ND(0.0020)	0.0025	ND(0.0010)
	4/3/2009	49	0.019	0.034	0.021	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0096	0.07	ND(0.0010)	ND(0.0010)	0.0016	ND(0.0010)
	4/20/2010	50	0.011	0.024	0.017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0096	0.067	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0020)J
	4/6/2011	49.5	0.0087J	0.021J	0.019J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0076J	0.067J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0010)
	4/6/2012	49.5	0.0043	0.0095	0.012	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0059	0.044	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL11-S	4/11/2007	23	0.014	0.0063	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0056	0.0046	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2008	24	0.016	0.0071	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.013	0.0064	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	24	0.011	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.011	0.005	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	24	0.01	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.014	0.0061	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)J
	4/6/2011	23.4	0.0057J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0086J	0.0037J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)
	4/6/2012	23.5	0.0077	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.012	0.0063	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
CL12-S1	6/3/2002	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/26/2003	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/15/2003	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0046	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0049	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	22	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0037	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0013	0.0041	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/2/2009	22	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0031	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
CL13-BR	12/22/2003	80	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/22/2003	105	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/30/2004	80	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/30/2004	101	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CULVERT_OUTFALL	5/15/2003	NA	ND(0.0020)	0.002	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.019	0.096	ND(0.0020)	ND(0.0020)	0.071	ND(0.0010)
	12/22/2003	NA	ND(0.0010)	0.0019	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.02	0.091	ND(0.0010)	ND(0.0020)	0.063	ND(0.0010)
	1/4/2005	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0010)
	1/4/2006	NA	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.019	0.082	ND(0.0010)	ND(0.0020)	0.059	ND(0.0010)
	4/15/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0046	0.024	ND(0.0010)	ND(0.0020)	0.018	ND(0.0010)
	4/25/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0088	0.04	ND(0.0010)	ND(0.0020)	0.034	ND(0.0010)
	4/3/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.016	0.077	ND(0.0010)	ND(0.0010)	0.064	ND(0.0010)
	4/28/2010	NA	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.016	0.075	ND(0.0010)	ND(0.0010)	0.074	ND(0.0020)
GZ-1	8/26/2002	NA	ND(0.0020)	0.002	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.004	0.024	ND(0.0020)	ND(0.0020)	0.014	ND(0.0020)
	9/18/2002	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.016	ND(0.0020)	ND(0.0020)	0.01	ND(0.0020)
	1/28/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.017	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)
	5/14/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.019	ND(0.0020)	ND(0.0020)	0.006	ND(0.0010)
	12/23/2003	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0056	ND(0.0010)	ND(0.0020)	0.0031	ND(0.0010)
	5/3/2004	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.014	ND(0.0010)	ND(0.0020)	0.0031	ND(0.0010)
	4/29/2005	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0016	0.013	ND(0.0010)	ND(0.0020)	0.004	ND(0.0010)
	4/7/2006	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0046	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/13/2007	45	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.016	ND(0.0010)	ND(0.0020)	0.008	ND(0.0010)
	4/25/2008	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0064	ND(0.0010)	ND(0.0020)	0.0029	ND(0.0010)
	4/3/2009	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	0.016	ND(0.0010)	ND(0.0010)	0.0024	ND(0.0010)
	4/20/2010	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.002	0.022	ND(0.0010)	ND(0.0010)	0.0062	0.0036
	4/5/2011	12	0.0031	0.0044	0.0074	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.17	1.6D	ND(0.0020)	0.0029	0.62D	0.003
	4/5/2012	12.3	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.18	0.76D	ND(0.010)	ND(0.010)	0.35	ND(0.010)
GZ-2R	8/26/2002	NA	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.036	0.30D	ND(0.0020)	ND(0.0020)	0.27	0.003
	9/18/2002	NA	ND(0.0020)	0.002	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.04	0.18	ND(0.0020)	ND(0.0020)	0.29	ND(0.0020)
	1/29/2003	14	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.04	ND(0.0020)	ND(0.0020)	0.037	ND(0.0020)
	5/14/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.015	0.091	ND(0.0020)	ND(0.0020)	0.044	0.0014
	12/22/2003	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.026	0.12	ND(0.0010)	ND(0.0020)	0.057	ND(0.0010)
	5/3/2004	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.026	0.1	ND(0.0010)	ND(0.0020)	0.037	ND(0.0010)
	4/29/2005	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0071	0.08	ND(0.0010)	ND(0.0020)	0.044	ND(0.0050)
	4/7/2006	11	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.015	0.37	ND(0.0050)	ND(0.010)	0.29	ND(0.0010)
	4/13/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0042	0.1	ND(0.0010)	ND(0.0020)	0.07	ND(0.0020)
	4/25/2008	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.012	0.26	ND(0.0020)	ND(0.0040)	0.17	ND(0.0025)
	4/3/2009	10	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0083	0.23	ND(0.0025)	ND(0.0025)	0.17	ND(0.0020)
GZ-4	8/26/2002	NA	0.002	0.006	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.075	0.30D	ND(0.0020)	0.008	0.13	ND(0.0010)
	5/3/2004	15	0.0012	0.0022	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.08	ND(0.0010)	0.0035	0.052	ND(0.0010)
	10/19/2006	NA	0.0037	0.0054	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.094	ND(0.0010)	0.0038	0.087	ND(0.0010)
	4/13/2007	15	0.0021	0.0031	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0086	0.065	ND(0.0010)	ND(0.0020)	0.056	ND(0.0010)
	10/20/2008	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0013	0.019	ND(0.0010)	ND(0.0020)	0.012	ND(0.0010)
	10/26/2009	14	ND(0.0010)	0.003	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0039	0.029	ND(0.0010)	0.0016	0.045	ND(0.0010)
	4/20/2010	14	ND(0.0010)	0.0015	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0028	0.044	ND(0.0010)	0.0037	0.069	0.0028
	10/14/2010	14	ND(0.0020)	0.0046	0.0045	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.047	0.24D	ND(0.0020)	0.0028	0.43D	ND(0.0050)
	4/5/2011	14	ND(0.0050)	0.0056	0.0072	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.097	0.78D	ND(0.0050)	0.006	0.55D	0.0021
	10/25/2011	14	ND(0.0020)	0.0027	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0037	0.003	ND(0.0020)	0.11	0.36D	ND(0.0010)
	4/5/2012	14	ND(0.010)	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.14	0.84	ND(0.010)	ND(0.010)	0.6	ND(0.010)
	11/12/2012	14	ND(0.0020)	0.0049	0.0036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.2	0.54D	0.0034
MW-001	1/31/2007	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-001 (Cont.)	4/22/2008	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/23/2008	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
MW-001DO	5/5/2004	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/23/2008	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
MW-002	5/2/2004	35	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
MW-002R	6/3/2002	14	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.009	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/23/2003	14	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	14	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2004	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0034	0.016	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/27/2009	13	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0020J	0.0070J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)
	4/21/2010	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	10/12/2010	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/24/2011	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/2/2012	9.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-003R	3/5/2003	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	2/1/2007	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/20/2008	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0068	ND(0.0010)	0.0061	0.019	ND(0.0010)
	4/1/2009	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0041	ND(0.0010)
	10/26/2009	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0021	ND(0.0010)	0.014	0.0078	ND(0.0010)
	4/21/2010	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	30	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0020)
	4/2/2012	30.2	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0035	ND(0.0020)	0.0037	0.015	ND(0.0020)
MW-004R	6/3/2002	38	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	38	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	38	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0045	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2004	38	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	37	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0045	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	36	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.01	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0010)
	4/11/2007	37	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	37	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.025	ND(0.0010)	ND(0.0020)	0.0038	ND(0.0010)J
	4/27/2009	38	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.019J	ND(0.0010)J	ND(0.0010)J	0.0025J	ND(0.0010)
	4/21/2010	38	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.021	ND(0.0010)	ND(0.0010)	0.0023	ND(0.0020)
	10/12/2010	35.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.066	ND(0.0020)	ND(0.0020)	0.0087	ND(0.0020)
	10/24/2011	35.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.048	ND(0.0020)	ND(0.0020)	0.0065	ND(0.0010)
	4/2/2012	35.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.066	ND(0.0020)	ND(0.0020)	0.0081	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-005R	5/2/2004	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.0071	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0010)
	2/1/2007	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.004	0.011	ND(0.0010)	ND(0.0020)	0.011	ND(0.0010)
	4/11/2007	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0036	0.011	ND(0.0010)	ND(0.0020)	0.0073	ND(0.0010)
	11/13/2007	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.023	0.042	ND(0.0010)	ND(0.0020)	0.02	ND(0.0010)
	4/22/2008	21	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0055	0.017	ND(0.0010)	ND(0.0020)	0.0063	ND(0.0010)
	10/20/2008	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0093	0.026	ND(0.0010)	ND(0.0020)	0.011	ND(0.0010)
	4/1/2009	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0033	0.0086	ND(0.0010)	ND(0.0010)	0.0023	ND(0.0010)
	10/26/2009	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.008	0.019	ND(0.0010)	ND(0.0010)	0.011	ND(0.0010)
	4/21/2010	21	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0042	0.011	ND(0.0010)	ND(0.0010)	0.0037	ND(0.0020)
	4/4/2011	16	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.006	0.02	ND(0.0020)	ND(0.0020)J	0.0071	ND(0.0010)
	4/2/2012	17.25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	0.0054	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-006R	5/2/2004	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
MW-007R	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.006	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/23/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/14/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2004	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/2/2009	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/28/2010	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.04
MW-008	6/3/2002	20	0.11	0.01	0.02	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.42	1.2	ND(0.020)	0.2	2.0	ND(0.020)
	1/29/2003	20	2.8	0.04	0.08	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.10)	ND(0.040)	0.98	0.72	ND(0.040)	0.14	2.7	ND(0.020)
	5/12/2003	20	1.9	0.03	0.05	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.10)	ND(0.040)	1.1	3.3	ND(0.040)	0.06	4.3	ND(0.020)
	12/17/2003	20	0.092	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	0.31	2.2	0.039
	4/23/2004	17	2.5	0.082	0.046	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.4	1.2	ND(0.020)	0.13	2.4	ND(0.050)
	4/27/2005	18	6.1	0.089	0.051	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.098	0.26	ND(0.050)	ND(0.10)	0.92	ND(0.020)
	3/27/2006	17.1	1.7	0.055	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.039	0.086	ND(0.020)	0.076	1.1	ND(0.020)
	4/23/2008	19	2.8	0.18	0.096	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	0.05	ND(0.020)	0.18	0.24	ND(0.050)
	4/3/2009	17	1.3	1.3	0.066	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.18	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	5.1	1.5	ND(0.025
	4/20/2010	19	3.0	0.38	0.15	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	0.07	0.087	ND(0.025	2.1	2.5	ND(0.020)J
	4/6/2011	16.9	0.92J	0.21J	0.055J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	0.023J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	1.3J	0.5J	ND(0.010)
	4/4/2012	17	0.1	0.9	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.64	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	8/21/2012	16.8	0.034	0.24	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.41	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
	11/28/2012	19	ND(0.0040)	0.084	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.21	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
	2/6/2013	16.8	0.45	0.4	0.014	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.17	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.19	0.054	ND(0.0050)
MW-009	6/13/2002	20	ND(0.010)	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	5.8D	2.2	ND(0.020)	0.03	0.62	ND(0.010)
	1/23/2003	20	0.02	0.01	0.03	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	3.8D	13D	ND(0.020)	0.06	1.3	ND(0.010)
	5/12/2003	20	0.04	0.03	0.05	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	10D	29D	ND(0.020)	0.1	2.3	ND(0.050)
	12/15/2003	20	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	1.8	6	ND(0.050)	ND(0.10)	1.9	ND(0.25)
	4/23/2004	18	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)	ND(1.3)	9.2	22N	ND(0.25)	ND(0.50)	1.9	ND(0.25)
	4/27/2005	20	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)	ND(1.3)	18	29	ND(0.25)	ND(0.50)	1.9	ND(0.20)
	3/27/2006	20.3	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	14	19	ND(0.20)	ND(0.40)	1.7	0.1
	1/30/2007	20	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.16	0.76	ND(0.10)	ND(0.20)	9.6	0.27
	4/10/2007	20	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)	ND(1.3)	ND(0.25)	ND(0.25)	ND(0.25)	1.3	26	0.019
	7/19/2007	21.2	0.03	0.01	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.0016	0.0016	0.016	0.021	0.0024
	11/12/2007	20	0.0035	0.0018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.017	ND(0.0020)	ND(0.0050)	0.0028	0.0078	ND(0.0010)	0.057	0.11	0.0087

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-009 (Cont.)	1/23/2008	20	0.001	0.0051	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.01	0.011	0.0061J
	4/21/2008	20	0.0068J	0.011J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0077J	0.014J	0.0023J
	7/28/2008	19	ND(0.0010)J	0.070J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	0.0026J	0.0087J	0.0091J	ND(0.0010)
	10/21/2008	20	0.0018	0.041	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0092	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0016	0.022	0.0072	ND(0.0010)
	1/14/2009	19	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.014	ND(0.0010)	ND(0.0010)	0.0015	ND(0.0010)	0.007	0.0061	ND(0.0010)
	4/2/2009	20	ND(0.0010)	0.003	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0099	ND(0.0010)	ND(0.0010)	0.0015	ND(0.0010)	0.0036	0.0053	0.0018
	7/14/2009	19	0.0018	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0065	0.047	0.0018	0.026	0.043	0.0014
	10/27/2009	20	ND(0.0010)	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0056	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.005	0.0059	ND(0.0010)
	1/28/2010	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0035	0.0058	ND(0.0010)
	4/22/2010	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0044	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0086	0.0036	ND(0.0010)J
	7/14/2010	19	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0025J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0026J	0.0039J	ND(0.0020)
	10/12/2010	20	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	0.0024	ND(0.0020)
	1/4/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0023	ND(0.0020)	0.013	0.011	ND(0.0020)
	4/5/2011	19.8	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	0.0028	ND(0.0020)
	7/28/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0056	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.03	0.023	ND(0.0020)
	10/25/2011	20	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0096	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.016	0.02	ND(0.0020)
	1/17/2012	20	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.006	ND(0.0020)	ND(0.0020)	0.0034	ND(0.0020)	0.0093	0.039	ND(0.0020)
	4/3/2012	20	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0029	ND(0.0020)	ND(0.0020)	0.0061	ND(0.0020)	0.012	0.027	ND(0.0020)
	8/21/2012	19.7	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)	0.0058	0.016	ND(0.0020)
	11/28/2012	19	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0048	ND(0.0020)	0.0045	0.019	ND(0.0020)	0.11	0.13D	0.0032
	2/6/2013	20	ND(0.0020)	0.0083	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0052	ND(0.0020)	0.0058	0.023	ND(0.0020)	0.45D	0.60D	0.0029
MW-009A	6/13/2002	10	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.2	0.067	ND(0.0020)	0.011	0.13	0.01
	1/23/2003	10	0.026	0.008	0.032	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.003	ND(0.010)	ND(0.010)	1.0D	1.6D	ND(0.0020)	0.093	2.6D	0.006
	5/12/2003	10	0.004	ND(0.0020)	0.014	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.3	0.41D	ND(0.0020)	0.070D	0.90D	ND(0.0010)
	12/15/2003	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0024	0.003	ND(0.0010)	ND(0.0020)	0.003	ND(0.0025)
	4/23/2004	9	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.15	0.28	ND(0.0025)	ND(0.0050)	0.14	ND(0.0010)
	4/27/2005	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.014	ND(0.0010)	ND(0.0020)	0.01	ND(0.0010)
	3/27/2006	13.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.062	0.084	ND(0.0010)	ND(0.0020)	0.1	ND(0.0010)
	4/10/2007	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0018	0.0021	ND(0.0010)	ND(0.0020)	0.0021	ND(0.0010)J
	4/21/2008	13	0.034J	0.0011J	0.0022J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.094J	0.11J	ND(0.0010)J	ND(0.0020)J	0.020J	ND(0.0010)
	10/22/2008	13	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.015	ND(0.0010)	0.0046	0.014	ND(0.0010)
	4/3/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/26/2009	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/20/2010	9	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.01	0.0084	ND(0.0010)	ND(0.0010)	0.016	ND(0.0020)
	10/12/2010	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2011	13.4	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0041	0.0049	ND(0.0020)	0.0033	0.062	ND(0.0020)
	10/26/2011	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0049	0.012	ND(0.0020)	0.097	0.13	ND(0.0020)
	4/3/2012	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0033	ND(0.0020)
	11/13/2012	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-010	5/13/2003	40	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/13/2003	50	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/23/2003	40	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/23/2003	50	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
MW-013	6/3/2002	20	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	3.7	9.0	ND(0.20)	ND(0.20)	0.3	ND(0.010)
	6/3/2002	35	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.8	1.1	ND(0.020)	ND(0.020)	0.18	ND(0.020)
	6/3/2002	55	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.10)	ND(0.040)	3.7	3.4	ND(0.040)	ND(0.040)	0.6	ND(0.020)
	1/27/2003	55	1.8	0.02	ND(0.020)	ND(0.020)	4.7	0.02	3.5	ND(0.10)	0.14	0.42	ND(0.020)	ND(0.040)	ND(0.040)	ND(0.020)	ND(0.010)
	5/13/2003	55	0.71	0.02	ND(0.010)	ND(0.010)	2.2	0.01	1.6	ND(0.050)	0.05	0.07	ND(0.010)	ND(0.020)	ND(0.020)	ND(0.010)	ND(0.010)
	12/16/2003	55	0.44	ND(0.010)	ND(0.010)	ND(0.010)	0.76	ND(0.020)	0.7	ND(0.020)	ND(0.050)	1.2	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0050)
	5/1/2004	40	0.26	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.47	ND(0.010)	0.26	ND(0.010)	ND(0.025)	0.022	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-013 (Cont.)	4/28/2005	55	0.03	0.0014	ND(0.0010)	ND(0.0010)	0.043	ND(0.0020)	0.042	ND(0.0020)	ND(0.0050)	0.072	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	3/31/2006	39	0.025	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.047	ND(0.0050)	0.025	ND(0.0050)	ND(0.013)	0.26	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.025)
	4/10/2007	55	0.026	ND(0.025)	ND(0.025)	ND(0.025)	0.033	ND(0.050)	0.036	ND(0.050)	ND(0.13)	2.7	2.2	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.10)
	11/13/2007	39	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	9.9	5.9	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.020)
	4/22/2008	54	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	0.026	ND(0.040)	ND(0.10)	2.3	1.4	ND(0.020)	ND(0.040)	0.12	ND(0.20)
	4/3/2009	42	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	21	12	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.020)
	4/21/2010	54	1.2	ND(0.020)	ND(0.020)	ND(0.020)	2.2	ND(0.020)	0.24	ND(0.020)	ND(0.020)	0.074	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.0020)
	10/14/2010	54	0.77D	0.0072	ND(0.0020)	ND(0.0020)	2.7D	0.014	0.30D	ND(0.0020)	0.0061	0.0037	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/14/2011	44	0.25D	0.0041	ND(0.0020)	ND(0.0020)	0.73D	0.0076	0.17	ND(0.0020)	0.0022	0.062	0.0075	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	10/27/2011	41	0.25	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.42	0.0053	0.24	ND(0.0050)	ND(0.0050)	0.0066	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0020)
	4/5/2012	53	0.27	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.38	0.0051	0.31	ND(0.0050)	ND(0.0050)	0.011	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
	11/26/2012	54	0.39	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.55D	0.0054	0.55D	ND(0.0050)	ND(0.0050)	0.058	0.026	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
MW-014A	6/3/2002	61	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.004	0.47D	ND(0.0020)	ND(0.0020)	0.01	ND(0.0020)
	1/23/2003	61	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.067	ND(0.0020)	ND(0.0020)	0.012	0.002
	5/13/2003	61	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.011	ND(0.0020)	ND(0.0020)	0.70D	ND(0.0050)
	12/17/2003	61	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.023	ND(0.0050)	ND(0.010)	0.46	ND(0.0025)
	5/1/2004	60	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.2	ND(0.0025)	ND(0.0050)	0.15	ND(0.0010)
	4/28/2005	60	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0034	0.1	ND(0.0010)	ND(0.0020)	0.12	ND(0.0010)
	3/31/2006	59	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0039	0.066	ND(0.0010)	ND(0.0020)	0.028	ND(0.0020)
	4/11/2007	61	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.005	0.24	ND(0.0020)	ND(0.0040)	0.04	ND(0.0050)
	4/22/2008	60	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.009	0.49	ND(0.0050)	ND(0.010)	0.057	ND(0.0050)
	4/3/2009	60	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.42	ND(0.0050)	ND(0.0050)	0.054	ND(0.0010)
	4/20/2010	60	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.007	0.44	ND(0.0050)	ND(0.0050)	0.054	ND(0.0020)
	4/4/2011	59	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	0.38D	ND(0.0020)	ND(0.0020)J	0.065	ND(0.0010)
	4/5/2012	59	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0027	0.16D	ND(0.0020)	0.0023	0.06	ND(0.0020)
MW-030	5/2/2004	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2005	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2005	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/29/2005	21	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2006	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/1/2007	21	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	21	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/16/2007	19	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/22/2008	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/9/2009	20	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
MW-032	6/25/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/15/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.019	0.0025	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.015	0.0014	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.015	0.0014	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.013	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/11/2007	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.005	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
MW-033B	6/13/2002	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	26	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-033B (Cont.)	3/31/2006	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2008	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/9/2009	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.019
	4/21/2010	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/5/2011	24.8	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/6/2012	24.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-034	1/14/2005	NA	ND(0.010)	0.014	0.017	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	0.092	1.2	ND(0.010)
	1/4/2006	65	ND(0.010)	0.011	0.016	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.012	0.27	ND(0.010)	ND(0.020)	1.1	ND(0.010)
	4/20/2007	65	ND(0.010)	0.01	0.017	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.01	0.19	ND(0.010)	ND(0.020)	1.1	ND(0.010)
	4/24/2008	64	ND(0.010)	0.013	0.02	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.015	0.22	ND(0.010)	0.024	1	ND(0.010)
	4/9/2009	NA	ND(0.010)	ND(0.010)	0.014	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.013	0.21	ND(0.010)	0.013	1.1	ND(0.0010)
	4/28/2010	64	ND(0.010)	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.11	ND(0.010)	0.014	1.1	ND(0.020)J
	4/7/2011	64	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	0.14J	ND(0.020)J	0.02J	1.2J	ND(0.0010)
	4/4/2012	63	ND(0.020)	ND(0.020)	0.021	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.16	ND(0.020)	0.022	1.3	ND(0.020)
MW-035	12/22/2003	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2005	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/4/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/15/2007	57.6	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/24/2008	56.6	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/1/2009	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
MW-036	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	56	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/24/2003	56	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/15/2003	56	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.0051	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.0063	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0013	0.0048	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.0036	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.0053	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0042	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/2/2009	51	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0039	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/20/2010	55	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.25	0.59	ND(0.0050)	ND(0.0050)	0.22	ND(0.010)
	4/4/2011	51	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.54	1.2D	ND(0.010)	0.017	0.42	ND(0.0020)
	4/6/2012	51.8	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.75	1.8	ND(0.020)	0.061	0.8	ND(0.020)
MW-104R	6/3/2002	10	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	27	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.01	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-04-BR	6/3/2002	80	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	95	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/24/2003	95	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	95	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	79	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	78	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	79	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	90	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	89	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-04-BR (Cont.)	4/1/2009	89	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/20/2010	89	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	77	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/3/2012	88	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-04-DO	6/3/2002	55	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.005	0.016	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)L
	1/24/2003	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	0.016	ND(0.0020)L
	5/14/2003	55	ND(0.0020)L	ND(0.0020)L	ND(0.0010)L	ND(0.0020)L	ND(0.0020)L	ND(0.0020)L	ND(0.0020)L	ND(0.010)L	ND(0.010)L	ND(0.0020)L	0.0070L	ND(0.0020)L	ND(0.0020)L	0.0040L	ND(0.0010)
	5/14/2003	70	ND(0.0020)L	ND(0.0020)L	ND(0.0010)L	ND(0.0020)L	ND(0.0020)L	ND(0.0020)L	ND(0.0020)L	ND(0.010)L	ND(0.010)L	0.0040L	0.0090L	ND(0.0020)L	ND(0.0020)L	0.031L	ND(0.0010)
	12/16/2003	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0023	0.0074	ND(0.0010)	ND(0.0020)	0.012	ND(0.0010)
	12/16/2003	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0043	0.011	ND(0.0010)	ND(0.0020)	0.016	ND(0.0010)
	4/27/2004	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.033	ND(0.0010)	ND(0.0020)	0.0086	ND(0.0010)
	4/29/2005	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.025	0.05	ND(0.0010)	ND(0.0020)	0.007	ND(0.0010)
	3/28/2006	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.024	0.057	ND(0.0010)	ND(0.0020)	0.0074	ND(0.0010)
	4/12/2007	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.032	0.062	ND(0.0010)	ND(0.0020)	0.014	ND(0.0010)
	4/22/2008	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.0044	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/1/2009	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.035	0.07	ND(0.0010)	ND(0.0010)	0.038	ND(0.0020)
	4/20/2010	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.054	0.1	ND(0.0010)	ND(0.0010)	0.027	ND(0.0020)
	4/4/2011	67	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.04	0.094	ND(0.0020)	ND(0.0020)	0.043	ND(0.0020)
	4/3/2012	67	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.059	0.14	ND(0.0020)	0.011	0.091	ND(0.0020)
OB-04-S	6/3/2002	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/24/2003	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	25	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.006	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0042	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/1/2009	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	9/24/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.10)
	4/20/2010	24	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	23	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.10)
	4/3/2012	23.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-05-BR	6/3/2002	95	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	0.3	3.3	ND(0.20)	ND(0.20)	9.0	ND(0.050)
	6/3/2002	110	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	0.3	3.2	ND(0.20)	ND(0.20)	9.1	ND(0.020)
	1/24/2003	110	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.08	0.14	ND(0.10)	ND(0.10)	5.2	ND(0.025)
	5/14/2003	110	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.10)	ND(0.040)	ND(0.020)	0.05	ND(0.040)	ND(0.040)	4.3	ND(0.020)
	12/16/2003	110	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	ND(0.025)	ND(0.025)	ND(0.025)	0.11	2.5	ND(0.0050)
	4/27/2004	105	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.029	0.19	ND(0.020)	0.23	2.4	ND(0.010)
	12/30/2004	95	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.49	0.48	ND(0.010)
	4/29/2005	105	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	1.3	0.049	ND(0.0050)
	1/4/2006	110	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	0.77	0.079	ND(0.020)
	3/29/2006	107	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.43	0.059	ND(0.0050)
	2/1/2007	105	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	1.3	1.0	ND(0.0050)
	4/12/2007	110	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.72	0.39	ND(0.0010)
	11/14/2007	100	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.43	0.12	ND(0.0010)
	4/22/2008	109	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.12	0.064	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-05-BR (Cont.)	4/1/2009	106	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.084	0.036	ND(0.010)
	10/26/2009	104	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.067	0.026	ND(0.0050)
	4/20/2010	109	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.24	1.2	ND(0.010)
	10/12/2010	109	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.41	0.48	ND(0.0040)
	4/4/2011	104	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.004	ND(0.0040)	0.22	0.032	ND(0.0020)
	10/24/2011	109	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0042	ND(0.0020)	0.086	0.013	ND(0.010)
	4/3/2012	104	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.11	0.0069	ND(0.0020)
OB-05-DO	6/3/2002	75	ND(0.010)	0.01	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.13	1.9	ND(0.020)	ND(0.020)	0.88	ND(0.0050)
	6/3/2002	86	ND(0.010)	0.01	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.29	2.1	ND(0.020)	ND(0.020)	0.64	ND(0.0020)
	1/24/2003	86	ND(0.0050)	ND(0.0050)	0.006	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.052	0.44	ND(0.010)	ND(0.010)	0.83	ND(0.0025)
	5/14/2003	86	ND(0.0020)	0.007	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.043	0.51	ND(0.0040)	ND(0.0040)	0.29	ND(0.0025)
	12/16/2003	86	ND(0.0025)	0.0046	0.0039	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.047	0.27	ND(0.0025)	ND(0.0050)	0.13	ND(0.0025)
	4/27/2004	83	ND(0.0025)	0.0047	0.004	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.089	0.33	ND(0.0025)	ND(0.0050)	0.12	ND(0.0050)
	12/30/2004	70	ND(0.0025)	0.0048	0.0045	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.074	0.35	ND(0.0025)	ND(0.0050)	0.094	ND(0.0025)
	4/29/2005	85	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.11	0.44	ND(0.0050)	ND(0.010)	0.096	ND(0.0025)
	1/4/2006	86	ND(0.0025)	0.0032	0.0029	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.083	0.29	ND(0.0025)	ND(0.0050)	0.073	ND(0.0050)
	3/29/2006	83	ND(0.0025)	0.0042	0.0031	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.08	0.32	ND(0.0025)	ND(0.0050)	0.077	ND(0.0050)
	2/1/2007	82	ND(0.0050)	0.01	0.011	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.1	0.41	ND(0.0050)	ND(0.010)	0.098	ND(0.0025)
	4/12/2007	86	ND(0.0050)	0.012	0.014	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.12	0.43	ND(0.0050)	ND(0.010)	0.098	ND(0.0050)
	11/14/2007	82	ND(0.0025)	0.008	0.0087	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.074	0.28	ND(0.0025)	ND(0.0050)	0.086	ND(0.0050)
	4/22/2008	85	ND(0.0050)	0.014	0.016	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.12	0.44	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	4/1/2009	81	ND(0.0050)	0.014	0.014	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.13	0.47	ND(0.0050)	ND(0.0050)	0.11	ND(0.010)
	10/26/2009	81	ND(0.0050)	0.011	0.0096	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.16	0.69	ND(0.0050)	ND(0.0050)	0.23	ND(0.040)
	4/20/2010	85	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.52	1.4	ND(0.010)	ND(0.010)	0.4	ND(0.0020)
	10/12/2010	81.5	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.47	1.9	ND(0.040)	ND(0.040)	0.48	ND(0.020)
	4/4/2011	81	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.87	3.0D	ND(0.020)	ND(0.020)J	0.76	ND(0.010)
	10/24/2011	81	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.99	2.7D	ND(0.010)	0.026	1.0D	ND(0.0020)
	4/3/2012	81.3	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.6	1.8	ND(0.020)	ND(0.020)	0.44	ND(0.020)
OB-05-S	6/3/2002	30	ND(0.0020)	0.004	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.005	0.031	ND(0.0020)	ND(0.0020)	0.007	ND(0.0020)
	9/18/2002	NA	ND(0.0020)	0.005	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.011	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/20/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.005	0.023	ND(0.0020)	ND(0.0020)	0.004	ND(0.0010)
	5/14/2003	30	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.01	0.056	ND(0.0020)	ND(0.0020)	0.01	ND(0.0010)
	12/16/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0016	0.0056	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	27	ND(0.0010)	0.002	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.043	ND(0.0010)	ND(0.0020)	0.0063	ND(0.0010)
	4/29/2005	26	ND(0.0010)	0.0037	0.0033	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.018	0.073	ND(0.0010)	ND(0.0020)	0.011	ND(0.0020)
	3/29/2006	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.006	0.025	ND(0.0010)	ND(0.0020)	0.0033	ND(0.0010)
	4/11/2007	15	ND(0.0020)	0.0024	0.003	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.07	0.26	ND(0.0020)	ND(0.0040)	0.088	ND(0.0010)
	4/12/2007	30	ND(0.0010)	0.0012	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0023	ND(0.0020)	ND(0.0050)	0.0053	0.02	ND(0.0010)	ND(0.0020)	0.0033	ND(0.0010)
	4/22/2008	29	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0068	ND(0.0020)	ND(0.0050)	0.015	0.051	ND(0.0010)	ND(0.0020)	0.011	ND(0.0010)
	10/20/2008	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0011	0.0028	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/1/2009	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.002	0.0068	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/26/2009	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/20/2010	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0043	0.014	ND(0.0010)	ND(0.0010)	0.0028	ND(0.010)
	10/12/2010	25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0043	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2011	25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0022	0.0036	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0020)
	10/24/2011	27	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0034	0.0053	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/3/2012	25	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-06-BR	6/3/2002	95	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.4	1.8	ND(0.020)	ND(0.020)	0.1	ND(0.010)
	6/3/2002	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.2	1.2	ND(0.020)	ND(0.020)	0.07	ND(0.010)
	1/29/2003	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.79	1.7	ND(0.020)	ND(0.020)	0.23	ND(0.010)
	5/15/2003	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.88	1.9	ND(0.020)	ND(0.020)	0.49	ND(0.010)
	12/17/2003	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.76	1.1	ND(0.010)	ND(0.020)	0.35	ND(0.010)
	5/1/2004	100	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.73	1.1	ND(0.010)	ND(0.020)	0.34	ND(0.010)J
	12/30/2004	100	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.6	0.96	ND(0.010)	ND(0.020)	0.14	ND(0.010)
	5/2/2005	101	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	0.60J	1.0J	ND(0.010)J	ND(0.020)J	0.12J	ND(0.0050)
	1/4/2006	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.73	0.93	ND(0.010)	ND(0.020)	0.11	ND(0.0010)
	4/7/2006	102	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.23	0.49	ND(0.0050)	ND(0.010)	0.097	ND(0.010)
	2/1/2007	102	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.02	0.0062
	4/13/2007	102	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.44	1.2	ND(0.010)	ND(0.020)	0.48	ND(0.0010)
	11/14/2007	100	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.46	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
	4/23/2008	99	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0038	ND(0.0025)
	4/2/2009	99	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.22	0.46	ND(0.0050)	ND(0.0050)	0.15	ND(0.0025)
	10/26/2009	99	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.12	0.22	ND(0.0025)	ND(0.0025)	0.07	ND(0.0020)
	4/22/2010	101	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.12	0.22	ND(0.0025)	ND(0.0025)	0.04	ND(0.0020)
	10/12/2010	101	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.061	0.19	ND(0.0020)	ND(0.0020)	0.023	ND(0.0020)
	4/5/2011	99	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0028	0.0025	ND(0.0020)	0.029	0.074	ND(0.0020)
	10/24/2011	101	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.07	0.14	ND(0.0020)	ND(0.0020)	0.019	ND(0.010)
	4/3/2012	89	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.049	0.14	ND(0.0020)	ND(0.0020)	0.023	ND(0.0020)
OB-06-DO	6/3/2002	65	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.023	ND(0.010)	ND(0.010)	0.036	0.15	ND(0.0020)	ND(0.0020)	0.012	ND(0.0020)
	6/3/2002	76	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.01	ND(0.050)	ND(0.020)	0.02	0.69	ND(0.020)	ND(0.020)	0.03	ND(0.0020)
	1/29/2003	76	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.019	ND(0.0050)
	5/15/2003	76	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.07	ND(0.0010)
	12/17/2003	76	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.011	0.011	ND(0.0050)	ND(0.010)	0.44	ND(0.0010)
	5/1/2004	66	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	0.021	ND(0.0025)J
	12/30/2004	74	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0043	0.014	ND(0.0010)	0.0023	0.051	ND(0.0010)
	5/2/2005	66	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0050)J	ND(0.0025)J	ND(0.0050)J	ND(0.013)J	0.026J	0.063J	ND(0.0025)J	0.0073J	0.28J	ND(0.0050)
	1/4/2006	76	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0034	ND(0.0010)	ND(0.0020)	0.055	ND(0.0010)
	4/7/2006	65	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.013	0.079	ND(0.0050)	0.014	0.62	ND(0.0010)
	2/1/2007	76	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	0.0022	0.034	ND(0.010)
	4/13/2007	76	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0037	ND(0.0010)	0.005	0.066	ND(0.0010)
	11/14/2007	65	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.012	ND(0.010)	0.045	1.1	ND(0.0010)
	4/23/2008	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.024	0.041	ND(0.0010)
	10/20/2008	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0021	0.0037	ND(0.0010)	0.041	0.14	ND(0.020)
	4/2/2009	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0039	0.015	ND(0.0010)	0.0099	0.076	ND(0.010)
	10/26/2009	65	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.044	0.1	ND(0.020)	0.031	1.5	ND(0.020)
	4/22/2010	75	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.18	0.35	ND(0.010)	0.013	0.97	ND(0.0020)
	10/12/2010	65.5	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.045	0.096	ND(0.020)	0.075	1.8	0.0044
	4/5/2011	65	ND(0.0020)	ND(0.0020)	0.0034	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.11D	0.31D	ND(0.0020)	0.027	1.2D	ND(0.010)
	10/24/2011	75	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.25	0.49	ND(0.010)	0.014	0.77	ND(0.0050)
	4/3/2012	65.6	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.013	0.033	ND(0.010)	0.15	0.59	ND(0.010)
OB-07-DO	8/26/2002	NA	0.002	0.012	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.14	0.40D	ND(0.0020)	ND(0.0020)	0.13	ND(0.0050)
	5/14/2003	40	ND(0.0050)	0.009	0.012	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.2	0.77	ND(0.010)	ND(0.010)	0.16	ND(0.0050)
	12/19/2003	40	ND(0.0050)	0.0054	0.0063	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.16	0.43	ND(0.0050)	ND(0.010)	0.1	ND(0.0050)
	5/3/2004	38	ND(0.0050)	0.0074	0.0089	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.22	0.61	ND(0.0050)	ND(0.010)	0.15	ND(0.0050)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-07-DO (Cont.)	12/30/2004	38	ND(0.0050)	0.0077	0.0093	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.16	0.5	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	4/29/2005	38	ND(0.0050)	0.0087	0.0093	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.53	ND(0.0050)	ND(0.010)	0.15	ND(0.0050)
	3/29/2006	37	ND(0.0050)	0.0063	0.0057	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.14	0.45	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
	2/1/2007	40	ND(0.0050)	0.0093	0.0088	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.13	0.48	ND(0.0050)	ND(0.010)	0.18	ND(0.0050)
	4/11/2007	40	ND(0.0050)	0.01	0.012	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.17	0.54	ND(0.0050)	ND(0.010)	0.17	ND(0.0050)
	11/13/2007	36	0.0052	0.011	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.61	ND(0.0050)	ND(0.010)	0.21	ND(0.0050)
	4/22/2008	39	ND(0.0050)	0.0095	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.17	0.54	ND(0.0050)	ND(0.010)	0.2	0.004
	4/2/2009	36	ND(0.0050)	0.0075	0.0092	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.16	0.54	ND(0.0050)	ND(0.0050)	0.2	ND(0.010)
OB-08-DO	8/26/2002	NA	ND(0.0020)	0.038	0.036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.50D	2.1D	ND(0.0020)	0.018	0.60D	ND(0.025)
	5/15/2003	80	ND(0.010)	0.05	0.08	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.44	3.1	ND(0.020)	0.03	0.96	ND(0.020)
	12/18/2003	80	ND(0.025)	ND(0.025)	0.029	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.41	2.1	ND(0.025)	ND(0.050)	0.84	ND(0.025)
	5/3/2004	79	ND(0.020)	ND(0.020)	0.031	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.28	1.9	ND(0.020)	ND(0.040)	0.91	ND(0.020)
	1/4/2005	79	ND(0.025)	ND(0.025)	0.027	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.57	2.7	ND(0.025)	ND(0.050)	0.95	ND(0.020)
	4/29/2005	79	ND(0.020)	0.02	0.029	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.41	2.0	ND(0.020)	ND(0.040)	0.79	ND(0.020)
	1/4/2006	80	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.49	2.2N	ND(0.020)	ND(0.040)	0.92	ND(0.025)
	4/7/2006	79	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.41	2	ND(0.020)	ND(0.040)	1	ND(0.025)
	2/1/2007	80	ND(0.025)	ND(0.025)	0.028	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.41	2.3	ND(0.025)	ND(0.050)	1.2	ND(0.025)
	4/11/2007	80	ND(0.025)	ND(0.025)	0.033	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.39	2.2	ND(0.025)	ND(0.050)	1.2	ND(0.020)J
	11/13/2007	78	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.5	2.4	ND(0.025)	ND(0.050)	1.2	ND(0.020)
	4/21/2008	79	ND(0.020)J	ND(0.020)J	0.027J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.040)J	ND(0.10)J	0.57J	2.6J	ND(0.020)J	ND(0.040)J	1.1J	ND(0.020)
	4/3/2009	79	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.51	2.6	ND(0.020)	ND(0.020)	1.4	ND(0.020)
	10/27/2009	78	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.46	2.2	ND(0.020)	ND(0.020)	1.5	ND(0.040)
	4/28/2010	79	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.46	2.3	ND(0.020)	ND(0.020)	1.1	ND(0.040)
	11/15/2010	77	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.38	2.4	ND(0.040)	ND(0.040)	1.1	0.002
	11/15/2010	77	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.38	2.4	ND(0.040)	ND(0.040)	1.1	0.0089
	4/5/2011	77	ND(0.0020)	0.013	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.26D	1.9D	ND(0.0020)	0.0084	2.2D	ND(0.040)
	10/25/2011	79	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.34	2.2	ND(0.040)	ND(0.040)	1.1	ND(0.0020)
	4/3/2012	77	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.37	2.5	ND(0.040)	ND(0.040)	1.2	ND(0.040)
OB-08-S	8/26/2002	NA	ND(0.0020)	0.002	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.045	0.20D	ND(0.0020)	ND(0.0020)	0.086	ND(0.0025)
	5/3/2004	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.041	0.16	ND(0.0020)	ND(0.0040)	0.048	ND(0.0020)
	10/19/2006	NA	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.054	0.26	ND(0.0025)	ND(0.0050)	0.1	ND(0.0025)J
	11/13/2007	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.028	0.14	ND(0.0020)	ND(0.0040)	0.063	ND(0.0020)
	4/21/2008	14	ND(0.0025)J	0.0026J	0.0034J	ND(0.0025)J	ND(0.0025)J	ND(0.0050)J	ND(0.0025)J	ND(0.0050)J	ND(0.013)J	0.079J	0.28J	ND(0.0025)J	ND(0.0050)J	0.10J	ND(0.0025)
	10/20/2008	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.056	0.26	ND(0.0020)	ND(0.0040)	0.092	ND(0.0020)
	4/3/2009	12	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.075	0.31	ND(0.0025)	ND(0.0025)	0.11	ND(0.0025)
	10/27/2009	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.029	0.15	ND(0.0020)	ND(0.0020)	0.062	ND(0.0050)
	4/28/2010	14	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.044	0.21	ND(0.0025)	ND(0.0025)	0.066	ND(0.0050)
	11/15/2010	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.069	0.38	ND(0.0050)	ND(0.0050)	0.16	ND(0.10)
	11/15/2010	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.069	0.38	ND(0.0050)	ND(0.0050)	0.16	ND(0.0020)
	4/5/2011	12	ND(0.0020)	0.0022	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.081	0.39D	ND(0.0020)	ND(0.0020)	0.12	ND(0.0020)
	10/25/2011	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.038	0.15	ND(0.0020)	ND(0.0020)	0.042	ND(0.10)
	4/2/2012	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.056	0.28	ND(0.0050)	ND(0.0050)	0.1	ND(0.0050)
	11/12/2012	14	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.058	0.27	ND(0.0050)	ND(0.0050)	0.12	ND(0.0050)
OB-09-BR	6/3/2002	110	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	4.6	9.6	ND(0.20)	ND(0.20)	0.7	ND(0.050)
	6/3/2002	122	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	3.9	9.2	ND(0.20)	ND(0.20)	1.6	ND(0.050)
	1/23/2003	122	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	ND(0.050)	0.1	ND(0.10)	0.4	7.1	ND(0.050)
	5/12/2003	122	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	1.0	1.6	ND(0.10)	ND(0.10)	10	ND(0.050)
	12/15/2003	122	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	0.66	5.7	ND(0.050)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-09-BR (Cont.)	4/23/2004	120	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.99	1.2	ND(0.050)	0.13	5.9	ND(0.025)
	12/29/2004	119	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.27	0.35	ND(0.050)	0.17	3.8	ND(0.020)
	4/27/2005	120	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.72	1.3	ND(0.025)	0.13	2.7	0.0066
	12/30/2005	122	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	0.34	2.8	ND(0.050)
	3/27/2006	104.7	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.054	0.073	ND(0.0050)	ND(0.010)	0.43	ND(0.025)
	1/31/2007	122	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	0.29	4.8	0.014
	4/10/2007	122	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	ND(0.025)	ND(0.025)	ND(0.025)	1.8	2.3	ND(0.050)
	7/19/2007	116	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.048	0.082	ND(0.0010)	0.0028	0.06	ND(0.0010)
	8/9/2007	116	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	ND(0.050)	ND(0.050)	ND(0.050)	0.32	4.6	ND(0.0010)
	11/12/2007	105.6	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.001	ND(0.0010)	0.038	0.032	ND(0.0020)J
	1/22/2008	119	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.018	0.015	ND(0.0025)J
	4/21/2008	118	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0040)J	ND(0.0020)J	ND(0.0040)J	ND(0.010)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.12J	0.24J	ND(0.010)
	7/29/2008	121	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	ND(0.0050)J	ND(0.0025)J	ND(0.0050)J	ND(0.013)J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	0.17J	0.36J	ND(0.010)
	10/22/2008	118	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	0.21	1.2	0.01
	1/14/2009	121	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.23	0.91	ND(0.025)
	4/9/2009	118	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	0.016	ND(0.0020)	ND(0.0020)	0.23	ND(0.050)
	7/14/2009	121	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.068	0.069	ND(0.025)	0.24	3.6	0.015
	10/28/2009	121	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.45	0.66	ND(0.050)	0.1	5.3	ND(0.050)
	1/28/2010	118	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.011	0.018	ND(0.0050)	0.0081	0.4	0.031J
	4/22/2010	121	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.35	0.66	ND(0.050)	0.14	5.5	ND(0.10)
	7/14/2010	121	ND(0.025)J	ND(0.025)J	0.031J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	0.049J	0.054J	ND(0.025)J	0.23J	4.9J	ND(0.10)
	10/12/2010	117	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.18	0.27	ND(0.10)	0.1	7.9	ND(0.050)
	1/5/2011	121	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.22	6.5	ND(0.010)
	4/6/2011	117.7	ND(0.010)	ND(0.010)	0.021	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.025	0.01	ND(0.010)	0.28	5.5D	ND(0.10)
	7/28/2011	117	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.55	1.2	ND(0.10)	0.15	6.5	ND(0.040)
	10/25/2011	121	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.6	1.1	0.033
	1/18/2012	121	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.046	1.4	ND(0.050)
	4/3/2012	117	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.9	3.2	ND(0.040)	ND(0.040)	2.5	ND(0.040)
	8/21/2012	100	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.6	2.1	ND(0.040)	0.041	7.7D	ND(0.040)
	11/28/2012	121	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	2.6	3.1	ND(0.050)	ND(0.050)	2.9	ND(0.050)
	2/6/2013	101	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	2.1	3.1	ND(0.10)	ND(0.10)	4.7	ND(0.10)
OB-09-DO	6/3/2002	85	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	4.1	4.7	ND(0.10)	ND(0.10)	3.3	ND(0.050)
	6/3/2002	96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	4.7	5.7	ND(0.10)	ND(0.10)	3.2	ND(0.010)
	1/23/2003	96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	0.27	0.9	ND(0.10)	ND(0.10)	9.7	ND(0.025)
	5/12/2003	96	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	ND(0.010)	ND(0.010)	ND(0.020)	0.46	2.3	ND(0.010)
	12/15/2003	96	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.064	0.23	ND(0.025)	ND(0.050)	1.9	ND(0.010)
	4/23/2004	94	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.072	0.074	ND(0.010)	ND(0.020)	0.89	ND(0.0050)
	12/29/2004	94	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.029	ND(0.010)	0.043	1.4	ND(0.020)
	4/27/2005	64	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.0051	ND(0.010)	ND(0.025	0.051	0.073	ND(0.0050)	ND(0.010)	0.4	ND(0.020)
	12/30/2005	96	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.28	0.84	ND(0.020)	0.089	1.9	ND(0.050)
	3/27/2006	94.25	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.8	2.1	ND(0.020)	0.062	1.5	ND(0.0050)
	1/31/2007	96	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.23	0.58	ND(0.050)	0.24	7.1	ND(0.0010)
	4/10/2007	96	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.18JJ	0.50JJ	ND(0.0010)
	7/19/2007	95	0.0047	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0026	ND(0.0010)	0.12	0.068	ND(0.0010)
	11/12/2007	93.9	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0025	0.0027	ND(0.0010)J
	1/22/2008	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0027	ND(0.0010)	0.01	0.0049	ND(0.0010)J
	4/21/2008	93	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0034J	ND(0.0010)J	ND(0.0020)J	0.0059J	ND(0.0010)
	7/29/2008	95	ND(0.0010)J	ND(0.0010)J	0.0017J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0042J	ND(0.0010)J	0.089J	0.14J	ND(0.0050)
	10/22/2008	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.1	0.017	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-09-DO (Cont.)	1/13/2009	95	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.59	0.12	ND(0.010)
	4/9/2009	92	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0025	0.014	ND(0.0010)	ND(0.0010)	0.007	ND(0.010)
	7/14/2009	95	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.97	0.11	ND(0.0010)
	10/28/2009	95	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.87	0.06	ND(0.0025)
	1/28/2010	92	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0022	0.0043	ND(0.0010)J
	4/22/2010	95	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.3	0.21	ND(0.0050)
	7/14/2010	95	ND(0.0010)J	0.0033J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.033J	0.0059J	ND(0.020)
	10/12/2010	93	ND(0.0050)	0.0071	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.42	0.064	ND(0.10)
	1/5/2011	95	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.3	0.35	ND(0.010)
	4/6/2011	92.3	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1.4D	0.45	ND(0.040)
	7/28/2011	92	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	2	0.57	ND(0.040)
	10/25/2011	92	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.41	1	ND(0.040)	0.15	5.1D	ND(0.040)
	1/18/2012	92	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.9	1.6	ND(0.10)
	4/3/2012	92	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	1.9	2	ND(0.040)
	8/21/2012	92	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.8D	1.4	ND(0.020)
	11/28/2012	95	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.1	0.27	ND(0.020)
	2/6/2013	87.2	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.5	1.4	ND(0.020)
OB-09-S	6/3/2002	30	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	4.9	41D	ND(0.20)	ND(0.20)	3	ND(0.10)
	1/23/2003	30	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	5.3	44D	ND(0.20)	0.3	4.5	ND(0.0010)
	5/12/2003	30	ND(0.10)	ND(0.10)	0.1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	8.4	46D	ND(0.20)	0.4	7	ND(0.50)
	12/15/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.072	0.1	ND(0.0010)	ND(0.0020)	0.0073	ND(0.50)
	4/23/2004	30	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	21	46	ND(0.50)	ND(1.0)	4.1	ND(0.50)
	12/29/2004	30	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	18	45	ND(0.50)	ND(1.0)	4.4	ND(0.50)
	4/27/2005	30	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	25	48	ND(0.50)	ND(1.0)	4	ND(0.50)
	12/30/2005	30	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	30	53	ND(0.50)	ND(1.0)	4.2	ND(0.0020)
	3/27/2006	28.5	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	28	50	ND(0.50)	ND(1.0)	4.6	ND(0.020)
	1/30/2007	30	0.041	0.013	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	0.019	ND(0.010)	0.002	0.0074	ND(0.0020)	0.071	0.17	ND(0.020)
	4/10/2007	30	0.027	0.07	0.025	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.18	2.8	ND(0.020)	0.48	1	0.0021
	7/19/2007	29.1	0.48	0.67	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	2.4	0.64	0.021
	11/12/2007	27.9	0.0019	0.031	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.017	ND(0.0020)	ND(0.0050)	0.019	0.064	ND(0.0010)	0.062	0.059	0.068J
	1/24/2008	29	ND(0.0050)	0.053	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.016	0.068	ND(0.0050)	0.55	0.54	0.043J
	4/21/2008	28	ND(0.050)J	0.087J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.10)J	ND(0.25)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	5.4J	7.0J	0.017
	7/29/2008	29	0.030J	0.36J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	0.035J	ND(0.050)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	1.2J	0.28J	0.02
	10/22/2008	28	0.36	0.59	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	0.2	ND(0.025)	0.014	0.071	ND(0.0050)	0.13	0.063	ND(0.020)
	1/13/2009	29	0.039	0.38	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.13	ND(0.010)	0.012	0.062	ND(0.010)	1.2	0.43	0.0037
	4/9/2009	27.5	0.055	0.023	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.024J	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.9	1.4	0.0056
	7/14/2009	29	0.002	0.049	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.046J	ND(0.0010)	0.0045	0.035	0.0049	0.073	0.025	0.0098
	10/28/2009	29	ND(0.0050)	0.078	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.046	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.63	0.24	0.0047
	1/28/2010	27.5	ND(0.0050)	0.097	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.042	ND(0.0050)	ND(0.0050)	0.009	ND(0.0050)	0.49	0.15	0.0024J
	4/22/2010	29	0.014	0.046	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0036	0.029	ND(0.0010)	0.0019	0.029	ND(0.0010)	0.14	0.048	0.0021
	7/14/2010	29	0.019J	0.25DJ	ND(0.0010)J	0.0024J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.087J	ND(0.0010)J	0.0018J	0.0035J	ND(0.0010)J	0.020J	0.020J	ND(0.0020)
	10/12/2010	27	0.0045	0.053	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.023	0.061	ND(0.010)
	1/5/2011	29	ND(0.0020)	0.0089	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.04	ND(0.0020)	ND(0.0020)	0.0074	ND(0.0020)	0.0054	0.0065	0.0028
	4/5/2011	26.5	0.018	0.039	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.047	ND(0.0020)	ND(0.0020)	0.003	ND(0.0020)	0.076	0.081	ND(0.0020)
	7/28/2011	26	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.044	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0031	0.0063	ND(0.0020)
	10/25/2011	23	0.14	0.89D	0.0042	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.45D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.095	0.018	ND(0.0020)
	1/18/2012	23.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.56D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0037	ND(0.010)
	4/3/2012	23	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.27	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
	8/21/2012	23	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0059	ND(0.0020)	ND(0.0020)	0.0048	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)
	11/28/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0082	ND(0.0020)	0.0077	0.033	ND(0.0020)	0.0037	0.017	ND(0.0020)
	2/6/2013	23.1	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0056	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.019	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-10-BR	6/3/2002	65	ND(0.010)	0.03	0.03	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.03	0.57	ND(0.020)	ND(0.020)	1.0	ND(0.0020)
	6/3/2002	76	ND(0.010)	0.04	0.04	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.03	0.52	ND(0.020)	0.03	1.4	ND(0.0020)
	1/23/2003	76	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.027	ND(0.0020)	ND(0.0020)	0.006	ND(0.025)
	5/13/2003	76	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.011	0.11	ND(0.0020)	0.002	0.61D	ND(0.020)
	12/15/2003	76	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	ND(0.025)	0.1	ND(0.025)	ND(0.050)	2.0	ND(0.010)
	4/23/2004	76	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.024	0.069	ND(0.020)	ND(0.040)	2.1	ND(0.025)
	4/27/2005	75	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.072	0.73	ND(0.010)	0.048	1.4	ND(0.025)
	3/27/2006	77	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.76	3.0	ND(0.025)	ND(0.050)	0.74	ND(0.020)
	4/14/2007	76	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.82	3.1	ND(0.025)	ND(0.050)	1.4	ND(0.010)
	1/24/2008	74	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.52	2.2	ND(0.020)	ND(0.040)	1.7	ND(0.020)
	4/23/2008	75	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.19	1.1	ND(0.010)	0.082	1.3	ND(0.020)
	4/3/2009	74	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.31	1.7	ND(0.020)	0.034	1.6	ND(0.0020)
	4/21/2010	75	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.079	0.51	ND(0.020)	0.04	2.9	ND(0.0020)
	4/5/2011	73.4	ND(0.0020)	0.0032	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0043	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2012	73	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.25	1.6	ND(0.020)	ND(0.020)	0.3	ND(0.020)
OB-10-DO	6/3/2002	35	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.029	0.71D	ND(0.0020)	ND(0.0020)	0.014	ND(0.0020)
	6/3/2002	50	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.015	0.63D	ND(0.0020)	ND(0.0020)	0.015	ND(0.0020)
	1/23/2003	50	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.006	0.54D	ND(0.0020)	ND(0.0020)	0.018	ND(0.0050)
	5/13/2003	50	ND(0.0020)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.004	0.55D	ND(0.0020)	ND(0.0020)	0.079	ND(0.0050)
	12/15/2003	50	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.38	ND(0.0050)	ND(0.010)	0.28	ND(0.0050)
	4/23/2004	48	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0069	0.61	ND(0.0050)	ND(0.010)	0.021	ND(0.0050)
	4/27/2005	48	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.018	0.64	ND(0.0050)	ND(0.010)	0.03	ND(0.010)
	3/27/2006	47	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.026	0.66	ND(0.0050)	ND(0.010)	0.029	ND(0.010)
	4/16/2007	49	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.028	0.8	ND(0.010)	ND(0.020)	0.047	ND(0.0050)
	8/9/2007	48	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.026	0.78	ND(0.010)	ND(0.020)	0.062	ND(0.010)
	11/13/2007	47	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.024	0.38	ND(0.0050)	ND(0.010)	0.55	ND(0.010)
	1/24/2008	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.034	0.9	ND(0.010)	ND(0.020)	0.092	ND(0.010)J
	4/23/2008	49	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.024	0.81	ND(0.010)	ND(0.020)	0.11	ND(0.0050)
	7/29/2008	49	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	0.030J	0.91J	ND(0.010)J	ND(0.020)J	0.12J	ND(0.0050)
	10/22/2008	48	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.01	0.35	ND(0.0050)	ND(0.010)	0.48	ND(0.010)
	1/13/2009	49	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.017	0.39	ND(0.0050)	ND(0.0050)	0.4	0.014J
	4/1/2009	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.034	1.1	ND(0.010)	ND(0.010)	0.66	0.014
	7/14/2010	48.5	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	0.020J	1.2J	ND(0.010)J	ND(0.010)J	0.16J	ND(0.020)
	10/13/2010	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1.1D	0.014
	10/18/2010	78	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.42	2.5D	ND(0.020)	ND(0.020)	1.2	ND(0.0020)
	1/5/2011	48.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.37	ND(0.010)	ND(0.010)	0.69	0.013
	4/6/2011	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.17	ND(0.010)	ND(0.010)	0.76	0.017
	7/28/2011	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.013	0.87	ND(0.010)	ND(0.010)	0.4	0.019
	10/26/2011	48.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.25	ND(0.010)	ND(0.010)	0.81	0.023
	1/18/2012	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.013	0.92	ND(0.010)	ND(0.010)	0.38	ND(0.0020)
	4/4/2012	46	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.3	ND(0.010)	ND(0.010)	0.74	0.021
OB-10-S	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.005	0.013	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/23/2003	30	ND(0.0020)	0.007	0.008	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.03	0.18	ND(0.0020)	0.032	1.2D	ND(0.0010)
	5/13/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/15/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.029	ND(0.0010)	ND(0.0020)	0.0054	ND(0.0010)
	4/23/2004	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.0069	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2005	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0025	0.0098	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-10-S (Cont.)	3/27/2006	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	8/9/2007	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	27	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/25/2008	31	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/25/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	7/29/2008	29	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/22/2008	27	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/13/2009	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	4/1/2009	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	7/14/2009	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	1/28/2010	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)J
	4/22/2010	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	7/14/2010	29	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)
	10/13/2010	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/18/2010	12	ND(0.0020)	0.0028	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.09	0.45D	ND(0.0020)	ND(0.0020)	0.23D	ND(0.0020)
	1/5/2011	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2011	31	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	7/28/2011	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/26/2011	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/18/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/4/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0081	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	8/21/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.011	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)
	11/28/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0038	0.03	ND(0.0020)	ND(0.0020)	0.0092	ND(0.0020)
	2/6/2013	29.1	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0023	0.024	ND(0.0020)	ND(0.0020)	0.0079	ND(0.0020)
OB-11-BR	6/3/2002	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.038	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	87	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.041	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/27/2003	87	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.008	ND(0.0020)	ND(0.0020)	0.034	ND(0.0010)
	5/12/2003	87	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	0.045	ND(0.0010)
	12/16/2003	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0028	ND(0.0010)	ND(0.0020)	0.035	ND(0.0010)
	5/1/2004	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.013	ND(0.0010)
	4/28/2005	86	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0085	ND(0.0010)	ND(0.0020)	0.05	ND(0.0010)
	3/27/2006	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.011	ND(0.0010)	ND(0.0020)	0.065	0.002
	4/11/2007	86	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0034	ND(0.0010)	0.0048	0.034	0.0021
	4/22/2008	85	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.004	ND(0.0010)	0.0092	0.035	ND(0.0020)
	4/3/2009	85	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0031	ND(0.0010)	0.004	0.022	0.0045J
	4/6/2011	86.1	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0064J	ND(0.0020)J	0.0027J	0.036J	ND(0.0020)
	4/5/2012	86	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0032	ND(0.0020)	ND(0.0020)	0.045	0.0051
OB-11-DO	6/3/2002	50	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	62	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.088	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/27/2003	62	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.02	ND(0.0020)	ND(0.0020)	0.057	ND(0.0010)
	5/12/2003	62	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.037	ND(0.0020)	ND(0.0020)	0.041	ND(0.0010)
	12/16/2003	62	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.04	ND(0.0010)	ND(0.0020)	0.052	ND(0.0010)
	5/1/2004	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.032	ND(0.0010)	ND(0.0020)	0.045	ND(0.0010)
	4/28/2005	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.065	ND(0.0010)	ND(0.0020)	0.023	ND(0.0010)
	3/27/2006	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.098	ND(0.0010)	ND(0.0020)	0.04	ND(0.0010)
	4/11/2007	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.076	ND(0.0010)	ND(0.0020)	0.031	ND(0.0010)
	4/22/2008	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.073	ND(0.0010)	ND(0.0020)	0.023	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-11-DO (Cont.)	4/3/2009	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.065	ND(0.0010)	ND(0.0010)	0.023	ND(0.0020)J
	4/6/2011	59.8	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.075J	ND(0.0020)J	ND(0.0020)J	0.021J	ND(0.0020)
	4/5/2012	59	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.083	ND(0.0020)	ND(0.0020)	0.021	ND(0.0020)
OB-11-S	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/27/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/12/2003	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/27/2006	28	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.004
	4/3/2009	29	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.004
OB-12-BR	6/3/2002	75	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.007	ND(0.0020)	0.029	1.6D	ND(0.010)
	6/3/2002	88	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.002	0.004	ND(0.0020)	0.028	1.5D	0.094
	1/27/2003	88	ND(0.010)	ND(0.010)	0.01	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	ND(0.010)	ND(0.010)	ND(0.020)	0.02	8.7D	ND(0.0010)
	5/13/2003	88	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.033	20D	ND(0.0050)
	12/16/2003	88	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0084	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/13/2004	86	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0010)
	4/3/2006	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	88	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	8/9/2007	82	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	89	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/24/2008	84	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/22/2008	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	7/29/2008	87	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0011J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/22/2008	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0011	0.0022	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/13/2009	87	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	0.023	ND(0.0010)	0.0013	0.037	ND(1.0)
	4/1/2009	84	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0021	0.051	ND(0.0010)	0.002	0.084	ND(1.0)
OB-12-DO	6/3/2002	45	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	3.0	140	ND(2.0)	ND(2.0)	3.0	ND(0.10)
	6/3/2002	59	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	2.0	120	ND(2.0)	ND(2.0)	4.0	ND(1.0)
	1/27/2003	59	ND(0.10)	ND(0.10)	0.2	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	0.4	33D	ND(0.20)	ND(0.20)	91D	ND(0.0010)
	5/13/2003	59	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	ND(1.0)	19	ND(2.0)	ND(2.0)	100	ND(1.0)
	12/16/2003	59	ND(0.0010)	0.0062	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.50)
	5/1/2004	55	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	1.6	94	ND(1.0)	ND(2.0)	11	ND(0.50)
	4/28/2005	60	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	2.3	63	ND(0.50)	ND(1.0)	22	ND(0.0010)
	4/3/2006	53	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	1.8	35	ND(0.50)	ND(1.0)	17	ND(0.10)
	1/31/2007	60	ND(0.0010)	0.0094	ND(0.0010)	0.004	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	59	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	1.8	7.8	ND(0.10)	ND(0.20)	1.3	ND(0.0010)
	8/9/2007	48	ND(0.0010)	0.0068	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/13/2007	59	ND(0.0010)	0.0074	ND(0.0010)	0.003	ND(0.0010)	ND(0.0020)	0.0032	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/25/2008	49	ND(0.0010)	0.0084	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.20)J
	4/25/2008	59	ND(0.0010)	0.0081	ND(0.0010)	0.0034	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.013	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.50)
	7/29/2008	59	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.40)J	ND(0.20)J	ND(0.40)J	ND(1.0)J	1.8J	17J	ND(0.20)J	ND(0.40)J	4.6J	ND(0.40)
	10/22/2008	59	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	1.8	36	ND(0.50)	ND(1.0)	15	ND(0.50)
	1/13/2009	59	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	2.3	39	ND(0.40)	ND(0.40)	18	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-12-DO (Cont.)	4/1/2009	50	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	2.1	43	ND(0.50)	ND(0.50)	20	ND(0.0010)
	10/27/2009	50	ND(0.0010)	0.0078	ND(0.0010)	0.0027	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)J
	5/7/2010	57	ND(0.0010)	0.0075	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.088	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.014
	7/14/2010	59	ND(0.0010)J	0.0084J	ND(0.0010)J	0.0034J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.27DJ	0.0038J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.018
	10/13/2010	46	ND(0.0020)	0.0076	0.024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.4D	21D	ND(0.0020)	ND(0.0020)	8.7D	ND(0.010)
	1/5/2011	59	ND(0.0050)	0.0075	0.053	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	2.2D	45D	ND(0.0050)	0.0066	24D	ND(0.50)
	4/6/2011	49.1	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	2.1	33	ND(0.50)	ND(0.50)	17	ND(0.0020)
	7/28/2011	59	ND(0.0020)	0.0068	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/26/2011	48	ND(0.0020)	0.0069	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0034	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013
	1/17/2012	48.5	ND(0.0020)	0.008	0.018	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.8D	15D	ND(0.0020)	ND(0.0020)	5.5D	ND(0.010)
	4/4/2012	48	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	2.5	37	ND(0.40)	ND(0.40)	19	ND(0.40)
	11/26/2012	59	ND(0.0020)	0.0068	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-12-S	6/3/2002	30	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.72	1.4	ND(0.020)	ND(0.020)	0.01	ND(0.010)
	1/27/2003	30	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.69	1.7	ND(0.020)	ND(0.020)	0.02	ND(0.0010)
	5/13/2003	30	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.61	1.3	ND(0.020)	ND(0.020)	0.01	ND(0.0050)
	12/16/2003	30	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0064	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/13/2004	30	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	4/28/2005	30	0.0039	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	4/3/2006	28	0.0067	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.45	0.45	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	1/31/2007	30	0.0052	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0032	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.28	0.28	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0025)
	4/16/2007	26	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.36	0.33	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	8/9/2007	26	0.0041	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.26	0.19	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0020)
	11/13/2007	26	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0065	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.41	0.4	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0025)
	1/25/2008	27	0.0036	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0032	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.23	0.18	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0025)J
	4/22/2008	29	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.16	0.12	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0020)
	7/29/2008	29	0.0028J	ND(0.0025)J	ND(0.0025)J	ND(0.0025)J	0.0033J	ND(0.0050)J	ND(0.0025)J	ND(0.0050)J	ND(0.013)J	0.28J	0.15J	ND(0.0025)J	ND(0.0050)J	ND(0.0025)J	ND(0.0025)
	10/22/2008	29	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0039	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.28	0.19	ND(0.0020)	ND(0.0040)	0.0022	ND(0.0020)
	1/13/2009	29	0.0041	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0051	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.25	0.18	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)
	4/1/2009	26	0.0021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.17	0.11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	7/14/2009	29	0.0048	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0061	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.26	0.19	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0010)
	10/27/2009	26	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.088	0.022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	1/28/2010	26	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.072	0.015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)J
	4/22/2010	29	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.089	0.055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0040)
	7/14/2010	29	0.0043J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0039J	ND(0.0010)J	0.0025J	ND(0.0010)J	ND(0.0010)J	0.22DJ	0.14J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)
	10/13/2010	26	0.005	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0052	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.22	0.15	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.010)
	1/5/2011	29	0.0038	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0034	ND(0.0020)	0.0026	ND(0.0020)	ND(0.0020)	0.17	0.098	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2011	27.7	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.15	0.071	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	7/28/2011	26	0.0033	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	0.0023	ND(0.0020)	ND(0.0020)	0.19	0.12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/26/2011	26	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.058	0.021	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/17/2012	26.5	0.0041	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0037	ND(0.0020)	0.0033	ND(0.0020)	ND(0.0020)	0.19	0.14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/4/2012	26	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.2	0.11	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
	8/21/2012	27.7	0.0042	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0043	ND(0.0040)	ND(0.0040)	0.19	0.13	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
	11/28/2012	29	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/6/2013	27.4	0.0061	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.007	ND(0.0040)	ND(0.0040)	0.26	0.16	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)
OB-14-DO	6/3/2002	45	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.1	1.4	ND(0.020)	ND(0.020)	0.3	ND(0.010)
	6/3/2002	60	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.07	1.4	ND(0.020)	ND(0.020)	0.35	ND(0.010)
	1/23/2003	60	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	ND(0.010)	1	ND(0.020)	ND(0.020)	0.05	ND(0.010)
	5/13/2003	60	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.06	0.76	ND(0.020)	ND(0.020)	0.98	ND(0.010)
	12/17/2003	60	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.23	1.2	ND(0.010)	ND(0.020)	0.41	ND(0.010)
	5/1/2004	58	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.14	1.1	ND(0.010)	ND(0.020)	0.25	ND(0.010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-14-DO (Cont.)	4/28/2005	58	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.11	0.97	ND(0.010)	ND(0.020)	0.28	ND(0.010)
	3/27/2006	56	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.091	0.83	ND(0.010)	ND(0.020)	0.23	ND(0.010)
	4/11/2007	55	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.12	1.1	ND(0.010)	ND(0.020)	0.31	ND(0.010)
	4/22/2008	59	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.096	0.81	ND(0.010)	ND(0.020)	0.24	ND(0.010)
	4/3/2009	55	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.086	0.84	ND(0.010)	ND(0.010)	0.21	ND(0.020)J
	4/6/2011	55.4	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	0.096J	1J	ND(0.020)J	ND(0.020)J	0.17J	0.09
	4/5/2012	55	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.095	1.2	ND(0.020)	ND(0.020)	0.13	ND(0.020)
OB-15-S	6/3/2002	20	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.9	1.1	ND(0.020)	ND(0.020)	0.53	0.011
	1/23/2003	20	0.05	ND(0.010)	0.02	ND(0.010)	ND(0.010)	ND(0.010)	0.04	ND(0.050)	ND(0.020)	2	3.8D	ND(0.020)	0.04	3.9D	ND(0.0050)
	5/12/2003	20	0.043	0.005	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.004	ND(0.010)	ND(0.010)	0.50D	2.1D	ND(0.0020)	0.052	2.5D	ND(0.0010)
	12/16/2003	20	0.086	0.014	ND(0.0050)	ND(0.0050)	0.0088	ND(0.010)	0.0058	ND(0.010)	ND(0.025)	0.4	0.041	ND(0.0050)	ND(0.010)	0.078	ND(0.0025)
	4/23/2004	20	0.11	0.0045	ND(0.0010)	ND(0.0010)	0.075	ND(0.0020)	0.024	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0020)	ND(0.0010)	ND(0.010)
	4/27/2005	20	0.28	0.0047	ND(0.0025)	ND(0.0025)	0.065	ND(0.0050)	0.034	ND(0.0050)	ND(0.013)	0.13	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0020)
	4/3/2006	19	0.071	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	1.3	0.16	ND(0.010)	ND(0.020)	0.064	ND(0.020)
	4/10/2007	20	0.18	0.0022	ND(0.0020)	ND(0.0020)	0.033	ND(0.0040)	0.016	ND(0.0040)	ND(0.010)	0.0047	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.050)J
	4/25/2008	NA	0.24	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.6	0.76	ND(0.020)	ND(0.040)	0.38	ND(0.025)
	7/29/2008	19	3.0J	ND(0.050)J	0.11J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.10)J	ND(0.25)J	3.0J	3.7J	ND(0.050)J	ND(0.10)J	0.13J	ND(0.050)
	10/21/2008	19	1.2	ND(0.025)	0.042	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	2.9	2.8	ND(0.025)	ND(0.050)	0.86	ND(0.10)
	1/13/2009	19	0.5	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	6.1	4.3	ND(0.050)	ND(0.050)	0.76	ND(0.10)
	4/1/2009	18	0.25	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	4.4	4.4	ND(0.10)	ND(0.10)	7.6	ND(0.050)
	7/14/2009	19	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.21	ND(0.10)	0.78	9.5	ND(0.050)
	10/27/2009	18	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.092	ND(0.050)	1.3	4.4	ND(0.050)
	1/28/2010	18	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.13	0.27	ND(0.050)	1.4	5.6	0.0021J
	4/22/2010	19	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	1.2	3.7	ND(0.0020)
	7/14/2010	19	0.0044J	0.0054J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	0.0011J	ND(0.0010)J	0.0060J	0.0044J	0.0022
	10/12/2010	19	0.0026	0.0085	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	0.014	ND(0.0020)
	1/4/2011	19	ND(0.0020)	0.0022	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0065	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.1	0.11	ND(0.010)
	4/6/2011	18.7	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.05	ND(0.010)	0.53	1.2D	ND(0.0020)
	7/28/2011	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0020)	0.012	ND(0.0020)	0.04	0.026	ND(0.0020)
	10/25/2011	18.5	ND(0.0020)	0.0051	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0054	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.18	0.15	ND(0.0020)
	1/17/2012	18.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0043	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0052	0.0045	ND(0.0020)
	4/3/2012	18.75	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.64	1.4	ND(0.020)
	8/21/2012	18.6	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.02	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0088	0.024	ND(0.0020)
	11/28/2012	19	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0056	0.0031	ND(0.0020)	0.0074	0.01	ND(0.0020)	0.067	0.055	ND(0.0020)
	2/6/2013	18.8	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	ND(0.0020)	0.004	ND(0.0020)	0.032	0.035	ND(0.0020)
OB-16-BR	6/3/2002	33	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.013	0.041	ND(0.0020)	ND(0.0020)	0.006	ND(0.0010)
	5/14/2003	33	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.011	ND(0.0020)	ND(0.0020)	0.003	ND(0.0010)
	12/16/2003	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0031	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	32.1	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/10/2007	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/21/2008	32	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0024J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	4/3/2009	32	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/20/2010	32	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/5/2011	32	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2012	32	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-16-S	6/25/2002	17.5	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.021	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	17.5	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/16/2003	17.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	17.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	15.7	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.002	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/10/2007	18	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/21/2008	17	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0021J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	4/3/2009	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.010)
	4/20/2010	17	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/6/2011	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/5/2012	15.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-17-BR	6/3/2002	55	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.32	0.71	ND(0.020)	ND(0.020)	0.03	ND(0.010)
	6/3/2002	70	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.41	0.71	ND(0.020)	ND(0.020)	0.04	ND(0.0020)
	6/3/2002	98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.46	0.71	ND(0.020)	ND(0.020)	0.04	ND(0.0050)
	5/15/2003	98	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.19	0.54	ND(0.0040)	ND(0.0040)	0.052	ND(0.0050)
	12/18/2003	98	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.23	0.42	ND(0.0050)	ND(0.010)	0.057	ND(0.0050)
	5/2/2004	98	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.21	0.46	ND(0.0050)	ND(0.010)	0.058	ND(0.0050)
	5/19/2005	87	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.41	ND(0.0050)
	4/7/2006	98	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.66	ND(0.0050)
	4/12/2007	98	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.0054	ND(0.0050)	ND(0.010)	0.6	ND(0.0025)
	4/22/2008	97	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.57	ND(0.0025)
	4/1/2009	95	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.018	0.37	ND(0.0020)
	4/21/2010	97	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.17	0.11	ND(0.0020)
	4/4/2011	96	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0029	ND(0.0020)	0.13	0.039	ND(0.0020)
	4/2/2012	98	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.13	ND(0.0020)	ND(0.0020)
OB-17-DO	6/3/2002	30	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.027	0.038	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	6/3/2002	43	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.032	0.046	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/15/2003	43	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.037	0.052	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.005	ND(0.0020)	ND(0.0050)	0.027	0.033	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	5/2/2004	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0020)	ND(0.0050)	0.031	0.035	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	42	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.026J	0.030J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	4/7/2006	41	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.021	0.025	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	43	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.016	0.017	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.02	0.022	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/1/2009	41	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.017	0.019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/21/2010	42	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.016	0.018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	41	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.014	0.015	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0050)
	4/2/2012	41.24	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-18-DO	8/26/2002	NA	ND(0.0020)	0.003	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.048	0.50D	ND(0.0020)	0.004	0.15	ND(0.0050)
	5/14/2003	30	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.030)	ND(0.010)	0.03	0.7	ND(0.010)	ND(0.010)	0.33	ND(0.0050)
	12/23/2003	30	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.03	0.39	ND(0.0050)	ND(0.010)	0.12	ND(0.0010)
	5/3/2004	25	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.039	0.47	ND(0.0050)	ND(0.010)	0.15	ND(0.0050)
	4/29/2005	25	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.018	ND(0.0010)	ND(0.0020)	0.0073	ND(0.0025)
	4/7/2006	24	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.04	0.47	ND(0.0050)	ND(0.010)	0.15	0.0026
	4/13/2007	30	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.02	0.21	ND(0.0025)	ND(0.0050)	0.12	ND(0.0010)
	11/14/2007	23	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.0096	0.12	ND(0.0025)	ND(0.0050)	0.31	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-18-DO (Cont.)	4/22/2008	29	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0064	0.12	ND(0.0010)	0.0045	0.12	ND(0.0010)
	4/2/2009	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0051	0.088	ND(0.0010)	0.0016	0.056	ND(0.010)
	10/26/2009	23	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	0.012	0.11	ND(0.0010)	ND(0.0010)	0.048	0.0032
	4/20/2010	25	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.071	0.7	ND(0.010)	0.013	0.47	ND(0.0020)
	10/14/2010	24	ND(0.0020)	0.0023	0.0038	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.035	0.36D	ND(0.0020)	0.016	0.46D	ND(0.0020)
	4/5/2011	23	ND(0.0020)	0.0027	0.0048	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.076	0.63D	ND(0.0020)	0.051	0.66D	ND(0.0020)
	10/25/2011	23	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.027	0.16	ND(0.0020)	0.007	0.099	ND(0.0020)
	4/5/2012	23.8	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.018	0.23	ND(0.0050)	0.024	0.37	ND(0.0050)
OB-18-S	8/26/2002	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.022	ND(0.0020)	0.002	0.017	ND(0.0020)
	9/18/2002	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.015	ND(0.0020)	0.003	0.011	ND(0.0020)
	1/28/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.056	ND(0.0020)	ND(0.0020)	0.026	ND(0.0010)
	5/14/2003	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.002	0.077	ND(0.0020)	0.002	0.048	ND(0.0010)
	12/23/2003	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	5/3/2004	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0098	ND(0.0010)	ND(0.0020)	0.0032	ND(0.0010)
	4/29/2005	12	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.041	0.47	ND(0.0050)	ND(0.010)	0.13	ND(0.0010)
	4/7/2006	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.007	ND(0.0010)	ND(0.0020)	0.0022	ND(0.0010)
	2/1/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.01	ND(0.0010)	ND(0.0020)	0.004	ND(0.0010)
	4/13/2007	15	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0071	ND(0.0010)	ND(0.0020)	0.002	ND(0.0010)
	11/14/2007	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.001	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/20/2008	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.013	ND(0.0010)	ND(0.0020)	0.0048	ND(0.0010)
	4/2/2009	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/26/2009	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0082
	4/20/2010	14	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	0.0011	ND(0.10)
	10/14/2010	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0026	0.0082	ND(0.0020)	0.019	0.07	ND(0.0020)
	4/5/2011	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.10)
	4/5/2012	11.2	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0049	ND(0.0020)	ND(0.0020)	0.0026	ND(0.0020)
	11/12/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-19-BR	6/3/2002	80	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	7.3	29	ND(0.20)	ND(0.20)	7.4	0.1
	6/3/2002	92	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	11	44D	ND(0.20)	ND(0.20)	9.6	ND(0.0020)
	1/28/2003	92	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	12	70D	ND(0.20)	0.3	3.2	ND(0.0010)
	5/13/2003	92	ND(0.0020)	0.018	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	92	ND(0.0010)	0.0047	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0044	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	92	ND(0.0010)	0.0073	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/28/2004	91	ND(0.0010)	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0092	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	92	ND(0.0010)	0.015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0044	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/3/2006	92	ND(0.0010)	0.015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0019	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)
	3/31/2006	82	ND(0.0010)	0.013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	1/31/2007	92	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.83	2.8	ND(0.020)	ND(0.040)	1.2	ND(0.020)
	4/16/2007	82	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0067	0.0082	ND(0.0050)	ND(0.010)	0.59	ND(0.025)
	8/9/2007	80	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.027	0.17	ND(0.020)	ND(0.040)	2.3	0.02
	11/15/2007	82	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.27	2	ND(0.025)	ND(0.050)	2.9	0.024
	1/24/2008	83	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.17	2.2	ND(0.020)	ND(0.040)	2.9	ND(0.050)J
	4/22/2008	91	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.16	2.3	ND(0.020)	ND(0.040)	2.9	ND(0.050)
	7/29/2008	91	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.10)J	ND(0.050)J	ND(0.10)J	ND(0.25)J	0.61J	3.2J	ND(0.050)J	ND(0.10)J	3.6J	ND(0.10)
	10/21/2008	91	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.34	4.3	ND(0.050)	ND(0.10)	3.2	ND(0.10)
	1/13/2009	91	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.85	9.4	ND(0.10)	ND(0.10)	4.7	0.053J
	4/9/2009	82	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	1	12	ND(0.10)	ND(0.10)	6	ND(1.0)
	7/14/2010	91	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	ND(0.050)J	0.39J	6.3J	ND(0.050)J	0.13J	5.8J	0.2

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-19-DO	6/3/2002	50	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	47	160	ND(2.0)	ND(2.0)	2.0	ND(0.0020)
	6/3/2002	65	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	28	210D	ND(0.20)	0.7	1.8	0.1
	1/28/2003	65	ND(0.0020)	0.005	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.004	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.50)
	5/13/2003	65	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	11	55	ND(0.20)	0.6	18	ND(0.50)
	12/17/2003	65	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	11	53	ND(0.50)	ND(1.0)	2.9	ND(0.0010)
	4/26/2004	59	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	11	46	ND(0.50)	ND(1.0)	17	ND(0.020)
	12/28/2004	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.010)
	4/28/2005	65	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.1	1.6	ND(0.020)	ND(0.040)	0.45	0.03
	1/19/2006	65	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.2	0.9	ND(0.010)	ND(0.020)	0.6	0.012
	3/31/2006	55	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.14	0.87	ND(0.010)	0.09	0.71	0.076
	1/31/2007	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0088	0.11	ND(0.0010)	0.013	0.052	0.072
	4/11/2007	65	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.13	0.97	ND(0.010)	0.14	0.83	0.07
	11/15/2007	54	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.11	0.8	ND(0.010)	0.09	0.69	0.065J
	4/22/2008	64	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.14	0.85	ND(0.010)	0.12	0.78	0.054
	7/29/2008	64	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	0.17J	0.92J	ND(0.010)J	0.11J	0.71J	ND(0.20)
	10/21/2008	64	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.33	1.8	ND(0.020)	0.092	1.1	ND(0.20)
	1/13/2009	64	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	8.7	17	ND(0.20)	ND(0.20)	2.3	0.075J
	4/9/2009	57	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	8.1	17	ND(0.20)	ND(0.20)	2.1	0.058
	7/14/2010	64	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	0.52J	2.6J	ND(0.020)J	0.10J	1.4J	0.064
	10/13/2010	57	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.25	0.94	ND(0.020)	0.085	1.9D	ND(0.0020)
	1/5/2011	64	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.87	3.2	ND(0.040)	0.1	1.5	0.051
	4/4/2011	57	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.46	1.8	ND(0.020)	0.066J	1.4	0.061
	7/28/2011	57	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.74	2.8	ND(0.040)	0.11	1.7	0.053
	10/26/2011	64	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.72	3.2D	ND(0.020)	0.079	1.3	0.066
	1/17/2012	56.5	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.82	3.1	ND(0.040)	0.094	1.5	ND(0.0020)
	4/4/2012	57	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.8	3.1	ND(0.040)	0.1	1.5	0.066
	11/26/2012	64	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	12D	24D	ND(0.040)	0.086	4.1	0.07
OB-19-S	6/3/2002	35	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	1/28/2003	35	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/13/2003	35	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	35	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0016	0.0044	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	0.0029	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	33	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/22/2008	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/21/2008	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.013
	4/20/2010	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.013
	4/20/2010	34	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/5/2011	32.7	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/5/2012	32	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-20-BR	9/3/2004	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.3	ND(0.010)	ND(0.020)	0.99	ND(0.010)J
	1/3/2005	98	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	ND(0.010)	0.3	ND(0.010)	ND(0.020)	1.1	ND(0.0010)
	5/2/2005	97	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	ND(0.010)J	0.24J	ND(0.010)J	ND(0.020)J	0.88J	ND(0.0010)
	1/6/2006	101	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	96	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/1/2007	101	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-20-BR (Cont.)	4/12/2007	100	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/14/2007	99	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2008	96	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	95	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/28/2010	100	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019
	10/13/2010	96	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0020)	0.014	ND(0.0020)
	4/6/2011	95	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.056	ND(0.0020)	ND(0.0020)	0.29D	0.002
	10/26/2011	97	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0031	0.13	ND(0.0020)	0.0024	0.47D	ND(0.0010)
	4/6/2012	94.75	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.024	ND(0.0040)	ND(0.0040)	0.19	ND(0.0040)
OB-20-DO	9/3/2004	NA	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0041	ND(0.0020)	ND(0.0050)	0.017	0.089	ND(0.0010)	ND(0.0020)	0.05	0.0031J
	1/3/2005	78	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	78	ND(0.0025)J	ND(0.0025)J	0.0035J	ND(0.0025)J	ND(0.0025)J	ND(0.0050)J	ND(0.0025)J	ND(0.0050)J	ND(0.013)J	0.011J	0.050J	ND(0.0025)J	0.0071J	0.34J	ND(0.0010)
	1/6/2006	78	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0020)	ND(0.0050)	0.0036	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0034	ND(0.0010)
	3/30/2006	77	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0050)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	2/1/2007	78	ND(0.0010)	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/12/2007	76	ND(0.0050)	ND(0.0050)	0.0051	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0092	0.045	ND(0.0050)	0.011	0.49	ND(0.0050)
	11/14/2007	75	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0084	0.042	ND(0.0050)	ND(0.010)	0.46	ND(0.0050)
	4/23/2008	77	ND(0.0050)	ND(0.0050)	0.0058	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0086	0.043	ND(0.0050)	0.016	0.47	ND(0.0025)
	4/6/2009	75	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.031	ND(0.0050)	0.0075	0.42	ND(0.0050)
	10/27/2009	75	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0058	0.076	ND(0.0025)	ND(0.0025)	0.25	ND(0.0040)
	4/23/2010	77	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.012	ND(0.0050)	ND(0.0050)	0.34	ND(0.0010)
	10/13/2010	75	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.014	ND(0.0040)	0.005	0.45D	ND(0.0020)
	4/6/2011	75	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0036	0.023	ND(0.0020)	ND(0.0020)	0.19	ND(0.0050)
	10/26/2011	75	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.012	ND(0.0050)	0.027	0.47	ND(0.0010)
	4/6/2012	74.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-20-S	9/2/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0033	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	1/3/2005	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	12	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	0.0018J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	1/6/2006	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0042	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/1/2007	13	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0019	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0015	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/14/2007	11.1	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/23/2008	16	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/23/2008	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/6/2009	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/23/2010	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0061
	10/13/2010	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2011	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/26/2011	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	4/6/2012	10.9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/12/2012	12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-21-BR	9/2/2004	NA	ND(0.0050)	0.012	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	0.0092	ND(0.010)	ND(0.025)	0.11	0.52	ND(0.0050)	0.013	0.47	ND(0.010)J
	1/3/2005	97	ND(0.010)	0.018	0.022	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.11	0.79	ND(0.010)	0.021	0.74	ND(0.020)
	5/2/2005	100	ND(0.010)J	0.018J	0.024J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	0.096J	0.79J	ND(0.010)J	0.023J	0.80J	0.01
	1/6/2006	104	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.033	0.28	ND(0.020)	ND(0.040)	1.4	0.0071
	3/30/2006	101	ND(0.010)	0.021	0.03	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.04	0.44	ND(0.010)	0.033	1.4	ND(0.020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-21-BR (Cont.)	2/1/2007	98	ND(0.0050)	0.015	0.019	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.042	0.16	ND(0.0050)	0.019	0.68D	ND(0.010)
	4/12/2007	102	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	0.036	ND(0.020)	ND(0.040)	1.6	ND(0.010)
	11/14/2007	99	ND(0.010)	0.012	0.013	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.031	0.19	ND(0.010)	ND(0.020)	1.0	ND(0.0050)
	4/23/2008	98	ND(0.010)	0.014	0.02	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.018	0.15	ND(0.010)	0.026	1.2	ND(0.010)
	4/6/2009	97	ND(0.0050)	0.008	0.0087	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.037	0.16	ND(0.0050)	0.012	0.74	ND(0.010)
	10/27/2009	97	ND(0.010)	ND(0.010)	0.012	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.043	0.12	ND(0.010)	0.014	1.0	ND(0.020)
	4/28/2010	97	ND(0.010)	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.063	0.45	ND(0.010)	0.014	1.1	ND(0.0010)
	10/13/2010	97	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.13	ND(0.020)	0.03	1.6	0.0043
	4/6/2011	98.2	ND(0.0040)	0.0092	0.011	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.013	0.14	ND(0.0040)	0.017	1.5D	ND(0.020)
	10/26/2011	97	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.033	0.061	ND(0.020)	0.022	1.5	ND(0.0050)
	4/6/2012	99.5	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.49	ND(0.010)
OB-21-DO	9/2/2004	NA	ND(0.0010)	0.0014	0.0011	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0020)	ND(0.0050)	0.025	0.081	ND(0.0010)	ND(0.0020)	0.031	ND(0.0050)J
	1/3/2005	82	ND(0.0050)	0.0088	0.011	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.099	0.28	ND(0.0050)	ND(0.010)	0.55	ND(0.0050)
	5/2/2005	82	ND(0.0050)J	0.0087J	0.011J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.010)J	ND(0.025)J	0.18J	0.50J	ND(0.0050)J	ND(0.010)J	0.34J	ND(0.0050)
	1/6/2006	86	ND(0.0050)	0.0068	0.0083	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.22	0.66	ND(0.0050)	ND(0.010)	0.22	ND(0.010)
	3/30/2006	81	ND(0.0050)	0.01	0.012	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.23	0.64	ND(0.0050)	ND(0.010)	0.21	ND(0.010)
	2/1/2007	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.23	0.76	ND(0.010)	ND(0.020)	0.25	ND(0.010)
	4/12/2007	81	ND(0.010)	0.013	0.016	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.35	1.1	ND(0.010)	ND(0.020)	0.32	ND(0.010)
	11/14/2007	79	ND(0.010)	ND(0.010)	0.011	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.29	0.91	ND(0.010)	ND(0.020)	0.35	ND(0.0050)
	4/23/2008	79	ND(0.010)	0.01	0.012	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.26	0.81	ND(0.010)	ND(0.020)	0.28	ND(0.0050)
	4/6/2009	79	ND(0.0050)	0.0069	0.0074	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.21	0.71	ND(0.0050)	ND(0.0050)	0.27	ND(0.010)
	10/27/2009	79	ND(0.0050)	0.0097	0.01	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.17	0.61	ND(0.0050)	ND(0.0050)	0.42	ND(0.020)
	4/28/2010	79	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.32	1.1	ND(0.010)	ND(0.010)	0.49	ND(0.0010)
	10/13/2010	79	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.32	1.4	ND(0.020)	ND(0.020)	0.47	ND(0.020)
	4/6/2011	79	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.34	1.3	ND(0.020)	ND(0.020)	0.41	ND(0.010)
	10/26/2011	79	ND(0.010)	ND(0.010)	0.011	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.28	1.4D	ND(0.010)	ND(0.010)	0.51	ND(0.0050)
	4/6/2012	78.5	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.22	1	ND(0.020)	ND(0.020)	0.39	ND(0.020)
OB-22-DO	9/3/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.015	ND(0.0020)	ND(0.0050)	0.011	0.025	ND(0.0010)	ND(0.0020)	0.014	ND(0.0050)J
	1/4/2005	59	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	0.0053	ND(0.010)	ND(0.025)	0.0072	0.005	ND(0.0050)	ND(0.010)	0.4	ND(0.0050)
	5/2/2005	58	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.010)J	ND(0.025)J	0.039J	0.040J	ND(0.0050)J	ND(0.010)J	0.70J	ND(0.0050)
	1/4/2006	59	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.15	0.23	ND(0.0050)	ND(0.010)	0.62	ND(0.0050)
	4/7/2006	57	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.064	0.13	ND(0.0050)	ND(0.010)	0.63	ND(0.0050)
	2/1/2007	59	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.35	0.57	ND(0.0050)	ND(0.010)	0.38	ND(0.0050)
	4/15/2007	59	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.22	0.35	ND(0.0050)	ND(0.010)	0.41	ND(0.0010)
	11/16/2007	58	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.22	0.39	ND(0.0050)	ND(0.010)	0.24	ND(0.0050)
	4/23/2008	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.055	0.054	ND(0.0010)	ND(0.0020)	0.013	ND(0.0025)
	4/6/2009	56	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.38	0.58	ND(0.0050)	ND(0.0050)	0.15	ND(0.0040)
	10/27/2009	57	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.066	0.25	ND(0.0025)	0.0039	0.28	ND(0.0020)
	10/12/2010	56	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.023	0.054	ND(0.0040)	0.032	0.40D	ND(0.0020)
	10/25/2011	55	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0069	ND(0.0020)	ND(0.0020)	0.031	ND(0.0020)
OB-23-BR	6/13/2002	55	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.014	0.023	ND(0.0020)	ND(0.0020)	0.006	ND(0.0020)
	6/13/2002	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.019	0.063	ND(0.0020)	ND(0.0020)	0.009	ND(0.0010)
	6/13/2002	98	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.016	0.069	ND(0.0020)	ND(0.0020)	0.01	ND(0.0010)
	5/1/2004	85	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.1	0.01
	4/7/2006	83	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0027	ND(0.0010)	ND(0.0020)	0.052	ND(0.0010)
	4/1/2009	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/21/2010	97	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0010)	0.071	0.065	ND(0.0020)
	4/4/2011	83	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.062J	0.013	ND(0.0020)
	4/5/2012	83.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.1	0.07	ND(0.0020)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
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SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-24-S	6/3/2002	3	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/14/2003	3	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	3	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0038	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/3/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0018	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.10)
	4/21/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/5/2011	2	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/5/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-25-BR	6/18/2003	NA	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	6.9	20	ND(0.20)	ND(0.20)	7.1	ND(0.0010)
	12/17/2003	100	ND(0.0010)	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	98	ND(0.0010)	0.023	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	97	ND(0.0010)	0.024	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0021	ND(0.0020)	ND(0.0050)	0.0019	0.022	ND(0.0010)	ND(0.0020)	0.0056	ND(0.020)
	3/31/2006	97	ND(0.0010)	0.019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0052	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.050)
	4/11/2007	96	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.22	1.9	ND(0.020)	ND(0.040)	1.2	ND(0.50)
	4/22/2008	99	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.4	4.9	ND(0.050)	ND(0.10)	2.2	ND(0.50
	4/3/2009	95	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	1.5	ND(0.50)	18	64	ND(0.50)J
	4/20/2010	99	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	ND(0.50	0.51	3.8	ND(0.50	21	56	ND(0.50)
	7/14/2010	99.5	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	2.9J	ND(0.50)J	20J	65J	ND(0.0020)
	10/13/2010	97	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	2.7	ND(0.50)	21	67D	ND(0.0020)
	4/14/2011	101	ND(0.0020)	0.023	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.40)
	10/26/2011	99.5	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	1.9	8.8	ND(0.40)	4.0	22	ND(0.0010)
	4/5/2012	90	ND(0.0020)	0.037	0.11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.69D	7.8D	ND(0.0020)	6.8D	30D	0.14
	11/26/2012	99	ND(0.0020)	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.014	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-25-DO	6/26/2003	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/17/2003	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	69	0.01	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.025)
	3/31/2006	70	0.0035	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)J
	4/14/2007	70	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.7	2.6	ND(0.025)	ND(0.050)	1.4	ND(0.10)
	7/14/2010	69	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	1.0J	13J	ND(0.10)J	ND(0.10)J	1.3J	ND(0.0010)
OB-26-BR	6/19/2003	NA	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	5.9	27	ND(0.20)	ND(0.20)	2.8	ND(0.0010)
	12/17/2003	96	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.021	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.050)
	4/28/2005	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.025)
	3/31/2006	94	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	0.086	3.4	ND(0.050)	ND(0.10)	0.71	ND(0.0010)
	4/11/2007	93	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	0.06	2.2	ND(0.025)	ND(0.050)	0.86	ND(0.0050)
	4/22/2008	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0052	0.11	ND(0.0010)	ND(0.0020)	0.045	ND(0.0010)
	4/3/2009	93	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.019	0.48	ND(0.0050)	ND(0.0050)	0.19	ND(1.0)
	4/20/2010	95	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/4/2011	93.1	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)J	ND(0.0020)	ND(0.0010)
	4/17/2012	95	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0039	0.031	ND(0.0020)	0.011	0.28D	ND(0.0020)
OB-26-DO	7/2/2003	NA	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	24	210	ND(2.0)	ND(2.0)	ND(1.0)	ND(0.0010)
	12/17/2003	66	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	66	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0014	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
	3/31/2006	63	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/14/2007	66	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	1.8	8.1	ND(0.10)	ND(0.20)	0.4	ND(0.20)Z

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-27-BR	6/27/2003	NA	ND(0.0050)	0.008	0.009	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.027	ND(0.030)	ND(0.010)	1.8D	6.5D	ND(0.010)	ND(0.010)	1.0	ND(0.25)
	12/18/2003	87	ND(0.20)Z	ND(0.20)Z	ND(0.20)Z	ND(0.20)Z	ND(0.20)Z	ND(0.40)Z	ND(0.20)Z	ND(0.40)Z	ND(1.0)Z	3.8	15	ND(0.20)Z	ND(0.40)Z	5.0	ND(0.20
	4/27/2004	86	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)	ND(1.3)	5.8	18	ND(0.25)	ND(0.50)	5.5	ND(0.0010)
	7/12/2004	85.5	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.40	0.3	ND(0.40	ND(1.0	4.2	17	ND(0.20	ND(0.40	5.6	ND(0.010)
	12/28/2004	87	0.0082	0.043	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	87	ND(0.010)	0.094	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.82	0.19	ND(0.010)	ND(0.020)	0.029	ND(0.10)
	1/3/2006	87	ND(0.0010)	0.041	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	86	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	3.2	9.1N	ND(0.10)	ND(0.20)	3.2	ND(0.0010)
	1/31/2007	87	ND(0.0010)	0.028	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
	4/14/2007	87	ND(0.0010)	0.034	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
	11/15/2007	86	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	5.5	9.4	ND(0.10)	ND(0.20)	3.0	ND(0.20)
	4/28/2008	86	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	5.6	13	ND(0.10)	ND(0.20)	4.4	ND(0.20)
	10/22/2008	86	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	7.0	15	ND(0.20)	ND(0.40)	3.8	ND(0.20)
	4/3/2009	86	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	10	26	ND(0.20)	ND(0.20)	7.7	ND(0.0025)
	10/27/2009	78.5	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	10	24	ND(0.20)	ND(0.20)	7.6	ND(0.0020)
	4/22/2010	86	ND(0.0025)	0.028	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.19	0.048	ND(0.0025)	ND(0.0025)	0.005	ND(0.0020)
	10/14/2010	86	ND(0.0020)	0.045	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/14/2011	81	ND(0.0020)	0.017	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0056	ND(0.0020)	ND(0.0020)	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.012
	10/28/2011	86	ND(0.0050)	0.036	0.05	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	7.4D	22D	ND(0.0050)	0.03	4.9D	ND(0.0010)Z
	4/6/2012	85	ND(0.0020)	0.033	0.054	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	3.2D	20D	ND(0.0020)	0.026	4.7D	0.028
	11/26/2012	86	ND(0.0020)	0.037	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-27-DO	6/30/2003	NA	ND(0.0020)	0.004	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.012	ND(0.010)	ND(0.010)	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	63	ND(0.0010)Z	0.0044	0.0085	ND(0.0010)Z	ND(0.0010)Z	ND(0.0020)Z	ND(0.0010)Z	ND(0.0020)Z	ND(0.0050)Z	ND(0.0010)Z	0.0041	ND(0.0010)Z	ND(0.0020)Z	ND(0.0010)Z	ND(0.0010)
	4/27/2004	61	ND(0.0010)	0.005	0.01	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0047	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	7/12/2004	61	ND(0.0010)	0.0038	0.0075	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0048	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/28/2004	61	ND(0.0010)	0.0031	0.0065	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	61	ND(0.0010)	0.0036	0.0072	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0042	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/3/2006	63	ND(0.0010)	0.0021	0.0042	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0043	ND(0.0010)	ND(0.0020)	0.001	ND(0.0010)
	3/28/2006	61	ND(0.0010)	0.0018	0.0035	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	63	ND(0.0010)	0.0018	0.0039	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/10/2007	63	ND(0.0010)	0.0017	0.0034	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/15/2007	60	ND(0.0010)	0.0015	0.0033	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0033	ND(0.0010)	ND(0.0020)	0.0015	ND(0.0010)
	4/23/2008	61	ND(0.0010)	0.0018	0.0038	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0032	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/22/2008	61	ND(0.0010)	0.0013	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0034	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
	4/3/2009	61	ND(0.0010)	0.0013	0.0029	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
OB-28-BR	6/18/2003	NA	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	0.8	24	ND(0.20)	ND(0.20)	0.4	ND(0.0010)
	12/17/2003	92	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	92	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	94	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0045	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.025)
	3/31/2006	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/11/2007	90	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	ND(0.025)	2.2	ND(0.025)	ND(0.050)	0.2	ND(0.0010)
	4/6/2009	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.024	ND(0.0010)	ND(0.0010)	0.0011	ND(1.0)
	4/20/2010	93	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	5/27/2011	122	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/5/2012	89	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-28-DO	7/2/2003	NA	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(5.0)	ND(2.0)	4.0	51	ND(2.0)	ND(2.0)	ND(1.0)	ND(0.0010)
	12/17/2003	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0018	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/26/2004	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-28-DO (Cont.)	4/28/2005	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.028
	3/31/2006	61	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/14/2007	65	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.081	ND(0.0010)	0.0076	0.029	ND(0.010)
OB-29-DO	8/13/2003	NA	0.004	0.011	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.12	0.48	ND(0.0040)	ND(0.0040)	0.11	ND(0.0050)
	12/29/2003	40	ND(0.010)	ND(0.010)	0.013	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.24	0.72	ND(0.010)	ND(0.020)	0.15	ND(0.0050)
	5/3/2004	35	ND(0.0050)	0.0081	0.011	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.2	0.64	ND(0.0050)	ND(0.010)	0.16	ND(0.0050)
	12/30/2004	37	ND(0.0050)	0.0066	0.0078	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.16	0.5	ND(0.0050)	ND(0.010)	0.13	ND(0.0050)
	4/29/2005	35	ND(0.0050)	0.007	0.0064	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.19	0.54N	ND(0.0050)	ND(0.010)	0.16	0.18
	3/29/2006	30	ND(0.0050)	0.0054	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.074	0.28	ND(0.0050)	ND(0.010)	0.36	ND(0.0020)
OB-30-DO	2/2/2004	69	ND(0.0050)	0.16	0.18	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0054	0.19	ND(0.0050)	ND(0.0020)	0.034	ND(0.0020)
	5/5/2004	69	0.0058	0.24	0.28	0.0037	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0038	0.21	ND(0.0020)	ND(0.0040)	0.0071	ND(0.0020)
	12/29/2004	68	0.003	0.14	0.14	0.0022	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0031	0.14	ND(0.0020)	ND(0.0040)	0.0036	ND(0.0020)
	4/28/2005	69	0.012	0.21	0.23	0.0034	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0046	0.21	ND(0.0020)	ND(0.0040)	0.007	ND(0.0020)
	1/3/2006	69	0.0026	0.13	0.16	0.002	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.004	0.16	ND(0.0020)	ND(0.0040)	0.0057	ND(0.0020)
	3/28/2006	69	0.004	0.12	0.14	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0026	0.15	ND(0.0020)	ND(0.0040)	0.005	ND(0.0020)
	1/31/2007	69	ND(0.0020)	0.11	0.14	0.002	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0032	0.14	ND(0.0020)	ND(0.0040)	0.0062	ND(0.0010)
	4/11/2007	69	ND(0.0020)	0.15	0.19	0.0025	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0035	0.16	ND(0.0020)	ND(0.0040)	0.0072	ND(0.0020)
	11/15/2007	67	ND(0.0010)	0.1	0.14	0.002	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0033	0.13	ND(0.0010)	ND(0.0020)	0.0088	ND(0.0020)
	4/23/2008	68	ND(0.0020)	0.16	0.18	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0032	0.16	ND(0.0020)	ND(0.0040)	0.0093	ND(0.0020)
	10/21/2008	68	0.0032	0.16	0.19	0.0024	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0046	0.16	ND(0.0020)	ND(0.0040)	0.0088	ND(0.0050)
	4/6/2009	68	ND(0.0020)	0.18	0.18	0.0025	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	0.18	ND(0.0020)	ND(0.0020)	0.0089	ND(0.0010)
OB-31-DO	2/2/2004	64	ND(0.0050)	0.005	ND(0.0010)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0020)	ND(0.0050)	ND(10)
	5/2/2004	64	ND(0.0010)	0.0053	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0053	ND(0.0010)	ND(0.0020)	0.0019	ND(10)
OB-32-DO	2/2/2004	61	ND(10)	ND(10)	ND(2.0)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	76	850D	ND(10)	ND(4.0)	ND(10)	ND(0.010)
	5/5/2004	58	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(20)	ND(10)	ND(20)	ND(50)	68	710	ND(10)	ND(20)	ND(10)	ND(0.0050)J
	12/29/2004	58	0.059	ND(0.010)	ND(0.010)	0.019	0.056	ND(0.020)	0.81	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0050)
	5/2/2005	61	0.34J	ND(0.0050)J	ND(0.0050)J	0.0084J	0.24J	ND(0.010)J	0.63J	ND(0.010)J	ND(0.025)J	0.0058J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.0025)
	1/3/2006	61	0.45	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.32	ND(0.010)	0.38	ND(0.010)	ND(0.025)	0.016	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
	4/3/2006	54	0.29	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.17	ND(0.0050)	0.29	ND(0.0050)	ND(0.013)	0.0048	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)
	1/31/2007	61	1.2	ND(0.010)	ND(0.010)	ND(0.010)	0.91	ND(0.020)	1.3	ND(0.020)	ND(0.050)	0.03	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.010)
	4/11/2007	61	0.6	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.55	ND(0.010)	0.35	ND(0.010)	ND(0.025)	0.005	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
	11/15/2007	60	1.3	ND(0.010)	ND(0.010)	ND(0.010)	1.3	ND(0.020)	1.0	ND(0.020)	ND(0.050)	0.011	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0020)
	4/25/2008	60	1	ND(0.010)	ND(0.010)	ND(0.010)	0.88	ND(0.020)	0.57	ND(0.020)	ND(0.050)	0.014	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)
	10/22/2008	60	2.1D	0.0026	ND(0.0020)	ND(0.0020)	1.7D	ND(0.0040)	0.87D	ND(0.0040)	ND(0.010)	0.093	0.0075	0.002	ND(0.0040)	ND(0.0020)	ND(0.010)
	4/3/2009	60	2.4	ND(0.020)	ND(0.020)	ND(0.020)	2.0	ND(0.020)	0.85	ND(0.020)	ND(0.020)	0.16	0.03	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)
	10/27/2009	60	1.5	ND(0.010)	ND(0.010)	ND(0.010)	1.4	ND(0.010)	0.53	ND(0.010)	ND(0.010)	0.059	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)
	11/23/2009	60	2	ND(0.020)	ND(0.020)	ND(0.020)	1.7	ND(0.020)	0.51	ND(0.020)	ND(0.020)	0.3	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.0020)
	4/20/2010	60	1.5	ND(0.010)	ND(0.010)	ND(0.010)	1.3	ND(0.010)	0.36	ND(0.010)	ND(0.010)	0.046	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(10)
	10/14/2010	60	1.4D	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.2D	ND(0.0020)	0.28D	ND(0.0020)	0.0025	0.0021	ND(0.0020)	0.004	ND(0.0020)	ND(0.0020)	ND(0.0040)
	4/14/2011	52	0.57D	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.50D	ND(0.0040)	0.1	ND(0.0040)	ND(0.0040)	0.079	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0050)
	10/28/2011	60	0.43	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.45	ND(0.0050)	0.079	ND(0.0050)	ND(0.0050)	0.0068	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)
	4/5/2012	48	0.19	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.19	ND(0.0020)	0.041	ND(0.0020)	ND(0.0020)	0.042	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	12/18/2012	60	0.097	ND(0.00020)	ND(0.00057)	ND(0.00036)	0.12	ND(0.00029)	0.026	ND(0.00024)	ND(0.00021)	ND(0.00030)	ND(0.00022)	ND(0.00020)	ND(0.00032)	ND(0.00030)	ND(0.00033)
OB-32-DO(PURGE)	2/2/2004	NA	ND(10)	ND(10)	ND(2.0)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	36	580D	ND(10)	ND(4.0)	ND(10)	ND(0.0010)
OB-33-DO	2/2/2004	56	ND(0.0050)	ND(0.0050)	ND(0.0010)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0064	ND(0.0050)	ND(0.0050)	0.054	0.99D	ND(0.0050)	ND(0.0020)	ND(0.0050)	ND(0.0010)
	5/5/2004	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.022	0.072	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/29/2004	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/28/2005	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
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SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-33-DO (Cont.)	12/29/2005	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0015	ND(0.0010)
	4/14/2007	56	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	11/13/2007	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/21/2008	55	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	10/21/2008	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.050)
	4/6/2009	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.10)
OB-34-DO	2/2/2004	64	ND(0.050)	ND(0.050)	ND(0.010)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.22	6.5D	ND(0.050)	ND(0.020)	ND(0.050)	ND(0.0050)
	5/5/2004	64	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	0.29	13N	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.025)J
	12/29/2004	63	0.0069	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.03	ND(0.010)	0.043	ND(0.010)	ND(0.025)	0.49	0.013	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0010)
	5/2/2005	64	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.050)J	ND(0.025)J	ND(0.050)J	ND(0.13)J	1.4J	3.5J	ND(0.025)J	ND(0.050)J	0.093J	ND(0.0020)
	1/3/2006	64	0.017	0.0038	ND(0.0010)	ND(0.0010)	0.12	ND(0.0020)	0.1	ND(0.0020)	ND(0.0050)	0.058	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.20)
	3/28/2006	62	0.0098	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.045	ND(0.0040)	0.069	ND(0.0040)	ND(0.010)	0.14	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.20)
	1/31/2007	64	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	2.7	18	ND(0.20)	ND(0.40)	0.74	ND(0.0010)
	4/14/2007	64	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	2.8	17	ND(0.20)	ND(0.40)	0.81	ND(0.010)
	11/15/2007	63	0.0048	0.0031	ND(0.0010)	ND(0.0010)	0.017	ND(0.0020)	0.047	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/25/2008	63	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	0.025	ND(0.020)	ND(0.050)	0.75	0.062	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0010)
	10/22/2008	63	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	0.023	ND(0.0040)	ND(0.010)	0.86D	2.4D	ND(0.0020)	ND(0.0040)	0.2	ND(0.10)
	4/6/2009	63	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0027	ND(0.0010)	ND(0.0010)	0.059	0.0022	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.10
	10/27/2009	62	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	1.6	8.6	ND(0.10)	ND(0.10)	0.65	ND(0.0050)
	4/20/2010	63	ND(0.10	ND(0.10	ND(0.10	ND(0.10	ND(0.10	ND(0.10	ND(0.10	ND(0.10	ND(0.10	1.6	10	ND(0.10	ND(0.10	1.1	ND(2.5)
	10/14/2010	63	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0093	ND(0.0050)	ND(0.0050)	0.3	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)
	4/14/2011	61	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.9	0.37	ND(0.010)	ND(0.010)	0.011	ND(0.0050)
	10/28/2011	63	ND(0.0050)	ND(0.0050)	0.006	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0058	ND(0.0050)	ND(0.0050)	1.3D	11D	ND(0.0050)	ND(0.0050)	0.95D	ND(2.0)
	4/5/2012	62	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	1.2	8.5	ND(0.10)	ND(0.10)	0.77	ND(0.10)
	11/27/2012	63	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	1.5	9.5D	ND(0.10)	ND(0.10)	0.83	ND(0.10)
OB-35-DO	2/2/2004	62	ND(2.5)	ND(2.5)	ND(0.50)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	77	ND(2.5)	ND(1.0)	ND(2.5)	ND(2.5)
	5/4/2004	62	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(2.0)	ND(4.0)	ND(2.0)	ND(4.0)	ND(10)	3.0	170	ND(2.0)	ND(4.0)	ND(2.0)	ND(5.0)
	12/28/2004	61	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(5.0)	ND(2.5)	ND(5.0)	ND(13)	9.8	330	ND(2.5)	ND(5.0)	ND(2.5)	ND(0.020)
	5/3/2005	61	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(10)	ND(5.0)	ND(10)	ND(25)	11	440	ND(5.0)	ND(10)	ND(5.0)	ND(0.20)
	1/3/2006	63	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.8	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.20)
	4/7/2006	59	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	23	18	ND(0.20)	ND(0.40)	1.9	ND(0.050)
	2/5/2007	63	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.20)	ND(0.40)	ND(1.0)	14	6.4	ND(0.20)	ND(0.40)	0.77	ND(0.0010)
	4/13/2007	63	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	5.7	0.088	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.25)
	11/15/2007	62	ND(0.0010)	0.025	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.01	ND(0.0010)	0.0021	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/25/2008	62	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.25)	ND(0.50)	ND(1.3)	20	8.2	ND(0.25)	ND(0.50)	1.9	ND(0.20)
	10/23/2008	62	ND(0.0010)	0.021	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	0.0022	ND(0.0020)	ND(0.0010)	ND(0.20)
	4/9/2009	57	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	19	6.2	ND(0.20)	ND(0.20)	1.7	ND(0.20
	10/28/2009	57	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	22	6.9	ND(0.20)	ND(0.20)	1.6	ND(0.40)
	4/22/2010	62	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	22	7.5	ND(0.20	ND(0.20	1.6	ND(1.0)
	10/14/2010	49	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	34	7.7	ND(0.40)	ND(0.40)	1.6	ND(0.50)J
	4/7/2011	48.7	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	ND(0.50)J	32J	7.7J	ND(0.50)J	ND(0.50)J	1.6J	ND(0.40)
	10/27/2011	62	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	29	5.0	ND(0.40)	ND(0.40)	0.95	ND(0.25)
	4/6/2012	48	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	19	5.4	ND(0.20)	ND(0.20)	0.79	ND(0.20)
	11/27/2012	62	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	32D	4.8	ND(0.20)	ND(0.20)	0.78	ND(0.20)
OB-35-DO(PURGE)	2/2/2004	NA	ND(1.0)	ND(1.0)	ND(0.20)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	1.9	68D	ND(1.0)	ND(0.40)	ND(1.0)	ND(0.10)
OB-36-DO	2/2/2004	62	ND(0.25)	ND(0.25)	ND(0.050)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	11D	8.8	ND(0.25)	ND(0.10)	ND(0.25)	ND(0.020)
	5/4/2004	59	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	8.2	7.2	ND(0.10)	ND(0.20)	ND(0.10)	ND(1.0)
	12/28/2004	60	0.048	ND(0.020)	ND(0.020)	0.037	1.4	ND(0.040)	1.4	ND(0.040)	ND(0.10)	0.022	0.028	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-36-DO (Cont.)	5/3/2005	59	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	34	110	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.0010)
	1/3/2006	62	0.0027	ND(0.0010)	ND(0.0010)	0.0026	0.01	ND(0.0020)	0.014	ND(0.0020)	ND(0.0050)	0.0023	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.025)
	4/7/2006	59	0.0095	0.0051	ND(0.0010)	0.012	0.058	ND(0.0020)	0.13	ND(0.0020)	ND(0.0050)	0.0057	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	2/5/2007	62	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.032	ND(0.050)	0.14	ND(0.050)	ND(0.13)	2.4	0.038	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.50)
	4/13/2007	62	0.017	0.017	ND(0.0025)	0.025	0.079	ND(0.0050)	0.3	ND(0.0050)	ND(0.013)	0.1	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.50)
	11/15/2007	57	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	22	46	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.10)
	1/25/2008	64	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	14	62	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.10)J
	4/25/2008	61	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	3.2	7.9	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.050)
	7/29/2008	62	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.10)J	ND(0.20)J	ND(0.10)J	ND(0.20)J	ND(0.50)J	4.0J	8.3J	ND(0.10)J	ND(0.20)J	ND(0.10)J	ND(0.10)
	10/22/2008	61	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	3.2	6.1	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.050)
	1/14/2009	62	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	4.0	8.2	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.25)
	4/9/2009	54	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	3.9	6.3	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)
	10/26/2009	55	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	7.9	29	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.20)
	4/22/2010	61	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	4.4	5.8	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.25)
	10/13/2010	54	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	6.4	15	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)J
	4/7/2011	53.9	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	ND(0.20)J	7J	9.8J	ND(0.20)J	ND(0.20)J	0.24J	ND(0.10)
	10/28/2011	61	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	6.6	5.2	ND(0.10)	ND(0.10)	ND(0.10)	ND(10)
	4/6/2012	41	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	12D	10	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)
	11/27/2012	61	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	10	9.1	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)
OB-36-DO(PURGE)	2/2/2004	NA	ND(0.25)	ND(0.25)	ND(0.050)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	9.6	9.3	ND(0.25)	ND(0.10)	ND(0.25)	ND(0.050)
OB-37-DO	2/2/2004	60	ND(10)	ND(10)	ND(2.0)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	ND(10)	110	220	ND(10)	ND(4.0)	ND(10)	ND(0.10)
	5/4/2004	60	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.10)	ND(0.25)	3.2	5.3	ND(0.050)	ND(0.10)	ND(0.050)	ND(0.50)
	12/28/2004	59	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.20)	ND(0.10)	ND(0.20)	ND(0.50)	9.0	7.6	ND(0.10)	ND(0.20)	ND(0.10)	ND(1.0)
	5/3/2005	58	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)	ND(2.5)	30	58	ND(0.50)	ND(1.0)	ND(0.50)	ND(1.0)
	1/3/2006	62	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	36	100	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.0010)
	4/7/2006	59	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(2.0)	ND(1.0)	ND(2.0)	ND(5.0)	53	140	ND(1.0)	ND(2.0)	ND(1.0)	ND(0.0010)
	2/5/2007	62	0.0041	0.0019	ND(0.0010)	ND(0.0010)	0.077	ND(0.0020)	0.046	ND(0.0020)	ND(0.0050)	0.1	0.0015	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	4/13/2007	62	0.0021	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.066	ND(0.0020)	0.03	ND(0.0020)	ND(0.0050)	0.13	0.0072	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0025)
	11/15/2007	61	0.15	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.39	ND(0.010)	0.21	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)	ND(0.0050)J
	4/25/2008	61	0.011	0.0031	ND(0.0025)	ND(0.0025)	0.35	ND(0.0050)	0.32D	ND(0.0050)	ND(0.013)	0.0027	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0010)
	7/29/2008	61	0.0058J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	0.32J	ND(0.010)J	0.43J	ND(0.010)J	ND(0.025)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.20
	10/22/2008	61	0.0056	0.0018	ND(0.0010)	ND(0.0010)	0.12	ND(0.0020)	0.11	ND(0.0020)	ND(0.0050)	0.041D	0.037D	ND(0.0010)	ND(0.0020)	0.0021	ND(0.20)
	1/30/2009	61	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	ND(0.20	0.79	17	ND(0.20	ND(0.20	ND(0.20	ND(0.40)
	4/9/2009	61	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	2.4	23	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.010)
	10/26/2009	49	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	2.3	43	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.0050)J
	4/22/2010	61	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	0.36J	0.98J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.0010)J
	10/13/2010	61	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.007	ND(0.0050)	0.019	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0020)
	4/7/2011	35	0.0031	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0093	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/28/2011	61	0.0084	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0033	ND(0.0020)	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/6/2012	46	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	0.0028J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J
	11/27/2012	61	0.039	0.01	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0045	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
OB-38-DO	7/23/2004	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	0.0048J	0.061J	ND(0.0010)J	ND(0.0020)J	0.0036J	ND(0.020)
	12/28/2004	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0037	0.003	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.020)
	4/27/2005	50	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.9	0.85	ND(0.020)	ND(0.040)	0.11	ND(0.020)
	1/3/2006	55	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	2.3	1.1	ND(0.020)	ND(0.040)	0.16	ND(0.020)
	3/28/2006	50	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	2.3	1.1	ND(0.020)	ND(0.040)	0.17	ND(0.0010)
	1/31/2007	49	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	2	1.1	ND(0.020)	ND(0.040)	0.18	ND(0.020)
	4/10/2007	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.014	ND(0.0010)	ND(0.0020)	0.0058	ND(0.020)
	11/16/2007	47	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.8	0.79	ND(0.020)	ND(0.040)	0.17	ND(0.025)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-38-DO (Cont.)	4/25/2008	54	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	1.7	0.95	ND(0.020)	ND(0.040)	0.2	ND(0.010)
	10/22/2008	54	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.050)	ND(0.025)	ND(0.050)	ND(0.13)	2.1	1.3	ND(0.025)	ND(0.050)	0.18	ND(0.010)
	4/9/2009	47	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.74	0.55	ND(0.010)	ND(0.010)	0.13	ND(0.0025)
	10/28/2009	47	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.25	0.36	ND(0.010)	ND(0.010)	1.1	ND(0.0050)
	4/21/2010	54	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.25	0.27	ND(0.0025)	ND(0.0025)	0.056	ND(0.0010)J
	10/14/2010	45.5	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.43	0.32	ND(0.0050)	0.0064	0.34	ND(0.0040)
	4/5/2011	45	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.27	0.22	ND(0.0040)	ND(0.0040)	0.037	0.0057
	10/26/2011	45	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.52D	0.39	ND(0.0050)	0.0052	0.28	ND(0.0010)
	4/6/2012	44.5	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.47	0.46	ND(0.0050)	ND(0.0050)	0.15	0.0067
	11/27/2012	54	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.24	0.19	ND(0.0050)	ND(0.0050)	0.13	ND(0.0050)
OB-39-DO	7/26/2004	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	0.0046J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	12/28/2004	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0018	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2005	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0073	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/6/2006	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.013	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/10/2007	55	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.008	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/14/2007	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.011	ND(0.0010)	ND(0.0020)	0.0012	ND(0.0010)
	4/25/2008	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0083	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/22/2008	54	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0091	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/9/2009	53	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0076	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
OB-40-DO	7/23/2004	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	12/28/2004	69	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2005	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	12/29/2005	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	1/31/2007	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/10/2007	69	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	11/14/2007	66	ND(0.0010)	0.0045	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0014	0.0038	ND(0.0010)	ND(0.0020)	0.0027	ND(0.0010)
	4/25/2008	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	10/22/2008	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J
	4/9/2009	68	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0040)
OB-41-S	4/5/2011	13	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.05	0.26	ND(0.0040)	ND(0.0040)	0.081	ND(0.0020)
	10/25/2011	13	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.03	0.12	ND(0.0020)	ND(0.0020)	0.04	ND(0.040)
	4/5/2012	13.2	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.017	0.069	ND(0.0020)	ND(0.0020)	0.028	ND(0.0020)
	11/12/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.022	0.082	ND(0.0020)	ND(0.0020)	0.034	ND(0.0020)
OB-42-S	4/5/2011	13	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.1	2.7	ND(0.040)	ND(0.040)	1.2	ND(0.050)
	10/24/2011	13	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	0.096	3.0	ND(0.050)	ND(0.050)	1.0	ND(0.0020)
	4/4/2012	13.5	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.078	2.4	ND(0.040)	ND(0.040)	0.94	ND(0.040)
	11/12/2012	14	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	ND(0.040)	0.11	2.6	ND(0.040)	ND(0.040)	0.79	ND(0.040)
OB-43-S	10/24/2011	16	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0052	0.007	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	4/4/2012	15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/12/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	0.003	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
P-05R	4/27/2009	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)
P-09R	1/6/2006	5.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0048	ND(0.0010)
	3/30/2006	5.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.035	0.16	ND(0.0010)
	2/1/2007	5.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.028	0.065	0.0068
	4/12/2007	4.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.003	0.05	ND(0.0010)
	11/14/2007	NA	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.074	0.35	ND(0.0010)
	2/11/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.014	ND(0.0010)
	4/23/2008	4	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.015	0.047	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
P-09R (Cont.)	10/23/2008	4.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.017	0.071	ND(0.0010)
	4/6/2009	4.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.016	ND(0.0010)
	10/27/2009	4.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/23/2010	4.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0036	ND(0.0010)J
	10/13/2010	4.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/6/2011	3.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	ND(0.0020)
	10/24/2011	4.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	11/12/2012	5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
P-11R	4/27/2009	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)
	4/22/2010	9	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/5/2011	8	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2012	8.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
P-14	6/3/2002	12	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	1/29/2003	12	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	5/3/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)J
P-19A	1/3/2005	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	0.02	ND(0.0040)	ND(0.010)	0.004	0.02	ND(0.0020)	ND(0.0040)	0.25	ND(0.0010)
	5/2/2005	10	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0020)J	ND(0.0040)J	0.016J	ND(0.0040)J	ND(0.010)J	0.0023J	0.013J	ND(0.0020)J	ND(0.0040)J	0.18J	0.001
	1/6/2006	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0098	ND(0.0020)	ND(0.0050)	0.0013	0.007	ND(0.0010)	ND(0.0020)	0.082	ND(0.0020)
	3/30/2006	9	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.01	ND(0.0020)	ND(0.0050)	0.0021	0.0096	ND(0.0010)	ND(0.0020)	0.14	ND(0.0020)
	2/1/2007	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	0.0038	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0095	ND(0.0020)	ND(0.0040)	0.16	ND(0.0050)
	4/12/2007	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	0.0053	ND(0.0040)	ND(0.010)	0.0022	0.014	ND(0.0020)	ND(0.0040)	0.22	ND(0.0020)
	11/14/2007	NA	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0071	0.038	ND(0.0050)	ND(0.010)	0.44	ND(0.0050)
	4/23/2008	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.0024	0.016	ND(0.0020)	ND(0.0040)	0.23	ND(0.0020)
	10/23/2008	10	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	ND(0.0050)	0.03	ND(0.0050)	ND(0.010)	0.41	ND(0.0020)
	4/6/2009	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0037	0.025	ND(0.0020)	ND(0.0020)	0.28	ND(0.0010)
	10/27/2009	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0067	0.031	ND(0.0020)	ND(0.0020)	0.28	ND(0.0020)
	4/22/2010	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0019	ND(0.0010)	ND(0.0010)	0.033	ND(0.0010)
	10/13/2010	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0065	0.037	ND(0.0020)	ND(0.0020)	0.47D	ND(0.0020)
	4/6/2011	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0031	0.012	ND(0.0020)	ND(0.0020)	0.12	ND(0.0040)
	10/24/2011	10	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0047	0.021	ND(0.0040)	ND(0.0040)	0.2	ND(0.0010)
	4/6/2012	9.4	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0054	0.03	ND(0.0040)	ND(0.0040)	0.29	ND(0.0040)
	11/12/2012	10	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0076	0.045	ND(0.0040)	ND(0.0040)	0.39	ND(0.0040)
P-20R	1/6/2006	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0011	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0053	0.021	ND(0.0010)	ND(0.0020)	0.0053	ND(0.0010)
	2/1/2007	12	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.026	0.11	ND(0.0010)	ND(0.0020)	0.03	ND(0.0010)
	4/12/2007	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0053	0.044	ND(0.0010)	ND(0.0020)	0.026	ND(0.0010)
	4/23/2008	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.013	0.083N	ND(0.0010)	ND(0.0020)	0.024	ND(0.0010)
	4/6/2009	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0024	0.014	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)
	4/22/2010	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)
	4/6/2011	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)J
	4/6/2012	10	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
P-21	1/3/2005	10	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0019	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0025	ND(0.0010)	ND(0.0020)	0.01	ND(0.0010)
	5/2/2005	10	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	1/4/2006	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0013	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/7/2006	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0024	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0036	ND(0.0010)	ND(0.0020)	0.012	ND(0.0010)
	2/1/2007	12	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.004	ND(0.0010)	ND(0.0020)	0.0059	ND(0.0010)
	4/12/2007	11	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)J

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
P-24	1/3/2005	5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0043	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/2/2005	4	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	0.0020J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	1/6/2006	8	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/30/2006	2.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/5/2007	8	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/12/2007	3.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
	4/23/2008	3	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.012	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.10)
RW-01_MW-18	6/3/2002	10	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	37D	25	ND(0.20)	ND(0.20)	1.1	ND(0.0020)
	6/3/2002	45	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	39D	27	ND(0.20)	ND(0.20)	1.1	ND(0.010)
	2/17/2003	45	0.026	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.11	ND(0.0020)	0.003	ND(0.010)	ND(0.010)	0.32D	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)
	5/13/2003	45	0.23	ND(0.010)	ND(0.010)	ND(0.010)	3.2D	ND(0.010)	0.13	ND(0.050)	ND(0.020)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.020)	ND(0.010)	ND(0.0050)
	12/16/2003	45	0.16	ND(0.010)	ND(0.010)	ND(0.010)	1.1	ND(0.020)	0.056	ND(0.020)	ND(0.050)	0.014	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0020)J
	5/13/2004	41	0.022	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.013	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0020)
	5/2/2005	45	0.14J	0.0035J	ND(0.0020)J	0.0033J	0.24J	ND(0.0040)J	0.061J	ND(0.0040)J	ND(0.010)J	0.010J	ND(0.0020)J	ND(0.0020)J	ND(0.0040)J	ND(0.0020)J	ND(0.0025)
	4/3/2006	37	0.26	0.0077	ND(0.0020)	0.0053	0.14	ND(0.0040)	0.097	ND(0.0040)	ND(0.010)	0.0058	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.010)
	4/12/2007	45	0.3	0.0077	ND(0.0025)	0.0046	0.089	ND(0.0050)	0.1	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0020)
	4/12/2007	70	1.3	ND(0.010)	ND(0.010)	ND(0.010)	0.96	ND(0.020)	0.25	ND(0.020)	ND(0.050)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.0025)
	4/25/2008	44	0.19	0.011	ND(0.0020)	ND(0.0020)	0.045	ND(0.0040)	0.15	ND(0.0040)	ND(0.010)	0.0071	0.014	ND(0.0020)	ND(0.0040)	0.0053	ND(0.10)
	4/9/2009	39	0.32	0.017	ND(0.0025)	ND(0.0025)	0.027	ND(0.0025)	0.21	ND(0.0025)	ND(0.0025)	0.051	0.1	ND(0.0025)	ND(0.0025)	0.12	ND(0.20)
RW-02	6/3/2002	40	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	25	8.1	ND(0.20)	ND(0.20)	ND(0.10)	ND(0.0020)
	6/3/2002	70	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	0.3	ND(1.0)	ND(0.40)	9.1	36	ND(0.40)	ND(0.40)	ND(0.20)	ND(0.0050)
	2/17/2003	70	0.15	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.80D	ND(0.0020)	0.14	ND(0.010)	ND(0.010)	0.052	0.006	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	5/14/2003	70	0.088	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.83	ND(0.0050)	0.091	ND(0.030)	ND(0.010)	0.01	ND(0.0050)	ND(0.010)	ND(0.010)	ND(0.0050)	ND(0.0050)
	12/16/2003	70	0.16	ND(0.0050)	ND(0.0050)N	ND(0.0050)	0.32	ND(0.010)	0.099	ND(0.010)	ND(0.025)	0.013	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0050)
	5/2/2004	64	0.3	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.54	ND(0.010)	0.17	ND(0.010)	ND(0.025)	0.014	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
	3/31/2006	66	0.63	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.48	ND(0.010)	0.23	ND(0.010)	ND(0.025)	0.036	0.0059	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)
RW-03	6/3/2002	20	0.04	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.7	5.0D	ND(0.020)	ND(0.020)	0.15	ND(0.010)
	6/3/2002	40	0.04	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	1.7	5.0D	ND(0.020)	ND(0.020)	0.15	ND(0.010)
	6/3/2002	70	0.05	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	3.0D	5.0D	ND(0.020)	ND(0.020)	0.29	ND(0.010)
	2/20/2003	70	3.1D	ND(0.010)	ND(0.010)	ND(0.010)	0.04	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.020)	ND(0.010)	ND(0.0050)
	5/13/2003	70	2.6	ND(0.010)	ND(0.010)	ND(0.010)	0.19	ND(0.010)	0.06	ND(0.050)	ND(0.020)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.020)	ND(0.010)	ND(0.0025)
	12/16/2003	70	0.52	0.0054	ND(0.0050)	ND(0.0050)	0.024	ND(0.010)	0.0074	ND(0.010)	ND(0.025)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.020)J
	5/2/2004	62	0.2	0.0055	ND(0.0025)	ND(0.0025)	0.036	ND(0.0050)	0.0089	ND(0.0050)	ND(0.013)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.020)
	5/2/2005	70	1.7J	0.047J	ND(0.020)J	ND(0.020)J	0.11J	ND(0.040)J	0.033J	ND(0.040)J	ND(0.10)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.0010)
	4/3/2006	56	1.9	0.08	ND(0.020)	ND(0.020)	0.095	ND(0.040)	0.024	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.025)
	4/12/2007	70	0.033	0.0011	ND(0.0010)	ND(0.0010)	0.0015	ND(0.0020)	0.0015	ND(0.0020)	ND(0.0050)	0.021	0.012	ND(0.0010)	ND(0.0020)	0.0053	ND(0.010)
	7/14/2009	70	0.047	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.32	0.34	ND(0.025)	2.6	2.4	ND(0.0050)
	7/14/2009	15	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.26	0.14	ND(0.010)	0.56	0.85	ND(0.0050)
	10/26/2009	15	0.068	0.0071	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.052	0.025	ND(0.0050)	0.67D	0.058	ND(0.0020)
	10/26/2009	56	0.036	0.0069	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.055	0.093	ND(0.0050)	0.62	0.14	ND(0.0020)
	1/28/2010	55	0.014	0.0028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.028	0.035	ND(0.0020)	0.14	0.2	ND(0.020)
	1/28/2010	15	0.01	0.0026	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.02	0.016	ND(0.0020)	0.14	0.19	ND(0.025
	4/22/2010	55	0.022	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.46	0.6	ND(0.020)	0.36	2.2	ND(0.025)J
	4/28/2010	15	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	ND(0.025	0.92	0.84	ND(0.025	0.56	3.5	ND(0.10)
	7/14/2010	69	0.032J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	ND(0.025)J	0.62J	1.1J	ND(0.025)J	3.2J	3.7J	ND(0.020)
	10/12/2010	55	0.78	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	0.59	1.1	ND(0.10)	5.2	5.4	ND(0.010)
	1/4/2011	55	0.29	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.098	0.2	ND(0.020)	0.51	1.1	ND(0.0020)
	4/5/2011	54.7	0.01	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.079	0.15	ND(0.0020)	0.0022	0.11	ND(0.10)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
RW-04	6/3/2002	20	0.57	0.04	0.03	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.46	0.98	ND(0.020)	ND(0.020)	0.14	ND(0.10)
	6/3/2002	40	3.8	0.3	0.3	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	1.9	8.6	ND(0.20)	ND(0.20)	1.1	ND(0.0020)
	6/3/2002	70	5.7	0.4	0.4	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	3.2	22	ND(0.20)	ND(0.20)	2.1	ND(0.0020)
	1/29/2003	70	0.027	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.022	ND(0.0020)	0.005	ND(0.010)	ND(0.010)	0.12	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/13/2003	70	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.015	0.004	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/15/2003	70	0.011	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.02	ND(0.0020)	0.0019	ND(0.0020)	ND(0.0050)	0.0019	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/27/2004	63	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.001	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.007	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	57	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0053	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/12/2007	70	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.05
RW-05	6/3/2002	15	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.003	0.004	ND(0.0020)	ND(0.0020)	0.0060D	ND(0.0020)
	6/3/2002	35	0.11	0.6	0.28	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.27	2.0D	ND(0.020)	0.48	6.3D	ND(0.0020)
	1/29/2003	35	0.039	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.020)
	5/13/2003	35	2.9D	0.02	0.028	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.021	0.11	ND(0.0020)	0.004	0.3	ND(0.0010)
	12/15/2003	35	2.2	0.029	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.0020)
	5/2/2004	34	0.0044	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0042	0.0028	ND(0.0010)	ND(0.0020)	0.0021	ND(0.0050)
	4/27/2005	33	0.24	0.0082	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.0028	ND(0.0020)	ND(0.0040)	0.0025	ND(0.0050)
	4/3/2006	33	0.55	0.016	0.005	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.033	0.069	ND(0.0050)	ND(0.010)	0.06	ND(0.10)
	4/12/2007	33	0.48	0.016	0.014	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.0084	0.038	ND(0.0050)	ND(0.010)	0.046	ND(0.10)
RW-17_MW-17	6/3/2002	110	ND(0.10)	ND(0.10)	0.1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	3.7	22D	ND(0.20)	0.3	7.9	ND(0.10)
	6/3/2002	125	ND(0.10)	ND(0.10)	0.1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	5.1	22D	ND(0.20)	0.3	7.7	ND(0.0020)
	6/3/2002	160	ND(0.10)	ND(0.10)	0.1	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.10)	ND(0.50)	ND(0.20)	4.9	24D	ND(0.20)	0.3	7.4	ND(0.0020)
	2/20/2003	160	0.013	ND(0.0020)	ND(0.0010)	ND(0.0020)	0.017	ND(0.0020)	0.004	ND(0.010)	ND(0.010)	0.036	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	5/13/2003	160	0.002	0.002	ND(0.0010)	ND(0.0020)	0.012	ND(0.0020)	0.036	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	2/2/2004	160	ND(0.0050)	ND(0.0050)	ND(0.0010)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.016	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0020)	ND(0.0050)	ND(0.0010)
	4/27/2004	160	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.027	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	160	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.014	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/31/2006	56	0.0061	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0020)	0.012	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.3
	4/12/2007	160	0.0028	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0089	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.3
RW-19	6/3/2002	80	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(1.0)	ND(0.40)	8.5	37	ND(0.40)	ND(0.40)	12	0.7
	6/3/2002	115	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(1.0)	ND(0.40)	9.3	42	ND(0.40)	ND(0.40)	13	ND(0.0020)
	6/3/2002	150	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(1.0)	ND(0.40)	6.5	37	ND(0.40)	ND(0.40)	25	ND(0.0020)
	1/29/2003	150	ND(0.0020)	0.007	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.002	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/15/2003	150	ND(0.0020)	0.014	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	150	0.001	0.0069	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0077	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0050)
	5/1/2004	148	ND(0.0010)	0.003	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0027	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/13/2004	148	ND(0.0050)	0.01	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.0010)
	4/29/2005	148	ND(0.0010)	0.0072	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0025	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/28/2006	153	0.0012	0.0068	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0017	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	150	ND(0.0010)	0.0062	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0013	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)
	4/24/2008	148	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.004
RW-20	6/3/2002	40	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.007	0.02	ND(0.0020)	ND(0.0020)	0.017	ND(0.0020)
	6/3/2002	72	ND(0.0020)	ND(0.0020)	0.001	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.028	0.094	ND(0.0020)	ND(0.0020)	0.11	ND(0.0020)
	1/29/2003	72	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/15/2003	72	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	72	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	66	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0064

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
RW-20 (Cont.)	4/29/2005	66	ND(0.0010)	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0069	0.064	ND(0.0010)	ND(0.0020)	0.052	0.0012
	3/29/2006	71	ND(0.0020)	0.0081	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	0.028	0.098N	ND(0.0020)	ND(0.0040)	0.16	ND(0.0010)
	4/14/2007	72	ND(0.0010)	0.0082	0.0014	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0044	0.038	ND(0.0010)	ND(0.0020)	0.11	ND(0.0020)
	4/24/2008	70	ND(0.0010)	0.0058	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0021	0.023	ND(0.0010)	ND(0.0020)	0.054	ND(0.050)
RW-21	6/3/2002	90	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	0.009	0.02	ND(0.0020)	ND(0.0020)	0.053	ND(0.050)
	6/3/2002	120	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	ND(0.050)	ND(0.050)	ND(0.10)	0.9	7.6	ND(0.0020)
	6/3/2002	150	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.30)	ND(0.10)	ND(0.050)	ND(0.050)	ND(0.10)	1.2	6	ND(0.0020)
	1/29/2003	150	ND(0.0020)	0.009	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	5/15/2003	150	ND(0.0020)	0.007	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/18/2003	150	ND(0.0010)	0.0072	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0091	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/1/2004	145	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/29/2005	146	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	3/29/2006	149	ND(0.0010)	0.012	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/14/2007	150	ND(0.0010)	0.0069	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.010)
	4/24/2008	148	ND(0.0010)	0.0055	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.010)
RW-22	6/3/2002	80	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.21	1.3	ND(0.020)	0.06	1.9	ND(0.010)
	6/3/2002	105	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.17	1.3	ND(0.020)	0.06	1.9	ND(0.010)
	6/3/2002	145	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.16	1.3	ND(0.020)	0.06	1.9	ND(0.010)
	1/23/2003	145	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.06	0.96	ND(0.020)	0.05	1.2	ND(0.010)
	5/13/2003	145	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.050)	ND(0.020)	0.08	0.94	ND(0.020)	0.03	1.1	ND(0.010)
	12/17/2003	145	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.097	0.75	ND(0.010)	ND(0.020)	0.8	ND(0.0050)
	5/1/2004	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.024	0.6	ND(0.010)	ND(0.020)	0.7	ND(0.0050)
	4/28/2005	106	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.038	0.52	ND(0.0050)	ND(0.010)	0.52	ND(0.0050)
	3/27/2006	108	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.029	0.39	ND(0.0050)	ND(0.010)	0.47	ND(0.0025)
	4/11/2007	145	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.016	0.3	ND(0.0050)	ND(0.010)	0.46	ND(0.0025)
	4/22/2008	144	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.012	0.18	ND(0.0025)	ND(0.0050)	0.32	ND(0.0050)
	4/3/2009	144	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0086	0.12	ND(0.0025)	ND(0.0025)	0.36	ND(0.0020)
	4/20/2010	144	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0063	0.094	ND(0.0050)	ND(0.0050)	0.38	ND(0.0040)
	4/4/2011	105	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.07	ND(0.0040)	ND(0.0040)J	0.36	ND(0.0050)
	4/5/2012	62	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0061	0.047	ND(0.0040)	ND(0.0040)	0.34	ND(0.0040)
STR-03	5/15/2003	NA	ND(0.0020)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.010)	ND(0.010)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	12/22/2003	NA	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.54	0.37	ND(0.0050)	0.05	0.43	0.005
	5/4/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0011	ND(0.0010)J
	12/29/2004	NA	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.3	0.17	ND(0.0050)	0.027	0.4	ND(0.0010)
	5/2/2005	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0010)
	1/3/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	0.0013
	4/3/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	2/1/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.001	0.0028	ND(0.0010)	0.0045	0.053	ND(0.0010)
	4/16/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0022	0.002	ND(0.0010)	ND(0.0020)	0.0053	0.01
	11/16/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.002	0.0011	ND(0.0010)	ND(0.0020)	0.0025	ND(0.0010)J
	1/23/2008	NA	0.021	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.0050)	ND(0.010)	ND(0.025)	0.18	0.24	ND(0.0050)	0.049	0.6	ND(0.0050)J
	4/21/2008	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0020)J	ND(0.0050)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)J	ND(0.0010)J	ND(0.0025)
	7/29/2008	NA	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.0050)J	ND(0.010)J	ND(0.0050)J	ND(0.010)J	ND(0.025)J	0.036J	0.041J	ND(0.0050)J	0.15J	0.45J	ND(0.0010)
	10/22/2008	NA	0.0073	0.0037	ND(0.0025)	ND(0.0025)	0.0032	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	ND(0.0025)	0.0028	ND(0.0025)	0.095	0.34	0.0024
	1/13/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)	0.0013	0.011	ND(0.0010)
	4/9/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0083	0.0072	ND(0.0010)	0.012	0.085	ND(0.0010)
	7/14/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0013	ND(0.0010)	0.0079	0.015	ND(0.0010)
	10/27/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
STR-03 (Cont.)	1/28/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0067	0.0084	ND(0.0010)	0.0053	0.047	ND(0.0010)J
	4/22/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0014	0.003	ND(0.0020)
	7/14/2010	NA	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0010)J	ND(0.0020)
	10/12/2010	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0010)
	1/5/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	4/5/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	7/28/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	10/25/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0067	0.027	ND(0.0040)
	1/18/2012	NA	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.011	0.02	ND(0.0040)	0.041	0.21	ND(0.0010)
	4/3/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	8/21/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	11/28/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
	2/6/2013	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.013	0.032	ND(0.0020)	0.02	0.43D	ND(0.0020)
STRHA-07A	10/20/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.003	ND(0.0010)	ND(0.0020)	0.005	ND(0.0010)
	4/7/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0015	ND(0.0010)	ND(0.0010)	0.0017	ND(0.0010)
	10/27/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.013	0.058	ND(0.0010)	ND(0.0010)	0.051	ND(0.0020)
	4/28/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0035	0.02	ND(0.0010)	ND(0.0010)	0.02	ND(0.0010)
	10/14/2010	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0061	0.036	ND(0.0020)	ND(0.0020)	0.035	ND(0.0020)
	4/6/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0026	0.013	ND(0.0020)	ND(0.0020)	0.012	ND(0.0020)
	10/25/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0021	0.011	ND(0.0020)	ND(0.0020)	0.011	ND(0.0010)
	4/6/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0054	0.03	ND(0.0020)	ND(0.0020)	0.036	ND(0.0020)
	11/13/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0068	0.033	ND(0.0020)	ND(0.0020)	0.032	ND(0.0020)
STRHA-07B	10/20/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.011	0.051	ND(0.0010)	ND(0.0020)	0.046	ND(0.0010)
	4/7/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)
	10/27/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0044	0.025	ND(0.0010)	ND(0.0010)	0.0091	ND(0.0020)
	4/28/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0058	0.031	ND(0.0010)	ND(0.0010)	0.0098	ND(0.0010)
	10/14/2010	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.012	ND(0.0020)	ND(0.0020)	0.0052	ND(0.0020)
	4/6/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0062	0.028	ND(0.0020)	ND(0.0020)	0.0089	ND(0.0020)
	10/25/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0055	0.025	ND(0.0020)	ND(0.0020)	0.0076	ND(0.0010)
	4/6/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0037	0.019	ND(0.0020)	ND(0.0020)	0.0071	ND(0.0020)
	11/13/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0068	0.034	ND(0.0020)	ND(0.0020)	0.031	ND(0.0020)
STRM-A-SCDS	9/15/2004	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	0.0026	ND(0.0010)
	1/3/2005	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0012	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	5/19/2005	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	0.0041	ND(0.0010)	ND(0.0020)	0.0016	ND(0.0010)
	1/6/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0013	0.0061	ND(0.0010)	ND(0.0020)	0.007	ND(0.0010)
	3/30/2006	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0036	0.015	ND(0.0010)	ND(0.0020)	0.016	ND(0.0010)
	4/12/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0015	0.0065	ND(0.0010)	ND(0.0020)	0.0066	ND(0.0010)
	4/23/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0019	0.0066	ND(0.0010)	ND(0.0020)	0.0024	ND(0.0010)
	10/21/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0041	0.015	ND(0.0010)	ND(0.0020)	0.0052	ND(0.0010)
	10/23/2008	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0034	0.014	ND(0.0010)	ND(0.0020)	0.016	ND(0.0010)
	4/6/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0035	ND(0.0010)	ND(0.0010)	0.0012	ND(0.0010)
	10/27/2009	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.002	0.0079	ND(0.0010)	ND(0.0010)	0.0034	ND(0.0020)
	4/22/2010	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0016	0.0059	ND(0.0010)	ND(0.0010)	0.0044	ND(0.0010)
	10/13/2010	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0051	0.02	ND(0.0020)	ND(0.0020)	0.057	ND(0.0020)
	4/6/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0033	ND(0.0020)	ND(0.0020)	0.0022	ND(0.0020)
	10/26/2011	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0025	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0039
	4/6/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0048	0.017	ND(0.0020)	ND(0.0020)	0.013	ND(0.0020)
	11/12/2012	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0038	0.012	ND(0.0020)	ND(0.0020)	0.0051	ND(0.0020)
UNNAMED_STREAM	3/1/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0010)
	4/16/2007	NA	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0050)	ND(0.0025)	ND(0.0050)	ND(0.013)	0.18	0.16	ND(0.0025)	0.018	0.3	ND(0.020)
	11/16/2007	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0093	0.0052	ND(0.0010)	ND(0.0020)	0.016	ND(0.020)J
	1/23/2008	NA	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.040)	ND(0.020)	ND(0.040)	ND(0.10)	0.54	0.64	ND(0.020)	ND(0.040)	1.5	ND(0.010)J

Table 9
Water Quality Data - VOC Results
June 2002 - February 2013
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
UNNAMED_STREAM	4/21/2008	NA	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.020)J	ND(0.040)J	ND(0.020)J	ND(0.040)J	ND(0.10)J	0.022J	0.053J	ND(0.020)J	0.14J	3.0J	ND(0.0020)
(Cont.)	7/29/2008	NA	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.010)J	ND(0.020)J	ND(0.010)J	ND(0.020)J	ND(0.050)J	0.020J	0.034J	ND(0.010)J	0.58J	1.1J	ND(0.010)
	10/21/2008	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0040)	ND(0.0020)	ND(0.0040)	ND(0.010)	ND(0.0020)	0.002	ND(0.0020)	0.087	0.2	ND(0.010)
	1/14/2009	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.016	0.031	ND(0.010)	0.18	1.0	ND(0.025)
	4/9/2009	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.9	0.43	ND(0.010)	0.081	0.82	ND(0.0025)
	7/14/2009	NA	ND(0.025)	ND(0.025)	0.033	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	1.7	0.95	ND(0.025)	0.48	3.4	ND(0.020)
	10/27/2009	NA	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.0027	0.015	ND(0.0025)	0.1	0.31	ND(0.010)
	1/28/2010	NA	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.4	1.2	ND(0.020)	0.22	1.9	ND(0.0020)
	4/22/2010	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.29	0.17	ND(0.010)	0.14	1.0	0.0094
	10/12/2010	NA	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.005	0.0053	ND(0.0020)	ND(0.0020)	0.016	ND(0.0010)
	1/4/2011	NA	ND(0.0020)	ND(0.0020)	0.011	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.51D	0.24D	ND(0.0020)	0.20D	1.4D	0.012
	4/5/2011	NA	0.0022	ND(0.0020)	0.015	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	1.1D	0.86D	ND(0.0020)	0.083	2.3D	ND(0.020)
	10/25/2011	NA	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	0.91	0.59	ND(0.020)	0.16	1.4	ND(0.010)
	1/17/2012	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.98	0.61	ND(0.010)	0.037	0.48	ND(0.010)
	4/3/2012	NA	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	1.2	0.73	ND(0.020)	0.18	2.0	ND(0.020)
	8/21/2012	NA	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	0.043	0.071	ND(0.010)	0.11	0.56	ND(0.010)
	2/6/2013	NA	ND(0.010)	ND(0.010)	0.019	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	1.7D	1.5D	ND(0.010)	0.18	2.2D	0.012
W-1	10/19/2006	NA	0.0053	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0067	0.091	ND(0.0010)	ND(0.0020)	0.016	ND(0.0010)
	4/15/2007	10	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.020)	ND(0.010)	ND(0.020)	ND(0.050)	0.071	1.1	ND(0.010)	ND(0.020)	0.56	ND(0.0025)
	10/20/2008	11.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0010)	ND(0.0020)	ND(0.0050)	0.0065	0.15	ND(0.0010)	ND(0.0020)	0.038	ND(0.0010)
	10/26/2009	9	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	ND(0.0025)	0.013	0.21	ND(0.0025)	ND(0.0025)	0.048	ND(0.0040)
	4/21/2010	9	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	0.0065	0.11	ND(0.0010)	ND(0.0010)	0.055	ND(0.0040)
	10/14/2010	9	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	0.0066	0.23	ND(0.0040)	ND(0.0040)	0.028	ND(0.0020)
	4/5/2011	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0072	0.095	ND(0.0020)	ND(0.0020)	0.056	ND(0.0020)
	10/24/2011	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0066	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0050)
	4/5/2012	11	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.039	1.0D	ND(0.0020)	ND(0.0020)	0.49D	0.0054
	11/12/2012	9	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0067	0.17	ND(0.0020)	ND(0.0020)	0.025	ND(0.0020)
MW-1_32-TOZER	2/24/2011	NA	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.010)	ND(0.010)	0.013	0.62D	ND(0.0050)	ND(0.0050)	0.046	ND(0.25)
	4/6/2012	18	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	0.0067	0.41	ND(0.0050)	ND(0.0050)	0.098	ND(0.0050)
MW-2_32-TOZER	2/24/2011	NA	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.50)	ND(0.50)	10.6	1.79	ND(0.25)	ND(0.25)	3.42	ND(0.20)
	11/8/2011	NA	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.40)	ND(0.40)	10	1.5	ND(0.20)	ND(0.20)	3.7	ND(0.0010)
	4/6/2012	17.3	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	12	1.8	ND(0.20)	ND(0.20)	3.3	ND(0.20)
	11/28/2012	19	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	ND(0.20)	16	4.3	ND(0.20)	ND(0.20)	4.6	ND(0.20)
MW-3_32-TOZER	2/24/2011	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0020)	0.039	0.012	ND(0.0010)	ND(0.0010)	0.013	ND(0.0010)
	4/6/2012	18.5	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-4_32-TOZER	11/8/2011	NA	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0020)	0.0044	0.0025	ND(0.0010)	ND(0.0010)	0.066	ND(0.0010)
	11/12/2012	14	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)
MW-5_32-TOZER	11/8/2011	NA	ND(0.0010)	0.0026	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0020)	ND(0.0020)	0.0051	0.019	ND(0.0010)	ND(0.0010)	0.0038	ND(0.025)
	11/12/2012	14	ND(0.0020)	0.015	0.0052	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	0.0053	0.041	ND(0.0020)	ND(0.0020)	0.12	ND(0.0020)

Notes:

Analytical results presented in milligrams per liter (mg/l).

Analytical results are reported by the laboratory in micrograms per liter (ug/l). Results are presented without changing the number of significant figures reported by the laboratory.

Bedrock wells BR-1 through BR-8, CL8-BR and CL9-BR each have a multilevel groundwater monitoring system present within the bedrock portion of the well. Zone 1 refers to the deepest sample interval, Zone 2 refers to the middle sampling zone and Zone 3 refers to the sampling zone closest to the ground surface.

1,1,2-Trichloroethane, 1,2-dichloropropane, dichloromethane and dichlorodifluoromethane are compounds which have been detected but are not included on the table.

Sample depths are in feet below grade. A sample depth of NA indicates that the sample was not collected at a discrete depth.

OB-32-DO(PURGE) = Duplicate sample collected by purge and grab method.

TCA - Trichloroethane
DCE - Dichloroethene
TCE - Trichloroethene
DCA - Dichloroethane
PCE - Tetrachloroethene
ND - None Detected, detection limit provided in parentheses

E - Estimated concentration
L - Sample analyzed outside of holding time.
N - Matrix interference
Z - Sample results switched in May 7, 2004 status report.
D - Indicates that the result is reported from a secondary dilute sample.
J - Estimated concentration

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-02	6/3/2002	---	42.4	---	---
	6/3/2002	---	---	0.17	0.063
	2/17/2003	61	---	ND(0.05)	0.033
	5/14/2003	55	---	ND(0.05)	620
	12/16/2003	152	---	0.126	805
	5/1/2004	125	---	ND(0.100)	635
	5/2/2005	7060	---	---	---
	4/11/2007	2430	---	---	---
	4/22/2008	866	---	---	---
AP-03-BR	1/6/2006	294	---	---	---
	3/30/2006	56.8	---	---	---
	4/12/2007	74.5	---	---	---
AP-03-DO	1/3/2005	113	---	---	---
	5/2/2005	113	---	---	---
	1/6/2006	128	---	---	---
	3/30/2006	128	---	---	---
	2/1/2007	125	---	---	---
	4/12/2007	91.9	---	---	---
AP-04-BR	1/6/2006	954	---	---	---
	3/30/2006	990	---	---	---
	4/12/2007	1080	---	---	---
AP-04-DO	1/3/2005	178	---	---	---
	5/2/2005	49.9	---	---	---
	2/1/2007	1300	---	---	---
AP-06-BR	6/3/2002	---	2.9	---	---
	6/3/2002	---	---	0.14	ND(0.005)
	1/24/2003	320	---	0.38	0.072
	12/17/2003	378	---	3.12	0.3
	5/1/2004	215	---	0.317	0.15
	4/29/2005	1070	---	---	---
	3/31/2006	1220	---	---	---
AP-06-DO	6/3/2002	---	2.3	---	---
	6/3/2002	---	---	0.03	0.75
	1/24/2003	91	---	ND(0.05)	0.72
	5/14/2003	81	---	0.1	0.78
	12/17/2003	127	---	ND(0.100)	0.644
	5/1/2004	92.6	---	ND(0.100)	0.426
	4/29/2005	96.2	---	---	---
	3/31/2006	94.5	---	---	---
AP-08-DO	8/13/2003	---	---	0.18	0.27
	12/23/2003	68.8	---	0.857	1
	5/3/2004	30.2	---	ND(0.100)	0.122
	1/4/2005	80.9	---	---	---
	4/29/2005	21.3	---	---	---
	3/29/2006	193	---	---	---
	2/5/2007	58.5	---	---	---
AP-09-DO	8/13/2003	---	---	2.5	0.71
	12/29/2003	133	---	1.19	1.79
	5/3/2004	146	---	ND(0.100)	2.31
	12/30/2004	241	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-09-DO (Cont.)	4/29/2005	87.4	---	---	---
	3/29/2006	189	---	---	---
	2/5/2007	174	---	---	---
AP-12-BR	6/3/2002	---	70.4	---	---
	6/3/2002	---	---	26	1.4
	1/24/2003	400	---	ND(0.1)	990D
	5/13/2003	120	---	ND(0.05)	0.008
	12/17/2003	6.49	---	0.2	3.71
	4/23/2004	2360	---	ND(0.300)	3030
	4/3/2006	72.4	---	---	---
	4/13/2007	115	---	---	---
	4/20/2010	1200	---	25	26000
	10/14/2010	33100	--	ND(3.0)	24000
	4/14/2011	10400	---	8.7	12000
	10/28/2011	225	---	ND(5.0)	3900
	4/6/2012	890	---	ND(2.5)	8970
	11/27/2012	420	---	ND(1.0)	3300
AP-12-DO	6/3/2002	---	22	---	---
	6/3/2002	---	---	0.02	0.2
	1/24/2003	18	---	ND(0.05)	0.014
	5/13/2003	16	---	ND(0.05)	0.076
	12/17/2003	7.49	---	ND(0.100)	0.274
	4/23/2004	24.4	---	ND(0.100)	47.6
	4/29/2005	60.9	---	---	---
	8/30/2005	---		---	---
	9/8/2005	---		---	---
	4/3/2006	114	---	---	---
	4/13/2007	16.1	---	---	---
	4/20/2010	34.4	---	0.47	5.4
	11/27/2012	538	---	9.2	3400
AP-12-S	6/3/2002	---	11.9	0.07	0.2
	2/20/2003	34	---	ND(0.1)	65
	5/13/2003	47	---	ND(0.05)	9500
	12/17/2003	4.54	---	ND(0.100)	18.1
	4/23/2004	14.4	---	ND(0.100)	214
	4/29/2005	86.2	---	---	---
	4/3/2006	58.1	---	---	---
	4/13/2007	30.5	---	---	---
AP-13-DO	6/3/2002	---	42.4	---	---
	6/3/2002	---	---	ND(0.01)	0.37
	1/29/2003	140	---	ND(0.05)	2.8
	5/13/2003	170	---	ND(0.05)	0.054
	12/16/2003	2780	---	ND(0.100)	1110
	5/1/2004	438	---	ND(0.100)	ND(0.0100)
	5/2/2005	1760	---	---	---
	12/30/2005	3620	---	---	---
	4/3/2006	4420	---	---	---
	4/11/2007	6380	---	---	---
	7/26/2007	4970	---	0.142	1.5
	11/12/2007	790	---	217	291
	1/23/2008	1980	---	9.41	76.3
	4/21/2008	2350	---	1.5	33.6

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-13-DO (Cont.)	7/28/2008	2290	---	11.9	5.91
	10/22/2008	1480	---	0.124	5.98
	1/14/2009	150	---	0.26	9.3
	4/2/2009	273	---	0.2	13
AP-13-S	6/3/2002	---	2.9	0.05	0.18
	1/29/2003	30	---	ND(0.1)	120D
	5/13/2003	18	---	ND(0.05)	0.91
	12/16/2003	14.6	---	2.44	16.5
	5/1/2004	16.4	---	ND(0.100)	0.396
	5/2/2005	34.8	---	---	---
	4/3/2006	26.6	---	---	---
	4/11/2007	11.2	---	---	---
AP-14-S	6/3/2002	---	80.4	0.03	5.3
	2/17/2003	200	---	ND(0.1)	6600
	5/14/2003	170	---	ND(0.05)	8800
	12/16/2003	312	---	ND(0.100)	1240
	5/1/2004	235	---	ND(1.00)	3820
	5/2/2005	162	---	---	---
AP-15-S	8/26/2002	---	25>	0.1	1.9
	5/14/2003	ND(1)	---	ND(0.05)	ND(0.005)
	12/22/2003	280	---	0.221	0.0467
	5/3/2004	234	---	ND(0.100)	0.101
	12/30/2004	923	---	ND(0.100)	0.0368
	4/29/2005	220	---	ND(0.100)	0.0118
	3/29/2006	205	---	ND(0.100)	0.0513
	2/5/2007	59	---	ND(0.100)	0.0198
AP-19	6/3/2002	---	---	ND(0.01)	1.1
	6/11/2002	---	16.5	---	---
	5/14/2003	18	---	ND(0.05)	0.16
	12/15/2003	2.51	---	ND(0.100)	0.0173
	4/26/2004	20.7	---	ND(0.100)	ND(0.0100)
	4/28/2005	19.4	---	---	---
	3/31/2006	23.9	---	---	---
	10/23/2008	77.6	---	ND(0.100)	0.814
	10/27/2009	4.1	---	ND(0.10)	ND(0.010)
	4/21/2010	18.7	---	ND(0.10	0.095
	10/14/2010	17.2	--	ND(0.10)	0.029
	4/6/2011	24.8	---	ND(0.10)	0.061
	10/27/2011	ND(1.0)	---	ND(0.10)	0.012
	4/5/2012	29		ND(0.10)	0.115
	11/13/2012	20.4	---	ND(0.10)	ND(0.010)
AP-20	6/3/2002	---	---	ND(0.01)	0.69
	6/11/2002	---	42.3	---	---
	5/14/2003	4	---	ND(0.05)	9.8
	12/15/2003	3.61	---	ND(0.100)	0.369
	4/26/2004	4	---	ND(0.100)	6.95
	4/28/2005	3.46	---	---	---
	3/31/2006	39.6	---	---	---
	10/23/2008	3730	---	ND(1.00)	20900
	10/27/2009	11.1	---	ND(0.10)	6.9
	4/21/2010	31.3	---	ND(0.10)	0.011

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-20 (Cont.)	10/14/2010	29.4	--	ND(0.10)	0.012
	4/6/2011	15.4	---	ND(0.10)	ND(0.010)
	10/27/2011	2.0	---	ND(0.10)	0.028
	4/5/2012	86		ND(0.10)	23.1
	11/13/2012	68.2	---	0.39	8.5
AP-21	6/3/2002	---	---	0.01	0.58
	6/11/2002	---	2.0	---	---
	5/14/2003	4	---	ND(0.05)	7.6
	12/15/2003	2.17	---	0.206	0.681
	4/26/2004	7.44	---	ND(0.100)	8.47
	4/28/2005	2.26	---	---	---
	3/31/2006	138	---	---	---
	10/23/2008	3950	---	ND(1.00)	24000
	11/23/2009	850	---	8.5	14000
	4/21/2010	900	---	10	15000
	10/14/2010	1690	--	ND(2.0)	9000
	4/14/2011	450	---	3.2	3400
	10/27/2011	190	---	ND(2.5)	1100
	4/5/2012	286		ND(1.0)	972
	11/13/2012	271	---	ND(0.10)	640
AP-22	6/3/2002	---	---	ND(0.01)	2.2
	6/11/2002	---	9.6	---	---
	5/14/2003	2	---	ND(0.05)	5.2
	12/15/2003	1.78	---	ND(0.100)	0.2
	4/26/2004	7.59	---	ND(0.100)	32.7
	4/28/2005	9.14	---	---	---
	3/31/2006	175	---	---	---
	10/23/2008	5220	---	ND(1.00)	31300
	10/27/2009	378	---	ND(0.50)	3800
	4/21/2010	489	---	ND(1.0)	73
	10/14/2010	491	--	ND(1.0)	240
	4/14/2011	208	---	ND(0.10)	0.37
	10/27/2011	225	---	ND(2.5)	1200
	4/5/2012	1360		ND(2.0)	2030
	11/13/2012	794	---	ND(1.0)	4100
AP-23-DO	12/29/2004	177	---	---	---
	5/2/2005	398	---	---	---
	12/30/2005	127	---	---	---
	4/3/2006	633	---	---	---
	1/31/2007	416	---	---	---
	4/11/2007	450	---	---	---
	11/12/2007	78	---	12.3	30.8
	1/23/2008	56.2	---	14.4	51.8
	4/21/2008	64.7	---	2.01	31.5
	7/28/2008	35.8	---	0.78	23.9
	10/22/2008	63.9	---	136	181
	1/14/2009	43.6	---	1.7	6.4
	4/2/2009	60.7	---	3.2	19
AP-24-DO	12/29/2004	1990	---	---	---
	5/2/2005	4130	---	---	---
	12/30/2005	429	---	---	---
	4/3/2006	1160	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-24-DO (Cont.)	10/11/2006	---	---	4.79	4430
	1/30/2007	778	---	28	104
	4/10/2007	550	---	0.346	3.17
	8/9/2007	267	---	ND(0.100)	16.6
	11/12/2007	93.2	---	10.4	33.7
	1/23/2008	375	---	61.5	143
	4/21/2008	611	---	12.4	48.9
	7/28/2008	411	---	5.52	28.4
	10/22/2008	111	---	26.9	59.5
	1/14/2009	117	---	0.48	7.5
	4/2/2009	283	---	0.25	11
AP-25-DO	12/29/2004	17.2	---	---	---
	5/2/2005	149	---	---	---
	12/30/2005	79.3	---	---	---
	4/3/2006	423	---	---	---
	10/11/2006	---	---	1.98	1300
	1/30/2007	170	---	15.2	42.8
	4/10/2007	15.6	---	ND(0.100)	2.74
	8/9/2007	ND(2.00)	---	ND(0.100)	0.0692
	11/12/2007	3.61	---	ND(0.100)	0.146
	1/23/2008	19.7	---	0.284	0.633
	4/21/2008	96.8	---	0.804	2.12
	7/28/2008	ND(2.00)	---	ND(0.100)	ND(0.0100)
	10/22/2008	150	---	0.589	1.06
	1/14/2009	34.9	---	0.28	0.24
	4/2/2009	61.1	---	ND(0.10)	0.11
AP-26-DO	12/28/2004	23.5	---	---	---
	4/28/2005	22.6	---	---	---
	1/3/2006	20	---	---	---
	1/31/2007	11.1	---	---	---
	11/26/2012	33.5	---	ND(0.10)	8.5
AP-27-DO	12/28/2004	48.9	---	---	---
	5/3/2005	60.4	---	---	---
	1/3/2006	796	---	---	---
	4/7/2006	115	---	---	---
	1/31/2007	91.8	---	---	---
	4/13/2007	30.3	---	---	---
	11/15/2007	10.2	---	ND(0.100)	1.82
	4/25/2008	114	---	---	---
	10/22/2008	18.4	---	ND(0.100)	3.55
	4/9/2009	57.8	---	ND(0.10)	0.098
	10/28/2009	13.7	---	ND(0.10)	0.1
	4/21/2010	29.4	---	ND(0.10)	0.1
	10/14/2010	11.2	--	ND(0.10)	0.42
	4/7/2011	387J	---	ND(0.10)	0.046
	10/26/2011	140	---	ND(0.10)	2.8
	4/6/2012	450		ND(0.10)	0.053
	11/27/2012	624	---	ND(0.10)	9.1
AP-28-DO	12/30/2004	236	---	---	---
	4/29/2005	252	---	---	---
	3/29/2006	286	---	---	---
	2/5/2007	306	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-29-DO	12/30/2004	226	---	---	---
	4/29/2005	264	---	---	---
	3/29/2006	298	---	---	---
	2/5/2007	313	---	---	---
AP-30R-DO	4/7/2011	1000J	---	6	7900
	11/7/2011	2730	---	ND(50)	20000
	11/7/2011	2730		ND(50)	20000
	4/17/2012	1070		ND(5.0)	6450
AP-31-DO	4/6/2011	3380J	---	2.5	2200
	11/7/2011	3240		ND(1.0)	775
	4/17/2012	2650		ND(0.10)	0.576
AP-32-DO	4/7/2011	1440J	---	ND(1.0)	75
	11/7/2011	979		ND(0.10)	0.055
	4/17/2012	631		ND(0.10)	0.072
APBIO-01	4/12/2007	246	---	---	---
B-2	4/14/2007	265	---	---	---
	11/16/2007	52.8	---	---	---
	4/25/2008	689	---	---	---
B-3	6/3/2002	---	2.5	0.23	0.027
	1/29/2003	9	---	0.06	0.6
	5/13/2003	10	---	ND(0.05)	0.076
	12/16/2003	20.7	---	ND(0.100)	43.3
	5/2/2004	14.7	---	ND(0.100)	0.0294
	4/27/2005	16.3	---	---	---
	3/31/2006	10.1	---	---	---
	4/10/2007	9.26	---	---	---
	4/21/2008	10.9	---	---	---
BR-1_ZONE1	5/16/2003	47	---	4.1	0.38
BR-1_ZONE2	5/16/2003	8	---	1.3	0.2
BR-1_ZONE3	5/16/2003	190	---	1	0.26
BR-5_ZONE1	6/3/2002	---	---	0.22	0.057
	1/31/2003	26	---	0.05	0.012
	5/16/2003	71	---	ND(0.05)	2300
	12/19/2003	31	---	ND(0.100)	0.025
	5/4/2004	75.5	---	ND(0.100)	0.0136
	1/5/2005	59.1	---	---	---
	5/3/2005	29.9	---	---	---
	1/5/2006	14.7	---	---	---
	4/3/2006	18.1	---	---	---
BR-5_ZONE2	1/31/2003	15	---	0.14	0.039
	5/16/2003	17	---	0.2	2.7
	12/19/2003	36.8	---	ND(0.100)	0.816
	5/4/2004	66.9	---	ND(0.100)	0.216
	1/5/2005	24.9	---	---	---
	5/3/2005	13.4	---	---	---
	1/5/2006	19.8	---	---	---
	4/3/2006	14.4	---	---	---
BR-5_ZONE3	6/3/2002	---	6.5	---	---
	1/31/2003	70	---	ND(0.1)	450D
	5/16/2003	12	---	0.06	0.023

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
BR-5_ZONE3 (Cont.)	12/19/2003	62.6	---	0.752	238
	5/4/2004	34.8	---	ND(0.100)	3.14
	5/3/2005	18.5	---	---	---
	1/5/2006	13.4	---	---	---
	4/3/2006	17.1	---	---	---
BR-6_ZONE1	1/5/2005	56	---	---	---
	5/3/2005	54.4	---	---	---
	1/5/2006	60	---	---	---
	4/3/2006	60.5	---	---	---
	4/13/2007	82.2	---	---	---
BR-6_ZONE2	1/5/2005	59.7	---	---	---
	5/3/2005	84.3	---	---	---
	1/5/2006	68.9	---	---	---
	4/3/2006	74.5	---	---	---
	4/13/2007	64.7	---	---	---
BR-6_ZONE3	5/3/2005	65.9	---	---	---
	1/5/2006	60	---	---	---
	4/3/2006	59.8	---	---	---
	4/13/2007	281	---	---	---
BW-01	11/29/2006	---	---	ND(0.100)	0.0282
	4/10/2007	96.1	---	36.5	10.7
	7/19/2007	83.4	---	32	22.4
	11/12/2007	18	---	7.57	5.71
	1/24/2008	97.1	---	24.5	4.47
	4/21/2008	73	---	12.5	2.82
	7/28/2008	48.1	---	ND(0.100)	1.04
	10/21/2008	35.5	---	2.86	3.82
	1/13/2009	86.1	---	2.1	2.3
	4/2/2009	67.3	---	3.8	3.2
BW-02	10/11/2006	---	---	0.123	35.1
	1/30/2007	51.9	---	107	50.8
	4/10/2007	282	---	61.1	17.1
	7/19/2007	77.3	---	14.8	8.14
	11/12/2007	21	---	19	7
	1/24/2008	84.5	---	25	3.49
	4/21/2008	74	---	16.5	4.56
	7/28/2008	45	---	1.28	1.54
	10/21/2008	45.4	---	1.45	3.42
	1/13/2009	87.2	---	8.2	2.3
	4/2/2009	97.8	---	6.4	2.4
BW-03	10/11/2006	---	---	ND(0.100)	1.86
	1/30/2007	67.2	---	74.1	67.4
	4/10/2007	248	---	64.5	14.8
	7/19/2007	57.3	---	24.5	12.5
	11/12/2007	31.7	---	20.3	9.02
	1/24/2008	106	---	37.4	7.44
	4/21/2008	55.9	---	28.7	6.25
	7/28/2008	37.6	---	1.67	3.84
	10/21/2008	50.1	---	17.9	5.33
	1/13/2009	80.8	---	13	5.6
	4/2/2009	91.3	---	18	8

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
BW-04	10/11/2006	---	---	ND(0.100)	0.0434
	1/30/2007	88.4	---	25.2	27.9
	4/10/2007	84.8	---	17.2	6.49
	7/19/2007	63	---	26	8.3
	11/12/2007	247	---	49.6	11
	1/22/2008	173	---	11.9	25.3
	4/21/2008	128	---	9.61	2.96
	7/28/2008	38	---	7.42	3.18
	10/21/2008	58.2	---	7.75	2.15
	1/13/2009	96.5	---	9.5	3.8
	4/2/2009	95.1	---	10	3.2
BW-05	10/11/2006	---	---	ND(0.100)	ND(0.0100)
	1/30/2007	82.5	---	39.8	63
	4/10/2007	86.4	---	8	4.78
	7/19/2007	83.4	---	3.21	2.05
	11/12/2007	118	---	9.6	3.61
	1/22/2008	140	---	13.5	3.49
	4/21/2008	115	---	5.68	2.28
	7/28/2008	81.1	---	5.45	2.28
	10/21/2008	77.1	---	10.5	1.75
	1/13/2009	205	---	20	4.7
	4/2/2009	130	---	27	4.9
BW-08	11/29/2006	---	---	ND(0.100)	4.01
	4/10/2007	91.2	---	33.7	36.7
	7/19/2007	87	---	15.2	12
	11/12/2007	252	---	43.5	13.2
	1/22/2008	186	---	43	13.5
	4/21/2008	164	---	26	9.56
	7/28/2008	131	---	21.8	9.42
	10/21/2008	148	---	24.5	1.75
	1/13/2009	124	---	18	5.3
	4/2/2009	104	---	27	7.9
BW-09	11/29/2006	---	---	0.42	24.5
	4/10/2007	74.1	---	27.6	27.6
	8/9/2007	122	---	16.5	7.07
	11/12/2007	472	---	32.2	15.1
	1/22/2008	132	---	25.4	15.1
	4/21/2008	177	---	31.8	10.4
	7/28/2008	128	---	12.2	4.17
	10/21/2008	141	---	62.4	19.4
	1/13/2009	131	---	20	7.1
	4/2/2009	174	---	41	11
CL02-BR	6/3/2002	---	80	---	---
	6/3/2002	---	---	0.03	0.022
	1/23/2003	100	---	ND(0.05)	ND(0.005)
	5/14/2003	140	---	ND(0.05)	0.016
	12/18/2003	92.8	---	ND(0.100)	0.0693
	5/2/2004	123	---	ND(0.100)	0.0787
Dup.	5/2/2004	124	---	ND(0.100)	0.0745
	12/29/2004	108	---	ND(0.100)	0.0138

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
CL02-BR (Cont.)	4/29/2005	97.5	---	ND(0.100)	0.0319
	1/4/2006	95.3	---	ND(0.100)	ND(0.0100)
	3/31/2006	177	---	0.964	0.272
	2/1/2007	159	---	ND(0.100)	0.0206
	4/11/2007	197	---	ND(0.100)	0.0178
	11/14/2007	104	---	0.168	0.129
	4/24/2008	129	---	0.527	0.127
CL03-BR	6/3/2002	---	59.2	---	---
	6/3/2002	---	---	0.5	0.32
	1/29/2003	30	---	ND(0.1)	160D
	5/14/2003	14	---	ND(0.05)	950
	12/18/2003	24.2	---	ND(0.100)	157
	5/1/2004	2790	---	ND(3.00)	29100
	4/29/2005	156	---	---	---
	3/29/2006	165	---	---	---
CL03-DO	6/3/2002	---	26	---	---
	6/3/2002	---	---	0.09	ND(0.005)
	1/29/2003	42	---	ND(0.05)	0.34
	5/14/2003	7	---	ND(0.05)	0.15
	12/18/2003	6.97	---	0.118	0.0395
	5/1/2004	54.4	---	ND(0.100)	1.07
	4/29/2005	14.6	---	---	---
	3/29/2006	58.3	---	---	---
CL03-S	6/3/2002	---	26.4	0.01	0.12
	1/29/2003	120	---	ND(0.05)	0.21
	5/14/2003	78	---	ND(0.05)	0.067
	12/17/2003	143	---	ND(0.100)	0.0779
	5/1/2004	63.1	---	ND(0.100)	0.0394
	4/29/2005	172	---	---	---
	3/29/2006	320	---	---	---
CL04-BR	6/3/2002	---	---	1.1	1.1
	5/14/2003	57	---	0.87	0.41
	12/16/2003	59.2	---	ND(0.100)	0.122
Dup.	12/16/2003	59.6	---	ND(0.100)	0.121
	4/26/2004	62.8	---	0.717	0.373
	4/28/2005	73.3	---	---	---
	3/28/2006	70.6	---	---	---
	4/11/2007	177	---	---	---
CL04-DO	6/3/2002	---	---	ND(0.01)	ND(0.005)
	6/11/2002	---	72.1	---	---
	5/14/2003	110	---	ND(0.05)	ND(0.005)
	12/16/2003	83.7	---	ND(0.100)	ND(0.0100)
	4/26/2004	97.2	---	ND(0.100)	ND(0.0100)
	4/28/2005	123	---	---	---
	3/28/2006	80.8	---	---	---
	4/11/2007	118	---	---	---
CL05-DOA	6/3/2002	---	70.8	---	---
	6/3/2002	---	---	0.36	0.53
	1/29/2003	330	---	1.1	8.9
	5/13/2003	ND(1)	---	ND(0.05)	0.35

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
CL05-DOA (Cont.)	12/15/2003	ND(1.00)	---	6.53	1140
	5/2/2004	200	---	ND(0.100)	0.554
	4/27/2005	172	---	---	---
	3/31/2006	1360	---	---	---
CL06-BR	5/15/2003	210	---	ND(0.05)	0.01
CL06-DO	5/15/2003	5	---	ND(0.05)	ND(0.005)
CL08-DO	12/23/2003	59.9	---	ND(0.100)	ND(0.0100)
CL09-BR_ZONE1	5/16/2003	8	---	2.7	0.12
	12/19/2003	8.8	---	0.412	0.119
	5/3/2004	9.47	---	1.15	0.446
	1/4/2005	10.8	---	---	---
	5/3/2005	17.1	---	---	---
	1/5/2006	10.6	---	---	---
	4/3/2006	29.8	---	---	---
CL09-BR_ZONE2	6/3/2002	---	---	0.72	0.28
	5/16/2003	16	---	1.3	0.37
	12/19/2003	14.3	---	1.74	0.382
	5/3/2004	19.1	---	1.58	0.49
	1/4/2005	36.4	---	---	---
	5/3/2005	14	---	---	---
	1/5/2006	19.1	---	---	---
	4/3/2006	16.1	---	---	---
CL09-BR_ZONE3	5/16/2003	48	---	2.9	0.35
	12/19/2003	59.2	---	1.6	0.365
	5/3/2004	211	---	4.91	0.488
	1/4/2005	122	---	---	---
	5/3/2005	87.2	---	---	---
	1/5/2006	547	---	---	---
	4/3/2006	368	---	---	---
CL09-DO	6/3/2002	---	---	ND(0.01)	0.021
	1/28/2003	120	---	ND(0.05)	0.011
	5/15/2003	110	---	ND(0.05)	0.006
	12/17/2003	112	---	ND(0.100)	0.24
	5/1/2004	187	---	ND(0.100)	0.015
Dup.	5/1/2004	187	---	ND(0.100)	0.0146
	5/2/2005	174	---	---	---
	4/7/2006	164	---	---	---
CL09-S	6/3/2002	---	---	ND(0.01)	0.006
CL10-BR	6/3/2002	---	---	1.9	0.35
	6/11/2002	---	6.2	---	---
	5/14/2003	86	---	0.4	0.13
	12/16/2003	92.7	---	2.4	0.178
	4/26/2004	29.7	---	1.09	0.172
	12/30/2004	33.8	---	0.247	0.129
	4/28/2005	62.8	---	ND(0.100)	21.5
	3/28/2006	41.2	---	0.249	0.311
	1/31/2007	24.7	---	ND(0.100)	0.203
	4/10/2007	22	---	0.116	0.238
	10/21/2008	24.9	---	1.65	0.784
CL10-BR2	4/27/2004	60.7	---	ND(0.100)	ND(0.0100)
	4/27/2004	74.7	---	ND(0.100)	0.073

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
CL10-DO	6/3/2002	---	---	ND(0.01)	0.032
	6/11/2002	---	3.3	---	---
	5/14/2003	24	---	ND(0.05)	0.91
	12/16/2003	21	---	ND(0.100)	0.203
	4/26/2004	24.9	---	ND(0.100)	1.15
	12/30/2004	28	---	ND(0.100)	11.1
	4/28/2005	13	---	0.3	0.055
	3/28/2006	43.9	---	ND(0.100)	287
	1/31/2007	45.1	---	ND(0.100)	91.2
	4/10/2007	43.4	---	ND(0.100)	120
	10/21/2008	33.6	---	ND(0.100)	164
CL10-S	6/3/2002	---	---	0.03	0.015
	6/11/2002	---	24.1	---	---
	5/14/2003	31	---	ND(0.05)	0.009
	12/16/2003	60.1	---	ND(0.100)	ND(0.0100)
	4/26/2004	23.4	---	ND(0.100)	0.0216
	12/30/2004	87.3	---	ND(0.100)	ND(0.0100)
	4/28/2005	70.8	---	ND(0.100)	0.0437
	3/28/2006	67.6	---	ND(0.100)	0.0581
	1/31/2007	55.4	---	ND(0.100)	0.0128
	4/10/2007	60	---	ND(0.100)	0.0207
	10/21/2008	12.3	---	0.12	0.0194
CL12-S1	6/3/2002	---	54.8	---	---
	6/3/2002	---	---	0.11	0.55
	2/26/2003	230	---	0.17	0.48
	5/15/2003	230	---	0.48	0.71
	12/17/2003	74.9	---	ND(0.100)	0.117
	5/1/2004	80.7	---	ND(0.100)	0.325
	4/29/2005	56.5	---	---	---
	3/28/2006	332	---	---	---
GZ-1	8/26/2002	---	25>	9.3	0.86
	1/28/2003	190	---	0.62	1.1
	5/14/2003	ND(1)	---	ND(0.05)	ND(0.005)
	12/23/2003	124	---	1.38	0.82
	5/3/2004	243	---	1	0.822
	4/29/2005	373	---	---	---
	4/7/2006	253	---	---	---
GZ-2R	8/26/2002	---	25>	0.13	2.2
	1/29/2003	ND(1)	---	0.07	3.4
	5/14/2003	ND(1)	---	ND(0.05)	ND(0.005)
	12/22/2003	99.9	---	ND(0.100)	0.2
	5/3/2004	328	---	ND(0.100)	0.0157
	4/29/2005	405	---	---	---
	4/7/2006	344	---	---	---
GZ-4	8/26/2002	---	25>	29	3
	5/3/2004	313	---	9.76	2.41
Dup.	5/3/2004	314	---	9.97	2.56
MW-002R	6/3/2002	---	118.6	0.12	1.4
	1/23/2003	150	---	ND(0.05)	0.34
	5/14/2003	97	---	ND(0.05)	0.19

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
MW-002R (Cont.)	12/18/2003	215	---	0.209	0.927
	5/2/2004	147	---	ND(0.100)	0.0475
	4/29/2005	383	---	---	---
	3/31/2006	111	---	---	---
MW-004R	6/3/2002	---	58.8	---	---
	6/3/2002	---	---	0.12	0.13
	5/14/2003	93	---	ND(0.05)	1.1
	12/18/2003	100	---	ND(0.100)	0.0231
Dup.	12/18/2003	102	---	ND(0.100)	0.0215
	5/2/2004	8.44	---	ND(0.100)	ND(0.0100)
	4/29/2005	80.9	---	---	---
	3/31/2006	188	---	---	---
MW-007R	6/3/2002	---	56.4	---	---
	6/3/2002	---	---	0.06	0.074
	1/23/2003	260	---	0.18	0.46
	5/14/2003	880	---	ND(0.05)	0.5
	12/17/2003	64.4	---	ND(0.100)	ND(0.0100)
	5/2/2004	127	---	ND(0.100)	ND(0.0100)
	4/29/2005	1020	---	---	---
	3/31/2006	1140	---	---	---
MW-008	6/3/2002	---	104.4	58	5.4
	1/29/2003	100	---	1.4	0.75
	5/12/2003	69	---	1.2	0.66
	12/17/2003	5.46	---	3.05	0.191
	4/23/2004	134	---	34.4	3.51
	4/27/2005	85.1	---	---	---
	3/27/2006	79.3	---	---	---
	4/23/2008	87.4	---	---	---
MW-009	6/13/2002	---	24.8	11	26
	1/23/2003	980	---	0.61	30
	5/12/2003	780	---	0.93	23
	12/15/2003	1120	---	20.3	20.5
	4/23/2004	967	---	ND(0.100)	21.3
Dup.	4/23/2004	980	---	ND(0.100)	20.5
	4/27/2005	773	---	---	---
	3/27/2006	990	---	---	---
	10/11/2006	---	---	21.3	20.9
	1/30/2007	676	---	96.2	5.34
	4/10/2007	774	---	128	13.1
	7/19/2007	659	---	86.6	7.91
	11/12/2007	68	---	1.01	0.16
	1/23/2008	164	---	18.8	1.67
	4/21/2008	330	---	90.7	6.29
	7/28/2008	656	---	80.4	6.74
	10/21/2008	742	---	62.9	7.31
	1/14/2009	822	---	60	7
	4/2/2009	711	---	70	6
MW-009A	6/13/2002	---	25	0.02	0.055
	1/23/2003	260	---	0.1	6.8
	5/12/2003	99	---	0.06	1

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
MW-009A (Cont.)	12/15/2003	11	---	ND(0.100)	0.018
	4/23/2004	1.87	---	ND(0.100)	0.0133
	4/27/2005	7.65	---	---	---
	3/27/2006	38.5	---	---	---
	4/12/2007	27.8	---	---	---
	4/21/2008	22.3	---	---	---
MW-010	5/13/2003	ND(1)	---	---	---
	5/13/2003	---	---	0.07	0.035
MW-013	6/3/2002	---	44	---	---
	6/3/2002	---	---	14	11
	1/27/2003	2600	---	ND(0.1)	46
	5/13/2003	1800	---	ND(0.05)	120
	12/16/2003	981	---	ND(0.100)	109
	5/1/2004	619	---	ND(0.100)	0.0122
	4/28/2005	718	---	---	---
	3/31/2006	2720	---	---	---
	4/10/2007	2430	---	---	---
	4/22/2008	395	---	---	---
	4/21/2010	586	---	2.4	2300
	10/14/2010	928	--	ND(1.0)	4800
	4/14/2011	1920	---	2.8	3100
	10/27/2011	1410	---	ND(0.50)	510
	4/5/2012	930		ND(0.50)	563
	11/26/2012	647	---	ND(1.0)	210
MW-014A	6/3/2002	---	20.5	---	---
	6/3/2002	---	---	0.03	0.022
	1/23/2003	10	---	ND(0.05)	0.12
	5/13/2003	38	---	0.08	0.27
	12/17/2003	10.9	---	ND(0.100)	ND(0.0100)
	5/1/2004	16.1	---	ND(0.100)	ND(0.0100)
	4/28/2005	14.4	---	---	---
	3/31/2006	5.6	---	---	---
MW-030	1/4/2005	138	---	---	---
	4/27/2005	106	---	---	---
	12/29/2005	190	---	ND(0.100)	ND(0.0100)
	4/7/2006	263	---	---	---
	2/1/2007	138	---	---	---
	4/14/2007	146	---	---	---
	11/16/2007	628	---	ND(0.100)	0.914
	4/25/2008	171	---	---	---
	10/22/2008	1210	---	ND(0.100)	0.011
	4/9/2009	135	---	0.16	0.012
MW-032	6/3/2002	---	---	0.02	ND(0.005)
	6/11/2002	---	12.8	---	---
	5/14/2003	10	---	ND(0.05)	0.012
	12/15/2003	12.6	---	3.9	0.0755
	4/26/2004	29.4	---	ND(0.100)	0.021
	4/28/2005	6.45	---	---	---
	3/31/2006	38.7	---	---	---
MW-033B	6/3/2002	---	17.6	---	---
	6/13/2002	---	---	0.07	6.2

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
MW-033B (Cont.)	5/14/2003	760	---	ND(0.05)	0.62
	12/17/2003	298	---	0.101	0.0399
	4/27/2004	766	---	ND(0.100)	0.492
Dup.	4/27/2004	770	---	ND(0.100)	0.491
	4/28/2005	1000	---	---	---
	3/31/2006	686	---	---	---
MW-036	6/3/2002	---	46.2	---	---
	6/3/2002	---	---	0.04	0.078
	1/24/2003	210	---	ND(0.05)	2.8
	5/15/2003	96	---	0.13	0.21
	12/17/2003	65.6	---	ND(0.100)	0.0704
	5/1/2004	386	---	ND(0.100)	0.0678
	4/29/2005	106	---	---	---
	3/28/2006	693	---	---	---
MW-104R	6/3/2002	---	2.7	---	---
	6/3/2002	---	---	0.17	0.035
MW-2_32-TOZER	11/8/2011	489		2.58	---
OB-04-BR	6/3/2002	---	9.8	---	---
	6/3/2002	---	---	0.02	ND(0.005)
	1/24/2003	18	---	0.6	0.016
	5/14/2003	7	---	0.2	0.01
	12/16/2003	10.8	---	0.646	0.037
Dup.	12/16/2003	10.7	---	0.616	0.0359
	4/27/2004	8.98	---	0.186	0.0182
	4/29/2005	13.3	---	---	---
	3/28/2006	13.5	---	---	---
OB-04-DO	6/3/2002	---	17.4	---	---
	6/3/2002	---	---	ND(0.01)	1.7
	1/24/2003	40	---	0.05	0.5
	5/14/2003	44	---	0.53	0.54
	12/16/2003	7.63	---	0.108	0.0545
	4/27/2004	4.79	---	ND(0.100)	ND(0.0100)
	4/29/2005	13.2	---	---	---
	3/28/2006	78.3	---	---	---
OB-04-S	6/3/2002	---	130.4	1.2	6.5
	1/24/2003	130	---	0.19	1.2
	5/14/2003	97	---	1.2	1.7
	12/16/2003	324	---	0.219	2.71
	4/27/2004	108	---	0.356	0.142
	4/29/2005	186	---	---	---
	3/28/2006	290	---	---	---
OB-05-BR	6/3/2002	---	58.8	---	---
	6/3/2002	---	---	1.7	0.42
	1/24/2003	100	---	0.17	0.04
	5/14/2003	100	---	0.61	0.016
	12/16/2003	107	---	ND(0.100)	0.0137
	4/27/2004	108	---	ND(0.100)	0.0143
	12/30/2004	108	---	---	---
	4/29/2005	107	---	---	---
	1/4/2006	93.8	---	---	---
	3/29/2006	107	---	---	---
	2/1/2007	102	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-05-DO	6/3/2002	---	19.5	---	---
	6/3/2002	---	---	0.06	0.41
	1/24/2003	96	---	0.57	0.63
	5/14/2003	18	---	0.84	0.076
	12/16/2003	20	---	0.535	0.179
	4/27/2004	21.6	---	ND(0.100)	ND(0.0100)
	12/30/2004	20.8	---	---	---
	4/29/2005	21.8	---	---	---
	1/4/2006	19.6	---	---	---
	3/29/2006	414	---	---	---
	2/1/2007	28.2	---	---	---
OB-05-S	6/3/2002	---	44	0.01	0.31
	2/20/2003	460	---	ND(0.05)	0.18
	5/14/2003	90	---	0.2	0.18
	12/16/2003	215	---	ND(0.100)	0.0548
	4/27/2004	86.8	---	ND(0.100)	ND(0.0100)
	4/29/2005	41.5	---	---	---
	3/29/2006	302	---	---	---
OB-06-BR	6/3/2002	---	---	18	0.73
	1/29/2003	76	---	15	1.8
	5/15/2003	1	---	0.29	0.021
	12/17/2003	26.2	---	1.28	0.176
	5/1/2004	45.6	---	0.663	0.257
	12/30/2004	43.7	---	---	---
	5/2/2005	42.3	---	---	---
	1/4/2006	42	---	---	---
	4/7/2006	46.9	---	---	---
	2/1/2007	42.8	---	---	---
OB-06-DO	6/3/2002	---	1.1	---	---
	6/3/2002	---	---	0.01	0.12
	1/29/2003	86	---	ND(0.05)	0.045
	5/15/2003	ND(1)	---	1.1	0.48
	12/17/2003	114	---	0.287	0.776
	5/1/2004	136	---	6.68	1.28
	12/30/2004	123	---	---	---
	5/2/2005	168	---	---	---
	1/4/2006	140	---	---	---
	4/7/2006	154	---	---	---
	2/1/2007	127	---	---	---
OB-07-DO	8/26/2002	---	25>	8.1	1.7
	5/14/2003	210	---	5.6	0.86
	12/19/2003	2.69	---	ND(0.100)	ND(0.0100)
	5/3/2004	21.4	---	0.828	0.123
	12/30/2004	2.38	---	---	---
	4/29/2005	18	---	---	---
	3/29/2006	183	---	---	---
	2/1/2007	14.5	---	---	---
OB-08-DO	8/26/2002	---	25>	44	2
	5/15/2003	130	---	46	1.6
	12/18/2003	150	---	44.2	1.68

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-08-DO (Cont.)	5/3/2004	139	---	47.9	1.79
	1/4/2005	152	---	---	---
	4/29/2005	153	---	---	---
	1/4/2006	147	---	---	---
	4/7/2006	164	---	---	---
	2/1/2007	162	---	---	---
OB-08-S	8/26/2002	---	25>	9.1	1.7
	5/3/2004	97.9	---	ND(0.100)	0.0112
OB-09-BR	6/3/2002	---	10.4	---	---
	6/3/2002	---	---	7.5	0.37
	1/23/2003	19	---	0.08	0.01
	5/12/2003	10	---	0.23	0.064
	12/15/2003	12.5	---	0.177	0.063
	4/23/2004	20.6	---	ND(0.100)	0.0237
	12/29/2004	15.7	---	0.343	0.0435
Dup.	12/29/2004	15.2	---	0.34	0.0428
	4/27/2005	22.8	---	0.165	0.0326
	12/30/2005	15.6	---	0.266	0.0527
	3/27/2006	23.2	---	0.228	0.0602
	11/29/2006	---	---	6.18	0.262
	1/31/2007	6.77	---	0.715	0.189
	4/10/2007	19.3	---	2.26	0.216
	7/19/2007	12.4	---	0.399	0.0918
	8/9/2007	14	---	0.407	0.0965
	11/12/2007	18.3	---	0.792	0.157
	1/22/2008	17.8	---	1.1	0.157
	4/21/2008	15.2	---	0.394	0.0828
	7/29/2008	3.33	---	1.97	0.0971
	10/22/2008	10.8	---	2.84	0.17
	1/14/2009	16	---	1.5	0.17
	4/9/2009	20	---	1.5	0.24
OB-09-DO	6/3/2002	---	81.3	---	---
	6/3/2002	---	---	2.3	0.36
	1/23/2003	15	---	0.05	0.062
	5/12/2003	2	---	ND(0.05)	ND(0.005)
	12/15/2003	4.48	---	ND(0.100)	0.0319
Dup.	12/15/2003	4.24	---	---	---
	4/23/2004	2.09	---	ND(0.100)	ND(0.0100)
	12/29/2004	4.88	---	ND(0.100)	ND(0.0100)
	4/27/2005	6.58	---	ND(0.100)	ND(0.0100
	12/30/2005	13.3	---	ND(0.100)	ND(0.0100)
	3/27/2006	18.5	---	4.84	0.278
	11/29/2006	---	---	1.01	0.146
	1/31/2007	9.75	---	0.181	0.0364
	4/10/2007	18.3	---	1.12	0.0804
	7/19/2007	9.45	---	0.616	0.138
	11/12/2007	9.39	---	ND(0.100)	0.0444
	1/22/2008	12	---	ND(0.100)	0.0171
	4/21/2008	3.64	---	ND(0.100)	0.0445
	7/29/2008	ND(2.00)	---	ND(0.100)	ND(0.0100)

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-09-DO (Cont.)	10/22/2008	6.3	---	0.255	0.0796
	1/13/2009	32.6	---	ND(0.10)	ND(0.010)
	4/9/2009	44.6	---	ND(0.10)	ND(0.010)
OB-09-S	6/3/2002	---	78.5	1.8	1.8
	1/23/2003	190	---	0.08	0.33
	5/12/2003	78	---	ND(0.05)	0.051
	12/15/2003	5.32	---	ND(0.100)	0.0169
	4/23/2004	3.73	---	ND(0.100)	ND(0.0100)
	12/29/2004	43.4	---	ND(0.100)	0.0163
	4/27/2005	16.2	---	0.112	0.0289
	12/30/2005	28.2	---	ND(0.100)	0.0106
	3/27/2006	547	---	0.604	1.1
	10/11/2006	---	---	2.52	1.36
	1/30/2007	72.8	---	40	25.6
	4/10/2007	30.9	---	75.6	21.1
	7/26/2007	42.1	---	4.82	0.887
	11/12/2007	63.2	---	5.08	1.08
	4/21/2008	168	---	8.7	1.88
	7/29/2008	222	---	13.1	3.98
	10/22/2008	116	---	17	1.3
	4/9/2009	122	---	16	2
OB-10-BR	6/3/2002	---	64.4	---	---
	6/3/2002	---	---	0.04	0.19
	1/23/2003	90	---	ND(0.05)	0.042
	5/13/2003	93	---	0.34	0.19
	12/15/2003	82	---	0.403	0.0398
	4/23/2004	87.4	---	ND(0.100)	0.0666
	4/27/2005	69.3	---	---	---
	3/27/2006	55	---	---	---
OB-10-DO	6/3/2002	---	42	---	---
	6/3/2002	---	---	ND(0.01)	0.17
	1/23/2003	37	---	ND(0.05)	0.42
	5/13/2003	29	---	1.2	1.1
	12/15/2003	31.4	---	ND(0.100)	ND(0.0100)
	4/23/2004	32.6	---	ND(0.100)	ND(0.0100)
	4/27/2005	30.6	---	---	---
	3/27/2006	34.1	---	---	---
	11/29/2006	---	---	ND(0.100)	0.351
	4/16/2007	38.1	---	ND(0.100)	ND(0.0100)
OB-10-S	6/3/2002	---	61.6	ND(0.01)	0.022
	1/23/2003	35	---	ND(0.05)	0.007
	5/13/2003	300	---	ND(0.05)	ND(0.005)
	12/15/2003	14.5	---	ND(0.100)	ND(0.0100)
Dup.	12/15/2003	14	---	ND(0.100)	ND(0.0100)
	4/23/2004	71	---	ND(0.100)	ND(0.0100)
	4/27/2005	124	---	---	---
	3/27/2006	50.1	---	---	---
	11/29/2006	---	---	ND(0.100)	1.28
	4/16/2007	39.5	---	ND(0.100)	18.5

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
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SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-11-BR	6/3/2002	---	17	---	---
	6/3/2002	---	---	1.5	0.05
	1/27/2003	7	---	0.31	0.18
	5/12/2003	8	---	1.1	0.2
	12/16/2003	8.89	---	1.99	0.221
	5/1/2004	9.13	---	0.34	0.129
	4/28/2005	9.01	---	---	---
	3/27/2006	10.9	---	---	---
OB-11-DO	6/3/2002	---	5.4	---	---
	6/3/2002	---	---	0.08	0.32
	1/27/2003	19	---	ND(0.05)	0.01
	5/12/2003	12	---	ND(0.05)	0.28
	12/16/2003	16.4	---	1.89	0.21
	5/1/2004	13.2	---	ND(0.100)	ND(0.0100)
	4/28/2005	15	---	---	---
	3/27/2006	18.1	---	---	---
OB-11-S	6/3/2002	---	80	0.16	1.7
	1/27/2003	43	---	ND(0.05)	1.3
	5/12/2003	38	---	1.5	1.9
	12/16/2003	42.6	---	ND(0.100)	1.34
	5/1/2004	38.8	---	1.02	1.24
	4/28/2005	38	---	---	---
	3/27/2006	39	---	---	---
OB-12-BR	6/3/2002	---	12.4	---	---
	6/3/2002	---	---	1.9	0.036
	1/27/2003	12	---	ND(0.05)	0.009
	5/13/2003	14	---	1.5	0.045
	12/16/2003	7970	---	ND(0.500)	3190
	5/13/2004	673	---	126	7270
	4/3/2006	687	---	---	---
	11/29/2006	---	---	ND(0.100)	211
	1/31/2007	4.78	---	---	---
	4/16/2007	1220	---	ND(0.100)	1070
OB-12-DO	6/3/2002	---	10.8	---	---
	6/3/2002	---	---	0.33	0.59
	1/27/2003	69	---	ND(0.05)	0.73
	5/13/2003	52	---	1	0.7
	12/16/2003	181	---	ND(0.100)	243
	5/1/2004	33.5	---	ND(0.100)	4.6
	4/28/2005	38.6	---	---	---
	4/3/2006	58.9	---	---	---
	11/29/2006	---	---	ND(0.100)	1.5
	1/31/2007	104	---	---	---
	4/16/2007	84.9	---	ND(0.100)	6.65
	10/27/2009	116	---	ND(0.50)	1100
	10/26/2011	87.6	---	ND(0.50)	54
	11/26/2012	120	---	ND(1.0)	790
OB-12-S	6/3/2002	---	62.1	0.52	0.4
	1/27/2003	42	---	ND(0.05)	0.13
	5/13/2003	38	---	ND(0.05)	0.022
	12/16/2003	178	---	ND(0.100)	684

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
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SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-12-S (Cont.)	5/13/2004	385	---	2.29	4170
	4/28/2005	17.7	---	---	---
	4/3/2006	52.6	---	---	---
	11/29/2006	---	---	ND(0.100)	0.14
	1/31/2007	17.8	---	---	---
	4/16/2007	31.7	---	ND(0.100)	0.0656
OB-14-DO	6/3/2002	---	54	---	---
	6/3/2002	---	---	0.04	0.29
	1/23/2003	17	---	0.13	0.5
	5/13/2003	19	---	0.44	0.12
	12/17/2003	15.5	---	0.8	0.32
	5/1/2004	22.2	---	ND(0.100)	0.0573
	4/28/2005	25.3	---	---	---
	3/27/2006	28.1	---	---	---
OB-15-S	6/3/2002	---	78.2	---	---
	6/3/2002	---	---	5.4	26
	1/23/2003	400	---	18	7.1
	5/12/2003	220	---	1.4	2.5
	12/16/2003	47.3	---	ND(0.100)	48.3
	4/23/2004	37	---	ND(0.100)	23.9
	4/27/2005	52.3	---	---	---
	4/3/2006	619	---	---	---
	4/10/2007	92.2	---	---	---
	4/25/2008	564	---	---	---
OB-16-BR	6/3/2002	---	---	0.02	ND(0.005)
	6/11/2002	---	9	---	---
	5/14/2003	85	---	ND(0.05)	ND(0.005)
	12/16/2003	97.7	---	ND(0.100)	ND(0.0100)
	4/27/2004	92.7	---	ND(0.100)	ND(0.0100)
	4/28/2005	90.5	---	---	---
	3/28/2006	93.6	---	---	---
	4/10/2007	51.6	---	---	---
OB-16-S	6/3/2002	---	---	0.03	0.092
	6/11/2002	---	38.7	---	---
	5/14/2003	170	---	0.07	0.11
	12/16/2003	167	---	0.114	ND(0.0100)
	4/27/2004	112	---	ND(0.100)	ND(0.0100)
	4/28/2005	130	---	---	---
	3/28/2006	201	---	---	---
	4/10/2007	166	---	---	---
OB-17-BR	6/3/2002	---	1.9	---	---
	6/3/2002	---	---	1.3	0.011
	5/15/2003	9	---	0.28	0.008
	12/18/2003	10.1	---	0.214	0.0315
	5/2/2004	9.71	---	0.324	0.0358
	5/19/2005	40	---	---	---
	4/7/2006	30.9	---	---	---
OB-17-DO	6/3/2002	---	64.7	---	---
	6/3/2002	---	---	ND(0.01)	0.24
	5/15/2003	ND(1)	---	ND(0.05)	0.069

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
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SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-17-DO (Cont.)	12/18/2003	122	---	ND(0.100)	0.255
	5/2/2004	136	---	ND(0.100)	0.105
	5/2/2005	134	---	---	---
	4/7/2006	134	---	---	---
OB-18-DO	8/26/2002	---	25>	5.1	1.4
	5/14/2003	49	---	6.8	1.3
	12/23/2003	23.8	---	ND(0.100)	ND(0.0100)
	5/3/2004	59.1	---	0.911	0.904
	4/29/2005	63.3	---	---	---
	4/7/2006	91.6	---	---	---
OB-18-S	8/26/2002	---	25>	15	1.4
	1/28/2003	180	---	0.38	0.83
	5/14/2003	170	---	0.26	2
	12/23/2003	95.1	---	ND(0.100)	1.24
Dup.	12/23/2003	91.6	---	ND(0.100)	1.27
	5/3/2004	72.6	---	ND(0.100)	2.06
	4/29/2005	46.2	---	---	---
	4/7/2006	163	---	---	---
	2/1/2007	158	---	---	---
OB-19-BR	6/3/2002	---	104	---	---
	6/3/2002	---	---	0.53	0.02
	1/28/2003	25	---	ND(0.05)	0.4
	5/13/2003	9	---	0.62	0.16
	12/17/2003	2620	---	ND(0.100)	34.7
	4/26/2004	545	---	ND(0.300)	3960
	12/28/2004	1130	---	---	---
	4/28/2005	928	---	---	---
	1/3/2006	238	---	---	---
	3/31/2006	191	---	---	---
	11/29/2006	---	---	ND(0.100)	70.1
	1/31/2007	3.45	---	---	---
	4/16/2007	27.1	---	0.753	2.57
OB-19-DO	6/3/2002	---	19.41	---	---
	6/3/2002	---	---	0.66	1.9
	1/28/2003	900	---	ND(0.1)	8700D
	5/13/2003	20	---	ND(0.05)	14
	12/17/2003	22.8	---	ND(0.100)	2.75
	4/26/2004	20.1	---	ND(0.100)	1.95
	12/28/2004	27.7	---	---	---
	4/28/2005	32.2	---	---	---
	3/31/2006	35.5	---	---	---
	1/31/2007	33.6	---	---	---
	4/11/2007	36.6	---	---	---
	10/13/2010	15.9	--	ND(0.10)	1.1
	4/4/2011	24	---	0.84	2.6
	10/26/2011	34	---	0.78	3.2
	4/5/2012	25.8		ND(0.10)	5.78
	11/26/2012	26.7	---	0.13	4.9
OB-19-S	6/3/2002	---	62.1	---	---
	1/28/2003	10	---	ND(0.05)	0.023
	5/13/2003	17	---	ND(0.05)	0.009

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
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SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-19-S (Cont.)	12/17/2003	15.7	---	0.104	0.0113
	4/26/2004	36.5	---	ND(0.100)	0.0761
	4/28/2005	16.8	---	---	---
	3/28/2006	17.1	---	---	---
OB-20-BR	9/3/2004	0.063	---	ND(0.100)	ND(0.0100)
	1/3/2005	63.2	---	1.51	0.0191
	5/2/2005	54	---	ND(0.100)	0.0146
	1/6/2006	33.4	---	ND(0.100)	0.27
	3/30/2006	33.9	---	ND(0.100)	1080
	2/1/2007	44	---	ND(0.100)	170
	4/12/2007	31.7	---	ND(0.100)	90.6
OB-20-DO	9/3/2004	0.12	---	2.5	0.178
	1/3/2005	15.4	---	ND(0.100)	0.0129
	5/2/2005	7.92	---	ND(0.100)	0.0611
	1/6/2006	55.4	---	ND(0.100)	ND(0.0100)
	3/30/2006	112	---	ND(0.100)	33
	2/1/2007	107	---	ND(0.100)	6.4
	4/12/2007	10.8	---	ND(0.100)	0.314
OB-20-S	9/2/2004	0.06	---	13.5	1.2
	1/3/2005	35.9	---	1.44	0.2
	5/2/2005	24.1	---	ND(0.100)	0.0503
	1/6/2006	71.6	---	0.101	0.171
	3/30/2006	79.5	---	0.257	0.331
	2/1/2007	69.5	---	0.104	0.14
	4/12/2007	52.9	---	ND(0.100)	0.0857
OB-21-BR	9/2/2004	0.096	---	ND(0.100)	ND(0.0100)
	1/3/2005	102	---	ND(0.100)	2.91
	5/2/2005	97.4	---	ND(0.100)	ND(0.0100)
	1/6/2006	124	---	0.106	ND(0.0100)
	3/30/2006	132	---	ND(0.100)	0.0162
	2/1/2007	202	---	ND(0.100	0.103
	4/12/2007	178	---	0.627	0.176
OB-21-DO	9/2/2004	0.21	---	28.6	3.52
	1/3/2005	177	---	ND(0.100)	2.97
	5/2/2005	227	---	25.5	1.55
	1/6/2006	223	---	ND(0.100)	1.19
	3/30/2006	244	---	4.94	0.764
	2/1/2007	257	---	23.4	1.21
	4/12/2007	254	---	30.6	1.31
OB-22-DO	9/3/2004	0.083	---	1.72	0.558
	1/4/2005	260	---	ND(0.100)	ND(0.0100)
	5/2/2005	4.14	---	0.156	ND(0.0100)
	1/4/2006	365	---	ND(0.100)	ND(0.0100)
	4/7/2006	99.1	---	3.33	0.818
	2/1/2007	11	---	ND(0.100)	ND(0.0100)
	4/15/2007	26.6	---	ND(0.100)	0.0136
OB-23-BR	6/3/2002	---	24.6	---	---
	6/13/2002	---	---	2.8	0.07
OB-24-S	5/14/2003	120	---	3.1	7.2
	12/18/2003	200	---	0.639	0.283

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-24-S (Cont.)	4/27/2004	94.2	---	1.05	3.87
	4/28/2005	71.8	---	---	---
	3/31/2006	49.3	---	---	---
	4/11/2007	45.6	---	---	---
OB-25-BR	12/17/2003	283	---	ND(0.100)	1110
	4/26/2004	8.62	---	ND(0.100)	0.272
Dup.	4/26/2004	8.74	---	ND(0.100)	0.272
	4/28/2005	11.3	---	---	---
	3/31/2006	81	---	---	---
	11/26/2012	812	---	ND(1.0)	7300
OB-25-DO	12/17/2003	40	---	ND(0.100)	12.8
	4/26/2004	35.2	---	ND(0.100)	19.5
	4/28/2005	31.7	---	---	---
	3/31/2006	48.1	---	---	---
OB-26-BR	12/17/2003	18	---	16.5	14.9
	4/26/2004	8.49	---	0.136	80.5
	4/28/2005	4.61	---	---	---
	3/31/2006	5.44	---	---	---
OB-26-DO	12/17/2003	19.8	---	ND(0.100)	126
	4/26/2004	24.7	---	ND(0.100)	200
	4/28/2005	23.6	---	---	---
	3/31/2006	95.9	---	---	---
OB-27-BR	12/18/2003	16.1	---	ND(0.100)Z	0.0164
	4/27/2004	21.6	---	ND(0.100)	0.15
	12/28/2004	406	---	ND(0.100)	3570
	4/28/2005	71.5	---	ND(0.100)	214
	1/3/2006	86.3	---	ND(0.100)	606
	3/28/2006	32.6	---	ND(0.100)	0.0214
	1/31/2007	160	---	ND(0.100)	1490
	4/14/2007	136	---	ND(0.100)	806
	11/15/2007	74.5	---	ND(0.100)	7.05
	4/28/2008	57.2	---	ND(0.100)	1.16
	4/22/2010	214	---	1.9	1800
	10/14/2010	421	--	ND(1.0)	4800
	4/14/2011	690	---	5.2	6700
	10/28/2011	94	---	ND(0.50)	300
	4/6/2012	273		ND(0.50)	2230
	11/26/2012	540	---	ND(1.0)	4400
OB-27-DO	12/18/2003	78.6	---	ND(0.100)Z	0.163
	4/27/2004	87.9	---	ND(0.100)	ND(0.0100)
	12/28/2004	89.7	---	ND(0.100)	0.0712
	4/28/2005	156	---	ND(0.100)	ND(0.0100)
	1/3/2006	258	---	ND(0.100)	ND(0.0100)
	3/28/2006	275	---	ND(0.100)	ND(0.0100)
	1/31/2007	330	---	ND(0.100)	ND(0.0100)
	4/10/2007	334	---	ND(0.100)	ND(0.0100)
	11/15/2007	199	---	ND(0.100)	0.258
	4/23/2008	448	---	ND(0.100)	ND(0.0100)
OB-28-BR	12/17/2003	1210	---	ND(0.100)	304
	4/26/2004	29.8	---	ND(0.100)	274
	4/28/2005	53.5	---	---	---
	3/31/2006	47.1	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-28-DO	12/17/2003	844	---	ND(0.100)	718
	4/26/2004	96.8	---	ND(0.300)	2410
	4/28/2005	32.9	---	---	---
	3/31/2006	31	---	---	---
OB-29-DO	8/13/2003	---	---	1.9	1.3
	12/29/2003	148	---	0.746	0.89
	5/3/2004	74.1	---	1.31	1.24
	12/30/2004	86.7	---	ND(0.100)	ND(0.0100)
	4/29/2005	58.2	---	ND(0.100)	0.0192
	3/29/2006	213	---	0.322	1.34
OB-30-DO	5/5/2004	84.8	---	ND(0.100)	ND(0.0100)
	12/29/2004	106	---	---	---
	4/28/2005	125	---	---	---
	1/3/2006	151	---	---	---
	3/28/2006	170	---	---	---
	1/31/2007	160	---	---	---
	4/11/2007	277	---	---	---
	11/15/2007	289	---	---	---
OB-32-DO	5/5/2004	767	---	ND(0.100)	1.09
	12/29/2004	844	---	---	---
	5/2/2005	2900	---	---	---
	1/3/2006	3700	---	---	---
	4/3/2006	1000	---	---	---
	1/31/2007	3920	---	---	---
	4/11/2007	564	---	---	---
	11/15/2007	990	---	---	---
	4/25/2008	1190	---	---	---
	5/8/2008	781	---	---	---
	4/20/2010	74	---	ND(1.0)	540
	10/14/2010	211	--	ND(1.0)	690
	4/14/2011	262	---	ND(1.0)	520
	10/28/2011	175	---	ND(0.50)	290
	4/5/2012	204		ND(0.20)	190
	11/27/2012	209	---	ND(1.0)	220
OB-33-DO	5/5/2004	49.7	---	0.138	0.646
	12/29/2004	7.54	---	---	---
	4/28/2005	17.8	---	---	---
	12/29/2005	4.72	---	---	---
	3/28/2006	12.5	---	---	---
	1/31/2007	7.55	---	---	---
	4/14/2007	11.4	---	---	---
	11/13/2007	7.2	---	---	---
	4/23/2008	11.8	---	---	---
OB-34-DO	5/5/2004	16	---	ND(0.100)	ND(0.0100)
Dup.	5/5/2004	16.5	---	ND(0.100)	ND(0.0100)
	12/29/2004	57	---	---	---
	5/2/2005	39.9	---	---	---
	1/3/2006	88	---	---	---
	3/28/2006	68.8	---	---	---
	1/31/2007	35.8	---	---	---
	10/27/2009	38.7	---	ND(0.50)	10

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-35-DO	12/28/2004	82.6	---	4.6	0.0926
	5/3/2005	72.6	---	ND(0.100)	ND(0.0100)
	1/3/2006	80.1	---	ND(0.100)	39.5
	4/7/2006	276	---	ND(0.100)	ND(0.0100)
	2/5/2007	88.8	---	ND(0.100)	7.11
	4/13/2007	115	---	ND(0.100)	157
	11/15/2007	373	---	ND(0.100)	260
	4/25/2008	79.5	---	ND(0.100)	ND(0.0100)
	10/23/2008	392	---	ND(1.00)	249
	4/9/2009	79.1	---	ND(0.10)	0.03
	10/28/2009	328	---	ND(0.10)	ND(0.010)
	4/22/2010	73.2	---	ND(0.10)	0.2
	10/14/2010	193	--	ND(0.10)	0.074
	4/7/2011	112J	---	ND(0.10)	0.023
	10/27/2011	84.3	---	ND(0.10)	0.066
	4/6/2012	78.4		ND(0.10)	0.028
	11/27/2012	83.5	---	ND(0.10)	4.2
OB-36-DO	2/2/2004	7.91	---	---	---
	5/4/2004	7.68	---	ND(0.100)	0.635
Dup.	5/4/2004	7.44	---	ND(0.100)	0.627
	12/28/2004	117	---	---	---
	5/3/2005	445	---	---	---
	1/3/2006	284	---	---	---
	4/7/2006	42.2	---	---	---
	2/5/2007	40.8	---	---	---
	4/13/2007	15.3	---	---	---
	11/15/2007	11.5	---	---	---
	4/25/2008	---	---	18.9	15.3
	5/8/2008	9.54	---	---	---
OB-37-DO	2/2/2004	20.9	---	---	---
	5/4/2004	2.53	---	ND(0.100)	0.18
	12/28/2004	7.18	---	---	---
	5/3/2005	3.15	---	ND(0.100)	0.0939
	1/3/2006	7.64	---	---	---
	4/7/2006	10.4	---	ND(0.100)	0.205
	2/5/2007	29.4	---	0.128	25.2
	4/13/2007	15.6	---	ND(0.100)	18.1
	11/15/2007	ND(1000)	---	ND(1.00)	21500
	4/25/2008	417	---	15.2	74.6
	5/7/2010	47.3	---	ND(1.0)	63
	10/13/2010	621	--	ND(1.0)	3800
	4/7/2011	10800J	---	11	18000
	10/28/2011	890	---	ND(10)	15000
	4/6/2012	438		ND(1.5)	3210
	11/27/2012	14.4	---	0.56	20
OB-38-DO	12/28/2004	384	---	ND(0.100)	ND(0.0100)
	4/27/2005	24	---	0.129	0.0162
	1/3/2006	3320	---	ND(0.100)	ND(0.0100)
	3/28/2006	677	---	0.138	0.96
	1/31/2007	1080	---	ND(0.100)	0.459
	4/10/2007	146	---	ND(0.100)	ND(0.0100)
	11/16/2007	1.39	---	ND(0.100)	ND(0.0100)

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-38-DO (Cont.)	4/25/2008	771	---	ND(0.100)	0.472
	10/22/2008	12.2	---	ND(0.100)	0.0256
	4/9/2009	459	---	ND(0.10)	0.14
	10/28/2009	31.7	---	ND(0.10)	0.025
OB-39-DO	12/28/2004	15.8	---	ND(0.100)	ND(0.0100)
	4/27/2005	18.1	---	ND(0.100)	ND(0.0100)
	1/6/2006	15.6	---	ND(0.100)	ND(0.0100)
	3/28/2006	16.1	---	ND(0.100)	0.0857
	1/31/2007	9.12	---	ND(0.100)	ND(0.0100)
	4/10/2007	12	---	ND(0.100)	ND(0.0100)
	11/14/2007	15.1	---	ND(0.100)	0.0109
	4/25/2008	12.7	---	ND(0.100)	0.0153
	10/22/2008	12.4	---	ND(0.100)	0.0337
	4/9/2009	15.5	---	ND(0.10)	ND(0.010)
OB-40-DO	12/28/2004	36	---	ND(0.100)	ND(0.0100)
	4/27/2005	27.8	---	ND(0.100)	ND(0.0100)
	12/29/2005	26.6	---	ND(0.100)	ND(0.0100)
	3/28/2006	34.9	---	ND(0.100)	ND(0.0100)
	1/31/2007	41	---	ND(0.100)	ND(0.0100)
	4/10/2007	36.4	---	ND(0.100)	ND(0.0100)
	11/14/2007	63.1	---	ND(0.100)	ND(0.0100)
	4/25/2008	38.4	---	ND(0.100)	0.0303
	10/22/2008	55.1	---	ND(0.100)	ND(0.0100)
	4/9/2009	48.2	---	ND(0.10)	ND(0.010)
P-14	6/3/2002	---	1.9	---	---
	5/3/2004	1400	---	ND(0.100)	0.0614
P-19A	1/3/2005	97.6	---	---	---
	5/2/2005	104	---	---	---
	1/6/2006	159	---	---	---
	3/30/2006	144	---	---	---
	2/1/2007	117	---	---	---
P-20R	1/6/2006	10.7	---	ND(0.100)	0.0807
	3/30/2006	27.5	---	ND(0.100)	0.372
	2/1/2007	84	---	0.15	1.24
P-21	1/3/2005	1000	---	12.6	1.16
	5/2/2005	1580	---	---	---
	1/4/2006	4070	---	---	---
	4/7/2006	257	---	---	---
	2/1/2007	606	---	---	---
P-24	1/3/2005	69.4	---	ND(0.100)	ND(0.0100)
	5/2/2005	21.3	---	ND(0.100)	ND(0.0100)
	1/6/2006	65.4	---	ND(0.100)	ND(0.0100)
	3/30/2006	36.3	---	ND(0.100)	0.0135
	2/5/2007	20.6	---	ND(0.100)	ND(0.0100)
RW-01_MW-18	6/3/2002	---	108.8	---	---
	6/3/2002	---	---	2.2	1.3
	2/17/2003	80	---	ND(0.1)	83
	5/13/2003	600	---	0.1	6000
	12/16/2003	613	---	ND(0.100)	1330
	5/13/2004	240	---	30.9	1430
	5/2/2005	56.9	---	---	---
	4/3/2006	933	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
RW-02	6/3/2002	---	60.4	---	---
	6/3/2002	---	---	0.21	3
	2/17/2003	500	---	ND(0.1)	29000
	5/14/2003	380	---	ND(0.05)	12000
	12/16/2003	422	---	ND(0.100)N	1380N
Dup.	12/16/2003	426	---	ND(0.100)	1380
	5/2/2004	456	---	ND(1.00)	7670
	3/31/2006	603	---	---	---
RW-03	6/3/2002	---	67.2	---	---
	6/3/2002	---	---	0.11	0.26
	2/20/2003	44	---	ND(0.05)	3.1
	5/13/2003	30	---	ND(0.05)	210
	12/16/2003	22.8	---	6.94	29.2
	5/2/2004	12.6	---	ND(0.100)	0.0905
	5/2/2005	16.8	---	---	---
	4/3/2006	136	---	---	---
RW-04	6/3/2002	---	17.3	---	---
	6/3/2002	---	---	ND(0.01)	0.063
	1/29/2003	73	---	ND(0.05)	0.24
	5/13/2003	ND(1)	---	ND(0.05)	2.6
	12/15/2003	15.3	---	ND(0.100)	119
	4/27/2004	4.03	---	ND(0.100)	11.5
	4/29/2005	5.83	---	---	---
	3/31/2006	66.5	---	---	---
RW-05	6/3/2002	---	19.6	---	---
	6/3/2002	---	---	0.12	0.23
	1/29/2003	90	---	ND(0.05)	11
	5/13/2003	ND(1)	---	ND(0.05)	0.98
	12/15/2003	14.7	---	ND(0.100)	117
	5/2/2004	101	---	ND(0.100)	0.237
	4/27/2005	106	---	---	---
	4/3/2006	296	---	---	---
RW-17_MW-17	6/3/2002	---	69.1	---	---
	6/3/2002	---	---	0.57	0.11
	2/20/2003	180	---	ND(0.1)	41
	5/13/2003	3	---	ND(0.05)	66
	4/27/2004	20.7	---	ND(0.100)	9.82
	4/29/2005	243	---	---	---
	3/31/2006	30.1	---	---	---
RW-19	6/3/2002	---	9.7	---	---
	6/3/2002	---	---	0.03	0.06
	1/29/2003	140	---	ND(0.1)	720D
	5/15/2003	130	---	ND(0.05)	3600
	12/18/2003	9.9	---	0.304	0.64
	5/1/2004	598	---	ND(0.300)	1550
	5/13/2004	373	---	31	345
	4/29/2005	26.9	---	---	---
	3/28/2006	28.2	---	---	---

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
RW-20	6/3/2002	---	42.4	---	---
	6/3/2002	---	---	1.1	0.34
	1/29/2003	100	---	0.56	0.24
	5/15/2003	120	---	2.6	0.35
	12/18/2003	9	---	0.144	0.758
	5/1/2004	180	---	0.512	7.14
	4/29/2005	132	---	---	---
	3/29/2006	349	---	---	---
RW-21	6/3/2002	---	8.3	---	---
	6/3/2002	---	---	4.4	0.32
	1/29/2003	280	---	2.4	0.44
	5/15/2003	10	---	1.7	17
	12/18/2003	10.5	---	0.418	0.487
	5/1/2004	49.4	---	0.104	0.66
	4/29/2005	43.3	---	---	---
	3/29/2006	38.6	---	---	---
RW-22	6/3/2002	---	18.6	---	---
	6/3/2002	---	---	1.4	0.038
	1/23/2003	23	---	ND(0.05)	ND(0.005)
	5/13/2003	10	---	ND(0.05)	ND(0.005)
	12/17/2003	12.2	---	ND(0.100)	ND(0.0100)
	5/1/2004	14.8	---	ND(0.100)	0.0277
	4/28/2005	14.9	---	---	---
	3/27/2006	17.1	---	---	---
STR-03	11/29/2006	---	---	1.88	1.23
	3/1/2007	---	---	5.15	1.11
	4/16/2007	461	---	1.82	0.817
	11/16/2007	9.85	---	0.371	0.0596
	1/23/2008	1130	---	8.87	6.07
	4/21/2008	900	---	0.324	0.137
	7/29/2008	1170	---	2.45	0.732
	10/22/2008	1340	---	31.6	13.6
	1/13/2009	1790	---	1.4	0.58
	4/9/2009	1320	---	3.5	2.6
STRHA-02	2/1/2007	---	---	---	1.36
	1/29/2003	---	---	---	1.6
	5/15/2003	---	---	---	3.1
	12/22/2003	---	---	---	2.28
	4/27/2004	---	---	11.4	1.9
	12/30/2004	---	---	---	3.04
	4/29/2005	---	---	18.4	2.98
	1/4/2006	---	---	---	3.31
	4/3/2006	---	---	---	4.8
	2/1/2007	---	---	---	1.26
STRM-A-SCDS	9/15/2004	161	---	2.07	0.924
	1/3/2005	187	---	1.46	0.326
	5/19/2005	124	---	2.14	0.536
	1/6/2006	178	---	1.7	0.516
	3/30/2006	148	---	1.18	0.732
	4/12/2007	124	---	1.48	0.465

TABLE 10
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE ID	DATE	Chloride Total (mg/l)	Chloride Field (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
STRMH-02	1/29/2003	---	---	---	1.7
	5/15/2003	---	---	---	3.1
	5/4/2004	---	---	10	1.76
	1/4/2005	---	---	---	1.32
	4/29/2005	---	---	17.9	2.9
	1/4/2006	---	---	---	0.0616
	4/3/2006	---	---	---	4.98
	4/15/2007	---	---	---	1.28
STRMH-03	4/15/2007	---	---	---	1.29
UNNAMED_STREAM	7/2/2003	---	---	---	12
	12/23/2003	---	---	48.9	9.48
	5/4/2004	---	---	0.275	0.192
	12/29/2004	---	---	13.6	9.25
	5/3/2005	---	---	---	9.12
	1/3/2006	---	---	---	9.96
	4/3/2006	---	---	---	9.05
	10/11/2006	---	---	0.237	0.0536
	11/29/2006	---	---	46.1	7.31
	2/1/2007	---	---	---	7.48
	3/1/2007	---	---	0.186	---
	4/16/2007	380	---	4.92	1.63
	11/16/2007	21.7	---	1.42	0.197
	1/23/2008	861	---	22.6	5.22
	4/21/2008	1710	---	64.6	10.3
	7/29/2008	1640	---	78.6	8.54
	10/21/2008	175	---	76.4	11
	1/14/2009	1460	---	48	6.9
	4/9/2009	1170	---	22	6.1
MW-2_32-TOZER	11/8/2011	489	---	2.58	---

Notes:

mg/l = milligrams per liter

--- = not collected

ND(0.05) = non detect (method detection limit)

25> = Result higher than the test kit range

N = matrix interference

Dup. = Duplicate sample

NA = Not Applicable, or sample not collected at a discrete well depth

Z = Sample results switched in May 7, 2004 status report.

D = Result reported and from a dilute sample

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-13-DO 7/26/2007	AP-13-DO 7/31/2007	AP-13-DO 11/12/2007	AP-13-DO 1/23/2008	AP-13-DO 4/21/2008	AP-13-DO 7/28/2008	AP-13-DO 10/22/2008	AP-13-DO 1/14/2009	AP-13-DO 4/2/2009	AP-13-DO 4/22/2010	AP-13-DO 7/14/2010	AP-13-DO 10/12/2010	AP-13-DO 1/4/2011	AP-13-DO 4/5/2011	AP-13-DO 7/28/2011	AP-13-DO 10/25/2011
Dissolved Metals																	
Iron	mg/L	0.142	---	217	9.41	1.5	11.9	0.124	0.26	0.2	---	---	---	---	---	---	---
Manganese	mg/L	1.5	---	291	76.3	33.6	5.91	5.98	9.27	13	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	120	---	1500	2400	2500	2400	2200	78	180	460	630J	980	2500	1600	2700	2500
Lactic Acid	mg/L	<10	---	200000D	61000D	36000	15000	17000	<1.0	<1.0	<5.0	<10J	360	16000	930	35000	6300
n-Butanoic acid	mg/L	<20	---	<200	<200	<400	<200	<200	<2.0	6.3	<10	<20J	18	<200	68	<400	<100
Propionic acid	mg/L	170	---	<100	<100	<200	<100	<100	26	48	74	85J	150	220	93	270	210
Pyruvic Acid	mg/L	<5.0	---	470	250	140	75	120	<0.50	<0.50	<2.5	<5.0J	14	<50	7.7	<100	<25
Miscellaneous Analyses																	
Methane	ug/L	<2.0	---	<2.0	11	4.7	5.2	7	<2.0	2.8	83	18J	6.6	5.4	2.7	8.6	3.6
Ethane	ug/L	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	1.5	<1.0
Ethene	ug/L	<1.0	---	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	17	5.6J	17	21	5	71	35
Chloride	mg/L	4970	---	790	1980	2350	2290	1480	150	273	---	---	---	---	---	---	---
TOC	mg/L	91.6	---	56300	24400	12500	6500	5890	65.1	106	---	---	----	---	---	---	---
Dehalococcoides sp.	cells/ml	1.0×10^4	---	2.2×10^2	2.4×10^4	---	1.0×10^4	3.8×10^5	7.4×10^3	$<7.7 \times 10^1$	1.2×10^6	4.4×10^4	1.1×10^5	4.0×10^4	1.2×10^4	6.3×10^1J	7.1×10^2
Dehalococcoides sp.	(1)	---	---	---	---	Neg	---	---	---	---	---	---		---	---	---	---
Dehalococcoides sp.	(2)	---	3.56×10^1	---	---	---	---	---	---	---	---	---		---	---	---	---
Mn Degraders	(3)	---	4.3×10^1	---	---	---	---	---	---	---	---	---		---	---	---	---
Field Parameters																	
pH	--	---	---	9.11	7.00	9.21	8.67	8.93	8.15	8.83	---	7.81	7.19	7.28	7.17	---	---
ORP	mV	---	---	-94	109	-36.2	20.8	-82.5	-170	-153.5	---	-32	-71	-181.9	-354	---	---
Dissolved Oxygen	mg/L	---	---	0.17	0.73	0.14	0.32	0.41	0.32	0.44	---	0.39	0.22	0.79	0.43	---	---
Specific Conductivity	ms/cm	---	---	39.66	21.34	17.6	14.61	13	8.547	12.369	---	9.527	9.191	11.269	9.699	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-13-DO 1/17/2012	AP-13-DO 4/3/2012	AP-23-DO 11/12/2007	AP-23-DO 1/23/2008	AP-23-DO 4/21/2008	AP-23-DO 7/28/2008	AP-23-DO 10/22/2008	AP-23-DO 1/14/2009	AP-23-DO 4/2/2009	AP-23-DO 1/28/2010	AP-23-DO 4/22/2010	AP-23-DO 7/14/2010	AP-23-DO 10/12/2010	AP-23-DO 1/4/2011	AP-23-DO 4/5/2011	AP-23-DO 7/28/2011
Dissolved Metals																	
Iron	mg/L	---	---	12.3	14.4	2.01	0.78	136	1.73	3.2	---	---	---	---	---	---	---
Manganese	mg/L	---	---	30.8	51.8	31.5	23.9	181	6.44	19	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	1300	1200	470	1600D	390	28	560	220	290	28	320	260J	620	2800	2000	920
Lactic Acid	mg/L	740	290	20000D	340D	22	2.9	1700	6.1	33	5.7	15	<10J	<10	20000	11000	150
n-Butanoic acid	mg/L	<40	20	<100	390D	110	6.9	50	36	77	3.1	22	41J	240	<400	1200	140
Propionic acid	mg/L	41	16	890	3100D	750	35	1300	500	670D	41	770	620J	1100	5200	3100	1800
Pyruvic Acid	mg/L	<10	<5.0	110	19	<5.0	<0.50	<5.0	<2.5	<0.50	<0.50	<2.5	<5.0J	<5.0	430	<50	19
Miscellaneous Analyses																	
Methane	ug/L	3	2.3	5.4	6.4	2.7	2.4	4.5	3.9	36	27	14	19J	700D	200	240	340
Ethane	ug/L	<1.0	<1.0	2.1	3.3	4.3	4.9	6.2	2.2	2.1	<2.0	<1.0	<1.0J	2.5	<10	<10	<10U
Ethene	ug/L	7.8	3.3	6.3	7	10	14	30	22	36	170	65	65J	310D	2500D	640	500
Chloride	mg/L	---	---	78	56.2	64.7	35.8	13.9	43.6	60.7	---	---	---	---	---	---	---
TOC	mg/L	---	---	8840	1.84	546	40	1250	324	417	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	$<2.8 \times 10^1$	$<4.2 \times 10^1$	5.4×10^2	1.9×10^3	---	6.1×10^4	4.6×10^4	3.1×10^6	4.5×10^4	3.5×10^4	1.0×10^5	3.6×10^4	7.1×10^5	6.0×10^4	3.7×10^5	2.1×10^4
Dehalococcoides sp.	(1)	---	---	---	---	Pos	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	---	---	6.5	6.04	6.92	6.49	7.91	7.66	8.1	8.31	8.44	7.3	7.28	6.52	7.2	---
ORP	mV	---	---	-33	155	74.9	28.8	75.6	54.3	-36.3	-231	-390	-156	-200	-348.6	-360	---
Dissolved Oxygen	mg/L	---	---	0.27	4.70	0.49	0.82	0.21	0.92	0.65	0.2	0.16	0.43	0.21	0.21	0.35	---
Specific Conductivity	ms/cm	---	---	14.09	25.5	19.75	19.78	29.73	28.13	25.632	20.055	19.235	16.707	17.112	16.25	16.20	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
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* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-23-DO 10/25/2011	AP-23-DO 1/17/2012	AP-23-DO 4/3/2012	AP-24-DO 10/11/2006	AP-24-DO 1/30/2007	AP-24-DO 4/10/2007	AP-24-DO 7/20/2007	AP-24-DO 7/31/2007	AP-24-DO 8/9/2007	AP-24-DO 11/12/2007	AP-24-DO 1/23/2008	AP-24-DO 4/21/2008	AP-24-DO 7/28/2008	AP-24-DO 10/22/2008	AP-24-DO 1/14/2009	AP-24-DO 4/2/2009
Dissolved Metals																	
Iron	mg/L	---	---	---	4.79	28	0.346	---	---	<0.100	10.4	61.5	12.4	5.52	26.9	0.48	0.25
Manganese	mg/L	---	---	---	4430	104	3.17	---	---	16.6	33.7	143	48.9	28.4	59.5	7.46	11
Metabolic Acids																	
Acetic acid	mg/L	220	26	190	<5.0	4000	270	---	---	850N	460	2600	1800	2000	130	440	780D
Lactic Acid	mg/L	5.5	6	4.1	<5.0	49000	1600	---	---	<10	20000D	54000D	23000	17000	850	<10	4600D
n-Butanoic acid	mg/L	25	<2.0	17	<10	<800	<100	---	---	110	<100	<200	<500	<200	<10	53	130
Propionic acid	mg/L	390	42	290	<5.0	<400	<50	---	---	340	630	<100	<250	<100	120	930	1200D
Pyruvic Acid	mg/L	<1.0	<0.50	<1.0	<2.5	330	<25	---	---	<5.0	<25	150	<130	<50	2.6	<5.0	2.5
Miscellaneous Analyses																	
Methane	ug/L	120	26	130	<2.0	5.9	5.9	---	---	<2.0	<2.0	9.5	9.5	13	34	59	110
Ethane	ug/L	<2.0	<2.0	<4.0	<1.0	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
Ethene	ug/L	65	230D	510D	<1.0	<1.0	<1.0	---	---	<1.0	<1.0	<1.0	<1.0	1	1	1.6	3.9
Chloride	mg/L	---	---	---	---	778	550	---	---	267	93.2	375	611	411	111	117	283
TOC	mg/L	---	---	---	5.77	17800	2880	---	---	566	5770	15600	7740	6410	302	629	1950
Dehalococcoides sp.	cells/ml	2.7×10^{6}	5.5×10^{5}	1.4×10^{7}	$<3.3 \times 10^{2}$	1.9×10^{5}	3.4×10^{4}	$<1.0 \times 10^{1}$	---	---	6.4×10^{2}	$<1.0 \times 10^{1}$	---	8.7×10^{3}	3.7×10^{6}	3.2×10^{4}	6.2×10^{3}
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	Pos	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	6.26×10^{3}	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	1.10×10^{6}	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	---	---	---	---	7.83	8.93	7.9	---	7.85	6.3	6.63	8.05	7.91	7.54	7.83	7.74
ORP	mV	---	---	---	---	98.7	-153.3	103	---	-100	-37	130	-72.2	41.6	-218.8	-238.3	-92.7
Dissolved Oxygen	mg/L	---	---	---	---	0.57	0.84	0.64	---	0.77	0.37	0.46	0.2	0.57	0.22	0.28	0.69
Specific Conductivity	ms/cm	---	---	---	---	22.54	13.88	7.518	---	8.662	9.161	18.85	12.68	12.49	19.54	14.33	8.644

Notes: < = Less than detection limit
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ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
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(3) = results from biotraps analysis by Shaw (cells/grams of beads)
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-24-DO 1/28/2010	AP-24-DO 4/22/2010	AP-24-DO 7/14/2010	AP-24-DO 10/12/2010	AP-24-DO 1/4/2011	AP-24-DO 4/5/2011	AP-24-DO 7/28/2011	AP-24-DO 10/25/2011	AP-24-DO 4/3/2012	AP-25-DO 10/11/2006	AP-25-DO 1/30/2007	AP-25-DO 4/10/2007	AP-25-DO 7/20/2007	AP-25-DO 7/31/2007	AP-25-DO 8/9/2007	AP-25-DO 11/12/2007
Dissolved Metals																	
Iron	mg/L	---	---	---	---	---	---	---	---	---	1.98	15.2	<0.100	---	---	<0.100	<0.100
Manganese	mg/L	---	---	---	---	---	---	---	---	---	1300	42.8	2.74	---	---	0.0692	0.146
Metabolic Acids																	
Acetic acid	mg/L	73	260	190J	480	2500	480	280	780	380	100	<200	100	---	---	<1.0	1.7
Lactic Acid	mg/L	4.8	340	<1.0J	<5.0	11000	33	20000	750	<5.0	<5.0	27000	34	---	---	<1.0	1
n-Butanoic acid	mg/L	11	21	16J	15	250	120	<400U	710	54	<10	<400	6.3	---	---	<2.0	<2.0
Propionic acid	mg/L	48	330	200J	340	4900	740	<200U	1600	420	<5.0	<200	170	---	---	<1.0	3.4
Pyruvic Acid	mg/L	<0.50	<1.0	<0.50J	<2.5	89	<5.0	<100U	6.5	<2.5	<2.5	<100	<0.50	---	---	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	<4.0	<20	<20J	<50	<100	<100	<40U	<8.0	<8.0	<2.0	11	<2.0	---	---	<2.0	<2.0
Ethane	ug/L	<2.0	<10	<10J	<25	<50	<50	<20U	<4.0	<4.0	<1.0	<1.0	<1.0	---	---	<1.0	<1.0
Ethene	ug/L	160	680	1900DJ	4600D	4500	2600	1400	300	5100D	<1.0	4.4	1	---	---	<1.0	2.6
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	170	15.6	---	---	<2.00	3.61
TOC	mg/L	---	---	---	---	---	---	---	---	---	46.5	7470	137	---	---	6.08	5.15
Dehalococcoides sp.	cells/ml	5.1×10^4	2.1×10^6	8.8×10^4	1.8×10^5	1.5×10^5	1.8×10^6	8.0×10^3	3.4×10^4	2.2×10^7	$<3.3 \times 10^2$	8.0×10^5	3.7×10^3	6.0×10^4	---	---	1.5×10^3
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	6.57×10^6	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	7.40×10^5	---	---
Field Parameters																	
pH	--	8.38	8.05	7.29	7.1	6.35	7.27	---	---	---	---	7.7	6.74	6.99	---	7.16	7.47
ORP	mV	-223	-195	-33	-191	-133.1	-360	---	---	---	---	-57.4	-145.4	-140	---	-105	-90
Dissolved Oxygen	mg/L	0.32	0.49	0.41	0.39	0.39	0.59	---	---	---	---	0.92	0.78	0.85	---	0.45	0.28
Specific Conductivity	ms/cm	3.816	3.262	3.473	3.415	12.112	3.542	---	---	---	---	18.85	1.901	2.218	---	1.984	0.134

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
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TOC = total organic carbon
cells/ml = cells per milliliter
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-25-DO 1/23/2008	AP-25-DO 4/21/2008	AP-25-DO 7/28/2008	AP-25-DO 10/22/2008	AP-25-DO 1/14/2009	AP-25-DO 4/2/2009	AP-25-DO 1/28/2010	AP-25-DO 1/4/2011	AP-25-DO 4/5/2011	BW-01 11/29/2006	BW-01 4/10/2007	BW-01 7/19/2007	BW-01 11/12/2007	BW-01 1/24/2008	BW-01 4/21/2008	BW-01 7/28/2008
Dissolved Metals																	
Iron	mg/L	0.284	0.804	<0.100	0.589	0.28	<0.10	---	---	---	<0.100	36.5	32	7.57	24.5	12.5	<0.100
Manganese	mg/L	0.633	2.12	<0.0100	1.06	0.243	0.11	---	---	---	0.0282	10.7	22.4	5.71	4.47	2.82	1.04
Metabolic Acids																	
Acetic acid	mg/L	75	240	2.2	200	24	59	<1.0	8.2	---	<1.0	130	780	6	13	<1.0	<1.0
Lactic Acid	mg/L	120	<2.0	<1.0	19	<1.0	1.9	<1.0	<1.0	---	<1.0	<2.0	<10	<1.0	1.5	<1.0	<1.0
n-Butanoic acid	mg/L	2.4	5.9	<2.0	4.5	<2.0	<2.0	<2.0	<2.0	---	<2.0	28	250	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	67	300	<1.0	160	5.8	15	<1.0	<1.0	---	<1.0	210	530	1.4	3.3	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<1.0	<0.50	0.66	<0.50	<0.50	<0.50	<0.50	---	<0.50	<1.0	<5.0	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	6	<100	<100	30	<10	57	16	130D	---	16	590	8100	1600	2300	2400	51
Ethane	ug/L	<2.5	<50	<50	<1.0	<5.0	<20	<1.0	<1.0	---	<1.0	<10	<100	<20	<40	<50	<1.0
Ethene	ug/L	200	2400	4500	6300D	440	1100	18	320D	---	<1.0	<10	<100	<20	<40	<50	<1.0
Chloride	mg/L	19.7	96.8	<2.00	150	34.9	61.1	---	---	---	---	96.1	83.4	18	97.1	73	48.1
TOC	mg/L	100	105	4.57	164	19.3	32.2	---	---	---	1.4	205	1210	7.75	11.9	4.99	3.04
Dehalococcoides sp.	cells/ml	$1.9x10^3$	---	$<2.5x10^1$	$<5.4x10^1$	9.5×10^5	2.3×10^4	2.6×10^4	1.1×10^4	---	---	$<8.3 \times 10^1$	$<3.3 \times 10^3$D	1.4×10^3	$<1.0 \times 10^1$	3.2×10^3	$<2.2 \times 10^1$
Dehalococcoides sp.	(1)	---	Neg	---	---	---	---	---	---	---	---	---	---	---	---	Neg	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.64	7.19	6.93	7.12	7.03	8.17	8.04	7.62	10.02	5.72	6.89	7.72	6.76	5.92	---	6.11
ORP	mV	-92	-116.8	-88.9	-151.2	-110.3	-133.5	-165	-175.9	-351	179.6	-90.3	-168.2	-110	-90	---	-58.5
Dissolved Oxygen	mg/L	0.24	0.16	0.3	0.3	0.2	0.22	0.13	0.38	0.8	2.05	0.92	0.5	0.02	0.80	---	0.21
Specific Conductivity	ms/cm	0.430	1.185	1.052	1.891	0.357	0.495	0.185	0.271	0.116	0.163	0.853	2.347	0.373	0.500	---	0.231

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-01 10/22/2008	BW-01 1/13/2009	BW-01 4/2/2009	BW-01 7/14/2009	BW-01 10/27/2009	BW-01 1/28/2010	BW-01 4/22/2010	BW-01 10/28/2011	BW-01 8/20/2012	BW-01 10/26/2012	BW-02 10/11/2006	BW-02 1/30/2007	BW-02 4/10/2007	BW-02 7/19/2007	BW-02 11/12/2007	BW-02 1/24/2008
Dissolved Metals																	
Iron	mg/L	2.86	2.1	3.8	---	---	---	---	---	---	---	0.123	107	61.1	14.8	19	25
Manganese	mg/L	3.82	2.27	3.2	---	---	---	---	---	---	---	35.1	50.8	17.1	8.14	7	3.49
Metabolic Acids																	
Acetic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	570	98	220	61	21
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	840	<1.0	<2.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	---	---	---	<2.0	21	30	<4.0	<2.0	2.3
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	990	170	24	18	15
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	<0.50	7.7	<0.50	<1.0	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	1200D	1700	260	170	77	54	1300	---	---	---	8.6	1200	780	5000	2300	1600
Ethane	ug/L	<1.0	<20U	<5.0	<2.0	<1.0	<1.0	<25	---	---	---	<1.0	<20	<10	<100	<40	<20
Ethene	ug/L	<1.0	<20U	<5.0	<2.0	<1.0	<1.0	<25	---	---	---	<1.0	<20	<10	<100	<40	<20
Chloride	mg/L	35.5	86.1	67.3	---	---	---	---	---	---	---	---	51.9	282	77.3	21	84.5
TOC	mg/L	3.87	2.4	1.6	---	---	---	---	---	---	---	6.96	876	187	151	36.8	12.8
Dehalococcoides sp.	cells/ml	$<2.7x10^{1}$	5.7×10^{2}	1.2×10^{4}	3.2×10^{3}	1.1×10^{4}	7.8×10^{3}	8.6×10^{3}	---	---	---	$<2.5 \times 10^{1}$	3.7×10^{3}	$<6.3 \times 10^{1}$	---	1.2×10^{3}	$<1.0 \times 10^{1}$
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.5	6.15	6.46	6.01	6.21	---	---	6.81	5.35	4.96	7.06	6.69	7.01	7.04	6.97	5.70
ORP	mV	-57.9	-45.5	35.3	59	-0.8	---	---	-107	-49.2	4.6	143.6	-164.9	-139.1	-198.5	-145	-50
Dissolved Oxygen	mg/L	0.37	0.29	5.5	0.27	0.17	---	---	0.36	0.43	2.03	2.6	0.51	0.44	0.62	0.05	0.83
Specific Conductivity	ms/cm	0.324	0.348	0.174	0.216	0.253	---	---	0.588	0.535	1.099	0.786	1.828	0.97	1.405	0.553	0.444

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
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TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
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(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-02 4/21/2008	BW-02 7/28/2008	BW-02 10/22/2008	BW-02 1/13/2009	BW-02 4/2/2009	BW-02 7/14/2009	BW-02 10/27/2009	BW-02 1/28/2010	BW-02 4/22/2010	BW-02 10/28/2011	BW-02 8/20/2012	BW-02 10/26/2012	BW-03 10/11/2006	BW-03 1/30/2007	BW-03 4/10/2007	BW-03 7/19/2007
Dissolved Metals																	
Iron	mg/L	16.5	1.28	1.45	8.16	6.4	---	---	---	---	---	---	---	<0.100	74.1	64.5	24.5
Manganese	mg/L	4.56	1.54	3.42	2.32	2.4	---	---	---	---	---	---	---	1.86	67.4	14.8	12.5
Metabolic Acids																	
Acetic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	880	67	3.3
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	2600	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	---	---	---	<2.0	<100	29	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	1100	97	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	<0.50	<25	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	5100	140	1700D	1900	1300	71	100	170	1400	---	---	---	29	2600	1000	950
Ethane	ug/L	<100	<2.0	<1.0	<20	<25	<1.0	<1.0	<2.0	<25	---	---	---	<1.0	<50	<20	<10
Ethene	ug/L	<100	<2.0	<1.0	<20	<25	1.9	<1.0	<2.0	<25	---	---	---	<1.0	<50	<20	47
Chloride	mg/L	74	45	45.4	87.2	97.8	---	---	---	---	---	---	---	---	67.2	248	57.3
TOC	mg/L	4.12	3.46	5.04	2.3	3.8	---	---	---	---	---	---	---	4.24	1620	111	8.16
Dehalococcoides sp.	cells/ml	---	1.8×10^4	$<3.6 \times 10^1$	1.4×10^3	4.6×10^3	9.5×10^3	1.6×10^4	7.6×10^3	$<1.0 \times 10^1$	---	---	---	$<3.3 \times 10^1$	8.0×10^3	$<4.0 \times 10^1$	$<2.5 \times 10^1$D
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	Neg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.46	6.14	6.58	6.12	6.46	6.11	6.25	---	---	6.12	5.86	6.32	6.76	6.75	7.04	7.13
ORP	mV	11.4	-38.1	-91.8	-49.5	11.4	4	13.9	---	---	6.8	-85.5	-82	228.1	-122.3	-188.7	-166.9
Dissolved Oxygen	mg/L	2.53	0.19	0.32	0.35	2.53	0.48	0.22	---	---	0.63	0.64	0.29	5.65	0.25	0.13	0.58
Specific Conductivity	ms/cm	0.219	0.184	0.482	0.361	0.219	0.192	0.213	---	---	0.314	0.259	1.393	0.411	2.787	0.796	0.598

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
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(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-03 11/12/2007	BW-03 1/24/2008	BW-03 4/21/2008	BW-03 7/28/2008	BW-03 10/22/2008	BW-03 1/13/2009	BW-03 4/2/2009	BW-03 7/14/2009	BW-03 10/27/2009	BW-03 1/28/2010	BW-03 4/22/2010	BW-03 10/28/2011	BW-03 8/20/2012	BW-03 10/26/2012	BW-04 10/11/2006	BW-04 1/30/2007	BW-04 4/10/2007
Dissolved Metals																		
Iron	mg/L	20.3	37.4	28.7	1.67	17.9	12.6	18	---	---	---	---	---	---	---	<0.100	25.2	17.2
Manganese	mg/L	9.02	7.44	6.25	3.84	5.33	5.64	8	---	---	---	---	---	---	---	0.0434	27.9	6.49
Metabolic Acids																		
Acetic acid	mg/L	82	37	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	530	87
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	<10	<1.0
n-Butanoic acid	mg/L	9.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	---	---	---	<2.0	170	35
Propionic acid	mg/L	74	13	11	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	730	73
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	<0.50	<5.0	<0.50
Miscellaneous Analyses																		
Methane	ug/L	3500	4100	5200	84	2700D	1900	2300	1300	45	800	2000	---	---	---	24	280	300
Ethane	ug/L	<50	<50	<100	<1.0	1.1	<20	<40	<20	<1.0	<10	<20	---	---	---	<1.0	<5.0	<5.0
Ethene	ug/L	<50	<50	<100	<1.0	9.5	<20	<40	<20	<1.0	<10	<20	---	---	---	<1.0	130	220
Chloride	mg/L	31.7	106	55.9	37.6	50.1	80.8	91.3	---	---	---	---	---	---	---	---	88.4	84.8
TOC	mg/L	86.2	24.1	14.9	4.77	5.85	3.8	2.8	---	---	---	---	---	---	---	2.46	729	107
Dehalococcoides sp.	cells/ml	4.0×10^3	1.6×10^2	---	$<2.6 \times 10^1$	$<4.0 \times 10^1$	2.0×10^3	1.5×10^3	1.7×10^4	1.0×10^4	---*	$<2.9 \times 10^1$	---	---	---	$<1.2 \times 10^1$	2.6×10^4	1.5×10^4
Dehalococcoides sp.	(1)	---	---	Neg	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																		
pH	--	6.94	5.77	7.16	6.37	6.7	6.43	6.67	6.19	6.43	---	---	6.19	6.21	6.45	6.81	7.26	7.69
ORP	mV	-150	-109	-131.6	-98.3	-101.6	-102.1	-16.7	-84	-53.7	---	---	8.8	-89.4	-107.1	239.2	-161.3	-227.5
Dissolved Oxygen	mg/L	0.04	0.35	0.18	0.21	0.33	0.62	1.27	0.25	0.12	---	---	0.39	0.4	0.16	2.55	0.6	0.14
Specific Conductivity	ms/cm	1.004	0.547	0.27	0.312	0.558	0.398	0.237	0.29	0.279	---	---	0.268	0.228	0.769	0.799	1.685	0.589

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
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(1) = results from RNA analysis
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-04 7/19/2007	BW-04 11/12/2007	BW-04 1/22/2008	BW-04 4/21/2008	BW-04 7/28/2008	BW-04 10/22/2008	BW-04 1/13/2009	BW-04 4/2/2009	BW-04 7/14/2009	BW-04 10/27/2009	BW-04 1/28/2010	BW-04 4/22/2010	BW-04 7/14/2010	BW-04 10/12/2010	BW-04 1/4/2011	BW-04 4/5/2011	BW-04 7/28/2011
Dissolved Metals																		
Iron	mg/L	26	49.6	11.9	9.61	7.42	7.75	9.46	10	---	---	---	---	---	---	---	---	---
Manganese	mg/L	8.3	11	25.3	2.96	3.18	2.15	3.82	3.2	---	---	---	---	---	---	---	---	---
Metabolic Acids																		
Acetic acid	mg/L	1.2	110	86	16	<1.0	7.6	1.9	<1.0	86	<1.0	<1.0	2	280J	3.9	<1.0	<1.0	<1.0
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10J	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	20	5	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	35J	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	<1.0	150	55	<1.0	<1.0	7.3	<1.0	<1.0	110	<1.0	<1.0	<1.0	660J	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58	<5.0J	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																		
Methane	ug/L	300	510	1200	5000	710	490D	4800	9200	2700	2300	37	1800	2200J	3200D	2000	1100	590
Ethane	ug/L	<5.0	<10	<20	<100	<8.0	9.7	<50	<100	<50	130	<1.0	<25	68J	99	110	40	62
Ethene	ug/L	450	850	<20	110	36	440D	99	1300	1100	550	26	830	950J	66	110	370	330
Chloride	mg/L	63	247	173	128	38	58.2	96.5	95.1	---	---	---	---	---	---	---	---	---
TOC	mg/L	6.05	118	72.9	19.9	8.59	10.2	22.1	15.2	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	2.6×10^3	3.7×10^2	3.6×10^2	---	5.8×10^4	7.4×10^4	6.2×10^4	$<2.2 \times 10^1$	2.4×10^6	7.6×10^4	1.4×10^4	$<2.9 \times 10^1$	2.5×10^5	$<8.0 \times 10^2$	2.3×10^3	$<6.3 \times 10^1$	1.4×10^2
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	Pos	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																		
pH	--	7.63	6.94	5.65	7.58	6.84	7.21	7.17	7.38	6.81	6.9	---	---	---	---	---	7.52	7.17
ORP	mV	-207.5	-128	-123	-138.3	-121.8	-142.9	-154	-140.4	-138	-116.7	---	---	---	---	---	-367	-179.5
Dissolved Oxygen	mg/L	0.4	0.03	0.27	0.32	0.4	0.35	0.39	0.36	0.13	0.2	---	---	---	---	---	0.24	0.24
Specific Conductivity	ms/cm	0.517	1.401	1.283	0.638	0.742	0.817	1.134	0.821	1.186	0.701	---	---	---		---	0.69	0.484

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
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TOC = total organic carbon
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-04 10/25/2011	BW-04 1/18/2012	BW-04 4/3/2012	BW-04 8/21/2012	BW-04 11/28/2012	BW-04 2/6/2013	BW-05 10/11/2006	BW-05 1/30/2007	BW-05 4/10/2007	BW-05 7/19/2007	BW-05 11/12/2007	BW-05 1/22/2008	BW-05 4/21/2008	BW-05 7/28/2008	BW-05 10/22/2008	BW-05 1/13/2009	BW-05 4/2/2009
Dissolved Metals																		
Iron	mg/L	---	---	---	---	---	---	<0.100	39.8	8	3.21	9.6	13.5	5.68	5.45	10.5	20.1	27
Manganese	mg/L	---	---	---	---	---	---	<0.0100	63	4.78	2.05	3.61	3.49	2.28	2.28	1.75	4.7	4.9
Metabolic Acids																		
Acetic acid	mg/L	<1.0	<1.0	<1.0	---	---	---	<1.0	910	9	9.3	73	4	31	20	43	81	41
Lactic Acid	mg/L	<1.0	<1.0	<1.0	---	---	---	<1.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	---	---	---	<2.0	82	<2.0	<2.0	4.2	<2.0	<2.0	<2.0	<2.0	2.1	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	---	---	---	<1.0	1600	5.1	2.3	160	<1.0U	5.2	<1.0	40	140	43
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	---	---	---	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.50
Miscellaneous Analyses																		
Methane	ug/L	240	17	1200D	960	970D	1200D	33	180	95	360	300D	130	49	290	430D	<100	210
Ethane	ug/L	19	<1.0	28	60	140	14	<1.0	<2.0	<5.0	<10	2	5.4	3.2	4.4	40	<50	<100
Ethene	ug/L	130	5.1	70	310	180	<5.0U	<1.0	80	410	650	470D	140	120	210	1800D	4400	5100
Chloride	mg/L	---	---	---	---	---	---	---	82.5	86.4	83.4	118	140	115	81.1	77.1	205	130
TOC	mg/L	---	---	---	5.5	3.9	15.3	2.49	1120	12.4	10.2	103	6.23	26	10.5	44.7	106	42.1
Dehalococcoides sp.	cells/ml	5.5×10^4	1.8×10^4	$<1.1 \times 10^1$	$<3.7 \times 10^1$	4.1×10^6	1.1×10^5	$<1.2 \times 10^1$	1.2×10^4	1.5×10^4	1.9×10^4	1.9×10^3	1.1×10^3	---	8.7×10^4	2.8×10^5	3.3×10^4	1.8×10^4
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	Neg	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																		
pH	--	7.1	---	---	---	6.79	6.79	6.59	6.80	8.02	7.56	7.05	5.84	7.55	6.91	7.34	7.2	7.41
ORP	mV	-141	---	---	---	-89.1	-93.5	250.4	-92.3	-216.8	-181.1	-147	-185	-175.8	-104.1	-170.6	-171.3	-165.6
Dissolved Oxygen	mg/L	0.43	---	---	---	0.26	0.32	2.28	0.53	0.16	0.43	0.05	0.83	0.35	0.62	0.82	1.11	0.27
Specific Conductivity	ms/cm	0.567	---	---	---	0.602	0.635	0.802	4.144	0.634	0.580	1.534	0.773	0.534	0.47	0.601	0.952	0.862

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-05 7/14/2009	BW-05 10/27/2009	BW-05 1/28/2010	BW-05 4/22/2010	BW-05 7/14/2010	BW-05 10/12/2010	BW-05 1/4/2011	BW-05 4/5/2011	BW-05 7/28/2011	BW-05 10/25/2011	BW-05 1/18/2012	BW-05 4/3/2012	BW-05 8/21/2012	BW-05 11/28/2012	BW-05 2/6/2013	BW-06 7/28/2011	BW-06 10/25/2011
Dissolved Metals																		
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																		
Acetic acid	mg/L	44	1.7	<1.0	43	56J	32	<1.0	20	89	53	30	<1.0	---	---	---	180	1.5
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<2.0	<1.0
n-Butanoic acid	mg/L	---	<2.0	<2.0	<2.0	4.8J	<2.0	<2.0	<2.0	6.6	<2.0	<2.0	<2.0	---	---	---	8.7	<2.0
Propionic acid	mg/L	34	<1.0	<1.0	43	88J	1.5	<1.0	<1.0	120	20	<1.0	<1.0	---	---	---	300	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	<1.0	<0.50
Miscellaneous Analyses																		
Methane	ug/L	340	260	490	<100	1600J	1400	8900D	200	970	110	710	600D	4800D	11000D	20000	210D	51
Ethane	ug/L	<50	23	<40	<50	<25J	130	1000	<50	31	<25	<25	67	49	<50	<200U	<1.0	<5.0
Ethene	ug/L	3600	1900	2300	4700	1900J	700	59	3700	1500	1700	4000D	750D	170	<50	<200U	2800D	380
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
TOC	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	800	700	105	---	---
Dehalococcoides sp.	cells/ml	1.2×10^5	4.5×10^4	3.4×10^4	1.1×10^6	2.4×10^4	8.7×10^3	6.5×10^2	5.9×10^4	5.5×10^2	1.9×10^5	1.2×10^4	$<1.0 \times 10^1$	$<3.3 \times 10^3$	1.2×10^6	4.2×10^5	9.9×10^3	2.5×10^4
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---		---	---
Field Parameters																		
pH	--	7.18	7.22	---	---	---	---	---	7.67	7.34	7.36	---	---	---	6.34	6.55	7.15	7.29
ORP	mV	-185	-138.8	---	---	---	---	---	-366	-170.8	-145.5	---	---	---	-135.6	15.4	-157	-87.9
Dissolved Oxygen	mg/L	0.34	0.43	---	---	---	---	---	0.34	0.43	0.66	---	---	---	0.21	0.52	0.16	0.92
Specific Conductivity	ms/cm	0.692	0.571	---	---	---	---	---	0.617	0.816	0.64	---	---	---	2.559	2.078	1.174	0.508

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-06 1/18/2012	BW-06 4/3/2012	BW-06 8/21/2012	BW-06 11/28/2012	BW-06 2/6/2013	BW-08 11/12/2007	BW-08 1/22/2008	BW-08 4/21/2008	BW-08 7/28/2008	BW-08 10/22/2008	BW-08 1/13/2009	BW-08 4/2/2009	BW-08 7/14/2009	BW-08 10/27/2009	BW-08 1/28/2010	BW-08 4/22/2010
Dissolved Metals																	
Iron	mg/L	---	---	---	---	---	43.5	43	26	21.8	24.5	18.5	27	---	---	---	---
Manganese	mg/L	---	---	---	---	---	13.2	13.5	9.56	9.42	1.75	5.26	7.9	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	110	63	---	---	---	50	12	<1.0	20	59	7	39	160	57	<1.0	<1.0
Lactic Acid	mg/L	<1.0	<1.0	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	2.6	<2.0	---	---	---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0
Propionic acid	mg/L	58	<1.0	---	---	---	38	<1.0U	<1.0	<1.0	68	2.5	26	140	1.9	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	270	1700	350	6300D	11000D	240	450	190	120	200D	220	350	520	1000	81	210
Ethane	ug/L	<5.0	62	20	68	<100U	<5.0	48	3.2	<20	<1.0	<20	<100	<100	<100	12	<10
Ethene	ug/L	3900D	3500	77	140	<100U	360	67	120	1200	2600D	1500	7300	6900	5900	280	620
Chloride	mg/L		---	---	---	---	252	186	164	131	148	124	104	---	---	---	---
TOC	mg/L	---	---	271	167	34.1	55.6	12.6	3.46	12.2	63.4	10.1	34.4	---	---	---	---
Dehalococcoides sp.	cells/ml	3.1×10^4	1.2×10^5	$<3.3 \times 10^3$	$<4.6 \times 10^1$	2.8×10^6	2.8×10^3	1.6×10^3	---	$<2.1 \times 10^1$	2.9×10^6	4.5×10^2	1.3×10^3	1.4×10^5	5.6×10^5	4.8×10^4	$<2.6 \times 10^1$
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	Pos	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	---	---	---	---	6.3	7.12	5.51	7.42	6.69	7.37	6.95	7.36	7.1	7.39	---	---
ORP	mV	---	---	---	---	-62.5	-141	-115	-113.2	-127.8	-180.1	-160.2	-138.4	-162	-191.5	---	---
Dissolved Oxygen	mg/L	---	---	---	---	0.41	0.09	0.24	0.35	0.43	0.29	0.2	0.16	0.14	0.06	---	---
Specific Conductivity	ms/cm	---	---	---	---	0.525	1.228	0.953	0.567	0.687	0.906	0.659	0.647	1.122	0.96	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-08 7/14/2010	BW-08 10/12/2010	BW-08 1/5/2011	BW-08 4/5/2011	BW-08 7/28/2011	BW-08 10/25/2011	BW-08 1/18/2012	BW-08 4/3/2012	BW-08 8/21/2012	BW-08 11/28/2012	BW-08 2/6/2013	BW-09 7/20/2007	BW-09 8/9/2007	BW-09 11/12/2007	BW-09 1/22/2008
Dissolved Metals																
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	16.5	32.2	25.4
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	7.07	15.1	15.1
Metabolic Acids																
Acetic acid	mg/L	130J	270	290	21	220	1.8	12	100	---	---	---	---	9.3	2.3	1.7
Lactic Acid	mg/L	<2.0J	<2.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	---	---	---	---	<1.0	4.9	<1.0
n-Butanoic acid	mg/L	22J	4.8	5.9	<2.0	11	<2.0	<2.0	<2.0	---	---	---	---	<2.0	<2.0	<2.0
Propionic acid	mg/L	260J	110	120	<1.0	250	<1.0	<1.0	2.2	---	---	---	---	8.9	<1.0	<1.0
Pyruvic Acid	mg/L	<1.0J	<1.0	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	---	---	---	---	<0.50	<0.50	<0.50
Miscellaneous Analyses																
Methane	ug/L	1500DJ	4900D	16000D	8900	2800	250	1600D	4300D	1700	15000D	21000D	---	150	370	220
Ethane	ug/L	29J	75	1700	650	<100	17	20	82	40	40	<200U	---	<10	<10	11
Ethene	ug/L	3800DJ	1300D	250	1900	4800	1000D	760	3400D	39	<20	<200U	---	570	640	73
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	122	472	132
TOC	mg/L	---	---	---	---	---	---	---	---	194	630	181	---	13.3	8.14	10.6
Dehalococcoides sp.	cells/ml	2.3×10^4	1.0×10^4	$<1.0 \times 10^1$U	3.7×10^4	2.1×10^2	4.6×10^4	2.9×10^5	1.8×10^5	$<3.7 \times 10^1$	$<3.1 \times 10^1$	7.3×10^4	$<3.3 \times 10^3$D	$<1.0 \times 10^1$	1.4×10^3	7.7×10^2
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
pH	--	---	---	---	7.5	7.21	7.43	---	---	---	6.15	6.59	7.20	7.11	---	5.81
ORP	mV	---	---	---	-373	-167.6	-116.7	---	---	---	-88.1	-106.3	-165	-138	---	-97
Dissolved Oxygen	mg/L	---	---	---	0.22	0.36	0.82	---	---	---	0.26	0.72	0.27	0.09	---	0.34
Specific Conductivity	ms/cm	---	---	---	0.608	1.408	0.565	---	---	---	2.384	1.754	0.675	0.865	---	0.826

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
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Neg = results do not indicate active Dehalococcoides are present
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(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
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TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-09 4/21/2008	BW-09 7/28/2008	BW-09 10/22/2008	BW-09 1/13/2009	BW-09 4/2/2009	BW-09 7/14/2009	BW-09 10/27/2009	BW-09 1/28/2010	BW-09 4/22/2010	BW-09 7/28/2011	BW-09 10/25/2011	BW-09 1/18/2012	BW-09 4/3/2012	BW-09 8/21/2012	BW-09 11/28/2012	BW-09 2/6/2013
Dissolved Metals																	
Iron	mg/L	31.8	12.2	62.4	19.6	41	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	10.4	4.17	19.4	7.09	11	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	2.6	12	290	5.6	17	260	56	<1.0	<1.0	530	<1.0	32	85	---	---	---
Lactic Acid	mg/L	<1.0	<1.0	<5.0	<1.0	<1.0	<2.0	1.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	---	---	---
n-Butanoic acid	mg/L	<2.0	<2.0	27	<2.0	<2.0	---	<2.0	<2.0	<2.0	31	<2.0	<2.0	<2.0	---	---	---
Propionic acid	mg/L	<1.0	<1.0	490	<1.0	2.2	250	<1.0	<1.0	<1.0	680	<1.0	4.1	4.2	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<2.5	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	---	---	---
Miscellaneous Analyses																	
Methane	ug/L	280	190	420D	650	660	2500	2800	370	640	7500D	7400	2200	4500D	9400D	17000D	22000D
Ethane	ug/L	12	<20	<1.0	42	<20	74	140	57	<10	200	1500	160	350	450	<100	<200U
Ethene	ug/L	160	1500	2400D	1200	2000	4600	4600	830	900	3500D	280	1100	4100D	370	<100	<200U
Chloride	mg/L	177	128	141	131	174	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	6.01	10.2	365	9.8	13.8	---	---	---	---	---	---	---	---	1010	630	124
Dehalococcoides sp.	cells/ml	---	3.2×10^5	5.1×10^5	1.9×10^3	6.7×10^3	4.0×10^4	1.2×10^5	8.3×10^4	$<2.4 \times 10^1$	5.1×10^1	1.2×10^3	1.5×10^5	3.1×10^5	$<3.1 \times 10^1$	$<3.1 \times 10^1$	3.0×10^4
Dehalococcoides sp.	(1)	Neg	---	---	---	---	---		---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---		---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	7.5	6.93	7.17	7.06	7.34	7.24	7.51	---	---	6.71	7.17	---	---	---	6.3	6.55
ORP	mV	-214.3	-139.8	-176.1	-167.1	-106.5	-174	-197.9	---	---	-163.4	-113.6	---	---	---	-111.7	-118.1
Dissolved Oxygen	mg/L	0.15	0.27	0.25	0.22	0.2	0.11	0.14	---	---	0.62	0.55	---	---	---	0.15	0.22
Specific Conductivity	ms/cm	0.6	0.683	1.601	0.724	0.699	1.463	1.094	---	---	3.207	0.636	---	---	---	2.362	1.725

Notes: < = Less than detection limit
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mg/L = Milligrams per liter
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TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	MW-009 10/11/2006	MW-009 1/30/2007	MW-009 4/10/2007	MW-009 7/19/2007	MW-009 7/31/2007	MW-009 11/12/2007	MW-009 1/23/2008	MW-009 4/21/2008	MW-009 7/28/2008	MW-009 10/22/2008	MW-009 1/14/2009	MW-009 4/2/2009	MW-009 7/14/2009	MW-009 10/27/2009	MW-009 1/28/2010	MW-009 4/22/2010
Dissolved Metals																	
Iron	mg/L	21.3	96.2	128	86.6	---	1.01	18.8	90.7	80.4	62.9	59.5	70	---	---	---	---
Manganese	mg/L	20.9	5.34	13.1	7.91	---	0.16	1.67	6.29	6.74	7.31	6.98	6	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	<1.0	1600	700	220	---	16	290D	1200	580	5.9	210E	390	1000	500	250	600
Lactic Acid	mg/L	<1.0	1300	<20	<2.0	---	<1.0	3.7	<10	<5.0	<1.0	<1.0	<1.0	370	<5.0	<2.0	<5.0
n-Butanoic acid	mg/L	<2.0	410	540	77	---	<2.0	25	77	24	<2.0	4.9	11	---	30	12	63
Propionic acid	mg/L	<1.0	2800	1300	160	---	4.7	390D	1200	440	1.6	7.7	17	2900	810	200	370
Pyruvic Acid	mg/L	<0.50	<25	<10	<1.0	---	<0.50U	<0.50U	<5.0	<2.5	<0.50	<0.50	<0.50	<20	<2.5	<1.0	<2.5
Miscellaneous Analyses																	
Methane	ug/L	100	34	160	890	---	31	1300	10000	7100	16000D	15000	17000	9500	14000	16000	15000
Ethane	ug/L	2.1	1.1	<2.0	<25	---	<1.0	<20	<200	<100	890D	1300	1900	360	330	870	1200
Ethene	ug/L	3.4	1.9	6	1500	---	18	160	2500	1800	2100D	<250	<250	1600	690	<250	1000
Chloride	mg/L	---	676	774	659	---	68	164	330	656	742	822	711	---	---	---	---
TOC	mg/L	2.1	2600	1270	237	---	9.74	319	957	444	7.25	109	183	---	---	---	---
Dehalococcoides sp.	cells/ml	$<1.0 \times 10^{1}$	---	1.3×10^{4}	1.7×10^{4}	---	6.4×10^{2}	1.2×10^{3}	---	8.1×10^{3}	$<3.6 \times 10^{1}$	8.8×10^{3}	1.5×10^{4}	2.7×10^{5}	1.2×10^{5}	2.5×10^{4}	5.6×10^{5}
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	Pos	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	1.28×10^{6}	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	1.5×10^{4}	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.27	6.56	6.5	6.59	---	6.57	5.89	6.76	6.46	6.79	6.83	6.87	6.51	6.51	---	---
ORP	mV	-15.6	-192.3	-160.6	-145.6	---	-132	-145	-120.4	-140.5	-158.4	-168.2	-143.3	-116	-105.1	---	---
Dissolved Oxygen	mg/L	6.34	6.2	0.77	0.85	---	0.18	0.59	0.39	0.33	0.31	0.52	0.74	0.74	0.31	---	---
Specific Conductivity	ms/cm	3.378	7.305	8.721	1.99	---	3.765	3.845	3.874	3.24	2.963	3.53	3.435	7.494	5.223	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	MW-009 7/14/2010	MW-009 10/12/2010	MW-009 1/4/2011	MW-009 4/5/2011	MW-009 7/28/2011	MW-009 10/25/2011	MW-009 1/17/2012	MW-009 4/3/2012	MW-009 8/21/2012	MW-009 11/28/2012	MW-009 2/6/2013	MW-030 11/16/2007	MW-030 4/25/2008	OB-09-BR 11/29/2006	OB-09-BR 1/31/2007
Dissolved Metals																
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	<0.100	---	6.18	0.715
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	0.914	---	0.262	0.189
Metabolic Acids																
Acetic acid	mg/L	320J	6.1	<1.0	6	<1.0U	<1.0	<1.0	<1.0	---	---	---	---	---	<1.0	---
Lactic Acid	mg/L	<2.0J	<1.0	<1.0	<1.0	<1.0U	<1.0	<1.0	<1.0	---	---	---	---	---	<1.0	---
n-Butanoic acid	mg/L	11J	<2.0	<2.0	<2.0	<2.0U	<2.0	<2.0	<2.0	---	---	---	---	---	<2.0	---
Propionic acid	mg/L	74J	<1.0	<1.0	1.6	<1.0U	<1.0	<1.0	<1.0	---	---	---	---	---	<1.0	---
Pyruvic Acid	mg/L	<1.0J	<0.50	<0.50	<0.50	<0.50U	<0.50	<0.50	<0.50	---	---	---	---	---	<0.50	---
Miscellaneous Analyses																
Methane	ug/L	15000J	12000	20000D	24000	15000	9500	17000D	16000	16000	20000	23000	---	---	510	---
Ethane	ug/L	1200J	930	1500	1900	1400	830	1900	2000	2500	2600	2200	---	---	<1.0	---
Ethene	ug/L	<250J	220	430	910	1400	1100	2000	1200	1600	2700	6800	---	---	91	---
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	628	171	---	6.77
TOC	mg/L	---	---	---	---	---	---	---	---	28000	11900	7200	---	---	1.89	---
Dehalococcoides sp.	cells/ml	9.0×10^3	$<6.4 \times 10^1$	3.3×10^3	1.5×10^5	2.1×10^2	---	$<4.0 \times 10^1$	$<3.7 \times 10^1$	$<3.3 \times 10^3$	$<1.0 \times 10^1$	$<3.3 \times 10^3$	---	---	---	---
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
pH	--	---	---	---	7.17	7.07	7.05		---	---	---	5.43	---	---	6.83	---
ORP	mV	---	---	---	-368	-169.8	-128.4		---	---	---	12	---	---	-20.1	---
Dissolved Oxygen	mg/L	---	---	---	0.59	0.2	0.39		---	---	---	1.56	---	---	0.64	---
Specific Conductivity	ms/cm	---		---	5.494	4.105	2.545		---	---	---	3.539	---	---	0.185	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
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TOC = total organic carbon
cells/ml = cells per milliliter
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N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
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BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-BR 4/10/2007	OB-09-BR 7/19/2007	OB-09-BR 8/9/2007	OB-09-BR 11/12/2007	OB-09-BR 1/22/2008	OB-09-BR 4/21/2008	OB-09-BR 7/29/2008	OB-09-BR 10/22/2008	OB-09-BR 1/14/2009	OB-09-BR 4/9/2009	OB-09-BR 7/14/2009	OB-09-BR 10/28/2009	OB-09-BR 1/28/2010	OB-09-BR 4/22/2010	OB-09-BR 7/14/2010	OB-09-BR 10/12/2010
Dissolved Metals																	
Iron	mg/L	2.26	0.399	0.407	0.792	1.1	0.394	1.97	2.84	1.5	1.5	---	---	---	---	---	---
Manganese	mg/L	0.216	0.0918	0.0965	0.157	0.157	0.0828	0.0971	0.17	0.166	0.24	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	1	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	2.7J	2.4
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0J	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3J	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50
Miscellaneous Analyses																	
Methane	ug/L	8.8	860	12	36	44	100	8.4	80	210	12000	170	500	170	340	560DJ	490
Ethane	ug/L	<1.0U	<10	<1.0	1.3	1.1	<2.0	<1.0	<1.0	<2.5	<200	<2.5	<5.0	<2.0	<5.0	<5.0J	<10
Ethene	ug/L	1.1	640	2	4.9	5.2	8.5	<1.0	3.6	4.5	<200	6.4	8.4	3	8.1	16J	13
Chloride	mg/L	19.3	12.4	14	18.3	17.8	15.2	3.33	10.8	16	20	---	---	---	---	---	---
TOC	mg/L	6.19	4.84	3.74	4.78	4.41	5.35	5.24	6.23	6.5	4.1	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	$<3.3x10^1$	$<2.0x10^1$D	$<1.0x10^1$	$3.9x10^2$	$<1.0x10^1$	---	$<3.3x10^1$	1.1×10^4	2.7×10^4	$<3.2 \times 10^1$	8.5×10^3	1.8×10^4	$<6.7 \times 10^1$	$<3.1 \times 10^4$	---	---
Dehalococcoides sp.	(1)	---	---	---	---	---	Pos	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.43	8.36	7.46	8.11	5.98	9.15	8.53	9.64	9.18	7.69	7.91	8.83	7.48	---	8.51	7.65
ORP	mV	-300.2	-314.9	-170	-248	-169	-275.8	96.2	-346.1	-335.4	-156	-323	-415.7	-174	---	-63	-311
Dissolved Oxygen	mg/L	0.23	0.5	0.26	0.05	0.15	0.76	0.4	0.92	1.2	0.36	0.11	0.86	0.36	---	0.26	0.31
Specific Conductivity	ms/cm	0.127	0.094	0.143	0.141	0.229	0.081	0.094	0.129	0.111	0.136	0.139	0.144	0.146	---	0.157	0.17

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Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-BR 1/5/2011	OB-09-BR 4/6/2011	OB-09-BR 7/28/2011	OB-09-BR 10/25/2011	OB-09-BR 1/18/2012	OB-09-BR 4/3/2012	OB-09-BR 8/21/2012	OB-09-BR 11/28/2012	OB-09-BR 2/6/2013	OB-09-DO 11/29/2006	OB-09-DO 1/31/2007	OB-09-DO 4/10/2007	OB-09-DO 7/19/2007	OB-09-DO 11/12/2007	OB-09-DO 1/22/2008	OB-09-DO 4/21/2008
Dissolved Metals																	
Iron	mg/L	---	---	---	---	---	---	---	---	---	1.01	0.181	1.12	0.616	<0.100	<0.100	<0.100
Manganese	mg/L	---	---	---	---	---	---	---	---	---	0.146	0.0364	0.0804	0.138	0.0444	0.0171	0.0445
Metabolic Acids																	
Acetic acid	mg/L	6	2.8	8.6	1.5	110	6.2	---	---	---	<1.0	---	35	1.9	<1.0	<1.0	<1.0
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	2.7	<2.0	---	---	---	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	58	<1.0	---	---	---	<1.0	---	41	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	<0.50	---	<0.50	<0.50	<0.50	0.83	<0.50
Miscellaneous Analyses																	
Methane	ug/L	1300D	720	1600D	1200	660	1700D	2500D	2100	2300	130	---	7.4	33000	100	230	9.6
Ethane	ug/L	<10	<10	<10	<20	<10	<10	<20	<50	<25U	17	---	<1.0	<500	<2.0	<2.5	<1.0
Ethene	ug/L	28	20	34	<20	11	42	66	57	64	7.6	---	<1.0	700	<2.0	<2.5	<1.0
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	9.75	18.3	9.45	9.39	12	3.64
TOC	mg/L	---	---	---	---	---	---	12.3	13.2	10.3	4.71	---	5.09	8.87	11.4	3.96	8.15
Dehalococcoides sp.	cells/ml	3.6×10^3	---	---	---	1.5×10^3	---	---	---	---	---	---	$<2.6 \times 10^1$	$<3.3 \times 10^3$D	1.2×10^3	$<1.0 \times 10^1$	---
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Neg
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	8.51	8.10	---	---	---	---	---	---	7.53	6.41	---	6.64	7.28	7.11	5.36	8.16
ORP	mV	-405.5	-363	---	---	---	---	---	---	-172.1	45.9	---	-41	-91.6	-43	42	-48.3
Dissolved Oxygen	mg/L	0.67	0.31	---	---	---	---	---	---	0.4	0.64	---	6.81	0.32	0.61	0.45	0.34
Specific Conductivity	ms/cm	0.173	0.190	---	---	---	---	---	---	0.31	0.084	---	0.041	0.064	0.077	0.163	0.048

Notes: < = Less than detection limit
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Dissolved Metals																	
Iron	mg/L	<0.100	0.255	<0.100	<0.10	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	<0.0100	0.0796	<0.0100	<0.010	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	1.5	<1.0	<1.0	---	<1.0	<1.0	2.8	<1.0	72	4.0J	3.7	1.5	1.2	2.1	7.8	1.4
Lactic Acid	mg/L	<1.0	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	---	<2.0	---	<2.0	<2.0	2.5	<2.0J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	140	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	<2.0	36	<2.0	10000	---	2100	610	180	4500	13000DJ	3000	12000D	3000	600	1800D	1200
Ethane	ug/L	<1.0	<1.0	<1.0	320	---	130	16	<2.0	140	240J	80	410	100	<10	<10	<25
Ethene	ug/L	<1.0	1.3	<1.0	370	---	73	31	<2.0	110	210J	57	330	80	11	37	<25
Chloride	mg/L	<2.00	6.3	32.6	44.6	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	9.51	9.63	5.7	4.4	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	$<4.8 \times 10^1$	$<5.3 \times 10^1$	$<2.0 \times 10^1$	$<1.0 \times 10^1$	---	3.0×10^5	3.5×10^5	5.1×10^3	6.1×10^5	---	---	2.4×10^5	---	---	---	1.8×10^5
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	6.48	7.24	6.48	6.22	6.52	6.95	6.69	6.52	---	6.71	6.75	6.82	6.43	---	---	---
ORP	mV	-71.8	-105.3	7.6	-41	37.9	-126	-130.7	-65	---	-34	-135	-171.6	-390	---	---	---
Dissolved Oxygen	mg/L	0.29	0.28	0.77	0.14	0.34	0.12	0.32	0.26	---	0.19	0.27	0.32	0.16	---	---	---
Specific Conductivity	ms/cm	0.067	0.108	0.105	0.233	0.161	0.21	0.226	0.124	---	0.266	0.259	0.225	0.105	---	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
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(1) = results from RNA analysis
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-DO 4/3/2012	OB-09-DO 8/21/2012	OB-09-DO 11/28/2012	OB-09-DO 2/6/2013	OB-09-S 10/11/2006	OB-09-S 1/30/2007	OB-09-S 4/10/2007	OB-09-S 7/26/2007	OB-09-S 7/31/2007	OB-09-S 11/12/2007	OB-09-S 4/21/2008	OB-09-S 7/29/2008	OB-09-S 10/22/2008	OB-09-S 4/9/2009	OB-09-S 4/27/2009	OB-09-S 7/14/2009
Dissolved Metals																	
Iron	mg/L	---	---	---	---	2.52	40	75.6	4.82	---	5.08	8.7	13.1	17	16	---	---
Manganese	mg/L	---	---	---	---	1.36	25.6	21.1	0.887	---	1.08	1.88	3.98	1.3	2	---	---
Metabolic Acids																	
Acetic acid	mg/L	<1.0	---	---	---	<1.0	790	140	26	---	16	240	20	97	---	150	660
Lactic Acid	mg/L	<1.0	---	---	---	<1.0	<20	<5.0	<1.0	---	<1.0	<2.0	<1.0	<1.0	---	<1.0	<20
n-Butanoic acid	mg/L	<2.0	---	---	---	<2.0	240	100	<2.0	---	<2.0	61	2.2	4.3	---	31	---
Propionic acid	mg/L	<1.0	---	---	---	<1.0	1200	320	12	---	6.4	190	10	140	---	230	1700
Pyruvic Acid	mg/L	<0.50	---	---	---	<0.50	<10	<2.5	<0.50	---	<0.50	<1.0	<0.50	<0.50	---	<0.50	<10
Miscellaneous Analyses																	
Methane	ug/L	1200	1800	330	240	180	30	8.7	48	---	210	1700	1900	1200D	10000	---	10000
Ethane	ug/L	<20	<20	<5.0	<5.0U	7.3	1.2	<1.0	<1.0	---	3.4	<20	<20	40	<200	---	<200
Ethene	ug/L	<20	<20	<5.0	<5.0U	80	13	40	81	---	88	400	640	1500D	4300	---	2000
Chloride	mg/L	---	---	---	---	---	72.8	30.9	42.1	---	63.2	168	222	116	122	---	---
TOC	mg/L	---	29.7	8.8	6.4	9.63	1020	132	34.7	---	24.9	331	20.9	101	231	---	---
Dehalococcoides sp.	cells/ml	---	---	---	---	$<2.3 \times 10^{1}$	1.3×10^{5}	7.1×10^{3}	---	---	1.8×10^{3}	---	$<9.1 \times 10^{1}$	5.8×10^{3}	---	1.0×10^{4}	9.6×10^{5}
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	8.79×10^{6}	---	Pos	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	1.5×10^{3}	---	---	---	---	---	---	---
Field Parameters																	
pH	--	---	---	6	6.54	6.44	6.65	6.39	8.45	---	6.42	6.74	6.0	6.6	6.43	6.43	6.3
ORP	mV	---	---	-99.2	-16.1	100.8	-169.5	-195.5	-129.5	---	-82	-98.2	-34.7	-103.4	-126	-106.4	-100
Dissolved Oxygen	mg/L	---	---	0.15	2.26	5.9	0.44	1.36	1.45	---	0.19	0.58	0.39	0.6	0.53	0.24	0.17
Specific Conductivity	ms/cm	---	---	0.212	0.112	1.868	17.9	17.44	0.653	---	2.993	11.66	9.736	9.466	14	11.583	10.859

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
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* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-S 10/28/2009	OB-09-S 1/28/2010	OB-09-S 4/22/2010	OB-9-S 7/14/2010	OB-09-S 10/12/2010	OB-09-S 1/5/2011	OB-09-S 4/5/2011	OB-09-S 7/28/2011	OB-09-S 10/25/2011	OB-09-S 1/18/2012	OB-09-S 4/3/2012	OB-09-S 8/21/2012	OB-09-S 11/28/2012	OB-09-S 2/6/2013	OB-15-S 1/19/2009
Dissolved Metals																
Iron	mg/L	---		---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---		---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																
Acetic acid	mg/L	92	53	310	160J	250	870	390	940	360	<1.0	54	---	---	---	---
Lactic Acid	mg/L	<1.0	<1.0	290	220J	<2.0	<10	<5.0	<10	<2.0	<1.0	<1.0	---	---	---	---
n-Butanoic acid	mg/L	16	9	100	17J	8.5	270	100	48	74	<2.0	<2.0	---	---	---	---
Propionic acid	mg/L	110	57	830	210J	170	1700	510	1100	300	<1.0	19	---	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<2.5	<1.0J	<1.0	<5.0	<2.5	<5.0	<1.0	<0.50	<0.50	---	---	---	---
Miscellaneous Analyses																
Methane	ug/L	3700	12000	12000	13000J	9000	25000D	25000	21000D	18000	18000	27000D	13000	15000	21000D	---
Ethane	ug/L	<50	320	<200	240J	370	470	<500	330	290	310	690	<200	<200	<200U	---
Ethene	ug/L	580	820	1300	1700J	290	1000	1000	<200	<250	<250	<250	<200	<200	<200U	---
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	---	---	---	---	---	---	---	---	---	---	---	210	32.7	23	---
Dehalococcoides sp.	cells/ml	2.4×10^{6}	1.5×10^{5}	9.6×10^{5}	$<1.0 \times 10^{2}$	7.2×10^{3}	8.1×10^{3}	9.4×10^{5}	1.6×10^{3}	4.9×10^{5}	4.8×10^{4}	6.4×10^{5}	$<3.3 \times 10^{3}$	$<9.1 \times 10^{1}$	8.4×10^{5}	---
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																
pH	--	---	6.45	---	6.42	6.3	6.16	6.8	---	---	---	---	---	5.8	6.43	7.53
ORP	mV	-102	-102	---	-43	-98	-144.9	-367	---	---	---	---	---	-62.2	-77.9	-58
Dissolved Oxygen	mg/L	0.31	1.49	---	0.44	0.19	0.40	0.54	---	---	---	---	---	0.08	0.3	0.48
Specific Conductivity	ms/cm	7.857	12.945	---	6.045	6.144	---	11.86	---	---	---	---	---	0.276	1.539	2.381

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-15-S 4/9/2009	OB-15-S 7/14/2009	OB-15-S 1/28/2010	OB-15-S 4/22/2010	OB-15-S 10/12/2010	OB-15-S 1/4/2011	OB-15-S 7/28/2011	OB-15-S 10/25/2011	OB-15-S 1/17/2012	OB-15-S 4/3/2012	OB-15-S 8/21/2012	OB-15-S 11/28/2012	OB-15-S 2/6/2013	STR-03 11/16/2007	STR-03 1/23/2008	STR-03 4/21/2008
Dissolved Metals																	
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	0.371	8.87	0.324
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0596	6.07	0.137
Metabolic Acids																	
Acetic acid	mg/L	---	180	<1.0	12	12	120	670	230	57	9.4	---	---	---	<1.0	<1.0	<1.0
Lactic Acid	mg/L	---	420	<1.0	490	<1.0	<1.0	<10	<2.0	<1.0	<1.0	---	---	---	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	---	---	<2.0	<10	<2.0	4.6	120	37	<2.0	<2.0	---	---	---	<2.0	<2.0	<2.0
Propionic acid	mg/L	---	310	<1.0	24	11	110	1200	310	31	<1.0	---	---	---	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	---	<1.3U	<0.50	<2.5	<0.50	<0.50	<5.0	<1.0	<0.50	<0.50	---	---	---	<0.50	<0.50	0.51
Miscellaneous Analyses																	
Methane	ug/L	---	55	92	390	5400D	12000D	8100	11000D	21000D	21000	21000	18000	24000	6.9	180	17
Ethane	ug/L	---	<1.0U	<1.0	<5.0	<5.0	150	<100	210	400	370	300	300	280	<1.0U	7.4	<1.0
Ethene	ug/L	---	90	24	170	540D	210	230	480	160	310	280	<250	<250U	<1.0U	37	<1.0
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	9.85	1130	900
TOC	mg/L	---	---	---	---	---	---	---	---	---	---	1750	1670	620	7.58	5.21	1.98
Dehalococcoides sp.	cells/ml	---	8.5×10^4	5.2×10^3	$<7.7 \times 10^1$	8.8×10^4	1.1×10^5	6.1×10^1	1.8×10^7	$<6.6 \times 10^1$	7.5×10^5	$<3.3 \times 10^3$	$<1.7 \times 10^2$	$<1.1 \times 10^2$	$<6.7 \times 10^1$	7.5×10^2	---
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Neg
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	7.49	6.64	---	---	---	---	6.29	6.52	6.52	---	---	---	6.48	---	---	---
ORP	mV	-143.2	-163	---	---	---	---	-145	-94.2	-94.2	---	---	---	-96.5	---	---	---
Dissolved Oxygen	mg/L	0.3	0.37	---	---	---	---	0.24	0.41	0.41	---	---	---	0.99	---	---	---
Specific Conductivity	ms/cm	1.875	9.071	---	---	---	---	14.038	3.543	3.543	---	---	---	2.18	---	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
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N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
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(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	STR-03 7/29/2008	STR-03 10/22/2008	STR-03 1/13/2009	STR-03 4/9/2009	STR-03 7/14/2009	STR-03 10/27/2009	STR-03 1/28/2010	STR-03 4/22/2010	STR-03 7/14/2010	STR-03 10/12/2010	STR-03 1/5/2011	STR-03 4/5/2011	STR-03 7/28/2011	STR-03 10/25/2011	STR-03 1/18/2011	STR-03 4/3/2012
Dissolved Metals																	
Iron	mg/L	2.45	31.6	1.44	3.5	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	0.732	13.6	0.577	2.6	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	2.6	1.6	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	1.5J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Lactic Acid	mg/L	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	0.97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																	
Methane	ug/L	590	800D	20	39	270	4.5	24	46	4.3J	<2.0	5.5	2	5	49	170D	7.7
Ethane	ug/L	34	78	<1.0	1.3	13	<1.0	1.1	1.5	<1.0J	<1.0	<1.0	<1.0	<1.0	2.5	10	<1.0
Ethene	ug/L	76	85	<1.0	6.2	13	<1.0	3.6	3.5	<1.0J	<1.0	<1.0	<1.0	<1.0	7.8	36	<1.0
Chloride	mg/L	1170	1340	1790	1320	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	12.1	13	1.7	1.6	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	1.4×10^5	$<3.4 \times 10^1$	$<1.0 \times 10^1$	5.9×10^2	$<1.0 \times 10^1$	2.0×10^4	5.2×10^3	$<2.2 \times 10^1$	4.2×10^3	$<6.4 \times 10^1$	1.6×10^3	3.1×10^3	$<1.0 \times 10^1$	4.8×10^3	1.5×10^4	---
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																	
pH	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ORP	mV	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6.05	8.02	---	10.12	2.87	---	---	---
Specific Conductivity	ms/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
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J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	UNNAMED STREAM 10/11/2006	UNNAMED STREAM 2/1/2007	UNNAMED STREAM 3/1/2007	UNNAMED STREAM 4/16/2007	UNNAMED STREAM 7/19/2007	UNNAMED STREAM 11/16/2007	UNNAMED STREAM 1/23/2008	UNNAMED STREAM 4/21/2008	UNNAMED STREAM 7/29/2008	UNNAMED STREAM 10/22/2008	UNNAMED STREAM 1/14/2009	UNNAMED STREAM 4/9/2009	UNNAMED STREAM 7/14/2009	UNNAMED STREAM 10/27/2009	UNNAMED STREAM 1/28/2010
Dissolved Metals																
Iron	mg/L	0.237	---	0.186	4.92	---	1.42	22.6	64.6	78.6	76.4	47.8	22	---	---	---
Manganese	mg/L	0.0536	7.48	---	1.63	---	0.197	5.22	10.3	8.54	11	6.89	6.1	---	---	---
Metabolic Acids																
Acetic acid	mg/L	---	---	<1.0	<1.0	---	<1.0	<1.0	<1.0	5.6	3.4	<1.0	<1.0	<1.0	<1.0	<1.0
Lactic Acid	mg/L	---	---	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0
Propionic acid	mg/L	---	---	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	---	---	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																
Methane	ug/L	---	---	6.2	90	---	28	240	260	1100	1800D	470	240	240	2300	360
Ethane	ug/L	---	---	<1.0	1.7	---	<1.0	14	14	120	260D	37	15	14	110	31
Ethene	ug/L	---	---	<1.0	3.5	---	<1.0	12	18	380	190D	37	24	65	61	70
Chloride	mg/L	---	---	---	380	---	21.7	861	1710	1640	175	1460	1170	---	---	---
TOC	mg/L	---	---	1.6	10.8	---	9.6	5.92	8.98	12.0	15.6	16.7	3.7	---	---	---
Dehalococcoides sp.	cells/ml	3.3×10^{2}	---	---	---	2.8×10^{3}	2.3×10^{3}	2.6×10^{3}	---	$<2.3 \times 10^{1}$	$<4.7 \times 10^{1}$	6.7×10^{3}	3.8×10^{2}	1.2×10^{5}	2.1×10^{4}	9.7×10^{2}
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	Neg	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Field Parameters																---
pH	--	7.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ORP	mV	173.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Oxygen	mg/L	6.11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Specific Conductivity	ms/cm	2.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes: < = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 11
Water Quality Data
BIOREMEDIATION PARAMETERS

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	UNNAMED STREAM 4/22/2010	UNNAMED STREAM 10/12/2010	UNNAMED STREAM 1/4/2011	UNNAMED STREAM 4/5/2011	UNNAMED STREAM 10/25/2011	UNNAMED STREAM 1/17/2012	UNNAMED STREAM 4/3/2012	UNNAMED STREAM 8/21/2012	UNNAMED STREAM 2/6/2013
Dissolved Metals										
Iron	mg/L	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---
Metabolic Acids										
Acetic acid	mg/L	<1.0	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	---	---
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	---
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---
Pyruvic Acid	mg/L	<0.50	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	---	---
Miscellaneous Analyses										
Methane	ug/L	260	<2.0	780D	290	620D	200	350D	160	540D
Ethane	ug/L	11	<1.0	57	19	52	12	26	14	33
Ethene	ug/L	46	<1.0	61	21	32	9.6	49	55	100
Chloride	mg/L	---	---	---	---	---	---	---	---	---
TOC	mg/L	---	---	---	---	---	---	---	16.2	4.5
Dehalococcoides sp.	cells/ml	$<2.2 \times 10^{1}$	1.6×10^{3}	5.2×10^{2}	$<1.0 \times 10^{1}$	1.4×10^{5}	$<4.0 \times 10^{1}$	4.5×10^{3}	$<5.0 \times 10^{1}$	8.5×10^{4}
Dehalococcoides sp.	(1)	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	(2)	---	---	---	---	---	---	---	---	---
Mn Degraders	(3)	---	---	---	---	---	---	---	---	---
Field Parameters										
pH	--	---	---	---	---	---	---	---	---	---
ORP	mV	---	---	---	---	---	---	---	---	---
Dissolved Oxygen	mg/L	---	8.48	---	4.39	---	---	---	---	---
Specific Conductivity	ms/cm	---	---	---	---	---	---	---	---	---

Notes:
< = Less than detection limit
--- = Not Sampled
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
N = Matrix interference
Field parameter results reported are from the closest date to the analytical sampling
Pos = results indicate active Dehalococcoides are present
Neg = results do not indicate active Dehalococcoides are present
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

TABLE 12
PERMANGANATE CONCENTRATIONS IN GROUNDWATER

Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

	October 2010		January 2011		April 2011		October-November 2011		April 2012		November 2012	
Well ID	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**
AP-12-BR	340,000	34	---	---	110,000	11.0	9,900	0.990	19,000	1.900	8,000	0.800
AP-12-DO	ND(<0.2)	NA	ND(<0.2)	NA	0.3	0.00003	ND(<0.2)	NA	0.2	0.00002	9,100	0.910
AP-12-S	---	---	---	---	---	---	---	---	ND(<0.2)	NA	---	---
AP-14-S	---	---	1	0.0001	---	---	---	---	---	---	---	---
AP-19	ND(<0.2)	NA	---	---	ND(<0.1)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA
AP-20	ND(<0.2)	NA	---	---	0.1	0.00001	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA
AP-21	15,000	1.5	---	---	8,200	0.8	1,000	0.1	2,200	0.220	1,900	0.190
AP-22	430	0.043	---	---	1.0	0.0001	3,200	0.32	10,000	1.000	9,700	0.970
AP-26-DO	---	---	---	---	---	---	ND(<0.2)	NA	ND(<0.2)	NA	17.0	0.00170
AP-27-DO	ND(<0.2)	NA	---	---	---	---	0.4	0.00004	ND(<0.2)	NA	58.0	0.00580
AP-30-DO	---	---	---	---	20,000	2.0	---	---	---	---	---	---
AP-30R-DO	---	---	---	---	---	---	84,000	8.40	19,000	1.900	---	---
AP-31-DO	---	---	---	---	12,000	1.2	2,400	0.24	0.2	0.00002	---	---
AP-32-DO	---	---	---	---	3.7	0.00037	ND(<0.2)	NA	0.2	0.00002	---	---
B-2	---	---	---	---	---	---	---	---	---	---	ND(<0.2)	NA
CL10-BR	---	---	---	---	0.2	0.00002	---	---	---	---	---	---
CL10-DO	350	0.035	---	---	250	0.0	7.1	0.00071	44.0	0.0044	---	---
CL10-S	---	---	---	---	ND(<0.1)	NA	---	---	---	---	---	---
GZ-2R	---	---	---	---	---	---	---	---	---	---	---	---
MW-005	---	---	---	---	---	---	---	---	---	---	---	---
MW-013	1,400	0.14	---	---	6,900	0.7	1,200	0.12	1,300	0.130	440	0.044
OB-10-BR	---	---	ND(<0.2)	NA	---	---	---	---	---	---	---	---
OB-10-S	---	---	---	---	87	0.0087	---	---	---	---	---	---
OB-12-BR	---	---	---	---	---	---	---	---	---	---	---	---
OB-12-DO	---	---	ND(<0.2)	NA	---	---	190	0.01903	ND(<0.2)	NA	2,000	0.200
OB-15-S	---	---	---	---	---	---	---	---	---	---	---	---
OB-19-DO	ND(<0.2)	NA	---	---	---	---	ND(<0.2)	NA			---	---
OB-25-BR	---	---	---	---	9,200	0.9	---	---	ND(<0.2)	NA	17,000	1.700
OB-25-DO	---	---	---	---	---	---	---	---	---	---	---	---
OB-26-BR	---	---	---	---	---	---	---	---	0.2	0.00002	---	---
OB-27-BR	7,400	0.74	---	---	14,000	1.4	1,500	0.1500	5,700	0.570	12,000	1.200
OB-27-DO	---	---	---	---	---	---	---	---	---	---	---	---
OB-28-BR	---	---	---	---	15	0.0015	---	---	ND(<0.2)	NA	---	---
OB-32-DO	1,300	0.13	500	0.05	1,200	0.1	670	0.0670	630.0	0.063	470	0.047
OB-34-DO	29	0.0029	41.3	0.00413	18	0.0018	ND(<0.2)	NA	31	0.0031	31.0	0.00310
OB 35-DO	ND(<0.2)	NA	---	---	ND(<0.1)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA
OB-36-DO	---	---	---	---	ND(<0.1)	NA	---	---	0.3	0.00003	ND(<0.2)	NA
OB-37-DO	11,000	1.1	---	---	180,000	18.0	34.0	0.003	9,700	0.9700	60.0	0.00600
RW-2	---	---	---	---	---	---	---	---	---	---	---	---

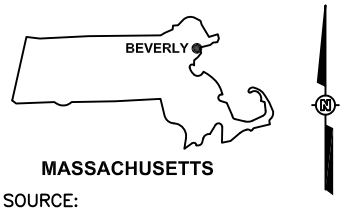
Notes:

Color Key:

Sample Dark Purple	No color indicates groundwater sample was clear
Sample Medium Purple	--- = sample not collected
Sample Light Purple	ND (<0.2) = Not detected at estimated detection limit.
Sample Pink	NA = Not applicable or value does not appear when reporting to 2 significant figures.
Pale Pink	mg NaMnO4/L = milligrams of sodium permanganate per liter

FIGURES

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
CANTON, MA	CD	02/28/13	RC	02/28/13	--	--	139340-01SITELOC



SOURCE:

USGS 7.5 MIN. SERIES TARGET QUAD, 1985
SCALE: 1:25,000
X = 250750 m
Y = 925017 m
MA STATE PLANE GRID (meters)

SHAW ENVIRONMENTAL, INC.
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 1
SITE LOCATION MAP

FORMER VARIAN FACILITY
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

N:\MISC\VARIAN\Beverly.ME\139340-01SITELOC.dwg

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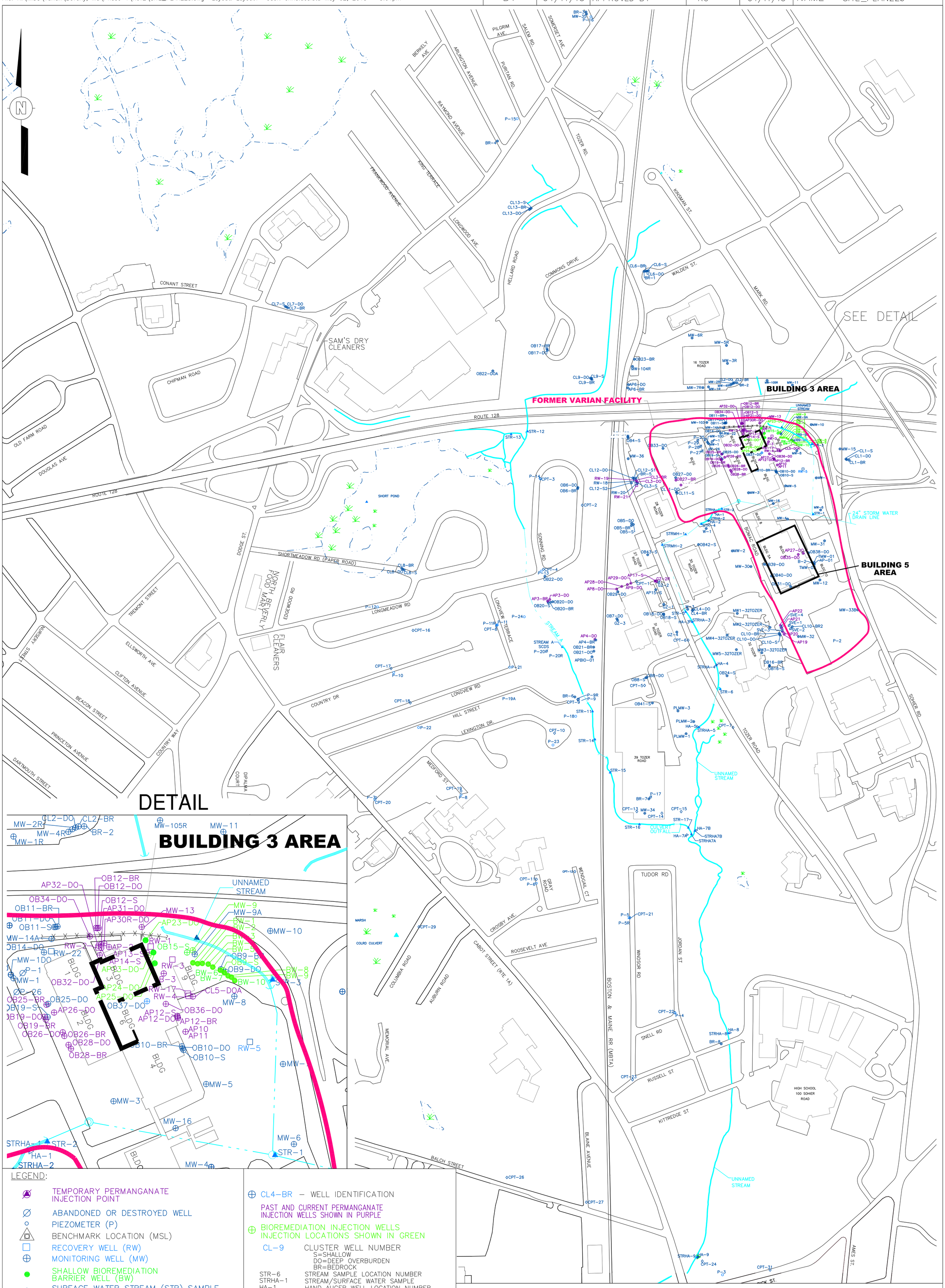

DETAIL

LEGEND:

- TEMPORARY PERMANGANATE INJECTION POINT
- ABANDONED OR DESTROYED WELL
- PIEZOMETER (P)
- BENCHMARK LOCATION (MSL)
- RECOVERY WELL (RW)
- MONITORING WELL (MW)
- SHALLOW BIOREMEDIATION BARRIER WELL (BW)
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CONE PENETROMETER TESTPOINT (CPT)
- HAND AUGER SAMPLE LOCATION (HA) ADJACENT TO A STREAM (STRHA)
- STRMH MANHOLE ACCESS TO THE STREAM LOCATED WITHIN A CULVERT
- APPROXIMATE BUILDING LOCATION
- APPROXIMATE DRAIN MANHOLE LOCATION
- APPROXIMATE LOCATION OF STREAM IN CULVERT
- APPROXIMATE STREAM LOCATION
- WATER AND MARSH AREA

⊕ CL4-BR – WELL IDENTIFICATION

PAST AND CURRENT PERMANGANATE INJECTION WELLS SHOWN IN PURPLE

⊕ BIOREMEDIATION INJECTION WELLS INJECTION LOCATIONS SHOWN IN GREEN

CL-9	CLUSTER WELL NUMBER S=SHALLOW DO=DEEP OVERBURDEN BR=BEDROCK
STR-6	STREAM SAMPLE LOCATION NUMBER
STRHA-1	STREAM/SURFACE WATER SAMPLE
HA-1	HAND AUGER WELL LOCATION NUMBER
STRMH-1	STREAM/MANHOLE LOCATION NUMBER
MW-5	MONITORING WELL NUMBER
GZ-1	MONITORING WELL NUMBER
PLMW-1	MONITORING WELL NUMBER
BR-1	BEDROCK WELL NUMBER

BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS IS THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.

THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, JULY 2012, FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY SHAW ENVIRONMENTAL.

FIGURE 2
EXPANDED SITE PLAN
FORMER VARIAN FACILITY SITE – BEVERLY, MA.

PREPARED FOR: VARIAN MEDICAL FACILITY, INC.
PALO ALTO, CALIFORNIA

SCALE
0 250 500 FEET

DRAFTED BY: CD

DATE: 11 APRIL 2013

PROJECT NO.: 146899

PREPARED BY:

SHAW ENVIRONMENTAL, INC.
A CB&I COMPANY

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
CD 04/11/13	RC 04/11/13	-- --	BUILDING9_SITE_PLAN_rev1

OFFICE
CANTON, MA

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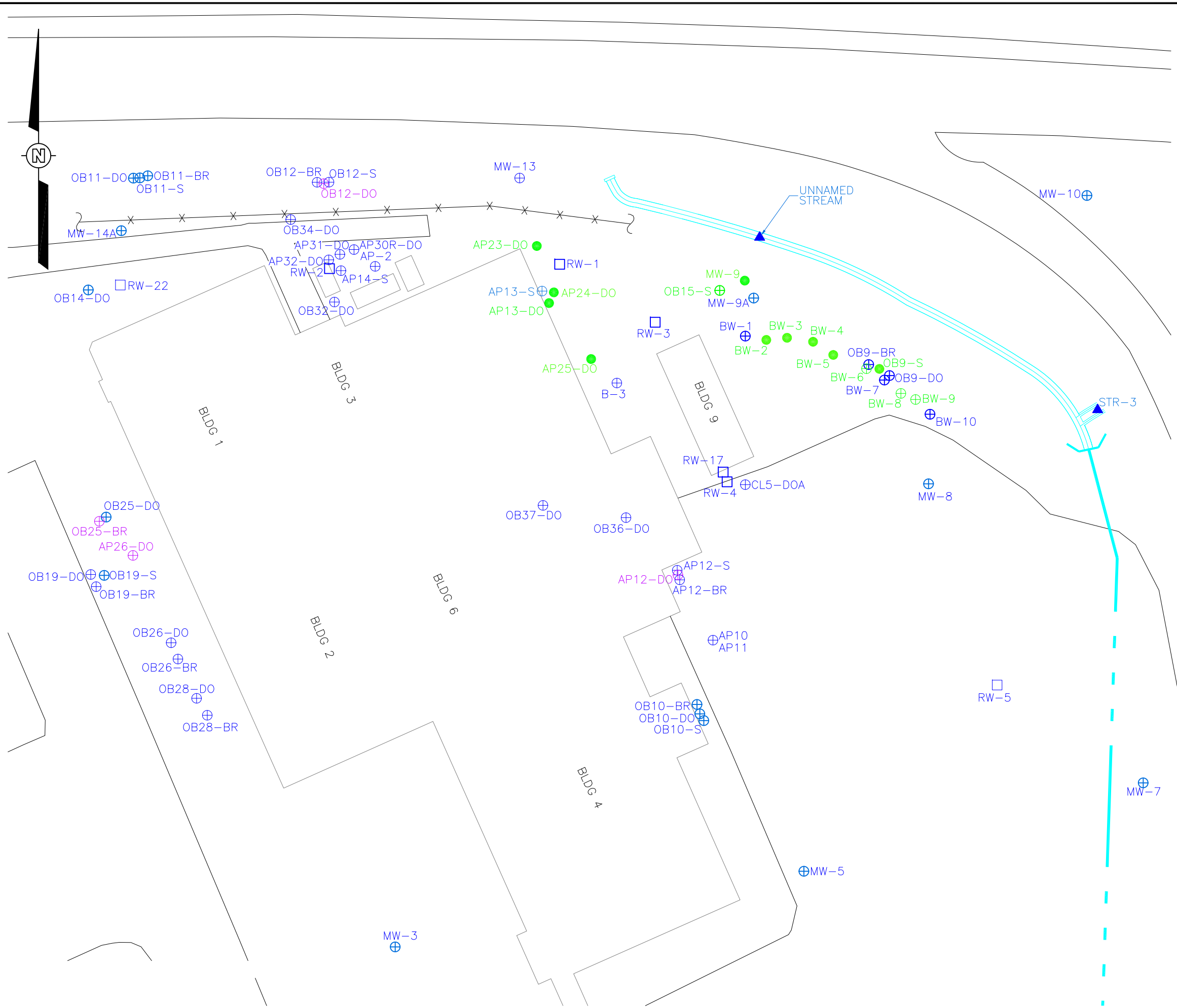
Plot Date/Time: Apr 17, 2013 - 11:11pm
Plotted By: chris.desiato



LEGEND

- APPROXIMATE BUILDING LOCATION
- APPROXIMATE LOCATION OF STREAM IN CULVERT
- APPROXIMATE STREAM LOCATION
- RECOVERY WELL (RW)
- MONITORING WELL (MW)
- BIOREMEDIATION INJECTION WELL SHOWN IN GREEN (CURRENT PERMAGANATE INJECTION WELLS SHOWN IN PURPLE)
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CL4-BR – WELL IDENTIFICATION

CL-9	CLUSTER WELL NUMBER S=SHALLOW DO=DEEP OVERBURDEN BR=BEDROCK
STR-6	STREAM SAMPLE LOCATION NUMBER
STRHA-1	STREAM/SURFACE WATER SAMPLE
HA-1	HAND AUGER WELL LOCATION NUMBER
STRMH-1	STREAM/MANHOLE LOCATION NUMBER
MW-5	MONITORING WELL NUMBER
GZ-1	MONITORING WELL NUMBER
PLMW-1	MONITORING WELL NUMBER
BR-1	BEDROCK WELL NUMBER

BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS IS THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.

THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY SHAW ENVIRONMENTAL.

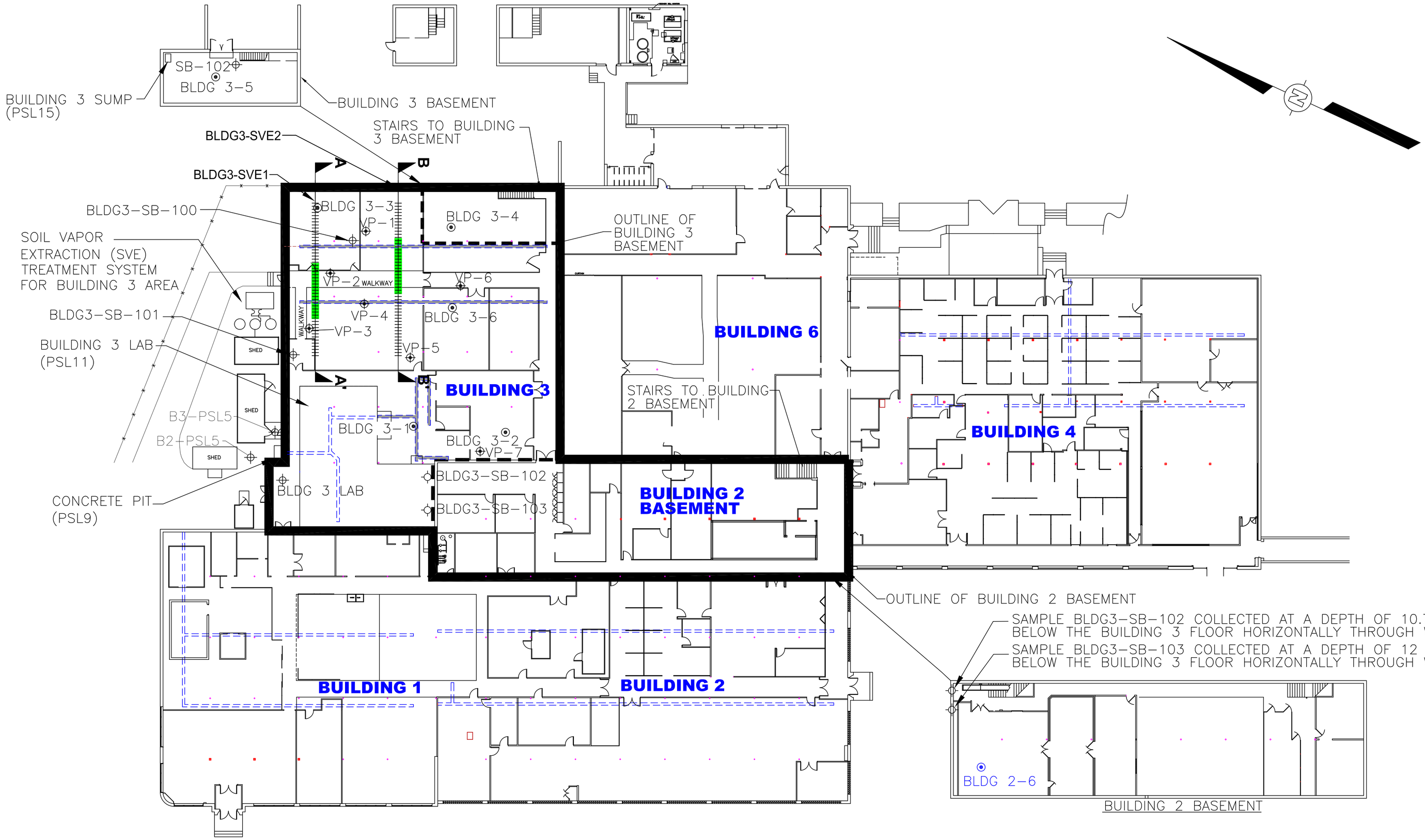
SCALE

0 50 100 FEET

SHAW ENVIRONMENTAL INC.,
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 3
BIOREMEDIATION INJECTION WELL LOCATIONS
VARIAN MEDICAL SYSTEMS, INC.
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

BUILDING 3 BASEMENT

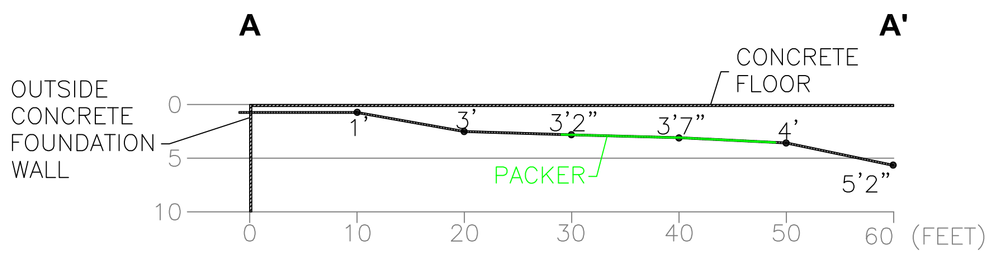


LEGEND

- BUILDING 3 TREATMENT AREA
- HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL LOCATION
- PORTION OF HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL WITH PACKER INSTALLED
- SUB-SLAB SOIL VAPOR MONITORING POINT
- SOIL BORING LOCATION
- INDOOR AIR SAMPLE LOCATION
- BUILDING COLUMNS
- UTILITY TRENCH
- FORMER UTILITY TRENCH-FILLED WITH CONCRETE
- BUILDING WALLS
- FENCE LINE
- PSL POTENTIAL SOURCE AREA AS DESCRIBED IN PHASE II CSA FOR RTN 3-0485

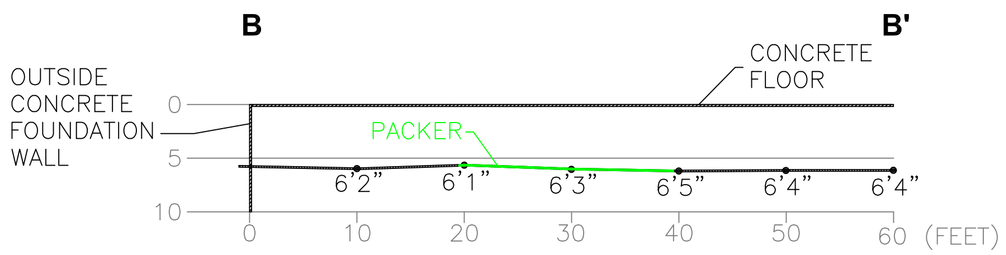
INDOOR AIR SAMPLE ID	ROOM
BLDG 2-6	ENVIRONMENTAL TESTING ROOM BUILDING 2 BASEMENT
BLDG 3-1	MAIN CHEMICAL LABORATORY
BLDG 3-2	CHEMISTRY LABORATORY BENCH TESTING ROOM
BLDG 3-3	MID STOCK ROOM
BLDG 3-4	BUILDING 3 MACHINE SHOP
BLDG 3-5	BOILER ROOM BUILDING 3 BASEMENT
BLDG 3-6	BUILDING 3 STORAGE ROOM

SCALE 0 20 40 60 FEET



BUILDING 3-SVE1 CROSS SECTION
WELL CONSTRUCTION

55' OF 2" 0.010 SLOT SCHEDULE 80 PVC
5' OF 2" SCHEDULE 80 PVC
(3'7") DEPTH OF WELL BENEATH FLOOR
PACKER INSTALLED 30'-50' FROM WELL HEAD



BUILDING 3-SVE2 CROSS SECTION
WELL CONSTRUCTION

55' OF 2" 0.010 SLOT SCHEDULE 80 PVC
5' OF 2" SCHEDULE 80 PVC
(6'3") DEPTH OF WELL BENEATH FLOOR
PACKER INSTALLED 21'-41' FROM WELL HEAD

REFERENCE:
PLAN DERIVED FROM CPI COMMUNICATIONS & POWER INDUSTRIES, BEVERLY MICROWAVE DIVISION, AND SHAW ENVIRONMENTAL FIELD RECONNAISSANCE.

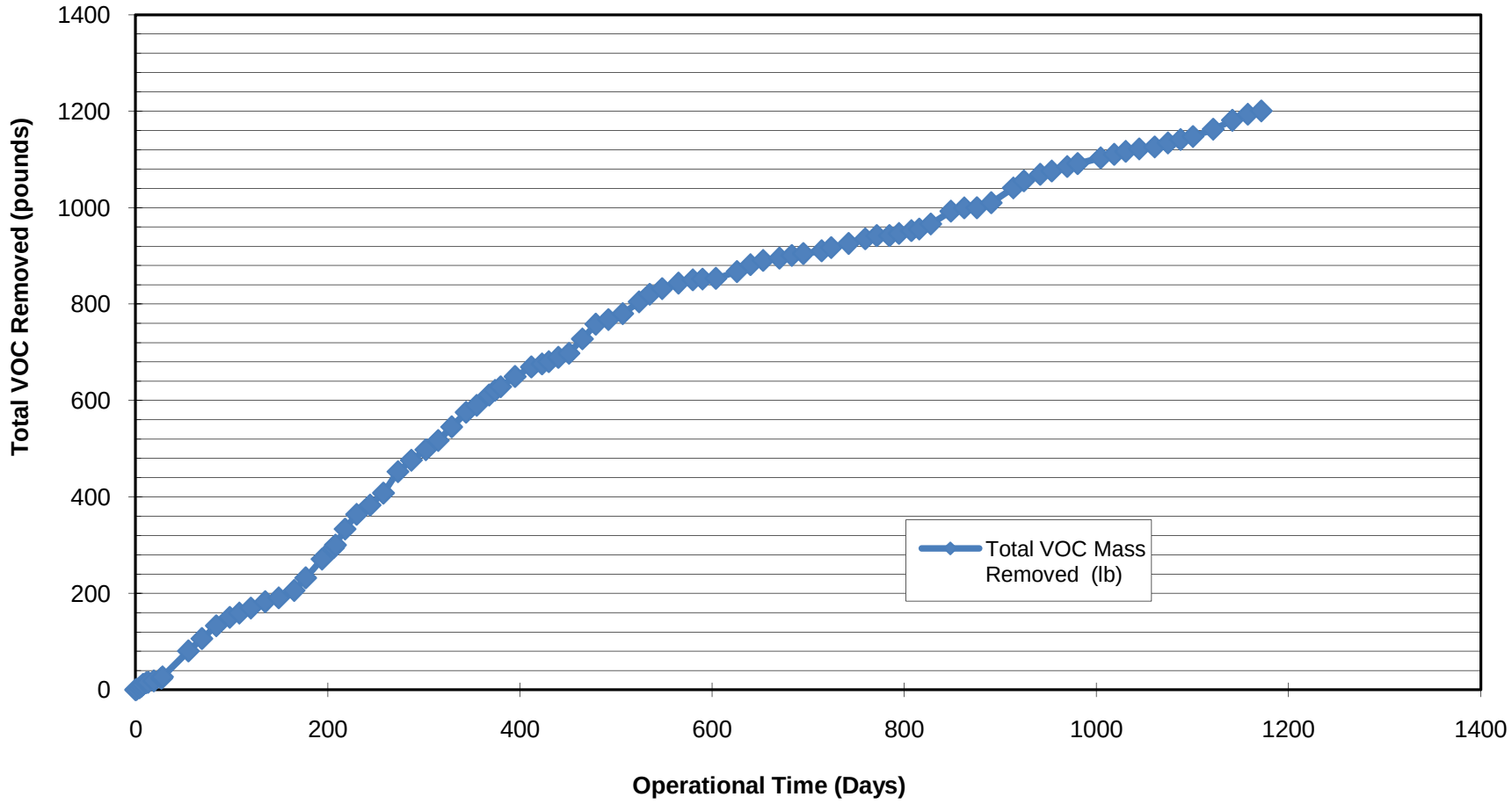
SHAW ENVIRONMENTAL, INC.
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 4
BUILDING 3 TREATMENT AREA

FORMER VARIAN FACILTIY SITE
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

Figure 5
Total VOC Removal by
Sub-slab Ventilation/SVESystem

Building 3, Varian Medical Systems
150 Sohier Road
Beverly, MA



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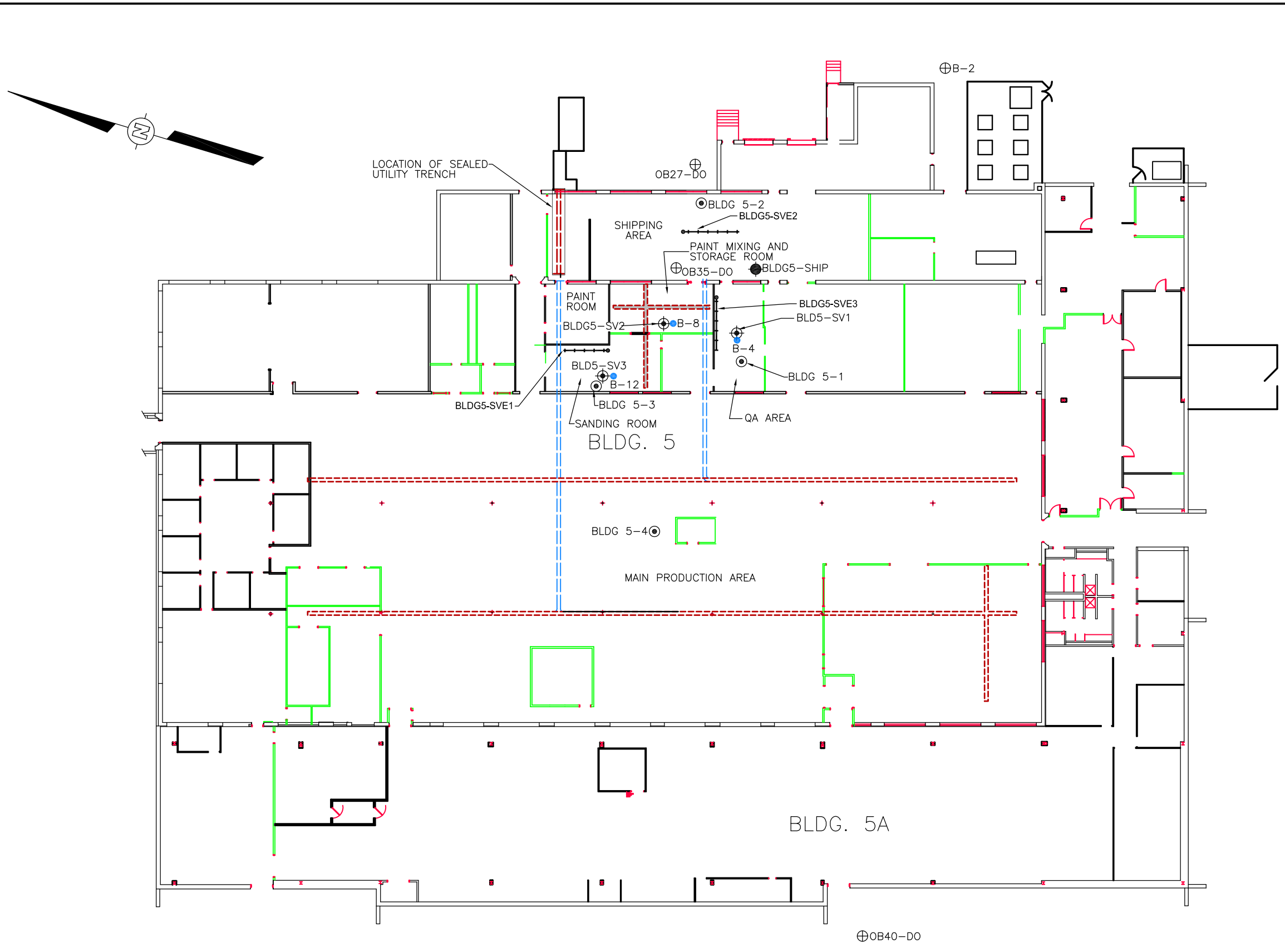

LEGEND

- SUB-SLAB SOIL VAPOR SAMPLE LOCATION (2011-2012)
- INDOOR AIR SAMPLE LOCATION (2011-2012)
- SUB-SLAB SOIL VAPOR SAMPLE LOCATION (1995)
- MONITORING WELL
- SOIL BORING
- FORMER UTILITY TRENCH FILLED WITH CONCRETE
- UTILITY TRENCH BENEATH CONCRETE FLOOR
- UTILITY TRENCH (COVERED WITH STEEL PLATE)
- SVE TRENCH WELL INSTALLED JULY/AUGUST 2012

INDOOR AIR SAMPLE ID RTN 3-0485	ROOM
BLDG 5-1	FINAL INSPECTION ROOM
BLDG 5-2	SHIPPING
BLDG 5-3	SAND BLASTING ROOM
BLDG 5-4	PRODUCTION AREA

SCALE
0 30 60 FEET

REFERENCE:

PLAN DERIVED FROM COMMUNICATIONS & POWER INDUSTRIES MAP, DATED 07/11/03, CLEAN HARBORS ENVIRONMENTAL SERVICES, INC. MAP TITLED "1962-BUILDING 5", AND SHAW ENVIRONMENTAL FIELD RECONNAISSANCE, JULY 2012.

SHAW ENVIRONMENTAL INC.,
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 6
BUILDING 5 TREATMENT AREA
FORMER VARIAN FACILITY
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE
146898-SITE PLAN	--	PH 03/27/13	CD 03/27/13	CANTON, MA

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Plot Date/Time: Apr 18, 2013 - 12:25pm
Plotted By: chris.desiato

File: N:\MISC\Varian\Beverly, Ma\Phase 4\Rev2\30TOZERROAD_2.dwg
Plot Date/Time: Apr 17, 2013 - 11:48pm
Plotted By: chris.desiata

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	30TOZERROAD_2
CANTON, MA	CD	04/11/13	PH	04/11/13	--	--		

PARKING AREA

OB42-S

PARKING AREA

SV-3 30 TOZER

30 TOZER - 1

SV-4 30 TOZER

30 TOZER - 2

SV-5 30 TOZER

30 TOZER ROAD BUILDING

30 TOZER - 3

SV-6 30 TOZER

TOZER ROAD

PARKING AREA

SCALE

0 30 60 FEET

LEGEND

- MONITORING WELL (MW)
- SOIL VAPOR SAMPLE LOCATIONS
- INDOOR AIR SAMPLE LOCATION
- APPROXIMATE BUILDING LOCATION
- APPROXIMATE LOCATION OF STREAM

REFERENCE:
1) THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, JULY 2012, FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY SHAW ENVIRONMENTAL.
2) INTERIOR FEATURES DEPICTED WITHIN 30 TOZER ROAD BUILDING WERE ADDED USING MAP FROM SIEMASKO+VERBRIDGE TITLED '1ST FLOOR PLAN'. ADDITIONAL INFORMATION DERIVED FROM SHAW ENVIRONMENTAL MAP TITLED 'SITE PLAN', AND SHAW ENVIRONMENTAL FIELD RECONNAISSANCE.

SHAW ENVIRONMENTAL INC.,
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 7

30 TOZER ROAD PLAN

VARIAN MEDICAL SYSTEMS, INC.
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

N:\MISC\Varian\Beverly, Ma\Rev 2\39TOZER_ROAD_2.dwg

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER	39TOZER_ROAD_2
CANTON, MA	CD	04/11/13	RC	04/11/13	--	--		

OB8-DO
OB8-S
CPT-5
OB41-S
SV-1 39TOZER
SV AMBIENT 39TOZER
PLMW-3
PLMW-2
HA-5
STRHA-5
PLMW-1
STR-11
STR-14
STR-15
STR-16
39 TOZER ROAD BUILDING
P-17
BR-7
CPT-13
MW-34
CPT-14
CPT-15
UNNAMED STREAM
CULVERT OUTFALL
STR-17
HA-7A
HA-7B
STRHA7B

LEGEND

- MONITORING WELL (MW)
- SOIL VAPOR SAMPLE LOCATION
- INDOOR AIR SAMPLE LOCATION
- PIEZOMETER (P)
- ABANDONED OR DESTROYED WELL
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CONE PENETROMETER TESTPOINT (CPT)
- HAND AUGER SAMPLE LOCATION (HA) ADJACENT TO A STREAM (STRHA)
- APPROXIMATE LOCATION OF STREAM IN
- APPROXIMATE STREAM LOCATION
- APPROXIMATE BUILDING LOCATION

SCALE
0 80 120 FEET

BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS IS THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.

THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, JULY 2012 FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY SHAW ENVIRONMENTAL.

SHAW ENVIRONMENTAL INC.,
A CB&I COMPANY
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 8
39 TOZER ROAD PLAN

VARIAN MEDICAL SYSTEMS, INC.
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

APPENDIX A

MADEP COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM (BWSC108) AND REMEDIAL MONITORING REPORT (RMR) CHECKLIST

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
3 - 485

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

A. SITE LOCATION:

1. Site Name: VARIAN-MICROWAVE DIV
2. Street Address: 150 SOHIER RD
3. City/Town: BEVERLY 4. ZIP Code: 019150000
5. ☑ Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
   ☐ a. Tier IA ☑ b. Tier IB ☐ c. Tier IC ☐ d. Tier II
6. If applicable, provide the Permit Number: P23730

B. THIS FORM IS BEING USED (check all that apply)

☐ 1. Submit a **Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 2. Submit a **Revised Phase I Completion Statement**, pursuant to 310 CMR 40.0484.

☐ 3. Submit a **Phase II Scope of Work**, pursuant to 310 CMR 40.0834.

☐ 4. Submit an **interim Phase II Report**. This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.

☐ 5. Submit a **final Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.

☐ 6. Submit a **Revised Phase II Report and Completion Statement**, pursuant to 310 CMR 40.0836.

☐ 7. Submit a **Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement**, pursuant to 310 CMR 40.0862.

☐ 9. Submit a **Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 10. Submit a **Modified Phase IV Remedy Implementation Plan**, pursuant to 310 CMR 40.0874.

☐ 11. Submit an **As-Built Construction Report**, pursuant to 310 CMR 40.0875.

☐ 12. Submit a **Phase IV Status Report**, pursuant to 310 CMR 40.0877.

☐ 13. Submit a **Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

☐ a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Response Action Outcome.

☐ b. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) has been or will be submitted to DEP.

☐ d. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) has been or will be submitted to DEP.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

Release Tracking Number: 3 - 485

B. THIS FORM IS BEING USED TO (cont.):(check all that apply)

☐ 14. Submit a **Revised Phase IV Completion Statement**, pursuant to 310 CMR 40.0878 and 40.0879.

☐ 15. Submit a **Phase V Status Report**, pursuant to 310 CMR 40.0892.

☑ 16. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☑ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

☑ iii. A Remedial Monitoring Report(s) submitted concurrent with a Status Report.

c. Status of Site: (check one) ☐ i. Phase IV ☐ ii. Phase V ☑ iii. Remedy Operation Status ☐ iv. Class C RAO

d. Number of Remedial Systems and/or Monitoring Programs: 3

A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 17. Submit a **Remedy Operation Status**, pursuant to 310 CMR 40.0893.

☑ 18. Submit a **Status Report to maintain a Remedy Operation Status**, pursuant to 310 CMR 40.0893(2).

☐ 19. Submit a **Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS)** , pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).

☐ a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").

☐ b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").

c. Number of Persons Maintaining an ROS not including the primary representative: _____

☐ 20. Submit a **Termination of a Remedy Operation Status**, pursuant to 310 CMR 40.0893(6).(check one)

☐ a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6)(b) for resuming the ROS are attached.

☐ b. Submit a notice of Termination of ROS.

☐ 21. Submit a **Phase V Completion Statement**, pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

☐ a. The requirements of a Class A Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement (BWSC104) will be submitted to DEP.

☐ b. The requirements of a Class C Response Action Outcome have been met. No additional Operation, Maintenance or Monitoring is necessary to ensure the integrity of the Response Action Outcome. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Class C Response Action Outcome have been met. Further Operation, Maintenance or Monitoring of the remedial action is necessary to ensure that conditions are maintained and/or that further progress is made toward a Permanent Solution. A completed Response Action Outcome Statement and Report (BWSC104) will be submitted to DEP.

☐ 22. Submit a **Revised Phase V Completion Statement**, pursuant to 310 CMR 40.0894.

☐ 23. Submit a **Post-Class C Response Action Outcome Status Report**, pursuant to 310 CMR 40.0898.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Release Tracking Number: 3 - 485

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

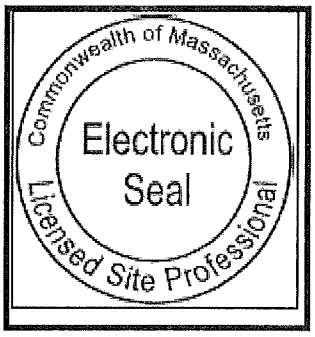
> *if Section B indicates that a* ***Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement*** *and/or a* ***Termination of a Remedy Operation Status*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that a* ***Phase II Scope of Work*** *or a* ***Phase IV Remedy Implementation Plan*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that an* ***As-Built Construction Report,*** *a* ***Remedy Operation Status,*** *a* ***Phase IV, Phase V or Post-Class C RAO Status Report,*** *a* ***Status Report to Maintain a Remedy Operation Status,*** *a* ***Transfer or Modification of Persons Maintaining a Remedy Operation Status*** *and/or a* ***Remedial Monitoring Report*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9070
2. First Name: TIMOTHY W
3. Last Name: KEMPER
4. Telephone: 6175896162
5. Ext.:
6. FAX: 6175892223
7. Signature: Timothy W Kemper
8. Date: 5/2/2013 (mm/dd/yyyy)
9. LSP Stamp:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
3 - 485

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: VARIAN MEDICAL SYSTEMS INC

3. Contact First Name: JOHN R 4. Last Name: BUCHANAN

5. Street: 3120 HANSEN WAY M/S G-100 6. Title: ENVIRONMENTAL AFFAIRS MANAGER

7. City/Town: PALO ALTO 8. State: CA 9. ZIP Code: 943041030

10. Telephone: 6504246103 11. Ext.: 12. FAX:

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS: ☐ Check here to change relationship

☑ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☑ e. Other RP or PRP Specify: OTHER PRPS

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking Response Actions Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

☑ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☐ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.

☐ 5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.

☐ 6. If submitting a Transfer of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for the person making this submittal (transferee) is attached.

☐ 7. If submitting a Modification of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for each new person making this submittal is attached.

☐ 8. Check here if any non-updatable information provided on this form is incorrect, e.g. Site Name. Send corrections to: BWSC.eDEP@state.ma.us.

☑ 9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108

Release Tracking Number
3 - 485

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, John R Buchanan, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

>if Section B indicates that this is a **Modification of a Remedy Operation Status (ROS)**, I attest under the pains and penalties of perjury that I am fully authorized to act on behalf of all persons performing response actions under the ROS as stated in 310 CMR 40.0893(5)(d) to receive oral and written correspondence from MassDEP with respect to performance of response actions under the ROS, and to receive a statement of fee amount as per 4.03(3).

I understand that any material received by the Primary Representative from MassDEP shall be deemed received by all the persons perform ing response actions under the ROS, and I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

2. By: John R Buchanan (Signature) 3. Title: ENVIRONMENTAL AFFAIRS M

4. For: VARIAN MEDICAL SYSTEMS INC (Name of person or entity recorded in Section D) 5. Date: 5/2/2013 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on

5/2/2013 2:44:32 PM

Attachment to BWSC 108
150 Sohier Road, Beverly, MA
RTN 3-0485

Approvals from the Massachusetts Department of Environmental that this submittal is subject to include:

- "Approval to Apply Remedial Additive; MGL.c.21E & 310 CMR 40.0000" issued on August 18, 2004 (for permanganate addition activities)
- "Approval to Apply Remedial Additive; MGL.c.21E & 310 CMR 40.0000" issued on November 20, 2006 (for bioremediation activities)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 1 of: 3

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

☐ a. Active Remedial System: (check all that apply)

☐ i. NAPL Recovery ☐ ii. Soil Vapor Extraction/Bioventing ☐ iii. Vapor-phase Carbon Adsorption
☐ iv. Groundwater Recovery ☐ v. Dual/Multi-phase Extraction ☐ vi. Aqueous-phase Carbon Adsorption
☐ vii. Air Stripping ☐ viii. Sparging/Biosparging ☐ ix. Cat/Thermal Oxidation
☐ x. Other Describe:

☑ b. Application of Remedial Additives: (check all that apply)

☐ i. To the Subsurface ☑ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe:

2. Mode of Operation: (check one)

☐ a. Continuous ☑ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)

☐ a. Sanitary Sewer/POTW
☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
☐ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☐ ii. No Off-gas Controls
☐ d. Drinking Water Supply
☐ e. Surface Water (including Storm Drains)
☑ f. Other Describe: NOT APPLICABLE

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 10/1/2012 (mm/dd/yyyy) To: 3/31/2013 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

☐ a. System Startup: (if applicable)

☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.

☐ ii. Other Describe:

☑ b. Post-system Startup (after first month) or Monitoring Program:

☐ i. Monthly
☐ ii. Quarterly
☑ iii. Other Describe: BI-WEEKLY

☑ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: (mm/dd/yyyy)

☐ 2. MCP Performance Standard MCP Citations(s):

☐ 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

☑ 4. Other Describe: NOT APPLICABLE

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Remedial System or Monitoring Program: 1 of: 3

Release Tracking Number: 3 - 485

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name: b. Grade:

c. License No.: d. License Exp. Date: (mm/dd/yyyy)

☐ 2. Not Required

☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☐ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: b. GW Recovered (gals):

c. NAPL Recovered (gals): d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm): f. Avg. Sparging Rate (scfm) :

☑ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☑ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☑ i. Permanganates:

Name of Additive	Date	Quantity	Units
SODIUM PERMANGANAT	10/1/2012	495.75	GALS

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 1 of: 3

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.) (check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____ (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☐ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☐ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 2 of: 3

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- [✓] a. Active Remedial System: (check all that apply)
  - [ ] i. NAPL Recovery
  - [✓] ii. Soil Vapor Extraction/Bioventing
  - [✓] iii. Vapor-phase Carbon Adsorption
  - [ ] iv. Groundwater Recovery
  - [ ] v. Dual/Multi-phase Extraction
  - [ ] vi. Aqueous-phase Carbon Adsorption
  - [ ] vii. Air Stripping
  - [ ] viii. Sparging/Biosparging
  - [ ] ix. Cat/Thermal Oxidation
  - [✓] x. Other Describe: BLDG3 SUB-SLAB SVE SYSTEM
- [ ] b. Application of Remedial Additives: (check all that apply)
  - [ ] i. To the Subsurface
  - [ ] ii. To Groundwater (Injection)
  - [ ] iii. To the Surface
- [ ] c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)
  - [ ] i. Reactive Wall
  - [ ] ii. Natural Attenuation
  - [ ] iii. Other Describe:

2. Mode of Operation: (check one)

- [✓] a. Continuous
- [ ] b. Intermittent
- [ ] c. Pulsed
- [ ] d. One-time Event Only
- [ ] e. Other:

3. System Effluent/Discharge: (check all that apply)

- [ ] a. Sanitary Sewer/POTW
- [ ] b. Groundwater Re-infiltration/Re-injection: (check one) [ ] i. Downgradient [ ] ii. Upgradient
- [✓] c. Vapor-phase Discharge to Ambient Air: (check one) [✓] i. Off-gas Controls [ ] ii. No Off-gas Controls
- [ ] d. Drinking Water Supply
- [ ] e. Surface Water (including Storm Drains)
- [ ] f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 2/1/2013 (mm/dd/yyyy) To: 3/31/2013 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- [ ] a. System Startup: (if applicable)
  - [ ] i. Days 1, 3, 6, and then weekly thereafter, for the first month.
  - [ ] ii. Other Describe:
- [✓] b. Post-system Startup (after first month) or Monitoring Program:
  - [ ] i. Monthly
  - [ ] ii. Quarterly
  - [✓] iii. Other Describe: BI-WEEKLY

[ ] 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- [ ] 1. NPDES: (check one)
  - [ ] a. Remediation General Permit
  - [ ] b. Individual Permit
  - [ ] c. Emergency Exclusion

  Effective Date of Permit: (mm/dd/yyyy)
- [✓] 2. MCP Performance Standard MCP Citations(s): MADEP POLICY #WSC94-150
- [ ] 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)
- [ ] 4. Other Describe:

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name: _____ b. Grade: _____

c. License No.: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required

☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☑ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: 59 b. GW Recovered (gals): _____

c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____

e. Avg. Soil Gas Recovery Rate (scfm): 146 f. Avg. Sparging Rate (scfm) : _____

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 2 of: 3

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.) (check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____ (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☑ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☑ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 3 of: 3

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

☑ a. Active Remedial System: (check all that apply)

☐ i. NAPL Recovery ☑ ii. Soil Vapor Extraction/Bioventing ☑ iii. Vapor-phase Carbon Adsorption

☐ iv. Groundwater Recovery ☐ v. Dual/Multi-phase Extraction ☐ vi. Aqueous-phase Carbon Adsorption

☐ vii. Air Stripping ☐ viii. Sparging/Biosparging ☐ ix. Cat/Thermal Oxidation

☑ x. Other Describe: BLDG 5 SUB-SLAB SVE SYSTEM

☐ b. Application of Remedial Additives: (check all that apply)

☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: _____

2. Mode of Operation: (check one)

☑ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)

☐ a. Sanitary Sewer/POTW

☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient

☑ c. Vapor-phase Discharge to Ambient Air: (check one) ☑ i. Off-gas Controls ☐ ii. No Off-gas Controls

☐ d. Drinking Water Supply

☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 3/11/2013 (mm/dd/yyyy) To: 3/31/2013 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

☑ a. System Startup: (if applicable)

☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.

☑ ii. Other Describe: 1, 3, 7, & 14

☐ b. Post-system Startup (after first month) or Monitoring Program:

☐ i. Monthly

☐ ii. Quarterly

☐ iii. Other Describe: _____

☑ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: (mm/dd/yyyy)

☑ 2. MCP Performance Standard MCP Citations(s): MADEP POLICY #WSC94-150

☐ 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

☐ 4. Other Describe:

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name: _____ b. Grade: _____

c. License No.: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required

☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☑ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: 21 b. GW Recovered (gals): _____

c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____

e. Avg. Soil Gas Recovery Rate (scfm): 188 f. Avg. Sparging Rate (scfm) : _____

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC108A

CRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0800 (SUBPART H)

Release Tracking Number: 3 - 485

Remedial System or Monitoring Program: 3 of: 3

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.) (check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____ (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☑ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☑ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

Transaction Overview Trans# 553251 ID# 3-485 BWSC108 Comp. Res. Action Transmittal Form & Phase I

Forms | Attach Files | Signature | Receipt

Summary & Receipt

Print Receipt Exit

Your submission is complete. Thank you for using eDEP's online reporting system. Select My eDEP to see a list of your transactions. Click Print Receipt to save a copy of this receipt for your records.

DEP Transaction ID: 553251
Date and Time Submitted: 5/2/2013 2:44:32 PM
Other Email :

Form Name: BWSC108 Comp. Res. Action Transmittal Form & Phase I

RTN: 3-485
Location: VARIAN-MICROWAVE DIV
Address: 150 SOHIER RD, BEVERLY, 019150000

Person Making Submittal
VARIAN MEDICAL SYSTEMS INC
JOHN R BUCHANAN
3120 HANSEN WAY M/S G-100
PALO ALTO, CA 943041030

LSP
LSP #: 9070
LSP Name: TIMOTHY W KEMPER

Person Making Certification
VARIAN MEDICAL SYSTEMS INC
John R Buchanan
VARIAN MEDICAL SYSTEMS INC
John R Buchanan

Additional Forms Submitted
- BWSC Remedial Monitoring Report ( )
- BWSC Remedial Monitoring Report ( )
- BWSC Remedial Monitoring Report ( )

Ancillary Document Uploaded/Mailed
BWSC-108 Ques.B18 - ROS Status Report - By Mail
BWSC-108 Ques.F1 - Statement of Provisions - By Mail
RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail
RMR-A G5 Additional Supporting Information - By Mail

APPENDIX B

COPIES OF WASTE MAINFESTS

NON HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MAR000006734 | Manifest Document No. 227391 | 2. Page 1 of 1

A. Non-Hazardous Manifest Document Number NHZ001 22739

3. Generator's Name and Mailing Address
Varian Medical Systems, Inc
c/o Shaw E & I, 150 Royal Street
Canton MA 02021
Attn: Raymond Cadorette

B. S.G.I. (Gen. Site Address)
150 Sohier Road
Beverly MA 01915

4. Generator's Phone (617) 589-6102

C. S.T.I. (Lic. Plate #) ME

5. Transporter 1 Company Name
ENPRO SERVICES, INC.

6. US EPA ID Number MAD980670004

D. Transporter's Phone 978-465-1595

7. Transporter 2 Company Name

8. US EPA ID Number

E. S.T.I. (Lic. Plate #)

F. Transporter's Phone

9. Designated Facility Name and Site Address
ENPRO SERVICES OF MAINE, INC.
106 MAIN STREET
SOUTH PORTLAND ME 04106

10. US EPA ID Number MED019051069

G. State Facility's ID SAME

H. Facility's Phone 207-799-0850

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NON DOT, NON RCRA REGULATED MATERIAL	001	DF ~~DM~~	00070	P	State NONE / State NONE
b. NON DOT, NON RCRA REGULATED MATERIAL	001	DF ~~DM~~	00045	P	State NONE / State NONE
c. NON DOT, NON RCRA REGULATED MATERIAL	002	DF ~~DM~~	00100	G	State NONE / State NONE
d.					State / State

J. Additional Descriptions for Materials Listed Above
a. (S) Nuetralized Sodium Permaganate Solids (55) VMS-003 (ME-0312-05281)
b. (S) Nuetralized Sodium Permaganate Solids (30)
c. (L) Nuetralized Sodium Permaganate Liquid (55) VMS-004 (ME-0312-05282)
d.

K. Handling Codes for Wastes Listed Above
a. H141 (Interim) b. H141 (Interim)
c. H141 (Interim) d.

15. Special Handling Instructions and Additional Information
~~EMERGENCY~~ 1) 2) 3) ENPRO PO#19031
ENPRO SERVICES, INC. - 24 HOURS - (800) 966-1102
Point of Departure: ENPRO JOB# 7147-13

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and all applicable state laws and regulations.

GENERATOR

Printed/Typed Name: Raymond T. Cadorette Agent for VMS | Signature | Month Day Year: 10/29/13

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jeff Hanlon | Signature | Date: 10/29/13

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: William J Polk | Signature | Date: 10/31/13

ORIGINAL-RETURN TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAR000006734
2. Page 1 of: 1
3. Emergency Response Phone: 800-424-9300
4. Manifest Tracking Number: 006197332 FLE

GENERATOR

5. Generator's Name and Mailing Address
VARIAN Medical System, Inc c/o SHAW Group
100 TECHNOLOGY CENTER DRIVE
STOUGHTON, MA
Generator's Phone: 650-424-6103

Generator's Site Address (if different than mailing address)
VARIAN Medical Systems
FORMER VARIAN FACILITY
150 SOHIER ROAD
BEVERLY, MA 01915

6. Transporter 1 Company Name: HORWITH TRUCKS INC
U.S. EPA ID Number: PAD146714874

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
SIEMENS INDUSTRY, INC
3333 MUTAHAR STREET
TAMPA, AZ 85344
Facility's Phone: 928-669-5758
U.S. EPA ID Number: AZD982441263

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. HAZARDOUS WASTE SOLID, NOS (SOLVENTS) 9, NA 3077, PG III	24	DM	4800	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
9a) SPENT VAPOR CARBON)
PROFILE # W903820H-1 EXP: 12/12/13

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Raymond J. Cadorette Agent for VMS
Signature:
Month: 2 Day: 11 Year: 13

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JOHN M QUINN
Signature:
Month: 2 Day: 14 Year: 13
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

APPENDIX C

GROUNDWATER GAUGING RESULTS, PHYSICAL PARAMETER DATA

Appendix C
WATER LEVEL MONITORING DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
AP-12-BR	09/04/12	71.32	20.00	51.32	
AP-12-BR	09/13/12	71.32	20.00	51.32	
AP-12-BR	09/27/12	71.32	20.04	51.28	
AP-12-BR	10/16/12	71.32	19.91	51.41	
AP-12-BR	10/26/12	71.32	NM	NA	
AP-12-BR	11/03/12	71.32	19.60	51.72	
AP-12-BR	11/27/12	71.32	19.48	51.84	
AP-12-DO	09/04/12	71.30	NM	NA	
AP-12-DO	09/13/12	71.30	NM	NA	
AP-12-DO	09/27/12	71.30	NM	NA	
AP-12-DO	10/16/12	71.30	15.51	55.79	
AP-12-DO	10/26/12	71.30	NM	NA	
AP-12-DO	11/03/12	71.30	13.10	58.20	
AP-12-DO	11/27/12	71.30	13.45	57.85	
AP-15-S	10/29/12	45.88	5.80	40.08	DTB = 13.13'
AP-15-S	11/12/12	45.88	5.15	40.73	
AP-19	10/29/12	81.30	13.31	67.99	
AP-19	11/13/12	81.30	13.10	68.20	
AP-20	10/29/12	81.43	13.15	68.28	
AP-20	11/13/12	81.43	13.10	68.33	
AP-21	10/29/12	81.50	14.17	67.33	
AP-21	11/13/12	81.50	14.20	67.30	
AP-22	10/29/12	81.96	17.09	64.87	
AP-22	11/13/12	81.96	16.25	65.71	
AP-26-DO	09/04/12	73.99	NM	NA	
AP-26-DO	09/13/12	73.99	NM	NA	
AP-26-DO	09/27/12	73.99	NM	NA	
AP-26-DO	10/16/12	73.99	17.70	56.29	
AP-26-DO	10/26/12	73.99	NM	NA	
AP-26-DO	11/03/12	73.99	16.95	57.04	
AP-26-DO	11/26/12	73.99	16.41	57.58	
AP-27-DO	09/04/12	77.34	18.00	59.34	
AP-27-DO	09/13/12	77.34	18.21	59.13	
AP-27-DO	09/27/12	77.34	18.03	59.31	
AP-27-DO	10/16/12	77.34	20.46	56.88	
AP-27-DO	10/26/12	77.34	17.82	59.52	
AP-27-DO	11/03/12	77.34	18.55	58.79	
AP-27-DO	11/27/12	77.34	18.30	59.04	
AP-30-DO	11/03/12	NA	24.61	NA	
AP-31-DO	11/03/12	NA	22.53	NA	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
AP-32-DO	11/03/12	NA	22.26	NA	
B-2	11/03/12	80.40	2.40	78.00	
B-2	11/27/12	80.40	2.85	77.55	
B-3	10/29/12	66.23	8.95	57.28	DTB = 13.43'
B-3	11/13/12	66.23	8.70	57.53	
BW-01	10/26/12	64.71	6.55	58.16	
BW-02	10/26/12	65.00	7.98	57.02	
BW-03	10/26/12	65.18	8.22	56.96	
BW-04	10/26/12	65.01	8.03	56.98	
BW-04	11/03/12	65.01	7.38	57.63	
BW-04	11/26/12	65.01	7.70	57.31	
BW-04	01/21/13	65.01	7.04	57.97	
BW-04	02/06/13	65.01	7.11	57.90	DTB = 13.33'
BW-05	10/26/12	65.17	8.17	57.00	
BW-05	11/03/12	65.17	7.52	57.65	
BW-05	11/26/12	65.17	8.40	56.77	
BW-05	01/21/13	65.17	7.55	57.62	
BW-05	02/06/13	65.17	7.28	57.89	DTB = 10.44'
BW-06	10/26/12	65.44	8.50	56.94	
BW-06	11/03/12	65.44	7.86	57.58	
BW-06	11/26/12	65.44	8.68	56.76	
BW-06	01/21/13	65.44	7.20	58.24	
BW-06	02/06/13	65.44	7.62	57.82	DTB = 14.10'
BW-08	10/26/12	65.44	8.52	56.92	
BW-08	11/03/12	65.44	7.92	57.52	
BW-08	11/26/12	65.44	8.77	56.67	
BW-08	01/21/13	65.44	7.65	57.79	
BW-08	02/06/13	65.44	7.71	57.73	DTB = 14.85'
BW-09	10/26/12	65.30	8.44	56.86	
BW-09	11/03/12	65.30	7.86	57.44	
BW-09	11/26/12	65.30	8.72	56.58	
BW-09	01/21/13	65.30	7.57	57.73	
BW-09	02/06/13	65.30	7.68	57.62	DTB = 13.20'
BW-10	10/26/12	65.25	8.39	56.86	
CL02-BR	09/04/12	62.79	8.20	54.59	
CL02-BR	09/13/12	62.79	8.15	54.64	
CL02-BR	09/27/12	62.79	8.23	54.56	
CL02-BR	10/16/12	62.79	7.88	54.91	
CL02-BR	10/26/12	62.79	8.38	54.41	
CL02-BR	10/29/12	62.79	8.11	54.68	DTB = 42.00'
CL02-BR	11/12/12	62.79	7.63	55.16	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
CL02-DO	09/04/12	62.76	8.35	54.41	
CL02-DO	09/13/12	62.76	8.54	54.22	
CL02-DO	09/27/12	62.76	8.61	54.15	
CL02-DO	10/16/12	62.76	8.25	54.51	
CL02-DO	10/26/12	62.76	8.58	54.18	
CL03-BR	09/04/12	50.39	9.25	41.14	
CL03-BR	09/13/12	50.39	9.14	41.25	
CL03-BR	09/27/12	50.39	9.27	41.12	
CL03-BR	10/16/12	50.39	9.56	40.83	
CL03-BR	10/26/12	50.39	9.40	40.99	
CL10-BR	10/29/12	72.28	6.81	65.47	
CL10-BR	11/12/12	72.28	6.55	65.73	
CL10-DO	10/29/12	72.54	6.20	66.34	
CL10-DO	11/12/12	72.54	6.30	66.24	
CL10-S	10/29/12	72.54	5.23	67.31	
CL10-S	11/12/12	72.54	5.40	67.14	
GZ-4	10/29/12	45.13	6.33	38.80	DTB = 13.01'
GZ-4	11/12/12	45.13	5.92	39.21	
MW-002R	09/04/12	62.59	5.90	56.69	
MW-002R	09/13/12	62.59	5.98	56.61	
MW-002R	09/27/12	62.59	6.08	56.51	
MW-002R	10/16/12	62.59	5.62	56.97	
MW-002R	10/26/12	62.59	5.93	56.66	
MW-008	10/26/12	68.96	12.30	56.66	
MW-008	11/03/12	68.96	11.82	57.14	
MW-008	11/27/12	68.96	12.12	56.84	
MW-008	01/21/13	68.96	11.52	57.44	
MW-008	02/06/13	68.96	11.64	57.32	DTB = 17.82'
MW-009	10/26/12	63.48	6.35	57.13	
MW-009	11/03/12	63.48	18.71	44.77	
MW-009	11/27/12	63.48	19.75	43.73	
MW-009	01/21/13	63.48	8.66	54.82	
MW-009	02/06/13	63.48	6.71	56.77	DTB = 21.00'
MW-009A	10/29/12	63.86	6.43	57.43	DTB = 14.43'
MW-009A	11/13/12	63.86	6.60	57.26	
MW-013	11/03/12	69.11	11.35	57.76	
MW-013	11/26/12	69.11	11.57	57.54	
MW-1_32-TOZER	10/29/12	64.03	Dry	NA	DTB = 8.52'
MW-1_32-TOZER	11/12/12	64.03	Dry	NA	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
MW-2_32-TOZER	10/29/12	70.83	7.49	63.34	
MW-2_32-TOZER	11/12/12	70.83	NM	NA	Well inaccessible.
MW-2_32-TOZER	11/27/12	70.83	7.70	63.13	
MW-4_32-TOZER	10/29/12	54.54	5.63	48.91	
MW-4_32-TOZER	11/12/12	54.54	8.55	45.99	
MW-5_32-TOZER	10/29/12	54.61	7.36	47.25	
MW-5_32-TOZER	11/12/12	54.61	6.30	48.31	
OB-08-S	10/29/12	38.36	6.67	31.69	DTB = 13.12'
OB-08-S	11/12/12	38.36	6.04	32.32	
OB-09-BR	11/03/12	65.25	10.14	55.11	
OB-09-BR	11/26/12	65.25	10.30	54.95	
OB-09-BR	01/21/13	65.25	9.18	56.07	
OB-09-BR	02/06/13	65.25	9.45	55.80	DTB = 102.00'
OB-09-DO	10/26/12	65.11	10.46	54.65	
OB-09-DO	11/03/12	65.11	10.05	55.06	
OB-09-DO	11/26/12	65.11	10.26	54.85	
OB-09-DO	01/21/13	65.11	9.30	55.81	
OB-09-DO	02/06/13	65.11	9.45	55.66	DTB = 93.15'
OB-09-S	10/26/12	65.22	8.23	56.99	
OB-09-S	11/03/12	65.22	7.54	57.68	
OB-09-S	11/26/12	65.22	8.40	56.82	
OB-09-S	01/21/13	65.22	7.33	57.89	
OB-09-S	02/06/13	65.22	7.38	57.84	DTB = 24.10'
OB-10-DO	09/04/12	71.00	13.81	57.19	
OB-10-DO	09/13/12	71.00	13.93	57.07	
OB-10-DO	09/27/12	71.00	14.05	56.95	
OB-10-DO	10/16/12	71.00	13.90	57.10	
OB-10-DO	10/26/12	71.00	13.69	57.31	
OB-10-S	11/03/12	70.91	10.97	59.94	
OB-10-S	11/27/12	70.91	11.70	59.21	
OB-10-S	01/21/13	70.91	10.40	60.51	
OB-10-S	02/06/13	70.91	10.77	60.14	DTB = 30.12'
OB-12-BR	09/04/12	73.67	21.20	52.47	
OB-12-BR	09/13/12	73.67	21.32	52.35	
OB-12-BR	09/27/12	73.67	21.42	52.25	
OB-12-BR	10/16/12	73.67	21.23	52.44	
OB-12-BR	10/26/12	73.67	21.16	52.51	
OB-12-DO	09/04/12	73.54	NM	NA	
OB-12-DO	09/13/12	73.54	NM	NA	
OB-12-DO	09/27/12	73.54	NM	NA	
OB-12-DO	10/16/12	73.54	18.61	54.93	
OB-12-DO	10/26/12	73.54	NM	NA	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
OB-12-DO	11/03/12	73.54	17.09	56.45	
OB-12-DO	11/26/12	73.54	16.90	56.64	
OB-12-S	11/03/12	73.46	14.59	58.87	
OB-12-S	11/27/12	73.46	12.80	60.66	
OB-12-S	01/21/13	73.46	13.37	60.09	
OB-12-S	02/06/13	73.46	13.50	59.96	DTB = 27.07'
OB-15-S	10/26/12	63.26	6.55	56.71	
OB-15-S	11/03/12	63.26	5.82	57.44	
OB-15-S	11/27/12	63.26	6.80	56.46	
OB-15-S	01/21/13	63.26	5.15	58.11	
OB-15-S	02/06/13	63.26	5.18	58.08	DTB = 19.80'
OB-18-S	10/29/12	44.98	4.95	40.03	DTB = 12.27'
OB-18-S	11/12/12	44.98	4.50	40.48	
OB-19-BR	09/04/12	74.26	23.35	50.91	
OB-19-BR	09/13/12	74.26	23.48	50.78	
OB-19-BR	09/27/12	74.26	23.58	50.68	
OB-19-BR	10/16/12	74.26	23.41	50.85	
OB-19-BR	10/26/12	74.26	23.36	50.90	
OB-19-DO	09/04/12	74.28	17.40	56.88	
OB-19-DO	09/13/12	74.28	17.12	57.16	
OB-19-DO	09/27/12	74.28	18.87	55.41	
OB-19-DO	10/16/12	74.28	18.85	55.43	
OB-19-DO	10/26/12	74.28	17.59	56.69	
OB-19-DO	11/03/12	74.28	18.71	55.57	
OB-19-DO	11/26/12	74.28	18.17	56.11	
OB-20-S	10/29/12	43.79	3.65	40.14	
OB-20-S	11/12/12	43.79	3.30	40.49	
OB-25-BR	09/04/12	74.26	NM	NA	
OB-25-BR	09/13/12	74.26	NM	NA	
OB-25-BR	09/27/12	74.26	NM	NA	
OB-25-BR	10/16/12	74.26	26.08	48.18	
OB-25-BR	10/26/12	74.26	NM	NA	
OB-25-BR	11/03/12	74.26	24.67	49.59	
OB-25-BR	11/26/12	74.26	24.40	49.86	
OB-25-DO	09/04/12	74.52	22.95	51.57	
OB-25-DO	09/13/12	74.52	23.38	51.14	
OB-25-DO	09/27/12	74.52	23.49	51.03	
OB-25-DO	10/16/12	74.52	23.33	51.19	
OB-25-DO	10/26/12	74.52	22.87	51.65	
OB-26-BR	09/04/12	74.44	22.45	51.99	
OB-26-BR	09/13/12	74.44	22.55	51.89	
OB-26-BR	09/27/12	74.44	22.71	51.73	
OB-26-BR	10/16/12	74.44	22.57	51.87	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA (Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
OB-26-BR	10/26/12	74.44	22.18	52.26	
OB-26-DO	09/04/12	74.48	16.80	57.68	
OB-26-DO	09/13/12	74.48	17.34	57.14	
OB-26-DO	09/27/12	74.48	17.11	57.37	
OB-26-DO	10/16/12	74.48	17.55	56.93	
OB-26-DO	10/26/12	74.48	16.71	57.77	
OB-27-BR	09/04/12	71.68	NM	NA	
OB-27-BR	09/13/12	71.68	NM	NA	
OB-27-BR	09/27/12	71.68	NM	NA	
OB-27-BR	10/16/12	71.68	26.00	45.68	
OB-27-BR	10/26/12	71.68	NM	NA	
OB-27-BR	11/03/12	71.68	29.81	41.87	
OB-27-BR	11/26/12	71.68	27.82	43.86	
OB-32-DO	11/03/12	75.70	14.18	61.52	
OB-32-DO	11/27/12	75.70	18.35	57.35	
OB-34-DO	09/04/12	75.10	18.05	57.05	
OB-34-DO	09/13/12	75.10	18.79	56.31	
OB-34-DO	09/27/12	75.10	19.04	56.06	
OB-34-DO	10/16/12	75.10	19.08	56.02	
OB-34-DO	10/26/12	75.10	18.54	56.56	
OB-34-DO	11/03/12	75.10	18.81	56.29	
OB-34-DO	11/27/12	75.10	18.95	56.15	
OB-35-DO	09/04/12	81.41	NM	NA	
OB-35-DO	09/13/12	81.41	NM	NA	
OB-35-DO	09/27/12	81.41	NM	NA	
OB-35-DO	10/16/12	81.41	11.67	69.74	
OB-35-DO	10/26/12	81.41	NM	NA	
OB-35-DO	11/03/12	81.41	11.74	69.67	
OB-35-DO	11/27/12	81.41	11.40	70.01	
OB-36-DO	09/04/12	75.92	NM	NA	
OB-36-DO	09/13/12	75.92	19.67	56.25	
OB-36-DO	09/27/12	75.92	19.72	56.20	
OB-36-DO	10/16/12	75.92	19.38	56.54	
OB-36-DO	10/26/12	75.92	19.38	56.54	
OB-36-DO	11/03/12	75.92	19.04	56.88	
OB-36-DO	11/27/12	75.92	19.41	56.51	
OB-37-DO	09/04/12	75.86	NM	NA	
OB-37-DO	09/13/12	75.86	20.41	55.45	
OB-37-DO	09/27/12	75.86	20.48	55.38	
OB-37-DO	10/16/12	75.86	20.27	55.59	
OB-37-DO	10/26/12	75.86	20.36	55.50	
OB-37-DO	11/03/12	75.86	20.01	55.85	
OB-37-DO	11/27/12	75.86	20.05	55.81	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

Appendix C
WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
OB-38-DO	09/04/12	77.45	9.38	68.07	
OB-38-DO	09/13/12	77.45	9.74	67.71	
OB-38-DO	09/27/12	77.45	9.92	67.53	
OB-38-DO	10/16/12	77.45	9.52	67.93	
OB-38-DO	10/26/12	77.45	9.48	67.97	
OB-38-DO	11/03/12	77.45	9.31	68.14	
OB-38-DO	11/27/12	77.45	9.45	68.00	
OB-39-DO	09/04/12	79.01	19.85	59.16	
OB-39-DO	09/13/12	79.01	20.06	58.95	
OB-39-DO	09/27/12	79.01	20.37	58.64	
OB-39-DO	10/16/12	79.01	20.23	58.78	
OB-39-DO	10/26/12	79.01	19.66	59.35	
OB-41-S	10/29/12	33.26	4.36	28.90	DTB = 14.32'
OB-41-S	11/12/12	33.26	4.23	29.03	
OB-42-S	10/29/12	51.40	6.42	44.98	DTB = 14.62'
OB-42-S	11/12/12	51.40	6.06	45.34	
OB-43-S	10/29/12	52.58	12.31	40.27	DTB = 16.90'
OB-43-S	11/12/12	52.58	11.73	40.85	
P-09R	10/29/12	37.86	3.44	34.42	
P-09R	11/12/12	37.86	4.05	33.81	
P-19A	10/29/12	47.51	9.25	38.26	
P-19A	11/12/12	47.51	7.30	40.21	
UNNAMED_STREAM	09/13/12	NA	Dry	NA	
UNNAMED_STREAM	09/27/12	NA	Dry	NA	
UNNAMED_STREAM	11/27/12	NA	Dry	NA	
W-1	10/29/12	51.37	4.96	46.41	DTB = 11.81'
W-1	11/12/12	51.37	4.87	46.50	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
AP-12-BR	09/04/12	Dark Purple	--	--	--	--
AP-12-BR	09/13/12	Dark Purple	--	--	--	--
AP-12-BR	09/27/12	Dark Purple	--	--	--	--
AP-12-BR	10/16/12	Dark Purple	--	--	--	--
AP-12-BR	10/26/12	Dark Purple	--	--	--	--
AP-12-DO	09/04/12	Dark Purple	--	--	--	--
AP-12-DO	09/13/12	Dark Purple	--	--	--	--
AP-12-DO	09/27/12	Dark Purple	--	--	--	--
AP-12-DO	10/16/12	Dark Purple	--	--	--	--
AP-12-DO	10/26/12	Dark Purple	--	--	--	--
AP-26-DO	09/04/12	Dark Purple	--	--	--	--
AP-26-DO	09/13/12	Dark Purple	--	--	--	--
AP-26-DO	09/27/12	Dark Purple	--	--	--	--
AP-26-DO	10/16/12	Dark Purple	--	--	--	--
AP-26-DO	10/26/12	Dark Purple	--	--	--	--
AP-27-DO	09/04/12	Clear	-33.2	8.61	0.834	0.32
AP-27-DO	09/13/12	Clear	100.9	8.30	1.011	0.93
AP-27-DO	09/27/12	Clear	103.4	8.43	0.984	0.85
AP-27-DO	10/16/12	Dark Purple	--	--	--	--
AP-27-DO	10/26/12	Clear	-92.3	8.60	0.912	0.51
BW-01	10/26/12	Clear	4.6	4.96	1.099	2.03
BW-02	10/26/12	Clear	-82.0	6.32	1.393	0.29
BW-03	10/26/12	Clear	-107.1	6.45	0.769	0.16
BW-04	10/26/12	Clear	-89.1	6.79	0.602	0.26
BW-04	01/21/13	Clear	-93.5	6.79	0.635	0.32
BW-05	10/26/12	Clear	-135.6	6.34	2.559	0.21
BW-05	01/21/13	Clear	15.4	6.55	2.078	0.52
BW-06	10/26/12	Clogged with floc.	--	--	--	--
BW-06	01/21/13	Clear	-62.5	6.30	0.525	0.41
BW-08	10/26/12	Clear	-88.1	6.15	2.384	0.26
BW-08	01/21/13	Clear	-106.3	6.59	1.754	0.72
BW-09	10/26/12	Clear	-111.7	6.30	2.362	0.15
BW-09	01/21/13	Clear	-118.1	6.55	1.725	0.22
BW-10	10/26/12	Clear	-104.1	6.64	2.501	0.16
CL02-BR	09/04/12	Clear	-185.7	9.57	0.448	0.47
CL02-BR	09/13/12	Clear	15.0	9.75	0.489	0.87
CL02-BR	09/27/12	Clear	106.0	9.88	0.475	0.49
CL02-BR	10/16/12	Clear	-35.2	9.83	0.487	0.82
CL02-BR	10/26/12	Clear	-107.4	9.61	0.452	0.43
CL02-DO	09/04/12	Clear	144.1	7.61	0.560	2.06
CL02-DO	09/13/12	Clear	31.6	8.29	0.588	1.89
CL02-DO	09/27/12	Clear	82.5	6.91	0.568	1.20

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
CL02-DO	10/16/12	Clear	18.9	6.64	0.575	0.74
CL02-DO	10/26/12	Clear	152.8	6.44	0.577	2.28
CL03-BR	09/04/12	Clear	32.3	10.22	0.247	0.29
CL03-BR	09/13/12	Clear	55.4	10.11	0.269	0.73
CL03-BR	09/27/12	Clear	84.60	10.00	0.259	0.70
CL03-BR	10/16/12	Clear	38.4	10.16	0.267	1.02
CL03-BR	10/26/12	Clear	12.5	10.05	0.245	0.26
MW-002R	09/04/12	Clear	172.4	6.50	0.827	0.42
MW-002R	09/13/12	Clear	143.8	6.53	2.082	0.48
MW-002R	09/27/12	Clear	193.2	5.67	2.272	0.33
MW-002R	10/16/12	Clear	123.3	6.14	1.741	0.87
MW-002R	10/26/12	Clear	232.1	5.64	1.721	0.48
MW-008	10/26/12	Clear	-154.0	6.90	1.054	0.09
MW-008	01/21/13	Clear	-144.8	7.08	0.843	0.59
MW-009	10/26/12	Well clogged.	--	--	--	--
MW-009	01/21/13	Clear	12.0	5.43	3.539	1.56
OB-09-BR	01/21/13	Clear	-172.1	7.53	0.310	0.40
OB-09-DO	10/26/12	Clear	-99.2	6.00	0.212	0.15
OB-09-DO	01/21/13	Clear	-16.1	6.54	0.112	2.26
OB-09-S	10/26/12	Clear	-62.2	5.80	0.276	0.08
OB-09-S	01/21/13	Clear	-77.9	6.43	1.539	0.30
OB-10-DO	09/04/12	Clear	91.5	7.83	0.406	0.77
OB-10-DO	09/13/12	Clear	-90.6	7.67	0.475	0.27
OB-10-DO	09/27/12	Clear	-22.4	7.66	0.463	0.27
OB-10-DO	10/16/12	Clear	-137.6	7.72	0.477	0.43
OB-10-DO	10/26/12	Clear	-85.0	7.73	0.472	0.49
OB-10-S	01/21/13	Clear	-27.2	6.79	0.297	6.92
OB-12-BR	09/04/12	Clear	-22.6	10.50	0.098	0.62
OB-12-BR	09/13/12	Clear	-44.3	10.32	0.108	0.35
OB-12-BR	09/27/12	Clear	47.1	10.47	0.104	0.94
OB-12-BR	10/16/12	Clear	-45.7	10.39	0.103	1.29
OB-12-BR	10/26/12	Clear	15.6	10.40	0.115	0.38
OB-12-DO	09/04/12	Dark Purple	--	--	--	--
OB-12-DO	09/13/12	Dark Purple	--	--	--	--
OB-12-DO	09/27/12	Dark Purple	--	--	--	--
OB-12-DO	10/16/12	Dark Purple	--	--	--	--
OB-12-DO	10/26/12	Dark Purple	--	--	--	--
OB-12-S	01/21/13	Clear	11.0	7.14	0.550	3.43
OB-15-S	10/26/12	Well clogged.	--	--	--	--
OB-15-S	01/21/13	Clear	-96.5	6.48	2.180	0.99
OB-19-BR	09/04/12	Clear	-108.4	11.02	0.816	0.52
OB-19-BR	09/13/12	Clear	-156.4	10.80	0.889	0.61
OB-19-BR	09/27/12	Clear	-49.9	10.93	0.866	0.67

NOTES: -- = Not Analyzed
mV=millivolts
ORP= Oxidation reduction potential
S/m= Siemans per meter
Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
OB-19-BR	10/16/12	Clear	-10.2	10.88	0.889	0.77
OB-19-BR	10/26/12	Clear	-101.2	10.92	0.802	0.76
OB-19-DO	09/04/12	Clear	-43.1	7.56	0.371	0.79
OB-19-DO	09/13/12	Clear	-78.3	7.35	0.593	0.53
OB-19-DO	09/27/12	Clear	-66.8	7.17	0.578	0.29
OB-19-DO	10/16/12	Clear	-82.0	7.35	0.575	0.76
OB-19-DO	10/26/12	Clear	-69.4	7.18	0.496	0.56
OB-25-BR	09/04/12	Dark Purple	--	--	--	--
OB-25-BR	09/13/12	Dark Purple	--	--	--	--
OB-25-BR	09/27/12	Dark Purple	--	--	--	--
OB-25-BR	10/16/12	Dark Purple	--	--	--	--
OB-25-BR	10/26/12	Dark Purple	--	--	--	--
OB-25-DO	09/04/12	Clear	101.1	8.02	0.545	0.67
OB-25-DO	09/13/12	Clear	-81.2	8.59	0.588	0.70
OB-25-DO	09/27/12	Clear	-50.9	8.04	0.572	0.61
OB-25-DO	10/16/12	Clear	-83.1	8.10	0.586	1.01
OB-25-DO	10/26/12	Clear	-60.9	8.06	0.570	0.64
OB-26-BR	09/04/12	Clear	-351.2	9.17	0.104	0.59
OB-26-BR	09/13/12	Clear	-404.8	9.13	0.113	0.63
OB-26-BR	09/27/12	Clear	-287.8	9.33	0.110	0.63
OB-26-BR	10/16/12	Clear	-380.9	9.18	0.112	0.88
OB-26-BR	10/26/12	Clear	-305.2	9.18	0.125	0.48
OB-26-DO	09/04/12	Clear	-18.5	8.70	0.278	0.87
OB-26-DO	09/13/12	Clear	-154.2	8.27	0.340	0.60
OB-26-DO	09/27/12	Clear	-109.4	7.68	0.287	0.32
OB-26-DO	10/16/12	Clear	-169.4	8.04	0.351	0.51
OB-26-DO	10/26/12	Clear	-86.2	9.61	0.459	0.52
OB-27-BR	09/04/12	Dark Purple	--	--	--	--
OB-27-BR	09/13/12	Dark Purple	--	--	--	--
OB-27-BR	09/27/12	Dark Purple	--	--	--	--
OB-27-BR	10/16/12	Dark Purple	--	--	--	--
OB-27-BR	10/26/12	Dark Purple	--	--	--	--
OB-34-DO	09/04/12	Light Purple	--	--	--	--
OB-34-DO	09/13/12	Light Purple	--	--	--	--
OB-34-DO	09/27/12	Light Purple	--	--	--	--
OB-34-DO	10/16/12	Light Purple	--	--	--	--
OB-34-DO	10/26/12	Light Purple	--	--	--	--
OB-35-DO	09/04/12	Dark Purple	--	--	--	--
OB-35-DO	09/13/12	Dark Purple	--	--	--	--
OB-35-DO	09/27/12	Dark Purple	--	--	--	--
OB-35-DO	10/16/12	Dark Purple	--	--	--	--
OB-35-DO	10/26/12	Dark Purple	--	--	--	--
OB-36-DO	09/13/12	Clear	92.8	8.59	0.172	5.77

NOTES: -- = Not Analyzed
mV=millivolts
ORP= Oxidation reduction potential
S/m= Siemans per meter
Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
OB-36-DO	09/27/12	Clear	169.2	7.51	0.175	4.06
OB-36-DO	10/16/12	Clear	52.3	8.39	0.173	3.44
OB-36-DO	10/26/12	Clear	153.6	7.31	0.244	6.05
OB-37-DO	09/13/12	Light Purple	--	--	--	--
OB-37-DO	09/27/12	Light Purple	--	--	--	--
OB-37-DO	10/16/12	Light Purple	--	--	--	--
OB-37-DO	10/26/12	Light Purple	--	--	--	--
OB-38-DO	09/04/12	Clear	-170.6	8.48	0.174	0.20
OB-38-DO	09/13/12	Clear	110.9	8.01	2.411	0.31
OB-38-DO	09/27/12	Clear	-8.6	7.61	2.405	0.21
OB-38-DO	10/16/12	Clear	0.9	7.81	1.617	2.48
OB-38-DO	10/26/12	Clear	-115.6	7.63	2.486	0.18
OB-39-DO	09/04/12	Clear	53.0	9.55	0.145	1.46
OB-39-DO	09/13/12	Clear	-77.2	8.41	0.307	0.59
OB-39-DO	09/27/12	Clear	1.9	7.95	0.299	0.57
OB-39-DO	10/16/12	Clear	-26.8	8.24	0.273	0.96
OB-39-DO	10/26/12	Clear	-38.2	7.88	0.285	0.62
STR-03	09/13/12	Clear	--	--	--	--
STR-03	09/27/12	Clear	--	--	--	--
STR-03	10/16/12	Clear	--	--	--	--
UNNAMED_STREAM	10/16/12	Clear	--	--	--	--

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

APPENDIX D

LABORATORY ANALYTICAL REPORTS

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 146898

Prepared By: Dale Dailey

Date : 3/4/2013

Matrix: Groundwater

Analyte Group : Volatile Organics
Total Organic Carbon (TOC)
Dissolved Gases

Analytical Method : EPA Method 8260C
EPA Method SM20 5310C
EPA Method RSK-175

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1300809

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
1/31, 2/6/2013	8260C		14 Days	2/13/13, 2/14/13
2/6/2013	SM20 5310C		28 Days	2/11/13, 2/13/13
2/6/13	RSK-175		14 Days	2/18/13

Sample temperature within QC limits: Yes, 4.6°C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank:	EPA 8260C	2/13, 2/14/13
	EPA SM20 5310C	2/11, 2/13/2013
	EPA RSK 175	2/18/2013

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
VOC Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples MW-9 (20'), STR-3, and unnamed stream were re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. The analytes over the calibration range are flagged with an "E" and the diluted analytes flagged with a "D".

RSK175; Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples Unnamed Stream, BW-6(13.2'), OB-9(23.1'), BW-9 (12.2'), BW-4(12.35'), and BW-8(13.6') were re-analyzed at a larger dilution to bring target analytes within the method. The calibration range over the calibration range are flagged with an "E" and the diluted analytes flagged with a "D".

Reviewed By: Pernilla Haley 3/27/13

February 21, 2013 Service Request No: R1300809

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/146898-02000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on February 7, 2013. For your reference, these analyses have been assigned our service request number **R1300809**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael K. Perry

Michael Perry
Laboratory Manager

Columbia Analytical Services
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company
Environmental www.caslab.com ▪ www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw Environmental, Inc	**Service Request No.:**	R1300809
Project:	Varian Beverly	**Project Number:**	146898-02000000
Sample Matrix:	Water	**Date Received:**	2/07/13

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 2/06/13 and received at CAS in good condition at a cooler temperature of 4.6 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and CAS Job #.

Volatile Organics

Seventeen water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples MW-9 (20'), STR-3 and Unnamed Stream were re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. The analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial and continuing calibrations were compliant.

All Surrogate Standard recoveries were within QC limits.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

All samples were analyzed within the required holding time of 14 days.

No other analytical or QC problems were encountered with these analyses.

Modified RSK-175

Eleven water samples were analyzed for the hydrocarbon gases Methane, Ethane, and Ethene by modified RSK-175.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples Unnamed Stream, BW-6 (13.1'), OB9 (23.1'), BW-9 (12.2'), BW-4 (12.35'), and BW-8 (13.6') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All the initial and continuing calibration criteria were met for all analytes.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

TOC Analyses

Eleven water samples were analyzed for TOC by method SM20 5310C.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

No analytical or QC problems were encountered.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1300809

Lab ID	Client ID
R1300809-001	EB-1
R1300809-002	TB-1
R1300809-003	OB15-S (18.8')
R1300809-004	MW-9 (20')
R1300809-005	UNNAMED STREAM
R1300809-006	STR-3
R1300809-007	OB9-BR (101')
R1300809-008	BW-6 (13.1')
R1300809-009	OB9-S (23.1')
R1300809-010	OB10-S (29.1')
R1300809-011	OB9-DO (87.2')
R1300809-012	BW8 (13.6')
R1300809-013	MW-8 (16.8')
R1300809-014	BW-9 (12.2')
R1300809-015	BW-5 (9.4')
R1300809-016	OB12-S (27.4')
R1300809-017	BW-4 (12.35')

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146898-02000000 Bio

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1300809 – 001 - 017

Matrices: X Groundwater Soil/Sediment Drinking Water Air Other: _____

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6850 Perchlorate CAM VIII B	Other: TOC/RSk-175

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (site list)	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Laboratory Director

Printed Name: Michael K. Perry **Date:** 2/21/13 00005

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Oscar C. Parcaba

Director, Division of Environmental Analysis

Issued: 01 JUL 2012
Expires: 30 JUN 2013

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0800
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 11:41
Sample Name:	EB-1	**Units:**	µg/L
Lab Code:	R1300809-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3205.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**13**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 11:41	
Dibromofluoromethane	102	70-130	2/13/13 11:41	
Toluene-d8	109	70-130	2/13/13 11:41	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	1/31/13 0735
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 12:09
Sample Name:	TB-1	**Units:**	µg/L
Lab Code:	R1300809-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3206.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 12:09	
Dibromofluoromethane	101	70-130	2/13/13 12:09	
Toluene-d8	110	70-130	2/13/13 12:09	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0830
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	OB15-S (18.8')		
Lab Code:	R1300809-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**620**		mg/L	100	100	NA	2/11/13 19:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0830
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 12:37
Sample Name:	OB15-S (18.8')	**Units:**	µg/L
Lab Code:	R1300809-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3207.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**2.5**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**4.0**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**32**		2.0	
156-59-2	cis-1,2-Dichloroethene	**35**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/13/13 12:37	
Dibromofluoromethane	102	70-130	2/13/13 12:37	
Toluene-d8	109	70-130	2/13/13 12:37	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0830
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 10:35
Sample Name:	OB15-S (18.8')	**Units:**	µg/L
Lab Code:	R1300809-003	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1004.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**280**		250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**24000**		250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0900
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	MW-9 (20')		
Lab Code:	R1300809-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**7200**		mg/L	1000	1000	NA	2/11/13 19:34	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0900
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 13:05
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1300809-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3208.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**8.3**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**5.2**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**3.2**		2.0	
127-18-4	Tetrachloroethene (PCE)	**5.8**		2.0	
79-01-6	Trichloroethene (TCE)	**23**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**400**	E	2.0	
156-59-2	cis-1,2-Dichloroethene	**550**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**2.9**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/13/13 13:05	
Dibromofluoromethane	100	70-130	2/13/13 13:05	
Toluene-d8	109	70-130	2/13/13 13:05	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0900
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/14/13 11:42
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1300809-004	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3233.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	**20**	D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	**450**	D	10	
156-59-2	cis-1,2-Dichloroethene	**600**	D	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	2/14/13 11:42	
Dibromofluoromethane	103	70-130	2/14/13 11:42	
Toluene-d8	112	70-130	2/14/13 11:42	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0900
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 10:48
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1300809-004	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1005.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**2200**		250	
74-85-1	Ethene	**6800**		250	
74-82-8	Methane	**23000**		250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	UNNAMED STREAM		
Lab Code:	R1300809-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**4.5**		mg/L	1.0	1	NA	2/11/13 20:35	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 13:33
Sample Name:	UNNAMED STREAM	**Units:**	µg/L
Lab Code:	R1300809-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3209.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**19**		10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**1600**	E	10	
79-01-6	Trichloroethene (TCE)	**1400**	E	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	**180**		10	
156-59-2	cis-1,2-Dichloroethene	**1900**	E	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	**12**		10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	2/13/13 13:33	
Dibromofluoromethane	101	70-130	2/13/13 13:33	
Toluene-d8	110	70-130	2/13/13 13:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/14/13 12:10
Sample Name:	UNNAMED STREAM	**Units:**	µg/L
Lab Code:	R1300809-005	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3234.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**1700**	D	40	
79-01-6	Trichloroethene (TCE)	**1500**	D	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	**190**	D	40	
156-59-2	cis-1,2-Dichloroethene	**2200**	D	40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/14/13 12:10	
Dibromofluoromethane	102	70-130	2/14/13 12:10	
Toluene-d8	111	70-130	2/14/13 12:10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 10:58
Sample Name:	UNNAMED STREAM	**Units:**	µg/L
Lab Code:	R1300809-005	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1006.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**33**		2.5	
74-85-1	Ethene	**100**		2.5	
74-82-8	Methane	**560**	E	2.5	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 11:08
Sample Name:	UNNAMED STREAM	**Units:**	µg/L
Lab Code:	R1300809-005	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1007.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**32**	D	10	
74-85-1	Ethene	**97**	D	10	
74-82-8	Methane	**540**	D	10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 14:01
Sample Name:	STR-3	**Units:**	µg/L
Lab Code:	R1300809-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3210.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**13**		2.0	
79-01-6	Trichloroethene (TCE)	**32**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**20**		2.0	
156-59-2	cis-1,2-Dichloroethene	**310**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 14:01	
Dibromofluoromethane	100	70-130	2/13/13 14:01	
Toluene-d8	109	70-130	2/13/13 14:01	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/14/13 12:38
Sample Name:	STR-3	**Units:**	µg/L
Lab Code:	R1300809-006	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3235.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**17**	D	5.0	
79-01-6	Trichloroethene (TCE)	**43**	D	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	**25**	D	5.0	
156-59-2	cis-1,2-Dichloroethene	**430**	D	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/14/13 12:38	
Dibromofluoromethane	103	70-130	2/14/13 12:38	
Toluene-d8	110	70-130	2/14/13 12:38	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	OB9-BR (101')		
Lab Code:	R1300809-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**10.3**		mg/L	1.0	1	NA	2/11/13 20:55	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 14:29
Sample Name:	OB9-BR (101')	**Units:**	µg/L
Lab Code:	R1300809-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3211.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**2100**		100	
79-01-6	Trichloroethene (TCE)	**3100**		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	**4700**		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	2/13/13 14:29	
Dibromofluoromethane	103	70-130	2/13/13 14:29	
Toluene-d8	112	70-130	2/13/13 14:29	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 11:42
Sample Name:	OB9-BR (101')	**Units:**	µg/L
Lab Code:	R1300809-007	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1008.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	25	U	25	
74-85-1	Ethene	**64**		25	
74-82-8	Methane	**2300**		25	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1100
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	BW-6 (13.1')		
Lab Code:	R1300809-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**34.1**		mg/L	4.0	4	NA	2/13/13 16:26	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1100
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 14:56
Sample Name:	BW-6 (13.1')	**Units:**	µg/L
Lab Code:	R1300809-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3212.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**2.1**		2.0	
156-59-2	cis-1,2-Dichloroethene	**2.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 14:56	
Dibromofluoromethane	101	70-130	2/13/13 14:56	
Toluene-d8	110	70-130	2/13/13 14:56	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1100
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 11:52
Sample Name:	BW-6 (13.1')	**Units:**	µg/L
Lab Code:	R1300809-008	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1009.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	100	U	100	
74-85-1	Ethene	100	U	100	
74-82-8	Methane	**11000**	E	100	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1100
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 12:02
Sample Name:	BW-6 (13.1')	**Units:**	µg/L
Lab Code:	R1300809-008	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1010.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**11000**	D	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1200
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	OB9-S (23.1')		
Lab Code:	R1300809-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**23.0**		mg/L	4.0	4	NA	2/11/13 21:36	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1200
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 15:24
Sample Name:	OB9-S (23.1')	**Units:**	µg/L
Lab Code:	R1300809-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3213.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**5.6**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**19**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	2/13/13 15:24	
Dibromofluoromethane	100	70-130	2/13/13 15:24	
Toluene-d8	107	70-130	2/13/13 15:24	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1200
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 12:15
Sample Name:	OB9-S (23.1')	**Units:**	µg/L
Lab Code:	R1300809-009	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1011.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**21000**	E	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1200
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 12:47
Sample Name:	OB9-S (23.1')	**Units:**	µg/L
Lab Code:	R1300809-009	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1013.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	250	U	250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**21000**	D	250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1145
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 15:52
Sample Name:	OB10-S (29.1')	**Units:**	µg/L
Lab Code:	R1300809-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3214.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**2.3**		2.0	
79-01-6	Trichloroethene (TCE)	**24**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**7.9**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	2/13/13 15:52	
Dibromofluoromethane	103	70-130	2/13/13 15:52	
Toluene-d8	112	70-130	2/13/13 15:52	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	OB9-DO (87.2')		
Lab Code:	R1300809-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**6.4**		mg/L	1.0	1	NA	2/11/13 21:56	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/14/13 13:05
Sample Name:	OB9-DO (87.2')	**Units:**	µg/L
Lab Code:	R1300809-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3236.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	20	U	20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	**1500**		20	
156-59-2	cis-1,2-Dichloroethene	**1400**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	2/14/13 13:05	
Dibromofluoromethane	100	70-130	2/14/13 13:05	
Toluene-d8	110	70-130	2/14/13 13:05	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1030
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 12:57
Sample Name:	OB9-DO (87.2')	**Units:**	µg/L
Lab Code:	R1300809-011	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1014.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	5.0	U	5.0	
74-85-1	Ethene	5.0	U	5.0	
74-82-8	Methane	**240**		5.0	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	BW8 (13.6')		
Lab Code:	R1300809-012	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**181**		mg/L	40	40	NA	2/11/13 22:16	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 16:47
Sample Name:	BW8 (13.6')	**Units:**	µg/L
Lab Code:	R1300809-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3216.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**21**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	2/13/13 16:47	
Dibromofluoromethane	104	70-130	2/13/13 16:47	
Toluene-d8	113	70-130	2/13/13 16:47	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 13:32
Sample Name:	BW8 (13.6')	**Units:**	µg/L
Lab Code:	R1300809-012	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1016.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**21000**	E	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1000
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 13:45
Sample Name:	BW8 (13.6')	**Units:**	µg/L
Lab Code:	R1300809-012	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1017.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	250	U	250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**21000**	D	250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1110
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 17:15
Sample Name:	MW-8 (16.8')	**Units:**	µg/L
Lab Code:	R1300809-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3217.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**450**		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**400**		5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**14**		5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	**170**		5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	**190**		5.0	
156-59-2	cis-1,2-Dichloroethene	**54**		5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 17:15	
Dibromofluoromethane	102	70-130	2/13/13 17:15	
Toluene-d8	109	70-130	2/13/13 17:15	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	BW-9 (12.2')		
Lab Code:	R1300809-014	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**124**		mg/L	10	10	NA	2/13/13 16:46	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 17:43
Sample Name:	BW-9 (12.2')	**Units:**	µg/L
Lab Code:	R1300809-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3218.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**21**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	2/13/13 17:43	
Dibromofluoromethane	102	70-130	2/13/13 17:43	
Toluene-d8	110	70-130	2/13/13 17:43	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 13:59
Sample Name:	BW-9 (12.2')	**Units:**	µg/L
Lab Code:	R1300809-014	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1018.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**22000**	E	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0930
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 14:14
Sample Name:	BW-9 (12.2')	**Units:**	µg/L
Lab Code:	R1300809-014	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1019.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	250	U	250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**22000**	D	250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0850
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	BW-5 (9.4')		
Lab Code:	R1300809-015	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**105**		mg/L	10	10	NA	2/13/13 17:47	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0850
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 18:10
Sample Name:	BW-5 (9.4')	**Units:**	µg/L
Lab Code:	R1300809-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3219.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**2.5**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 18:10	
Dibromofluoromethane	100	70-130	2/13/13 18:10	
Toluene-d8	109	70-130	2/13/13 18:10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0850
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 14:25
Sample Name:	BW-5 (9.4')	**Units:**	µg/L
Lab Code:	R1300809-015	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1020.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**20000**		200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 1220
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/13/13 18:38
Sample Name:	OB12-S (27.4')	**Units:**	µg/L
Lab Code:	R1300809-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3220.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**6.1**		4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	**7.0**		4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	**260**		4.0	
79-01-6	Trichloroethene (TCE)	**160**		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	2/13/13 18:38	
Dibromofluoromethane	101	70-130	2/13/13 18:38	
Toluene-d8	110	70-130	2/13/13 18:38	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0810
Sample Matrix:	Water	**Date Received:**	2/ 7/13
Sample Name:	BW-4 (12.35')		
Lab Code:	R1300809-017	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**15.3**		mg/L	1.0	1	NA	2/13/13 19:28	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0810
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/14/13 11:14
Sample Name:	BW-4 (12.35')	**Units:**	µg/L
Lab Code:	R1300809-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3232.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**8.4**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**2.0**		2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	2/14/13 11:14	
Dibromofluoromethane	104	70-130	2/14/13 11:14	
Toluene-d8	114	70-130	2/14/13 11:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0810
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 14:35
Sample Name:	BW-4 (12.35')	**Units:**	µg/L
Lab Code:	R1300809-017	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1021.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**14**		5.0	
74-85-1	Ethene	5.0	U	5.0	
74-82-8	Methane	**1400**	E	5.0	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	2/ 6/13 0810
Sample Matrix:	Water	**Date Received:**	2/ 7/13
		Date Analyzed:	2/18/13 15:06
Sample Name:	BW-4 (12.35')	**Units:**	µg/L
Lab Code:	R1300809-017	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1022.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	20	U	20	
74-85-1	Ethene	20	U	20	
74-82-8	Methane	**1200**	D	20	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1300809-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	1.0	U	mg/L	1.0	1	NA	2/11/13 16:12	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1300809-MB2	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	1.0	U	mg/L	1.0	1	NA	2/13/13 15:05	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/13/13 11:14
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1301497-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329037
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021313\A3204.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/13/13 11:14	
Dibromofluoromethane	102	70-130	2/13/13 11:14	
Toluene-d8	109	70-130	2/13/13 11:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/14/13 10:47
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1301520-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	329158
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\021413\A3231.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	2/14/13 10:47	
Dibromofluoromethane	102	70-130	2/14/13 10:47	
Toluene-d8	110	70-130	2/14/13 10:47	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300809
Project:	Varian Beverly/146898-02000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/18/13 09:52
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1301617-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	329571
Data File Name:	1001.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000
Sample Matrix: Water

Service Request: R1300809
Date Analyzed: 2/11/13

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1300809-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM20 5310 C	8.91	10.0	89	86 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000
Sample Matrix: Water

Service Request: R1300809
Date Analyzed: 2/13/13

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1300809-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM20 5310 C	9.37	10.0	94	86 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000
Sample Matrix: Water

Service Request: R1300809
Date Analyzed: 2/13/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 329037

	Lab Control Sample RQ1301497-04			Duplicate Lab Control Sample RQ1301497-05					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.9	20.0	104	20.5	20.0	103	70 - 130	1	20
1,1,2,2-Tetrachloroethane	19.5	20.0	97	19.3	20.0	97	70 - 130	<1	20
1,1,2-Trichloroethane	18.9	20.0	94	18.8	20.0	94	70 - 130	<1	20
1,1-Dichloroethane (1,1-DCA)	21.2	20.0	106	21.1	20.0	106	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	22.9	20.0	115	22.2	20.0	111	70 - 130	3	20
1,2-Dichloroethane	18.9	20.0	94	19.1	20.0	96	70 - 130	1	20
1,2-Dichloropropane	19.8	20.0	99	19.5	20.0	98	70 - 130	2	20
Acetone	18.4	20.0	92	20.5	20.0	102	40 - 160	11	20
Bromodichloromethane	18.2	20.0	91	18.7	20.0	93	70 - 130	2	20
Bromoform	20.6	20.0	103	20.0	20.0	100	70 - 130	3	20
Bromomethane	26.8	20.0	134	29.5	20.0	147	40 - 160	9	20
Carbon Tetrachloride	19.6	20.0	98	19.1	20.0	95	70 - 130	3	20
Chlorobenzene	22.0	20.0	110	21.9	20.0	109	70 - 130	<1	20
Chloroethane	20.0	20.0	100	20.3	20.0	102	70 - 130	2	20
Chloroform	20.2	20.0	101	19.7	20.0	99	70 - 130	2	20
Chloromethane	23.7	20.0	118	22.6	20.0	113	40 - 160	5	20
Dibromochloromethane	19.5	20.0	97	19.9	20.0	99	70 - 130	2	20
Methylene Chloride	19.1	20.0	95	18.9	20.0	95	70 - 130	<1	20
Tetrachloroethene (PCE)	21.4	20.0	107	21.3	20.0	107	70 - 130	<1	20
Trichloroethene (TCE)	20.1	20.0	101	20.1	20.0	101	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	21.5	20.0	108	21.7	20.0	109	70 - 130	<1	20
Vinyl Chloride	21.7	20.0	109	22.0	20.0	110	70 - 130	1	20
cis-1,2-Dichloroethene	20.8	20.0	104	20.8	20.0	104	70 - 130	<1	20
cis-1,3-Dichloropropene	17.6	20.0	88	17.7	20.0	89	70 - 130	1	20
trans-1,2-Dichloroethene	21.3	20.0	106	21.3	20.0	106	70 - 130	<1	20
trans-1,3-Dichloropropene	19.1	20.0	95	18.6	20.0	93	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000
Sample Matrix: Water

Service Request: R1300809
Date Analyzed: 2/14/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 329158

Analyte Name	Lab Control Sample RQ1301520-04 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1301520-05 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	19.7	20.0	99	19.6	20.0	98	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	18.7	20.0	93	18.6	20.0	93	70 - 130	<1	20
1,1,2-Trichloroethane	18.5	20.0	93	18.6	20.0	93	70 - 130	<1	20
1,1-Dichloroethane (1,1-DCA)	21.3	20.0	107	21.4	20.0	107	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	22.4	20.0	112	22.1	20.0	111	70 - 130	1	20
1,2-Dichloroethane	18.8	20.0	94	18.7	20.0	94	70 - 130	<1	20
1,2-Dichloropropane	19.5	20.0	97	19.0	20.0	95	70 - 130	3	20
Acetone	17.5	20.0	88	21.0	20.0	105	40 - 160	18	20
Bromodichloromethane	17.9	20.0	90	18.4	20.0	92	70 - 130	3	20
Bromoform	20.7	20.0	103	19.7	20.0	98	70 - 130	5	20
Bromomethane	24.0	20.0	120	24.2	20.0	121	40 - 160	<1	20
Carbon Tetrachloride	18.5	20.0	93	19.0	20.0	95	70 - 130	3	20
Chlorobenzene	21.2	20.0	106	21.6	20.0	108	70 - 130	2	20
Chloroethane	19.2	20.0	96	19.6	20.0	98	70 - 130	2	20
Chloroform	19.1	20.0	96	19.3	20.0	96	70 - 130	<1	20
Chloromethane	22.5	20.0	113	22.1	20.0	110	40 - 160	2	20
Dibromochloromethane	19.3	20.0	96	19.5	20.0	98	70 - 130	1	20
Methylene Chloride	18.8	20.0	94	18.6	20.0	93	70 - 130	1	20
Tetrachloroethene (PCE)	20.6	20.0	103	20.9	20.0	104	70 - 130	1	20
Trichloroethene (TCE)	19.7	20.0	98	20.0	20.0	100	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20
Vinyl Chloride	20.6	20.0	103	19.8	20.0	99	70 - 130	4	20
cis-1,2-Dichloroethene	20.3	20.0	102	20.3	20.0	102	70 - 130	<1	20
cis-1,3-Dichloropropene	17.6	20.0	88	17.3	20.0	87	70 - 130	2	20
trans-1,2-Dichloroethene	20.7	20.0	103	20.6	20.0	103	70 - 130	<1	20
trans-1,3-Dichloropropene	18.2	20.0	91	18.1	20.0	90	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000
Sample Matrix: Water

Service Request: R1300809
Date Analyzed: 2/18/13

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 329571

Analyte Name	Lab Control Sample RQ1301617-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1301617-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ethane	25.9	26.1	99	25.0	26.1	96	82 - 127	3	30
Ethene	22.3	24.3	92	21.9	24.3	90	76 - 119	2	30
Methane	26.0	26.2	99	25.1	26.2	96	82 - 126	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4909

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name	Project Number
Varian Beverly	146898
Project Manager	**Report CC**
Raymond Cadorette	

Company/Address
Shaw Environmental, Inc.
150 Royall Street
Canton, MA 02021

Phone #	Email
617-589-6102	raymond.cadorette@shawgrp.com
Sampler's Signature	**Sampler's Printed Name**
[signature]	DANIEL LEARY

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 1 | 3

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Methane, Ethane, Ethene	Total Organic Carbon	REMARKS/ ALTERNATE DESCRIPTION
EB-1		2/6/13	0800	GW	3								3		PROVIDED BY LAB
TB-1		1/31/13	0735	LW	3								3		
OB15-S (18.8')		2/6/13	0830	GW	9								3	3	
MW-9 (20')		2/6/13	0900		9								3	3	
UNNAMED STREAM		2/6/13	0930		9								3	3	
SW-3		2/6/13	1000		3										
OB9-BR (101')		2/6/13	1030		9								3	3	
BM-6 (15.5')		2/6/13	1100		9								3	3	
OB9-S (23.1')		2/6/13	1200		9								3	3	
OB10S (29.1')		2/6/13	1145		3										
OB9-DO (87.2')		2/6/13	1030	↓	9								3	3	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@Shawgrp.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
Standard TAT
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data

Edata ✓ Yes _____

INVOICE INFORMATION
PO # 798802
BILL TO: Shaw Environmental

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature [signature]	Signature [signature]	Signature	Signature	Signature	Signature
Printed Name DAN LEARY	Printed Name ALS	Printed Name	Printed Name	Printed Name	Printed Name
Firm SHAW	Firm 2/7/13 / 1000	Firm	Firm	Firm	Firm
Date/Time 2/6/13 1400	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

R1300809 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return to Originator

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4910

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

Project Name	Project Number
Varian Beverly	146898
Project Manager	**Report CC**
Raymond Cadorette	
Company/Address	
Shaw Environmental, Inc.	
150 Royall Street	
Canton, MA 02021	
Phone #	**Email**
617-589-6102	Raymond.Cadorette@Shawgrp.com
Sampler's Signature	**Sampler's Printed Name**
Daniel Leahy	DANIEL LEAHY

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Methane, Ethane, Ethene	Total Organic Carbon
PRESERVATIVE					1								1	3
BW-8 (13.6')		2/6/13	1000	GW	9	3							3	3
MW-8 (16.8')		2/6/13	1110		3	3								
BW-9 (12.2')		2/6/13	0930		9	3							3	3
BW-5 (9.4')		2/6/13	0850		9	3							3	3
OB12-S (27.4')		2/6/13	1220		3	3								
BW-4 (12.35')		2/6/13	0810		9	3							3	3

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@shawgrp.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
Standard TAT
REQUESTED REPORT DATE

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata ✓ Yes _____ No

INVOICE INFORMATION
PO # 798802
BILL TO: Shaw Environmental

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature Daniel Ward	Signature	Signature	Signature	Signature
Printed Name DANIEL	Printed Name ALS	Printed Name	Printed Name	Printed Name	Printed Name
Firm SHAW	Firm 2/7/13 / 1000	Firm	Firm	Firm	Firm
Date/Time 2/6/13 1420	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Shaw Folder Number 213-809

Cooler received on 2/7/13 by: DSW COURIER: ALS ~~UPS~~ FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	YES	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	YES	NO
3.	Did all bottles arrive in good condition (unbroken)?	YES	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO N/A
5.	Were ~~Ice~~ or **Ice packs** present?	YES	NO
6.	Where did the bottles originate?	ALS/ROC, CLIENT	
7.	Soil VOA samples received as:	Bulk Jar	Encore TerraCore Lab5035set N/A
8.	Temperature of cooler(s) upon receipt:	4.6°	

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 2/7/13/1021

Thermometer ID: IR GUN#3 / ~~IR GUN#4~~ Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location R-002 by DSW on 2/7/13 at 1026

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review:

Cooler Breakdown: Date : 2/11/13 Time: 0812 by: AD

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	~~YES~~	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated N/A

Explain any discrepancies: BW-8 (13.6') on C.O.C., bottles say BW-8 (13.8')

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4	✓		WC112174C	1/14
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*	411100	1/14

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 2-207-002, 2-206-002

Other Comments: * 1 Vial 0139-DOC872)

* Note: MW-9 VOC vial sample is clear
TOC
RSK } vial sample is white and opaque !

also did not receive BW-6 (15.5'), but did receive BW-6 (13.1')

+1 added

PC Secondary Review: MKF 2/7/13

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 146898

Prepared By: Dale Dailey
Date : 2/28/2012

Matrix: Air

Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : R1301045

Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
2/14/13	VOC TO-15		30 Days	2/20, 2/21/2013

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? **No**

If No, List sample ID where range was exceeded: SV-6 30TOZER
% Recovered 135
Control Limits 70-130

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 2/20, 2/21/13

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
(1) All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method. Samples 30Tozer 3 and SV-6 30 Tozer were reanalyzed at larger dilutions to bring analytes within calibration range of the method. Both dilutions were reported with analytes over the range flagged with an "E" and the diluted analytes flagged with a "D"
(2) All surrogate standard recoveries were within QC limits except 4-Bromofluorobenzene for SV-6 30Tozer. The recovery was within QC limits on the re-analysis at a larger dilution. Because recovery was high, hits for sample SV-6 30 TOZER have been flagged in the database with a "J" to indicate that they may be biased high. (note originally the surrogate recovery issue was not included in the case narrative but an updated case narrative has been provided.)

Reviewed By: Pernilla Haley 3/27/13

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw E & I, Inc.	**Service Request No.:**	R1301045
Project:	Varian Beverly	**Project No.:**	146898
Sample Matrix:	Air	**Date Received:**	2/15/13

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. This report contains analytical results for samples designated for Tier II, MASS. CAM deliverables. When appropriate to the method, blank and LCS results have been reported with each analytical test.

Sample Receipt

Shaw air samples were collected on 2/14/13 and received at CAS in good condition as noted on the receipt and preservation check form. The samples were stored in the laboratory at room temperature prior to analysis. See the CAS case narrative for a cross-reference between Client ID and CAS Job #.

TO - 15 Air Analysis

Six air samples were analyzed for a site list of Volatile Organics by EPA method TO-15.

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method. Samples 30 Tozer 3 and SV-6 30 Tozer were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an “E” and the diluted anlytes flagged with a “D”.

All initial and continuing calibrations were compliant.

All surrogate standard recoveries were within QC limits except 4-Bromofluorobenzene for SV-6 30Tozer. The surrogate recovery was flagged with an “*”. The recovery was within QC limits on the re-analysis at a larger dilution.

The LCS recoveries were all within QC limits of 70 – 130 %. All RPD data were within QC limits.

No other analytical or QC problems were encountered with these analyses.

Updated data received form the lab on 3/18/13

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898
Sample Matrix: Air

Service Request: R1301045
Date Collected: 2/14/13 1341
Date Received: 2/15/13

Sample Name: 30 TOZER 1
Lab Code: R1301045-001

Analytical Method: TO-15

Date Analyzed: 2/20/13 1652
Canister Dilution Factor: 1.75

Initial Pressure (psig): -4.32 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	1000	**1.4**	0.79	**0.66**	0.38	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.041	0.041	U
74-83-9	Bromomethane	1000	0.75	0.75	0.19	0.19	U
75-00-3	Chloroethane	1000	1.0	1.0	0.38	0.38	U
67-64-1	**Acetone**	1000	**36**	8.8	**15**	3.7	
75-69-4	**Trichlorofluoromethane (CFC 11)**	1000	**1.7**	1.1	**0.31**	0.19	
75-35-4	1,1-Dichloroethene	1000	0.77	0.77	0.19	0.19	U
75-09-2	Methylene Chloride	1000	0.67	0.67	0.19	0.19	U
156-60-5	trans-1,2-Dichloroethene	1000	0.77	0.77	0.19	0.19	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.79	0.79	0.19	0.19	U
156-59-2	**cis-1,2-Dichloroethene**	1000	**1.0**	0.77	**0.25**	0.19	
67-66-3	Chloroform	1000	0.95	0.95	0.19	0.19	U
107-06-2	1,2-Dichloroethane	1000	0.79	0.79	0.19	0.19	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.19	0.19	U
56-23-5	**Carbon Tetrachloride**	1000	**0.28**	0.12	**0.044**	0.019	
78-87-5	1,2-Dichloropropane	1000	0.89	0.89	0.19	0.19	U
75-27-4	Bromodichloromethane	1000	0.26	0.26	0.039	0.039	U
79-01-6	**Trichloroethene (TCE)**	1000	**5.7**	0.11	**1.1**	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.39	0.39	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.88	0.88	0.19	0.19	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.19	0.19	U
124-48-1	Dibromochloromethane	1000	0.33	0.33	0.039	0.039	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**2.8**	0.14	**0.41**	0.021	
108-90-7	Chlorobenzene	1000	0.89	0.89	0.19	0.19	U
100-41-4	Ethylbenzene	1000	1.7	1.7	0.38	0.38	U
179601-23-1	**m,p-Xylenes**	1000	**3.7**	3.3	**0.84**	0.77	
75-25-2	Bromoform	1000	2.0	2.0	0.19	0.19	U
95-47-6	o-Xylene	1000	1.7	1.7	**0.39**	0.38	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.26	0.26	0.038	0.038	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	119	70-130	2/20/13 1652	

February 26, 2013 Service Request No: R1301045

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly Air Samples/146898

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on February 15, 2013. For your reference, these analyses have been assigned our service request number **R1301045.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

Columbia Analytical Services™
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
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Environmental www.caslab.com ▪ www.alsglobal.com
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COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw E & I, Inc.	**Service Request No.:**	R1301045
Project:	Varian Beverly	**Project No.:**	146898
Sample Matrix:	Air	**Date Received:**	2/15/13

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. This report contains analytical results for samples designated for Tier II, MASS. CAM deliverables. When appropriate to the method, blank and LCS results have been reported with each analytical test.

Sample Receipt

Shaw air samples were collected on 2/14/13 and received at CAS in good condition as noted on the receipt and preservation check form. The samples were stored in the laboratory at room temperature prior to analysis. See the CAS case narrative for a cross-reference between Client ID and CAS Job #.

TO - 15 Air Analysis

Six air samples were analyzed for a site list of Volatile Organics by EPA method TO-15.

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method. Samples 30 Tozer 3 and SV-6 30 Tozer were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted anlytes flagged with a "D".

All initial and continuing calibrations were compliant.

All surrogate standard recoveries were within QC limits.

The LCS recoveries were all within QC limits of 70 – 130 %. All RPD data were within QC limits.

No other analytical or QC problems were encountered with these analyses.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1301045

Lab ID	Client ID
R1301045-001	30 TOZER 1
R1301045-002	30 TOZER 2
R1301045-003	30 TOZER 3
R1301045-004	SV-4 30TOZER
R1301045-005	SV-5 30TOZER
R1301045-006	SV-6 30TOZER

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146898

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1301045–001 - 006

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water X Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B X
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes No X Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (Site list as requested) (Site List)	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Michael K Perry **Position:** Laboratory Manager

Printed Name: Michael K. Perry **Date:** 2/26/12

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2012
Expires: 30 JUN 2013

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1341
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	30 TOZER 1		
Lab Code:	R1301045-001		

Analytical Method: TO-15

Date Analyzed: 2/20/13 1652
Canister Dilution Factor: 1.75

Initial Pressure (psig): -4.32 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	1000	**1.4**	0.79	**0.66**	0.38	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.041	0.041	U
74-83-9	Bromomethane	1000	0.75	0.75	0.19	0.19	U
75-00-3	Chloroethane	1000	1.0	1.0	0.38	0.38	U
67-64-1	**Acetone**	1000	**36**	8.8	**15**	3.7	
75-69-4	**Trichlorofluoromethane (CFC 11)**	1000	**1.7**	1.1	**0.31**	0.19	
75-35-4	1,1-Dichloroethene	1000	0.77	0.77	0.19	0.19	U
75-09-2	Methylene Chloride	1000	0.67	0.67	0.19	0.19	U
156-60-5	trans-1,2-Dichloroethene	1000	0.77	0.77	0.19	0.19	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.79	0.79	0.19	0.19	U
156-59-2	**cis-1,2-Dichloroethene**	1000	**1.0**	0.77	**0.25**	0.19	
67-66-3	Chloroform	1000	0.95	0.95	0.19	0.19	U
107-06-2	1,2-Dichloroethane	1000	0.79	0.79	0.19	0.19	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.19	0.19	U
56-23-5	**Carbon Tetrachloride**	1000	**0.28**	0.12	**0.044**	0.019	
78-87-5	1,2-Dichloropropane	1000	0.89	0.89	0.19	0.19	U
75-27-4	Bromodichloromethane	1000	0.26	0.26	0.039	0.039	U
79-01-6	**Trichloroethene (TCE)**	1000	**5.7**	0.11	**1.1**	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.39	0.39	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.88	0.88	0.19	0.19	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.19	0.19	U
124-48-1	Dibromochloromethane	1000	0.33	0.33	0.039	0.039	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**2.8**	0.14	**0.41**	0.021	
108-90-7	Chlorobenzene	1000	0.89	0.89	0.19	0.19	U
100-41-4	Ethylbenzene	1000	1.7	1.7	0.38	0.38	U
179601-23-1	**m,p-Xylenes**	1000	**3.7**	3.3	**0.84**	0.77	
75-25-2	Bromoform	1000	2.0	2.0	0.19	0.19	U
95-47-6	o-Xylene	1000	1.7	1.7	**0.39**	0.38	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.26	0.26	0.038	0.038	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	119	70-130	2/20/13 1652	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1340
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	30 TOZER 2		
Lab Code:	R1301045-002		

Analytical Method: TO-15

Date Analyzed: 2/20/13 1744
Canister Dilution Factor: 1.78

Initial Pressure (psig): -4.42 Final Pressure (psig): 3.60

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	1000	**1.0**	0.80	**0.50**	0.39	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.042	0.042	U
74-83-9	Bromomethane	1000	0.77	0.77	0.20	0.20	U
75-00-3	Chloroethane	1000	1.0	1.0	0.39	0.39	U
67-64-1	**Acetone**	1000	**43**	8.9	**18**	3.7	
75-69-4	**Trichlorofluoromethane (CFC 11)**	1000	**1.7**	1.1	**0.30**	0.20	
75-35-4	1,1-Dichloroethene	1000	0.78	0.78	0.20	0.20	U
75-09-2	Methylene Chloride	1000	0.68	0.68	0.19	0.19	U
156-60-5	trans-1,2-Dichloroethene	1000	0.78	0.78	0.20	0.20	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.80	0.80	0.20	0.20	U
156-59-2	**cis-1,2-Dichloroethene**	1000	**0.92**	0.78	**0.23**	0.20	
67-66-3	Chloroform	1000	0.96	0.96	0.20	0.20	U
107-06-2	1,2-Dichloroethane	1000	0.80	0.80	0.20	0.20	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.20	0.20	U
56-23-5	Carbon Tetrachloride	1000	0.12	0.12	0.020	0.020	U
78-87-5	1,2-Dichloropropane	1000	0.91	0.91	0.20	0.20	U
75-27-4	Bromodichloromethane	1000	0.27	0.27	0.040	0.040	U
79-01-6	**Trichloroethene (TCE)**	1000	**5.1**	0.11	**0.94**	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.39	0.39	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.89	0.89	0.20	0.20	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.20	0.20	U
124-48-1	Dibromochloromethane	1000	0.34	0.34	0.040	0.040	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**3.5**	0.14	**0.52**	0.021	
108-90-7	Chlorobenzene	1000	0.91	0.91	0.20	0.20	U
100-41-4	Ethylbenzene	1000	1.7	1.7	0.39	0.39	U
179601-23-1	m,p-Xylenes	1000	3.4	3.4	0.78	0.78	U
75-25-2	Bromoform	1000	2.0	2.0	0.20	0.20	U
95-47-6	o-Xylene	1000	1.7	1.7	0.39	0.39	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.27	0.27	0.039	0.039	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	118	70-130	2/20/13 1744	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1339
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	30 TOZER 3		
Lab Code:	R1301045-003		

Analytical Method: TO-15 **Date Analyzed:** 2/20/13 1835
Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.32 Final Pressure (psig): 3.60

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	1000	**1.3**	0.79	**0.61**	0.38	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.041	0.041	U
74-83-9	Bromomethane	1000	0.76	0.76	0.19	0.19	U
75-00-3	Chloroethane	1000	1.0	1.0	0.39	0.39	U
67-64-1	**Acetone**	1000	**46**	8.8	**19**	3.7	E
75-69-4	**Trichlorofluoromethane (CFC 11)**	1000	**1.5**	1.1	**0.27**	0.19	
75-35-4	1,1-Dichloroethene	1000	0.77	0.77	0.20	0.20	U
75-09-2	Methylene Chloride	1000	0.67	0.67	0.19	0.19	U
156-60-5	trans-1,2-Dichloroethene	1000	0.77	0.77	0.20	0.20	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.79	0.79	0.20	0.20	U
156-59-2	**cis-1,2-Dichloroethene**	1000	**1.1**	0.77	**0.27**	0.20	
67-66-3	Chloroform	1000	0.95	0.95	0.19	0.19	U
107-06-2	1,2-Dichloroethane	1000	0.79	0.79	0.20	0.20	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.19	0.19	U
56-23-5	**Carbon Tetrachloride**	1000	**0.29**	0.12	**0.046**	0.020	
78-87-5	1,2-Dichloropropane	1000	0.90	0.90	0.19	0.19	U
75-27-4	Bromodichloromethane	1000	0.26	0.26	0.039	0.039	U
79-01-6	**Trichloroethene (TCE)**	1000	**2.7**	0.11	**0.51**	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.39	0.39	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.88	0.88	0.19	0.19	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.19	0.19	U
124-48-1	Dibromochloromethane	1000	0.33	0.33	0.039	0.039	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**3.5**	0.14	**0.52**	0.021	
108-90-7	Chlorobenzene	1000	0.90	0.90	0.19	0.19	U
100-41-4	**Ethylbenzene**	1000	**4.6**	1.7	**1.1**	0.39	
179601-23-1	**m,p-Xylenes**	1000	**5.5**	3.4	**1.3**	0.77	
75-25-2	Bromoform	1000	2.0	2.0	0.19	0.19	U
95-47-6	**o-Xylene**	1000	**2.1**	1.7	**0.48**	0.39	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.26	0.26	0.038	0.038	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	119	70-130	2/20/13 1835	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1339
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	30 TOZER 3		
Lab Code:	R1301045-003		
Run Type:	Dilution		
Analytical Method:	TO-15	**Date Analyzed:**	2/21/13 1409
		Canister Dilution Factor:	1.76

Initial Pressure (psig): -4.32 Final Pressure (psig): 3.60

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	600	**1.3**	1.3	**0.65**	0.64	
75-01-4	Vinyl Chloride	600	0.18	0.18	0.069	0.069	U
74-83-9	Bromomethane	600	1.3	1.3	0.32	0.32	U
75-00-3	Chloroethane	600	1.7	1.7	0.64	0.64	U
67-64-1	**Acetone**	600	**42**	15	**18**	6.2	D
75-69-4	Trichlorofluoromethane (CFC 11)	600	1.8	1.8	0.32	0.32	U
75-35-4	1,1-Dichloroethene	600	1.3	1.3	0.33	0.33	U
75-09-2	Methylene Chloride	600	1.1	1.1	0.32	0.32	U
156-60-5	trans-1,2-Dichloroethene	600	1.3	1.3	0.33	0.33	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	600	1.3	1.3	0.33	0.33	U
156-59-2	cis-1,2-Dichloroethene	600	1.3	1.3	0.33	0.33	U
67-66-3	Chloroform	600	1.6	1.6	0.32	0.32	U
107-06-2	1,2-Dichloroethane	600	1.3	1.3	0.33	0.33	U
71-55-6	1,1,1-Trichloroethane (TCA)	600	1.8	1.8	0.32	0.32	U
56-23-5	**Carbon Tetrachloride**	600	**0.28**	0.21	**0.044**	0.033	D
78-87-5	1,2-Dichloropropane	600	1.5	1.5	0.32	0.32	U
75-27-4	Bromodichloromethane	600	0.44	0.44	0.066	0.066	U
79-01-6	**Trichloroethene (TCE)**	600	**2.6**	0.18	**0.48**	0.033	D
10061-01-5	cis-1,3-Dichloropropene	600	2.9	2.9	0.65	0.65	U
10061-02-6	trans-1,3-Dichloropropene	600	1.5	1.5	0.32	0.32	U
79-00-5	1,1,2-Trichloroethane	600	1.8	1.8	0.32	0.32	U
124-48-1	Dibromochloromethane	600	0.56	0.56	0.065	0.065	U
127-18-4	**Tetrachloroethene (PCE)**	600	**3.4**	0.23	**0.50**	0.035	D
108-90-7	Chlorobenzene	600	1.5	1.5	0.32	0.32	U
100-41-4	**Ethylbenzene**	600	**4.1**	2.8	**0.94**	0.64	D
179601-23-1	m,p-Xylenes	600	5.6	5.6	1.3	1.3	U
75-25-2	Bromoform	600	3.3	3.3	0.32	0.32	U
95-47-6	o-Xylene	600	2.8	2.8	0.64	0.64	U
79-34-5	1,1,2,2-Tetrachloroethane	600	0.44	0.44	0.064	0.064	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	112	70-130	2/21/13 1409	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1200
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	SV-4 30TOZER		
Lab Code:	R1301045-004		

Analytical Method: TO-15 **Date Analyzed:** 2/20/13 1213
Canister Dilution Factor: 1.47

Initial Pressure (psig): -2.21 Final Pressure (psig): 3.60

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	5.6	120	120	57	57	U
75-01-4	Vinyl Chloride	5.6	16	16	6.2	6.2	U
74-83-9	Bromomethane	5.6	110	110	29	29	U
75-00-3	Chloroethane	5.6	150	150	58	58	U
67-64-1	Acetone	5.6	1300	1300	550	550	U
75-69-4	Trichlorofluoromethane (CFC 11)	5.6	160	160	29	29	U
75-35-4	1,1-Dichloroethene	5.6	120	120	29	29	U
75-09-2	Methylene Chloride	5.6	100	100	29	29	U
156-60-5	trans-1,2-Dichloroethene	5.6	120	120	29	29	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.6	120	120	29	29	U
156-59-2	cis-1,2-Dichloroethene	5.6	120	120	**30**	29	U
67-66-3	Chloroform	5.6	140	140	29	29	U
107-06-2	1,2-Dichloroethane	5.6	120	120	29	29	U
71-55-6	1,1,1-Trichloroethane (TCA)	5.6	160	160	29	29	U
56-23-5	Carbon Tetrachloride	5.6	18	18	2.9	2.9	U
78-87-5	1,2-Dichloropropane	5.6	130	130	29	29	U
75-27-4	Bromodichloromethane	5.6	39	39	5.9	5.9	U
79-01-6	**Trichloroethene (TCE)**	5.6	**13000**	16	**2400**	2.9	
10061-01-5	cis-1,3-Dichloropropene	5.6	260	260	58	58	U
10061-02-6	trans-1,3-Dichloropropene	5.6	130	130	29	29	U
79-00-5	1,1,2-Trichloroethane	5.6	160	160	29	29	U
124-48-1	Dibromochloromethane	5.6	50	50	5.9	5.9	U
127-18-4	**Tetrachloroethene (PCE)**	5.6	**2200**	21	**330**	3.1	
108-90-7	Chlorobenzene	5.6	130	130	29	29	U
100-41-4	Ethylbenzene	5.6	250	250	57	57	U
179601-23-1	m,p-Xylenes	5.6	500	500	120	120	U
75-25-2	Bromoform	5.6	300	300	29	29	U
95-47-6	o-Xylene	5.6	250	250	57	57	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	39	39	5.7	5.7	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	2/20/13 1213	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1205
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	SV-5 30TOZER		
Lab Code:	R1301045-005		

Analytical Method: TO-15 **Date Analyzed:** 2/20/13 1346
Canister Dilution Factor: 1.45

Initial Pressure (psig): -2.16 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	20	33	33	16	16	U
75-01-4	Vinyl Chloride	20	4.4	4.4	1.7	1.7	U
74-83-9	Bromomethane	20	31	31	8.0	8.0	U
75-00-3	Chloroethane	20	42	42	16	16	U
67-64-1	Acetone	20	360	360	150	150	U
75-69-4	Trichlorofluoromethane (CFC 11)	20	45	45	8.0	8.0	U
75-35-4	1,1-Dichloroethene	20	32	32	8.0	8.0	U
75-09-2	Methylene Chloride	20	28	28	7.9	7.9	U
156-60-5	trans-1,2-Dichloroethene	20	32	32	8.0	8.0	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	33	33	8.1	8.1	U
156-59-2	cis-1,2-Dichloroethene	20	32	32	8.0	8.0	U
67-66-3	Chloroform	20	39	39	8.0	8.0	U
107-06-2	1,2-Dichloroethane	20	33	33	8.1	8.1	U
71-55-6	1,1,1-Trichloroethane (TCA)	20	44	44	8.0	8.0	U
56-23-5	Carbon Tetrachloride	20	5.1	5.1	0.81	0.81	U
78-87-5	1,2-Dichloropropane	20	37	37	8.0	8.0	U
75-27-4	Bromodichloromethane	20	11	11	1.6	1.6	U
79-01-6	**Trichloroethene (TCE)**	20	**2700**	4.4	**500**	0.81	
10061-01-5	cis-1,3-Dichloropropene	20	73	73	16	16	U
10061-02-6	trans-1,3-Dichloropropene	20	36	36	8.0	8.0	U
79-00-5	1,1,2-Trichloroethane	20	44	44	8.0	8.0	U
124-48-1	Dibromochloromethane	20	14	14	1.6	1.6	U
127-18-4	**Tetrachloroethene (PCE)**	20	**1300**	5.8	**190**	0.86	
108-90-7	Chlorobenzene	20	37	37	8.0	8.0	U
100-41-4	Ethylbenzene	20	69	69	16	16	U
179601-23-1	m,p-Xylenes	20	140	140	32	32	U
75-25-2	Bromoform	20	83	83	8.0	8.0	U
95-47-6	o-Xylene	20	69	69	16	16	U
79-34-5	1,1,2,2-Tetrachloroethane	20	11	11	1.6	1.6	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	115	70-130	2/20/13 1346	

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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1200
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	SV-6 30TOZER		
Lab Code:	R1301045-006		

Analytical Method: TO-15 **Date Analyzed:** 2/20/13 1926
Canister Dilution Factor: 1.80

Initial Pressure (psig): -4.57 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	850	0.95	0.95	0.46	0.46	U
75-01-4	Vinyl Chloride	850	0.13	0.13	0.050	0.050	U
74-83-9	Bromomethane	850	0.91	0.91	0.23	0.23	U
75-00-3	Chloroethane	850	1.2	1.2	0.47	0.47	U
67-64-1	**Acetone**	850	**20**	11	**8.3**	4.5	
75-69-4	**Trichlorofluoromethane (CFC 11)**	850	**1.6**	1.3	**0.28**	0.23	
75-35-4	1,1-Dichloroethene	850	0.93	0.93	0.24	0.24	U
75-09-2	Methylene Chloride	850	0.80	0.80	0.23	0.23	U
156-60-5	trans-1,2-Dichloroethene	850	0.93	0.93	0.24	0.24	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	850	0.95	0.95	0.24	0.24	U
156-59-2	cis-1,2-Dichloroethene	850	0.93	0.93	0.24	0.24	U
67-66-3	Chloroform	850	1.1	1.1	0.23	0.23	U
107-06-2	1,2-Dichloroethane	850	0.95	0.95	0.24	0.24	U
71-55-6	**1,1,1-Trichloroethane (TCA)**	850	**2.6**	1.3	**0.48**	0.23	
56-23-5	**Carbon Tetrachloride**	850	**0.21**	0.15	**0.034**	0.024	
78-87-5	1,2-Dichloropropane	850	1.1	1.1	0.23	0.23	U
75-27-4	Bromodichloromethane	850	0.32	0.32	0.047	0.047	U
79-01-6	**Trichloroethene (TCE)**	850	**0.51**	0.13	**0.095**	0.024	
10061-01-5	cis-1,3-Dichloropropene	850	2.1	2.1	0.47	0.47	U
10061-02-6	trans-1,3-Dichloropropene	850	1.1	1.1	0.23	0.23	U
79-00-5	1,1,2-Trichloroethane	850	1.3	1.3	0.23	0.23	U
124-48-1	Dibromochloromethane	850	0.40	0.40	0.047	0.047	U
127-18-4	**Tetrachloroethene (PCE)**	850	**140**	0.17	**21**	0.025	
108-90-7	Chlorobenzene	850	1.1	1.1	0.23	0.23	U
100-41-4	**Ethylbenzene**	850	**5.5**	2.0	**1.3**	0.46	
179601-23-1	**m,p-Xylenes**	850	**17**	4.0	**3.9**	0.93	
75-25-2	Bromoform	850	2.4	2.4	0.23	0.23	U
95-47-6	**o-Xylene**	850	**6.1**	2.0	**1.4**	0.46	
79-34-5	1,1,2,2-Tetrachloroethane	850	0.32	0.32	0.046	0.046	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	135 *	70-130	2/20/13 1926	

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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	2/14/13 1200
Sample Matrix:	Air	**Date Received:**	2/15/13
Sample Name:	SV-6 30TOZER		
Lab Code:	R1301045-006		
Run Type:	Dilution		
Analytical Method:	TO-15	**Date Analyzed:**	2/21/13 1452
		Canister Dilution Factor:	1.80

Initial Pressure (psig): -4.57 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	90	9.0	9.0	4.4	4.4	U
75-01-4	Vinyl Chloride	90	1.2	1.2	0.47	0.47	U
74-83-9	Bromomethane	90	8.6	8.6	2.2	2.2	U
75-00-3	Chloroethane	90	12	12	4.4	4.4	U
67-64-1	Acetone	90	100	100	42	42	U
75-69-4	Trichlorofluoromethane (CFC 11)	90	12	12	2.2	2.2	U
75-35-4	1,1-Dichloroethene	90	8.8	8.8	2.2	2.2	U
75-09-2	Methylene Chloride	90	7.6	7.6	2.2	2.2	U
156-60-5	trans-1,2-Dichloroethene	90	8.8	8.8	2.2	2.2	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	90	9.0	9.0	2.2	2.2	U
156-59-2	cis-1,2-Dichloroethene	90	8.8	8.8	2.2	2.2	U
67-66-3	Chloroform	90	11	11	2.2	2.2	U
107-06-2	1,2-Dichloroethane	90	9.0	9.0	2.2	2.2	U
71-55-6	1,1,1-Trichloroethane (TCA)	90	12	12	2.2	2.2	U
56-23-5	Carbon Tetrachloride	90	1.4	1.4	0.22	0.22	U
78-87-5	1,2-Dichloropropane	90	10	10	2.2	2.2	U
75-27-4	Bromodichloromethane	90	3.0	3.0	0.45	0.45	U
79-01-6	Trichloroethene (TCE)	90	1.2	1.2	0.22	0.22	U
10061-01-5	cis-1,3-Dichloropropene	90	20	20	4.4	4.4	U
10061-02-6	trans-1,3-Dichloropropene	90	10	10	2.2	2.2	U
79-00-5	1,1,2-Trichloroethane	90	12	12	2.2	2.2	U
124-48-1	Dibromochloromethane	90	3.8	3.8	0.45	0.45	U
127-18-4	**Tetrachloroethene (PCE)**	90	**120**	1.6	**17**	0.24	D
108-90-7	Chlorobenzene	90	10	10	2.2	2.2	U
100-41-4	Ethylbenzene	90	19	19	4.4	4.4	U
179601-23-1	m,p-Xylenes	90	38	38	8.8	8.8	U
75-25-2	Bromoform	90	23	23	2.2	2.2	U
95-47-6	o-Xylene	90	19	19	4.4	4.4	U
79-34-5	1,1,2,2-Tetrachloroethane	90	3.0	3.0	0.44	0.44	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	118	70-130	2/21/13 1452	

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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1301045
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	NA
Sample Matrix:	Air	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	RQ1301787-01		

Analytical Method: TO-15 **Date Analyzed:** 2/20/13 1039

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	2/20/13 1039	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898
Sample Matrix: Air

Service Request: R1301045
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1301793-01

Analytical Method: TO-15

Date Analyzed: 2/21/13 1317

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	2/21/13 1317	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898
Sample Matrix: Air

Service Request: R1301045
Date Analyzed: 2/20/13

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 330203

Analyte Name	Lab Control Sample RQ1301787-02 Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.31	5.11	84	70 - 130
Vinyl Chloride	6.35	6.33	100	70 - 130
Bromomethane	10.0	9.60	104	70 - 130
Chloroethane	6.52	6.46	101	70 - 130
Acetone	5.67	6.29	90	50 - 150
Trichlorofluoromethane (CFC 11)	14.7	15.0	98	70 - 130
1,1-Dichloroethene	9.26	10.0	93	70 - 130
Methylene Chloride	7.85	8.86	89	70 - 130
trans-1,2-Dichloroethene	9.02	10.2	88	70 - 130
1,1-Dichloroethane (1,1-DCA)	8.97	10.2	88	70 - 130
cis-1,2-Dichloroethene	9.51	10.2	93	70 - 130
Chloroform	11.9	12.8	93	70 - 130
1,2-Dichloroethane	10.6	10.4	101	70 - 130
1,1,1-Trichloroethane (TCA)	14.3	13.8	104	70 - 130
Carbon Tetrachloride	16.4	16.2	101	70 - 130
1,2-Dichloropropane	10.3	11.9	86	70 - 130
Bromodichloromethane	17.0	17.2	99	70 - 130
Trichloroethene (TCE)	13.7	13.8	99	70 - 130
cis-1,3-Dichloropropene	11.8	11.9	99	70 - 130
trans-1,3-Dichloropropene	10.3	11.0	93	70 - 130
1,1,2-Trichloroethane	13.4	14.2	95	70 - 130
Dibromochloromethane	24.2	23.6	102	70 - 130
Tetrachloroethene (PCE)	18.8	17.5	108	70 - 130
Chlorobenzene	11.1	12.1	92	70 - 130
Ethylbenzene	10.2	11.3	90	70 - 130
m,p-Xylenes	20.1	22.1	91	70 - 130
Bromoform	27.9	26.3	106	70 - 130
o-Xylene	10.4	12.3	85	70 - 130
1,1,2,2-Tetrachloroethane	15.3	19.4	79	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898
Sample Matrix: Air

Service Request: R1301045
Date Analyzed: 2/21/13

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 330282

Lab Control Sample
RQ1301793-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.06	5.11	79	70 - 130
Vinyl Chloride	6.11	6.33	97	70 - 130
Bromomethane	9.55	9.60	99	70 - 130
Chloroethane	6.12	6.46	95	70 - 130
Acetone	4.60	6.29	73	50 - 150
Trichlorofluoromethane (CFC 11)	14.3	15.0	95	70 - 130
1,1-Dichloroethene	8.74	10.0	87	70 - 130
Methylene Chloride	7.48	8.86	85	70 - 130
trans-1,2-Dichloroethene	8.32	10.2	82	70 - 130
1,1-Dichloroethane (1,1-DCA)	8.38	10.2	82	70 - 130
cis-1,2-Dichloroethene	8.87	10.2	87	70 - 130
Chloroform	11.3	12.8	88	70 - 130
1,2-Dichloroethane	10.1	10.4	97	70 - 130
1,1,1-Trichloroethane (TCA)	13.8	13.8	100	70 - 130
Carbon Tetrachloride	16.0	16.2	99	70 - 130
1,2-Dichloropropane	9.48	11.9	80	70 - 130
Bromodichloromethane	16.4	17.2	95	70 - 130
Trichloroethene (TCE)	13.3	13.8	96	70 - 130
cis-1,3-Dichloropropene	11.0	11.9	93	70 - 130
trans-1,3-Dichloropropene	9.64	11.0	88	70 - 130
1,1,2-Trichloroethane	12.8	14.2	90	70 - 130
Dibromochloromethane	23.4	23.6	99	70 - 130
Tetrachloroethene (PCE)	18.5	17.5	106	70 - 130
Chlorobenzene	10.8	12.1	89	70 - 130
Ethylbenzene	9.87	11.3	87	70 - 130
m,p-Xylenes	19.6	22.1	88	70 - 130
Bromoform	27.6	26.3	105	70 - 130
o-Xylene	10.1	12.3	83	70 - 130
1,1,2,2-Tetrachloroethane	14.8	19.4	76	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Requested Turnaround Time in Business Days from Receipt, please circle:
1 Day 2 Day 3 Day 4 Day 5 Day (10 Day-Standard)

CAS Project #:

Company Name: CB&I

Project Name: Varian Beverly

CAS Contact:

Address: 150 Royall Street

Project Number: 146898

City, State, Zip: Canton, MA 02021

P.O. #/Billing Information: 821947

Project Manager: Raymond Cadorette

Phone: 617-589-6102 Fax: 617-589-5495

Email (for result reporting): Raymond.Cadorette@Shawgrp.com

Sampler (Print & Sign): Wayne Holt

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	Analysis Method and/or Analytes: TO15 (Site List)				Comments Specific Instructions
30 Tozer 1		2/14/13	1341	SLC 00127	FC 00715	X				
30 Tozer 2		2/14/13	1340	SLC 00125	FC 00754	X				
30 Tozer 3		2/14/13	1339	SLC 00067	FC 00827	X				
SV-4 30 Tozer		2/14/13	1200	SLC 00081	FC 00718	X				
SV-5 30 Tozer		2/14/13	1205	SLC 00059	FC 00841	X				
SV-6 30 Tozer		2/14/13	1200	SLC 00063	FC 00760	X				

What State were samples collected in: MA

Report Tier Levels - please select:
Tier I (Results/Default, if not specified) ___ Tier III (CLP Forms Only) ___
Tier II (Results + QC) ___ Tier IV (Data Validation) ___

EDD required: (YES) NO
Type: GISKey EDD Units: ug/m3 & ppmv

Project Requirements (MRLs, QAPP, etc.)
QA/QC: MADEP CAM
Note: for a 2nd Run

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Wayne Holt	2/14/13			2/15/13	855
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

R1301045 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly Air Samples

0-662 **-230** MS#13 (AIR2) 2/20/13
BOOK PAGE

TITLE TO-15 **PROJECT** R. Herring

Continued from page

Leak Check: 0.8 psia → 1.4 psia 565 sec
Pressures: He = 20.4 psia, IS = 19.4 psia, ATM = 14.3 psia
Volumes: IS = 250mL #54658, Nominal Sample Vol. = 1000mL
Methods: Tune = BFB.U, GC/MS = 120712.M, Entech = CAS.MPT

A.S. POS.	VOL. (ML)	SAMPLE	CLIENT	FILE#	OK?/COMMENTS
14	500	Room Air		B3640	–
14	500	Room Air		B3641	–
14	0	Tune Check		B3642	Y 06:24
15	500	CCV #54218		B3643	Y
16	250	LCS #54219		B3644	Y
1	1000	MET BLK		B3645	Y
SYR	2.0	R1301092-001	[MATRIX 4244 T1 BTEX BAG]	B3646	N RPT@40mL
SYR	5.6	R1301045-004	[SHAW 9560 T2 Mass CAM]	B3647	Y
SYR	5.6	-004 Dup	↓	B3648	Y DUP
SYR	20	-005	↓	B3649	Y
SYR	25	R1301046-003	[SHAW 9517 T4]	B3650	N ANB RPT@50mL
SYR	25	-007	↓	B3651	N RPT@50mL, RE↓
1	40	R1301092-001	[MATRIX 4244 T1 BTEX BAG]	B3652	Y
2	1000	R1301045-001	[SHAW 9560 T2 Mass CAM]	B3653	Y
3	1000	-002	↓	B3654	Y
4	1000	-003	↓	B3655	(Y) Acetone↑ rpt@600mL
5	850	-006	↓ (rpt @90mL)	B3656	(Y) ~~Y~~ SURR↑, CS ANT Big NT Interference
6	800	R1301046-001	[SHAW 9517 T4]	B3657	NOT RUN
7	800	-002	↓	B3658	Chemstation Sequence Table Incomplete ↓
8	1000	-004	↓	B3659	
9	800	-005	↓	B3660	
10	1000	-006	↓	B3661	
11	50	-007	↓	B3662	
12	50	-003	↓	B3663	↓

RH 2/20/13

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

Continued from page

Leak Check: 0.8psia → 1.3psia in 500sec.
Pressures: He=20.8psia, IS=28.8psia, ATM=14.5psia
Volumes: IS=250mL #54862, Nominal Sample vol.=1000mL
Methods: Tune=BFB.U, GC/MS=120712.M, Entech=CAS.MPT

A.S. POS	Vol (mL)	Sample	client	file#	OK?	/comments
14	500	Room Air		B3664	—	
14	0	Tune Check		B3665	Y	(10:00 AM)
15	500	CCV #54218		B3666	Y	
16	250	LCS #54219		B3667	Y	
1	1000	METBLK		B3668	Y	
4	600	R1301045-003	[SHAW 9560 Tz]	B3669	Y	DL
5	90	-006		B3670	Y	DL
6	800	R1301046-001	[SHAW 9517 T4]	B3671	Y	
7	800	-007		B3672	N	ALL IS↑ rpt@1000mL
7	1000	-007		B3673	N	RPT 800 ALL IS↑
8	1000	-004		B3674	N	RPT@1000 ALL IS↑
9	800	-005		B3675	N	RPT @550 PCE+ 1 IS↑
10	1000	-006		B3676	N	RPT 800 All IS↑
11	50	-007		B3677	AS RUN	All IS↑
11RE	50	← RH 2/21/13 {~~-003~~ 007 DUP		B3678	QC ONLY (repeat not run)	2 IS↑
12	50	-003 ~~dup~~		B3679	Y	
13	800	-008		B3680	Y	PCE↑ rpt@400mL
14	120	-009		B3681	N	RPT 120 1 IS↑ good dis
1	500	Room Air		B3682	—	good IS
2	800	-010		B3683	Y	- done @ this vol.
3	100	-011		B3684	Y	RPT 100 RH 2/22/13
4	800	-012		B3685	N	RPT 800 2 IS↑
				~~B3686~~	RH 2/22/13	

RH 2/22/13

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

PROPRIETARY INFORMATION

Client: Shaw Environmental & Infrastructure, Inc.

Project: Varian Beverly Air Samples 146898

Folder: R1301045

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID
R1301045-001.01	30 TOZER 1	6.0 L-Non-Specified SC	-8.80	-4.32	3.50				SLC00127	37300	FC00715
R1301045-002.01	30 TOZER 2	6.0 L-Non-Specified SC	-9.00	-4.42	3.60				SLC00125	37300	FC00754
R1301045-003.01	30 TOZER 3	6.0 L-Non-Specified SC	-8.80	-4.32	3.60				SLC00067	37300	FC00827
R1301045-004.01	SV-4 30TOZER	6.0 L-Non-Specified SC	-4.50	-2.21	3.60				SLC00081	37300	FC00718
R1301045-005.01	SV-5 30TOZER	6.0 L-Non-Specified SC	-4.40	-2.16	3.50				SLC00059	37300	FC00841
R1301045-006.01	SV-6 30TOZER	6.0 L-Non-Specified SC	-9.30	-4.57	3.50				SLC00053	37300	FC00760

Miscellaneous Items - received

T2500

CAS Flow Controller Calibration
Flows in mL/min.
Values retrievd from LIMS

Folder # R1301045

Order #	ID #	Pre Cal	Post Cal	RPD	Comment
R1301045-001	FC00715	18.4	18.6	1.1	
R1301045-002	FC00754	18.3	18.4	0.5	
R1301045-003	FC00827	18.5	18.6	0.5	
R1301045-004	FC00718	41.8	44.0	5.1	
R1301045-005	FC00841	41.5	42.6	2.6	
R1301045-006	FC00760	41.7	43.1	3.3	

Sample Collection Supplies

T019262

Order #: 37300
Date Required: 2/13/13
Project Chemist: Michael Perry
Phone Number: 585-288-5380 x7469

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly
SDG Name: Varian Beverly Air Samples

P.O. Number: 821947

Shipped Date: 02/08/2013
Shipping Cost: $ 0.00

Shipped To: Wayne Holt
12 Blunt Drive
Salem, NH 03038

E-mail: wayne.holt@shawgrp.com

Phone: 617-212-8278

Comments: **Bag containers by sample template.**

Grouped by Container Type

ID	Container	Shipped Pressure
6	6.0L-Non-Specified	
FC00715	1 each-Flow Controller Stainless Steel	
FC00718	1 each-Flow Controller Stainless Steel	
FC00754	1 each-Flow Controller Stainless Steel	
FC00760	1 each-Flow Controller Stainless Steel	
FC00827	1 each-Flow Controller Stainless Steel	
FC00841	1 each-Flow Controller Stainless Steel	
SLC00053	6.0 L-Non-Specified SC	-29.10
SLC00059	6.0 L-Non-Specified SC	-29.10
SLC00067	6.0 L-Non-Specified SC	-29.10
SLC00081	6.0 L-Non-Specified SC	-29.10
SLC00125	6.0 L-Non-Specified SC	-29.10
SLC00127	6.0 L-Non-Specified SC	-29.10

Grouped by Sample Template

Sample Template Number / Name	Expected Number of Samples	Containers	Number of Containers per Sample	Comments
001 / TO-15	6			
		6.0L-Non-Specified SC - TO-15	1	

Quantity	Miscellaneous Supply
3	Flow Controller, 6L, 2hr
3	Flow Controller, 6L, 4hr

Precautions: Preserved sample containers should not be overflowed while filling. Under no circumstances should the inside of the containers or lids be handled.

Please return this form with your coolers when delivering your samples to Columbia Analytical Services.

Columbia Analytical Services

QC Certification

Columbia Analytical Services, Inc.
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623
Ph. 585-288-5380
Fax 585-288-8475

Container IDs	Cleaned Date	Date Analyzed	QC Results	Comments
FC00715	9/21/12	9/24/12		
FC00718	1/24/13	1/24/13		
FC00754	1/24/13	1/24/13		
FC00760	9/21/12	9/24/12		
FC00827	9/21/12	9/24/12		
FC00841	9/21/12	9/24/12		
SLC00053	1/22/13	1/25/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00059	1/29/13	1/31/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00067	1/29/13	1/31/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00081	1/29/13	1/31/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00125	1/22/13	1/25/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00127	1/29/13	1/31/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)

6922

* QC Canister

Columbia Analytical Services™

CHAIN OF CUSTODY - AIR

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Requested Turnaround Time in Business Days from Receipt, ~~please circle:~~
1 Day 2 Day 3 Day 4 Day 5 Day (10 Day-Standard)

CAS Project #: R1300 1045

Company Name: CB&I ~~Shaw E&F~~ (WH CB&I)

Project Name: Varian

CAS Contact:

Address: 150 Royall ST

Project Number: 146898

Analysis Method and/or Analytes

City, State, Zip: Canton Ma 02021

P.O. #/Billing Information: P.O. # 82 1947

Project Manager: Ray Cadorette

Phone: 617 589 6102

Fax: 617 589 5495

Email (for result reporting): Raymond.CadoretTe@shawgrp.com

Sampler (Print & Sign): Wayne Hott Wayne Hott

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	TO-15 Site List				Comments Specific Instructions
30 Tozer 1		2/14/13	1341	SLC00127	FC00715	X				
30 Tozer 2		2/14/13	1340	SLC00125	FC00754	X				
30 Tozer 3		2/14/13	1339	SLC00067	FC00827	X				
SV-4 30 Tozer		2/14/13	1200	SLC00081	FC00718	X				
SV-5 30 Tozer		2/14/13	1205	SLC00059	FC00841	X				
SV-6 30 Tozer		2/14/13	1200	SLC00063	FC00760	X				

What State were samples collected in: Ma

Report Tier Levels - please select:
Tier I (Results/Default, if not specified) ___
Tier II (Results + QC) ___
Tier III (CLP Forms Only) ___
Tier IV (Data Validation) ___

EDD required: (YES) / NO
Type: GISKey EDD Units: ug/m3 & ppmv

Project Requirements (MRLs, QAPP, etc.)
QA/QC: "MADEP CAM"
NOTE for a 2nd run

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Wayne Hott	2/14/13		Wayne Hott	2/15/13	0855
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

COC AIR REV 7-11

Cooler Receipt and Preservation Check Form

Project/Client Shaw Air Folder Number R13-1045

Cooler received on 2/15/13 by: CA COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO	
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO	
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO	
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO	(N/A)
5.	Were **Ice** or **Ice packs** present?	YES	(NO)	
6.	Where did the bottles originate?	ALS/ROC	CLIENT	CA 2/15/13
7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	_____	_____	_____ _____ _____

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: _____

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

Air Canisters

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location _____ by _____ on _____ at _____

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 2/15/13 Time: 1845 by: CA

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO	
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO	
3.	Were correct containers used for the tests indicated?	(YES)	NO	
4.	Air Samples: Cassettes / Tubes Intact	(Canisters Pressurized)	Tedlar® Bags Inflated	N/A

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____

Other Comments:

PC Secondary Review: MM 2/15/13

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 146898.14

Prepared By: Dale Dailey
Date : 2/28/2012

Matrix: Air

Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : R1300536

Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
1/24/13	VOC TO-15		30 Days	1/25/13

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 1/25/2013

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
(1) All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method.

Reviewed By: Pernilla Haley 3/27/13

February 05, 2013 Service Request No: R1300536

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly Air Samples/146898

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on January 25, 2013. For your reference, these analyses have been assigned our service request number **R1300536**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

Columbia Analytical Services℠
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company
Environmental www.caslab.com ▪ www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw E & I, Inc.	**Service Request No.:**	R1300536
Project:	Varian Beverly	**Project No.:**	146898
Sample Matrix:	Air	**Date Received:**	1/25/13

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. This report contains analytical results for samples designated for Tier II, MASS. CAM deliverables. When appropriate to the method, blank and LCS results have been reported with each analytical test.

Sample Receipt

Shaw air samples were collected on 1/24/13 and received at CAS in good condition as noted on the receipt and preservation check form. The samples were stored in the laboratory at room temperature prior to analysis. See the CAS case narrative for a cross-reference between Client ID and CAS Job #.

TO - 15 Air Analysis

Two air samples were analyzed for a site list of Volatile Organics by EPA method TO-15.

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method.

All initial and continuing calibrations were compliant.

All surrogate standard recoveries were within QC limits.

The LCS recoveries were all within QC limits of 70 – 130 %. All RPD data were within QC limits.

No other analytical or QC problems were encountered with these analyses.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1300536

Lab ID	Client ID
R1300536-001	SV1 39 TOZER
R1300536-002	SV AMBIENT 39

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2012

Expires: 30 JUN 2013

Oscar C. Parcarbo

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300536
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	1/24/13 1022
Sample Matrix:	Air	**Date Received:**	1/25/13
Sample Name:	SV1 39 TOZER		
Lab Code:	R1300536-001		

Analytical Method: TO-15

Date Analyzed: 1/25/13 1553
Canister Dilution Factor: 1.27

Initial Pressure (psig): -0.34 Final Pressure (psig): 3.55

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	14	41	41	20	20	U
75-01-4	**Vinyl Chloride**	14	**29**	5.4	**11**	2.1	
74-83-9	Bromomethane	14	39	39	10	10	U
75-00-3	Chloroethane	14	53	53	20	20	U
67-64-1	Acetone	14	450	450	190	190	U
75-69-4	Trichlorofluoromethane (CFC 11)	14	56	56	10	10	U
75-35-4	**1,1-Dichloroethene**	14	**400**	40	**100**	10	
75-09-2	Methylene Chloride	14	34	34	9.9	9.9	U
156-60-5	trans-1,2-Dichloroethene	14	40	40	10	10	U
75-34-3	**1,1-Dichloroethane (1,1-DCA)**	14	**92**	41	**23**	10	
156-59-2	**cis-1,2-Dichloroethene**	14	**2100**	40	**520**	10	
67-66-3	Chloroform	14	49	49	10	10	U
107-06-2	1,2-Dichloroethane	14	41	41	10	10	U
71-55-6	1,1,1-Trichloroethane (TCA)	14	54	54	10	10	U
56-23-5	Carbon Tetrachloride	14	6.4	6.4	1.0	1.0	U
78-87-5	1,2-Dichloropropane	14	46	46	10	10	U
75-27-4	Bromodichloromethane	14	14	14	2.0	2.0	U
79-01-6	**Trichloroethene (TCE)**	14	**2200**	5.4	**410**	1.0	
10061-01-5	cis-1,3-Dichloropropene	14	91	91	20	20	U
10061-02-6	trans-1,3-Dichloropropene	14	45	45	10	10	U
79-00-5	1,1,2-Trichloroethane	14	54	54	10	10	U
124-48-1	Dibromochloromethane	14	17	17	2.0	2.0	U
127-18-4	**Tetrachloroethene (PCE)**	14	**420**	7.3	**62**	1.1	
108-90-7	Chlorobenzene	14	46	46	10	10	U
100-41-4	Ethylbenzene	14	86	86	20	20	U
179601-23-1	m,p-Xylenes	14	170	170	40	40	U
75-25-2	Bromoform	14	100	100	10	10	U
95-47-6	o-Xylene	14	86	86	20	20	U
79-34-5	1,1,2,2-Tetrachloroethane	14	14	14	2.0	2.0	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	101	70-130	1/25/13 1553	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300536
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	1/24/13 1225
Sample Matrix:	Air	**Date Received:**	1/25/13
Sample Name:	SV AMBIENT 39		
Lab Code:	R1300536-002		

Analytical Method: TO-15 **Date Analyzed:** 1/25/13 1731
Canister Dilution Factor: 1.40

Initial Pressure (psig): -1.62 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.63	0.63	0.31	0.31	U
75-01-4	Vinyl Chloride	1000	0.084	0.084	0.033	0.033	U
74-83-9	Bromomethane	1000	0.60	0.60	0.16	0.16	U
75-00-3	Chloroethane	1000	0.81	0.81	0.31	0.31	U
67-64-1	Acetone	1000	7.0	7.0	2.9	2.9	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.87	0.87	0.15	0.15	U
75-35-4	1,1-Dichloroethene	1000	0.62	0.62	0.16	0.16	U
75-09-2	Methylene Chloride	1000	0.53	0.53	0.15	0.15	U
156-60-5	trans-1,2-Dichloroethene	1000	0.62	0.62	0.16	0.16	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.63	0.63	0.16	0.16	U
156-59-2	**cis-1,2-Dichloroethene**	1000	**2.0**	0.62	**0.50**	0.16	
67-66-3	Chloroform	1000	0.76	0.76	0.15	0.15	U
107-06-2	1,2-Dichloroethane	1000	0.63	0.63	0.16	0.16	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.84	0.84	0.15	0.15	U
56-23-5	**Carbon Tetrachloride**	1000	**0.12**	0.098	**0.019**	0.016	
78-87-5	1,2-Dichloropropane	1000	0.71	0.71	0.15	0.15	U
75-27-4	Bromodichloromethane	1000	0.21	0.21	0.031	0.031	U
79-01-6	**Trichloroethene (TCE)**	1000	**2.1**	0.084	**0.39**	0.016	
10061-01-5	cis-1,3-Dichloropropene	1000	1.4	1.4	0.31	0.31	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.70	0.70	0.15	0.15	U
79-00-5	1,1,2-Trichloroethane	1000	0.84	0.84	0.15	0.15	U
124-48-1	Dibromochloromethane	1000	0.27	0.27	0.031	0.031	U
127-18-4	**Tetrachloroethene (PCE)**	1000	**0.68**	0.11	**0.10**	0.017	
108-90-7	Chlorobenzene	1000	0.71	0.71	0.16	0.16	U
100-41-4	Ethylbenzene	1000	1.3	1.3	0.31	0.31	U
179601-23-1	m,p-Xylenes	1000	2.7	2.7	0.62	0.62	U
75-25-2	Bromoform	1000	1.6	1.6	0.15	0.15	U
95-47-6	o-Xylene	1000	1.3	1.3	0.31	0.31	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.21	0.21	0.031	0.031	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	105	70-130	1/25/13 1731	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1300536
Project:	Varian Beverly Air Samples/146898	**Date Collected:**	NA
Sample Matrix:	Air	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	RQ1301084-01		

Analytical Method: TO-15 **Date Analyzed:** 1/25/13 1257

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	103	70-130	1/25/13 1257	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898
Sample Matrix: Air

Service Request: R1300536
Date Analyzed: 1/25/13

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 327472

Analyte Name	Lab Control Sample RQ1301084-02 Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.57	5.11	89	70 - 130
Vinyl Chloride	6.41	6.33	101	70 - 130
Bromomethane	9.78	9.60	102	70 - 130
Chloroethane	6.60	6.46	102	70 - 130
Acetone	5.58	6.29	89	50 - 150
Trichlorofluoromethane (CFC 11)	14.3	15.0	95	70 - 130
1,1-Dichloroethene	9.43	10.0	94	70 - 130
Methylene Chloride	8.10	8.86	92	70 - 130
trans-1,2-Dichloroethene	9.21	10.2	90	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.25	10.2	91	70 - 130
cis-1,2-Dichloroethene	9.49	10.2	93	70 - 130
Chloroform	12.0	12.8	93	70 - 130
1,2-Dichloroethane	10.3	10.4	99	70 - 130
1,1,1-Trichloroethane (TCA)	13.8	13.8	100	70 - 130
Carbon Tetrachloride	15.8	16.2	98	70 - 130
1,2-Dichloropropane	10.6	11.9	89	70 - 130
Bromodichloromethane	16.7	17.2	97	70 - 130
Trichloroethene (TCE)	13.8	13.8	100	70 - 130
cis-1,3-Dichloropropene	11.8	11.9	99	70 - 130
trans-1,3-Dichloropropene	10.2	11.0	93	70 - 130
1,1,2-Trichloroethane	13.4	14.2	94	70 - 130
Dibromochloromethane	23.3	23.6	98	70 - 130
Tetrachloroethene (PCE)	18.1	17.5	103	70 - 130
Chlorobenzene	11.3	12.1	93	70 - 130
Ethylbenzene	10.6	11.3	94	70 - 130
m,p-Xylenes	21.0	22.1	95	70 - 130
Bromoform	27.2	26.3	103	70 - 130
o-Xylene	10.9	12.3	89	70 - 130
1,1,2,2-Tetrachloroethane	15.4	19.4	79	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

RH
1/31/13

CAS Flow Controller Calibration
Flows in mL/min.
Values retrievd from LIMS

Folder # R1300536

Order #	ID #	Pre Cal	Post Cal	RPD	Comment
R1300536-001	FC00747	41.3	42.4	2.6	2 hour
R1300536-002	FC00761	21.1	20.5	-2.9	4 hour

Columbia Analytical Services

QC Certification

Columbia Analytical Services, Inc.
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623
Ph. 585-288-5380
Fax 585-288-8475

Container IDs	Cleaned Date	Date Analyzed	QC Results	Comments
FC00747	11/28/12	11/28/12		
FC00761	11/28/12	11/28/12		
SLC00037	1/15/13	1/17/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00117	1/15/13	1/17/13	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)

C1005

*** QC Canister**

Sample Collection Supplies

T019262

Order #: 36914
Date Required: 1/23/13
Project Chemist: Michael Perry
Phone Number: 585-288-5380 x7469

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly
SDG Name: Varian Beverly Air Samples

P.O. Number: 821947

Shipped Date: 01/18/2013
Shipping Cost: $ 0.00

Shipped To: Wayne Holt
12 Blunt Drive
Derry, NH 03038

E-mail: wayne.holt@shawgrp.com

Phone: 617-212-8278

Comments: **Bag containers by sample template.**

Grouped by Container Type

ID	Container	Shipped Pressure
2	6.0L-Non-Specified	
FC00747	1 each-Flow Controller Stainless Steel	
FC00761	1 each-Flow Controller Stainless Steel	
SLC00037	6.0 L-Non-Specified SC	-29.60
SLC00117	6.0 L-Non-Specified SC	-29.60

Grouped by Sample Template

Sample Template Number / Name	Expected Number of Samples	Containers	Number of Containers per Sample	Comments
001 / TO-15	2			
		6.0L-Non-Specified SC - TO-15	1	

Quantity	Miscellaneous Supply
1	Flow Controller, 6L, 2hr
1	Flow Controller, 6L, 4hr
1	Miscellaneous (1 - Tedlar Bag)

Precautions: Preserved sample containers should not be overflowed while filling. Under no circumstances should the inside of the containers or lids be handled.

Please return this form with your coolers when delivering your samples to Columbia Analytical Services.

Columbia Analytical Services

CHAIN OF CUSTODY - AIR

PAGE 1 OF 1

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Requested Turnaround Time in Business Days from Receipt, please circle:
1 Day 2 Day 3 Day 4 Day 5 Day 10 Day-Standard

CAS Project #:

Company Name: Shaw Environmental, Inc.

Project Name: Varian Beverly

CAS Contact:

Address: 150 Royall Street

Project Number: 146898-14000000

Analysis Method and/or Analytes

City, State, Zip: Canton, MA 02021

P.O. #/Billing Information: 821947

Project Manager: Raymond Cadorette

Phone: 617-589-6102 Fax: 617-589-5495

Email (for result reporting): Raymond.Cadorette@Shawgrp.com

Sampler (Print & Sign): Wayne Holt Wayne Holt

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	VOC by TO-15				Comments / Specific Instructions
SV1 39 TOZER		1-24-13	1022	SLC00037	FC00747	X				SITE VOC LIST
SV Ambient 39		1-24-13	1225	SLC00176	FC00761	X				SITE VOC LIST

What State were samples collected in: MA

Report Tier Levels - please select:
Tier I (Results/Default, if not specified) ___ Tier III (CLP Forms Only) ___
Tier II (Results + QC) ___ Tier IV (Data Validation) ___

EDD required: (YES) / NO
Type: GISKey EDD Units: ug/m3 & ppmv

Project Requirements (MRLs, QAPP, etc.)
QA/QC: MADEP CAM
Note: Complete a second run to achieve lowest detection limits.
"SITE VOC LIST"

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Wayne Holt	1-24-13	1300		1/25/13	8:35
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

R1300536 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly Air Samples

Cooler Receipt and Preservation Check Form

Project/Client Shaw Envir Folder Number R536.

Cooler received on KB 1/25/13 by: KB **COURIER:** ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO	
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO	
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO	
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO	N/A
5.	Were **Ice** or **Ice packs** present?	YES	NO	
6.	Where did the bottles originate?	ALS/ROC, CLIENT		

		Bulk Jar	Encore	TerraCore	Lab5035set	N/A
7.	Soil VOA samples received as:					
8.	Temperature of cooler(s) upon receipt:	Air				
	Is the temperature within 0° - 6° C?:	Y N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: Air

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location _____ by _____ on _____ at _____
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: KMV 1/25/13

Cooler Breakdown: Date: 1/25/13 Time: 10:03 by: KB

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact (Canisters Pressurized) Tedlar® Bags Inflated N/A		

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____
Other Comments:

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 146899.04

Prepared By: Dale Dailey

Date : 1/16/2012

Matrix: Water

Analyte Group : Volatile Organics
Metals
Chloride

Analytical Method : EPA Method 8260C
EPA Method 6010C
SM 4500-Cl-E

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1208115

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
11/28/12	8260C		14 Days	11/29, 11/30, 12/3, 12/4, 12/5/12
11/28/12	6010C		28 Days	12/7, 12/11, 12/12/12
11/28/12	4500-Cl-E		14 Days	11/28, 12/3

Sample temperature within QC limits: Yes (4.1° C)

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes (see notes)

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EQ-1
Trip Blank ID : NA

Method Blank:	SM 4500-Cl-E	12/03/12
	8260C	11/29, 12/3, 12/4, 12/5/12
	6010C	12/7, 12/11/12

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
VOCs: several samples were initially analyzed at dilutions to bring the target analytes within calibration range of the method. Samples OB19-DO (64'), MW-13 (54'), OB35-DO (62'), AP30-DO (28'), and OB34-DO (63') were reanalyzed at larger dilutions to bring target analytes within the calibration range of the method. The re-analysis for OB36-DO (61') did not agree will with the original analysis. The third vial was analyzed and produced a third different result. The high and low results have been reported. The analytes over the calibration range are flagged with an "E" and the diluted analytes flagged with a "D".

Reviewed By: Pernilla Haley 1/24/13

December 13, 2012 Service Request No: R1208115

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/146899 Non-Bio

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on November 28, 2012. For your reference, these analyses have been assigned our service request number **R1208115**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

Columbia Analytical Services
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company
www.caslab.com ▪ www.alsglobal.com
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COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw Environmental, Inc	**Service Request No.:**	R1208115
Project:	Varian Beverly	**Project Number:**	146898-02000000
Sample Matrix:	Water	**Date Received:**	11/28/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 11/26/12 and 11/27/12 and received at CAS in good condition at a cooler temperature of 4.1 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and CAS Job #.

Volatile Organics

Nineteen water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples OB19-DO (64'), MW-13 (54'), OB35-DO (62'), OB36-DO (61'), AP30-DO (28'), and OB34-DO (63') were re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. The re-analysis for OB36-DO (61') did not agree well with the original analysis. The third vial was analyzed and produced a third different result. The high and low results have been reported. The analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial and continuing calibrations were compliant.

All Surrogate Standard recoveries were within QC limits.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

All samples were analyzed within the required holding time of 14 days.

No other analytical or QC problems were encountered with these analyses.

Inorganic Analyses

Twelve water samples were analyzed for dissolved Iron and dissolved Manganese by SW-846 method 6010C and for Chloride by method SM 4500-CL-E.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

No analytical or QC problems were encountered.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1208115

Lab ID	Client ID
R1208115-002	EQ-1
R1208115-003	OB25-BR (99')
R1208115-004	OB19-DO (64')
R1208115-005	AP26-DO (64')
R1208115-006	OB27-BR (86')
R1208115-007	OB12-DO (59')
R1208115-008	MW-13 (54')
R1208115-009	OB35-DO (62')
R1208115-010	AP27-DO (61')
R1208115-011	OB38-DO (54')
R1208115-012	B-2 (12')
R1208115-013	AP12-DO (57')
R1208115-014	AP12-BR (81')
R1208115-015	OB36-DO (61')
R1208115-016	OB37-DO (61')
R1208115-017	AP30-DO (28')
R1208115-018	AP31-DO (28')
R1208115-019	AP32-DO (25')
R1208115-020	OB32-DO (60')
R1208115-021	OB34-DO (63')

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146899-05000000 non-bio

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1207115 – 002 - 021

Matrices: X Groundwater ☐Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other: _____

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B ☐	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A **X**	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6850 Perchlorate CAM VIII B ☐	Other: Chloride

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes ☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes ☐No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (site list)	☐ Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Laboratory Manager

Printed Name: Michael K. Perry **Date:** 12/13/12

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Director, Division of Environmental Analysis

Issued: 01 JUL 2012
Expires: 30 JUN 2013

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND.	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0730
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/5/12 18:00
Sample Name:	EQ-1	**Units:**	µg/L
Lab Code:	R1208115-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321222
Data File Name:	I:\ACQUDATA\msvoa12\Data\120512\T3242.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/5/12 18:00	
Dibromofluoromethane	98	70-130	12/5/12 18:00	
Toluene-d8	99	70-130	12/5/12 18:00	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/26/12 0830
Date Received: 11/28/12

Sample Name: OB25-BR (99')
Lab Code: R1208115-003

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**812**		mg/L	50	50	NA	12/3/12 11:12	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/26/12 0830
Date Received: 11/28/12

Sample Name: OB25-BR (99')
Lab Code: R1208115-003

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 20:49	
Manganese, Dissolved	6010C	**7270000**		µg/L	10000	100	11/29/12	12/12/12 00:20	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0830
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 19:03
Sample Name:	OB25-BR (99')	**Units:**	µg/L
Lab Code:	R1208115-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3178.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**2.6**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	**4.0**		2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**14**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/3/12 19:03	
Dibromofluoromethane	99	70-130	12/3/12 19:03	
Toluene-d8	98	70-130	12/3/12 19:03	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB19-DO (64')		
Lab Code:	R1208115-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**26.7**		mg/L	1.0	1	NA	12/3/12 11:13	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB19-DO (64')		
Lab Code:	R1208115-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**130**		µg/L	100	1	11/29/12	12/7/12 21:08	
Manganese, Dissolved	6010C	**4910**		µg/L	50	5	11/29/12	12/12/12 00:36	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 01:06
Sample Name:	OB19-DO (64')	**Units:**	µg/L
Lab Code:	R1208115-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3189.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**15000**	E	40	
79-01-6	Trichloroethene (TCE)	**28000**	E	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	**86**		40	
156-59-2	cis-1,2-Dichloroethene	**4100**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	**70**		40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/4/12 01:06	
Dibromofluoromethane	99	70-130	12/4/12 01:06	
Toluene-d8	101	70-130	12/4/12 01:06	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/5/12 18:33
Sample Name:	OB19-DO (64')	**Units:**	µg/L
Lab Code:	R1208115-004	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321222
Data File Name:	I:\ACQUDATA\msvoa12\Data\120512\T3243.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	400	U	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	U	400	
79-00-5	1,1,2-Trichloroethane	400	U	400	
75-34-3	1,1-Dichloroethane (1,1-DCA)	400	U	400	
75-35-4	1,1-Dichloroethene (1,1-DCE)	400	U	400	
107-06-2	1,2-Dichloroethane	400	U	400	
78-87-5	1,2-Dichloropropane	400	U	400	
67-64-1	Acetone	2000	U	2000	
75-27-4	Bromodichloromethane	400	U	400	
75-25-2	Bromoform	400	U	400	
74-83-9	Bromomethane	400	U	400	
56-23-5	Carbon Tetrachloride	400	U	400	
108-90-7	Chlorobenzene	400	U	400	
75-00-3	Chloroethane	400	U	400	
67-66-3	Chloroform	400	U	400	
74-87-3	Chloromethane	400	U	400	
124-48-1	Dibromochloromethane	400	U	400	
75-09-2	Methylene Chloride	400	U	400	
127-18-4	Tetrachloroethene (PCE)	**12000**	D	400	
79-01-6	Trichloroethene (TCE)	**24000**	D	400	
75-69-4	Trichlorofluoromethane (CFC 11)	400	U	400	
75-01-4	Vinyl Chloride	400	U	400	
156-59-2	cis-1,2-Dichloroethene	**3300**	D	400	
10061-01-5	cis-1,3-Dichloropropene	400	U	400	
156-60-5	trans-1,2-Dichloroethene	400	U	400	
10061-02-6	trans-1,3-Dichloropropene	400	U	400	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/5/12 18:33	
Dibromofluoromethane	99	70-130	12/5/12 18:33	
Toluene-d8	99	70-130	12/5/12 18:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP26-DO (64')		
Lab Code:	R1208115-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**33.5**		mg/L	1.0	1	NA	12/3/12 11:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP26-DO (64')		
Lab Code:	R1208115-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/29/12	12/7/12 21:15	
Manganese, Dissolved	6010C	**8500**		µg/L	50	5	11/29/12	12/12/12 00:42	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 01:02
Sample Name:	AP26-DO (64')	**Units:**	µg/L
Lab Code:	R1208115-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3163.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	**350**		4.0	
79-01-6	Trichloroethene (TCE)	4.0	U	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	11/30/12 01:02	
Dibromofluoromethane	99	70-130	11/30/12 01:02	
Toluene-d8	99	70-130	11/30/12 01:02	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1130
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB27-BR (86')		
Lab Code:	R1208115-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**540**		mg/L	50	50	NA	12/3/12 11:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1130
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB27-BR (86')		
Lab Code:	R1208115-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 21:21	
Manganese, Dissolved	6010C	**4400000**		µg/L	10000	100	11/29/12	12/12/12 00:49	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1130
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 18:30
Sample Name:	OB27-BR (86')	**Units:**	µg/L
Lab Code:	R1208115-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3177.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	37		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/3/12 18:30	
Dibromofluoromethane	96	70-130	12/3/12 18:30	
Toluene-d8	99	70-130	12/3/12 18:30	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1230
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB12-DO (59')		
Lab Code:	R1208115-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**120**		mg/L	10	10	NA	12/3/12 11:15	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/26/12 1230
Date Received: 11/28/12

Sample Name: OB12-DO (59')
Lab Code: R1208115-007

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 21:27	
Manganese, Dissolved	6010C	**790000**		µg/L	10000	100	11/29/12	12/12/12 00:56	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1230
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 21:31
Sample Name:	OB12-DO (59')	**Units:**	µg/L
Lab Code:	R1208115-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3226.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	**2.2**		2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**6.8**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	**2.4**		2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**2.6**		2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	12/4/12 21:31	
Dibromofluoromethane	100	70-130	12/4/12 21:31	
Toluene-d8	97	70-130	12/4/12 21:31	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	MW-13 (54')		
Lab Code:	R1208115-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	647		mg/L	10	10	NA	12/3/12 11:15	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	MW-13 (54')		
Lab Code:	R1208115-008	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 21:34	
Manganese, Dissolved	6010C	**210000**		µg/L	1000	10	11/29/12	12/12/12 01:07	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 23:27
Sample Name:	MW-13 (54')	**Units:**	µg/L
Lab Code:	R1208115-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3186.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**390**		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	**560**	E	5.0	
108-90-7	Chlorobenzene	**5.4**		5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	**540**	E	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**58**		5.0	
79-01-6	Trichloroethene (TCE)	**26**		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/3/12 23:27	
Dibromofluoromethane	101	70-130	12/3/12 23:27	
Toluene-d8	100	70-130	12/3/12 23:27	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/26/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 23:10
Sample Name:	MW-13 (54')	**Units:**	µg/L
Lab Code:	R1208115-008	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3229.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**400**	D	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	**550**	D	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	**550**	D	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**45**	D	10	
79-01-6	Trichloroethene (TCE)	**15**	D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/4/12 23:10	
Dibromofluoromethane	101	70-130	12/4/12 23:10	
Toluene-d8	99	70-130	12/4/12 23:10	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Sample Name: OB35-DO (62')
Lab Code: R1208115-009

Service Request: R1208115
Date Collected: 11/27/12 0745
Date Received: 11/28/12

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**83.5**		mg/L	1.0	1	NA	12/3/12 11:17	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Sample Name: OB35-DO (62')
Lab Code: R1208115-009

Service Request: R1208115
Date Collected: 11/27/12 0745
Date Received: 11/28/12

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/29/12	12/7/12 21:41	
Manganese, Dissolved	6010C	**4220**		µg/L	50	5	11/29/12	12/12/12 01:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 0745
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/29/12 22:17
Sample Name:	OB35-DO (62')	**Units:**	µg/L
Lab Code:	R1208115-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3158.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**33000**	E	200	
79-01-6	Trichloroethene (TCE)	**4800**		200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	**780**		200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/29/12 22:17	
Dibromofluoromethane	101	70-130	11/29/12 22:17	
Toluene-d8	100	70-130	11/29/12 22:17	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 0745
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 21:15
Sample Name:	OB35-DO (62')	**Units:**	µg/L
Lab Code:	R1208115-009	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3182.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	400	U	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	U	400	
79-00-5	1,1,2-Trichloroethane	400	U	400	
75-34-3	1,1-Dichloroethane (1,1-DCA)	400	U	400	
75-35-4	1,1-Dichloroethene (1,1-DCE)	400	U	400	
107-06-2	1,2-Dichloroethane	400	U	400	
78-87-5	1,2-Dichloropropane	400	U	400	
67-64-1	Acetone	2000	U	2000	
75-27-4	Bromodichloromethane	400	U	400	
75-25-2	Bromoform	400	U	400	
74-83-9	Bromomethane	400	U	400	
56-23-5	Carbon Tetrachloride	400	U	400	
108-90-7	Chlorobenzene	400	U	400	
75-00-3	Chloroethane	400	U	400	
67-66-3	Chloroform	400	U	400	
74-87-3	Chloromethane	400	U	400	
124-48-1	Dibromochloromethane	400	U	400	
75-09-2	Methylene Chloride	400	U	400	
127-18-4	Tetrachloroethene (PCE)	**32000**	D	400	
79-01-6	Trichloroethene (TCE)	**4700**	D	400	
75-69-4	Trichlorofluoromethane (CFC 11)	400	U	400	
75-01-4	Vinyl Chloride	400	U	400	
156-59-2	cis-1,2-Dichloroethene	**710**	D	400	
10061-01-5	cis-1,3-Dichloropropene	400	U	400	
156-60-5	trans-1,2-Dichloroethene	400	U	400	
10061-02-6	trans-1,3-Dichloropropene	400	U	400	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/3/12 21:15	
Dibromofluoromethane	98	70-130	12/3/12 21:15	
Toluene-d8	100	70-130	12/3/12 21:15	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/27/12 0845
Date Received: 11/28/12

Sample Name: AP27-DO (61')
Lab Code: R1208115-010

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**624**		mg/L	10	10	NA	12/3/12 11:29	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 0845
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP27-DO (61')		
Lab Code:	R1208115-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/29/12	12/7/12 21:47	
Manganese, Dissolved	6010C	**9060**		µg/L	50	5	11/29/12	12/12/12 01:23	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 0845
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 19:36
Sample Name:	AP27-DO (61')	**Units:**	µg/L
Lab Code:	R1208115-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3179.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/3/12 19:36	
Dibromofluoromethane	99	70-130	12/3/12 19:36	
Toluene-d8	100	70-130	12/3/12 19:36	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 00:00
Sample Name:	OB38-DO (54')	**Units:**	µg/L
Lab Code:	R1208115-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3187.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**240**		5.0	
79-01-6	Trichloroethene (TCE)	**190**		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	**130**		5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	12/4/12 00:00	
Dibromofluoromethane	98	70-130	12/4/12 00:00	
Toluene-d8	99	70-130	12/4/12 00:00	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1020
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 22:54
Sample Name:	B-2 (12')	**Units:**	µg/L
Lab Code:	R1208115-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3185.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	**5.5**		4.0	
79-01-6	Trichloroethene (TCE)	**220**		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	**320**		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/3/12 22:54	
Dibromofluoromethane	98	70-130	12/3/12 22:54	
Toluene-d8	100	70-130	12/3/12 22:54	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1115
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP12-DO (57')		
Lab Code:	R1208115-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**538**		mg/L	20	20	NA	12/3/12 11:35	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1115
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP12-DO (57')		
Lab Code:	R1208115-013	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**9200**		µg/L	1000	1	11/29/12	12/7/12 21:53	
Manganese, Dissolved	6010C	**3400000**		µg/L	10000	100	11/29/12	12/12/12 01:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1115
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 22:04
Sample Name:	AP12-DO (57')	**Units:**	µg/L
Lab Code:	R1208115-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3227.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**3.0**		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	**13**		2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**83**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/4/12 22:04	
Dibromofluoromethane	100	70-130	12/4/12 22:04	
Toluene-d8	97	70-130	12/4/12 22:04	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1145
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	AP12-BR (81')		
Lab Code:	R1208115-014	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	420		mg/L	10	10	NA	12/3/12 11:36	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/27/12 1145
Date Received: 11/28/12

Sample Name: AP12-BR (81')
Lab Code: R1208115-014

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 22:00	
Manganese, Dissolved	6010C	**3300000**		µg/L	10000	100	11/29/12	12/12/12 01:41	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1145
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 00:29
Sample Name:	AP12-BR (81')	**Units:**	µg/L
Lab Code:	R1208115-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3162.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	11/30/12 00:29	
Dibromofluoromethane	98	70-130	11/30/12 00:29	
Toluene-d8	97	70-130	11/30/12 00:29	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1215
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 02:08
Sample Name:	OB36-DO (61')	**Units:**	µg/L
Lab Code:	R1208115-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3165.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**10000**		200	
79-01-6	Trichloroethene (TCE)	**45000**	E	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	200	U	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	11/30/12 02:08	
Dibromofluoromethane	99	70-130	11/30/12 02:08	
Toluene-d8	101	70-130	11/30/12 02:08	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1215
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/5/12 19:06
Sample Name:	OB36-DO (61')	**Units:**	µg/L
Lab Code:	R1208115-015	**Basis:**	NA
Run Type:	Reanalysis		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321222
Data File Name:	I:\ACQUDATA\msvoa12\Data\120512\T3244.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**5600**		200	
79-01-6	Trichloroethene (TCE)	**9100**		200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	200	U	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/5/12 19:06	
Dibromofluoromethane	98	70-130	12/5/12 19:06	
Toluene-d8	99	70-130	12/5/12 19:06	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1245
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB37-DO (61')		
Lab Code:	R1208115-016	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**14.4**		mg/L	1.0	1	NA	12/3/12 11:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1245
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB37-DO (61')		
Lab Code:	R1208115-016	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**560**		µg/L	100	1	11/29/12	12/7/12 22:06	
Manganese, Dissolved	6010C	**19900**		µg/L	100	10	11/29/12	12/12/12 01:50	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1245
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/29/12 18:39
Sample Name:	OB37-DO (61')	**Units:**	µg/L
Lab Code:	R1208115-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3152.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**39**		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**10**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**20**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**4.5**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**4.0**		2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	11/29/12 18:39	
Dibromofluoromethane	99	70-130	11/29/12 18:39	
Toluene-d8	98	70-130	11/29/12 18:39	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1200
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 00:33
Sample Name:	AP30-DO (28')	**Units:**	µg/L
Lab Code:	R1208115-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3188.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**950**		10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	**55**		10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**17**		10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	**1600**	E	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	**2900**	E	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	**13**		10	
127-18-4	Tetrachloroethene (PCE)	**73**		10	
79-01-6	Trichloroethene (TCE)	10	U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/4/12 00:33	
Dibromofluoromethane	101	70-130	12/4/12 00:33	
Toluene-d8	98	70-130	12/4/12 00:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1200
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 23:43
Sample Name:	AP30-DO (28')	**Units:**	µg/L
Lab Code:	R1208115-017	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3230.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**1100**	D	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	**71**	D	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	**1900**	D	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	**3500**	D	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**61**	D	40	
79-01-6	Trichloroethene (TCE)	40	U	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	40	U	40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/4/12 23:43	
Dibromofluoromethane	100	70-130	12/4/12 23:43	
Toluene-d8	98	70-130	12/4/12 23:43	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1230
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/29/12 23:23
Sample Name:	AP31-DO (28')	**Units:**	µg/L
Lab Code:	R1208115-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3160.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**1400**		20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	**490**		20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	**660**		20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	20	U	20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	20	U	20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/29/12 23:23	
Dibromofluoromethane	100	70-130	11/29/12 23:23	
Toluene-d8	99	70-130	11/29/12 23:23	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1300
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 02:12
Sample Name:	AP32-DO (25')	**Units:**	µg/L
Lab Code:	R1208115-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3191.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2000	U	2000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U	2000	
79-00-5	1,1,2-Trichloroethane	2000	U	2000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2000	U	2000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2000	U	2000	
107-06-2	1,2-Dichloroethane	2000	U	2000	
78-87-5	1,2-Dichloropropane	2000	U	2000	
67-64-1	Acetone	10000	U	10000	
75-27-4	Bromodichloromethane	2000	U	2000	
75-25-2	Bromoform	2000	U	2000	
74-83-9	Bromomethane	2000	U	2000	
56-23-5	Carbon Tetrachloride	2000	U	2000	
108-90-7	Chlorobenzene	2000	U	2000	
75-00-3	Chloroethane	2000	U	2000	
67-66-3	Chloroform	**3000**		2000	
74-87-3	Chloromethane	2000	U	2000	
124-48-1	Dibromochloromethane	2000	U	2000	
75-09-2	Methylene Chloride	2000	U	2000	
127-18-4	Tetrachloroethene (PCE)	**31000**		2000	
79-01-6	Trichloroethene (TCE)	**170000**		2000	
75-69-4	Trichlorofluoromethane (CFC 11)	2000	U	2000	
75-01-4	Vinyl Chloride	2000	U	2000	
156-59-2	cis-1,2-Dichloroethene	2000	U	2000	
10061-01-5	cis-1,3-Dichloropropene	2000	U	2000	
156-60-5	trans-1,2-Dichloroethene	2000	U	2000	
10061-02-6	trans-1,3-Dichloropropene	2000	U	2000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/4/12 02:12	
Dibromofluoromethane	97	70-130	12/4/12 02:12	
Toluene-d8	100	70-130	12/4/12 02:12	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/27/12 1315
Date Received: 11/28/12

Sample Name: OB32-DO (60')
Lab Code: R1208115-020

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	209		mg/L	5.0	5	NA	12/3/12 11:29	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Collected: 11/27/12 1315
Date Received: 11/28/12

Sample Name: OB32-DO (60')
Lab Code: R1208115-020

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	11/29/12	12/7/12 22:25	
Manganese, Dissolved	6010C	**220000**		µg/L	1000	10	11/29/12	12/12/12 02:16	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 01:39
Sample Name:	OB34-DO (63')	**Units:**	µg/L
Lab Code:	R1208115-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3190.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**1500**		100	
79-01-6	Trichloroethene (TCE)	**10000**	E	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	**830**		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	12/4/12 01:39	
Dibromofluoromethane	98	70-130	12/4/12 01:39	
Toluene-d8	100	70-130	12/4/12 01:39	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	11/27/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/5/12 00:17
Sample Name:	OB34-DO (63')	**Units:**	µg/L
Lab Code:	R1208115-021	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3231.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**1400**	D	200	
79-01-6	Trichloroethene (TCE)	**9500**	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	**810**	D	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/5/12 00:17	
Dibromofluoromethane	98	70-130	12/5/12 00:17	
Toluene-d8	99	70-130	12/5/12 00:17	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1208115-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	1.0	U	mg/L	1.0	1	NA	12/3/12 11:09	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1208115-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/29/12	12/7/12 19:54	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	11/29/12	12/11/12 23:27	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/29/12 17:24
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214521-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320396
Data File Name:	I:\ACQUDATA\msvoa12\Data\112912\T3150.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	11/29/12 17:24	
Dibromofluoromethane	98	70-130	11/29/12 17:24	
Toluene-d8	100	70-130	11/29/12 17:24	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/3/12 17:24
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214655-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320821
Data File Name:	I:\ACQUDATA\msvoa12\Data\120312\T3175.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	12/3/12 17:24	
Dibromofluoromethane	99	70-130	12/3/12 17:24	
Toluene-d8	100	70-130	12/3/12 17:24	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/4/12 18:11
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214704-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321011
Data File Name:	I:\ACQUDATA\msvoa12\Data\120412\T3220.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/4/12 18:11	
Dibromofluoromethane	96	70-130	12/4/12 18:11	
Toluene-d8	99	70-130	12/4/12 18:11	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208115
Project:	Varian Beverly/146899 Non-Bio	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/5/12 17:27
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214773-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	321222
Data File Name:	I:\ACQUDATA\msvoa12\Data\120512\T3241.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	12/5/12 17:27	
Dibromofluoromethane	97	70-130	12/5/12 17:27	
Toluene-d8	99	70-130	12/5/12 17:27	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 12/ 3/12

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1208115-LCS Result	Spike Amount	% Rec	% Rec Limits
Chloride	SM 4500-Cl- E	23.9	25.0	96	86 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 12/ 7/12 - 12/11/12

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1208115-LCS Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	971	1000	97	80 - 120
Manganese, Dissolved	6010C	495	500	99	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 11/29/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 320396

	Lab Control Sample RQ1214521-03			Duplicate Lab Control Sample RQ1214521-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	19.0	20.0	95	70 - 130	7	20
1,1,2,2-Tetrachloroethane	18.8	20.0	94	19.6	20.0	98	70 - 130	4	20
1,1,2-Trichloroethane	20.2	20.0	101	21.2	20.0	106	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	21.2	20.0	106	19.7	20.0	98	70 - 130	7	20
1,1-Dichloroethene (1,1-DCE)	22.5	20.0	112	20.3	20.0	101	70 - 130	10	20
1,2-Dichloroethane	19.9	20.0	100	20.2	20.0	101	70 - 130	1	20
1,2-Dichloropropane	20.8	20.0	104	19.6	20.0	98	70 - 130	6	20
Acetone	19.5	20.0	97	20.5	20.0	103	40 - 160	5	20
Bromodichloromethane	20.5	20.0	103	20.3	20.0	102	70 - 130	<1	20
Bromoform	19.3	20.0	97	20.3	20.0	101	70 - 130	5	20
Bromomethane	29.3	20.0	146	25.5	20.0	127	40 - 160	14	20
Carbon Tetrachloride	21.2	20.0	106	19.6	20.0	98	70 - 130	8	20
Chlorobenzene	20.0	20.0	100	19.1	20.0	95	70 - 130	5	20
Chloroethane	21.2	20.0	106	19.1	20.0	95	70 - 130	10	20
Chloroform	21.3	20.0	106	19.9	20.0	99	70 - 130	7	20
Chloromethane	22.9	20.0	115	20.3	20.0	101	40 - 160	12	20
Dibromochloromethane	20.1	20.0	100	20.5	20.0	102	70 - 130	2	20
Methylene Chloride	20.0	20.0	100	18.8	20.0	94	70 - 130	6	20
Tetrachloroethene (PCE)	19.8	20.0	99	17.8	20.0	89	70 - 130	10	20
Trichloroethene (TCE)	20.6	20.0	103	19.3	20.0	96	70 - 130	7	20
Trichlorofluoromethane (CFC 11)	21.3	20.0	107	19.6	20.0	98	70 - 130	8	20
Vinyl Chloride	22.0	20.0	110	19.7	20.0	99	70 - 130	11	20
cis-1,2-Dichloroethene	19.6	20.0	98	18.2	20.0	91	70 - 130	7	20
cis-1,3-Dichloropropene	20.5	20.0	102	20.1	20.0	101	70 - 130	2	20
trans-1,2-Dichloroethene	20.6	20.0	103	18.6	20.0	93	70 - 130	11	20
trans-1,3-Dichloropropene	20.1	20.0	100	20.1	20.0	100	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 12/ 3/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 320821

	Lab Control Sample RQ1214655-03			Duplicate Lab Control Sample RQ1214655-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	19.2	20.0	96	17.7	20.0	88	70 - 130	8	20
1,1,2,2-Tetrachloroethane	19.1	20.0	96	18.2	20.0	91	70 - 130	5	20
1,1,2-Trichloroethane	20.5	20.0	103	19.6	20.0	98	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	19.8	20.0	99	18.6	20.0	93	70 - 130	6	20
1,1-Dichloroethene (1,1-DCE)	21.0	20.0	105	19.7	20.0	98	70 - 130	7	20
1,2-Dichloroethane	19.5	20.0	98	19.5	20.0	97	70 - 130	<1	20
1,2-Dichloropropane	20.3	20.0	101	18.8	20.0	94	70 - 130	8	20
Acetone	18.4	20.0	92	17.9	20.0	89	40 - 160	3	20
Bromodichloromethane	20.4	20.0	102	19.4	20.0	97	70 - 130	5	20
Bromoform	19.3	20.0	97	18.1	20.0	90	70 - 130	7	20
Bromomethane	26.0	20.0	130	23.2	20.0	116	40 - 160	11	20
Carbon Tetrachloride	20.1	20.0	100	17.8	20.0	89	70 - 130	12	20
Chlorobenzene	19.6	20.0	98	18.7	20.0	93	70 - 130	5	20
Chloroethane	19.3	20.0	96	18.3	20.0	91	70 - 130	5	20
Chloroform	20.3	20.0	101	18.8	20.0	94	70 - 130	7	20
Chloromethane	20.0	20.0	100	18.3	20.0	91	40 - 160	9	20
Dibromochloromethane	20.2	20.0	101	19.8	20.0	99	70 - 130	2	20
Methylene Chloride	18.7	20.0	94	17.8	20.0	89	70 - 130	5	20
Tetrachloroethene (PCE)	18.6	20.0	93	18.1	20.0	91	70 - 130	3	20
Trichloroethene (TCE)	20.0	20.0	100	18.7	20.0	94	70 - 130	7	20
Trichlorofluoromethane (CFC 11)	19.9	20.0	99	18.4	20.0	92	70 - 130	8	20
Vinyl Chloride	20.5	20.0	103	18.4	20.0	92	70 - 130	11	20
cis-1,2-Dichloroethene	18.6	20.0	93	18.4	20.0	92	70 - 130	1	20
cis-1,3-Dichloropropene	20.7	20.0	103	19.4	20.0	97	70 - 130	6	20
trans-1,2-Dichloroethene	19.8	20.0	99	18.6	20.0	93	70 - 130	6	20
trans-1,3-Dichloropropene	20.2	20.0	101	19.9	20.0	100	70 - 130	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 12/ 4/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 321011

	Lab Control Sample RQ1214704-03			Duplicate Lab Control Sample RQ1214704-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	20.3	20.0	102	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	20.2	20.0	101	20.4	20.0	102	70 - 130	<1	20
1,1,2-Trichloroethane	21.3	20.0	106	20.7	20.0	104	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	21.2	20.0	106	20.8	20.0	104	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	21.5	20.0	107	21.9	20.0	109	70 - 130	2	20
1,2-Dichloroethane	21.0	20.0	105	21.3	20.0	107	70 - 130	1	20
1,2-Dichloropropane	21.3	20.0	106	21.1	20.0	105	70 - 130	<1	20
Acetone	18.6	20.0	93	19.9	20.0	100	40 - 160	7	20
Bromodichloromethane	21.2	20.0	106	20.7	20.0	104	70 - 130	2	20
Bromoform	20.5	20.0	103	20.7	20.0	104	70 - 130	<1	20
Bromomethane	29.1	20.0	146	28.9	20.0	144	40 - 160	<1	20
Carbon Tetrachloride	20.6	20.0	103	19.9	20.0	99	70 - 130	4	20
Chlorobenzene	20.5	20.0	102	20.7	20.0	103	70 - 130	<1	20
Chloroethane	20.3	20.0	101	20.8	20.0	104	70 - 130	3	20
Chloroform	20.7	20.0	104	21.2	20.0	106	70 - 130	2	20
Chloromethane	21.7	20.0	109	21.8	20.0	109	40 - 160	<1	20
Dibromochloromethane	20.9	20.0	104	21.5	20.0	107	70 - 130	3	20
Methylene Chloride	20.3	20.0	102	19.8	20.0	99	70 - 130	3	20
Tetrachloroethene (PCE)	20.2	20.0	101	20.2	20.0	101	70 - 130	<1	20
Trichloroethene (TCE)	20.0	20.0	100	20.9	20.0	104	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	21.2	20.0	106	21.4	20.0	107	70 - 130	1	20
Vinyl Chloride	21.5	20.0	108	21.8	20.0	109	70 - 130	1	20
cis-1,2-Dichloroethene	19.5	20.0	98	20.0	20.0	100	70 - 130	2	20
cis-1,3-Dichloropropene	21.3	20.0	106	21.3	20.0	106	70 - 130	<1	20
trans-1,2-Dichloroethene	20.2	20.0	101	20.2	20.0	101	70 - 130	<1	20
trans-1,3-Dichloropropene	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group

QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899 Non-Bio
Sample Matrix: Water

Service Request: R1208115
Date Analyzed: 12/ 5/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 321222

	Lab Control Sample RQ1214773-03			Duplicate Lab Control Sample RQ1214773-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.8	20.0	104	20.6	20.0	103	70 - 130	1	20
1,1,2,2-Tetrachloroethane	21.3	20.0	107	22.0	20.0	110	70 - 130	3	20
1,1,2-Trichloroethane	21.6	20.0	108	22.0	20.0	110	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	21.0	20.0	105	20.9	20.0	104	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	21.7	20.0	108	22.0	20.0	110	70 - 130	2	20
1,2-Dichloroethane	22.2	20.0	111	22.4	20.0	112	70 - 130	1	20
1,2-Dichloropropane	21.0	20.0	105	21.9	20.0	110	70 - 130	4	20
Acetone	21.3	20.0	107	22.2	20.0	111	40 - 160	4	20
Bromodichloromethane	21.1	20.0	106	22.0	20.0	110	70 - 130	4	20
Bromoform	21.3	20.0	106	22.0	20.0	110	70 - 130	3	20
Bromomethane	26.6	20.0	133	27.0	20.0	135	40 - 160	2	20
Carbon Tetrachloride	20.8	20.0	104	21.2	20.0	106	70 - 130	2	20
Chlorobenzene	20.3	20.0	101	21.1	20.0	105	70 - 130	4	20
Chloroethane	20.3	20.0	101	20.9	20.0	105	70 - 130	3	20
Chloroform	21.4	20.0	107	21.4	20.0	107	70 - 130	<1	20
Chloromethane	21.9	20.0	109	21.1	20.0	105	40 - 160	4	20
Dibromochloromethane	21.3	20.0	107	22.1	20.0	111	70 - 130	4	20
Methylene Chloride	20.0	20.0	100	19.7	20.0	99	70 - 130	1	20
Tetrachloroethene (PCE)	20.2	20.0	101	20.4	20.0	102	70 - 130	1	20
Trichloroethene (TCE)	20.0	20.0	100	21.8	20.0	109	70 - 130	8	20
Trichlorofluoromethane (CFC 11)	21.7	20.0	108	21.6	20.0	108	70 - 130	<1	20
Vinyl Chloride	21.2	20.0	106	20.9	20.0	104	70 - 130	1	20
cis-1,2-Dichloroethene	19.5	20.0	98	19.9	20.0	100	70 - 130	2	20
cis-1,3-Dichloropropene	21.2	20.0	106	22.0	20.0	110	70 - 130	3	20
trans-1,2-Dichloroethene	20.5	20.0	102	20.1	20.0	100	70 - 130	2	20
trans-1,3-Dichloropropene	21.6	20.0	108	22.3	20.0	111	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4908

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: Varian Beverly	Project Number: 146899 Non-Bio
Project Manager: Raymond Cadorette	Report CC:
Company/Address: Shaw Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	Email: Raymond.Cadorette@Shawgrp.com
Sampler's Signature: Daniel C. Leahy	Sampler's Printed Name: DANIEL C. LEAHY

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 2 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS: TOTAL (List in comments below)	METALS: DISSOLVED (List in comments below) Fe+Mn	CHLORIDE
TB-1		BY	LAB	GW	3	3							
EQ-1		11/26/12	0730		3	3							
OB25-BR (99')		11/26/12	0830		5	3					1	1	
OB#9-DO (64')		11/26/12	0930		5	3					1	1	
AP26-DO (64')		11/26/12	1030		5	3					1	1	
OB27-BR (86')		11/26/12	1130		5	3					1	1	
OB12-DO (59')		11/26/12	1230		5	3					1	1	
MW-13 (54')		11/26/12	1330		5	3					1	1	
OB35-DO (62')		11/27/12	0745		5	3					1	1	
AP27-DO (61')		11/27/12	0845		5	3					1	1	
OB38-DO (54')		11/27/12	0930		3	3							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Site specific VOC List.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD and PDF of report to:
Catherine.Mainville@Shawgrp.com

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
STANDARD
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata ✓ Yes _____

INVOICE INFORMATION
PO # 798802
BILL TO: Shaw Environmental

R1208115 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature:	Signature: Amy Hentschke	Signature	Signature	Signature	Signature
Printed Name: Dan Leahy	Printed Name: Amy Hentschke	Printed Name	Printed Name	Printed Name	Printed Name
Firm: SHAW	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/27/12 1415	Date/Time: 11/28/12 0940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4906

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: Varian Beverly	Project Number: 146899 Non-Bio
Project Manager: Raymond Cadorette	Report CC:
Company/Address: Shaw Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	Email: Raymond.Cadorette@Shawgrp.com
Sampler's Signature: [signature]	Sampler's Printed Name: DAN LEahy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+Mn	Chloride
B-2 (12')		11/27/12	1020	GW	3	3							
AP12-DO (57')		11/27/12	1115		3							1	1
AP12-BR (81')		11/27/12	1145		3							1	1
OB36-DO (61')		11/27/12	1215		3								
OB37-DO (61')		11/27/12	1245		3							1	1
AP30-DO (38')		11/27/12	1200		3							1	1
AP31-DO (38')		11/27/12	1230		3							1	1
AP32-DO (25')		11/27/12	1300		3							1	1
OB32-DO (60')		11/27/12	1315		2							1	1
OB34-DO (63')		11/27/12	1330		3								

DL

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD and PDF of report to:
Catherine.Mainville@Shawgrp.com
1. NO VOC SAMPLE FOR OB32-DO (60') DL

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
STANDARD
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ✓ Yes ____ No

INVOICE INFORMATION
798802
PO # Shaw Environmental
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: DAN LEAHY	Printed Name: Amy Hentschke	Printed Name	Printed Name	Printed Name	Printed Name
Firm: SHAW	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11/27/12 1416	Date/Time: 11/28/12 0940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Shaw Folder Number B12-8115.

Cooler received on 11/28/12 by: AHH 11/28 COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	YES	(NO)
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	(NO) N/A
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC), CLIENT	
7.	Soil VOA samples received as:	Bulk Jar	Encore / TerraCore / Lab5035set (N/A)
8.	Temperature of cooler(s) upon receipt:	4.1°	
	Is the temperature within 0° - 6° C?:	(Y) N	Y N / Y N / Y N / Y N
	If No, Explain Below Date/Time Temperatures Taken:	11/28/12 0948	

Thermometer ID: IR GUN#3 (IR GUN#4) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples: _____

All Samples held in storage location R-002 by AHH on 11/28/12 at 0955
5035 samples placed in storage location _____ by _____ on _____ at _____
PC Secondary Review: MMP 11/28/12

Cooler Breakdown: Date: 11/28/12 Time: 1210 by: AH

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	~~YES~~	(NO)
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact	Canisters Pressurized	Tedlar® Bags Inflated (N/A)

Explain any discrepancies: C.O.C is wrong, did not receive metals/chloride bottles for locations on chain

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		BDB261241	11/13				
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	Client covered					

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: Client covered, 082612-2HH,

Other Comments:

* 2 vials broken for AP-31-DO(28')

* Did not receive TB.!!

AP30-DO (28')
AP31-DO (28')
AP32-DO (25')

PC Secondary Review: MMP 11/29/12

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 146899

Prepared By: Dale Dailey

Date : 1/15/2012

Matrix: Water

Analyte Group : Volatile Organics
Total Organics
Methane, Ethane, Ethylene

Analytical Method : EPA Method 8260C
EPA Method SM20 5310 C
EPA Method RSK 175

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1208113

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
11/28/12	SM20 5310 C		28 Days	11/28, 11/29, 12/4
11/28/12	8260C		14 Days	11/30, 12/3, 12/4/2012
11/28/12	RSK 175		14 Days	12/10, 12/11/2012

Sample temperature within QC limits: Yes (5.4° C)

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes (see notes)

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EB-2
Trip Blank ID : NA

Method Blank:		
	SM20 5310 C	11/28, 12/4/12
	8260C	11/30, 12/3, 12/4/12
	RSK 175	12/10, 12/11/12

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
VOCs: several samples were initially analyzed at dilutions to bring the target analytes within calibration range of the method. Sample MW-9(19') was re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. The re-analysis did not agree with the original analysis. The third vial was analyzed and produced a third different result. The high and low results have been reported. The analytes over the calibration range were flagged with an "E" and the diluted analytes are flagged with a "D."

RSK 175: several samples were initially analyzed at dilutions to bring the target analytes within calibration range of the method. Samples BW-4 (13'), BW-5 (15'), BW-6 (15'), BW-8 (15'), and BW-9 (15') re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. Analytes over the calibration range are flagged with an "E" and the diluted analytes are flagged with a "D."

Reviewed By: Pernilla Haley 1/24/13

December 13, 2012 Service Request No: R1208113

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/146898-02000000 BIO

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on November 28, 2012. For your reference, these analyses have been assigned our service request number **R1208113.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael K. Perry

Michael Perry
Laboratory Manager

Columbia Analytical Services™
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 FAX 585-288-8475
Columbia Analytical Services, Inc.
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COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw Environmental, Inc	**Service Request No.:**	R1208113
Project:	Varian Beverly	**Project Number:**	146898-02000000
Sample Matrix:	Water	**Date Received:**	11/28/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 11/26/12 and 11/27/12 and received at CAS in good condition at a cooler temperature of 5.4 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and CAS Job #.

Volatile Organics

Sixteen water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples MW-9 (19') was re-analyzed at a larger dilution to bring target analytes within the calibration range of the method. The re-analysis did not agree well with the original analysis. The third vial was analyzed and produced a third different result. The high and low results have been reported. The analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial and continuing calibrations were compliant.

All Surrogate Standard recoveries were within QC limits.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

All samples were analyzed within the required holding time of 14 days.

No other analytical or QC problems were encountered with these analyses.

Modified RSK-175

Ten water samples were analyzed for the hydrocarbon gases Methane, Ethane, and Ethene by modified RSK-175.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples BW-4 (13'), BW-5 (15'), BW-6 (15'), BW-8 (15'), and BW-9 (15') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All the initial and continuing calibration criteria were met for all analytes.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

The Method Blanks associated with these samples were free of contamination.

No other analytical or QC problems were encountered.

TOC Analyses

Ten water samples were analyzed for TOC by method SM20 5310C.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

No analytical or QC problems were encountered.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1208113

Lab ID	Client ID
R1208113-001	BW-4 (13')
R1208113-002	BW-5 (15')
R1208113-003	BW-6 (15')
R1208113-004	BW-8 (15')
R1208113-005	BW-9 (15')
R1208113-006	OB9-BR (121')
R1208113-007	OB9-DO (95')
R1208113-008	OB9-S (29')
R1208113-009	OB12-S (29')
R1208113-010	OB10-S (29')
R1208113-011	MW-8 (19')
R1208113-012	MW-9 (19')
R1208113-013	OB-15-S (19')
R1208113-014	STR-3
R1208113-015	EB-2
R1208113-016	32 Tozer-M2

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146898-02000000 Bio

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1208113 – 001 - 016

Matrices: X Groundwater ☐Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other: _____

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B ☐	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6850 Perchlorate CAM VIII B ☐	Other: TOC/RSk-175

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes ☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes ☐ No[1]

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes ☐No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (site list)	☐ Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Laboratory Manager

Printed Name: Michael K. Perry **Date:** 12/13/12

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2012

Expires: 30 JUN 2013

Oscar C. Parcarbo

Director, Division of Environmental Analysis

00007

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Collected: 11/28/12 0810
Date Received: 11/28/12

Sample Name: BW-4 (13')
Lab Code: R1208113-001

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**3.9**		mg/L	1.0	1	NA	11/28/12 22:28	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0810
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 13:08
Sample Name:	BW-4 (13')	**Units:**	µg/L
Lab Code:	R1208113-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1734.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**52**		2.0	
156-59-2	cis-1,2-Dichloroethene	**10**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 13:08	
Dibromofluoromethane	106	70-130	12/3/12 13:08	
Toluene-d8	105	70-130	12/3/12 13:08	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0810
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 13:37
Sample Name:	BW-4 (13')	**Units:**	µg/L
Lab Code:	R1208113-001	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1004.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**140**		10	
74-85-1	Ethene	**180**		10	
74-82-8	Methane	**1100**	E	10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0810
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 16:44
Sample Name:	BW-4 (13')	**Units:**	µg/L
Lab Code:	R1208113-001	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1018.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**130**	D	20	
74-85-1	Ethene	**170**	D	20	
74-82-8	Methane	**970**	D	20	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0850
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	BW-5 (15')		
Lab Code:	R1208113-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	700		mg/L	100	100	NA	11/29/12 00:28	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0850
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 14:57
Sample Name:	BW-5 (15')	**Units:**	µg/L
Lab Code:	R1208113-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320499
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\113012\A1711.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**6.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/30/12 14:57	
Dibromofluoromethane	101	70-130	11/30/12 14:57	
Toluene-d8	103	70-130	11/30/12 14:57	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0850
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 13:47
Sample Name:	BW-5 (15')	**Units:**	µg/L
Lab Code:	R1208113-002	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1005.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	50	U	50	
74-85-1	Ethene	50	U	50	
74-82-8	Methane	**11000**	E	50	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0850
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 13:58
Sample Name:	BW-5 (15')	**Units:**	µg/L
Lab Code:	R1208113-002	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1006.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**11000**	D	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0940
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	BW-6 (15')		
Lab Code:	R1208113-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**167**		mg/L	20	20	NA	11/29/12 00:48	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0940
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 15:26
Sample Name:	BW-6 (15')	**Units:**	µg/L
Lab Code:	R1208113-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320499
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\113012\A1712.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**2.3**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**3.3**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**11**		2.0	
156-59-2	cis-1,2-Dichloroethene	**7.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/30/12 15:26	
Dibromofluoromethane	105	70-130	11/30/12 15:26	
Toluene-d8	106	70-130	11/30/12 15:26	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0940
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 14:08
Sample Name:	BW-6 (15')	**Units:**	µg/L
Lab Code:	R1208113-003	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1007.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**68**		5.0	
74-85-1	Ethene	**140**		5.0	
74-82-8	Methane	**2100**	E	5.0	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0940
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 17:05
Sample Name:	BW-6 (15')	**Units:**	µg/L
Lab Code:	R1208113-003	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1020.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	100	U	100	
74-85-1	Ethene	**170**	D	100	
74-82-8	Methane	**6300**	D	100	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	BW-8 (15')		
Lab Code:	R1208113-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	630		mg/L	40	40	NA	12/4/12 06:44	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 15:53
Sample Name:	BW-8 (15')	**Units:**	µg/L
Lab Code:	R1208113-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320499
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\113012\A1713.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**16**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**44**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**2.7**		2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**3.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	11/30/12 15:53	
Dibromofluoromethane	104	70-130	11/30/12 15:53	
Toluene-d8	107	70-130	11/30/12 15:53	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 14:19
Sample Name:	BW-8 (15')	**Units:**	µg/L
Lab Code:	R1208113-004	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1008.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**40**		20	
74-85-1	Ethene	20	U	20	
74-82-8	Methane	**8600**	E	20	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1030
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 17:17
Sample Name:	BW-8 (15')	**Units:**	µg/L
Lab Code:	R1208113-004	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1021.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**15000**	D	200	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Collected: 11/28/12 1120
Date Received: 11/28/12

Sample Name: BW-9 (15')
Lab Code: R1208113-005

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**630**		mg/L	100	100	NA	11/29/12 01:29	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1120
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	11/30/12 16:21
Sample Name:	BW-9 (15')	**Units:**	µg/L
Lab Code:	R1208113-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320499
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\113012\A1714.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**57**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	11/30/12 16:21	
Dibromofluoromethane	104	70-130	11/30/12 16:21	
Toluene-d8	105	70-130	11/30/12 16:21	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1120
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 14:41
Sample Name:	BW-9 (15')	**Units:**	µg/L
Lab Code:	R1208113-005	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1010.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	100	U	100	
74-85-1	Ethene	100	U	100	
74-82-8	Methane	**17000**	E	100	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1120
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 14:55
Sample Name:	BW-9 (15')	**Units:**	µg/L
Lab Code:	R1208113-005	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1011.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**17000**	D	200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1210
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB9-BR (121')		
Lab Code:	R1208113-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**13.2**		mg/L	1.0	1	NA	11/29/12 01:49	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1210
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 14:04
Sample Name:	OB9-BR (121')	**Units:**	µg/L
Lab Code:	R1208113-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1736.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	**2600**		50	
79-01-6	Trichloroethene (TCE)	**3100**		50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
156-59-2	cis-1,2-Dichloroethene	**2900**		50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	70-130	12/3/12 14:04	
Dibromofluoromethane	106	70-130	12/3/12 14:04	
Toluene-d8	106	70-130	12/3/12 14:04	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1210
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 15:34
Sample Name:	OB9-BR (121')	**Units:**	µg/L
Lab Code:	R1208113-006	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1013.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	50	U	50	
74-85-1	Ethene	**57**		50	
74-82-8	Methane	**2100**		50	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1340
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB9-DO (95')		
Lab Code:	R1208113-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**8.8**		mg/L	1.0	1	NA	12/4/12 07:45	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1340
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 14:32
Sample Name:	OB9-DO (95')	**Units:**	µg/L
Lab Code:	R1208113-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1737.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	20	U	20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	**1100**		20	
156-59-2	cis-1,2-Dichloroethene	**270**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 14:32	
Dibromofluoromethane	106	70-130	12/3/12 14:32	
Toluene-d8	104	70-130	12/3/12 14:32	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1340
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/11/12 14:18
Sample Name:	OB9-DO (95')	**Units:**	µg/L
Lab Code:	R1208113-007	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322049
Data File Name:	1003.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	5.0	U	5.0	
74-85-1	Ethene	5.0	U	5.0	
74-82-8	Methane	**330**		5.0	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1420
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB9-S (29')		
Lab Code:	R1208113-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**32.7**		mg/L	4.0	4	NA	12/4/12 08:05	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Collected: 11/28/12 1420
Date Received: 11/28/12
Date Analyzed: 11/30/12 17:45

Sample Name: OB9-S (29')
Lab Code: R1208113-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\113012\A1717.D\

Analysis Lot: 320499
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**10**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**8.2**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**7.7**		2.0	
79-01-6	Trichloroethene (TCE)	**33**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**3.7**		2.0	
156-59-2	cis-1,2-Dichloroethene	**17**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	11/30/12 17:45	
Dibromofluoromethane	104	70-130	11/30/12 17:45	
Toluene-d8	104	70-130	11/30/12 17:45	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1420
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 16:02
Sample Name:	OB9-S (29')	**Units:**	µg/L
Lab Code:	R1208113-008	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1015.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	200	U	200	
74-85-1	Ethene	200	U	200	
74-82-8	Methane	**15000**		200	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0840
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 13:36
Sample Name:	OB12-S (29')	**Units:**	µg/L
Lab Code:	R1208113-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1735.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 13:36	
Dibromofluoromethane	105	70-130	12/3/12 13:36	
Toluene-d8	103	70-130	12/3/12 13:36	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 0930
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 14:59
Sample Name:	OB10-S (29')	**Units:**	µg/L
Lab Code:	R1208113-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1738.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**3.8**		2.0	
79-01-6	Trichloroethene (TCE)	**30**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**9.2**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	12/3/12 14:59	
Dibromofluoromethane	105	70-130	12/3/12 14:59	
Toluene-d8	102	70-130	12/3/12 14:59	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1010
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 11:33
Sample Name:	MW-8 (19')	**Units:**	µg/L
Lab Code:	R1208113-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320918
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120412\A1760.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**84**		4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	**210**		4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	4.0	U	4.0	
79-01-6	Trichloroethene (TCE)	4.0	U	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/4/12 11:33	
Dibromofluoromethane	103	70-130	12/4/12 11:33	
Toluene-d8	104	70-130	12/4/12 11:33	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Collected: 11/28/12 1100
Date Received: 11/28/12

Sample Name: MW-9 (19')
Lab Code: R1208113-012

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**11900**		mg/L	2000	2000	NA	11/29/12 02:49	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1100
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 15:55
Sample Name:	MW-9 (19')	**Units:**	µg/L
Lab Code:	R1208113-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1740.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**3.0**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**4.8**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**4.5**		2.0	
127-18-4	Tetrachloroethene (PCE)	**4.5**		2.0	
79-01-6	Trichloroethene (TCE)	**19**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**110**		2.0	
156-59-2	cis-1,2-Dichloroethene	**330**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**3.2**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	12/3/12 15:55	
Dibromofluoromethane	105	70-130	12/3/12 15:55	
Toluene-d8	104	70-130	12/3/12 15:55	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1100
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 12:01
Sample Name:	MW-9 (19')	**Units:**	µg/L
Lab Code:	R1208113-012	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320918
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120412\A1761.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	4.0	U	4.0	
79-01-6	Trichloroethene (TCE)	**14**	D	4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	**37**	D	4.0	
156-59-2	cis-1,2-Dichloroethene	**130**	D	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/4/12 12:01	
Dibromofluoromethane	102	70-130	12/4/12 12:01	
Toluene-d8	104	70-130	12/4/12 12:01	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1100
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 16:12
Sample Name:	MW-9 (19')	**Units:**	µg/L
Lab Code:	R1208113-012	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1016.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**2600**		250	
74-85-1	Ethene	**2700**		250	
74-82-8	Methane	**20000**		250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1140
Sample Matrix:	Water	**Date Received:**	11/28/12
Sample Name:	OB-15-S (19')		
Lab Code:	R1208113-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	**1670**		mg/L	100	100	NA	11/29/12 03:10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1140
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 16:23
Sample Name:	OB-15-S (19')	**Units:**	µg/L
Lab Code:	R1208113-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1741.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**11**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**3.1**		2.0	
67-66-3	Chloroform	**5.6**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**6.3**		2.0	
127-18-4	Tetrachloroethene (PCE)	**7.4**		2.0	
79-01-6	Trichloroethene (TCE)	**10**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**67**		2.0	
156-59-2	cis-1,2-Dichloroethene	**55**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 16:23	
Dibromofluoromethane	103	70-130	12/3/12 16:23	
Toluene-d8	104	70-130	12/3/12 16:23	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1140
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/10/12 16:30
Sample Name:	OB-15-S (19')	**Units:**	µg/L
Lab Code:	R1208113-013	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1017.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**300**		250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**18000**		250	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1220
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 16:50
Sample Name:	STR-3	**Units:**	µg/L
Lab Code:	R1208113-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1742.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 16:50	
Dibromofluoromethane	105	70-130	12/3/12 16:50	
Toluene-d8	103	70-130	12/3/12 16:50	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1330
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/3/12 17:18
Sample Name:	EB-2	**Units:**	µg/L
Lab Code:	R1208113-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1743.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	12/3/12 17:18	
Dibromofluoromethane	103	70-130	12/3/12 17:18	
Toluene-d8	104	70-130	12/3/12 17:18	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	11/28/12 1350
Sample Matrix:	Water	**Date Received:**	11/28/12
		Date Analyzed:	12/4/12 12:28
Sample Name:	32 Tozer-M2	**Units:**	µg/L
Lab Code:	R1208113-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320918
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120412\A1762.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**16000**		200	
79-01-6	Trichloroethene (TCE)	**4300**		200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	**4600**		200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	12/4/12 12:28	
Dibromofluoromethane	104	70-130	12/4/12 12:28	
Toluene-d8	102	70-130	12/4/12 12:28	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1208113-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	1.0	U	mg/L	1.0	1	NA	11/28/12 16:29	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1208113-MB2	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM20 5310 C	1.0	U	mg/L	1.0	1	NA	12/4/12 05:44	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/30/12 11:09
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214546-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320499
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\113012\A1703.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	11/30/12 11:09	
Dibromofluoromethane	102	70-130	11/30/12 11:09	
Toluene-d8	104	70-130	11/30/12 11:09	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/3/12 11:13
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214610-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320739
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120312\A1730.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	12/3/12 11:13	
Dibromofluoromethane	104	70-130	12/3/12 11:13	
Toluene-d8	101	70-130	12/3/12 11:13	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/4/12 10:37
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214680-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	320918
Data File Name:	I:\ACQUDATA\MSVOA8\DATA\120412\A1758.D\	**Instrument Name:**	R-MS-08
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	12/4/12 10:37	
Dibromofluoromethane	101	70-130	12/4/12 10:37	
Toluene-d8	102	70-130	12/4/12 10:37	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/10/12 12:26
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1215020-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322048
Data File Name:	1001.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208113
Project:	Varian Beverly/146898-02000000 BIO	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/11/12 13:20
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1215021-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	322049
Data File Name:	1001.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 11/28/12

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1208113-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM20 5310 C	10.3	10.0	103	86 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 12/ 4/12

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1208113-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM20 5310 C	10.0	10.0	100	86 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 11/30/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 320499

Analyte Name	Lab Control Sample RQ1214546-04 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214546-05 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	18.7	20.0	93	17.3	20.0	86	70 - 130	8	20
1,1,2,2-Tetrachloroethane	18.6	20.0	93	17.2	20.0	86	70 - 130	8	20
1,1,2-Trichloroethane	18.3	20.0	92	18.0	20.0	90	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	20.1	20.0	101	19.1	20.0	96	70 - 130	5	20
1,1-Dichloroethene (1,1-DCE)	20.1	20.0	100	18.9	20.0	94	70 - 130	6	20
1,2-Dichloroethane	19.8	20.0	99	19.5	20.0	98	70 - 130	1	20
1,2-Dichloropropane	19.8	20.0	99	19.1	20.0	95	70 - 130	4	20
Acetone	20.3	20.0	101	22.0	20.0	110	40 - 160	8	20
Bromodichloromethane	19.3	20.0	97	18.3	20.0	92	70 - 130	5	20
Bromoform	17.9	20.0	90	17.9	20.0	89	70 - 130	<1	20
Bromomethane	28.5	20.0	143	26.9	20.0	134	40 - 160	6	20
Carbon Tetrachloride	18.6	20.0	93	17.6	20.0	88	70 - 130	6	20
Chlorobenzene	19.5	20.0	97	18.2	20.0	91	70 - 130	7	20
Chloroethane	18.8	20.0	94	18.2	20.0	91	70 - 130	3	20
Chloroform	19.6	20.0	98	18.8	20.0	94	70 - 130	4	20
Chloromethane	20.7	20.0	103	19.8	20.0	99	40 - 160	4	20
Dibromochloromethane	19.6	20.0	98	18.6	20.0	93	70 - 130	5	20
Methylene Chloride	19.2	20.0	96	17.7	20.0	88	70 - 130	8	20
Tetrachloroethene (PCE)	20.2	20.0	101	18.2	20.0	91	70 - 130	10	20
Trichloroethene (TCE)	19.5	20.0	97	18.3	20.0	92	70 - 130	6	20
Trichlorofluoromethane (CFC 11)	20.4	20.0	102	18.2	20.0	91	70 - 130	12	20
Vinyl Chloride	19.8	20.0	99	18.8	20.0	94	70 - 130	5	20
cis-1,2-Dichloroethene	19.4	20.0	97	18.3	20.0	91	70 - 130	6	20
cis-1,3-Dichloropropene	18.9	20.0	94	17.8	20.0	89	70 - 130	6	20
trans-1,2-Dichloroethene	19.0	20.0	95	17.9	20.0	89	70 - 130	6	20
trans-1,3-Dichloropropene	19.8	20.0	99	18.4	20.0	92	70 - 130	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 12/ 3/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 320739

Analyte Name	Lab Control Sample RQ1214610-07 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214610-08 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	19.4	20.0	97	18.9	20.0	95	70 - 130	3	20
1,1,2,2-Tetrachloroethane	17.6	20.0	88	18.2	20.0	91	70 - 130	3	20
1,1,2-Trichloroethane	18.1	20.0	90	19.4	20.0	97	70 - 130	7	20
1,1-Dichloroethane (1,1-DCA)	21.4	20.0	107	20.7	20.0	103	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	20.3	20.0	102	20.7	20.0	103	70 - 130	2	20
1,2-Dichloroethane	19.8	20.0	99	20.0	20.0	100	70 - 130	<1	20
1,2-Dichloropropane	19.2	20.0	96	19.8	20.0	99	70 - 130	3	20
Acetone	16.8	20.0	84	23.7	20.0	118	40 - 160	34 *	20
Bromodichloromethane	19.4	20.0	97	19.5	20.0	97	70 - 130	<1	20
Bromoform	18.1	20.0	91	18.5	20.0	93	70 - 130	2	20
Bromomethane	27.6	20.0	138	25.4	20.0	127	40 - 160	8	20
Carbon Tetrachloride	19.6	20.0	98	19.2	20.0	96	70 - 130	2	20
Chlorobenzene	19.7	20.0	98	19.0	20.0	95	70 - 130	4	20
Chloroethane	20.3	20.0	101	19.6	20.0	98	70 - 130	3	20
Chloroform	20.2	20.0	101	20.1	20.0	100	70 - 130	<1	20
Chloromethane	21.4	20.0	107	20.6	20.0	103	40 - 160	3	20
Dibromochloromethane	19.5	20.0	98	19.5	20.0	97	70 - 130	<1	20
Methylene Chloride	18.7	20.0	94	19.2	20.0	96	70 - 130	2	20
Tetrachloroethene (PCE)	20.2	20.0	101	20.2	20.0	101	70 - 130	<1	20
Trichloroethene (TCE)	19.7	20.0	98	19.3	20.0	97	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	21.0	20.0	105	20.1	20.0	100	70 - 130	4	20
Vinyl Chloride	19.9	20.0	99	20.1	20.0	101	70 - 130	1	20
cis-1,2-Dichloroethene	19.6	20.0	98	19.6	20.0	98	70 - 130	<1	20
cis-1,3-Dichloropropene	18.6	20.0	93	18.9	20.0	95	70 - 130	2	20
trans-1,2-Dichloroethene	19.4	20.0	97	19.5	20.0	98	70 - 130	<1	20
trans-1,3-Dichloropropene	18.7	20.0	94	19.3	20.0	96	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 12/ 4/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 320918

Analyte Name	Lab Control Sample RQ1214680-04 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214680-05 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	19.7	20.0	98	19.5	20.0	97	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	17.3	20.0	87	17.8	20.0	89	70 - 130	3	20
1,1,2-Trichloroethane	18.9	20.0	94	19.0	20.0	95	70 - 130	<1	20
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	103	20.7	20.0	104	70 - 130	1	20
1,1-Dichloroethene (1,1-DCE)	20.0	20.0	100	20.1	20.0	101	70 - 130	<1	20
1,2-Dichloroethane	19.7	20.0	99	19.7	20.0	98	70 - 130	<1	20
1,2-Dichloropropane	20.6	20.0	103	19.4	20.0	97	70 - 130	6	20
Acetone	17.7	20.0	88	21.5	20.0	107	40 - 160	19	20
Bromodichloromethane	20.1	20.0	101	18.9	20.0	94	70 - 130	6	20
Bromoform	18.0	20.0	90	17.6	20.0	88	70 - 130	2	20
Bromomethane	21.2	20.0	106	23.3	20.0	116	40 - 160	9	20
Carbon Tetrachloride	20.0	20.0	100	18.7	20.0	94	70 - 130	7	20
Chlorobenzene	19.9	20.0	99	18.8	20.0	94	70 - 130	5	20
Chloroethane	18.8	20.0	94	20.2	20.0	101	70 - 130	7	20
Chloroform	20.1	20.0	100	20.5	20.0	103	70 - 130	2	20
Chloromethane	18.6	20.0	93	18.7	20.0	94	40 - 160	<1	20
Dibromochloromethane	20.5	20.0	102	19.5	20.0	97	70 - 130	5	20
Methylene Chloride	18.8	20.0	94	19.1	20.0	96	70 - 130	2	20
Tetrachloroethene (PCE)	21.5	20.0	108	19.1	20.0	96	70 - 130	12	20
Trichloroethene (TCE)	20.4	20.0	102	19.6	20.0	98	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	20.2	20.0	101	20.5	20.0	102	70 - 130	1	20
Vinyl Chloride	19.9	20.0	100	19.6	20.0	98	70 - 130	2	20
cis-1,2-Dichloroethene	19.2	20.0	96	20.2	20.0	101	70 - 130	5	20
cis-1,3-Dichloropropene	19.3	20.0	97	18.3	20.0	92	70 - 130	5	20
trans-1,2-Dichloroethene	19.4	20.0	97	19.5	20.0	97	70 - 130	<1	20
trans-1,3-Dichloropropene	19.8	20.0	99	18.6	20.0	93	70 - 130	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 12/10/12

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 322048

Analyte Name	Lab Control Sample RQ1215020-02 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1215020-03 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ethane	26.6	26.1	102	24.8	26.1	95	82 - 127	7	30
Ethene	23.7	24.3	98	22.1	24.3	91	76 - 119	7	30
Methane	27.3	26.2	104	25.8	26.2	99	82 - 126	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146898-02000000 BIO
Sample Matrix: Water

Service Request: R1208113
Date Analyzed: 12/11/12

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 322049

Analyte Name	Lab Control Sample RQ1215021-02 Result	Spike Amount	% Rec	% Rec Limits
Ethane	26.8	26.1	103	82 - 127
Ethene	23.9	24.3	99	76 - 119
Methane	26.7	26.2	102	82 - 126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4903

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name	Project Number
Varian Beverly	146898-02000000 (B10)
Project Manager	**Report CC**
Raymond Cadorette	

Company/Address
Shaw Environmental, Inc.
150 Royall Street
Canton, MA 02021

Phone #	Email
617-589-6102	raymond.Cadorette@shawgrp.com
Sampler's Signature	**Sampler's Printed Name**
	Austin Maynard

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 1 | 3

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs (8260 ○ 624 ○ CLP)	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Methane, Ethane, Ethene	TOC							REMARKS/ ALTERNATE DESCRIPTION
BW-4 (13')		11-26-12	08:10	GW	7	3							3	1							
BW-5 (15')		11-26-12	08:50		7	3							3	1							
BW-6 (15')		11-26-12	09:40		7	3							3	1							
BW-8 (15')		11-26-12	10:30		7	3							3	1							
BW-9 (15')		11-26-12	11:20		7	3							3	1							
OB9-BR (121')		11-26-12	12:10		7	3							3	1							
OB9-DO (95')		11-26-12	13:40		7	3							3	1							
OB9-S (29')		11-26-12	14:20		7	3							3	1							
OB12-S (29')		11-27-12	8:40		3	3															
OB10-S (29')		11-27-12	9:30		3	3															
MW-8 (19')		11-27-12	10:10		3	3															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@Shawgrp.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
Standard
1 day ___ 2 day ___ 3 day
___ 4 day ___ 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data

Edata ✓ Yes ___

INVOICE INFORMATION
798802
PO # Shaw Environmental
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name Austin Maynard	Printed Name Amy Heintschke	Printed Name	Printed Name	Printed Name	Printed Name
Firm Shaw	Firm ALS	Firm	Firm	Firm	Firm
Date/Time 11-27-12 15:16	Date/Time 11/28/12 0940	Date/Time	Date/Time	Date/Time	Date/Time

R1208113 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly

9505

Distribution: White - Lab Copy; Yellow - Return to Originator

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4904

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: Varian Beverly	Project Number: 146898-02000000 (B10)
Project Manager: Raymond Cadorette	Report CC:
Company/Address: Shaw Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	Email: Raymond.Cadorette@Shawgrp.com
Sampler's Signature: Austin Maynard	Sampler's Printed Name: Austin Maynard

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 1 3

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Methane, Ethane, Ethene	TOC
MW-9(19')		11-27-12	11:00	GW	7	3							3	1
OB-15-S(19')		11-27-12	11:40		7	3							3	1
STR-3		11-27-12	12:20		3	3								
EB-2		11-27-12	13:30		3	3								
32 Tozo-M2		11-27-12	13:50		3	3								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS

Metals

Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@Shawgrp.com.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
Standard
1 day 2 day 3 day
4 day 5 day

REQUESTED REPORT DATE

REPORT REQUIREMENTS
I. Results Only
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
III. Results + QC and Calibration Summaries
IV. Data Validation Report with Raw Data
Edata ✓ Yes No

INVOICE INFORMATION
798802
PO # Shaw Environmental
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Austin Maynard	Signature: Amy Hentschke	Signature	Signature	Signature	Signature
Printed Name: Austin Maynard	Printed Name: Amy Hentschke	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Shaw	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11-27-12 15:15	Date/Time: 11/28/12 0940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Shaw Folder Number R12-8113

Cooler received on 11/28/12 by: AHH **COURIER:** ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?			YES	(NO)	
2.	Were custody papers properly filled out (ink, signed, etc.)?			(YES)	NO	
3.	Did all bottles arrive in good condition (unbroken)?			(YES)	NO	
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?			(YES) *	NO	N/A
5.	Were **Ice** or **Ice packs** present?			(YES)	NO	
6.	Where did the bottles originate?			(ALS/ROC), CLIENT		
7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	(N/A)
8.	Temperature of cooler(s) upon receipt:	5.4°				
	Is the temperature within 0° - 6° C?:	(Y) N	Y N	Y N	Y N	Y N
	If No, Explain Below Date/Time Temperatures Taken:			11/28/12	0957	

Thermometer ID: IR GUN#3 (IR GUN#4) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location R-002 by AHH on 11/28/12 at 1003
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: MP 11/28/12

Cooler Breakdown: Date: 11/28/12 Time: 1205 by: AHH

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4	X		WC1121190	10/13				
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	4111100	11/13				

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: 2-2016-002, 101512-1PP

Other Comments:

* { 1 vial for BW-8(15') RSK-175 w/ bubble + for MW-9(19') RSK-175
{ 3 vials for BW-5(15') RSK-175 + OBIS-5(19') RSK-175 w/ bubbles

** For location MW-9(19') The 8260 vials are clear + the RSK + TOC samples look like milk.

PC Secondary Review: MP 11/28/12

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc
Job Number : 146898.13

Prepared By: Dale Dailey
Date : 1/15/2012

Matrix: Air

Analyte Group : Volatile Organics
Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes
Laboratory ID No. : R1208072

Chain of Custody included in Data Package ? Yes
Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
11/21/12	VOC TO-15		30 Days	11/27/12

Sample temperature within QC limits: NA

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 11/27/2012

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
No analytical or QC problems were encountered with these analyses.
All initial calibrations were compliant.

Reviewed By: Pernilla Haley 1/24/13

December 07, 2012 Service Request No: R1208072

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
100 Technology Center
Stoughton, MA 02072

Laboratory Results for: Varian Beverly Air Samples/146898.1300000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on November 26, 2012. For your reference, these analyses have been assigned our service request number **R1208072.**

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

Columbia Analytical Services
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company
Environmental www.caslab.com ▪ www.alsglobal.com
RIGHT SOLUTIONS RIGHT PARTNER

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw E & I, Inc.	**Service Request No.:**	R1208072
Project:	Varian Beverly	**Project No.:**	146898
Sample Matrix:	Air	**Date Received:**	11/26/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. This report contains analytical results for samples designated for Tier II, MASS. CAM deliverables. When appropriate to the method, blank and LCS results have been reported with each analytical test.

Sample Receipt

Shaw air samples were collected on 11/21/12 and received at CAS in good condition as noted on the receipt and preservation check form. The samples were stored in the laboratory at room temperature prior to analysis. See the CAS case narrative for a cross-reference between Client ID and CAS Job #.

TO - 15 Air Analysis

Six air samples were analyzed for a site list of Volatile Organics by EPA method TO-15.

All samples were initially analyzed at appropriate dilutions based on prescreening of the samples and/or historical data to bring the target analytes within the calibration range of the method.

All initial and continuing calibrations were compliant.

All surrogate standard recoveries were within QC limits.

The LCS recoveries were all within QC limits of 70 – 130 %. All RPD data were within QC limits.

No other analytical or QC problems were encountered with these analyses.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1208072

Lab ID	Client ID
R1208072-001	SV4 30 TOZER
R1208072-002	SV5 30 TOZER
R1208072-003	30 TOZER-1
R1208072-004	30 TOZER-2
R1208072-005	30 TOZER-3
R1208072-006	SV6 30 TOZER

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146898

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1208072–001 - 006

Matrices: ☐Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water X Air ☐ Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B X
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes ☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	X Yes ☐ No X Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (Site list as requested)	X Yes ☐ No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Michael K. Perry **Position:** Laboratory Manager

Printed Name: Michael K. Perry **Date:** 12/06/12

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Oscar C. Jacobs

Director, Division of Environmental Analysis

Issued: 01 JUL 2012
Expires: 30 JUN 2013

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

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M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208072
Project:	Varian Beverly Air Samples/146898.1300000	**Date Collected:**	11/21/12 1145
Sample Matrix:	Air	**Date Received:**	11/26/12
Sample Name:	SV4 30 TOZER		
Lab Code:	R1208072-001		

Analytical Method: TO-15 **Date Analyzed:** 11/27/12 1129
Canister Dilution Factor: 1.46

Initial Pressure (psig): -2.21 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	32	21	21	9.9	9.9	U
75-01-4	Vinyl Chloride	32	2.7	2.7	1.1	1.1	U
74-83-9	Bromomethane	32	20	20	5.1	5.1	U
75-00-3	Chloroethane	32	26	26	10	10	U
67-64-1	Acetone	32	230	230	96	96	U
75-69-4	Trichlorofluoromethane (CFC 11)	32	28	28	5.0	5.0	U
75-35-4	1,1-Dichloroethene	32	20	20	5.1	5.1	U
75-09-2	Methylene Chloride	32	17	17	5.0	5.0	U
156-60-5	trans-1,2-Dichloroethene	32	20	20	5.1	5.1	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	32	21	21	5.1	5.1	U
156-59-2	cis-1,2-Dichloroethene	32	20	20	5.1	5.1	U
67-66-3	Chloroform	32	25	25	5.0	5.0	U
107-06-2	1,2-Dichloroethane	32	21	21	5.1	5.1	U
71-55-6	**1,1,1-Trichloroethane (TCA)**	32	**29**	27	**5.4**	5.0	
56-23-5	Carbon Tetrachloride	32	3.2	3.2	0.51	0.51	U
78-87-5	1,2-Dichloropropane	32	23	23	5.0	5.0	U
75-27-4	Bromodichloromethane	32	6.8	6.8	1.0	1.0	U
79-01-6	**Trichloroethene (TCE)**	32	**2200**	2.7	**420**	0.51	
10061-01-5	cis-1,3-Dichloropropene	32	46	46	10	10	U
10061-02-6	trans-1,3-Dichloropropene	32	23	23	5.0	5.0	U
79-00-5	1,1,2-Trichloroethane	32	27	27	5.0	5.0	U
124-48-1	Dibromochloromethane	32	8.7	8.7	1.0	1.0	U
127-18-4	**Tetrachloroethene (PCE)**	32	**1300**	3.7	**190**	0.54	
108-90-7	Chlorobenzene	32	23	23	5.1	5.1	U
100-41-4	Ethylbenzene	32	43	43	10	10	U
179601-23-1	m,p-Xylenes	32	87	87	20	20	U
75-25-2	Bromoform	32	52	52	5.0	5.0	U
95-47-6	o-Xylene	32	43	43	10	10	U
79-34-5	1,1,2,2-Tetrachloroethane	32	6.8	6.8	1.0	1.0	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	112	70-130	11/27/12 1129	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898.1300000
Sample Matrix: Air

Service Request: R1208072
Date Collected: 11/21/12 1210
Date Received: 11/26/12

Sample Name: SV5 30 TOZER
Lab Code: R1208072-002

Analytical Method: TO-15

Date Analyzed: 11/27/12 1216
Canister Dilution Factor: 1.48

Initial Pressure (psig): -2.41 Final Pressure (psig): 3.55

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	5.9	110	110	55	55	U
75-01-4	Vinyl Chloride	5.9	15	15	5.9	5.9	U
74-83-9	Bromomethane	5.9	110	110	28	28	U
75-00-3	Chloroethane	5.9	150	150	55	55	U
67-64-1	**Acetone**	5.9	**1600**	1300	**690**	530	
75-69-4	Trichlorofluoromethane (CFC 11)	5.9	160	160	28	28	U
75-35-4	1,1-Dichloroethene	5.9	110	110	28	28	U
75-09-2	Methylene Chloride	5.9	95	95	27	27	U
156-60-5	trans-1,2-Dichloroethene	5.9	110	110	28	28	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.9	110	110	28	28	U
156-59-2	cis-1,2-Dichloroethene	5.9	110	110	28	28	U
67-66-3	Chloroform	5.9	140	140	28	28	U
107-06-2	1,2-Dichloroethane	5.9	110	110	28	28	U
71-55-6	1,1,1-Trichloroethane (TCA)	5.9	150	150	28	28	U
56-23-5	Carbon Tetrachloride	5.9	18	18	2.8	2.8	U
78-87-5	1,2-Dichloropropane	5.9	130	130	28	28	U
75-27-4	Bromodichloromethane	5.9	38	38	5.6	5.6	U
79-01-6	**Trichloroethene (TCE)**	5.9	**12000**	15	**2200**	2.8	
10061-01-5	cis-1,3-Dichloropropene	5.9	250	250	55	55	U
10061-02-6	trans-1,3-Dichloropropene	5.9	130	130	28	28	U
79-00-5	1,1,2-Trichloroethane	5.9	150	150	28	28	U
124-48-1	Dibromochloromethane	5.9	48	48	5.6	5.6	U
127-18-4	**Tetrachloroethene (PCE)**	5.9	**2100**	20	**310**	3.0	
108-90-7	Chlorobenzene	5.9	130	130	28	28	U
100-41-4	Ethylbenzene	5.9	240	240	55	55	U
179601-23-1	m,p-Xylenes	5.9	480	480	110	110	U
75-25-2	Bromoform	5.9	290	290	28	28	U
95-47-6	o-Xylene	5.9	240	240	55	55	U
79-34-5	1,1,2,2-Tetrachloroethane	5.9	38	38	5.5	5.5	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	106	70-130	11/27/12 1216	

COLUMBIA ANALYTICAL SERVICES, INC.
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Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208072
Project:	Varian Beverly Air Samples/146898.1300000	**Date Collected:**	11/21/12 1225
Sample Matrix:	Air	**Date Received:**	11/26/12
Sample Name:	30 TOZER-1		
Lab Code:	R1208072-003		

Analytical Method: TO-15

Date Analyzed: 11/27/12 1444
Canister Dilution Factor: 1.54

Initial Pressure (psig): -2.85 Final Pressure (psig): 3.56

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	800	**1.1**	0.87	**0.55**	0.42	
75-01-4	Vinyl Chloride	800	0.12	0.12	0.045	0.045	U
74-83-9	Bromomethane	800	0.83	0.83	0.21	0.21	U
75-00-3	Chloroethane	800	1.1	1.1	0.42	0.42	U
67-64-1	**Acetone**	800	**25**	9.6	**10**	4.1	
75-69-4	**Trichlorofluoromethane (CFC 11)**	800	**1.8**	1.2	**0.32**	0.21	
75-35-4	1,1-Dichloroethene	800	0.85	0.85	0.21	0.21	U
75-09-2	Methylene Chloride	800	0.73	0.73	0.21	0.21	U
156-60-5	trans-1,2-Dichloroethene	800	0.85	0.85	0.21	0.21	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.87	0.87	0.21	0.21	U
156-59-2	cis-1,2-Dichloroethene	800	0.85	0.85	0.21	0.21	U
67-66-3	Chloroform	800	1.0	1.0	0.21	0.21	U
107-06-2	1,2-Dichloroethane	800	0.87	0.87	0.21	0.21	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.2	1.2	0.21	0.21	U
56-23-5	**Carbon Tetrachloride**	800	**0.46**	0.13	**0.073**	0.021	
78-87-5	1,2-Dichloropropane	800	0.98	0.98	0.21	0.21	U
75-27-4	Bromodichloromethane	800	0.29	0.29	0.043	0.043	U
79-01-6	**Trichloroethene (TCE)**	800	**4.8**	0.12	**0.90**	0.022	
10061-01-5	cis-1,3-Dichloropropene	800	1.9	1.9	0.42	0.42	U
10061-02-6	trans-1,3-Dichloropropene	800	0.96	0.96	0.21	0.21	U
79-00-5	1,1,2-Trichloroethane	800	1.2	1.2	0.21	0.21	U
124-48-1	Dibromochloromethane	800	0.37	0.37	0.043	0.043	U
127-18-4	**Tetrachloroethene (PCE)**	800	**0.77**	0.15	**0.11**	0.023	
108-90-7	Chlorobenzene	800	0.98	0.98	0.21	0.21	U
100-41-4	Ethylbenzene	800	1.8	1.8	0.42	0.42	U
179601-23-1	m,p-Xylenes	800	3.7	3.7	0.85	0.85	U
75-25-2	Bromoform	800	2.2	2.2	0.21	0.21	U
95-47-6	o-Xylene	800	1.8	1.8	0.42	0.42	U
79-34-5	1,1,2,2-Tetrachloroethane	800	0.29	0.29	0.042	0.042	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	110	70-130	11/27/12 1444	

COLUMBIA ANALYTICAL SERVICES, INC.
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Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208072
Project:	Varian Beverly Air Samples/146898.1300000	**Date Collected:**	11/21/12 1227
Sample Matrix:	Air	**Date Received:**	11/26/12
Sample Name:	30 TOZER-2		
Lab Code:	R1208072-004		

Analytical Method: TO-15

Date Analyzed: 11/27/12 1534
Canister Dilution Factor: 1.56

Initial Pressure (psig): -3.00 Final Pressure (psig): 3.53

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	800	**1.1**	0.88	**0.52**	0.43	
75-01-4	Vinyl Chloride	800	0.12	0.12	0.046	0.046	U
74-83-9	Bromomethane	800	0.84	0.84	0.22	0.22	U
75-00-3	Chloroethane	800	1.1	1.1	0.43	0.43	U
67-64-1	**Acetone**	800	**40**	9.8	**17**	4.1	
75-69-4	**Trichlorofluoromethane (CFC 11)**	800	**1.8**	1.2	**0.32**	0.22	
75-35-4	1,1-Dichloroethene	800	0.86	0.86	0.22	0.22	U
75-09-2	Methylene Chloride	800	0.74	0.74	0.21	0.21	U
156-60-5	trans-1,2-Dichloroethene	800	0.86	0.86	0.22	0.22	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.88	0.88	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	800	0.86	0.86	0.22	0.22	U
67-66-3	Chloroform	800	1.1	1.1	0.22	0.22	U
107-06-2	1,2-Dichloroethane	800	0.88	0.88	0.22	0.22	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.2	1.2	0.21	0.21	U
56-23-5	**Carbon Tetrachloride**	800	**0.71**	0.14	**0.11**	0.022	
78-87-5	1,2-Dichloropropane	800	0.99	0.99	0.22	0.22	U
75-27-4	Bromodichloromethane	800	0.29	0.29	0.044	0.044	U
79-01-6	**Trichloroethene (TCE)**	800	**3.5**	0.12	**0.66**	0.022	
10061-01-5	cis-1,3-Dichloropropene	800	2.0	2.0	0.43	0.43	U
10061-02-6	trans-1,3-Dichloropropene	800	0.98	0.98	0.21	0.21	U
79-00-5	1,1,2-Trichloroethane	800	1.2	1.2	0.21	0.21	U
124-48-1	Dibromochloromethane	800	0.37	0.37	0.044	0.044	U
127-18-4	**Tetrachloroethene (PCE)**	800	**0.70**	0.16	**0.10**	0.023	
108-90-7	Chlorobenzene	800	0.99	0.99	0.22	0.22	U
100-41-4	Ethylbenzene	800	1.9	1.9	0.43	0.43	U
179601-23-1	m,p-Xylenes	800	3.7	3.7	0.86	0.86	U
75-25-2	Bromoform	800	2.2	2.2	0.22	0.22	U
95-47-6	o-Xylene	800	1.9	1.9	0.43	0.43	U
79-34-5	1,1,2,2-Tetrachloroethane	800	0.29	0.29	0.043	0.043	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	111	70-130	11/27/12 1534	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898.1300000
Sample Matrix: Air

Service Request: R1208072
Date Collected: 11/21/12 1230
Date Received: 11/26/12

Sample Name: 30 TOZER-3
Lab Code: R1208072-005

Analytical Method: TO-15

Date Analyzed: 11/27/12 1623
Canister Dilution Factor: 1.63

Initial Pressure (psig): -3.54 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	**Chloromethane**	800	**1.1**	0.92	**0.53**	0.44	
75-01-4	Vinyl Chloride	800	0.12	0.12	0.048	0.048	U
74-83-9	Bromomethane	800	0.88	0.88	0.23	0.23	U
75-00-3	Chloroethane	800	1.2	1.2	0.45	0.45	U
67-64-1	**Acetone**	800	**26**	10	**11**	4.3	
75-69-4	**Trichlorofluoromethane (CFC 11)**	800	**1.7**	1.3	**0.30**	0.22	
75-35-4	1,1-Dichloroethene	800	0.90	0.90	0.23	0.23	U
75-09-2	Methylene Chloride	800	0.77	0.77	0.22	0.22	U
156-60-5	trans-1,2-Dichloroethene	800	0.90	0.90	0.23	0.23	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.92	0.92	0.23	0.23	U
156-59-2	cis-1,2-Dichloroethene	800	0.90	0.90	0.23	0.23	U
67-66-3	Chloroform	800	1.1	1.1	0.23	0.23	U
107-06-2	1,2-Dichloroethane	800	0.92	0.92	0.23	0.23	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.2	1.2	0.22	0.22	U
56-23-5	**Carbon Tetrachloride**	800	**0.53**	0.14	**0.084**	0.023	
78-87-5	1,2-Dichloropropane	800	1.0	1.0	0.22	0.22	U
75-27-4	Bromodichloromethane	800	0.31	0.31	0.046	0.046	U
79-01-6	**Trichloroethene (TCE)**	800	**3.8**	0.12	**0.70**	0.023	
10061-01-5	cis-1,3-Dichloropropene	800	2.0	2.0	0.45	0.45	U
10061-02-6	trans-1,3-Dichloropropene	800	1.0	1.0	0.22	0.22	U
79-00-5	1,1,2-Trichloroethane	800	1.2	1.2	0.22	0.22	U
124-48-1	Dibromochloromethane	800	0.39	0.39	0.045	0.045	U
127-18-4	**Tetrachloroethene (PCE)**	800	**0.77**	0.16	**0.11**	0.024	
108-90-7	Chlorobenzene	800	1.0	1.0	0.23	0.23	U
100-41-4	Ethylbenzene	800	1.9	1.9	0.45	0.45	U
179601-23-1	m,p-Xylenes	800	3.9	3.9	0.90	0.90	U
75-25-2	Bromoform	800	2.3	2.3	0.22	0.22	U
95-47-6	o-Xylene	800	1.9	1.9	0.45	0.45	U
79-34-5	1,1,2,2-Tetrachloroethane	800	0.31	0.31	0.045	0.045	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	111	70-130	11/27/12 1623	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1208072
Project:	Varian Beverly Air Samples/146898.1300000	**Date Collected:**	11/21/12 1310
Sample Matrix:	Air	**Date Received:**	11/26/12
Sample Name:	SV6 30 TOZER		
Lab Code:	R1208072-006		

Analytical Method: TO-15 **Date Analyzed:** 11/27/12 1303
Canister Dilution Factor: 1.61

Initial Pressure (psig): -3.39 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	33	22	22	11	11	U
75-01-4	Vinyl Chloride	33	2.9	2.9	1.1	1.1	U
74-83-9	Bromomethane	33	21	21	5.4	5.4	U
75-00-3	Chloroethane	33	28	28	11	11	U
67-64-1	**Acetone**	33	**780**	240	**330**	100	
75-69-4	Trichlorofluoromethane (CFC 11)	33	30	30	5.4	5.4	U
75-35-4	1,1-Dichloroethene	33	21	21	5.4	5.4	U
75-09-2	Methylene Chloride	33	19	19	5.3	5.3	U
156-60-5	trans-1,2-Dichloroethene	33	21	21	5.4	5.4	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	33	22	22	5.4	5.4	U
156-59-2	cis-1,2-Dichloroethene	33	21	21	5.4	5.4	U
67-66-3	Chloroform	33	26	26	5.4	5.4	U
107-06-2	1,2-Dichloroethane	33	22	22	5.4	5.4	U
71-55-6	1,1,1-Trichloroethane (TCA)	33	29	29	5.4	5.4	U
56-23-5	Carbon Tetrachloride	33	3.4	3.4	0.54	0.54	U
78-87-5	1,2-Dichloropropane	33	25	25	5.4	5.4	U
75-27-4	Bromodichloromethane	33	7.3	7.3	1.1	1.1	U
79-01-6	**Trichloroethene (TCE)**	33	**9.1**	2.9	**1.7**	0.54	
10061-01-5	cis-1,3-Dichloropropene	33	49	49	11	11	U
10061-02-6	trans-1,3-Dichloropropene	33	24	24	5.4	5.4	U
79-00-5	1,1,2-Trichloroethane	33	29	29	5.4	5.4	U
124-48-1	Dibromochloromethane	33	9.3	9.3	1.1	1.1	U
127-18-4	**Tetrachloroethene (PCE)**	33	**130**	3.9	**19**	0.58	
108-90-7	Chlorobenzene	33	25	25	5.4	5.4	U
100-41-4	Ethylbenzene	33	46	46	11	11	U
179601-23-1	m,p-Xylenes	33	93	93	21	21	U
75-25-2	Bromoform	33	56	56	5.4	5.4	U
95-47-6	o-Xylene	33	46	46	11	11	U
79-34-5	1,1,2,2-Tetrachloroethane	33	7.3	7.3	1.1	1.1	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	110	70-130	11/27/12 1303	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898.1300000
Sample Matrix: Air

Service Request: R1208072
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1214438-01

Analytical Method: TO-15

Date Analyzed: 11/27/12 1043

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	11/27/12 1043	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly Air Samples/146898.1300000
Sample Matrix: Air

Service Request: R1208072
Date Analyzed: 11/27/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 320110

Analyte Name	Lab Control Sample RQ1214438-02 Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.70	5.11	92	70 - 130
Vinyl Chloride	5.82	6.33	92	70 - 130
Bromomethane	8.47	9.60	88	70 - 130
Chloroethane	5.68	6.46	88	70 - 130
Acetone	6.00	6.29	95	50 - 150
Trichlorofluoromethane (CFC 11)	14.9	15.0	99	70 - 130
1,1-Dichloroethene	9.82	10.0	98	70 - 130
Methylene Chloride	7.97	8.86	90	70 - 130
trans-1,2-Dichloroethene	9.34	10.2	92	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.36	10.2	92	70 - 130
cis-1,2-Dichloroethene	9.01	10.2	88	70 - 130
Chloroform	12.2	12.8	95	70 - 130
1,2-Dichloroethane	11.8	10.4	113	70 - 130
1,1,1-Trichloroethane (TCA)	14.9	13.8	108	70 - 130
Carbon Tetrachloride	18.2	16.2	113	70 - 130
1,2-Dichloropropane	11.1	11.9	93	70 - 130
Bromodichloromethane	18.7	17.2	108	70 - 130
Trichloroethene (TCE)	13.9	13.8	100	70 - 130
cis-1,3-Dichloropropene	11.8	11.9	99	70 - 130
trans-1,3-Dichloropropene	11.2	11.0	102	70 - 130
1,1,2-Trichloroethane	13.7	14.2	97	70 - 130
Dibromochloromethane	23.9	23.6	101	70 - 130
Tetrachloroethene (PCE)	20.2	17.5	116	70 - 130
Chlorobenzene	11.5	12.1	95	70 - 130
Ethylbenzene	10.6	11.3	94	70 - 130
m,p-Xylenes	20.4	22.1	92	70 - 130
Bromoform	29.8	26.3	113	70 - 130
o-Xylene	10.6	12.3	87	70 - 130
1,1,2,2-Tetrachloroethane	15.5	19.4	80	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services™

CHAIN OF CUSTODY - AIR

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Requested Turnaround Time in Business Days from Receipt, please circle: 1 Day 2 Day 3 Day 4 Day 5 Day (10 Day-Standard) [circled]

CAS Project #:

CAS Contact:

Company Name: Shaw Environmental

Address: 150 Royall St

City, State, Zip: Canton MA 02021

Project Manager: Ray Cadorette

Phone: 617 589 6102

Fax:

Email (for result reporting): Raymond.cadorette@shawgrp.com

Project Name: Varian

Project Number: 146898 .13000000

P.O. #/Billing Information: .821947

Sampler (Print & Sign): Pernilla Haley [signature]

Analysis Method and/or Analytes: VOC by TO15 Site List

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID	Flow Controller ID	VOC by TO15 Site List				Comments Specific Instructions
SV4 30 Tozer		11/21/12	1145	SLC00059	FC00722	↓				2nd run ↓
SV5 30 Tozer		↓	1210	SLC00079	FC00729	↓				↓
30 Tozer - 1		↓	1225	SLC00122	FC00721	↓				↓
30 Tozer - 2		↓	1227	SLC00129	FC00727	↓				↓
30 Tozer - 3		↓	1230	SLC00053	FC00828	↓				↓
SV6 30 Tozer		↓	1310	SLC00023	FC00757	↓				↓

What State were samples collected in: MA

Project Requirements (MRLs, QAPP, etc.)

Report Tier Levels - please select:
Tier I (Results/Default, if not specified) ___
Tier II (Results + QC) X
Tier III (CLP Forms Only) ___
Tier IV (Data Validation) ___

EDD required: (YES) / NO
Type: ___ EDD Units: ___

Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
[signature]	11/21/12	1330	[signature]	11/26/12	0955
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time	Received by: (Signature)	Date:	Time:

R1208072 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly Air Samples

Cooler Receipt and Preservation Check Form

Project/Client Shaw Folder Number _____.

Cooler received on 11/26/12 by: AD **COURIER:** ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO (N/A)
5.	Were **Ice** or **Ice packs** present?	YES	(NO)
6.	Where did the bottles originate?	(ALS/ROC)	CLIENT

7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	N/A
8.	Temperature of cooler(s) upon receipt:	AIR	_____	_____	_____	_____
	Is the temperature within 0° - 6° C?:	Y N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: AIR

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location SMO by AD on 11/26/12 at 0955
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: MP 11/26/12

Cooler Breakdown: Date: _____ Time: _____ by: _____

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	YES	NO
2.	Did all bottle labels and tags agree with custody papers?	YES	NO
3.	Were correct containers used for the tests indicated?	YES	NO
4.	Air Samples: Cassettes / Tubes Intact (Canisters Pressurized)	Tedlar® Bags Inflated	N/A

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3				
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*		

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: _____
Other Comments:

PC Secondary Review: MP

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CASROCH Contract: SHAW

Lab Code: 10145 Case No.: R2-8072 SAS No.: _____ SDG No.: SV4 30 T

Lab File ID (Standard): B3322.D Date Analyzed: 11/27/12

Instrument ID: MS#13 Time Analyzed: 6:40

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	IS1 RT #	IS2 AREA #	IS2 RT #	IS3 AREA #	IS3 RT #
12 HOUR STD	134182	12.81	499437	14.46	451725	19.56
UPPER LIMIT	187855	13.31	699212	14.96	632415	20.06
LOWER LIMIT	80509	12.31	299662	13.96	271035	19.06
EPA SAMPLE NO.						
01 LCS1	136679	12.80	503228	14.46	449515	19.56
02 VBLK1	140874	12.81	521400	14.46	454612	19.56
03 SV4 30 TOZER	143910	12.80	525105	14.46	467939	19.56
04 SV5 30 TOZER	141526	12.81	518664	14.46	459285	19.56
05 SV6 30 TOZER	138373	12.80	515077	14.46	464846	19.56
06 30 TOZER-1	136006	12.80	499682	14.46	439600	19.56
07 30 TOZER-2	136615	12.80	494588	14.46	431665	19.56
08 30 TOZER-3	138893	12.80	508686	14.46	448708	19.56
09 30 TOZER-3DUP	132311	12.80	490023	14.46	431675	19.56

IS1 = bromochloromethane

IS2 = 1,4-difluorobenzene

IS3 = chlorobenzene-d5

AREA UPPER LIMIT = +40% of internal standard area

AREA LOWER LIMIT = - 40% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk.

* Values outside of contract required QC limits

CAS Flow Controller Calibration
Flows in mL/min.
Values retrievd from LIMS

Folder # R1208072

Order #	ID #	Pre Cal	Post Cal	RPD	Comment
R1208072-001	FC00757	43.0	42.4	-1.4	
R1208072-001	FC00722	42.7	42.8	0.2	
R1208072-001	FC00729	43.2	43.1	-0.2	
R1208072-001	FC00721	20.9	20.8	-0.5	
R1208072-001	FC00828	20.8	20.8	0.0	
R1208072-001	FC00727	21.0	21.1	0.5	

Sample Collection Supplies

T019262

Order #: 35574
Date Required: 11/20/12
Project Chemist: Michael Perry
Phone Number: 585-288-5380 x7469

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly
SDG Name: Varian Beverly Air Samples

P.O. Number: 818578-000

Shipped Date: 11/16/2012
Shipping Cost: $ 0.00

Shipped To: Vallerie Sasso
150 Royall Street
Canton, MA 02021

E-mail: vallerie.sasso@shawgrp.com

Phone: 617-589-6163

Comments: **Bag containers by sample template.**

Grouped by Container Type

ID	Container	Shipped Pressure
6	6.0L-Non-Specified	
FC00721	1 each-Flow Controller Stainless Steel	
FC00722	1 each-Flow Controller Stainless Steel	
FC00727	1 each-Flow Controller Stainless Steel	
FC00729	1 each-Flow Controller Stainless Steel	
FC00757	1 each-Flow Controller Stainless Steel	
FC00828	1 each-Flow Controller Stainless Steel	
SLC00023	6.0 L-Non-Specified SC	-29.80
SLC00053	6.0 L-Non-Specified SC	-29.80
SLC00059	6.0 L-Non-Specified SC	-29.80
SLC00079	6.0 L-Non-Specified SC	-29.80
SLC00122	6.0 L-Non-Specified SC	-29.80
SLC00129	6.0 L-Non-Specified SC	-29.80

Grouped by Sample Template

Sample Template Number / Name	Expected Number of Samples	Containers	Number of Containers per Sample	Comments
001 / TO-15	6			
		6.0L-Non-Specified SC - TO-15	1	

Quantity	Miscellaneous Supply
3	Flow Controller, 6L, 2hr
3	Flow Controller, 6L, 4hr

Precautions: Preserved sample containers should not be overflowed while filling. Under no circumstances should the inside of the containers or lids be handled.

Please return this form with your coolers when delivering your samples to Columbia Analytical Services.

Columbia Analytical Services

QC Certification

Columbia Analytical Services, Inc.
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623
Ph. 585-288-5380
Fax 585-288-8475

Container IDs	Cleaned Date	Date Analyzed	QC Results	Comments
FC00721	11/15/12	11/16/12		
FC00722	11/15/12	11/16/12		
FC00727	11/15/12	11/16/12		
FC00729	11/15/12	11/16/12		
FC00757	11/15/12	11/16/12		
FC00828	11/15/12	11/16/12		
SLC00023	10/11/12	10/16/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00053	10/15/12	10/22/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00059	10/11/12	10/16/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00079	10/15/12	10/22/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00122	10/11/12	10/16/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)
SLC00129	10/15/12	10/22/12	Pass w/ Conditions	EPA TO-15 (43 Cmpds. + TICs)

6922

*** QC Canister**

Client: Shaw Environmental & Infrastructure, Inc. **Folder:** R1208072

Project: Varian Beverly Air Samples 146898.1300000

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID
R1208072-001.01	SV4 30 TOZER	6.0 L-Non-Specified SC	-4.50	-2.21	3.54				SLC00059	**35574**	FC00722
R1208072-002.01	SV5 30 TOZER	6.0 L-Non-Specified SC	-4.90	-2.41	3.55				SLC00079	**35574**	FC00729
R1208072-003.01	30 TOZER-1	6.0 L-Non-Specified SC	-5.80	-2.85	3.56				SLC00122	**35574**	FC00721
R1208072-004.01	30 TOZER-2	6.0 L-Non-Specified SC	-6.10	-3.00	3.53				SLC00129	**35574**	FC00727
R1208072-005.01	30 TOZER-3	6.0 L-Non-Specified SC	-7.20	-3.54	3.54				SLC00053	**35574**	FC00828
R1208072-006.01	SV6 30 TOZER	6.0 L-Non-Specified SC	-6.90	-3.39	3.52				SLC00023	**35574**	FC00757

Miscellaneous Items - received

MS#13(AIR 2) 11/27/12 0-682 - 207

BOOK PAGE

TITLE TO-15 **PROJECT** R. Herring

Continued from page

Leak Check: 0.8 psia → 1.3 psia 588 sec.

Pressures: He = 21.0 psia, IS = 29.1 psia, ATM = 14.5 psia

Volumes: IS = 250 mL #52022, Nominal Sample Vol. = 1000 mL

Methods: Tune = BFB.U, GC/MS = 112111.M, Entech = GAS.MPT

A.S. POS.	VOL. mL	SAMPLE	CLIENT	FILE#	OK?/COMMENTS
14	500	ROOM AIR WARM UP		B3319	-
14	500	ROOM AIR WARM UP		B3320	-
14	0	TUNE CHECK		B3321	Y (05:54)
15	500	CCV # ~~51634~~ RH 11/27/12 51259		B3322	Y
16	250	LCS # 51634		B3323	Y
2	1000	MET BLK UZ Air-direct # 46027		B3324	Y
SYR	32	R1208072-001	[SHAW 8456 Tz MassCAM]	B3325	Y
SYR	5.9	-002	↓	B3326	Y
SYR	33	-006		B3327	Y
4	1000	R1208018-001	[Energy Sol. 390 Tz]	B3328	Y
5	800	R1208072-003	[SHAW 8456 Tz MassCAM]	B3329	Y
6	800	004	↓	B3330	Y
7	800	005		B3331	Y
7	800	005 dup		B3332	Y

RH 11/27/12

Continued to page

SIGNATURE DATE

DISCLOSED TO AND UNDERSTOOD BY DATE

PROPRIETARY INFORMATION

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 146899.05

Prepared By: Dale Dailey

Date : 1/8/2012

Matrix: Groundwater

Analyte Group : Volatile Organics
Chloride
Metals (Fe & Mn)

Analytical Method : EPA Method 8260C
EPA Method SM 4500-CL-E
EPA Method 6010C

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1207821

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
11/12/12, 11/13/12	VOC 8260C		14 days	11/19, 11/20, 11/21/12
11/13/12	Chloride EPA Method SM 4500-CL-E		28 days	11/26/12
11/13/12	Dissolved iron and manganese 6010B		6 months	11/27/12

Sample temperature within QC limits: Yes (3.7 degrees C)

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EB-1, EB-2

Trip Blank ID : Trip Blank

Method Blank:

VOC 8260C	11/19, 11/20, 11/21/12
Chloride EPA Method SM 4500-CL-E	11/26/2012
Dissolved iron and manganese 6010B	11/27/2012

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
VOCs: several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method
Samples GZ-4 (14') and AP-20 (19') were reanalyzed at larger dilutions to bring target analytes within the calibration range of the method.
Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

Reviewed By: Pernilla Haley 1/24/13

November 30, 2012 Service Request No: R1207821

Mr. Ray Cadorette
Shaw Environmental & Infrastructure, Inc.
100 Technology Center
Stoughton, MA 02072

Laboratory Results for: Varian Beverly/146899-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on November 14, 2012. For your reference, these analyses have been assigned our service request number **R1207821**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7469. You may also contact me via email at Mike.Perry@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Michael Perry
Laboratory Manager

Columbia Analytical Services
ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
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COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Shaw Environmental, Inc	**Service Request No.:**	R1207821
Project:	Varian Beverly	**Project Number:**	146899-05000000
Sample Matrix:	Water	**Date Received:**	11/14/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 11/12/12 and 11/13/12 and received at CAS in good condition at a cooler temperature of 3.7 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and CAS Job #.

Volatile Organics

Twenty-nine water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples GZ-4 (14') and AP-20 (19') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

The Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were all within the QC limits.

All samples were analyzed within the required holding time of 14 days.

No other analytical or QC problems were encountered with these analyses.

Inorganic Analyses

Four water samples were analyzed for dissolved Iron and dissolved Manganese by SW-846 method 6010C and for Chloride by method SM 4500-CL-E.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

No analytical or QC problems were encountered.

MassDEP Analytical Protocol Certification Form

Laboratory Name: Columbia Analytical Services, Inc. Project #:146899-05000000

Project Location: Varian Beverly RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1207821 – 001 - 029

Matrices: X Groundwater ☐Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other: _____

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B ☐	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A **X**	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6850 Perchlorate CAM VIII B ☐	Other: Chloride

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes ☐ No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes ☐No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)? (site list)	☐ Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Laboratory Manager

Printed Name: Michael K. Perry **Date:** 11/29/12 9883

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1207821

Lab ID	Client ID
R1207821-001	OB8-S (14')
R1207821-002	OB41-S (14')
R1207821-003	CL2-BR (42')
R1207821-004	OB43-S (14')
R1207821-005	W-1 (9')
R1207821-006	OB42-S (14')
R1207821-007	AP15-S (14')
R1207821-008	OB18-S (14')
R1207821-009	GZ-4 (14')
R1207821-010	Trip Blank
R1207821-011	CL10-S (15')
R1207821-012	CL10-DO (36')
R1207821-013	CL10-BR (46')
R1207821-014	MW4-32 Tozer (14')
R1207821-015	MW5-32 Tozer (14')
R1207821-016	P-19A (10')
R1207821-017	P-9R (5')
R1207821-018	STRM-A-SCDS
R1207821-019	OB20-S (12')
R1207821-020	EB-1
R1207821-021	STRHA-7A
R1207821-022	STRHA-7B
R1207821-023	B-3 (14')
R1207821-024	MW-9A (9')
R1207821-025	EB-2
R1207821-026	AP-19 (29')
R1207821-027	AP-20 (19')
R1207821-028	AP-21 (29')
R1207821-029	AP-22 (19')

Columbia Analytical Services

Now part of the ALS Group

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

CAS/Rochester Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

COLUMBIA ANALYTICAL SERVICES
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: Michael K. Perry

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Oscar C. Parcarlo

Director, Division of Environmental Analysis

Issued: 01 JUL 2012
Expires: 30 JUN 2013

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

00007

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2012

M-NY032 COLUMBIA ANALYTICAL SERVICES
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2012 Expiration Date 30 JUN 2013

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0800
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 20:37
Sample Name:	OB8-S (14')	**Units:**	µg/L
Lab Code:	R1207821-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4469.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**58**		5.0	
79-01-6	Trichloroethene (TCE)	**270**		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	**120**		5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	11/20/12 20:37	
Dibromofluoromethane	106	70-130	11/20/12 20:37	
Toluene-d8	100	70-130	11/20/12 20:37	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0830
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 20:45
Sample Name:	OB41-S (14')	**Units:**	µg/L
Lab Code:	R1207821-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4444.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**22**		2.0	
79-01-6	Trichloroethene (TCE)	**82**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**34**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	11/19/12 20:45	
Dibromofluoromethane	106	70-130	11/19/12 20:45	
Toluene-d8	99	70-130	11/19/12 20:45	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0900
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 21:06
Sample Name:	CL2-BR (42')	**Units:**	µg/L
Lab Code:	R1207821-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4470.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	4.0	U	4.0	
79-01-6	Trichloroethene (TCE)	**170**		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	**290**		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/20/12 21:06	
Dibromofluoromethane	104	70-130	11/20/12 21:06	
Toluene-d8	98	70-130	11/20/12 21:06	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0930
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 21:14
Sample Name:	OB43-S (14')	**Units:**	µg/L
Lab Code:	R1207821-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4445.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**2.1**		2.0	
79-01-6	Trichloroethene (TCE)	**3.0**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/19/12 21:14	
Dibromofluoromethane	106	70-130	11/19/12 21:14	
Toluene-d8	100	70-130	11/19/12 21:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1000
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 12:42
Sample Name:	W-1 (9')	**Units:**	µg/L
Lab Code:	R1207821-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4489.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.7**		2.0	
79-01-6	Trichloroethene (TCE)	**170**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**25**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	70-130	11/21/12 12:42	
Dibromofluoromethane	105	70-130	11/21/12 12:42	
Toluene-d8	96	70-130	11/21/12 12:42	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1030
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 22:04
Sample Name:	OB42-S (14')	**Units:**	µg/L
Lab Code:	R1207821-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4472.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**110**		40	
79-01-6	Trichloroethene (TCE)	**2600**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**790**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	11/20/12 22:04	
Dibromofluoromethane	105	70-130	11/20/12 22:04	
Toluene-d8	94	70-130	11/20/12 22:04	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1100
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 21:43
Sample Name:	AP15-S (14')	**Units:**	µg/L
Lab Code:	R1207821-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4446.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	11/19/12 21:43	
Dibromofluoromethane	107	70-130	11/19/12 21:43	
Toluene-d8	99	70-130	11/19/12 21:43	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1200
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 22:12
Sample Name:	OB18-S (14')	**Units:**	µg/L
Lab Code:	R1207821-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4447.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	11/19/12 22:12	
Dibromofluoromethane	107	70-130	11/19/12 22:12	
Toluene-d8	99	70-130	11/19/12 22:12	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1300
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 16:44
Sample Name:	GZ-4 (14')	**Units:**	µg/L
Lab Code:	R1207821-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4461.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**4.9**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**3.6**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**200**		2.0	
156-59-2	cis-1,2-Dichloroethene	**540**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**3.4**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/20/12 16:44	
Dibromofluoromethane	105	70-130	11/20/12 16:44	
Toluene-d8	99	70-130	11/20/12 16:44	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1300
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 14:41
Sample Name:	GZ-4 (14')	**Units:**	µg/L
Lab Code:	R1207821-009	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4493.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	10	U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	**190**	D	10	
156-59-2	cis-1,2-Dichloroethene	**540**	D	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/21/12 14:41	
Dibromofluoromethane	106	70-130	11/21/12 14:41	
Toluene-d8	96	70-130	11/21/12 14:41	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 19:46
Sample Name:	Trip Blank	**Units:**	µg/L
Lab Code:	R1207821-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4442.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	11/19/12 19:46	
Dibromofluoromethane	106	70-130	11/19/12 19:46	
Toluene-d8	102	70-130	11/19/12 19:46	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0830
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 17:43
Sample Name:	CL10-S (15')	**Units:**	µg/L
Lab Code:	R1207821-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4463.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**13**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	11/20/12 17:43	
Dibromofluoromethane	107	70-130	11/20/12 17:43	
Toluene-d8	98	70-130	11/20/12 17:43	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 0915
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 18:12
Sample Name:	CL10-DO (36')	**Units:**	µg/L
Lab Code:	R1207821-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4464.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/20/12 18:12	
Dibromofluoromethane	104	70-130	11/20/12 18:12	
Toluene-d8	100	70-130	11/20/12 18:12	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1000
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 18:41
Sample Name:	CL10-BR (46')	**Units:**	µg/L
Lab Code:	R1207821-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4465.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/20/12 18:41	
Dibromofluoromethane	106	70-130	11/20/12 18:41	
Toluene-d8	99	70-130	11/20/12 18:41	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1050
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 15:09
Sample Name:	MW4-32 Tozer (14')	**Units:**	µg/L
Lab Code:	R1207821-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4494.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/21/12 15:09	
Dibromofluoromethane	106	70-130	11/21/12 15:09	
Toluene-d8	95	70-130	11/21/12 15:09	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1120
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 15:38
Sample Name:	MW5-32 Tozer (14')	**Units:**	µg/L
Lab Code:	R1207821-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4495.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**15**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**5.2**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**5.3**		2.0	
79-01-6	Trichloroethene (TCE)	**41**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**120**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/21/12 15:38	
Dibromofluoromethane	107	70-130	11/21/12 15:38	
Toluene-d8	100	70-130	11/21/12 15:38	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1240
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 22:33
Sample Name:	P-19A (10')	**Units:**	µg/L
Lab Code:	R1207821-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4473.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	**7.6**		4.0	
79-01-6	Trichloroethene (TCE)	**45**		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	**390**		4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	11/20/12 22:33	
Dibromofluoromethane	105	70-130	11/20/12 22:33	
Toluene-d8	97	70-130	11/20/12 22:33	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1305
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 19:10
Sample Name:	P-9R (5')	**Units:**	µg/L
Lab Code:	R1207821-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4466.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/20/12 19:10	
Dibromofluoromethane	104	70-130	11/20/12 19:10	
Toluene-d8	97	70-130	11/20/12 19:10	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1345
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 00:01
Sample Name:	STRM-A-SCDS	**Units:**	µg/L
Lab Code:	R1207821-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4476.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**3.8**		2.0	
79-01-6	Trichloroethene (TCE)	**12**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**5.1**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/21/12 00:01	
Dibromofluoromethane	105	70-130	11/21/12 00:01	
Toluene-d8	99	70-130	11/21/12 00:01	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1435
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 00:30
Sample Name:	OB20-S (12')	**Units:**	µg/L
Lab Code:	R1207821-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4477.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/21/12 00:30	
Dibromofluoromethane	103	70-130	11/21/12 00:30	
Toluene-d8	98	70-130	11/21/12 00:30	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/12/12 1500
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/19/12 20:16
Sample Name:	EB-1	**Units:**	µg/L
Lab Code:	R1207821-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4443.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/19/12 20:16	
Dibromofluoromethane	104	70-130	11/19/12 20:16	
Toluene-d8	97	70-130	11/19/12 20:16	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 0840
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 19:39
Sample Name:	STRHA-7A	**Units:**	µg/L
Lab Code:	R1207821-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4467.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.8**		2.0	
79-01-6	Trichloroethene (TCE)	**33**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**32**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	11/20/12 19:39	
Dibromofluoromethane	104	70-130	11/20/12 19:39	
Toluene-d8	92	70-130	11/20/12 19:39	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 0930
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 20:08
Sample Name:	STRHA-7B	**Units:**	µg/L
Lab Code:	R1207821-022	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4468.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.8**		2.0	
79-01-6	Trichloroethene (TCE)	**34**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**31**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/20/12 20:08	
Dibromofluoromethane	106	70-130	11/20/12 20:08	
Toluene-d8	98	70-130	11/20/12 20:08	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1000
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 00:58
Sample Name:	B-3 (14')	**Units:**	µg/L
Lab Code:	R1207821-023	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4478.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**43**		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**2.7**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**18**		2.0	
79-01-6	Trichloroethene (TCE)	**8.8**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/21/12 00:58	
Dibromofluoromethane	105	70-130	11/21/12 00:58	
Toluene-d8	97	70-130	11/21/12 00:58	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1040
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 01:28
Sample Name:	MW-9A (9')	**Units:**	µg/L
Lab Code:	R1207821-024	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4479.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/21/12 01:28	
Dibromofluoromethane	103	70-130	11/21/12 01:28	
Toluene-d8	98	70-130	11/21/12 01:28	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1110
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 12:13
Sample Name:	EB-2	**Units:**	µg/L
Lab Code:	R1207821-025	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4488.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	11/21/12 12:13	
Dibromofluoromethane	107	70-130	11/21/12 12:13	
Toluene-d8	98	70-130	11/21/12 12:13	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1140
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-19 (29')		
Lab Code:	R1207821-026	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**20.4**		mg/L	1.0	1	NA	11/26/12 09:20	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1140
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-19 (29')		
Lab Code:	R1207821-026	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/26/12	11/27/12 15:21	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	11/26/12	11/27/12 15:21	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1140
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 16:09
Sample Name:	AP-19 (29')	**Units:**	µg/L
Lab Code:	R1207821-026	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4496.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	2

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	4.0	U	4.0	
79-34-5	1,1,2,2-Tetrachloroethane	4.0	U	4.0	
79-00-5	1,1,2-Trichloroethane	4.0	U	4.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4.0	U	4.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4.0	U	4.0	
107-06-2	1,2-Dichloroethane	4.0	U	4.0	
78-87-5	1,2-Dichloropropane	4.0	U	4.0	
67-64-1	Acetone	20	U	20	
75-27-4	Bromodichloromethane	4.0	U	4.0	
75-25-2	Bromoform	4.0	U	4.0	
74-83-9	Bromomethane	4.0	U	4.0	
56-23-5	Carbon Tetrachloride	4.0	U	4.0	
108-90-7	Chlorobenzene	4.0	U	4.0	
75-00-3	Chloroethane	4.0	U	4.0	
67-66-3	Chloroform	4.0	U	4.0	
74-87-3	Chloromethane	4.0	U	4.0	
124-48-1	Dibromochloromethane	4.0	U	4.0	
75-09-2	Methylene Chloride	4.0	U	4.0	
127-18-4	Tetrachloroethene (PCE)	**280**		4.0	
79-01-6	Trichloroethene (TCE)	**30**		4.0	
75-69-4	Trichlorofluoromethane (CFC 11)	4.0	U	4.0	
75-01-4	Vinyl Chloride	4.0	U	4.0	
156-59-2	cis-1,2-Dichloroethene	4.0	U	4.0	
10061-01-5	cis-1,3-Dichloropropene	4.0	U	4.0	
156-60-5	trans-1,2-Dichloroethene	4.0	U	4.0	
10061-02-6	trans-1,3-Dichloropropene	4.0	U	4.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	11/21/12 16:09	
Dibromofluoromethane	108	70-130	11/21/12 16:09	
Toluene-d8	100	70-130	11/21/12 16:09	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1220
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-20 (19')		
Lab Code:	R1207821-027	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**68.2**		mg/L	1.0	1	NA	11/26/12 09:21	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1220
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-20 (19')		
Lab Code:	R1207821-027	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**390**		µg/L	100	1	11/26/12	11/27/12 15:27	
Manganese, Dissolved	6010C	**8520**		µg/L	10	1	11/26/12	11/27/12 15:27	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1220
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 14:12
Sample Name:	AP-20 (19')	**Units:**	µg/L
Lab Code:	R1207821-027	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4492.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**2100**	E	20	
79-01-6	Trichloroethene (TCE)	**410**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**38**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	11/21/12 14:12	
Dibromofluoromethane	105	70-130	11/21/12 14:12	
Toluene-d8	98	70-130	11/21/12 14:12	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1220
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 16:38
Sample Name:	AP-20 (19')	**Units:**	µg/L
Lab Code:	R1207821-027	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4497.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**2100**	D	40	
79-01-6	Trichloroethene (TCE)	**420**	D	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	40	U	40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	11/21/12 16:38	
Dibromofluoromethane	106	70-130	11/21/12 16:38	
Toluene-d8	97	70-130	11/21/12 16:38	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1310
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-21 (29')		
Lab Code:	R1207821-028	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	**271**		mg/L	10	10	NA	11/26/12 09:21	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1310
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-21 (29')		
Lab Code:	R1207821-028	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/26/12	11/28/12 08:57	
Manganese, Dissolved	6010C	640000		µg/L	1000	100	11/26/12	11/27/12 15:08	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1310
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/20/12 23:31
Sample Name:	AP-21 (29')	**Units:**	µg/L
Lab Code:	R1207821-028	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4475.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**150**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**10**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	**2.2**		2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	11/20/12 23:31	
Dibromofluoromethane	107	70-130	11/20/12 23:31	
Toluene-d8	100	70-130	11/20/12 23:31	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1345
Sample Matrix:	Water	**Date Received:**	11/14/12
Sample Name:	AP-22 (19')		
Lab Code:	R1207821-029	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	794		mg/L	20	20	NA	11/26/12 09:22	

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Collected: 11/13/12 1345
Date Received: 11/14/12

Sample Name: AP-22 (19')
Lab Code: R1207821-029

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	10	11/26/12	11/28/12 09:10	
Manganese, Dissolved	6010C	**4120000**		µg/L	10000	1000	11/26/12	11/27/12 15:14	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	11/13/12 1345
Sample Matrix:	Water	**Date Received:**	11/14/12
		Date Analyzed:	11/21/12 13:11
Sample Name:	AP-22 (19')	**Units:**	µg/L
Lab Code:	R1207821-029	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4490.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**9.0**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	**5.2**		2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	11/21/12 13:11	
Dibromofluoromethane	105	70-130	11/21/12 13:11	
Toluene-d8	100	70-130	11/21/12 13:11	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1207821-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl- E	1.0	U	mg/L	1.0	1	NA	11/26/12 09:19	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1207821-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/26/12	11/27/12 14:55	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	11/26/12	11/27/12 14:55	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/19/12 19:17
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214406-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319180
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\111912\Z4441.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	11/19/12 19:17	
Dibromofluoromethane	104	70-130	11/19/12 19:17	
Toluene-d8	102	70-130	11/19/12 19:17	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/20/12 16:16
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214421-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319321
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112012\Z4460.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/20/12 16:16	
Dibromofluoromethane	104	70-130	11/20/12 16:16	
Toluene-d8	102	70-130	11/20/12 16:16	

Client:	Shaw Environmental & Infrastructure, Inc.	**Service Request:**	R1207821
Project:	Varian Beverly/146899-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	11/21/12 11:44
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1214451-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	319468
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\112112\Z4487.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	11/21/12 11:44	
Dibromofluoromethane	106	70-130	11/21/12 11:44	
Toluene-d8	99	70-130	11/21/12 11:44	

COLUMBIA ANALYTICAL SERVICES, INC.
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QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Analyzed: 11/26/12

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1207821-LCS Result	Spike Amount	% Rec	% Rec Limits
Chloride	SM 4500-Cl- E	24.9	25.0	100	86 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Analyzed: 11/27/12

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Lab Control Sample
R1207821-LCS

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1070	1000	107	80 - 120
Manganese, Dissolved	6010C	519	500	104	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
QA/QC Report

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Analyzed: 11/19/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 319180

Analyte Name	Lab Control Sample RQ1214406-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214406-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	21.7	20.0	108	20.4	20.0	102	70 - 130	6	20
1,1,2,2-Tetrachloroethane	21.4	20.0	107	21.4	20.0	107	70 - 130	<1	20
1,1,2-Trichloroethane	22.5	20.0	112	21.9	20.0	109	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	19.5	20.0	98	18.7	20.0	93	70 - 130	4	20
1,1-Dichloroethene (1,1-DCE)	22.2	20.0	111	21.6	20.0	108	70 - 130	3	20
1,2-Dichloroethane	23.5	20.0	118	24.4	20.0	122	70 - 130	4	20
1,2-Dichloropropane	19.8	20.0	99	19.2	20.0	96	70 - 130	3	20
Acetone	21.5	20.0	108	22.7	20.0	113	40 - 160	5	20
Bromodichloromethane	23.7	20.0	118	21.7	20.0	108	70 - 130	9	20
Bromoform	24.6	20.0	123	23.5	20.0	118	70 - 130	5	20
Bromomethane	18.1	20.0	91	16.4	20.0	82	40 - 160	10	20
Carbon Tetrachloride	23.2	20.0	116	22.4	20.0	112	70 - 130	3	20
Chlorobenzene	20.5	20.0	103	18.5	20.0	93	70 - 130	10	20
Chloroethane	19.3	20.0	97	18.5	20.0	92	70 - 130	4	20
Chloroform	21.3	20.0	106	20.1	20.0	101	70 - 130	6	20
Chloromethane	19.3	20.0	97	18.0	20.0	90	40 - 160	7	20
Dibromochloromethane	23.0	20.0	115	22.3	20.0	112	70 - 130	3	20
Methylene Chloride	19.9	20.0	99	19.4	20.0	97	70 - 130	3	20
Tetrachloroethene (PCE)	21.6	20.0	108	20.9	20.0	104	70 - 130	4	20
Trichloroethene (TCE)	21.5	20.0	108	20.3	20.0	101	70 - 130	6	20
Trichlorofluoromethane (CFC 11)	24.8	20.0	124	24.1	20.0	120	70 - 130	3	20
Vinyl Chloride	21.1	20.0	106	20.2	20.0	101	70 - 130	4	20
cis-1,2-Dichloroethene	19.8	20.0	99	19.1	20.0	95	70 - 130	3	20
cis-1,3-Dichloropropene	20.9	20.0	104	20.3	20.0	101	70 - 130	3	20
trans-1,2-Dichloroethene	19.7	20.0	98	18.4	20.0	92	70 - 130	6	20
trans-1,3-Dichloropropene	22.5	20.0	112	20.8	20.0	104	70 - 130	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Analyzed: 11/20/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 319321

Analyte Name	Lab Control Sample RQ1214421-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214421-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	21.2	20.0	106	20.9	20.0	105	70 - 130	1	20
1,1,2,2-Tetrachloroethane	21.2	20.0	106	21.0	20.0	105	70 - 130	1	20
1,1,2-Trichloroethane	22.5	20.0	113	21.4	20.0	107	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	19.1	20.0	95	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	20.9	20.0	105	21.3	20.0	107	70 - 130	2	20
1,2-Dichloroethane	24.6	20.0	123	22.9	20.0	115	70 - 130	7	20
1,2-Dichloropropane	19.2	20.0	96	18.4	20.0	92	70 - 130	4	20
Acetone	17.9	20.0	89	17.7	20.0	88	40 - 160	1	20
Bromodichloromethane	23.0	20.0	115	21.9	20.0	110	70 - 130	5	20
Bromoform	23.5	20.0	118	22.6	20.0	113	70 - 130	4	20
Bromomethane	17.1	20.0	86	17.0	20.0	85	40 - 160	<1	20
Carbon Tetrachloride	23.8	20.0	119	23.1	20.0	115	70 - 130	3	20
Chlorobenzene	19.9	20.0	100	20.3	20.0	101	70 - 130	2	20
Chloroethane	18.3	20.0	91	18.4	20.0	92	70 - 130	<1	20
Chloroform	19.9	20.0	99	20.4	20.0	102	70 - 130	2	20
Chloromethane	18.5	20.0	93	18.4	20.0	92	40 - 160	<1	20
Dibromochloromethane	21.4	20.0	107	22.1	20.0	111	70 - 130	3	20
Methylene Chloride	17.9	20.0	89	17.9	20.0	89	70 - 130	<1	20
Tetrachloroethene (PCE)	21.1	20.0	106	22.0	20.0	110	70 - 130	4	20
Trichloroethene (TCE)	21.1	20.0	106	20.7	20.0	104	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	22.6	20.0	113	23.5	20.0	117	70 - 130	4	20
Vinyl Chloride	20.1	20.0	100	19.6	20.0	98	70 - 130	3	20
cis-1,2-Dichloroethene	19.0	20.0	95	19.2	20.0	96	70 - 130	1	20
cis-1,3-Dichloropropene	20.4	20.0	102	19.4	20.0	97	70 - 130	5	20
trans-1,2-Dichloroethene	18.4	20.0	92	18.4	20.0	92	70 - 130	<1	20
trans-1,3-Dichloropropene	21.7	20.0	108	21.3	20.0	107	70 - 130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Shaw Environmental & Infrastructure, Inc.
Project: Varian Beverly/146899-05000000
Sample Matrix: Water

Service Request: R1207821
Date Analyzed: 11/21/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 319468

Analyte Name	Lab Control Sample RQ1214451-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1214451-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	20.0	20.0	100	20.3	20.0	102	70 - 130	2	20
1,1,2,2-Tetrachloroethane	21.0	20.0	105	19.7	20.0	98	70 - 130	6	20
1,1,2-Trichloroethane	21.1	20.0	106	21.8	20.0	109	70 - 130	3	20
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	19.0	20.0	95	70 - 130	3	20
1,1-Dichloroethene (1,1-DCE)	20.3	20.0	101	21.2	20.0	106	70 - 130	4	20
1,2-Dichloroethane	22.2	20.0	111	24.4	20.0	122	70 - 130	9	20
1,2-Dichloropropane	17.9	20.0	90	19.5	20.0	97	70 - 130	8	20
Acetone	18.9	20.0	94	18.4	20.0	92	40 - 160	2	20
Bromodichloromethane	20.9	20.0	104	22.4	20.0	112	70 - 130	7	20
Bromoform	23.4	20.0	117	22.1	20.0	111	70 - 130	5	20
Bromomethane	16.3	20.0	81	16.3	20.0	81	40 - 160	<1	20
Carbon Tetrachloride	21.1	20.0	106	24.2	20.0	121	70 - 130	14	20
Chlorobenzene	19.5	20.0	98	20.1	20.0	100	70 - 130	3	20
Chloroethane	18.0	20.0	90	18.1	20.0	90	70 - 130	<1	20
Chloroform	19.6	20.0	98	20.4	20.0	102	70 - 130	4	20
Chloromethane	17.9	20.0	89	18.2	20.0	91	40 - 160	2	20
Dibromochloromethane	22.7	20.0	113	21.5	20.0	107	70 - 130	6	20
Methylene Chloride	17.7	20.0	89	18.6	20.0	93	70 - 130	5	20
Tetrachloroethene (PCE)	21.3	20.0	107	21.6	20.0	108	70 - 130	1	20
Trichloroethene (TCE)	19.7	20.0	99	21.5	20.0	108	70 - 130	9	20
Trichlorofluoromethane (CFC 11)	22.0	20.0	110	22.7	20.0	113	70 - 130	3	20
Vinyl Chloride	19.6	20.0	98	20.1	20.0	100	70 - 130	3	20
cis-1,2-Dichloroethene	17.9	20.0	89	19.2	20.0	96	70 - 130	7	20
cis-1,3-Dichloropropene	18.6	20.0	93	19.9	20.0	99	70 - 130	7	20
trans-1,2-Dichloroethene	17.8	20.0	89	19.0	20.0	95	70 - 130	6	20
trans-1,3-Dichloropropene	19.7	20.0	99	21.5	20.0	107	70 - 130	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services℠ — CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 3

Project Name: Varian Beverly
Project Number: 146899-05000000
Project Manager: Raymond Cadorette
Report CC:
Company/Address: Shaw Environmental, Inc.
150 Royall Street
Canton, MA 02021
Phone #: 617-589-6102
E-mail: Raymond.Cadorette@Shawgrp.com
Sampler's Signature: [signature]
Sampler's Printed Name: Daniel C. Leahy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☑ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Chloride						REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1						2	0						
OB8-S (14')		11/12/12	0800	GW	3	3													
OB41-S (14')		11/12/12	0830	↓	3	3													
CL2-BR (42')		11/12/12	0900	↓	3	3													
OB43-S (14')		11/12/12	0930	↓	3	3													
W-1 (9')		11/12/12	1000	↓	3	3													
OB42-S (14')		11/12/12	1030	↓	3	3													
AP15-S (14')		11/12/12	1100	↓	3	3													
OB18-S (14')		11/12/12	1200	↓	3	3													
GZ-4 (14')		11/12/12	1300	↓	3	3													
Trip Blank		provided By lab		↓	3	3													

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ______

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Fe & Mn are field filtered
Site specific VOC list
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@shawgrp.com.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED:

TURNAROUND REQUIREMENTS
___ RUSH (SURCHARGES APPLY)
___ 1 day ___ 2 day ___ 3 day
___ 4 day ___ 5 day
✓ Standard

REQUESTED REPORT DATE
______

REPORT REQUIREMENTS
___ I. Results Only
___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
___ III. Results + QC and Calibration Summaries
___ IV. Data Validation Report with Raw Data

Edata ✓ Yes ___ N

INVOICE INFORMATION
PO #: 771944
BILL TO: Shaw Environmental

R1207821 7 Y
Shaw Environmental & Infrastructure, Inc.
Varian Beverly

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	[signature]	[signature]				
Printed Name	Justin Maynard	Gregory LaFave				
Firm	Shaw	ALS				
Date/Time	11-13-12 14:00	11/14/12 0910				

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

Columbia Analytical Services™ CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax)

Project Name: Varian Beverly	Project Number: 146899-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: Shaw Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@shawgrp.com
Sampler's Signature:	Sampler's Printed Name: Austin Maynard

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 1 | 2 | 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+Mn	Chloride	REMARKS/ ALTERNATE DESCRIPTION
CL10-S(15')		11-12-12	09:30	GW	3	3								
CL10-DO(36')		11-12-12	09:15		3	3								
CL10-BR(46')		11-12-12	10:00		3	3								
MW4-32 Tozer(14')		11-12-12	10:50		3	3								
MW5-32 Tozer(14')		11-12-12	11:20		3	3								
P-19A (10')		11-12-12	12:40		3	3								
P-9R(5')		11-12-12	13:05		3	3								
STRM-A-SCDS		11-12-12	13:45		3	3								
OB20-S(12')		11-12-12	14:35		3	3								
EB-1		11-12-12	15:00	✓	3	3								

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Fe & Mn are field filtered
Site specific VOC list
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD and PDF of report to:
Catherine.Mainville@Shawgrp.com

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 771944
BILL TO: Shaw Environmental

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Austin Maynard	Printed Name: Gregory LaFave	Printed Name	Printed Name	Printed Name	Printed Name
Firm: Shaw	Firm: AECOM	Firm	Firm	Firm	Firm
Date/Time: 11-13-12 14:05	Date/Time: 11/14/12 0910	Date/Time	Date/Time	Date/Time	Date/Time

Columbia Analytical Services — CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax)

Project Name: Varian Beverly	Project Number: 146899-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: Shaw Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.cadorette@shawgrp.com
Sampler's Signature: Austin Maynard	Sampler's Printed Name: Austin Maynard

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 2 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+Mn	Chloride	REMARKS/ ALTERNATE DESCRIPTION
STRHA-7A		11-13-12	8:40	GW	3	3								
STRHA-7B		11-13-12	9:30	"	3	3								
B-3 (14')		11-13-12	10:00	"	3	3								
MW-9A (9')		11-13-12	10:40	"	3	3								
EB-2		11-13-12	11:10	"	3	3								
AP-19 (29')		11-13-12	11:40	"	5	3					1	1		Fe+Mn was field filtered
AP-20 & (19')		11-13-12	12:20	"	5	3					1	1		"
AP-21 (29')		11-13-12	13:10	"	5	3					1	1		"
AP-22 (19')		11-13-12	13:45	"	5	3					1	1		"

Preservative Key: 0. NONE; 1. HCL; 2. HNO_3; 3. H_2SO_4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. $NaHSO_4$; 8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Metals = FE & Mn are field filtered
Site specific VOC list
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD and PDF of report to:
Catherine.Mainville@Shawgrp.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 771944
BILL TO: Shaw Environmental

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Austin Maynard	Signature: Gregory LaFave	Signature	Signature	Signature	Signature
Printed Name: Austin Maynard	Printed Name: Gregory LaFave	Printed Name	Printed Name	Printed Name	Printed Name
Firm: SHAW	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 11-13-12 14:00	Date/Time: 11/14/12 0910	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

Cooler Receipt and Preservation Check Form

Project/Client Shaw Folder Number R12-7821

Cooler received on 11/14/12 by: (R) **COURIER:** ALS (UPS) FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	YES	(NO)
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	(NO) N/A
5.	Were **Ice** or **Ice packs** present?	(YES)	NO
6.	Where did the bottles originate?	(ALS/ROC), CLIENT	

7.	Soil VOA samples received as:	Bulk Jar	Encore	TerraCore	Lab5035set	(N/A)
8.	Temperature of cooler(s) upon receipt:	3.7°				
	Is the temperature within 0° - 6° C?:	(Y) N	Y N	Y N	Y N	Y N

If No, Explain Below Date/Time Temperatures Taken: 11/14/12 0926

Thermometer ID: (IR GUN#3) / IR GUN#4 Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location R-002 by (R) on 11/14/12 at 0928

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: MV 11/14/12

Cooler Breakdown: Date: 11/15/12 Time: 0750 by: AWA

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies:

pH	Reagent	YES	NO	Lot Received	Exp
≥12	NaOH				
≤2	HNO_3	X		BDB26240	11/13
≤2	H_2SO_4				
<4	$NaHSO_4$				
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)	
	$Na_2S_2O_3$	-	-		
	Zn Aceta	-	-		
	HCl	*	*	4111100	11/13

Sample ID	Vol. Added	Lot Added	Final pH

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 2-206-002, 082012-2HH,

Other Comments:

PC Secondary Review: MV

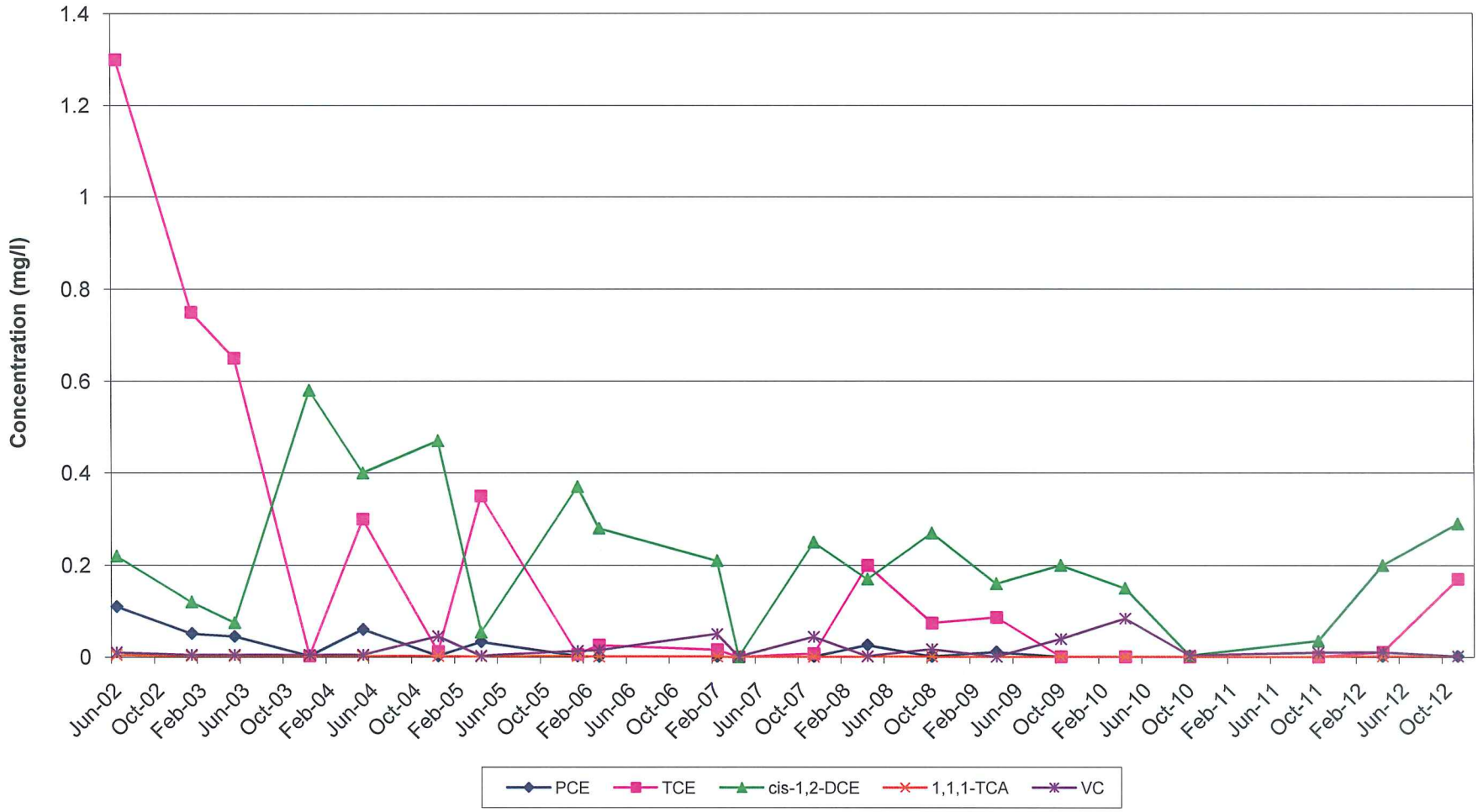
*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

APPENDIX E

VOC TREND GRAPHS

TOZER ROAD NORTH OF ROUTE 128

VOC Trends in Well CL02-BR
Former Varian Facility Site
Beverly, Massachusetts

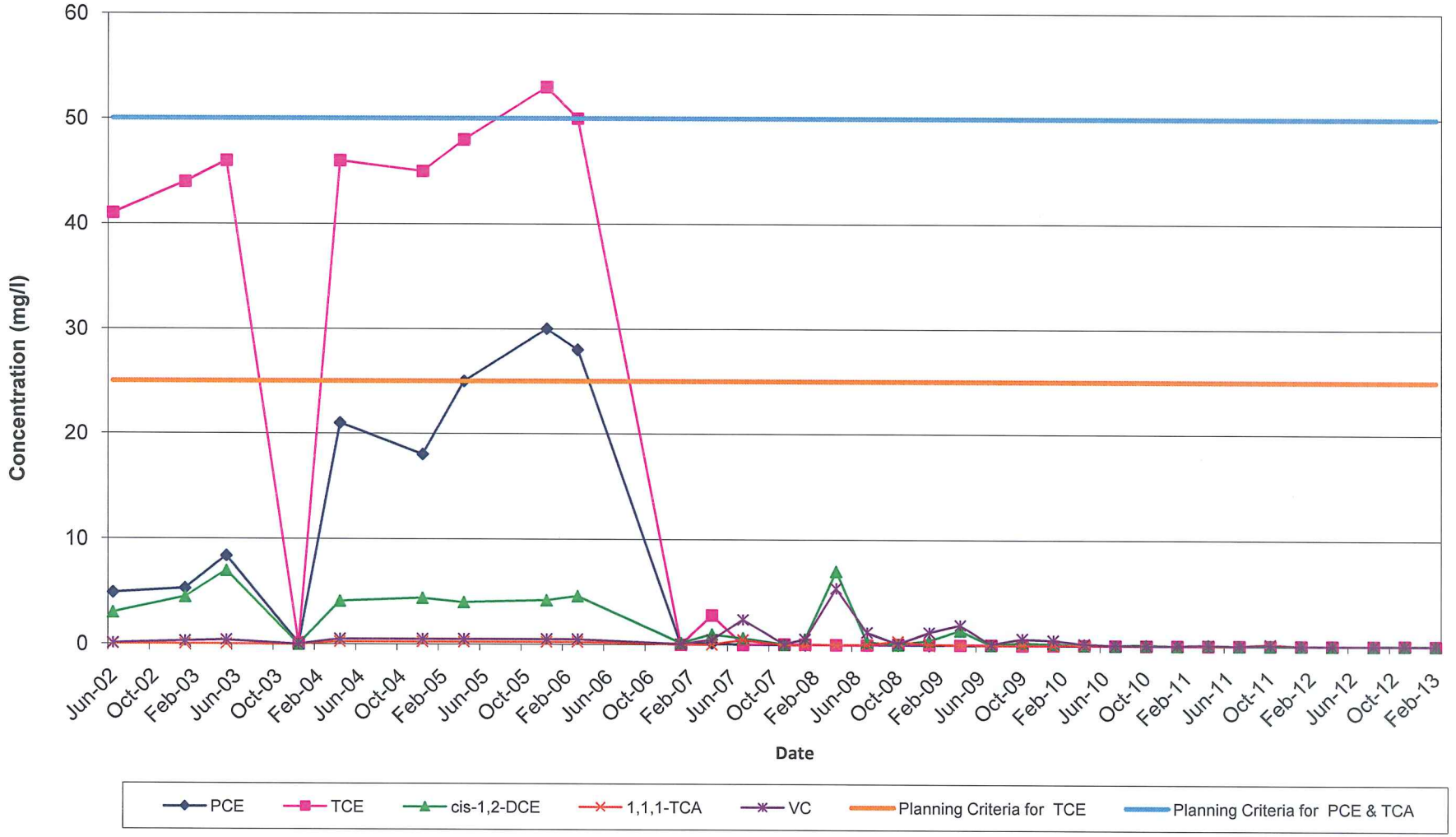


Notes: CL02-BR is a bedrock well north of Route 128 at 16 Tozer Road.
See end of appendix for additional notes.

H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_MW Feb2013.xlsx

BUILDING 3/6 TREATMENT AREA

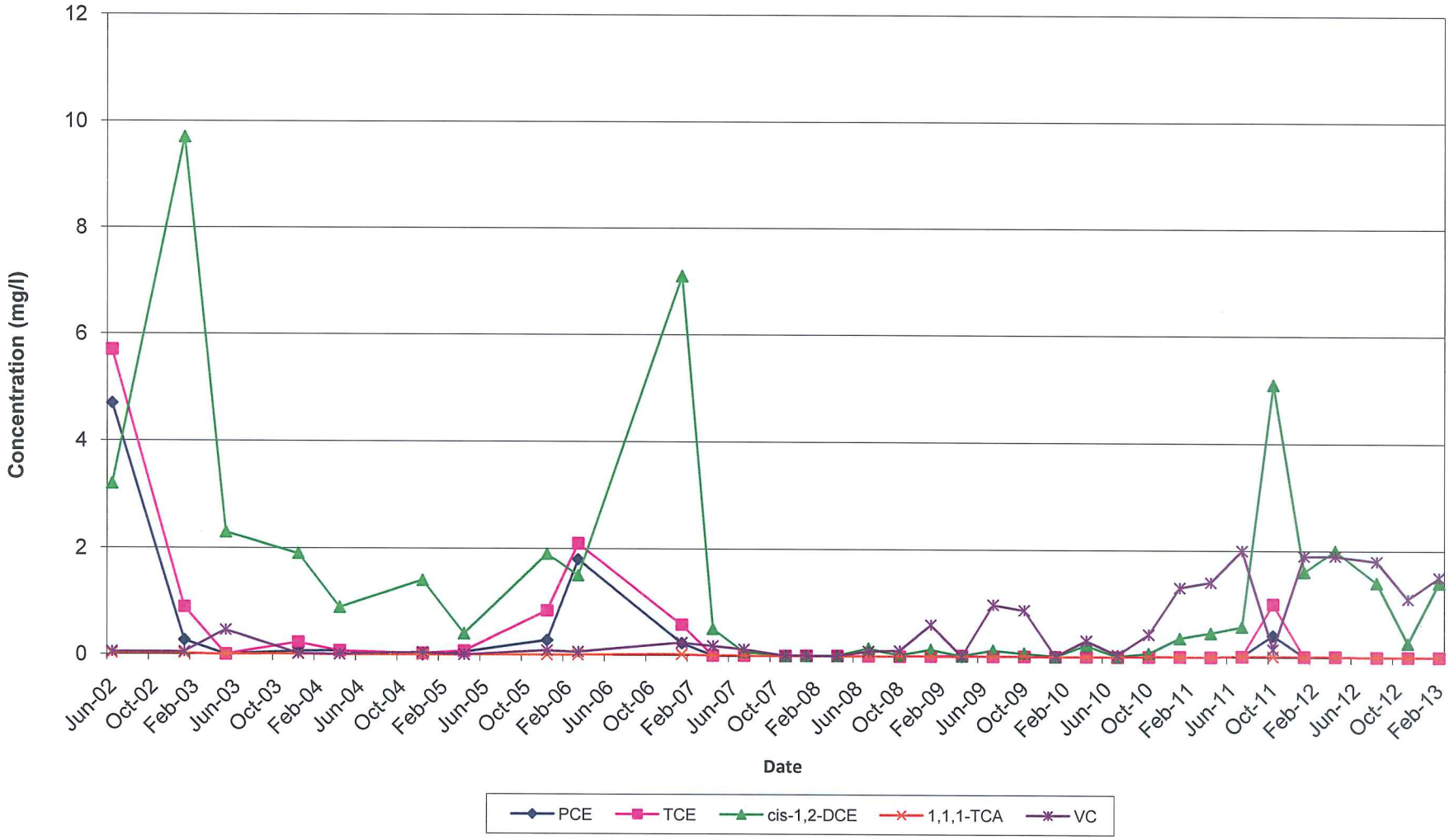
VOC Trends in Well OB-09-S
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-9-S is a shallow well east of Building 9.
Bio-injection was completed from 2006 to 2012.
See end of appendix for additional notes.

H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_OB Feb2013.xlsx

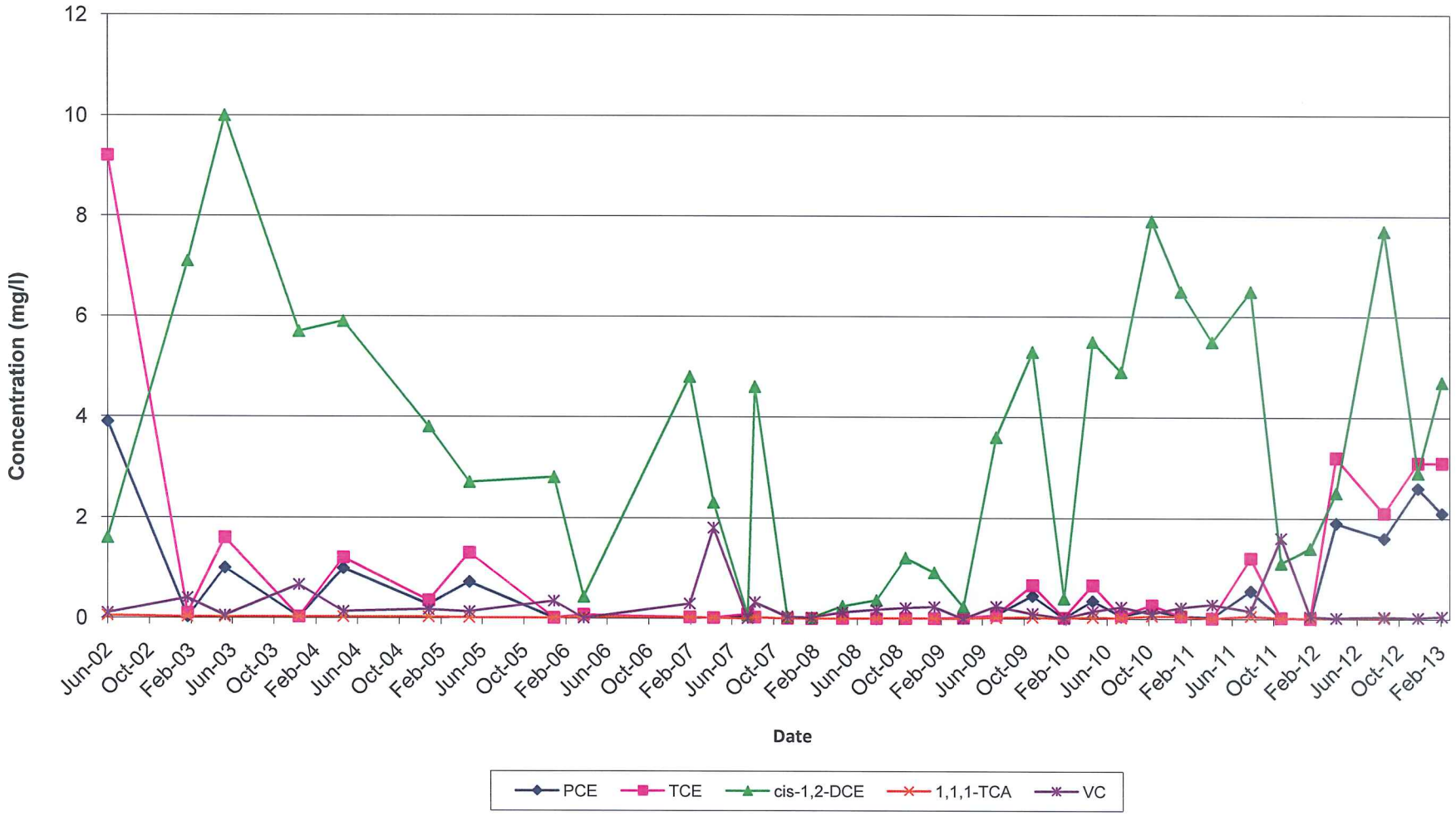
VOC Trends in Well OB-09-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-9-DO is a deep overburden well east of Building 9.
See end of appendix for additional notes.

H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_OB Feb2013.xlsx

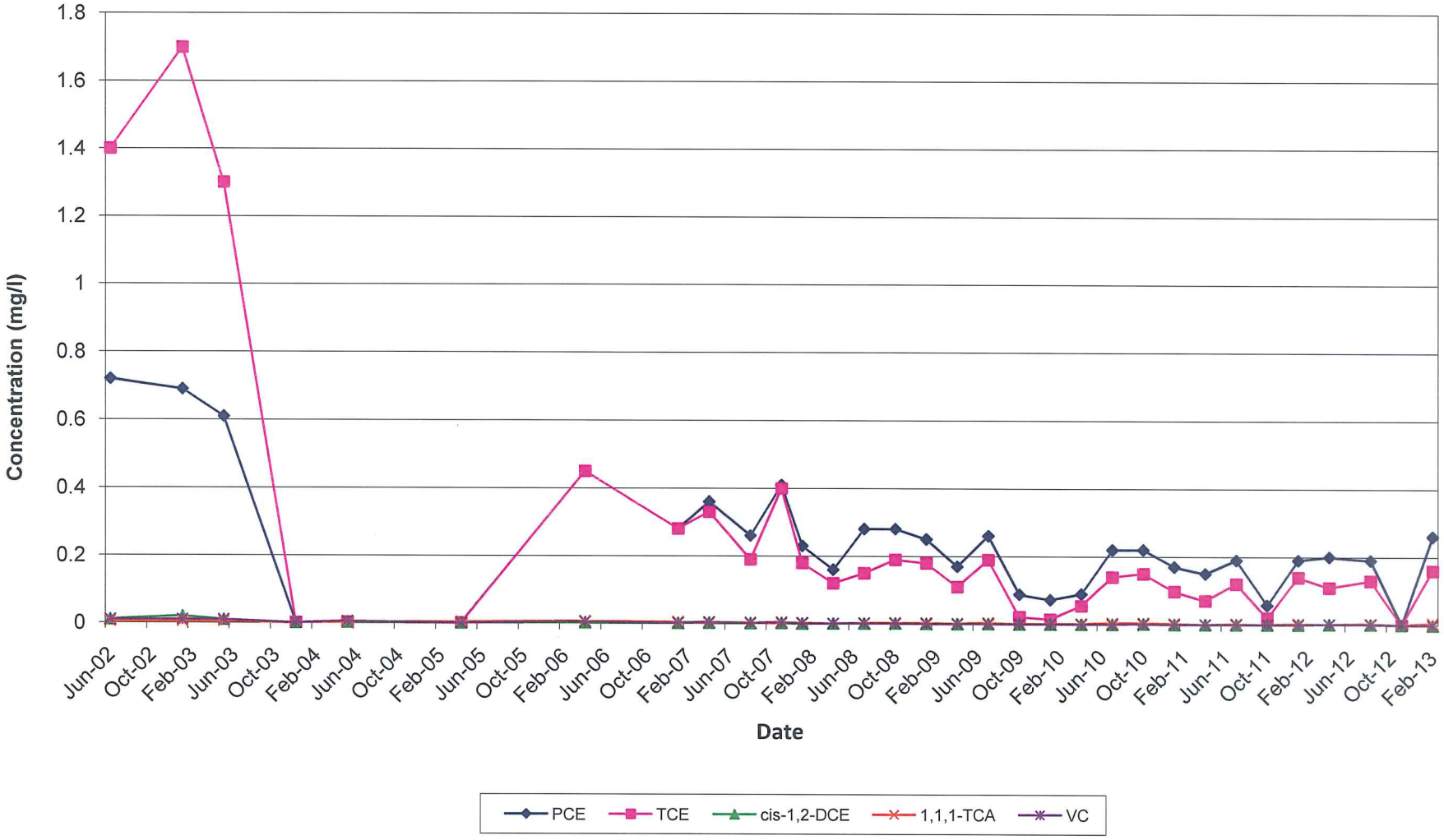
VOC Trends in Well OB-09-BR
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-9-BR is a bedrock well east of Building 9.
See end of appendix for additional notes.

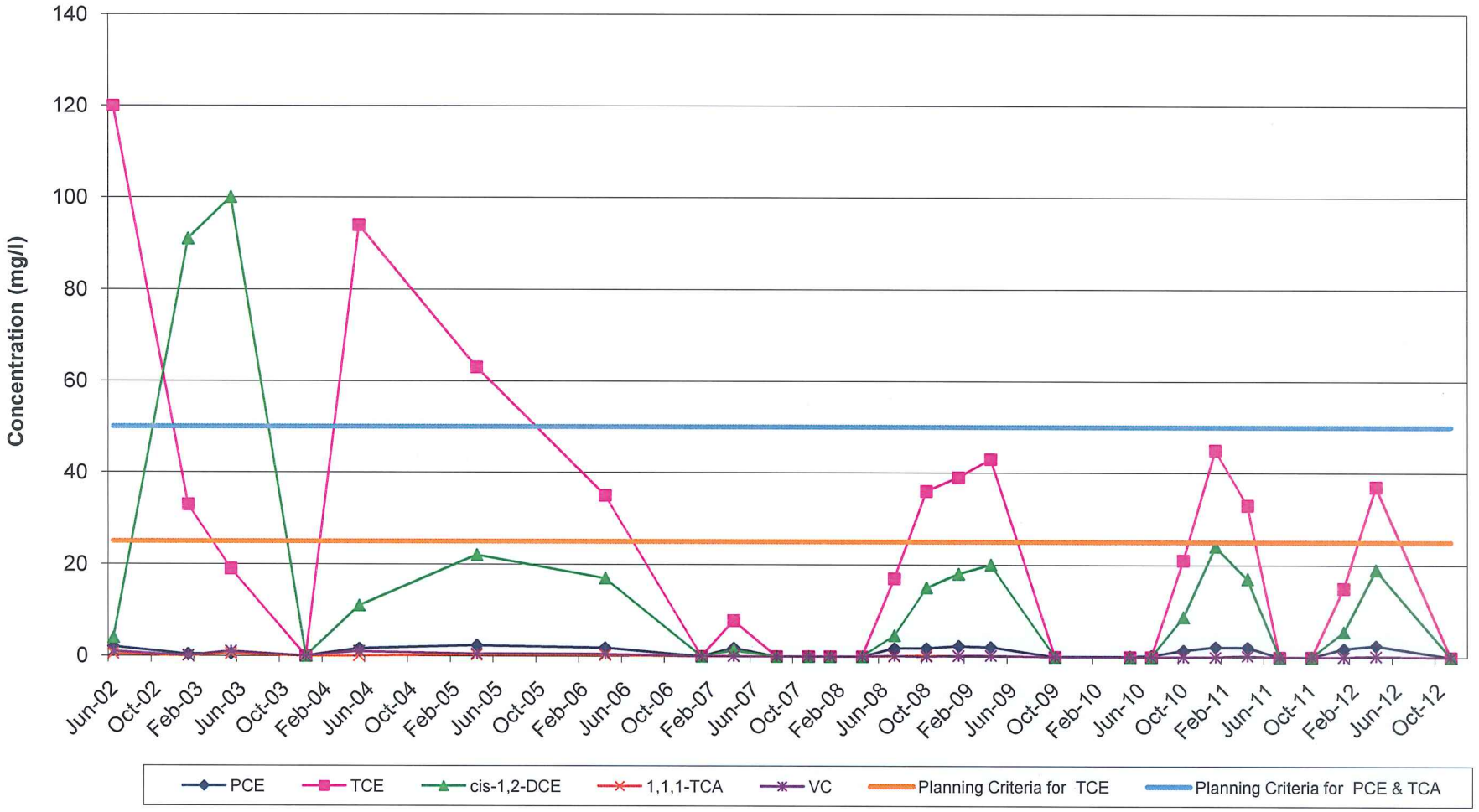
H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_OB Feb2013.xlsx

VOC Trends in Well OB-12-S
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-12-S is a shallow overburden well north of Building 3 where permanganate injection was completed in 2003.
See end of appendix for additional notes.

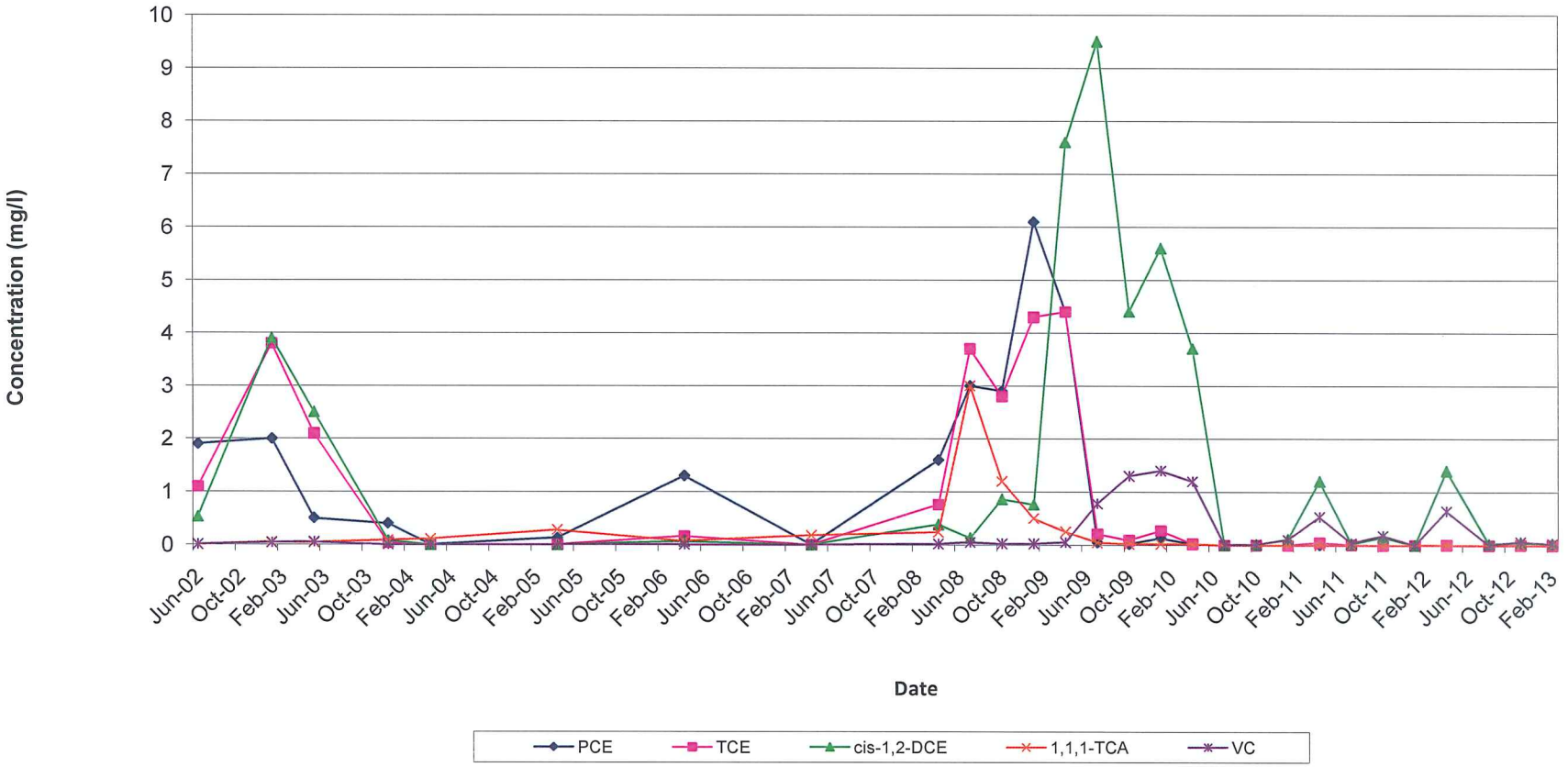
VOC Trends in Well OB-12-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-12-DO is a deep overburden well north of Building 3.
Permanganate injection completed 2003-2007, 2009, 2011 and 2012.
See end of appendix for additional notes.

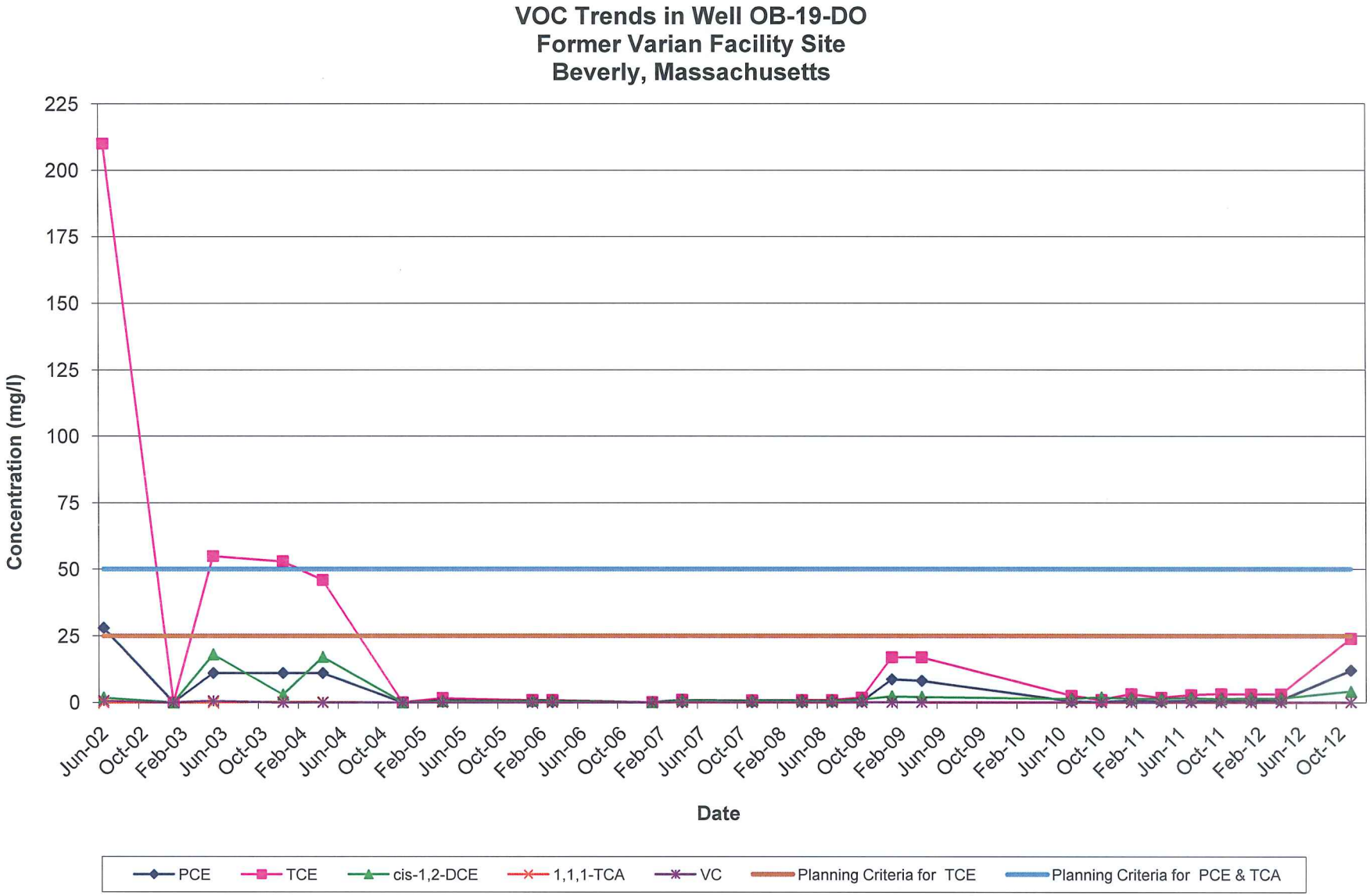
H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_OB Feb2013.xlsx

VOC Trends in Well OB-15-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB15-S is a shallow well northeast of Building 9.
Bio-injection was conducted from 2009 and 2012.
See end of appendix for additional notes.

H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_OB Feb2013.xlsx



Note: OB-19-DO is a deep overburden well west of Building 2 where permanganate injection was conducted from 2002-2005. See end of appendix for additional notes.

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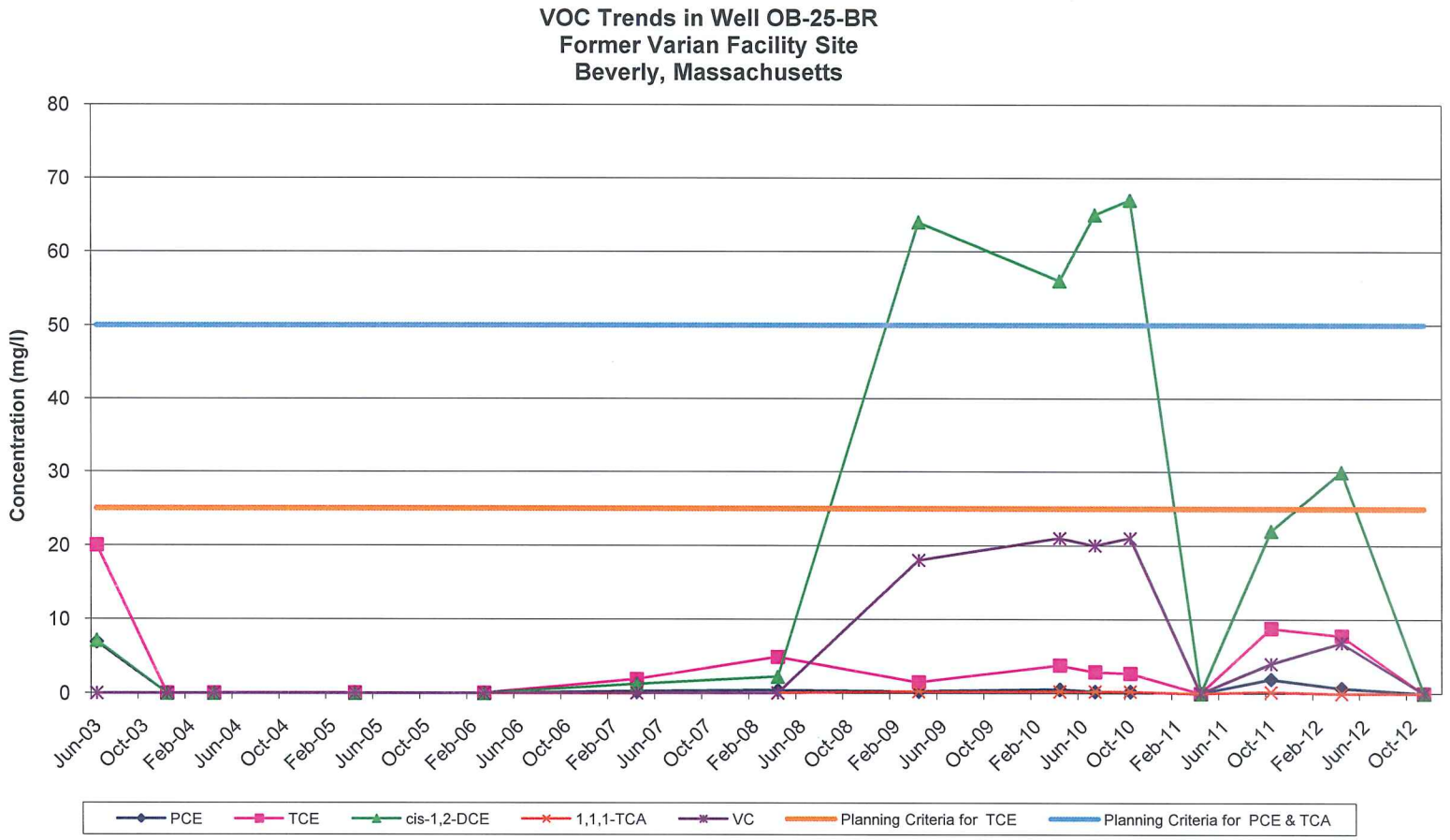

Notes: OB-25-BR is a bedrock well located just west of Building 1 where permanganate injection was conducted in 2003, 2010, and 2012. See end of appendix for additional notes.

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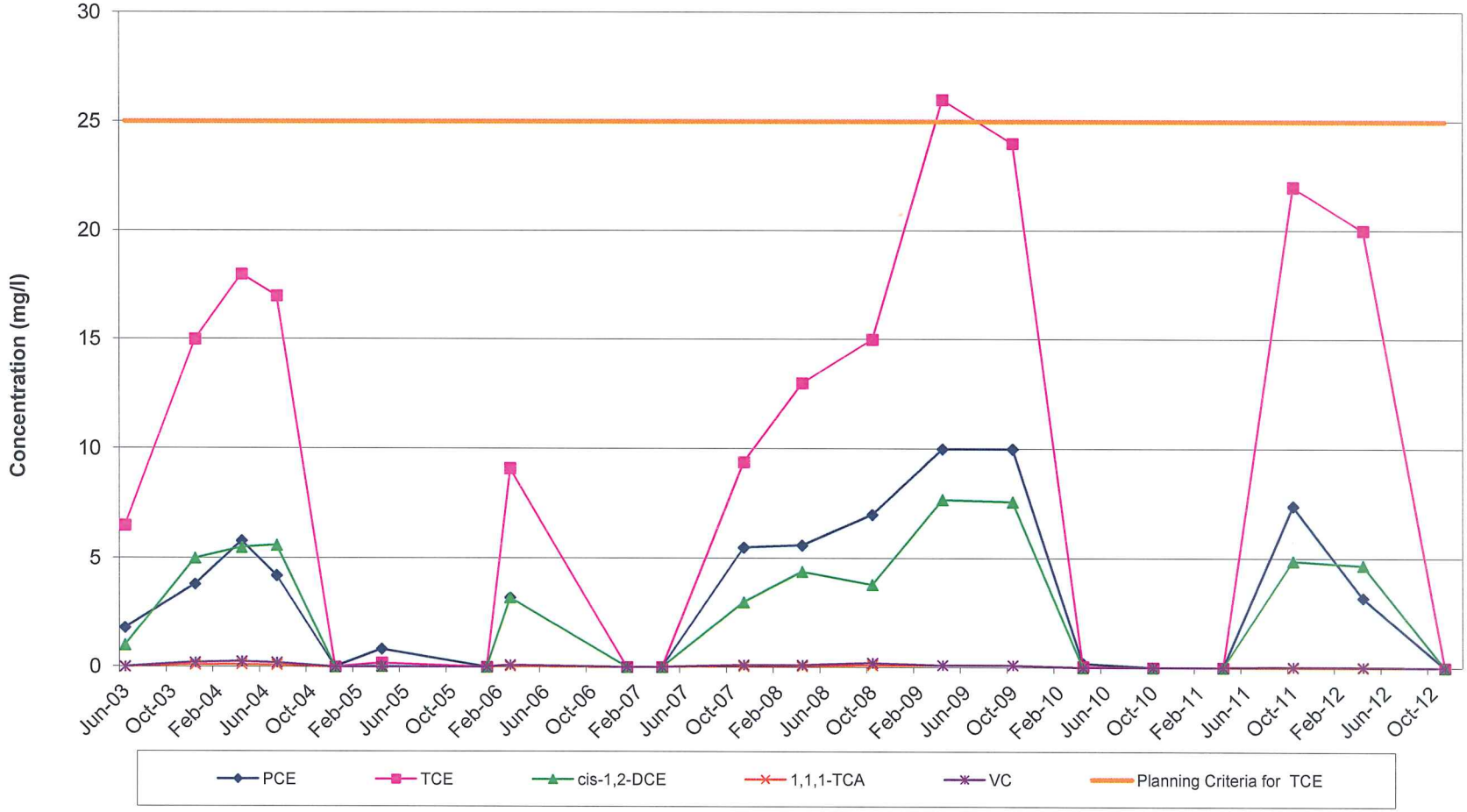
VOC Trends in Well OB-27-BR
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB-27-BR is a bedrock well located west of Building 7.
Permanganate injection conducted in 2004-2007, 2010 and 2012.
See end of appendix for additional notes.

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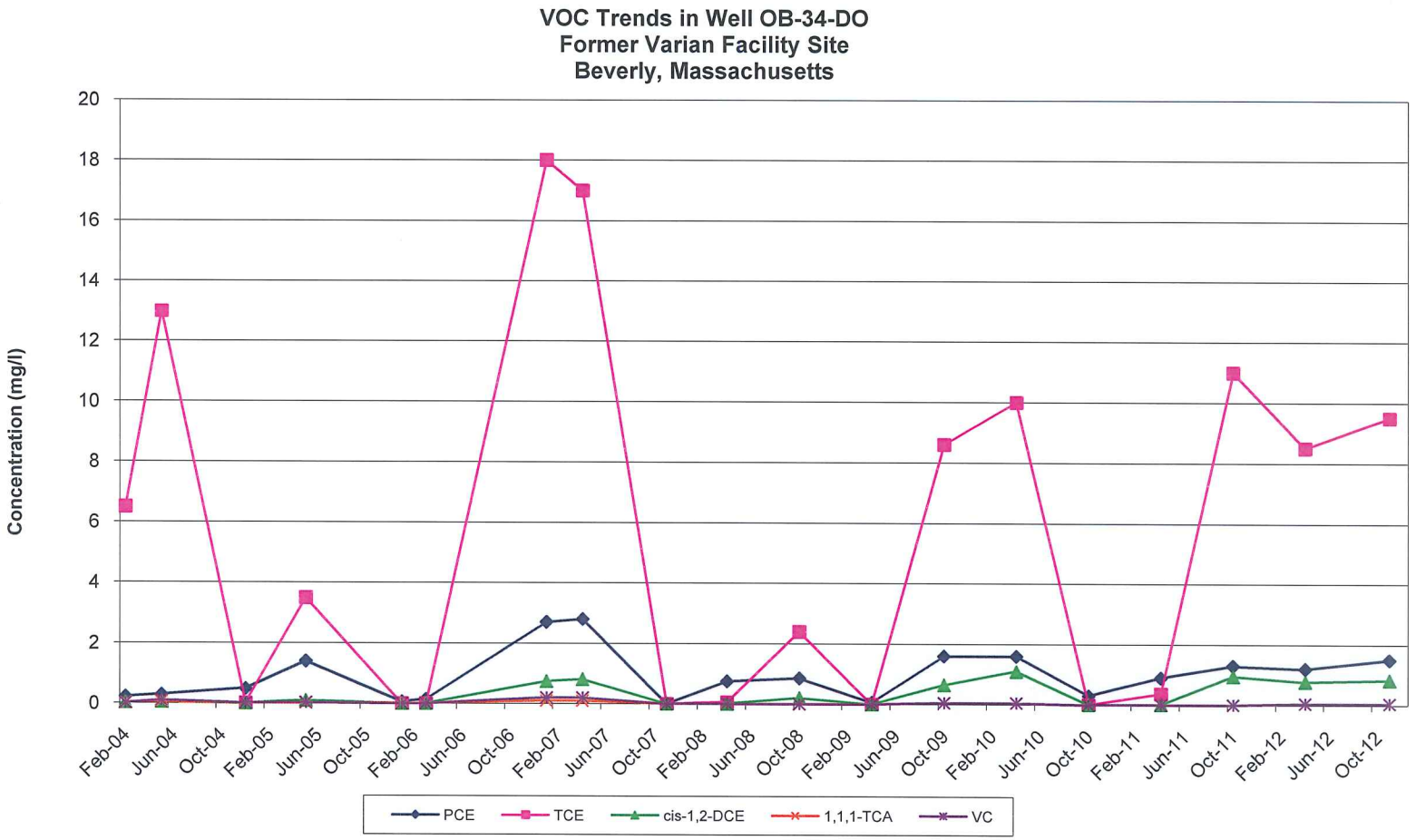

Notes: OB34-DO is a deep overburden well north of Building 3.
Permanganate injection was conducted in 2004, 2005, 2007 and 2009.
See end of appendix for additional notes.

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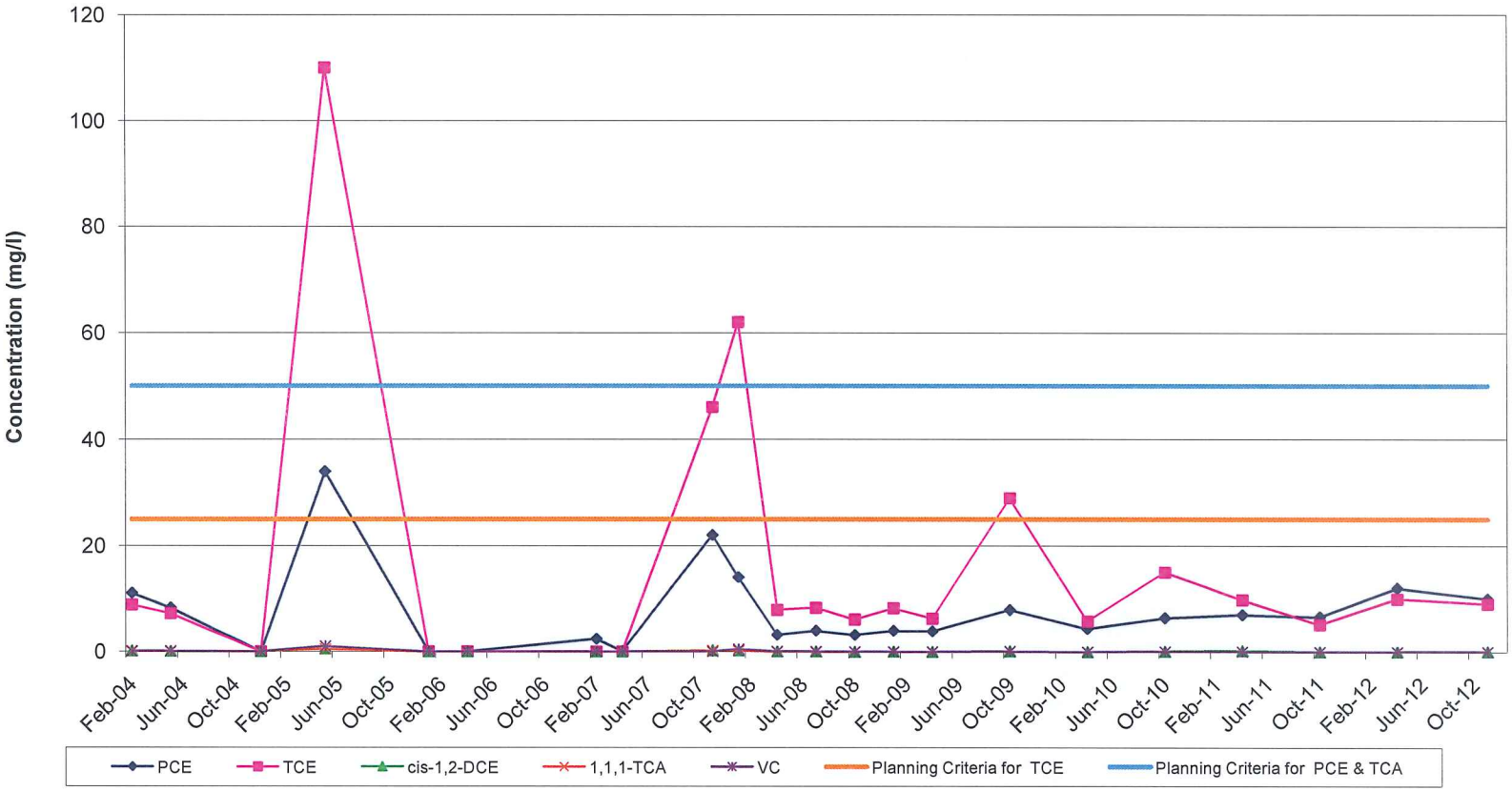
VOC Trends in Well OB-36-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-36-DO is a deep overburden well inside the Building 6 loading dock where permanganate injection was conducted in 2004-2005.
See end of appendix for additional notes.

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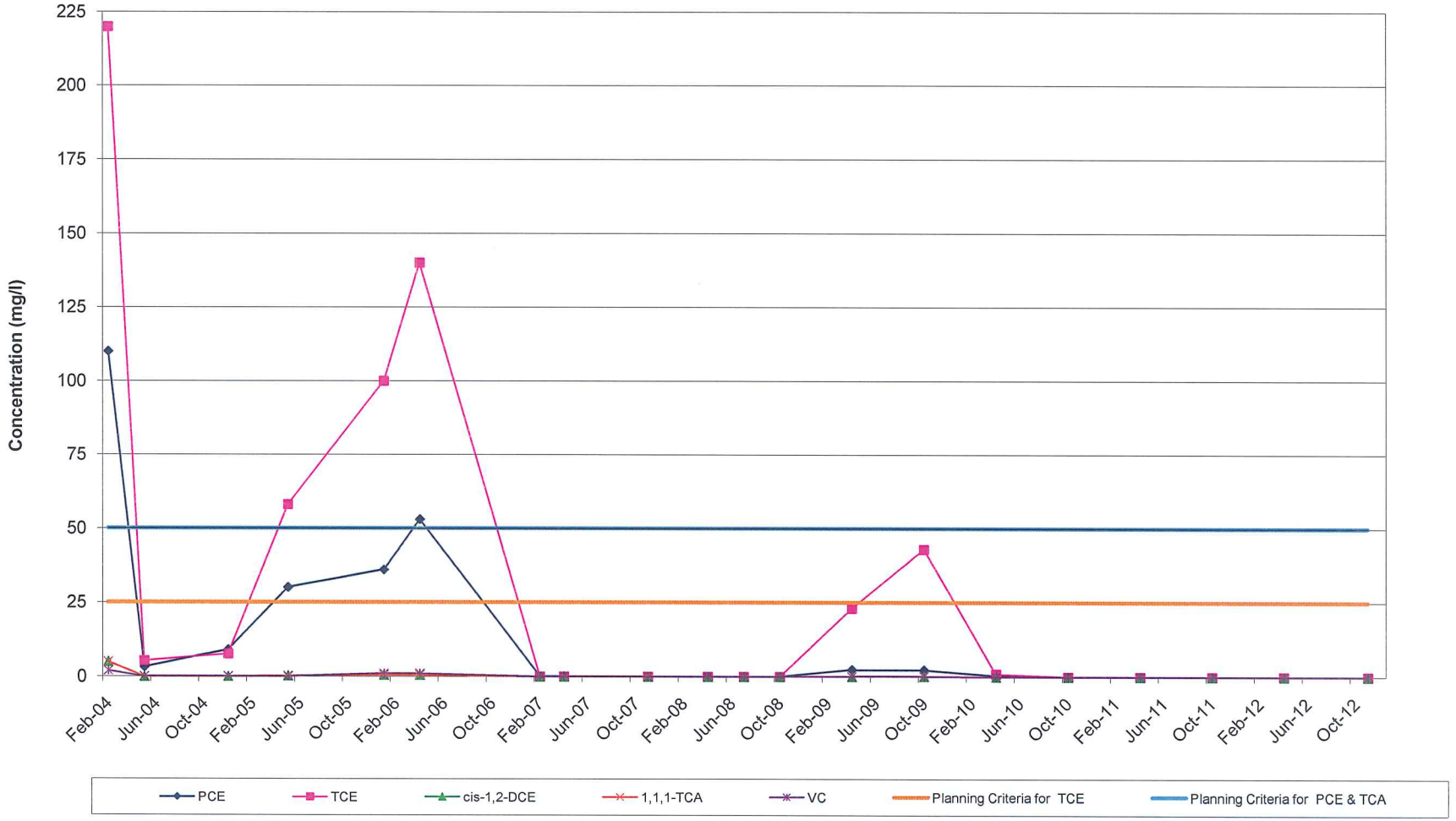
VOC Trends in Well OB-37-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB37-DO is a deep overburden well inside Building 6.
Permanganate injection conducted in 2006, 2007 and 2010-2011.
See end of appendix for additional notes.

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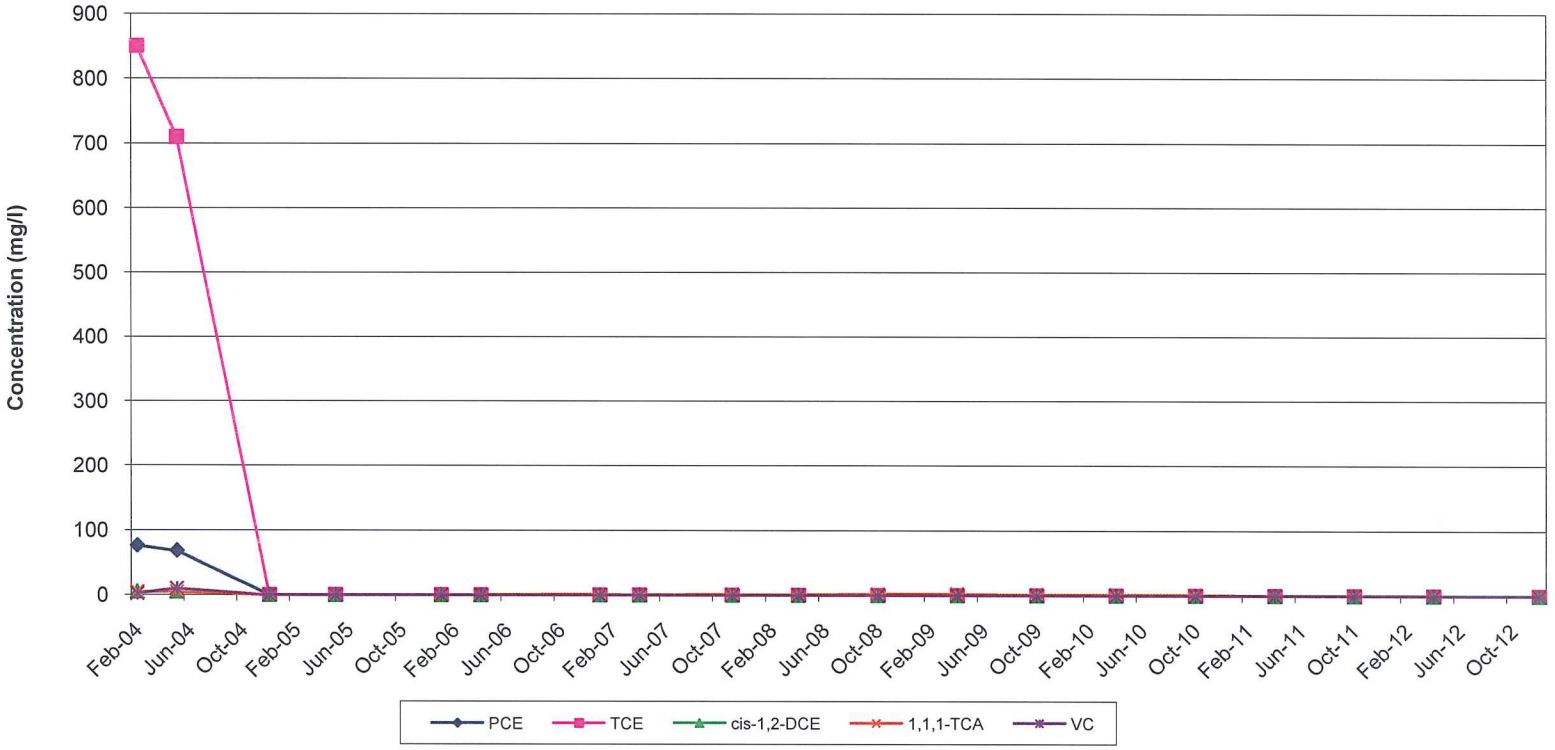
VOC Trends in Well OB-32-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB32-DO is a deep overburden well just north of Building 3
where injection was conducted in 2004.
See end of appendix for additional notes.

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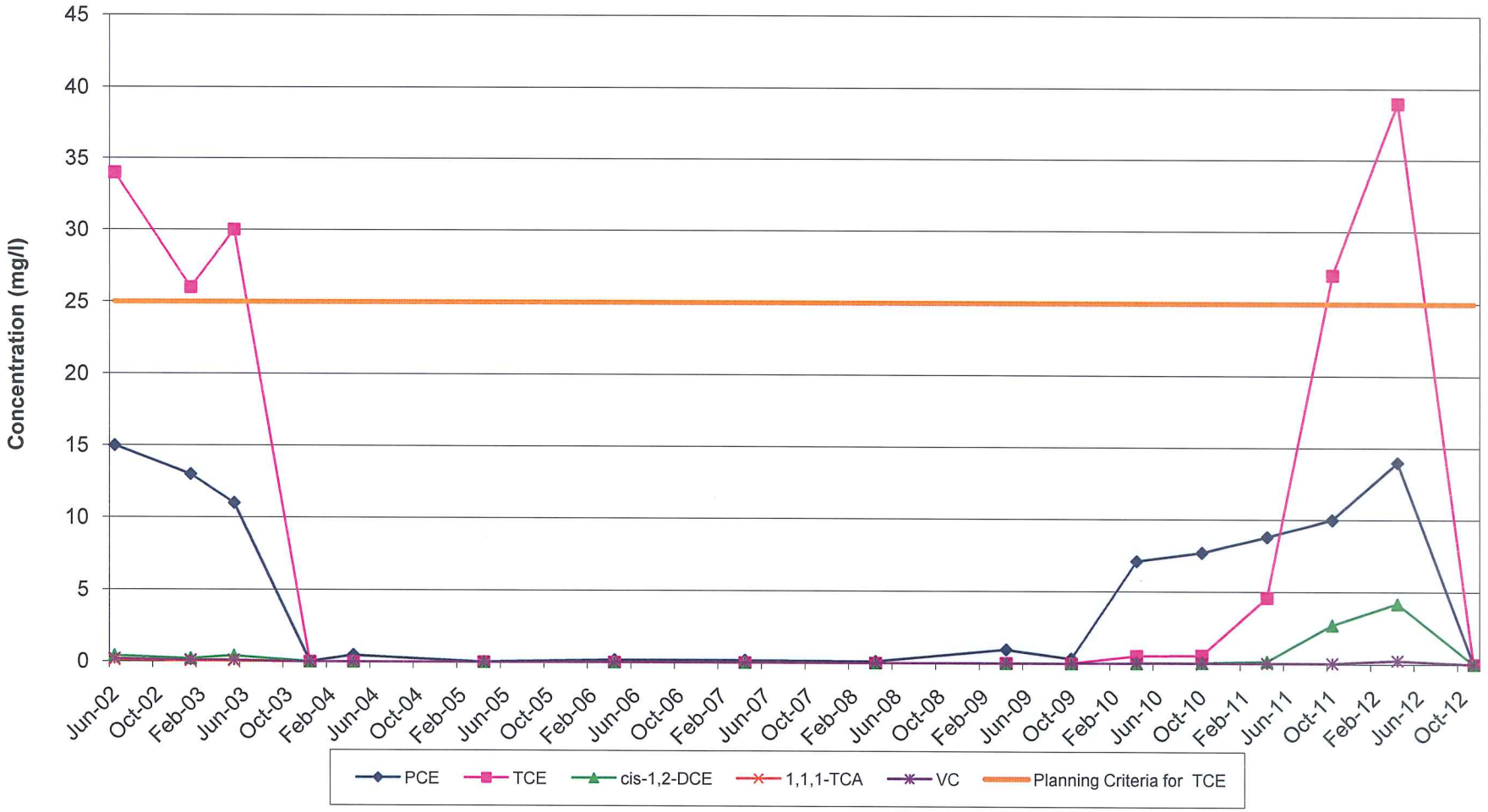
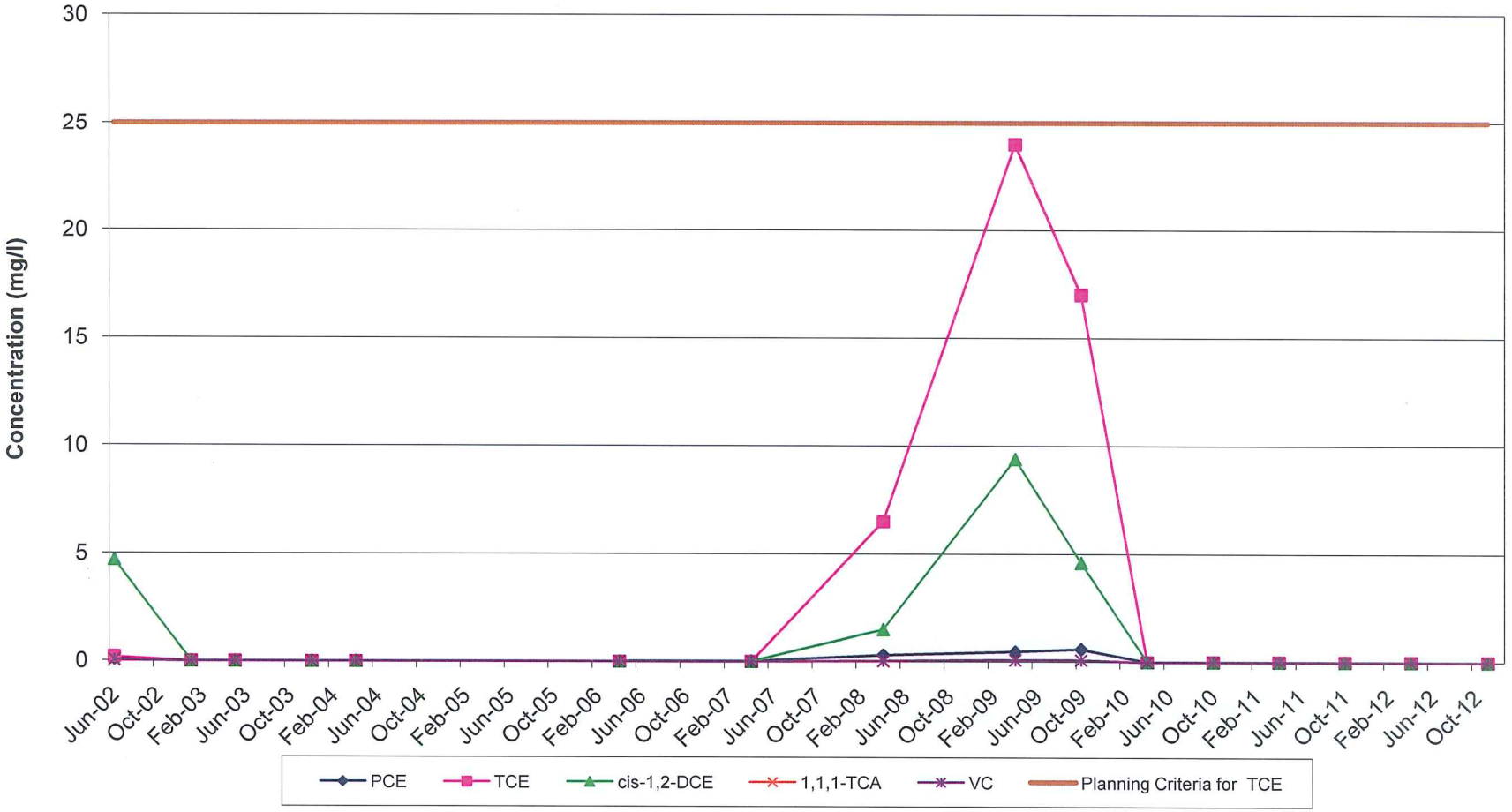
VOC Trends in Well AP-12-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-12-DO is a deep overburden well adjacent to Building 6 where permanganate injection was conducted in 2002, 2003, 2004, and 2012. See end of appendix for additional notes.

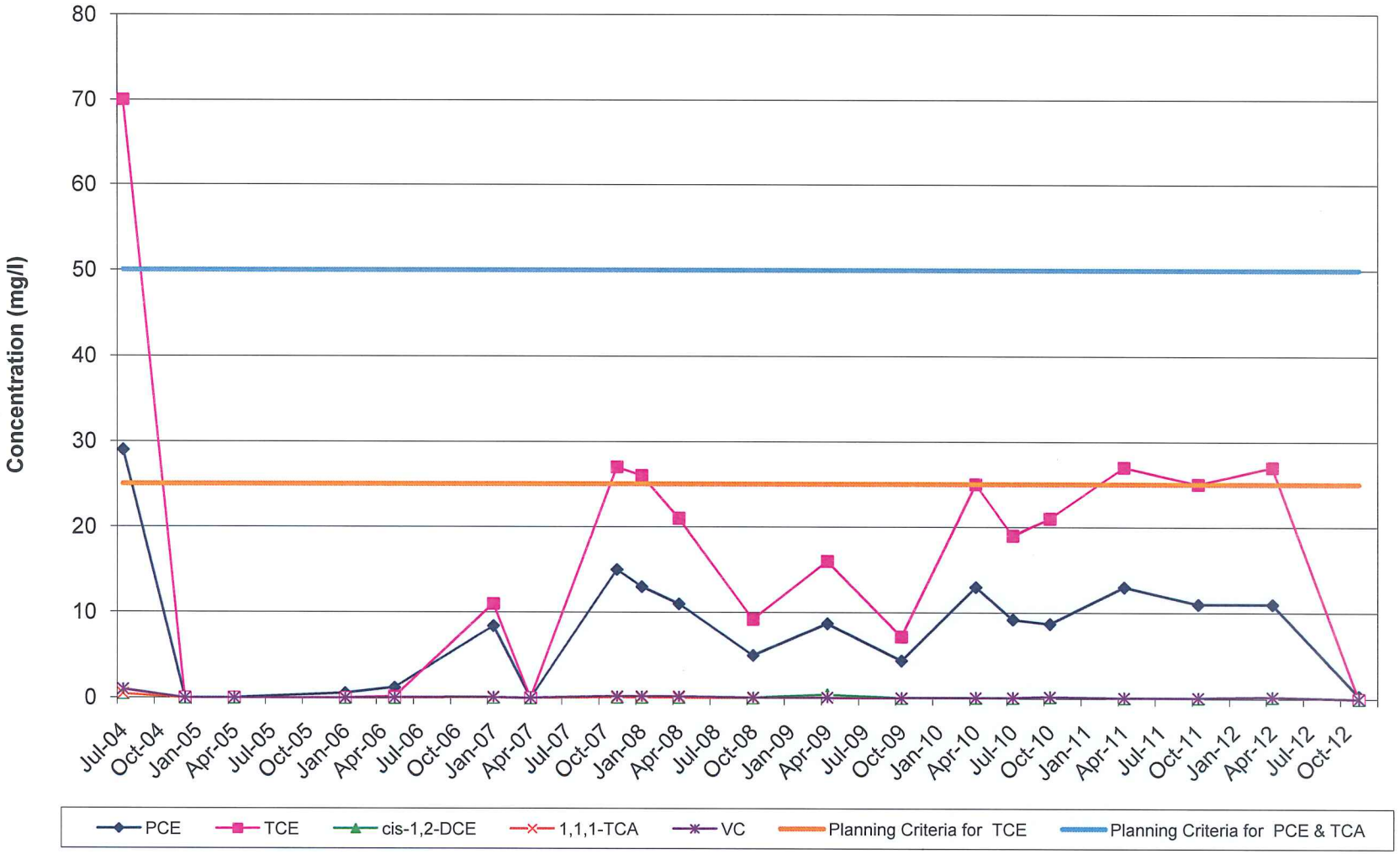
H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_MW Feb2013.xlsx

VOC Trends in Well AP-12-BR
Former Varian Facility Site
Beverly, Massachusetts



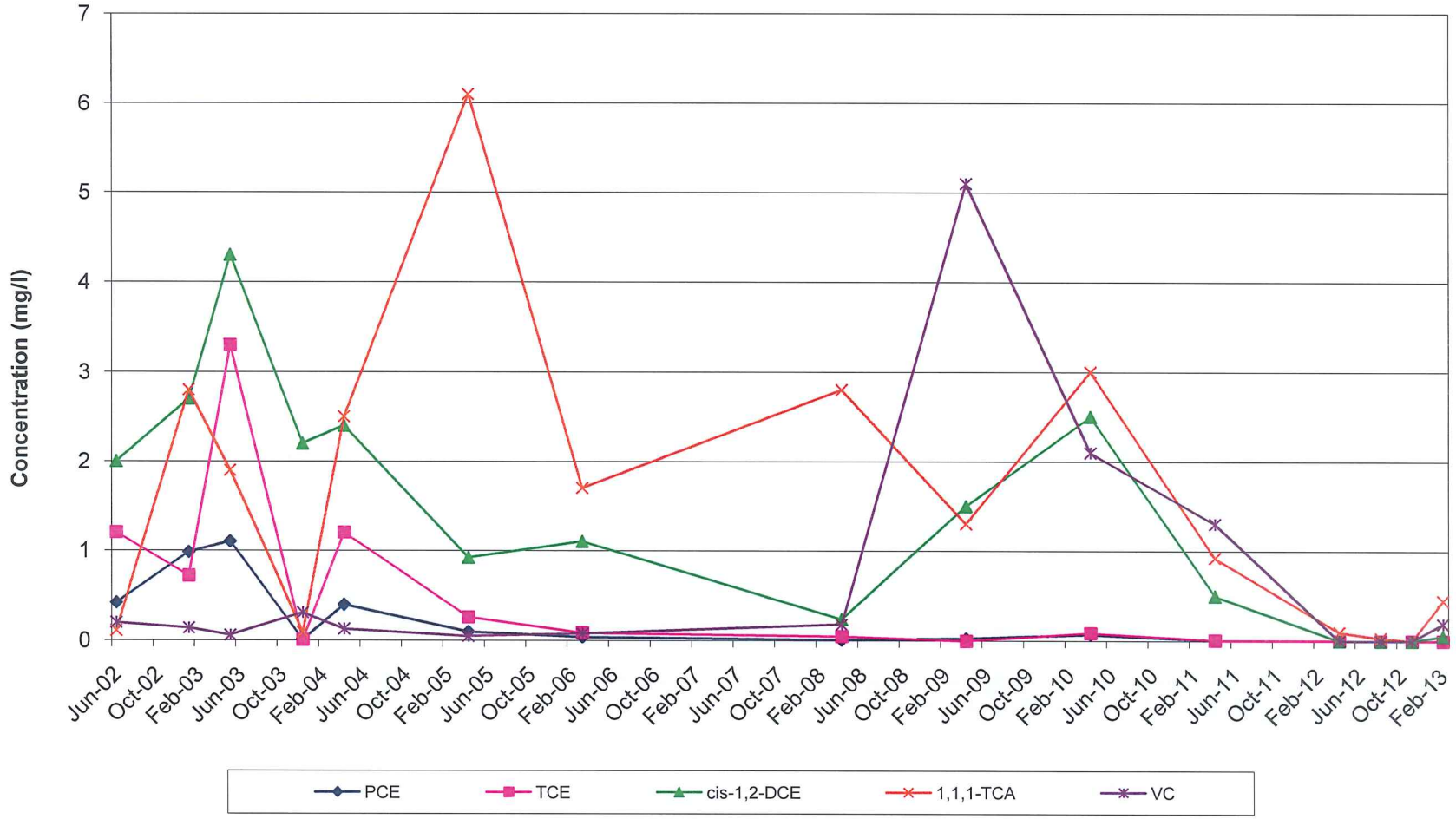
Notes: AP-12-DO is a deep overburden well adjacent to Building 6.
Permanganate injection conducted in 2002, 2003, 2004 and 2010.
See end of appendix for additional notes.

VOC Trends in Well AP-26-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-26-DO is a deep overburden well just west of Building 1 where permanganate injection was conducted in 2004 and 2012. See end of appendix for additional notes.

VOC Trends in Well MW-008
Former Varian Facility Site
Beverly, Massachusetts



Notes: MW-8 is a shallow overbuden well located in the parking lot east of Buildings 6 and 9.
See end of appendix for additional notes.

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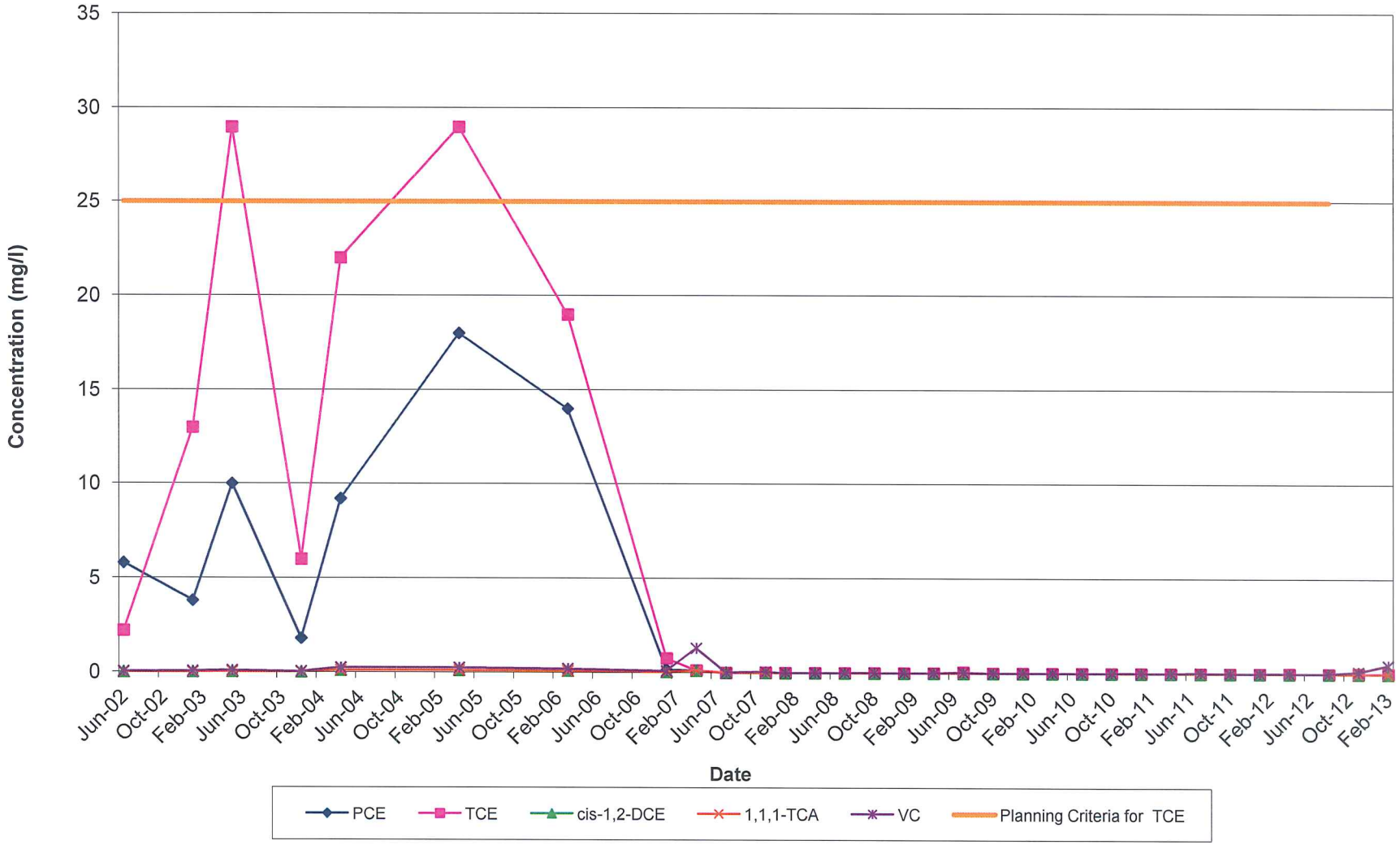
VOC Trends in Well MW-009
Former Varian Facility Site
Beverly, Massachusetts



Notes: MW-9 is a shallow overburden well adjacent to Building 9 where bio-injection was conducted in 2006, 2007, 2009, and 2012. See end of appendix for additional notes.

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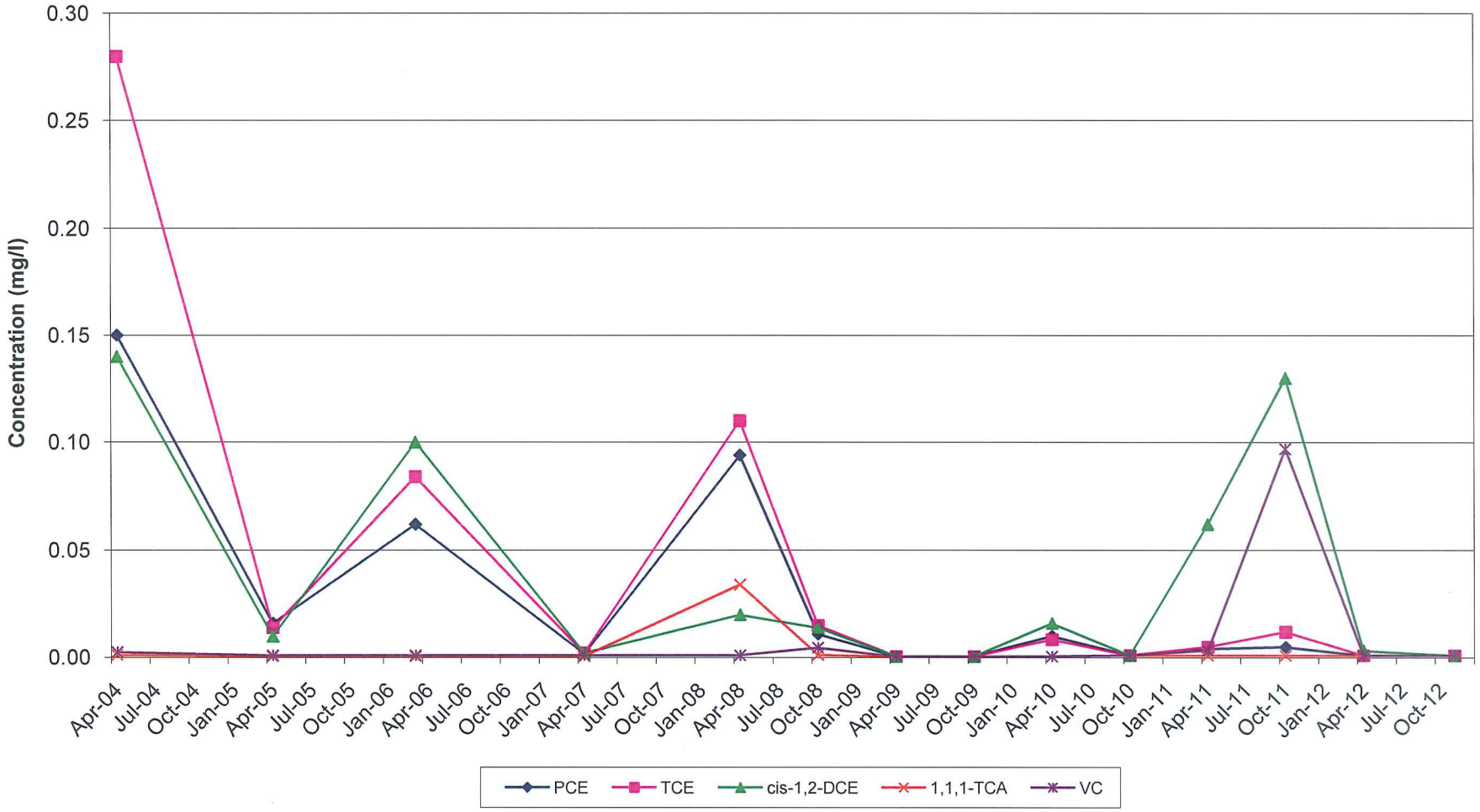
VOC Trends in Well MW-009A
Former Varian Facility Site
Beverly, Massachusetts



Notes: MW-9A is a shallow overburden well adjacent to Building 9.
See end of appendix for additional notes.

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VOC Trends in Well MW-013
Former Varian Facility Site
Beverly, Massachusetts

Note: MW-13 is a deep overburden well located to the northeast of Building 3 where permanganate injection was conducted in 2002 and 2010.
See end of appendix for additional notes.

Shaw Environmental, Inc.

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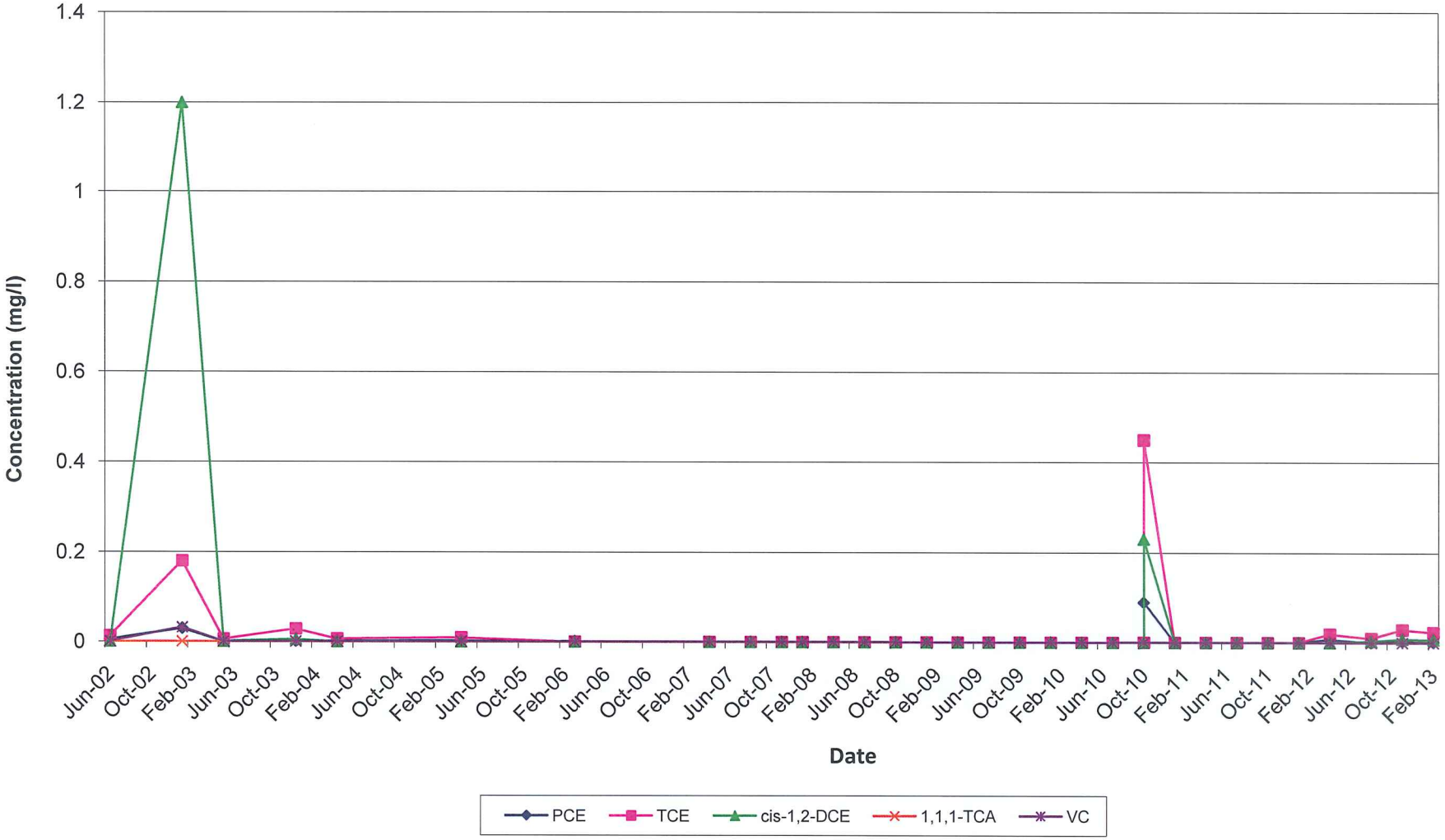
VOC Trends in Well OB-10-S
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-10-S is a shallow well adjacent to Building 4.
See end of appendix for additional notes.

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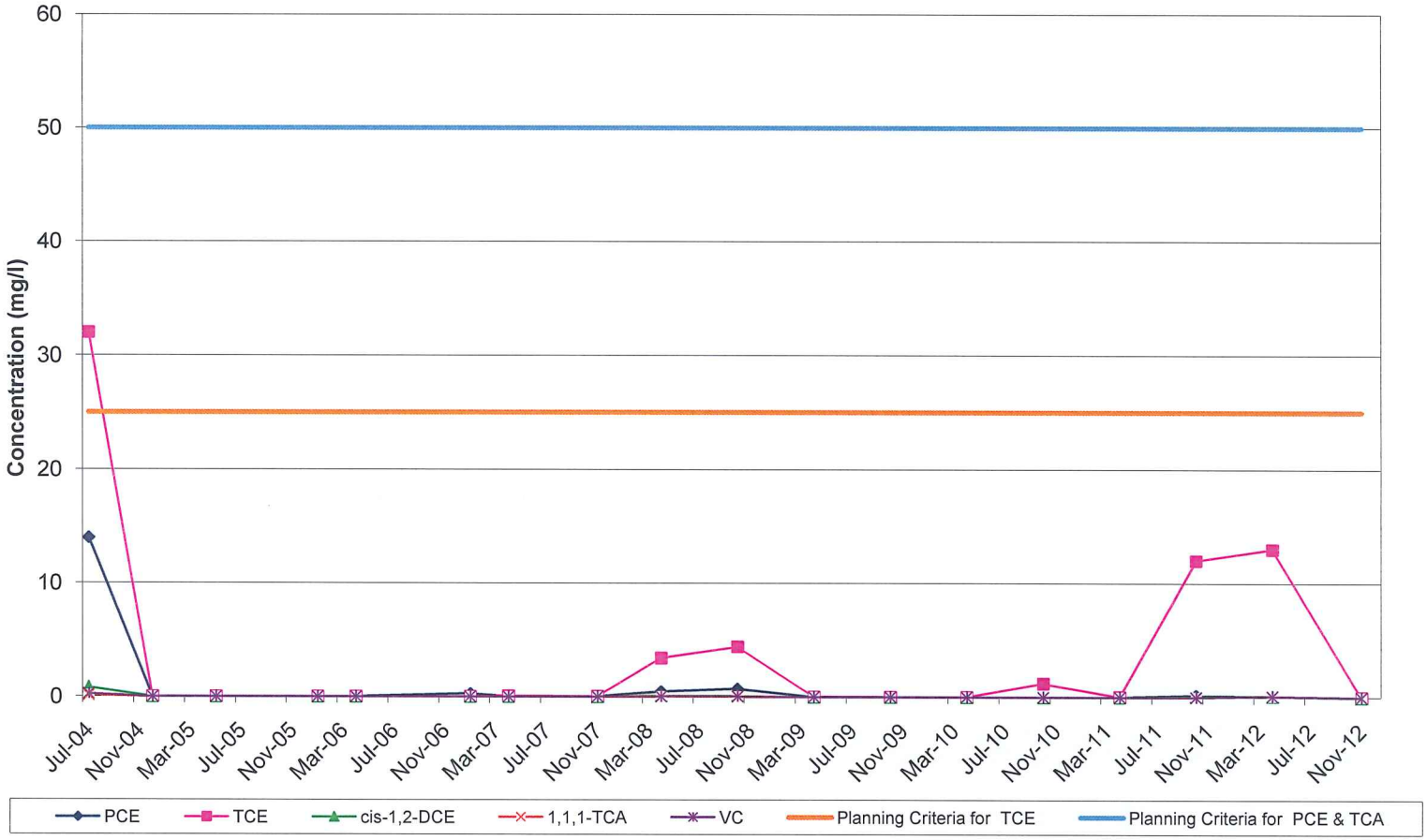
BUILDING 5 TREATMENT AREA

VOC Trends in Well AP-27-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-27-DO is a deep overburden well adjacent to Building 5 where permanganate injection was conducted in 2004, 2005 and 2012. See end of appendix for additional notes.

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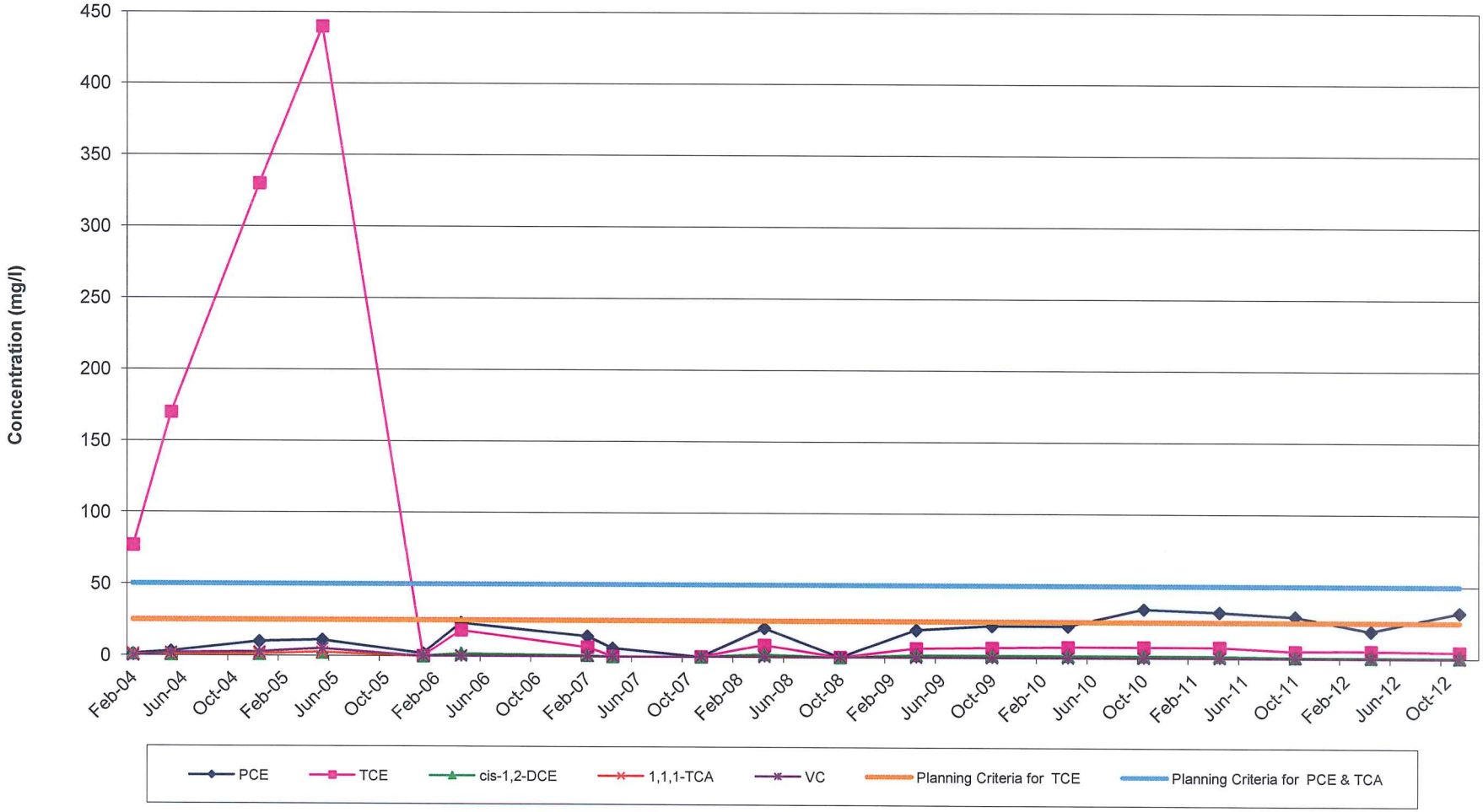
VOC Trends in Well OB-35-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-35-DO is a deep overburden well inside Building 5, where permanganate injection was conducted from 2005-2008. See end of appendix for additional notes.

Shaw Environmental, Inc.

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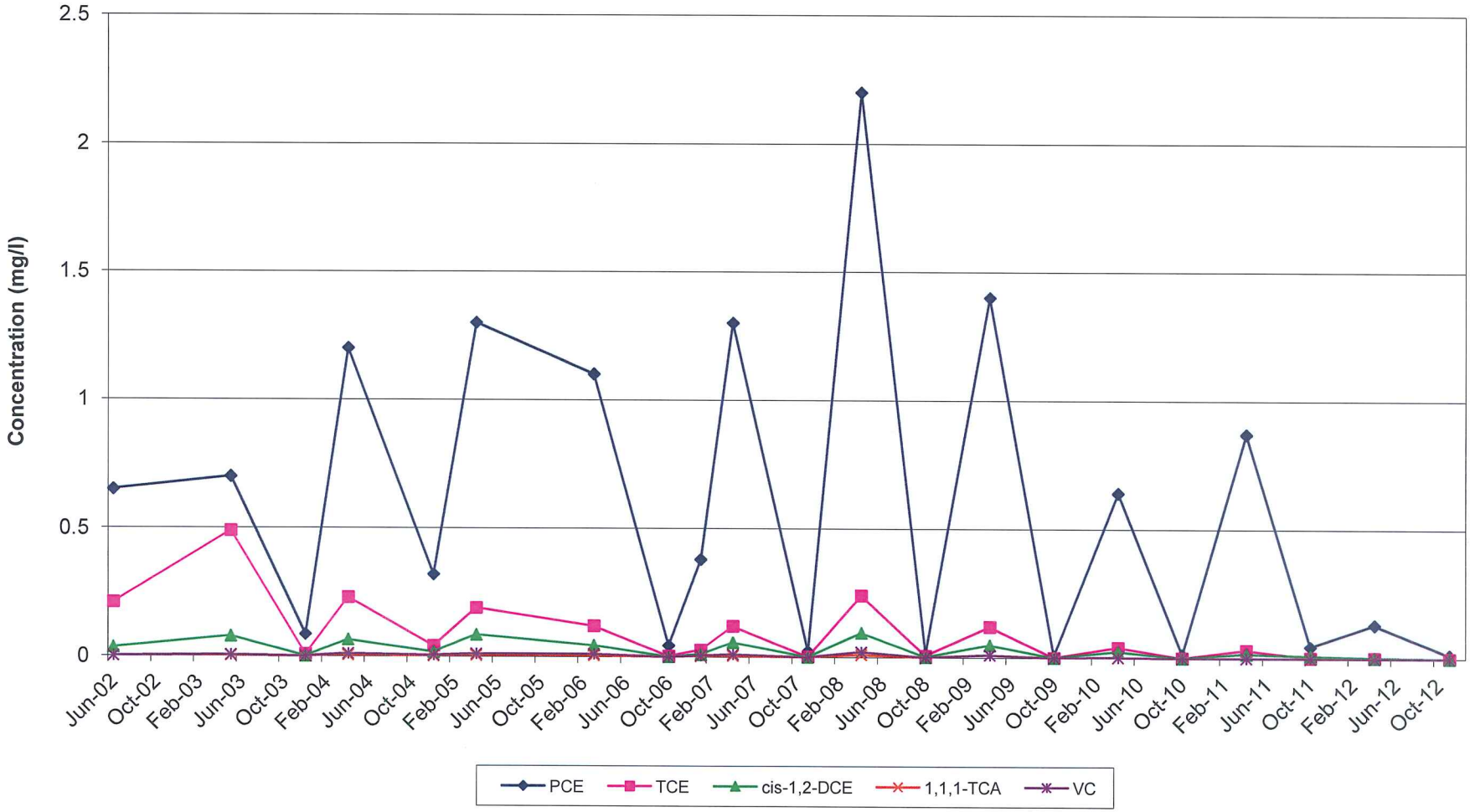
PSL 10 TREATMENT AREA

VOC Trends in Well CL10-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-S is a shallow overburden well located in the PSL10 treatment area, south of the facility.
See end of appendix for additional notes.

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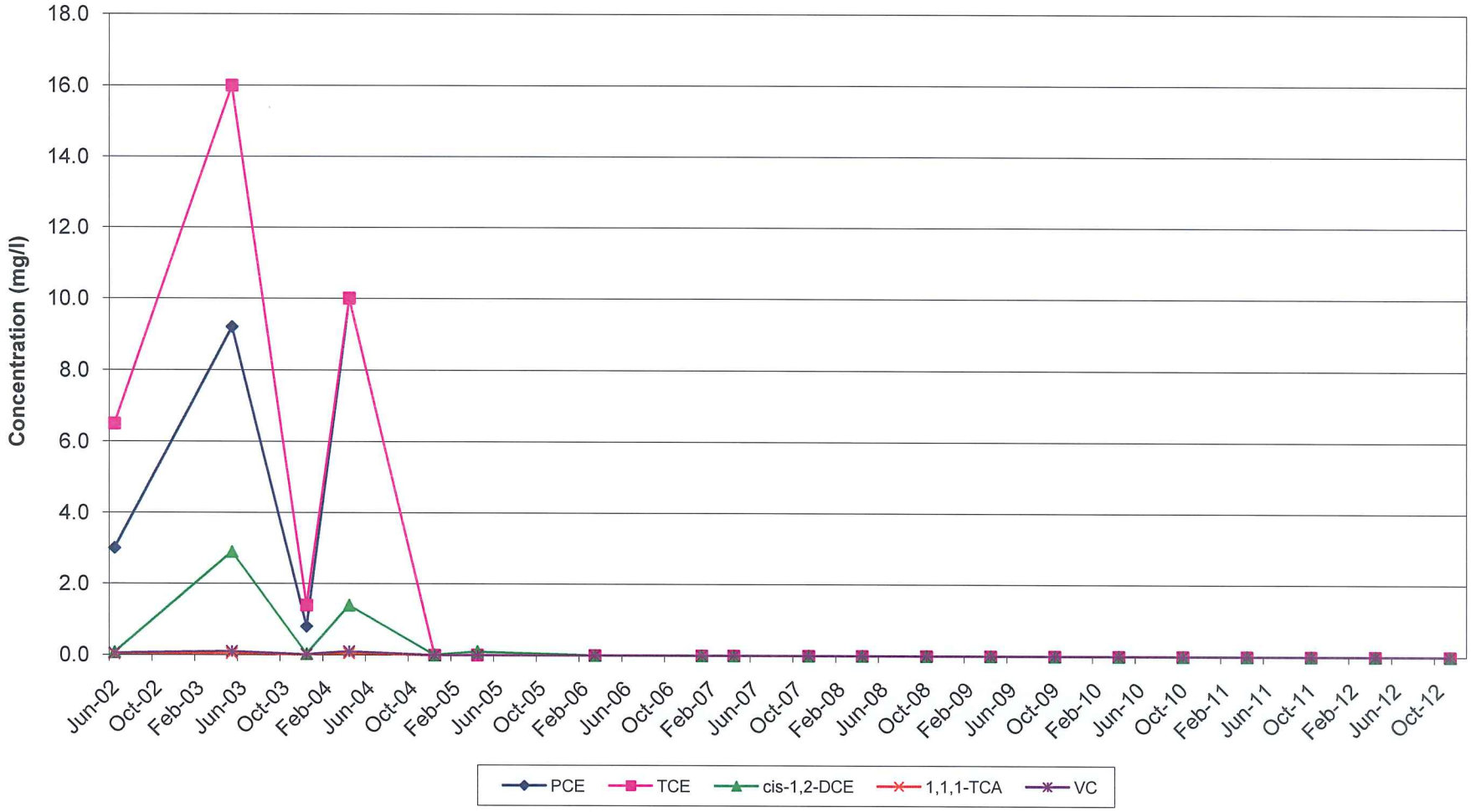
VOC Trends in Well CL10-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-DO is a deep overburden well located in the PSL10 treatment area, south of the facility.
See end of appendix for additional notes.

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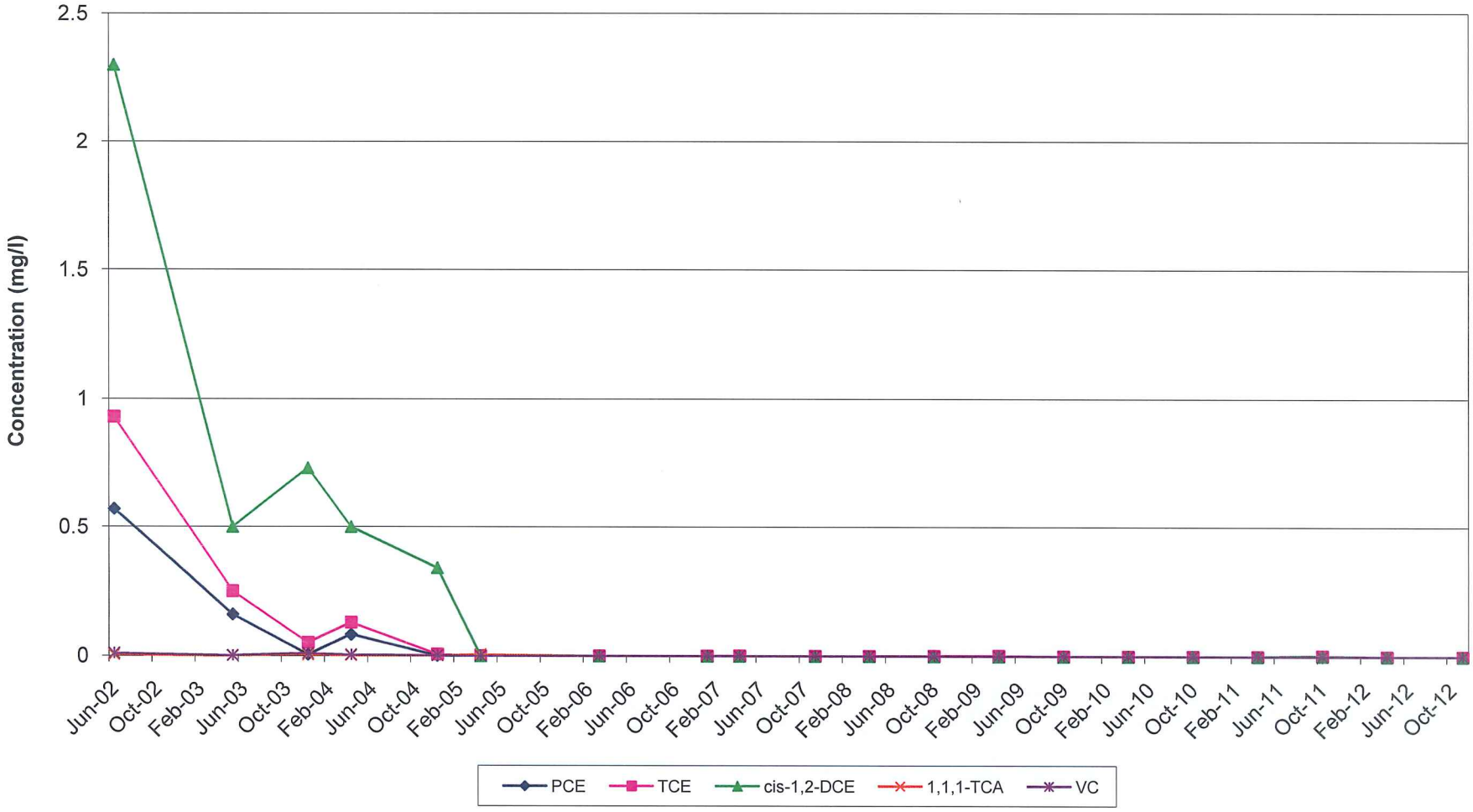
VOC Trends in Well CL10-BR
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-BR is a bedrock well located in the PSL10 treatment area, south of the facility. See end of appendix for additional notes.

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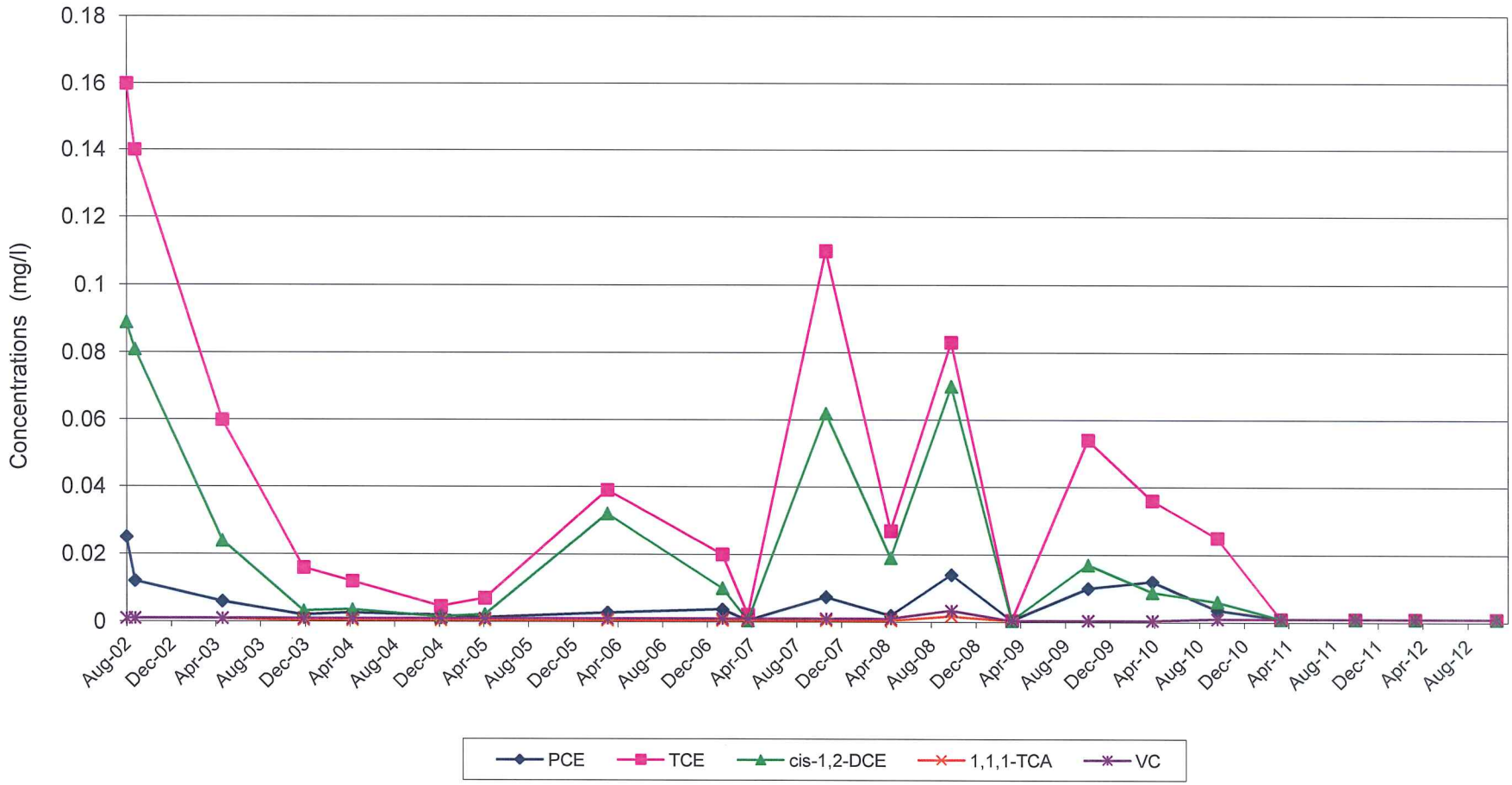
31 TOZER ROAD TREATMENT AREA

VOC Trends in Well AP-15S
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-15-S is a shallow well located at 31 Tozer Road.
See end of appendix for additional notes.

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VOC Trends in Well OB-08-S
Former Varian Facility Site
Beverly, Massachusetts

Note: OB-08-S is a shallow overburden well
located south of 39 Tozer Road.
See end of appendix for additional notes.

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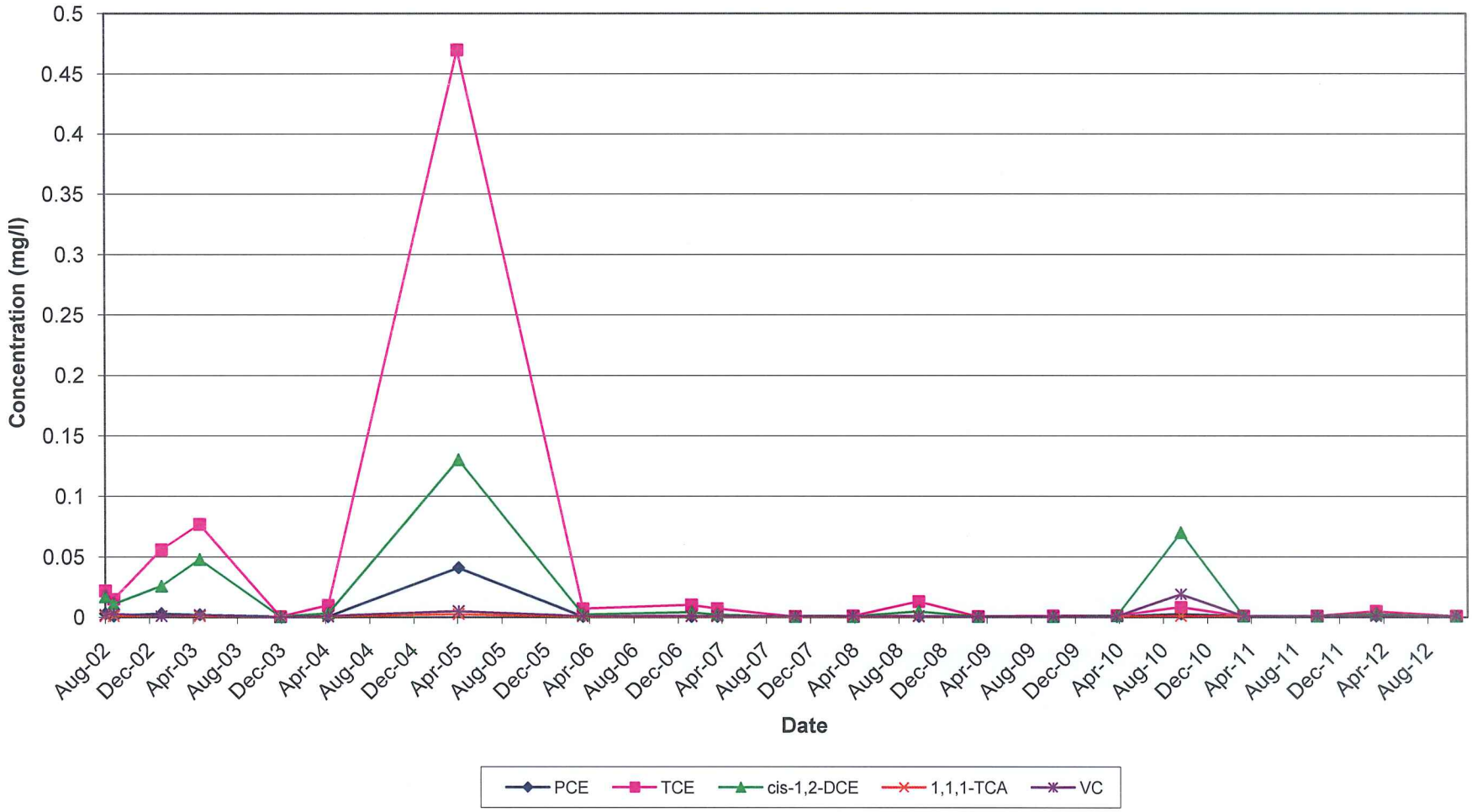
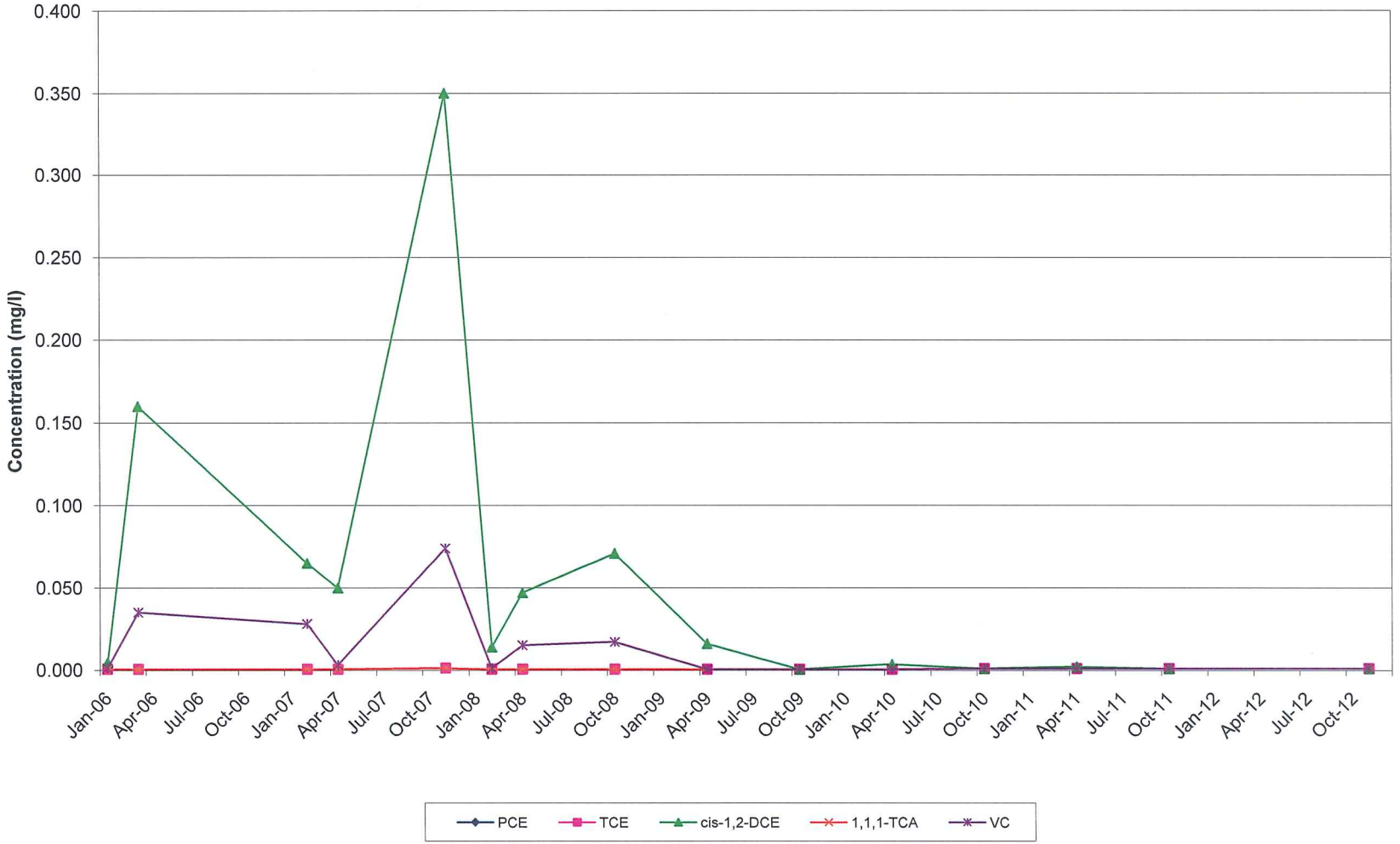
VOC Trends in Well OB-18-S
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-18-S is a shallow overburden well located at 31 Tozer Road.
See end of appendix for additional notes.

LONGVIEW/HILL STREET TREATMENT AREA

VOC Trends in Well P-9R
Former Varian Facility Site
Beverly, Massachusetts



Notes: P-9R is a shallow overburden well on Hill Street.
See end of appendix for additional notes.

H:\Varian\Draft\Reports\Status\ROS Status April 2013\Appendix E - VOC trend graphs\Graphs VOC_MW Feb2013.xlsx

Additional Notes
Appendix E

mg/l = milligrams per liter
PCE = tetrachloroethene
TCE = trichloroethene
Cis-1,2-DCE = cis-1,2-dichloroethene
1,1,1-TCA or TCA = 1,1,1-trichloroethane
VC = vinyl chloride
UCL = Upper Concentration Limit
Remedial Criteria for TCE = 50% of the UCL (50 mg/l * 0.5 = 25 mg/l).
Remedial Criteria for PCE and TCA = 50% of the UCL (for both 100 mg/l * 0.5 = 50 mg/l).
For results that are non-detect, ½ the reporting limited is use for graphing.