REVISED BIOREMEDIATION PROGRAM WORK PLAN
SUPPLEMENTAL INJECTION

Former Bell Aerospace Textron Facility
Wheatfield, New York

Prepared for:

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Project No. 631232612
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Certification

I certify that I am a New York State-registered Professional Engineer and that this Work Plan prepared for Textron Inc. at the Former Bell Aerospace Facility, in Niagara County, Wheatfield, New York, is in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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Date: 8/12/2019

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List of Acronyms and Abbreviations

µg/L	micrograms per liter
APTIM	Aptim Engineering New York, P.C.
BAT	Bell Aerospace Textron
bgs	below ground surface
CRS®	Chemical Reducing Solution®
COC	contaminant of concern
CVOC	chlorinated volatile organic compound
DCE	dichloroethene
ISB	in situ bioremediation
ISCR	in situ chemical reduction
MC	methylene chloride
MDB-1	MD-1 Microbial consortium
mg/L	milligrams per liter
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation reduction potential
PVC	polyvinyl chloride
SDC-9™	DHC microbial consortium
TCE	trichloroethene
Textron	Textron Inc.
USEPA	U.S. Environmental Protection Agency

Executive Summary

This Bioremediation Program Work Plan Supplemental Injection provides details for the continued implementation of in situ remediation processes intended to supplement the naturally occurring ongoing degradation of chlorinated volatile organic compounds (CVOCs) in groundwater.

The objectives of this supplemental treatment are to further in situ enhanced biodegradation (ISB) and in situ chemical reduction (ISCR) activities in the areas of the highest contamination levels and to decrease time to reach site goals. Attainment of these objectives will be measured via the reduction of the CVOC concentrations in groundwater as measured in the monitoring well network utilized for routine compliance monitoring.

A report detailing the first year of the Bioremediation Program was submitted to the New York State Department of Environmental Conservation (NYSDEC) on February 27, 2019 and was revised on March 15, 2019. The post-injection sampling was completed between March 26 and 28, 2019. The data show that the dissolved plume is retracting to the north; the bioremediation program is reducing CVOCs and complete reductive dechlorination is occurring. Bioremediation is most efficient reducing concentrations in the dissolved phase and in the area of higher levels, reaction times can be reduced. To aid in reducing CVOCs in the area of the highest concentrations, a more robust combination of ISCR and ISB treatment will be conducted in a focused area.

A total of six injection points will be utilized for the delivery of the ISB and ISCR amendments to supplement the ongoing bioremediation in the Zone 1 bedrock groundwater. This supplemental treatment is anticipated to be implemented over an area encompassing approximately 157,000 square feet that is located at and adjacent to the former Neutralization Pond. A ferrous iron amendment (Chemical Reducing Solution®) and a sulfonated micro scale ZVI (S-MicroZVI) will be added to aid in keeping the groundwater in a reduced state, stimulate the abiotic degradation of CVOCs, and maximize the potential benefits from the combined ISB and ISCR processes. The microbial cultures SDC-9™ and MDB-1™, both developed by Aptim Environmental & Infrastructure, LLC, will be injected along with the other amendments to supplement the naturally occurring bacterial population within the treatment area. SDC-9™ is a culture proven to biodegrade chlorinated CVOCs, and MDB-1™ has been proven to biodegrade methylene chloride.

The evaluation of the effectiveness of the remediation program and this supplemental injection will be monitored through the measurement of the CVOCs and select geochemical parameters for approximately 12 to 24 months.

A summary of activities associated with the supplemental implementation and subsequent monitoring of the bioremediation program will be included in the *Annual Summary and Site Maintenance and Monitoring Report*. A project status report will be generated containing a

summary of the results for sampling events (including a brief summary of field activities conducted, field data sheets, analytical data summary tables, figures showing the isoconcentration contours for the various CVOC plumes, and the laboratory data packages) for delivery to the NYSDEC.

1.0 Introduction

Aptim Engineering New York, P.C. (APTIM) has prepared this Remediation Work Plan Supplemental Injection for the former Bell Aerospace Facility in Wheatfield, New York (the site) on behalf of Textron Inc. (Textron). The site and surrounding area are shown in Figure 1. This work plan is submitted in accordance with Textron's New York State Department of Environmental Conservation (NYSDEC) Order on Consent, Index No. 932052-01-04, effective December 16, 2013.

The objectives of the proposed supplemental injection include the following:

1. To accelerate/enhance the anaerobic degradation of dissolved-phase chlorinated volatile organic compounds (CVOCs)
2. To augment the degradation of the dissolved phase methylene chloride (MC) with the addition of a microbial culture
3. To facilitate permanent shutdown of the On-Site groundwater extraction system within the Zone 1 water-bearing unit

The targeted area for this supplemental treatment program is the Zone 1 fractured rock water-bearing unit associated with the areas of the highest concentrations of CVOCc and MC near the Neutralization Pond. Attainment of these objectives will be measured via the reduction of the contaminant concentrations in groundwater as measured in Zone 1 monitoring wells.

2.0 Background

The facility is located on U.S. Highway 62/Niagara Falls Boulevard near the western boundary of the town of Wheatfield, adjacent to the Niagara Falls International Airport.

Bell Aircraft Corporation began operations at the Wheatfield plant in 1940. In 1960, Textron purchased the defense business assets from Bell Aircraft Corporation and leased the Wheatfield plant. Textron established Bell Aerospace Textron (BAT) to operate the plant and related facilities. BAT, an aerospace defense company, conducted research, development, and testing as well as manufacturing of defense-oriented hardware and systems including propulsion, lasers, vehicles, and electronics at this facility. BAT purchased the plant property in the early 1970s.

Activities at the facility gradually decreased during the 1980s and 1990s. BAT conveyed the plant property to Textron Realty Operations, which is responsible for the management of environmental activities subject to 6 NYCRR Part 373 governing hazardous waste management.

Both Bell Aircraft Corporation and BAT utilized a surface impoundment system (Neutralization Pond) located in the northeast corner of the plant for the treatment of waste fluids. This Neutralization Pond was a rectangular basin with an area of approximately 60 feet by 100 feet and an average depth of 10 feet that had been excavated into the existing overburden soils. The Neutralization Pond, also identified as Solid Waste Management Unit 1, was utilized for the collection of pad wash water generated from rocket engine test firings from 1948 until 1984. From 1966 through 1970, this surface impoundment was used for the treatment of solvent wash drippings generated from the process line for helicopter rotor blade bonding operations. Additionally, it received storm water runoff and cooling water for over 30 years and, for a brief period of its operation, it was noted to receive coal gasification wastes. Once neutralized, fluid from the pond was discharged into the plant's sanitary sewer. The Neutralization Pond was physically closed in 1987. Closure of this unit included the re-routing of the piping system discharging into the pond, demolition of the former pump house/control building, and the removal of all impacted soils to bedrock according to documents provided to APTIM. Additional details are provided in the Bioremediation Program Work Plan (APTIM, 2017).

3.0 Bioremediation Program Overview

Implementation of the in situ bioremediation treatment program to enhance the degradation of dissolved-phase CVOCs was completed adjacent to the former Neutralization Pond and the on-site area extending hydraulically downgradient to the south. The data obtained between November 2017 and March 2019 have been used to support the design of this supplemental remediation scope of work. During the biological degradation process, called reductive dechlorination, the chlorinated ethane (trichloroethene [TCE]) serves as an electron acceptor, and chlorine atoms are sequentially replaced by protons to yield cis-1,2-dichloroethene (DCE), vinyl chloride, and ethene as daughter products. If the compounds are degraded by in situ chemical reduction (ISCR) with the aid of Chemical Reducing Solution® (CRS®), TCE is degraded via abiotic iron reducing pathways that do not form cis-1,2-DCE or vinyl chloride.

3.1 Contaminant Concentrations

Groundwater samples were collected from the bioremediation monitoring well network in January, February, March, June, September, and December 2018 and March 2019 per the Bioremediation Program Work Plan (APTIM, 2017). The groundwater elevations have also been collected as part of the performance monitoring and the contours are provided on Figure 2. The results of these analyses are summarized in Table 1.

Since the bioremediation injection, TCE concentrations are reducing, and the plume area is decreasing, as shown on Figure 3. Also, an increase in ethene has been observed site-wide, indicating that complete reductive dechlorination is occurring as shown on Figure 4. As expected, the monitoring wells downgradient of the injection locations where the largest amount of amendments were delivered have showed the largest decrease in parent compounds.

In addition to TCE and daughter products, MC is also observed at elevated concentrations. During the first year of the Bioremediation Program, MC, also biologically degraded by anaerobic microorganisms, has ranged from below the detection limit to 1,000 milligrams per liter (mg/L). Since pre-injection levels in May and November 2017, the plume has been reduced and retracted to the north as shown on Figure 5.

The highest contaminant concentrations, over 100,000 micrograms per liter (µg/L), are still observed in the area of and immediately downgradient of the former Neutralization Pond and are the focus of this supplementary injection.

3.2 Contaminant Mass

During the first year of treatment, the TCE 100,000 µg/L isoconcentration area has decreased and the ethene 100 µg/L isoconcentration area expanded, indicating reductive dechlorination is

occurring and reducing contaminant mass. These changes are quantified below and can been seen on Figures 3 and 4, respectively.

TCE			
Concentration (µg/L)	Pre-Injection Area (square feet)	March 2019 Area (square feet)	Percent Change
10	713,810	562,102	-21
100	191,132	157,210	-18
1,000	111,687	112,589	1
10,000	70,288	62,041	-12
100,000	12,325	7,912	-36

Ethene			
Concentration (µg/L)	Pre-Injection Area (square feet)	March 2019 Area (square feet)	Percent Change
10	658,814	1,016,771	54
100	10,230	671,573	6,465

During this period, the lower MC concentrations have also decreased, but the footprint of the higher concentrations (100,000 and 10,000 µg/L areas) has increased as presented below:

MC			
Concentration (µg/L)	Pre-Injection Area (square feet)	March 2019 Area (square feet)	Percent Change
10	219,238	179,153	-18
100	167,677	145,498	-13
1,000	129,695	117,579	-9
10,000	39,641	74,405	88
100,000	9,596	18,932	97

MC has a higher solubility than the chlorinated ethenes, and sorbed contaminant may have been released during the initial injections; however the MC is being degraded before it travels downgradient.

3.3 Geochemical Parameters

The reduction of site contaminants is favorable in reduced groundwater conditions. During the post-injection sampling, geochemical parameters were evaluated to determine if favorable

conditions exist and are expected to continue (Table 2). During the reductive dechlorination process, the microbial species Dehalococcoides mccartyi in the SDC-9™ consortium uses TCE and its daughter products as respiratory substrates, like aerobic organisms use oxygen. The addition of the carbon source during the initial injection provides a food source for microbes to quickly utilize oxygen, iron, nitrate, and sulfate to create reducing conditions in the treatment area groundwater.

Dissolved oxygen levels decreased significantly after the bioremediation application to levels near or below 0.5 µg/L, which is favorable for reductive dechlorination (U.S. Environmental Protection Agency [USEPA], 1998). Since June 2018, dissolved oxygen levels have fluctuated between 0.5 and 7 mg/L, suggesting that the groundwater is fluctuating between anaerobic and aerobic.

Oxidation reduction potential (ORP) is also used to evaluate reducing conditions in groundwater. After the bioremediation application, ORP levels decreased as expected, and during the most recent sampling event in March 2019, levels at most wells were below -100 millivolts suggesting that the groundwater is reducing.

Sulfate levels at the site have fluctuated during the first year of the bioremediation treatment. The continued fluctuations indicate that while sulfate is being reduced, elevated natural concentrations are also influencing the treatment area groundwater. The decreases in sulfate during the first year post-injection suggest that the groundwater is reducing; however, the elevated levels may compete with the reductive pathway. The initial bioremediation treatment injection also included CRS®, which aids in creating reducing conditions and enhances the reduction of sulfate to sulfide. The sulfide then combines with the ferrous iron in CRS® to enhance abiotic reduction of site contaminants.

The reductive dechlorination pathway for the site contaminants is favorable in a pH range of 5 to 9 standard units (USEPA, 1998) and during the post-injection sampling, levels in all of the wells have remained within this range.

4.0 Bioremediation Program Design

This supplemental injection will focus on the high contaminant concentrations observed in the groundwater closest to the former Neutralization Pond. The decrease of contaminants of concern (COCs) in this area will aid the ongoing ISCR and in situ bioremediation (ISB) processes by decreasing the mass that may contribute to the downgradient plume in the future. This supplemental treatment is anticipated to be implemented over an area encompassing approximately 157,000 square feet that is located within and adjacent to the former Neutralization Pond. Having implemented the initial injection program in December 2017, the 3-D Microemulsion® is still present in some locations and can be seen active throughout the site in the elevated total organic carbon concentrations.

This supplemental injection will focus on providing support to microbial activity and abiotic degradation pathways to reduce CVOCs. This treatment will add two iron-based amendments: additional CRS® and S-MicroZVI. The CRS® amendment will be added to create reducing conditions favorable for reductive dechlorination and stimulate the ISCR degradation of CVOCs by using sulfide to create reactive iron sulfide minerals. The S-MicroZVI is a more reactive iron species (zero valent iron) and will create reduced groundwater conditions to also reduce sulfate to sulfide and provide another abiotic degradation pathway for the CVOCs. Also, the S-MicroZVI is mixed with a carbon source to make it more injectable and will support ongoing microbial activity. The microbial culture, SDC-9™, developed by Aptim Environmental & Infrastructure, LLC and proven to biodegrade chlorinated CVOCs, will be used to supplement the naturally occurring bacterial population within the treatment area. A second microbial culture, MDB-1™, (also developed and produced by Aptim Environmental & Infrastructure, LLC) is proven to biodegrade MC and will be added to supplement the bacterial population within the treatment area. These amendments will maximize the benefits from the combined biological and abiotic geochemical processes to reduce all of the site COCs.

4.1 Site Preparation

Prior to implementation of subsurface activities associated with the bioremediation program, measures will be taken to provide access to the proposed work locations and ensure that subsurface utilities will not be impacted or create a safety hazard during installation of the subsurface boring. One new injection well will be installed and the boring will be located within the footprint of the former Neutralization Pond. The former Neutralization Pond was excavated and backfilled in 1987; therefore, the chance of encountering subsurface utilities is minimal. Additionally, all locations and the proposed work schedule will be reviewed with Wheatfield Business Park and Moog, Inc. (current owners and occupants of the site) to ensure that field activities do not interrupt daily site operations.

The utility clearance activities associated with this task are intended to minimize the risks associated with conducting intrusive work in the area of subsurface utilities as well as to minimize the potential for short-circuiting the injection of bioremediation materials to the areas of subsurface utility bedding.

A 25-foot radius around the proposed injection locations will be scanned by a private utility clearance contractor using various remote sensing techniques for the presence of underground utilities or other subsurface structures. The location of all identified underground utilities and structures will be marked on the ground surface. Additionally, the proposed injection locations will be manually cleared to a minimum depth of approximately 5 feet below ground surface (bgs) utilizing vacuum excavation equipment or equivalent manual excavation techniques. Should the location of a specific proposed injection or monitoring point need to be relocated due to a confirmed or suspected subsurface obstruction, the point will be relocated such that it safely avoids the obstruction and best meets the objectives of the specific designated location.

4.2 Injection Point Installation

One new injection point will be installed to provide additional lithological information, contaminant concentrations under the center of the former Neutralization Pond, and effective distribution of remediation materials as shown in Figure 6. This location will be designated Injection Well 19-01(1). This location is within the footprint of the former Neutralization Pond, and precautions will be taken so as not to disturb the cap and any restoration activities (reseeding, replacement of sod, etc.) will be completed following the well installation. The well will be sealed at the surface following completion.

The new injection point will be installed using hollow-stem augers and HQ core drilling techniques under the supervision of an APTIM geologist. The borehole for the proposed new injection point will be advanced into the bedrock surface using a hollow-stem auger; the anticipated depth to bedrock is 15.5 to 17.5 feet bgs. Once bedrock is encountered, HQ coring drilling methods will be utilized to retrieve and examine the bedrock core for fractures. Coring will be advanced to approximately 30 to 35 feet bgs and the injection point will be constructed with a 10-foot screened zone extending from the bottom of the boring. The injection point will use 2-inch inside diameter, Schedule 40 polyvinyl chloride (PVC) flush joint, threaded, factory slotted, 0.020-inch screen. A sand pack filter will be installed in the annular space between the borehole wall and the PVC well screen from the terminal depth to approximately 2 feet above the screened zone. A 2-foot-thick bentonite seal will be installed using bentonite pellets above the sand filter pack and hydrated with potable water. The injection point will be developed following installation to remove any residual solids from the filter pack and screen.

This injection point will be completed with a protective outer steel casing with a lockable lid that will be installed as stick-ups. A concrete mix will be placed above the bentonite seal to the ground

surface, and the steel protective casing will be installed over the PVC riser pipe to a depth of approximately 2 feet bgs leaving a 3-foot stick-up above grade.

All soil and liquid waste generated during drilling and development will be placed in U.S. Department of Transportation-approved drums pending characterization and disposal by Textron's selected waste contractor.

Approximately 2 weeks following the installation and development of the injection well, a groundwater sample will be collected using low flow protocols and submitted to the analytical laboratory for analysis of CVOCs using Method 8260. The analytical results from the new injection point will be used to establish background conditions prior to the addition of bioremediation materials to the subsurface at this location.

4.3 Remediation Area Layout

In situ injection will be conducted in the area north of the On-Site Treatment System building as shown on Figure 6. This area was chosen to implement this technology based on the elevated CVOC and MC concentrations observed and proximity to the former Neutralization Pond. Historical groundwater monitoring results in this area provide multiple lines of evidence for the reduction of CVOCs via reductive dechlorination as a result of ongoing naturally occurring complete anaerobic dechlorination of dissolved-phase CVOCs.

The supplemental injection design will focus on delivering the remediation materials into the areas of highest contaminant concentrations. The preliminary layout of injection points within the targeted treatment area is based upon observations made during the first year of post-injection monitoring. The layout may to be revised in the field based on the presence of underground utilities and drainage tiles.

4.4 Bioremediation Materials

Amendment materials that will be used for the injection include the iron-based S-MicroZVI™ and CRS® (manufactured by Regenesis), and the microbial cultures SDC-9™ and MDB-1™ provided by APTIM. These amendments will support ISB and ISCR degradation of site contaminants within the treatment area. These amendments were selected given the available literature pertaining to the ability to distribute the products within similar fractured rock environments, the longevity of the product once injected, and application experience of APTIM with the products in both fractured rock and overburden soil environments.

In the four wells closest to the Neutralization Pond (17-04(1), 17-05(1), 87-14(1), and 19-01(1)), each injection location will include both CRS® and S-MicroZVI, manufactured by Regenesis. In the two points farther from the Neutralization Pond and having lower contaminant concentrations,

87-15(1) and 87-11(1) will receive only CRS®. The volumes of each amendment and the dilution rates are shown on Table 3.

The microbial cultures SDC-9™ and MDB-1™ developed by APTIM are proven to biodegrade chlorinated CVOCs and MC, and will be used to inoculate the site with a sufficient bacterial population. The volume of SDC-9™ and MDB-1™ to be added to the subsurface to facilitate successful biodegradation of CVOCs was estimated based on the volume of groundwater being treated. A target bacterial population of 6.0E+6 microbes per liter is considered sufficient for successful bioremediation. The volumes of each culture are shown on Table 3.

Material Safety Data Sheets for S-MicroZVI™, CRS®, MDB-1™, and SDC-9™ are included in Appendix A.

4.5 Amendment Injection

The remediation materials will be delivered to the targeted zone of impacted groundwater via the six injection locations as shown in Figure 6. It is anticipated that pressurized injection will be necessary to overcome the natural hydraulic head of the targeted water-bearing zone and to aid in achieving optimal influence and distribution. This will be completed by utilizing a mobile system of mixing and pumping equipment. This system will provide the ability to prepare the remediation materials prior to injection and to control delivery of materials to the injection points in order to maximize the efficiency of subsurface distribution.

Mixing of bioremediation materials with deoxygenated potable water to the prescribed concentrations will be conducted prior to injection. It is anticipated that injection will include the simultaneous addition of the prescribed amount of each amendment to one injection point at a time. Injection of the amendments will be followed by the addition of a slug of chase water to aid in distribution of the materials within the subsurface and to flush the materials from the injection point and into the treatment zone. The actual volume of chase water to be used will be determined in the field upon observation of data regarding the delivery and distribution that result from each injection.

Pump pressures and material flow rates will be monitored during the injection process to evaluate the delivery characteristics associated with each injection point. Additionally, each of the monitoring points and injection points will be monitored during injection activities to evaluate the lateral influence resulting from the addition of the bioremediation materials as further described in Section 5.1. Based on these observations of actual field conditions at the time of injection, the volume of bioremediation materials delivered at each location may be adjusted in order to maximize the potential to meet the bioremediation program objectives.

All injection volumes developed during the design of the supplemental remediation program are based on activities conducted and observations made during implementation of the initial injection activities. It is assumed that equivalent conditions will be encountered and remediation materials will be delivered to the subsurface at the targeted depth intervals with minimal migration of the liquids to the ground surface or "daylighting." Injection volumes may be altered based on actual field conditions observed during the field activities. However, efforts will be focused on delivery of a sufficient volume of remediation materials to the targeted subsurface zones in order to achieve effective dechlorination of CVOCs.

5.0 Bioremediation Program Monitoring

5.1 Injection Monitoring

Monitoring of amendment injection operations will be conducted in real time to maximize the delivery of materials to the subsurface. Injection equipment will be equipped with the ability to display instantaneous flow rates and pressures during the injection process. These parameters will be utilized by the injection equipment operators and the site engineer to manage the delivery of the remediation materials and maximize the potential for effective distribution within the targeted subsurface zone.

Various groundwater parameters will also be monitored in real time during injection operations to evaluate the subsurface distribution of the amendments. Dissolved oxygen, ORP, pH, conductivity, and temperature may be monitored in test monitoring points and existing monitoring wells using a YSI, Inc. Model 556 hand-held screening instrument or equivalent. Water level changes will be measured, and visual observations will be made in the monitoring wells proximate to the injection locations as shown in Table 4. These parameters will be monitored by the site engineer for fluctuation potentially indicative of the migration of injected amendments through the subsurface.

5.2 Program Effectiveness Monitoring

The wells within the post-injection monitoring network that are anticipated to be sampled using standard low-flow sampling techniques are listed in Table 5 and shown on Figure 7. The evaluation of the effectiveness of the bioremediation technology will be monitored through the measurement of the parameters listed on Table 6.

All samples will be appropriately labeled and handled following standard industry practices of icing the samples in coolers upon their collection to a temperature of approximately 4 degrees Celsius and shipping the samples to the receiving laboratory via overnight courier using standard chain-of-custody procedures. Laboratory analysis of groundwater samples will be conducted by TestAmerica Laboratories, Inc. of Amherst, New York.

The groundwater data collected in March 2019 will serve as the baseline conditions prior to this supplemental injection. Following the injection process, anticipated to be completed in October 2019, groundwater samples will be collected in January 2020 along with the sampling events scheduled for May 2020 and August 2020. All wells in the bioremediation monitoring network will be gauged for depth to water, and a set of static groundwater parameters (dissolved oxygen, ORP, pH, temperature, specific conductivity, and turbidity) will be collected.

If conditions warrant, sampling may be continued on a semiannual basis or changes to the monitoring network may be proposed. Any proposed changes to the sampling plan or frequency will be discussed with and approved by NYSDEC in advance.

6.0 Reporting

Project status reports containing the results of the follow-up sampling events (January, May, and August 2020) will be submitted to the NYSDEC. A summary report describing the installation of the new injection point, application of the remediation amendments, and groundwater conditions will be prepared by APTIM and submitted to NYSDEC as part of the *Annual Summary and Site Maintenance and Monitoring Report*.

The report will summarize field measurements and laboratory analytical data collected to date in tabular format and include a summary of field activities conducted and proposed activities for the upcoming monitoring period. Additionally, associated laboratory analytical reports will be included as well as other graphical and spatial representations of the data necessary to effectively support evaluation of the ISB and ISCR remediation program.

7.0 Schedule

Implementation of remediation program supplemental activities is anticipated to begin upon receipt of NYSDEC approval of this proposed Bioremediation Program Work Plan. Pending coordination of subcontractor schedules, mobilization of equipment and materials to the site is expected within 30 to 90 days following receipt of plan approval. We anticipate implementation of these activities during the Fall of 2019.

NYSDEC will be notified at least one week prior to initial site mobilization and injection point installation and one week prior to initiating injection activities.

Site activities, including site preparation, injection point installation, and surveying are expected to be completed in approximately one week. Injection of bioremediation amendments is expected to be completed in approximately six to seven days. The follow-up groundwater monitoring events are anticipated to take three days when samples are collected, and one day when just gauging and field parameters are collected.

8.0 References

Aptim Engineering New York, P.C., October 2017. "Bioremediation Program Work Plan," Former Bell Aerospace Textron Facility, Wheatfield, New York.

U.S. Environmental Protection Agency, 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, USEPA/600/R-98/128, September.

Tables

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	17-01(1)				
Volatile Organic Compounds (µg/L)		11/13/17	12/10/18	3/27/19		
Chloromethane	5*	5.0 U	100 U	1,000 U		
Vinyl chloride	2	510	330	1,000 U		
Chloroethane	5*	5.0 U	100 U	1,000 U		
Bromomethane	5*	5.0 U	100 U	1,000 U		
1,1-Dichloroethene	5*	5.0 U	100 U	1,000 U		
Acetone	50	6.7 J	500 U	1,000 U		
Carbon disulfide	60	5.0 U	430	1,000 U		
Methylene chloride	5*	5.0 U	28,000 D	35,000		
trans-1,2-Dichloroethene	5*	2.6 J	100 U	1,000 U		
1,1-Dichloroethane	5*	17	84 J	1,000 U		
cis-1,2-Dichloroethene	5*	620	4,800	7,000		
2-Butanone	50	25 U	500 U	10,000 U		
Chloroform	7	5.0 U	100 U	1,000 U		
1,1,1-Trichloroethane	5*	27	200	1,000 U		
Carbon tetrachloride	5	5.0 U	100 U	1,000 U		
Benzene	1	5.0 U	100 U	1,000 U		
1,2-Dichloroethane	0.6	5.0 U	100 U	1,000 U		
Trichloroethene	5*	3.9 J	19,000 J	42,000		
1,2-Dichloropropane	1	5.0 U	100 U	1,000 U		
Bromodichloromethane	50	5.0 U	100 U	1,000 U		
cis-1,3-Dichloropropene	0.4**	5.0 U	100 U	1,000 U		
4-Methyl-2-pentanone	No Given Value	25 U	500 U	5,000 U		
Toluene	5*	5.0 U	100 U	1,000 U		
trans-1,3-Dichloropropene	0.4**	5.0 U	100 U	1,000 U		
1,1,2-Trichloroethane	1	5.0 U	100 U	1,000 U		
Tetrachloroethene	5*	5.0 U	100 U	1,000 U		
2-Hexanone	50	25 U	500 U	5,000 U		
Dibromochloromethane	50	5.0 U	100 U	1,000 U		
Chlorobenzene	5*	5.0 U	100 U	1,000 U		
Ethylbenzene	5*	5.0 U	100 U	1,000 U		
m/p-Xylenes	5*	10 U	200 U	2,000 U		
o-Xylene	5*	5.0 U	100 U	1,000 U		
Styrene	5*	5.0 U	100 U	1,000 U		
Bromoform	50	5.0 U	100 U	1,000 U		
1,1,2,2-Tetrachloroethane	5*	5.0 U	100 U	1,000 U		
Total VOCs (minus Carbon Disulfide)		1,187.2	52,414	84,000		
Percent Chsnge			4315%	6975%		
General Chemistry Parameters						
Iron, ferrous (mg/L)						
Chloride (mg/L)				257		
Total organic carbon (mg/L)				448 B		
Sulfate (mg/L)				1,220		
Nitrate as N (mg/L)				0.050 U		
Methane (µg/L)				110		
Ethane (µg/L)				83 U		
Ethene (µg/L)				27 J		
Carbon dioxide (mg/L)						
Alkalinity, Total as CaCO3 (mg/L)						
Bicarbonate Alkalinity as CaCO3 (mg/L)						
Carbonate Alkalinity as CaCO3 (mg/L)						
Volatile Fatty Acids (mg/L)						
Lactic acid						
Acetic acid						
Propionic acid						
Butyric acid						
Pyruvic acid						

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	86-23(B)				
Volatile Organic Compounds (µg/L)		12/10/18	3/26/19			
Chloromethane	5*	5.0 U	10 U			
Vinyl chloride	2	500	650			
Chloroethane	5*	5.0 U	10 U			
Bromomethane	5*	5.0 U	10 U			
1,1-Dichloroethene	5*	5.0 U	10 U			
Acetone	50	25 U	100 U			
Carbon disulfide	60	4.6 J	10 U			
Methylene chloride	5*	5.0 U	10 U			
trans-1,2-Dichloroethene	5*	4.2 J	10 U			
1,1-Dichloroethane	5*	19	21			
cis-1,2-Dichloroethene	5*	88	53			
2-Butanone	50	25 U	100 U			
Chloroform	7	5.0 U	10 U			
1,1,1-Trichloroethane	5*	32	35			
Carbon tetrachloride	5	5.0 U	10 U			
Benzene	1	5.0 U	10 U			
1,2-Dichloroethane	0.6	5.0 U	10 U			
Trichloroethene	5*	5.4	6.7 J			
1,2-Dichloropropane	1	5.0 U	10 U			
Bromodichloromethane	50	5.0 U	10 U			
cis-1,3-Dichloropropene	0.4**	5.0 U	10 U			
4-Methyl-2-pentanone	No Given Value	25 U	50 U			
Toluene	5*	5.0 U	10 U			
trans-1,3-Dichloropropene	0.4**	5.0 U	10 U			
1,1,2-Trichloroethane	1	5.0 U	10 U			
Tetrachloroethene	5*	5.0 U	10 U			
2-Hexanone	50	25 U	50 U			
Dibromochloromethane	50	5.0 U	10 U			
Chlorobenzene	5*	5.0 U	10 U			
Ethylbenzene	5*	5.0 U	10 U			
m/p-Xylenes	5*	10.0 U	20 U			
o-Xylene	5*	5.0 U	10 U			
Styrene	5*	5.0 U	10 U			
Bromoform	50	5.0 U	10 U			
1,1,2,2-Tetrachloroethane	5*	5.0 U	10 U			
Total VOCs (minus Carbon Disulfide)		648.6	765.7			
Percent Chsnge			18%			
General Chemistry Parameters						
Iron, ferrous (mg/L)						
Chloride (mg/L)			320			
Total organic carbon (mg/L)			2.1			
Sulfate (mg/L)			1140			
Nitrate as N (mg/L)			0.050 U			
Methane (µg/L)			78			
Ethane (µg/L)			7.5 U			
Ethene (µg/L)			590			
Carbon dioxide (mg/L)						
Alkalinity, Total as CaCO3 (mg/L)						
Bicarbonate Alkalinity as CaCO3 (mg/L)						
Carbonate Alkalinity as CaCO3 (mg/L)						
Volatile Fatty Acids (mg/L)						
Lactic acid						
Acetic acid						
Propionic acid						
Butyric acid						
Pyruvic acid						

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-01(1)										
Volatile Organic Compounds (µg/L)		10/19/16	5/23/17	11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/18/18	10/30/18	12/11/18	3/26/19
Chloromethane	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Vinyl chloride	2	96	84	330	320	210	150	300 D	57	160	1,400	1,300
Chloroethane	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Bromomethane	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
1,1-Dichloroethene	5*	5.0 U	2.6	7.0	10 U	2.0 U	1.0 U	1.9	2.0 U	0.73 J	4.3 J	50 U
Acetone	50	7.5	10 U	6.5 J	50 U	16	7.1	5.0 U	10 U	5.0 U	50 U	500 U
Carbon disulfide	60	5.0 U	2.0 U	5.0 U	10 U	140	32	8.5	19	12	44	50 U
Methylene chloride	5*	5.0 U	2.0 U	16	16	96	29	6.3	2.0 U	1.0 U	10 U	26 J
trans-1,2-Dichloroethene	5*	6.3	6.8	6.4	5.2 J	4.8	6.4	4.9	7.7	7.3	13	50 U
1,1-Dichloroethane	5*	8.4	5.6	21	15	14	15	12	12	13	37	37 J
cis-1,2-Dichloroethene	5*	640	690 D	1,600 D	1,200	290	58	520 D	30	190	1,600	1,700
2-Butanone	50	25 U	2.0 U	25 U	50 U	6.8 J	3.8 J	5.0 U	10 U	5.0 U	50 U	500 U
Chloroform	7	2.1	1.1 J	5.0 U	10 U	0.52 J	1.0 U	0.34 J	2.0 U	1.0 U	10 U	50 U
1,1,1-Trichloroethane	5*	13	15	72	22	10	18	9.9	12	20	38	50 U
Carbon tetrachloride	5	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Benzene	1	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
1,2-Dichloroethane	0.6	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Trichloroethene	5*	120	110	54	23	9.3	3.7	98	4.2	4.1	20	50 U
1,2-Dichloropropane	1	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Bromodichloromethane	50	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
cis-1,3-Dichloropropene	0.4**	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
4-Methyl-2-pentanone	No Given Value	25 U	10 U	25 U	50 U	10 U	5.0 U	5.0 U	10 U	5.0 U	50 U	250 U
Toluene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	0.22 J	0.24 J	2.0 U	0.30 J	10 U	50 U
trans-1,3-Dichloropropene	0.4**	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
1,1,2-Trichloroethane	1	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Tetrachloroethene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
2-Hexanone	50	25 U	10 U	25 U	50 U	10 U	5.0 U	5.0 U	10 U	50 U	50 U	250 U
Dibromochloromethane	50	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Chlorobenzene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Ethylbenzene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
m/p-Xylenes	5*	10 U	4.0 U	10 U	20 U	4.0 U	2.0 U	2.0 U	4.0 U	2.0 U	20 U	100 U
o-Xylene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	0.23 J	10 U	50 U
Styrene	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Bromoform	50	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
1,1,2,2-Tetrachloroethane	5*	5.0 U	2.0 U	5.0 U	10 U	2.0 U	1.0 U	1.0 U	2.0 U	1.0 U	10 U	50 U
Total VOCs (minus Carbon Disulfide)		893.3	915.1	2,112.9	1,601.2	657.42	291.22	953.58	122.9	395.66	3,112.3	3,063.0
Percent Change					-24%	-69%	-86%	-40%	-94%	-75%	240%	45%
General Chemistry Parameters												
Iron, ferrous (mg/L)				0.51	0.40	0.14	0.10 U	0.24				
Chloride (mg/L)				142	406	780	584	266	188		292	332
Total organic carbon (mg/L)				3.2	111	65.7	32.4	4.5	4.1		4.3	2.6
Sulfate (mg/L)				875	205	18.8	176	360	286		627	725
Nitrate as N (mg/L)				1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.042 J
Methane (µg/L)				84	27	1.9	76	1,000	1,100 D		470	380
Ethane (µg/L)				1.8	1.1	1.0 U	1.0 U	10 U	10 U		10 U	170 U
Ethene (µg/L)				15	24	18	470 D	180	480		780	450
Carbon dioxide (mg/L)				308	554	532	606	542	383		402	
Alkalinity, Total as CaCO3 (mg/L)				280	433	547	595	514	366		415	
Bicarbonate Alkalinity as CaCO3 (mg/L)				280	433	547	595	514	366		415	
Carbonate Alkalinity as CaCO3 (mg/L)				2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)												
Lactic acid				1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid				1.0 U	210	130	59	1.0 U	1.0 U		1.0 U	
Propionic acid				1.0 U	16	3.0	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid				2.0 U	4.3	5.5	2.0 U	2.0 U	2.0 U		2.0 U	
Pyruvic acid				0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-02(1)									
Volatile Organic Compounds (µg/L)		10/20/16	11/13/17	1/24/18	2/27/18	3/20/18	6/19/18	9/18/18	10/30/18	12/11/18	3/26/19
Chloromethane	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Vinyl chloride	2	330	160	210	530	1,100	85	22	35	330	22
Chloroethane	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Bromomethane	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
1,1-Dichloroethene	5*	50 U	5.0 U	25 U	6.5 J	20 U	1.0 U	1.0 U	0.31 J	2.5 U	1.0 U
Acetone	50	250 U	25 U	130 U	50 U	100 U	3.3 J	2.2 J	5.0 U	13 U	10 U
Carbon disulfide	60	50 U	5.0 U	25 U	21	28	19	2.1	1.1	9	1.0 U
Methylene chloride	5*	220	3,000 D	800	220	34	1.7	1.0 U	21	2.5 U	1.0 U
trans-1,2-Dichloroethene	5*	50 U	6	10 J	8.2 J	8.6 J	4.6	1.2	0.93 J	3.9	0.92 J
1,1-Dichloroethane	5*	26 J	15	19 J	19	29	12	6.4	6.5	12	4.5
cis-1,2-Dichloroethene	5*	5,100	1,700 D	3,400	2,800 D	2,100	50	14	49	190	9.0
2-Butanone	50	250 U	25 U	130 U	50 U	100 U	5.0 U	5.0 U	5.0 U	13 U	10 U
Chloroform	7	50 U	4.2 J	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
1,1,1-Trichloroethane	5*	73	55	31	16	27	18	1.8	12	4.4	1.2
Carbon tetrachloride	5	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Benzene	1	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
1,2-Dichloroethane	0.6	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Trichloroethene	5*	3,900	690	350	63	88	3.9	2.5	39	13	2.5
1,2-Dichloropropane	1	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Bromodichloromethane	50	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
cis-1,3-Dichloropropene	0.4**	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
4-Methyl-2-pentanone	No Given Value	250 U	25 U	130 U	50 U	100 U	5.0 U	5.0 U	5.0 U	13 U	5.0 U
Toluene	5*	50 U	5.0 U	25 U	10 U	20 U	0.22 J	1.0 U	1.0 U	2.5 U	1.0 U
trans-1,3-Dichloropropene	0.4**	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
1,1,2-Trichloroethane	1	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Tetrachloroethene	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
2-Hexanone	50	250 U	25 U	130 U	50 U	100 U	5.0 U	5.0 U	5.0 U	13 U	5.0 U
Dibromochloromethane	50	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Chlorobenzene	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Ethylbenzene	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
m/p-Xylenes	5*	100 U	10 U	50 U	20 U	40 U	2.0 U	2.0 U	2.0 U	5.0 U	2.0 U
o-Xylene	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Styrene	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Bromoform	50	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
1,1,2,2-Tetrachloroethane	5*	50 U	5.0 U	25 U	10 U	20 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U
Total VOCs (minus Carbon Disulfide)		9,649	5,630.2	4,820	3,662.7	3,386.6	178.72	50.1	163.74	553.3	40.12
Percent Change				-14%	-35%	-40%	-97%	-99%	-97%	-90%	-99%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	54.6	23.1	3.3	4.55				
Chloride (mg/L)			177	477	619	504	330	134		336	449
Total organic carbon (mg/L)			2.9	241	143	69	6.8	3.6		5.5	2.5
Sulfate (mg/L)			394	63.1	31.9	234	360	335		291	327
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.021 J
Methane (µg/L)			65	63	60	120	58	28		200	210
Ethane (µg/L)			1.0 U	1.8	1.2	5.2 U	5.2 U	2.1 U		2.1 U	7.5 U
Ethene (µg/L)			9.8	20	150	330	260	160		560 D	210
Carbon dioxide (mg/L)			298	764	648	703	417	285		371	
Alkalinity, Total as CaCO3 (mg/L)			290	562	589	621	406	282		396	
Bicarbonate Alkalinity as CaCO3 (mg/L)			290	562	589	621	406	282		396	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	2.5 U	2.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	350	250	140	6.6	1.0 U		1.0 U	
Propionic acid			1.0 U	71	32	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid			2.0 U	43	28	4.0	2.0 U	2.0 U		2.0 U	
Pyruvic acid			0.50 U	1.3 U	1.0 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-08(1)								
Volatile Organic Compounds (µg/L)		10/20/16	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/20/18	10/31/18	12/13/18
Chloromethane	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Vinyl chloride	2	72	190	500	1,200	1,300	360	640 D	810	680
Chloroethane	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Bromomethane	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
1,1-Dichloroethene	5*	1.9	4.2	4.2 J	8.4 J	9.0 J	0.94 J	3.7	6.2 J	2.7 J
Acetone	50	5.0 U	4.5 J	9.3 J	50 U	50 U	6.3 J	11 J	50 U	25 U
Carbon disulfide	60	0.23	2.5 U	12	12	17	6.6	11	61	21
Methylene chloride	5*	1.0 U	2.5 U	14	190	110	2.5 U	1,100 D	290	5.0 U
trans-1,2-Dichloroethene	5*	1.6	3.4	3.9 J	9.0 J	9.7 J	3.8	6.6	8.8 J	7.3
1,1-Dichloroethane	5*	1.7	4.7	6.4	15	20	6.6	15	24	16
cis-1,2-Dichloroethene	5*	300 D	720 D	780	1,500	1,800	160	500	660	590
2-Butanone	50	5.0 U	13 U	25 U	50 U	50 U	13 U	4.0 J	50 U	25 U
Chloroform	7	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
1,1,1-Trichloroethane	5*	0.77 J	2.6	3.5 J	6.1 J	8.0 J	1.9 J	8.6	8.5 J	9.3
Carbon tetrachloride	5	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Benzene	1	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	0.53 J	10 U	5.0 U
1,2-Dichloroethane	0.6	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Trichloroethene	5*	3.5	7.0	39	37	32	6.1	700 D	46	12
1,2-Dichloropropane	1	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Bromodichloromethane	50	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
4-Methyl-2-pentanone	No Given Value	5.0 U	13 U	25 U	50 U	50 U	13 U	13 U	50 U	25 U
Toluene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	0.95 J	10 U	5.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
1,1,2-Trichloroethane	1	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Tetrachloroethene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
2-Hexanone	50	5.0 U	13 U	25 U	50 U	50 U	13 U	13 U	50 U	25 U
Dibromochloromethane	50	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Chlorobenzene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Ethylbenzene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
m/p-Xylenes	5*	2.0 U	5.0 U	10 U	20 U	20 U	5.0 U	5.0 U	20 U	10 U
o-Xylene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Styrene	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Bromoform	50	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	2.5 U	5.0 U	10 U	10 U	2.5 U	2.5 U	10 U	5.0 U
Total VOCs (minus Carbon Disulfide)		381.47	936.4	1,360.3	2,965.5	3,288.7	545.64	2,990.4	1,853.5	1,317.3
Percent Change				45%	217%	251%	-42%	219%	98%	41%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.26	0.10 U	0.16	0.10 U	0.14			
Chloride (mg/L)			23.2	13.5	16.1	21.4	22.5	56.2		21.9
Total organic carbon (mg/L)			3.6	50.5	45.8	47.1	4.1	3.4		3.9
Sulfate (mg/L)			348	122	96.1	75.3	305	255		135
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Methane (µg/L)			23	15	15	36	69	250		630 D
Ethane (µg/L)			1.0 U	1.0 U	4.0 U	5.2 U	5.2 U	5.2 U		5.2 U
Ethene (µg/L)			20	69	130	170	380	640 D		610 D
Carbon dioxide (mg/L)			389	433	426	511	460	916		431
Alkalinity, Total as CaCO3 (mg/L)			389	431	476	545	455	416		455
Bicarbonate Alkalinity as CaCO3 (mg/L)			389	431	476	545	455	416		455
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Acetic acid			1.0 U	96	94	98	1.0 U	1.0 U		1.0 U
Propionic acid			1.0 U	7.0	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Butyric acid			2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-09(1)							
Volatile Organic Compounds (µg/L)		5/22/17	11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/19/18	12/12/18
Chloromethane	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	190	210	200	190 D	170	150	200	170
Chloroethane	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5*	1.5 J	2.1	1.4 J	1.3	1.2 J	1.1	1.4	1.2
Acetone	50	4.1 J	10 U	2.5 J	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	60	2.0 U	0.61 J	2.2	1.1 B	2.0 U	1.4	1.4	1.8
Methylene chloride	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5*	1.4 J	2.1	1.6 J	1.7	1.3 J	1.4	1.7	1.7
1,1-Dichloroethane	5*	16	20	17	19	16	16	18	14
cis-1,2-Dichloroethene	5*	150	170	130	150	130	130	150	150
2-Butanone	50	10 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Chloroform	7	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	5*	85	110	79	88	83	81	72	58
Carbon tetrachloride	5	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Benzene	1	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5*	1.7 J	2.2	2.1	2.1	2.1	1.6	3.2	1.8
1,2-Dichloropropane	1	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone	No Given Value	10 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Toluene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	50	10 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	50	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
m/p-Xylenes	5*	4.0 U	4.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U
o-Xylene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Styrene	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5*	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U
Total VOCs (minus Carbon Disulfide)		449.7	516.4	433.6	262.1	403.6	381.1	447.7	398.5
Percent Change				-16%	-49%	-22%	-26%	-13%	-23%
General Chemistry Parameters									
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.10 U	0.10 U	0.10 U		
Chloride (mg/L)			134	116	133	159	129	131	122
Total organic carbon (mg/L)			3.3	3.4	3.6	4.7	3.5	3.4	3.4
Sulfate (mg/L)			972	991	988	879	1,080	1,050	920
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methane (µg/L)			84	64	65	47	79	110 D	84
Ethane (µg/L)			1.4	1.6	1.6	1.0 U	1.6	1.8	1.6
Ethene (µg/L)			10	11	11	8	12	16	14
Carbon dioxide (mg/L)			307	281	267	275	316	387	609
Alkalinity, Total as CaCO3 (mg/L)			307	287	298	296	314	291	273
Bicarbonate Alkalinity as CaCO3 (mg/L)			307	287	298	296	314	291	273
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Volatile Fatty Acids (mg/L)									
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-10(1)				
Volatile Organic Compounds (µg/L)		5/23/17	12/10/18	3/27/19		
Chloromethane	5*	5.0 U	10 U	50 U		
Vinyl chloride	2	12	410	400		
Chloroethane	5*	5.0 U	10 U	50 U		
Bromomethane	5*	5.0 U	10 U	50 U		
1,1-Dichloroethene	5*	5.0 U	10 U	50 U		
Acetone	50	6.5 J	50 U	500 U		
Carbon disulfide	60	5.0 U	26	50 U		
Methylene chloride	5*	5.0 U	5.2 J	50 U		
trans-1,2-Dichloroethene	5*	5.0 U	7.4 J	50 U		
1,1-Dichloroethane	5*	2.3 J	17	50 U		
cis-1,2-Dichloroethene	5*	130	1,100	1,900		
2-Butanone	50	25 U	50 U	500 U		
Chloroform	7	1.4 J	10 U	50 U		
1,1,1-Trichloroethane	5*	3.6 J	36	50 U		
Carbon tetrachloride	5	5.0 U	10 U	50 U		
Benzene	1	5.0 U	10 U	50 U		
1,2-Dichloroethane	0.6	5.0 U	10 U	50 U		
Trichloroethene	5*	890	89	610		
1,2-Dichloropropane	1	5.0 U	10 U	50 U		
Bromodichloromethane	50	5.0 U	10 U	50 U		
cis-1,3-Dichloropropene	0.4**	5.0 U	10 U	50 U		
4-Methyl-2-pentanone	No Given Value	25 U	50 U	250 U		
Toluene	5*	5.0 U	10 U	50 U		
trans-1,3-Dichloropropene	0.4**	5.0 U	10 U	50 U		
1,1,2-Trichloroethane	1	5.0 U	10 U	50 U		
Tetrachloroethene	5*	5.0 U	10 U	50 U		
2-Hexanone	50	25 U	50 U	250 U		
Dibromochloromethane	50	5.0 U	10 U	50 U		
Chlorobenzene	5*	5.0 U	10 U	50 U		
Ethylbenzene	5*	5.0 U	10 U	50 U		
m/p-Xylenes	5*	10.0 U	20 U	100 U		
o-Xylene	5*	5.0 U	10 U	50 U		
Styrene	5*	5.0 U	10 U	50 U		
Bromoform	50	5.0 U	10 U	50 U		
1,1,2,2-Tetrachloroethane	5*	5.0 U	10 U	50 U		
Total VOCs (minus Carbon Disulfide)		1,045.8	1,664.6	2910.0		
Percent Chsnge			59%	178%		
General Chemistry Parameters						
Iron, ferrous (mg/L)						
Chloride (mg/L)				358		
Total organic carbon (mg/L)				2.9		
Sulfate (mg/L)				836		
Nitrate as N (mg/L)				0.058		
Methane (µg/L)				60		
Ethane (µg/L)				7.5 U		
Ethene (µg/L)				180		
Carbon dioxide (mg/L)						
Alkalinity, Total as CaCO3 (mg/L)						
Bicarbonate Alkalinity as CaCO3 (mg/L)						
Carbonate Alkalinity as CaCO3 (mg/L)						
Volatile Fatty Acids (mg/L)						
Lactic acid						
Acetic acid						
Propionic acid						
Butyric acid						
Pyruvic acid						

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-11(1)				
Volatile Organic Compounds (µg/L)		11/16/17	12/13/18	3/28/19		
Chloromethane	5*	50 U	50 U	200 U		
Vinyl chloride	2	1,500	250	280		
Chloroethane	5*	50 U	50 U	200 U		
Bromomethane	5*	50 U	50 U	200 U		
1,1-Dichloroethene	5*	50 U	50 U	200 U		
Acetone	50	250 U	250 U	2,000 U		
Carbon disulfide	60	50 U	81	200 U		
Methylene chloride	5*	11,000 D	8,000	12,000		
trans-1,2-Dichloroethene	5*	50 U	14 J	200 U		
1,1-Dichloroethane	5*	33 J	14 J	200 U		
cis-1,2-Dichloroethene	5*	2,500	120	160 J		
2-Butanone	50	250 U	250 U	2,000 U		
Chloroform	7	18 J	50 U	200 U		
1,1,1-Trichloroethane	5*	53	50 U	200 U		
Carbon tetrachloride	5	50 U	50 U	200 U		
Benzene	1	50 U	50 U	200 U		
1,2-Dichloroethane	0.6	50 U	50 U	200 U		
Trichloroethene	5*	76	31 J	200 U		
1,2-Dichloropropane	1	50 U	50 U	200 U		
Bromodichloromethane	50	50 U	50 U	200 U		
cis-1,3-Dichloropropene	0.4**	50 U	50 U	200 U		
4-Methyl-2-pentanone	No Given Value	250 U	250 U	1,000 U		
Toluene	5*	50 U	50 U	200 U		
trans-1,3-Dichloropropene	0.4**	50 U	50 U	200 U		
1,1,2-Trichloroethane	1	50 U	50 U	200 U		
Tetrachloroethene	5*	50 U	50 U	200 U		
2-Hexanone	50	250 U	250 U	1,000 U		
Dibromochloromethane	50	50 U	50 U	200 U		
Chlorobenzene	5*	50 U	50 U	200 U		
Ethylbenzene	5*	50 U	50 U	200 U		
m/p-Xylenes	5*	100 U	100 U	400 U		
o-Xylene	5*	50 U	50 U	200 U		
Styrene	5*	50 U	50 U	200 U		
Bromoform	50	50 U	50 U	200 U		
1,1,2,2-Tetrachloroethane	5*	50 U	50 U	200 U		
Total VOCs (minus Carbon Disulfide)		15,180	8,429	12,440		
Percent Chsnge			-44%	-18%		
General Chemistry Parameters						
Iron, ferrous (mg/L)						
Chloride (mg/L)				164		
Total organic carbon (mg/L)				59.0		
Sulfate (mg/L)				99.3		
Nitrate as N (mg/L)				0.081		
Methane (µg/L)				2,000		
Ethane (µg/L)				170 U		
Ethene (µg/L)				590		
Carbon dioxide (mg/L)						
Alkalinity, Total as CaCO3 (mg/L)						
Bicarbonate Alkalinity as CaCO3 (mg/L)						
Carbonate Alkalinity as CaCO3 (mg/L)						
Volatile Fatty Acids (mg/L)						
Lactic acid						
Acetic acid						
Propionic acid						
Butyric acid						
Pyruvic acid						

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-12(1)								
Volatile Organic Compounds (µg/L)		5/23/17	11/14/17	1/24/18	2/27/18	3/20/18	6/19/18	9/18/18	12/11/18	3/26/19
Chloromethane	5*	10 U	5.2 J	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Vinyl chloride	2	1,700	2,300	1,400	1,200	2,200	1,100	180	1,500 D	1,900
Chloroethane	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Bromomethane	5*	10 U	6.2 J	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
1,1-Dichloroethene	5*	7.2 J	20 U	10 U	10 U	20 U	5.2 J	2.0 U	4.0	50 U
Acetone	50	50 U	100 U	50 U	50 U	100 U	50 U	10 U	10 U	500 U
Carbon disulfide	60	10 U	20 U	31	12	23	21	4.3	10	50 U
Methylene chloride	5*	10 U	20 U	84	10 U	20 U	410	2.0 U	2.0 U	50 U
trans-1,2-Dichloroethene	5*	8.7 J	12 J	7.3 J	5.7 J	7.2 J	7.4 J	2.4	7.5	50 U
1,1-Dichloroethane	5*	19	29	24	14	25	27	13	27	33 J
cis-1,2-Dichloroethene	5*	2,200 D	3,000	970	700	1,300	1,200	54	1,100 D	840
2-Butanone	50	50 U	100 U	50 U	50 U	100 U	50 U	10 U	10 U	500 U
Chloroform	7	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
1,1,1-Trichloroethane	5*	30	32	29	15	28	31	16	30	50 U
Carbon tetrachloride	5	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Benzene	1	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
1,2-Dichloroethane	0.6	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Trichloroethene	5*	14	18 J	17	13	33	76	5.6	32	28 J
1,2-Dichloropropane	1	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Bromodichloromethane	50	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
cis-1,3-Dichloropropene	0.4**	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
4-Methyl-2-pentanone	No Given Value	50 U	100 U	50 U	50 U	100 U	50 U	10 U	10 U	250 U
Toluene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	0.54 J	50 U
trans-1,3-Dichloropropene	0.4**	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
1,1,2-Trichloroethane	1	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Tetrachloroethene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
2-Hexanone	50	50 U	100 U	50 U	50 U	100 U	50 U	10 U	10 U	250 U
Dibromochloromethane	50	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Chlorobenzene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Ethylbenzene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
m/p-Xylenes	5*	20 U	40 U	20 U	20 U	40 U	20 U	4.0 U	0.46 J	100 U
o-Xylene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	0.40 J	50 U
Styrene	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Bromoform	50	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
1,1,2,2-Tetrachloroethane	5*	10 U	20 U	10 U	10 U	20 U	10 U	2.0 U	2.0 U	50 U
Total VOCs (minus Carbon Disulfide)		3,978.9	5,402.4	2,531.3	1,947.7	3,593.2	2,856.6	271	2,701.5	2,801
Percent Chsnge				-53%	-64%	-33%	-47%	-95%	-50%	-48%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.10 U	0.10 U	0.10 U			
Chloride (mg/L)			154	329	429	302	191	169	254	343
Total organic carbon (mg/L)			3.0	10.1	3.0	5.1	3.5	3.4	3.7	2.3
Sulfate (mg/L)			954	550	312	800	763	523	832	961
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.050 U
Methane (µg/L)			54	47	21	46	130	56	150	190
Ethane (µg/L)			4.2	3.6	1.0 U	5.2 U	5.2 U	5.2 U	5.2	7.5 U
Ethene (µg/L)			42	310	160	270	310	390	590 D	610
Carbon dioxide (mg/L)			276	479	192	349	415	385	242	
Alkalinity, Total as CaCO3 (mg/L)			260	466	212	380	357	340	251	
Bicarbonate Alkalinity as CaCO3 (mg/L)			260	466	212	380	357	340	251	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Acetic acid			1.0 U	13	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-13(1)								
Volatile Organic Compounds (µg/L)		5/22/17	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/20/18	12/12/18	3/27/19
Chloromethane	5*	500 U	46 J	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Vinyl chloride	2	3,000	1,300	1,600	2,200 D	2,400	1,400	1,000 U	2,500	8,000 U
Chloroethane	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Bromomethane	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
1,1-Dichloroethene	5*	500 U	120 J	210	1,000 U	1,000 U	1,000 U	1,000 U	530 J	8,000 U
Acetone	50	2,500 U	1,000 U	1,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	8,000 U
Carbon disulfide	60	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,100	8,000 U
Methylene chloride	5*	94,000 D	3,500	17,000	87,000 D	120,000	490,000 D	1,000,000	560,000 D	600,000
trans-1,2-Dichloroethene	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	330 J	8,000 U
1,1-Dichloroethane	5*	320 J	130 J	280	360 D,J	520 J	570 J	1,000 U	1,100	8,000 U
cis-1,2-Dichloroethene	5*	80,000	19,000	36,000	38,000 D	42,000	44,000	91,000	110,000	160,000
2-Butanone	50	2,500 U	1,000 U	1,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	80,000 U
Chloroform	7	1,200	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
1,1,1-Trichloroethane	5*	1,100	1,100	3,300	1,600 D	2,000	1,700	1,000 U	2,000	8,000 U
Carbon tetrachloride	5	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Benzene	1	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
1,2-Dichloroethane	0.6	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Trichloroethene	5*	40,000	17,000	120,000 D	65,000 D	84,000	88,000	170,000	140,000	200,000
1,2-Dichloropropane	1	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Bromodichloromethane	50	230	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
cis-1,3-Dichloropropene	0.4**	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
4-Methyl-2-pentanone	No Given Value	2,500 U	1,000 U	1,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	40,000 U
Toluene	5*	500 U	200 U	160 J	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
trans-1,3-Dichloropropene	0.4**	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
1,1,2-Trichloroethane	1	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Tetrachloroethene	5*	500 U	200 U	310	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
2-Hexanone	50	2,500 U	1,000 U	1,000 U	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U	40,000 U
Dibromochloromethane	50	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Chlorobenzene	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Ethylbenzene	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
m/p-Xylenes	5*	1,000 U	400 U	400 U	2,000 U	2,000 U	2,000 U	2,000 U	2,000 U	16,000 U
o-Xylene	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Styrene	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Bromoform	50	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
1,1,2,2-Tetrachloroethane	5*	500 U	200 U	200 U	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	8,000 U
Total VOCs (minus Carbon Disulfide)		219,850	42,196	58,860	194,160	250,920	135,670	1,261,000	816,460	960,000
Percent Change				39%	360%	495%	222%	2888%	1835%	2175%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.24	3.1	0.10 U	0.10 U	0.16			
Chloride (mg/L)			233	287	321	350	448	451	503	555
Total organic carbon (mg/L)			3.2	10.7	320	247	270	181	138	132 B
Sulfate (mg/L)			785	451	612	579	547	472	798	840
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.330
Methane (µg/L)			520 D	130	7.5	200	180	130	150	440 U
Ethane (µg/L)			3.9	6.3	140	7.4	8.9	6.2	5.7	830 U
Ethene (µg/L)			150 D	110	130	210	150	83	170	770 U
Carbon dioxide (mg/L)			351	1,220	853	1,010	1,560	5,280	6460	
Alkalinity, Total as CaCO3 (mg/L)			340	922	941	935	1,000	1,000	794	
Bicarbonate Alkalinity as CaCO3 (mg/L)			340	922	941	935	1,000	1,000	794	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	20	8.2	7.9	11	10	3.7	
Acetic acid			1.0 U	550	490	450	430	340	250	
Propionic acid			1.0 U	78	57	45	24	17	15	
Butyric acid			2.0 U	12	10 U	30	10 U	10 U	5.0 U	
Pyruvic acid			0.50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.3 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-17(1)								
Volatile Organic Compounds (µg/L)		10/20/16	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/20/18	10/31/18	12/12/18
Chloromethane	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	2	150	280 D	320	340 D	290	220	290	260	260
Chloroethane	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromomethane	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethene	5*	0.91 J	1.5	1.4 J	1.3	2.5 U	1.2 J	1.8 J	1.3 J	1.2 J
Acetone	50	1.4 J	1.8 J	10 U	5.0 U	13 U	10 U	5.2 J	10 U	10 U
Carbon disulfide	60	1.5	1.4	1.4 J	1.2 B	2.5 U	2.0 U	2.4	0.85 J	1.6 J
Methylene chloride	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	12	2.0 U	2.0 U
trans-1,2-Dichloroethene	5*	2.5	2.2	2.3	2.2	1.8 J	2.0 J	2.0 J	2.4	2.0
1,1-Dichloroethane	5*	21	26	23	25	22	20	23	20	19
cis-1,2-Dichloroethene	5*	130	130	110	120	97	92	190	110	120
2-Butanone	50	5.0 U	5.0 U	10 U	5.0 U	13 U	10 U	10 U	10 U	10 U
Chloroform	7	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane	5*	89	110	100	100	100	89	89	72	74
Carbon tetrachloride	5	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Benzene	1	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	5*	18	2.7	2.7	3.2	2.3 J	2.1	140	51	1.9 J
1,2-Dichloropropane	1	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromodichloromethane	50	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
4-Methyl-2-pentanone	No Given Value	5.0 U	5.0 U	10 U	5.0 U	13 U	10 U	10 U	10 U	10 U
Toluene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
2-Hexanone	50	5.0 U	5.0 U	10 U	5.0 U	13 U	10 U	10 U	10 U	10 U
Dibromochloromethane	50	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
m/p-Xylenes	5*	2.0 U	2.0 U	4.0 U	2.0 U	5.0 U	4.0 U	4.0 U	4.0 U	4.0 U
o-Xylene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Styrene	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Bromoform	50	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	1.0 U	2.0 U	1.0 U	2.5 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs (minus Carbon Disulfide)		412.81	554.2	559.4	591.7	513.1	426.3	753	515.4	475
Percent Change				1%	7%	-8%	-23%	36%	-7%	-14%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.12	0.13	0.17	0.15	0.25			
Chloride (mg/L)			128	124	157	160	142	148		133
Total organic carbon (mg/L)			3.7	4.7	4.3	3.9	3.7	5.3		3.6
Sulfate (mg/L)			1,010	1,030	1,060	938	1,120	1,150		1,020
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Methane (µg/L)			100	66	1.5	68	72	96		90
Ethane (µg/L)			1.3	1.2	12	1.2	1.2	1.5		1.4
Ethene (µg/L)			12	11	70	12	13	14		17
Carbon dioxide (mg/L)			305	300	258	268	286	591		268
Alkalinity, Total as CaCO3 (mg/L)			304	291	292	298	288	295		274
Bicarbonate Alkalinity as CaCO3 (mg/L)			304	291	292	298	288	295		274
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Acetic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-20(1)									
Volatile Organic Compounds (µg/L)		10/19/16	11/14/17	1/23/18	2/27/18	3/20/18	6/19/18	9/19/18	10/30/18	12/11/18	3/26/19
Chloromethane	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Vinyl chloride	2	830	760	1,600	460	1,200	440	420	730	780	380
Chloroethane	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Bromomethane	5*	50 U	9.0 J	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
1,1-Dichloroethene	5*	50 U	25 U	50 U	5.0 U	25 U	3.8 J	4.8 J	7.6 J	5.6 J	3.9 J
Acetone	50	250 U	130 U	250 U	25 U	130 U	50 U	50 U	50 U	100 U	100 U
Carbon disulfide	60	50 U	25 U	50 U	6.5	24 J	10 U	12	18	22	10 U
Methylene chloride	5*	50 U	25 U	50 U	5.0 U	20 J	10 U	10 U	10 U	20 U	10 U
trans-1,2-Dichloroethene	5*	50 U	17 J	50 U	3.0 J	25 U	4.3 J	3.7 J	7.7 J	6.6 J	10 U
1,1-Dichloroethane	5*	18 J	13 J	16 J	4.7 J	12 J	5.1 J	8.2 J	11	9.4 J	5.9 J
cis-1,2-Dichloroethene	5*	4,700	6,200 D	4,800	670	2,800	1,200	1,100	2,300 D	1,800	910
2-Butanone	50	250 U	130 U	250 U	25 U	130 U	50 U	50 U	50 U	100 U	100 U
Chloroform	7	18 J	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
1,1,1-Trichloroethane	5*	22 J	26	21 J	4.7 J	14 J	6.4 J	7.1 J	14	11 J	10 U
Carbon tetrachloride	5	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Benzene	1	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
1,2-Dichloroethane	0.6	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Trichloroethene	5*	19 J	34	39 J	13	47	24	18	28	20 J	14
1,2-Dichloropropane	1	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Bromodichloromethane	50	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
cis-1,3-Dichloropropene	0.4**	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
4-Methyl-2-pentanone	No Given Value	250 U	130 U	250 U	25 U	130 U	50 U	50 U	50 U	100 U	50 U
Toluene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
trans-1,3-Dichloropropene	0.4**	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
1,1,2-Trichloroethane	1	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Tetrachloroethene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
2-Hexanone	50	250 U	130 U	250 U	25 U	130 U	50 U	50 U	50 U	100 U	50 U
Dibromochloromethane	50	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Chlorobenzene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Ethylbenzene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
m/p-Xylenes	5*	100 U	50 U	100 U	10 U	50 U	20 U	20 U	20 U	40 U	20 U
o-Xylene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Styrene	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Bromoform	50	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
1,1,2,2-Tetrachloroethane	5*	50 U	25 U	50 U	5.0 U	25 U	10 U	10 U	10 U	20 U	10 U
Total VOCs (minus Carbon Disulfide)		5,607	7,059	6,476	1,155.4	4,093	1,683.6	1,561.8	3,098.3	2,632.6	1,313.8
Percent Change				-8%	-84%	-42%	-76%	-78%	-56%	-63%	-81%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.14	0.17	0.15	0.25				
Chloride (mg/L)			108	217	630	408	166	128		215	651
Total organic carbon (mg/L)			2.5	70.1	3.5	6.1	2.8	2.5		3.5	1.9
Sulfate (mg/L)			735	779	338	562	506	414		660	381
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.80
Methane (µg/L)			32	48	7.0	47	37	36		46	16
Ethane (µg/L)			2.2	2.4	1.0 U	1.7	1.6	1.0 U		2.1	7.5 U
Ethene (µg/L)			17	81	61	110 D	71	64		200 D	29
Carbon dioxide (mg/L)			201	394	197	320	274	244		210	
Alkalinity, Total as CaCO3 (mg/L)			221	375	218	354	242	192		223	
Bicarbonate Alkalinity as CaCO3 (mg/L)			221	375	218	354	242	192		223	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	140	1.0 U	3.1	1.0 U	1.0 U		1.0 U	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	87-22(1)									
Volatile Organic Compounds (µg/L)		10/19/16	11/14/17	1/23/18	2/27/18	3/20/18	6/19/18	9/19/18	10/30/18	12/11/18	3/26/19
Chloromethane	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Vinyl chloride	2	430	430	1,100 D	780	1,100	1,100	1,900	1,700	1,300	1,400
Chloroethane	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Bromomethane	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
1,1-Dichloroethene	5*	4.9 J	5.0 U	25 U	4.7 J	20 U	20 U	11 J	9.0 J	7.6 J	80 U
Acetone	50	6.4 J	25 U	130 U	25 U	100 U	100 U	100 U	100 U	100 U	800 U
Carbon disulfide	60	5.0 U	5.0 U	25 U	1.6 B,J	20 U	20 U	25	26	20 J	80 U
Methylene chloride	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
trans-1,2-Dichloroethene	5*	7.3	4.3 J	12 D,J	7.4	17 J	9.2 J	15 J	17 J	13 J	80 U
1,1-Dichloroethane	5*	5.4J+	4.6 J	9.3 D,J	7.2	9.9 J	7.8 J	11 J	11 J	9.0 J	80 U
cis-1,2-Dichloroethene	5*	1,200 D	820	2,700 D	1,800 D	2,500	2,100	3,200	3,300	2,500	2,900
2-Butanone	50	25 U	25 U	130 U	25 U	100 U	100 U	100 U	100 U	100 U	800 U
Chloroform	7	1.3 J	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
1,1,1-Trichloroethane	5*	5.0 U	5.0 U	25 U	2.2 J	20 U	20 U	20 U	20 U	20 U	80 U
Carbon tetrachloride	5	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Benzene	1	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
1,2-Dichloroethane	0.6	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Trichloroethene	5*	5.0 J	2.6 J	70 D	5.6	11 J	9.8 J	18 J	20 J	18 J	80 U
1,2-Dichloropropane	1	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Bromodichloromethane	50	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
cis-1,3-Dichloropropene	0.4**	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
4-Methyl-2-pentanone	No Given Value	25 U	25 U	130 U	25 U	100 U	100 U	100 U	100 U	100 U	400 U
Toluene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
trans-1,3-Dichloropropene	0.4**	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
1,1,2-Trichloroethane	1	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Tetrachloroethene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
2-Hexanone	50	25 U	25 U	130 U	25 U	100 U	100 U	100 U	100 U	100 U	400 U
Dibromochloromethane	50	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Chlorobenzene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Ethylbenzene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
m/p-Xylenes	5*	10 U	10 U	50 U	10 U	40 U	40 U	40 U	40 U	40 U	160 U
o-Xylene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Styrene	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Bromoform	50	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
1,1,2,2-Tetrachloroethane	5*	5.0 U	5.0 U	25 U	5.0 U	20 U	20 U	20 U	20 U	20 U	80 U
Total VOCs (minus Carbon Disulfide)		1,660.3	1,261.5	3,891.3	2,607.1	3,637.9	3,226.8	5,155	5,057	3,847.6	4,300
Percent Change				208%	107%	188%	156%	309%	301%	205%	241%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.10 U	0.10 U	0.11				
Chloride (mg/L)			97.5	119	92.4	145	124	118		143	153
Total organic carbon (mg/L)			4.9	4.9	4.0	6.0	4.9	4.2		3.7	3.4
Sulfate (mg/L)			940	1,230	1,050	981	1,090	1,130		1,070	1,130
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.050 U
Methane (µg/L)			79	190	110	170	200 D	230 D		210	240
Ethane (µg/L)			2.4	5.7	3.9	4.3	6.1	7.3		6.1	170 U
Ethene (µg/L)			19	190	42	51	87	170		140	61 J
Carbon dioxide (mg/L)			482	391	371	354	507	930		1,230	
Alkalinity, Total as CaCO3 (mg/L)			428	378	407	392	423	366		326	
Bicarbonate Alkalinity as CaCO3 (mg/L)			428	378	407	392	423	366		326	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		SB	
Acetic acid			1.0 U	1.0 U	1.1	4.0	2.3	1.0 U		SB	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		SB	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		SB	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		SB	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	89-10(1)							
Volatile Organic Compounds (µg/L)		11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/18/18	12/11/18	3/27/19
Chloromethane	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Vinyl chloride	2	100	360	230	400	160	450	480	490 J
Chloroethane	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Bromomethane	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
1,1-Dichloroethene	5*	5.1	20	50 U	50 U	50 U	20 J	33 J	500 U
Acetone	50	25 U	50 U	250 U	250 U	250 U	250 U	250 U	5,000 U
Carbon disulfide	60	1.3 J	63	45 J	210	26 J	160	360	500 U
Methylene chloride	5*	660	3,700 D	1,600	4,400	860	2,100	3,100	3,400
trans-1,2-Dichloroethene	5*	3.5 J	12	50 U	50 U	50 U	50 U	15 J	500 U
1,1-Dichloroethane	5*	5.9	29	50 U	18 J	13 J	35 J	57	500 U
cis-1,2-Dichloroethene	5*	1,400 D	4,300 D	1,200	1,900	1,500	3,600	5,000	6,600
2-Butanone	50	25 U	50 U	250 U	250 U	250 U	250 U	250 U	5,000 U
Chloroform	7	2.5 J	10 U	50 U	50 U	50 U	50 U	50 U	500 U
1,1,1-Trichloroethane	5*	9.4	85	23 J	31 J	44 J	80	120	500 U
Carbon tetrachloride	5	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Benzene	1	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
1,2-Dichloroethane	0.6	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Trichloroethene	5*	1,500 D	17,000 D	4,600	6,400	7,200	8,900	14,000 D	19,000
1,2-Dichloropropane	1	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Bromodichloromethane	50	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
cis-1,3-Dichloropropene	0.4**	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
4-Methyl-2-pentanone	No Given Value	25 U	50 U	250 U	250 U	250 U	250 U	250 U	2,500 U
Toluene	5*	5.0 U	8.4 J	50 U	50 U	50 U	50 U	50 U	500 U
trans-1,3-Dichloropropene	0.4**	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
1,1,2-Trichloroethane	1	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Tetrachloroethene	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
2-Hexanone	50	25 U	50 U	250 U	250 U	250 U	250 U	250 U	2,500 U
Dibromochloromethane	50	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Chlorobenzene	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Ethylbenzene	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
m/p-Xylenes	5*	10 U	20 U	100 U	100 U	100 U	100 U	100 U	1,000 U
o-Xylene	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Styrene	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Bromoform	50	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
1,1,2,2-Tetrachloroethane	5*	5.0 U	10 U	50 U	50 U	50 U	50 U	50 U	500 U
Total VOCs (minus Carbon Disulfide)		3,686.4	25,514.4	7,653	13,149	9,777	15,185	22,805	29,490
Percent Change			592%	108%	257%	165%	312%	519%	700%
General Chemistry Parameters									
Iron, ferrous (mg/L)		0.14	0.11	0.10 U	0.10 U	0.34			
Chloride (mg/L)		117	425	961	735	246	176	197	266
Total organic carbon (mg/L)		3.1	100	48.8	36.2	11.8	20.8	35.4	56.1
Sulfate (mg/L)		716	897	678	737	618	768	727	974
Nitrate as N (mg/L)		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.046 J
Methane (µg/L)		9.6	33	10	15	11	32	66	27 J
Ethane (µg/L)		2.7	2.1	4.0	5.4	1.7	3.0	6.3	170 U
Ethene (µg/L)		17	25	71	130 D	66	140 D	160	150 U
Carbon dioxide (mg/L)		244	504	364	421	365	631	748	
Alkalinity, Total as CaCO3 (mg/L)		237	433	400	426	352	497	761	
Bicarbonate Alkalinity as CaCO3 (mg/L)		237	433	400	426	352	497	761	
Carbonate Alkalinity as CaCO3 (mg/L)		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Volatile Fatty Acids (mg/L)									
Lactic acid		1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	
Acetic acid		1.0 U	190	88	67	16	36	56	
Propionic acid		1.0 U	5.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Butyric acid		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Pyruvic acid		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	89-12(1)								
Volatile Organic Compounds (µg/L)		5/23/17	11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/18/18	12/11/18	3/27/19
Chloromethane	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Vinyl chloride	2	270	110	800	780	580	230	1,700 D	220	190
Chloroethane	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Bromomethane	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
1,1-Dichloroethene	5*	25 U	3.7 J	10 U	5.0 U	5.0 U	0.64 J	6.8	2.0 U	4.0 U
Acetone	50	36 J	8.7 J	10 U	9.9 J	25 U	10 U	10 U	10 U	40 U
Carbon disulfide	60	25 U	5.0 U	47	8.6	8.5	1.6	22	2.2	4.0 U
Methylene chloride	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	15	2.0 U	4.0 U
trans-1,2-Dichloroethene	5*	19 J	6.0	5.1 J	3.9 J	3.2 J	3.0	8.9	2.5	4.0 U
1,1-Dichloroethane	5*	9.0 J	6.3	21	15	14	11	42	12	12
cis-1,2-Dichloroethene	5*	4,300	1,300 D	1,900	880	420	180	2,400 D	61	55
2-Butanone	50	130	25 U	50 U	25 U	25 U	10 U	10 U	10 U	40 U
Chloroform	7	25 U	3.0 J	10 U	5.0 U	5.0 U	2.0 U	0.91 J	2.0 U	4.0 U
1,1,1-Trichloroethane	5*	22 J	13	17	17	21	18	39	17	15
Carbon tetrachloride	5	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Benzene	1	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
1,2-Dichloroethane	0.6	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Trichloroethene	5*	490	23	42	30	20	16	61	4.3	5.9
1,2-Dichloropropane	1	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Bromodichloromethane	50	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
cis-1,3-Dichloropropene	0.4**	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
4-Methyl-2-pentanone	No Given Value	130	25 U	50 U	25 U	25 U	10 U	10 U	10 U	20 U
Toluene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	0.74 J	2.0 U	4.0 U
trans-1,3-Dichloropropene	0.4**	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
1,1,2-Trichloroethane	1	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Tetrachloroethene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
2-Hexanone	50	130	25 U	50 U	25 U	25 U	10 U	10 U	10 U	20 U
Dibromochloromethane	50	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Chlorobenzene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Ethylbenzene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
m/p-Xylenes	5*	50 U	10 U	20 U	10 U	10 U	4.0 U	0.43 J	4.0 U	8.0 U
o-Xylene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	0.47 J	2.0 U	4.0 U
Styrene	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Bromoform	50	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
1,1,2,2-Tetrachloroethane	5*	25 U	5.0 U	10 U	5.0 U	5.0 U	2.0 U	2.0 U	2.0 U	4.0 U
Total VOCs (minus Carbon Disulfide)		5,536	1,473.7	2,785.1	1,735.8	1,058.2	458.64	4,274.35	316.8	277.9
Percent Change				89%	18%	-28%	-69%	190%	-79%	-81%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.10 U	0.17	0.11	0.14	0.90			
Chloride (mg/L)			112	319	531	504	207	155	205	468
Total organic carbon (mg/L)			3.4	35.6	4.7	6.8	3.9	3.6	3.4	2.0
Sulfate (mg/L)			617	734	822	972	872	848	910	1,010
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.041 J
Methane (µg/L)			11	30	31	30	42	400	38	42
Ethane (µg/L)			1.0 U	1.9	3.3	10 U	10 U	10 U	5.2 U	7.5 U
Ethene (µg/L)			5.7	140	330	370	480	600	390	440
Carbon dioxide (mg/L)			241	468	278	274	292	269	538	
Alkalinity, Total as CaCO3 (mg/L)			234	466	308	298	286	258	234	
Bicarbonate Alkalinity as CaCO3 (mg/L)			234	466	308	298	286	258	234	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Acetic acid			1.0 U	51	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	89-15(1)									
Volatile Organic Compounds (µg/L)		10/20/16	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/19/18	10/31/18	12/12/18	3/27/19
Chloromethane	5*	250 U	0.26 J	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Vinyl chloride	2	390	20	270 D	550	840	93	38	190 D	1,100	1,300
Chloroethane	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Bromomethane	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
1,1-Dichloroethene	5*	250 U	0.66 J	2.3	50 U	50 U	5.0 U	2.0 U	1.8	18 J	400 U
Acetone	50	1300 U	5.0 U	5.0 U	250 U	250 U	25 U	6.3 J	5.0 U	100 U	400 U
Carbon disulfide	60	110 J	0.26 J	5.5	49 J	310	16	15	200	140	400 U
Methylene chloride	5*	110,000 D	1.0 U	360 D	7,700	15,000 D	670	11	380 D	14,000 D	17,000
trans-1,2-Dichloroethene	5*	250 U	0.44 J	3.0	50 U	50 U	2.0 J	1.1 J	4.2	21	400 U
1,1-Dichloroethane	5*	250 U	3.9	3.7	50 U	50 U	3.8 J	4.5	9.3	31	400 U
cis-1,2-Dichloroethene	5*	17,000	62	460 D	640	790	150	49	290 D	3,100	7,000
2-Butanone	50	1300 U	5.0 U	5.3	250 U	250 U	25 U	10 U	2.8 J	100 U	400 U
Chloroform	7	410	1.0 U	1.2	50 U	50 U	5.0 U	2.0 U	1.9	11 J	400 U
1,1,1-Trichloroethane	5*	230 J	0.97 J	2.2	50 U	50 U	21	1.1 J	1.7	22	400 U
Carbon tetrachloride	5	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Benzene	1	250 U	1.0 U	0.21 J	50 U	50 U	5.0 U	2.0 U	0.34 J	20 U	400 U
1,2-Dichloroethane	0.6	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Trichloroethene	5*	140,000 D	5.1	280 D	410	510	110	27	130	4,400 D	8,400
1,2-Dichloropropane	1	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Bromodichloromethane	50	130 J	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
cis-1,3-Dichloropropene	0.4**	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
4-Methyl-2-pentanone	No Given Value	1300 U	5.0 U	5.0 U	250 U	250 U	25 U	10 U	5.0 U	100 U	2,000 U
Toluene	5*	250 U	1.0 U	0.49 J	50 U	50 U	5.0 U	2.0 U	0.47 J	4.2 J	400 U
trans-1,3-Dichloropropene	0.4**	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
1,1,2-Trichloroethane	1	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Tetrachloroethene	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
2-Hexanone	50	1300 U	5.0 U	5.0 U	250 U	250 U	25 U	10 U	5.0 U	100 U	2,000 U
Dibromochloromethane	50	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Chlorobenzene	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Ethylbenzene	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
m/p-Xylenes	5*	500 U	2.0 U	2.0 U	100 U	100 U	10 U	4.0 U	2.0 U	40 U	800 U
o-Xylene	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Styrene	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Bromoform	50	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
1,1,2,2-Tetrachloroethane	5*	250 U	1.0 U	1.0 U	50 U	50 U	5.0 U	2.0 U	1.0 U	20 U	400 U
Total VOCs (minus Carbon Disulfide)		268,160	93.33	1,388.4	9,300	17,140	1,049.8	138	1,012.51	22,707.2	33,700
Percent Change				1388%	9865%	18265%	1025%	48%	985%	24230%	36008%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.13	4.3	0.14	0.13	0.10 U				
Chloride (mg/L)			105	76.0	83.3	106	85.3	82.5		127	128
Total organic carbon (mg/L)			3.4	141	83	59.3	18.9	14.1		18.2	8.6
Sulfate (mg/L)			386	40.8	63.3	33.5	241	190		16.3	53.8
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.052
Methane (µg/L)			21	30	58	110	78	540 D		530	120 J
Ethane (µg/L)			1.0 U	3.6	2.5 U	3.0	5.2 U	1.4		10 U	7.5 U
Ethene (µg/L)			1.0 U	69	150	220 D	340	300 D		620	460 J
Carbon dioxide (mg/L)			277	660	534	648	437	820		648	
Alkalinity, Total as CaCO3 (mg/L)			287	530	595	644	469	462		656	
Bicarbonate Alkalinity as CaCO3 (mg/L)			287	530	595	644	469	462		656	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U		SB	
Acetic acid			1.0 U	280	150	95	17	24		SB	
Propionic acid			1.0 U	7.7	4.9	6.3	2.0	1.0 U		SB	
Butyric acid			2.0 U	4.0 U	10	14	3.6	2.0 U		SB	
Pyruvic acid			0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U		SB	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	96-01(1)			
Volatile Organic Compounds (µg/L)		5/23/17	12/10/18	3/26/19	
Chloromethane	5*	5.0 U	5.0 U	10 U	
Vinyl chloride	2	700	500	610	
Chloroethane	5*	5.0 U	5.0 U	10 U	
Bromomethane	5*	5.0 U	5.0 U	10 U	
1,1-Dichloroethene	5*	5.0 U	2.0 J	10 U	
Acetone	50	25 U	25 U	10 U	
Carbon disulfide	60	5.0 U	11	10 U	
Methylene chloride	5*	21	120	410	
trans-1,2-Dichloroethene	5*	4.4 J	5.5 J	10 U	
1,1-Dichloroethane	5*	29	29	35	
cis-1,2-Dichloroethene	5*	710	360	460	
2-Butanone	50	25 U	25 U	100 U	
Chloroform	7	5.0 U	5.0 U	10 U	
1,1,1-Trichloroethane	5*	48	40	44	
Carbon tetrachloride	5	5.0 U	5.0 U	10 U	
Benzene	1	5.0 U	5.0 U	10 U	
1,2-Dichloroethane	0.6	5.0 U	5.0 U	10 U	
Trichloroethene	5*	17	29	25	
1,2-Dichloropropane	1	5.0 U	5.0 U	10 U	
Bromodichloromethane	50	5.0 U	5.0 U	10 U	
cis-1,3-Dichloropropene	0.4**	5.0 U	5.0 U	10 U	
4-Methyl-2-pentanone	No Given Value	25 U	25 U	50 U	
Toluene	5*	5.0 U	5.0 U	10 U	
trans-1,3-Dichloropropene	0.4**	5.0 U	5.0 U	10 U	
1,1,2-Trichloroethane	1	5.0 U	5.0 U	10 U	
Tetrachloroethene	5*	5.0 U	5.0 U	10 U	
2-Hexanone	50	25 U	25 U	50 U	
Dibromochloromethane	50	5.0 U	5.0 U	10 U	
Chlorobenzene	5*	5.0 U	5.0 U	10 U	
Ethylbenzene	5*	5.0 U	5.0 U	10 U	
m/p-Xylenes	5*	10 U	10 U	20 U	
o-Xylene	5*	5.0 U	5.0 U	10 U	
Styrene	5*	5.0 U	5.0 U	10 U	
Bromoform	50	5.0 U	5.0 U	10 U	
1,1,2,2-Tetrachloroethane	5*	5.0 U	5.0 U	10 U	
Total VOCs (minus Carbon Disulfide)		1,529.4	1,085.5	1584.0	
Percent Chsnge			-29%	4%	
General Chemistry Parameters					
Iron, ferrous (mg/L)					
Chloride (mg/L)				163	
Total organic carbon (mg/L)				2.6	
Sulfate (mg/L)				930	
Nitrate as N (mg/L)				0.020 J	
Methane (µg/L)				150	
Ethane (µg/L)				7.5 U	
Ethene (µg/L)				420	
Carbon dioxide (mg/L)					
Alkalinity, Total as CaCO3 (mg/L)					
Bicarbonate Alkalinity as CaCO3 (mg/L)					
Carbonate Alkalinity as CaCO3 (mg/L)					
Volatile Fatty Acids (mg/L)					
Lactic acid					
Acetic acid					
Propionic acid					
Butyric acid					
Pyruvic acid					

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	B-10A(1)								
Volatile Organic Compounds (µg/L)		5/23/17	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/20/18	12/12/18	3/28/19
Chloromethane	5*	500 U	170 J	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Vinyl chloride	2	430 J	380 J	510	440	370 J	750	2,400	1,700	2,200
Chloroethane	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Bromomethane	5*	500 U	170 J	500 U	200 U	500 U	250 U	250 U	250 U	500 U
1,1-Dichloroethene	5*	310 J	380 J	380 J	310	410 J	200 J	360	290	310 J
Acetone	50	2,500 U	2,500 U	2,500 U	1,000 U	2,500 U	1,300 U	1,300 U	1,300 U	5,000 U
Carbon disulfide	60	500 U	500 U	500 U	200 U	500 U	250 U	240 J	250 U	500 U
Methylene chloride	5*	3,300	6,000	3,700	2,200	3,000	740	9,500	6,200	1,200
trans-1,2-Dichloroethene	5*	500 U	180 J	250 J	190 J	200 J	87 J	140 J	140 J	500 U
1,1-Dichloroethane	5*	350 J	450 J	430 J	370	380 J	180 J	360	300	320 J
cis-1,2-Dichloroethene	5*	20,000	22,000	70,000	65,000 D	52,000	37,000	52,000 D	31,000	33,000
2-Butanone	50	2,500 U	2,500 U	2,500 U	1,000 U	2,500 U	1,300 U	1,300 U	1,300 U	5,000 U
Chloroform	7	980	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
1,1,1-Trichloroethane	5*	780	930	1,100	850	1,300	730	1,300	1,500	1,300
Carbon tetrachloride	5	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Benzene	1	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
1,2-Dichloroethane	0.6	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Trichloroethene	5*	58,000	64,000	28,000	17,000	33,000	12,000	23,000	38,000	34,000
1,2-Dichloropropane	1	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Bromodichloromethane	50	210 J	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
cis-1,3-Dichloropropene	0.4**	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
4-Methyl-2-pentanone	No Given Value	2,500 U	2,500 U	2,500 U	1,000 U	2,500 U	1,300 U	1,300 U	1,300 U	2,500 U
Toluene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
trans-1,3-Dichloropropene	0.4**	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
1,1,2-Trichloroethane	1	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Tetrachloroethene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
2-Hexanone	50	2,500 U	2,500 U	2,500 U	1,000 U	2,500 U	1,300 U	1,300 U	1,300 U	2,500 U
Dibromochloromethane	50	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Chlorobenzene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Ethylbenzene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
m/p-Xylenes	5*	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U	500 U	500 U	500 U	1,000 U
o-Xylene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Styrene	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Bromoform	50	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
1,1,2,2-Tetrachloroethane	5*	500 U	500 U	500 U	200 U	500 U	250 U	250 U	250 U	500 U
Total VOCs (minus Carbon Disulfide)		84,360	94,660	104,370	86,360	90,660	51,687	89,060	79,130	72,330
Percent Change				10%	-9%	-4%	-45%	-6%	-16%	-24%
General Chemistry Parameters										
Iron, ferrous (mg/L)			0.14	0.10 U	0.10 U	0.10 U	0.10 U			
Chloride (mg/L)			87.2	109	91.1	95.8	67.0	111	86.2	67.5
Total organic carbon (mg/L)			7.9	56.9	53.5	32.6	112	41.5	11.0	4.8
Sulfate (mg/L)			158	123	96.2	102	35.1	55.6	129	161
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.076
Methane (µg/L)			80	67	66	73	1,200 D	460	180	180
Ethane (µg/L)			1.4	2.2	2.3	2.6	3.2	5.2 U	2.1 U	7.5 U
Ethene (µg/L)			18	19	25	27	93 D	250	150	130
Carbon dioxide (mg/L)			398	508	475	424	696	598	424	
Alkalinity, Total as CaCO3 (mg/L)			479	549	537	467	701	679	476	
Bicarbonate Alkalinity as CaCO3 (mg/L)			423	549	537	467	701	679	476	
Carbonate Alkalinity as CaCO3 (mg/L)			56.0	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	
Volatile Fatty Acids (mg/L)										
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Acetic acid			1.0 U	82	97	51	170	72	11	
Propionic acid			1.0 U	15	4.1	1.0 U	44	7.3	1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	13	4.5	2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	B-14(1)									
Volatile Organic Compounds (µg/L)		10/20/16	11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/18/18	10/30/18	12/11/18	3/27/19
Chloromethane	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Vinyl chloride	2	180	190	180	240 D	180	170	200 D	170	160	210
Chloroethane	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Bromomethane	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
1,1-Dichloroethene	5*	1.3	1.8 J	2.0 U	1.2	2.0 U	0.93 J	1.6	0.80 J	0.88 J	2.3 J
Acetone	50	1.6 J	10 U	10 U	1.4 J	4.6 J	5.0 U	4.0 J	10 U	10 U	4.0 U
Carbon disulfide	60	0.71 J	0.64 J	3.1	1.1 B	2.0 U	1.0 U	2.1	2.5	3.1	4.0 U
Methylene chloride	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	2.1	2.0 U	2.0 U	4.0 U
trans-1,2-Dichloroethene	5*	1.8	1.8 J	1.6 J	2.1	1.5 J	1.3	1.9	1.8 J	1.5 J	4.0 U
1,1-Dichloroethane	5*	20	18	15	22	16	17	24	14	14	15
cis-1,2-Dichloroethene	5*	170	140	100	150	120	97	170	140	110	160
2-Butanone	50	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10 U	40 U
Chloroform	7	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
1,1,1-Trichloroethane	5*	81	75	52	73	58	64	81	41	54	45
Carbon tetrachloride	5	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Benzene	1	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
1,2-Dichloroethane	0.6	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Trichloroethene	5*	1.8	1.8 J	1.6 J	2.5	1.7 J	1.5	53	1.2 J	4.2	1.9 J
1,2-Dichloropropane	1	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Bromodichloromethane	50	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
4-Methyl-2-pentanone	No Given Value	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10 U	20 U
Toluene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
1,1,2-Trichloroethane	1	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Tetrachloroethene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
2-Hexanone	50	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10 U	20 U
Dibromochloromethane	50	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Chlorobenzene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Ethylbenzene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
m/p-Xylenes	5*	2.0 U	4.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U	4.0 U	4.0 U	8.0 U
o-Xylene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Styrene	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Bromoform	50	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	4.0 U
Total VOCs (minus Carbon Disulfide)		457.5	428.4	350.2	492.2	381.8	351.73	537.6	368.8	344.58	434
Percent Change				-18%	15%	-11%	-18%	25%	-14%	-20%	1.4%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.10 U	0.10 U	0.10 U				
Chloride (mg/L)			120	117	141	165	134	114		121	129
Total organic carbon (mg/L)			4.1	3.8	4.1	4.4	3.9	3.5		3.5	2.4
Sulfate (mg/L)			957	972	983	857	1,070	957		951	966
Nitrate as N (mg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.036 J
Methane (µg/L)			54	53	21	61	80	130 D		100	64
Ethane (µg/L)			1.0 U	1.1	1.0 U	1.3	1.4	2.1		2.1 U	7.5 U
Ethene (µg/L)			8.8	12	7.1	14	17	19		15	13
Carbon dioxide (mg/L)			325	286	265	282	305	340		524	
Alkalinity, Total as CaCO3 (mg/L)			308	290	298	302	308	291		275	
Bicarbonate Alkalinity as CaCO3 (mg/L)			308	290	298	302	308	291		275	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	DW-9									
Volatile Organic Compounds (µg/L)		10/20/16	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/20/18	10/31/18	12/13/18	3/28/19
Chloromethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Vinyl chloride	2	2.5	1.0 U	1.0 U	1.0 U	1.0 U	1.7	200 D	1.0 U	1.0 U	210
Chloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromomethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1,1-Dichloroethene	5*	12	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	1.0 U	1.0 U	10 U
Acetone	50	5.0 U	1.7 J	1.8 J	2.0 J	2.0 J	5.0 U	2.3 J	1.0 U	1.0 U	100 U
Carbon disulfide	60	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	10 U
Methylene chloride	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.58 J	200 D	1.0 U	1.0 U	5.4 J
trans-1,2-Dichloroethene	5*	8.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U	10 U
1,1-Dichloroethane	5*	13	0.40 J	1.0 U	1.0 U	1.0 U	1.0 U	6.4	1.0 U	1.0 U	5.4 J
cis-1,2-Dichloroethene	5*	1,100 D	22	4.9	3.7	3.9	6.8	420 D	3.3	4.0	440
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J	5.0 U	5.0 U	100 U
Chloroform	7	3	0.47 J	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.2	0.38 J	10 U
1,1,1-Trichloroethane	5*	44	1.1	1.0 U	1.0 U	1.0 U	1.0 U	4.9	1.0 U	0.30 J	10 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Benzene	1	0.85 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Trichloroethene	5*	2,400 D	70	20	15	18	11	210 D	16	20	19
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
4-Methyl-2-pentanone	No Given Value	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Toluene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33 J	1.0 U	1.0 U	10 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Tetrachloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
2-Hexanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Chlorobenzene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Ethylbenzene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
m/p-Xylenes	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
o-Xylene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Styrene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Total VOCs (minus Carbon Disulfide)		3,583.95	95.67	26.7	20.7	23.9	20.08	1,051.7	20.5	24.68	679.80
Percent Change				-72%	-78%	-75%	-79%	999%	-79%	-74%	611%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.10 U	0.10 U	0.10 U				
Chloride (mg/L)			3.6	5.3	9.5	7.5	10.3	14.5		5.1	11.2
Total organic carbon (mg/L)			6.0	6.0	5.9	4.8	4.6	4.7		5.1	4.4
Sulfate (mg/L)			141	96.2	78.2	88	62.3	89.1		149	105 B
Nitrate as N (mg/L)			2.5	5.3	5.1	6.4	5.1	2.2		2.6	5.1
Methane (µg/L)			1.1 U	1.1 U	1.1 U	1.1 U	1.4	59		1.1 U	12
Ethane (µg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	7.5 U
Ethene (µg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.2	83		1.0 U	41
Carbon dioxide (mg/L)			174	149	150	144	152	236		154	
Alkalinity, Total as CaCO3 (mg/L)			186	160	168	162	168	214		172	
Bicarbonate Alkalinity as CaCO3 (mg/L)			186	160	168	162	168	214		172	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		SB	
Acetic acid			1.0	1.0 U	1.0 U	1.0 U	1.0 U	2.4		SB	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		SB	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		SB	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		SB	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	DW-10									
Volatile Organic Compounds (µg/L)		10/20/16	11/14/17	1/24/18	2/28/18	3/21/18	6/20/18	9/19/18	10/31/18	12/12/18	3/27/19
Chloromethane	5*	10 U	0.24 J	1.0 U	50 U	100 U	50 U	50 U	2.5 U	4.8 J	2,000 U
Vinyl chloride	2	110	2.3	260 D	130	160	38 J	970	6.2	730	2,000 U
Chloroethane	5*	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Bromomethane	5*	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
1,1-Dichloroethene	5*	5.9 J	1.0 U	17	50 U	100 U	50 U	39 J	0.73 J	32	2,000 U
Acetone	50	50 U	1.5 J	4.9 J	250 U	500 U	250 U	250 U	18	25 U	2,000 U
Carbon disulfide	60	10 U	1.0 U	14	50 U	28 J	50 U	150	2.5	66	2,000 U
Methylene chloride	5*	2,300 D	170	16,000 D	10,000 D	14,000	5,100	130,000 D	390	100,000 D	140,000
trans-1,2-Dichloroethene	5*	3.8	1.0 U	12.0	50 U	100 U	50 U	37 J	2.5 U	33	2,000 U
1,1-Dichloroethane	5*	12	1.0 U	15	50 U	`00 U	50 U	12 J	2.5 U	9.0	2,000 U
cis-1,2-Dichloroethene	5*	960	17	1,100 D	480	640	130	2,300	15	2,100 D	2,000
2-Butanone	50	50 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	10 J	25 U	2,000 U
Chloroform	7	3.4 J	1.0 U	5.4	50 U	93 J	50 U	50	1.1 J	40	2,000 U
1,1,1-Trichloroethane	5*	57	0.48 J	18	50 U	100 U	50 U	50 U	2.5 U	9.5	2,000 U
Carbon tetrachloride	5	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Benzene	1	10 U	1.0 U	0.89 J	50 U	100 U	50 U	50 U	2.5 U	2.5 J	2,000 U
1,2-Dichloroethane	0.6	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Trichloroethene	5*	510	32	36,000 D	8,900	13,000	610	2,000	100	2,100 D	2,300
1,2-Dichloropropane	1	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Bromodichloromethane	50	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
cis-1,3-Dichloropropene	0.4**	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
4-Methyl-2-pentanone	No Given Value	50 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	13 U	1.9 J	10,000 U
Toluene	5*	10 U	1.0 U	8.0	50 U	100 U	50 U	17 J	2.5 U	16	2,000 U
trans-1,3-Dichloropropene	0.4**	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
1,1,2-Trichloroethane	1	10 U	1.0 U	0.75 J	50 U	100 U	50 U	50 U	2.5 U	3.0 J	2,000 U
Tetrachloroethene	5*	10 U	1.0 U	8.0	50 U	100 U	50 U	50 U	2.5 U	3.4 J	2,000 U
2-Hexanone	50	50 U	5.0 U	5.0 U	250 U	500 U	250 U	250 U	21	25 U	10,000 U
Dibromochloromethane	50	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Chlorobenzene	5*	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Ethylbenzene	5*	10 U	1.0 U	1.4	50 U	100 U	50 U	50 U	2.5 U	1.6 J	2,000 U
m/p-Xylenes	5*	20 U	2.0 U	4.6	100 U	200 U	100 U	100 U	5.0 U	5.7 J	4,000 U
o-Xylene	5*	10 U	1.0 U	1.7	50 U	100 U	50 U	50 U	2.5 U	2.3 J	2,000 U
Styrene	5*	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Bromoform	50	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
1,1,2,2-Tetrachloroethane	5*	10 U	1.0 U	1.0 U	50 U	100 U	50 U	50 U	2.5 U	5.0 U	2,000 U
Total VOCs (minus Carbon Disulfide)		3,962.1	223.52	53,457.64	19,510	27,893	5,878	135,425	634.3	105,094.7	144,300
Percent Change				23816%	8629%	12379%	2530%	60487%	184%	46918%	64458%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	4.0 U	3.1	1.0 U	0.18				
Chloride (mg/L)			10.2	35.3	31.6	41.3	30.2	210		191	224
Total organic carbon (mg/L)			3.3	690	52	141	107	41.5		11.5	3.6
Sulfate (mg/L)			53	104	88.0	73.8	28.5	406		666	731
Nitrate as N (mg/L)			2.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.073
Methane (µg/L)			1.6	76	47	56	33	400 D		390	420
Ethane (µg/L)			1.0 U	7.2	3.7	2.8	30	1.1		5.2 U	170 U
Ethene (µg/L)			1.0 U	24	14	20	19	170 D		110	150 U
Carbon dioxide (mg/L)			108	179	152	166	214	991		1,040	
Alkalinity, Total as CaCO3 (mg/L)			122	184	170	168	138	611		416	
Bicarbonate Alkalinity as CaCO3 (mg/L)			122	184	170	168	138	611		416	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	1.0 U	14	44	56	91		19	
Propionic acid			1.0 U	1.0 U	2.9	14	4.0	1.6		1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.5	7.1	2.0 U		2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	DW-11									
Volatile Organic Compounds (µg/L)		10/20/16	11/13/17	1/23/18	2/27/18	3/20/18	6/19/18	9/18/18	10/31/18	12/11/18	3/27/19
Chloromethane	5*	10 U	0.45 J	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Vinyl chloride	2	450	100	13	40	190 D	59	180	0.53 J	240 D	93
Chloroethane	5*	10 U	29	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Bromomethane	5*	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5*	10 U	1.2	1.0 U	1.0 U	2.2	1.4 J	11	1.0 U	3.3	1.2 J
Acetone	50	50 U	5.0 U	48	14	2.6 J	22 J	25 U	2.7 J	2.1 J	20 U
Carbon disulfide	60	3.4 J	0.35 J	0.39 J	0.48 J	8.8	13	55	1.0 U	40	0.55 J
Methylene chloride	5*	10 U	1.0 U	11	14	72	180	490	0.77 J	77	2.0 U
trans-1,2-Dichloroethene	5*	5.9 J	1.0	1.0 U	1.0 U	1.5	1.7 J	3.9 J	1.0 U	2.8	2.0 U
1,1-Dichloroethane	5*	25	8.6	0.88 J	2.8	17	3.4 J	28	1.0 U	33	21
cis-1,2-Dichloroethene	5*	1,500	110	23	31	190	630	1,300 D	11	210 D	69
2-Butanone	50	50 U	5.0 U	1.0 J	5.0 U	5.0 U	25 U	25 U	5.0 U	1.1 J	20 U
Chloroform	7	10 U	1.0 U	1.0 U	1.0 U	1.0 U	2.7 J	5.0 U	1.0 U	1.0 U	2.0 U
1,1,1-Trichloroethane	5*	110	45	3.3	5.6	58	7.8	92	0.31 J	91	17
Carbon tetrachloride	5	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Benzene	1	10 U	1.0 U	0.84 J	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	5*	14	35	520 D	190	1,300 D	180	17,000 D	35	3,000 D	17
1,2-Dichloropropane	1	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Bromodichloromethane	50	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
cis-1,3-Dichloropropene	0.4**	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
4-Methyl-2-pentanone	No Given Value	50 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	5.0 U	5.0 U	10 U
Toluene	5*	10 U	1.0 U	0.54 J	0.24 J	1.2	5.0 U	6.1	1.2	2.5	2.0 U
trans-1,3-Dichloropropene	0.4**	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	5*	10 U	1.0 U	0.46 J	1.0 U	0.55 J	5.0 U	2.0 J	0.55	1.7	2.0 U
2-Hexanone	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U	25 U	5.0 U	5.0 U	10 U
Dibromochloromethane	50	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	5*	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Ethylbenzene	5*	10 U	1.0 U	1.0 U	1.0 U	0.22 J	5.0 U	5.0 U	0.22	0.59 J	2.0 U
m/p-Xylenes	5*	20 U	2.0 U	0.56 J	2.0 U	0.78 J	10 U	2.8 J	0.78	2.0	4.0 U
o-Xylene	5*	10 U	1.0 U	1.0 U	1.0 U	0.31 J	5.0 U	1.1 J	0.31	0.78 J	2.0 U
Styrene	5*	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Bromoform	50	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5*	10 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	2.0 U
Total VOCs (minus Carbon Disulfide)		2,104.9	330.25	622.58	297.64	1,836.36	1,088	19,116.9	53.37	3,666.77	218.8
Percent Change				89%	-10%	456%	229%	5689%	-84%	1010%	-34%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.76	0.10 U	0.10 U	0.24				
Chloride (mg/L)			321	481	976	580	782	394		124	2,580
Total organic carbon (mg/L)			4.1	9.2	6.8	16.8	24.6	16.9		13.1	1.4
Sulfate (mg/L)			291	409	246	731	167	479		1,000	815
Nitrate as N (mg/L)			1.1	2.4	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	0.048 J
Methane (µg/L)			30	4.2	2.7	54	69	77 D		96	49
Ethane (µg/L)			1.0 U	1.0 U	1.0 U	3.4	1.0	1.4		2.1 U	7.5 U
Ethene (µg/L)			4.2	1.1	1.3	28	40	81		100	54
Carbon dioxide (mg/L)			222	177	119	292	647	648		855	
Alkalinity, Total as CaCO3 (mg/L)			245	194	133	310	547	564		378	
Bicarbonate Alkalinity as CaCO3 (mg/L)			245	194	133	310	547	564		378	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	1.4	1.0 U	19	19	29		24	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Constituents of Concern (Units)	Groundwater Protection Standard (µg/L)	DW-12									
Volatile Organic Compounds (µg/L)		10/19/16	11/13/17	1/24/18	2/27/18	3/20/18	6/19/18	9/18/18	10/31/18	12/11/18	3/27/19
Chloromethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Vinyl chloride	2	180	1.0 U	1.0 U	1.0 U	0.45 J	0.51 J	4.5	1.0 U	6.3	2.0 U
Chloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromomethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1-Dichloroethene	5*	5.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Acetone	50	5.0 U	2.4 J	5.0 U	1.9 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U
Carbon disulfide	60	0.9 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Methylene chloride	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,2-Dichloroethene	5*	15	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.33 J	2.0 U
1,1-Dichloroethane	5*	13	1.0 U	1.0 U	1.0 U	0.76 J	1.3	3.4	1.0 U	3.1	1.7 J
cis-1,2-Dichloroethene	5*	1,700 D	1.5	2.2	1.1	4.2	7.5	16	0.72 J	14	9.3
2-Butanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U
Chloroform	7	1.1	1.0 U	0.35 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,1-Trichloroethane	5*	34	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 J	1.0 U	1.0 U	2.0 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Benzene	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Trichloroethene	5*	83	1..2	0.87 J	0.70 J	1.3	1.3	1.2	1.4	0.77 J	2.0 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromodichloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
4-Methyl-2-pentanone	No Given Value	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Toluene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Tetrachloroethene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
2-Hexanone	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Chlorobenzene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Ethylbenzene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
m/p-Xylenes	5*	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U
o-Xylene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Styrene	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Bromoform	50	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
1,1,2,2-Tetrachloroethane	5*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U
Total VOCs (minus Carbon Disulfide)		2,031.3	3.9	3.42	3.7	6.71	10.61	25.6	2.12	24.5	11.0
Percent Change				-12%	-5%	72%	172%	556%	-46%	528%	222%
General Chemistry Parameters											
Iron, ferrous (mg/L)			0.10 U	0.10 U	0.11	0.10 U	0.34				
Chloride (mg/L)			40.7	1,050	1,100	1,100	322	131		288	1,300
Total organic carbon (mg/L)			2.9	2.2	2.2	2.8	3.1	2.8		3.9	1.5
Sulfate (mg/L)			184	138	92.1	113	282	281		248	274
Nitrate as N (mg/L)			1.0 U	1.5	1.1	1.1	1.0 U	1.0 U		1.0 U	0.410
Methane (µg/L)			1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	3.0		2.6	1.7 J
Ethane (µg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	7.5 U
Ethene (µg/L)			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3		1.0 U	7.0 U
Carbon dioxide (mg/L)			73.1	62.6	56.6	111	204	227		301	
Alkalinity, Total as CaCO3 (mg/L)			80.4	66.4	64.0	122	212	235		208	
Bicarbonate Alkalinity as CaCO3 (mg/L)			80.4	66.4	64.0	122	212	235		208	
Carbonate Alkalinity as CaCO3 (mg/L)			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Volatile Fatty Acids (mg/L)											
Lactic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Acetic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Propionic acid			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U		1.0 U	
Butyric acid			2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U		2.0 U	
Pyruvic acid			0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U		0.50 U	

Table 1
Groundwater Laboratory Analytical Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Notes:
All concentrations reported in micrograms per liter (µg/L) or parts per billion (ppb).

* = The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in this Table) applies to this substance.

** = Applies to the sum of cis- and trans-1,3-dichloropropene, CAS Nos. 10061-01-5 and 10061-02-6, respectively.

Shaded = Compound exceeds Groundwater Protection Standard.

Bold = Compound detected at concentration.

J = Indicates an estimated value below detection limit.

D = Compound analyzed at secondary dilution.

E = Compund exceeds the calibration range.

SB = Sample broken in laboratory.

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date	11/13/2017							12/10/2018	3/27/2019
17-01(1)	Temperature (°C)	14.37							12.94	13.67
	Conductivity (mS/cm)	2.447							4.294	3.302
	Dissolved Oxygen (mg/L)	NM							0.60	45.01*
	pH (standard units)	7.23							6.79	6.01
	Oxidation-Reduction Potential (mV)	NM							-348.1	-365.8
Well ID	Field Parameters / Sample Date								12/10/2018	3/26/2019
86-23(B)	Temperature (°C)								13.40	11.64
	Conductivity (mS/cm)								1.356	2.431
	Dissolved Oxygen (mg/L)								0.00*	26.28*
	pH (standard units)								7.01	6.81
	Oxidation-Reduction Potential (mV)								-154.7	-289.5
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018	10/30/2018	12/11/2018	3/26/2019
87-01(1)	Temperature (°C)	14.63	13.54	13.50	11.61	15.26	16.26	15.41	14.18	14.29
	Conductivity (mS/cm)	2.39	2.232	3.101	2.599	1.830	1.731	1.57	2.815	2.569
	Dissolved Oxygen (mg/L)	2.56	2.01	0.77	0.07	2.86	2.84	NM	1.4	3.96
	pH (standard units)	7.26	6.7	7.34	7.16	7.06	7.07	7.25	7.35	6.70
	Oxidation-Reduction Potential (mV)	-101	-216.9	-166.4	-181.8	-329.7	-227.4	NM	-343.7	-336.0
Well ID	Field Parameters / Sample Date	11/13/2017	1/24/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018	10/30/2018	12/11/2018	3/26/2019
87-02(1)	Temperature (°C)	14.68	11.00	12.44	10.12	14.09	18.52	14.56	13.97	11.81
	Conductivity (mS/cm)	1.772	2.471	2.72	2.596	1.791	1.637	1.108	2.45	1.855
	Dissolved Oxygen (mg/L)	2.78	3.11	0.89	0.06	3.35	2.10	NM	2.33	5.50
	pH (standard units)	7.31	6.62	6.96	6.9	7.14	7.19	7.12	7.55	7.35
	Oxidation-Reduction Potential (mV)	-21.0	-51	-40.9	-114.5	-230.4	-158.7	NM	-337.7	-179.3

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/20/2018	10/31/2018	12/13/2018	
87-08(1)	Temperature (°C)	11.80	8.66	9.43	7.48	10.23	12.60	12.22	11.50	
	Conductivity (mS/cm)	1.350	0.965	0.974	1.061	0.962	1.064	0.893	1.226	
	Dissolved Oxygen (mg/L)	0.61	3.41	1.88	0.72	2.72	4.00	NM	0.81	
	pH (standard units)	7.46	7.20	8.18	7.55	7.18	6.18	7.22	7.47	
	Oxidation-Reduction Potential (mV)	-51.8	-105.9	-119.7	-266.2	-222.6	-265.3	NM	-342.6	
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/19/2018		12/12/2018	
87-09(1)	Temperature (°C)	14.05	11.37	11.53	9.80	13.04	15.12	NM	13.37	
	Conductivity (mS/cm)	2.422	2.091	2.167	2.195	1.882	2.219	NM	1.625	
	Dissolved Oxygen (mg/L)	2.75	3.10	2.94	0.46	6.73	0.20	NM	1.24	
	pH (standard units)	7.20	7.30	8.07	7.60	7.19	6.65	NM	6.17	
	Oxidation-Reduction Potential (mV)	-91.0	-174.5	-16.3	-109.4	-162.8	-177.7	NM	-91.1	
Well ID	Field Parameters / Sample Date								12/10/2018	3/27/2019
87-10(1)	Temperature (°C)								12.81	11.35
	Conductivity (mS/cm)								1.908	2.191
	Dissolved Oxygen (mg/L)								1.67	41.55*
	pH (standard units)								7.56	6.77
	Oxidation-Reduction Potential (mV)								-264.0	-357.7
Well ID	Field Parameters / Sample Date	11/16/2017							12/13/2018	3/28/2019
87-11(1)	Temperature (°C)	11.26							11.26	10.75
	Conductivity (mS/cm)	3.079							1.277	1.276
	Dissolved Oxygen (mg/L)	NM							1.17	36.50*
	pH (standard units)	6.41							5.92	6.44
	Oxidation-Reduction Potential (mV)	NM							-304.4	-351.6

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date	11/14/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018		12/11/2018	3/26/2019
87-12(1)	Temperature (°C)	14.90	11.66	11.18	8.94	13.44	18.71	NM	12.21	10.82
	Conductivity (mS/cm)	2.459	2.360	2.160	2.522	1.727	2.273	NM	2.824	2.715
	Dissolved Oxygen (mg/L)	1.59	1.43	0.14	0.06	0.82	0.00	NM	1.47	0.84
	pH (standard units)	6.85	7.13	7.96	7.72	6.85	6.90	NM	7.37	6.65
	Oxidation-Reduction Potential (mV)	-71.3	-292.2	-89.0	-191.6	-320.2	-298.1	NM	-337.9	-311.6
Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/20/2018		12/12/2018	3/27/2019
87-13(1)	Temperature (°C)	13.90	10.78	11.37	8.76	12.16	15.42	NM	13.27	12.31
	Conductivity (mS/cm)	1.321	2.725	3.202	3.232	2.978	3.425	NM	3.889	3.219
	Dissolved Oxygen (mg/L)	0.79	0.54	0.62	0.11	1.82	19.20*	NM	5.55	52.33*
	pH (standard units)	7.21	6.65	7.87	6.99	6.47	5.66	NM	5.44	6.10
	Oxidation-Reduction Potential (mV)	-62.0	-245.8	-213.5	-255.5	-270.0	-257.4	NM	-263.8	-347.5
Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/20/2018	10/31/2018	12/12/2018	
87-17(1)	Temperature (°C)	13.56	10.35	11.39	8.91	12.63	14.61	13.88	12.68	
	Conductivity (mS/cm)	2.568	2.184	2.294	2.339	1.961	2.228	1.817	2.642	
	Dissolved Oxygen (mg/L)	4.02	2.48	2.22	0.33	1.27	2.23	NM	0.78	
	pH (standard units)	7.26	7.12	8.5	7.98	7.25	6.25	7.05	7.32	
	Oxidation-Reduction Potential (mV)	-91.0	-140.0	-99.1	-80.2	-111.1	-161.1	NM	-351.0	
Well ID	Field Parameters / Sample Date	11/14/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/19/2018	10/30/2018	12/11/2018	3/26/2019
87-20(1)	Temperature (°C)	13.95	11.68	10.83	8.76	11.35	14.95	14.76	11.99	11.75
	Conductivity (mS/cm)	1.953	2.285	2.547	2.505	1.761	1.585	1.49	2.387	2.293
	Dissolved Oxygen (mg/L)	0.47	2.79	1.29	0.36	0.24	0.57	NM	3.55	36.02*
	pH (standard units)	7.31	7.07	7.96	7.92	6.9	6.71	6.50	7.49	6.99
	Oxidation-Reduction Potential (mV)	-39.0	-258.1	-77.6	-176.7	-172.3	-192.3	NM	-321.5	-207.1

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date	11/14/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/19/2018	10/30/2018	12/11/2018	3/26/2019
87-22(1)	Temperature (°C)	11.33	9.74	9.54	8.31	11.35	11.53	11.3	10.76	10.84
	Conductivity (mS/cm)	2.414	2.365	2.195	2.315	1.959	2.339	1.909	1.973	2.017
	Dissolved Oxygen (mg/L)	4.12	3.59	3.50	0.64	0.91	4.15	NM	4.70	117.00*
	pH (standard units)	7.08	7.11	7.81	7.92	6.80	6.08	6.94	5.84	6.72
	Oxidation-Reduction Potential (mV)	-81.0	-172.1	-22.1	-109.0	-164.5	-225.3	NM	-175.2	-270.3
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018		12/11/2018	3/27/2019
89-10(1)	Temperature (°C)	14.23	11.48	12.11	9.85	13.57	16.7	NM	11.21	11.56
	Conductivity (mS/cm)	1.964	3.017	4.245	3.433	1.812	2.50	NM	3.447	3.057
	Dissolved Oxygen (mg/L)	1.93	1.17	NM	0.12	2.29	0	NM	3.00	4.33
	pH (standard units)	7.29	6.85	7.82	7.27	7.10	6.71	NM	7.29	6.43
	Oxidation-Reduction Potential (mV)	-73.2	-293.4	-116.7	-189.9	-306.3	-325.4	NM	-385.9	-341.3
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018		12/11/2018	3/27/2019
89-12(1)	Temperature (°C)	13.61	11.52	11.43	9.49	13.38	15.85	NM	13.60	11.98
	Conductivity (mS/cm)	1.773	2.732	3.156	3.009	1.997	2.086	NM	1.999	2.59
	Dissolved Oxygen (mg/L)	2.71	2.01	0.48	0.29	2.87	0.27	NM	1.59	13.69
	pH (standard units)	7.37	7.20	7.95	7.70	7.16	7.09	NM	6.15	6.87
	Oxidation-Reduction Potential (mV)	-35.3	-291.7	-98.6	-167.4	-291.8	-185.2	NM	-174.0	-286.0
Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/19/2018	10/31/2018	12/12/2018	3/27/2019
89-15(1)	Temperature (°C)	14.24	10.46	10.68	9.03	13.90	15.65	14.80	13.18	12.15
	Conductivity (mS/cm)	1.545	1.211	1.316	1.326	1.514	1.264	1.226	1.730	1.431
	Dissolved Oxygen (mg/L)	1.74	0.68	2.73	0.34	1.74	0.33	NM	1.82	7.08
	pH (standard units)	7.39	6.74	8.06	7.20	7.58	6.35	7.02	7.27	6.67
	Oxidation-Reduction Potential (mV)	-20.3	-153.8	-130.4	-223.9	-242.0	-282.4	NM	-461.6	-334.3

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date								12/10/2018	3/26/2019
96-01(1)	Temperature (°C)								12.04	12.83
	Conductivity (mS/cm)								2.666	2.248
	Dissolved Oxygen (mg/L)								1.21	0.52
	pH (standard units)								7.41	6.72
	Oxidation-Reduction Potential (mV)								-337.7	-296.2
Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/20/2018		12/13/2018	3/28/2019
B-10A(1)	Temperature (°C)	10.94	7.10	10.16	6.54	12.78	13.53	NM	11.08	10.60
	Conductivity (mS/cm)	0.739	1.182	1.328	1.220	1.196	1.251	NM	1.539	1.154
	Dissolved Oxygen (mg/L)	6.59	3.32	5.41	0.79	3.45	4.51	NM	2.37	0.35
	pH (standard units)	8.55	7.64	8.64	7.85	7.25	6.38	NM	8.25	8.11
	Oxidation-Reduction Potential (mV)	-113.8	-96.2	-8.9	-257.6	-126.2	-245.1	NM	-328.2	-285.0
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018	10/30/2018	12/11/2018	3/27/2019
B-14(1)	Temperature (°C)	12.42	9.67	10.58	8.25	13.21	13.78	13.31	12.64	12.37
	Conductivity (mS/cm)	2.422	2.101	2.181	2.192	1.889	2.158	1.778	1.867	1.811
	Dissolved Oxygen (mg/L)	3.40	3.85	3.98	0.51	6.32	0.13	NM	0.67	46.52*
	pH (standard units)	7.26	7.27	8.23	7.57	7.26	6.84	7.1	6.29	6.79
	Oxidation-Reduction Potential (mV)	-92.9	-176.1	-17.1	-101.0	-184.4	-223.2	NM	-152.0	-265.3
Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/20/2018	10/31/2018	12/13/2018	3/28/2019
DW-9	Temperature (°C)	NM	2.83	4.16	2.73	10.49	NM	13.61	9.17	5.85
	Conductivity (mS/cm)	NM	0.531	0.505	0.524	0.345	NM	0.44	0.700	0.590
	Dissolved Oxygen (mg/L)	NM	0.54	8.93	2.47	5.99	NM	NM	7.01	8.93
	pH (standard units)	NM	7.58	8.28	8.24	7.84	6.96	7.71	8.02	7.49
	Oxidation-Reduction Potential (mV)	NM	40.3	-22.4	-169.0	-7.8	NM	NM	-269.2	-192.2

Table 2
Groundwater Field Monitoring Data
Bioremediation Program
Former Bell Aerospace Textron
Wheatfield, New York

Well ID	Field Parameters / Sample Date	11/14/2017	1/24/2018	2/28/2018	3/21/2018	6/20/2018	9/19/2018	10/31/2018	12/12/2018	3/27/2019
DW-10	Temperature (°C)	13.65	8.53	8.76	6.73	12.23	NM	NM	10.96	11.50
	Conductivity (mS/cm)	0.420	0.593	0.565	0.580	0.379	NM	NM	1.579	2.157
	Dissolved Oxygen (mg/L)	8.76	1.30	5.26	0.53	6.81	NM	NM	0.66	2.27
	pH (standard units)	8.39	7.32	8.21	7.26	6.47	6.43	NM	6.09	6.42
	Oxidation-Reduction Potential (mV)	34.2	-17.0	-22.7	-193.2	-188.5	NM	NM	-176.1	-299.2
Well ID	Field Parameters / Sample Date	11/13/2017	1/23/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018	10/31/2018	12/11/2018	3/27/2019
DW-11	Temperature (°C)	15.42	6.30	8.88	8.62	13.65	16.71	16.2	12.57	11.36
	Conductivity (mS/cm)	2.219	1.089	3.369	3.223	2.656	3.179	1.352	2.078	8.028
	Dissolved Oxygen (mg/L)	NM	3.45	2.19	0.30	0.94	0	NM	0.74	0.87
	pH (standard units)	8.04	7.78	8.13	7.50	6.82	6.87	7.67	6.16	6.66
	Oxidation-Reduction Potential (mV)	NM	-185.7	-13.4	-153.6	-321.6	-322.9	NM	-248.6	-320.4
Well ID	Field Parameters / Sample Date	11/13/2017	1/24/2018	2/27/2018	3/20/2018	6/19/2018	9/18/2018	10/31/2018	12/11/2018	3/27/2019
DW-12	Temperature (°C)	15.64	4.58	6.72	7.83	14.26	NM	16.74	16.51	8.71
	Conductivity (mS/cm)	0.697	3.443	3.348	3.218	1.607	NM	0.656	1.374	4.354
	Dissolved Oxygen (mg/L)	NM	8.95	8.34	0.52	3.66	NM	NM	2.43	3.96
	pH (standard units)	8.05	7.50	8.70	7.83	7.37	7.37	8.14	6.55	7.06
	Oxidation-Reduction Potential (mV)	NM	-12.6	14.6	-117.3	-151.2	NM	NM	2.6	28.2

Notes

Field parameter = value recorded at time of sample collection

NM = Not Measured mg/L = milligrams per liter

°C = degrees Celsius mV = millivolts

mS/cm = millisiemens per centimeter NTU = Nephelometric Turbidity Units

* - readings not representative due interference from injectate in well.

Table 3
Injection Parameters
Former Bell Aerospace Textron Inc.
Wheatfield, New York

Injection Well Location		87-15(1)	87-11(1)	17-04(1)	17-05(1)	87-14(1)	19-01(1)	Totals
Treatment Area	ft^2	31,400	31,400	31,400	31,400	31,400	Overlab of the injection area is inculuded with locations 17-05(1) and 87-14(1)	157,000
Treatment Horizonal Thickness	ft	10	10	10	10	10		10
Treatment Volume	ft^3	314,000	314,000	314,000	314,000	314,000		1,570,000
Porosity		0.01	0.01	0.01	0.01	0.01		0.01
Treatment Volume	ft^3	3,140	3,140	3,140	3,140	3,140		15,700
Treatment Volume	gallons	23487	23487	23487	23487	23487		117,436
Injection Volume (20%)	gallons	4,697	4,697	4,697	4,697	4,697		23,487
Volumes Per Well[1]								
Injection Volume per well	gallons	4,697	4,697	3,543	3,543	3,543	3,543	23,567
Dilution Water	gallons	4,604	4,604	3,448	3,047	3,047	3,047	21,796
CRS	pounds	800	800	600	600	600	600	4,000
CRS	gallons	91	91	68	68	68	68	454
S-MicroZVI	pounds	0	0	375	375	375	375	1,500
S-MicroZVI	gallons	0	0	25	25	25	25	100
SDC-9 (1.0E11 cells/mL)	Liters	5.4	5.4	4	4	4	4	27
MDB-1 (1.0E11 cells/mL)	Liters	5.4	5.4	4	4	4	4	27

1. Due to overlap of injection area to gain better amendmet distribution, the total volumes at 17-05(1), 87-14(1), and 19-01(1) have been decreased.
CRS -Chemical Reducing Solution
S-MZVI - Sulfinated Micro Zero Valent Iron
ft^2 - square feet
ft^3 - cubic feet

Table 4
Injection and Monitoring Locations
Former Bell Aerospace Facility
Wheatfield, NY

Injection Location	Monitoring Points
87-11 (1)	DW-10
	87-14 (1)
	87-13 (1)
87-14 (1)	DW-9
	B-10A(1)
	87-13 (1)
	87-11 (1)
87-15 (1)	DW-9
	B-10A(1)
	87-17 (1)
17-04 (1)	DW-10
	DW-11
	87-13 (1)
	89-15 (1)
17-05 (1)	87-13 (1)
	87-14 (1)
	87-17 (1)
19-01(1)	B-10A(1)
	87-16(1)
	87-13 (1)
	17-05(1)

Table 5
Groundwater Monitoring Points
Former Bell AerospaceTextron Inc.
Wheatfield, New York

WELL NUMBER	GROUNDWATER SAMPLE
ZONE 1 MONITORING WELLS	
17-01(1)	X
86-23(B)	X
87-01(1)	X*
87-02(1)	X*
87-04(1)	X
87-08(1)	X*
87-10(1)	X
87-12(1)	X
87-13(1)	X
87-16(1)	X
87-17(1)	X
87-20(1)	X
87-22(1)	X
89-10(1)	X
89-12(1)	X
89-15(1)	X
96-01(1)	X
B-10A(1)	X
B-14(1)	X
TOTAL ZONE 1 SAMPLES PER EVENT	19
ON-SITE EXTRACTION WELLS	
DW-9	X
DW-10	X
DW-11	X
DW-12	X
TOTAL ON-SITE EXTRACTION WELL SAMPLES PER EVENT	4
GRAND TOTAL SAMPLES PER EVENT	23

Red indicates location already part of existing annual groundwater monitoring program.

* Indicates location is scheduled for sampling on even numbered years per the groundwater sampling program.

Table 6
Analytical and Field Parameters
Former Bell Aerospace Textron Inc.
Wheatfield, New York

Laboratory Analysis Parameter	Analysis Method
Total Volatile Organic Compounds	USEPA SW-846 Method 8260B
Total Organic Carbon	USEPA Method 5310C
Ethene	USEPA Method RSK 175
Ethane	USEPA Method RSK 175
Methane	USEPA Method RSK 175
Sulfate	USEPA SW-846 Method 9056A
Field Analysis Parameter	**Analysis Method**
Oxidation-Reduction Potential	Field measurement via YSI Model 556 handheld screening instrument or equivalent
Dissolved Oxygen	
Conductivity	
Temperature	
pH	
Turbidity	

Figures

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Pittsburgh, PA	9/25/18	--	E. Schlegel	C. Byers	--	631232612-A1

LEGEND:

AREA OF FOCUSED IN-SITU BIOREMEDIATION ACTIVITIES

N

APPROXIMATE SCALE

0 600 1,200 FEET

REFERENCE:

GOOGLE MAPS AERIAL PHOTOGRAPH, DATED 10/14/2016.

APTIM

TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 1

SITE LOCATION MAP

2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

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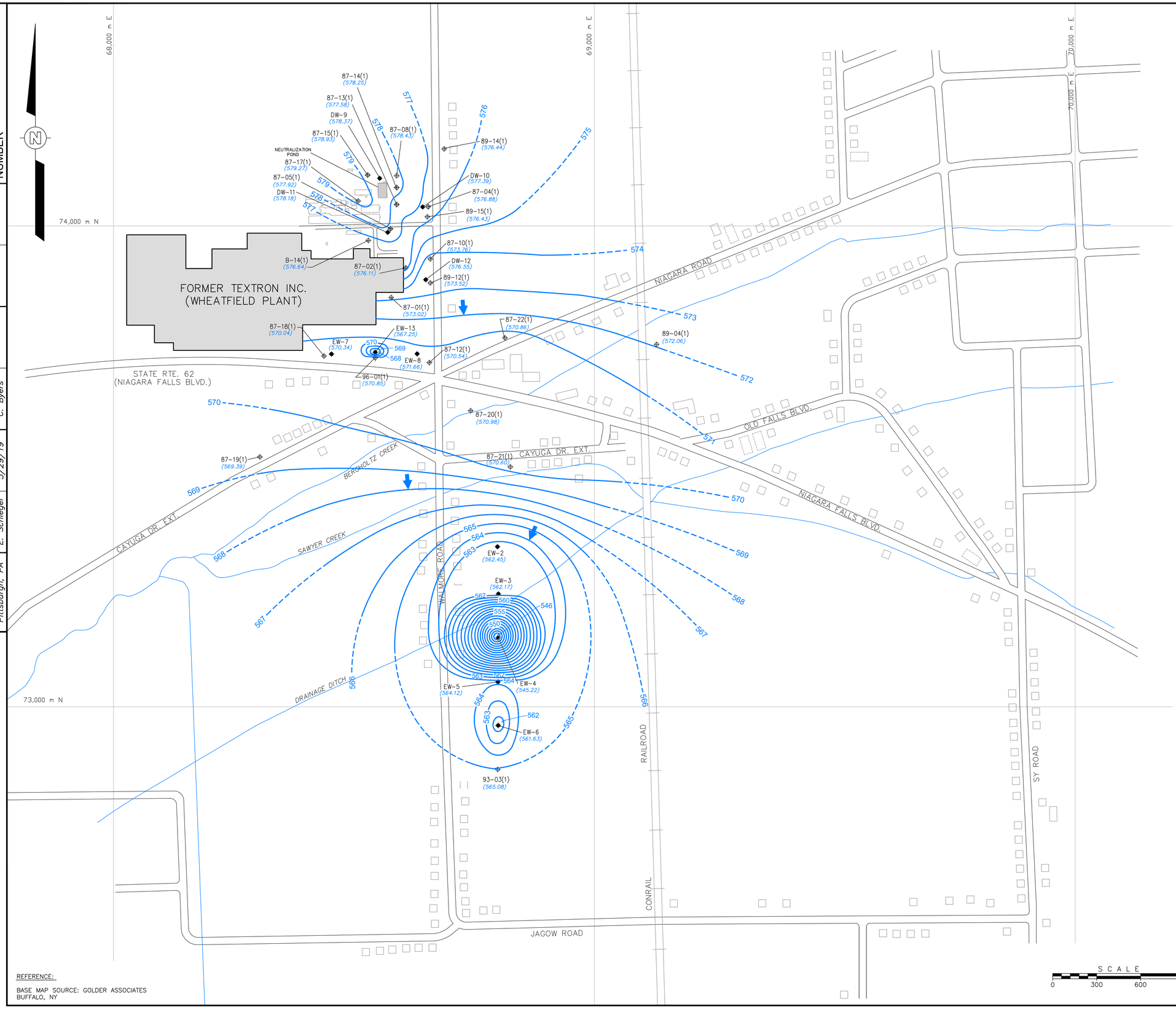

LEGEND:

- EXTRACTION WELL OR DNAPL WELL
- MONITORING WELL OR PIEZOMETER
- APPROXIMATE LIMIT OF DISSOLVED PHASE PLUME (1 ppb TVO)
- 573 — POTENTOMETRIC ELEVATION CONTOUR IN FEET MEAN SEA LEVEL (DASHED WHERE INFERRED)
- (570.86) WATER LEVEL ELEVATIONS AT MONITORING OR EXTRACTION WELL IN FEET MEAN SEA LEVEL.
- DIRECTION OF GROUNDWATER FLOW IN ZONE 1

NOTES:

1. GRID SYSTEM SHOWN IS 1000-METER UNIVERSAL TRANSVERSE MERCATOR GRID, ZONE 17, 1927 NORTH AMERICAN DATUM.
2. REFERENCE: U.S. GEOLOGICAL SURVEY, TONAWANDA WEST NEW YORK 7.5' QUADRANGLE, DATED 1980.
3. WELL LOCATIONS SHOWN ARE APPROXIMATE.
4. WATER LEVEL MEASUREMENTS OBTAINED ON APRIL 23, 2019.
5. ONLY WELL LOCATIONS WITH AN ELEVATION LISTED ARE USED IN MAP CONTOURING.
6. CONTOURS BETWEEN KNOWN POINTS HAVE BEEN INTERPOLATED.
7. TOTAL VOLATILE ORGANIC (TVO) DETECTIONS/MINUS CARBON DISULFIDE.
8. ON-SITE GROUNDWATER TREATMENT SYSTEM NOT OPERATING (DW-9, DW-10, DW-11, DW-12, EW-7, EW-8, AND EW-13) NOT USED FOR CONTOURS.

REFERENCE:

BASE MAP SOURCE: GOLDER ASSOCIATES BUFFALO, NY

SCALE 0 300 600 900 FEET

APTIM

TEXTRON NIAGARA FALLS, NEW YORK

FIGURE 2

GROUNDWATER ELEVATION CONTOUR MAP ZONE 1 BEDROCK - APRIL 2019

2221 NIAGARA FALLS BOULEVARD NIAGARA FALLS, NEW YORK

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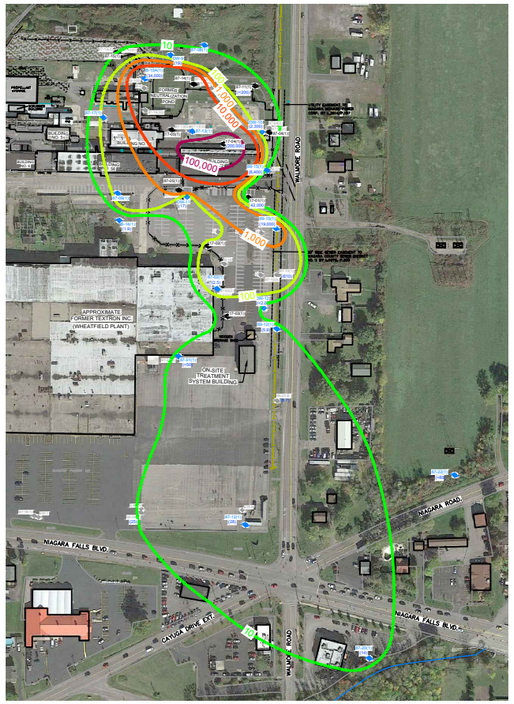
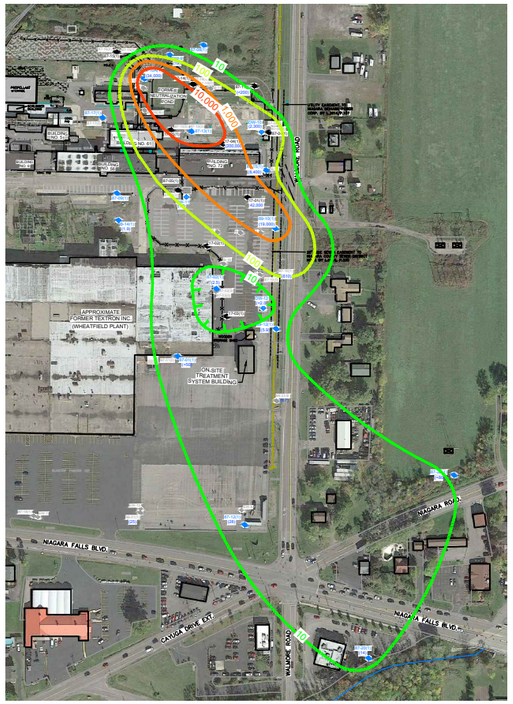
Plotted By: Evan.Schlegel

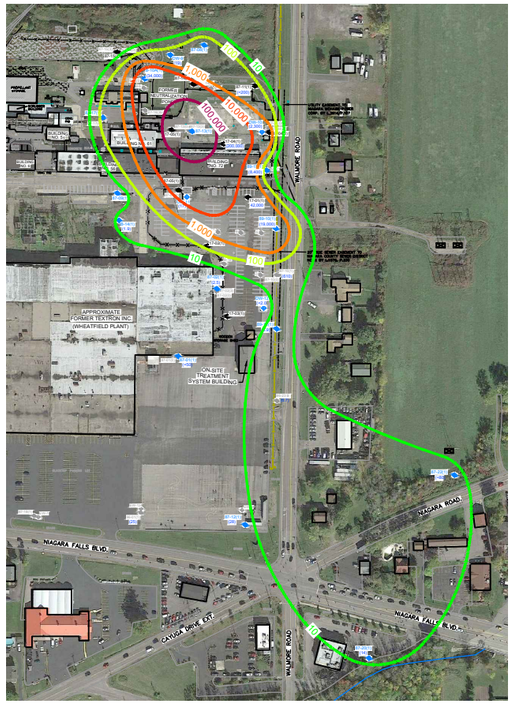
PRE-INJECTION CONDITIONS (MAY AND NOVEMBER 2017)



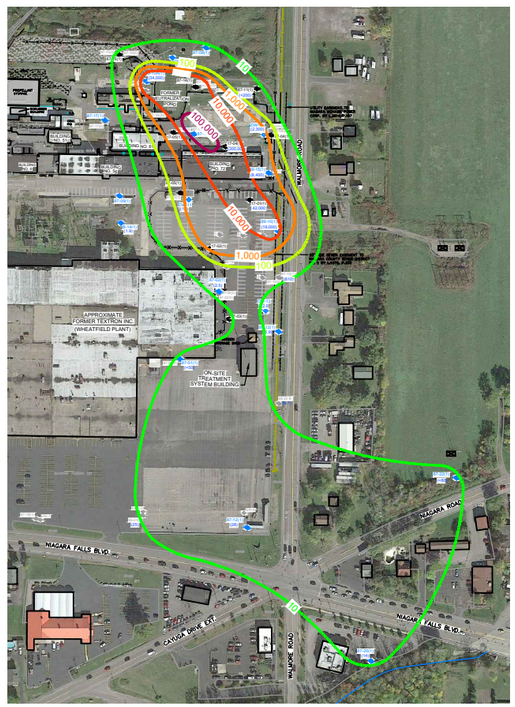
JUNE 2018



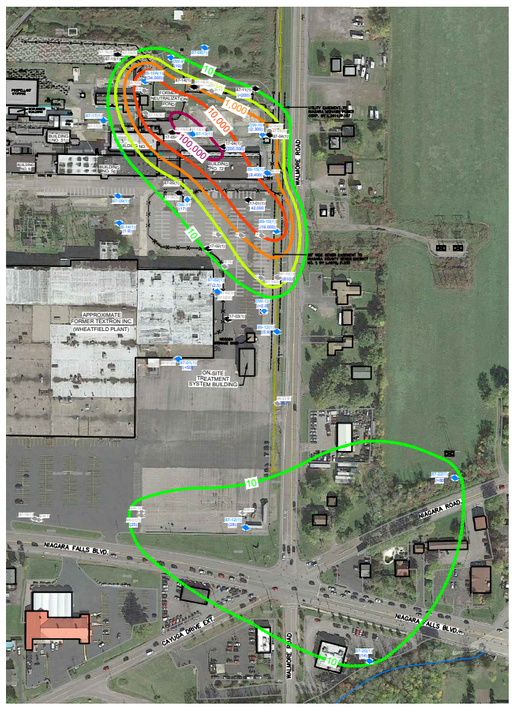
SEPTEMBER 2018



DECEMBER 2018



MARCH 2019



N

LEGEND:

- INJECTION LOCATION (ZONE 1)
- EXTRACTION WELL OR DNAPL WELL (ZONE 1)
- ZONE 1 MONITORING WELL
- MONITORING WELL NOT USED IN MONITORING PROGRAM
- MANHOLE
- CATCH BASIN
- APPROXIMATE NIAGARA COUNTY SEWER DISTRICT LINE
- TRICHLOROETHENE ISOCONCENTRATION CONTOUR (ppb, DASHED WHERE INFERRED)

TCE		
Concentration (ppb)	Pre-Injection Area in Sq. FT.	March 2019 Area in Sq. Ft.
10	713,810	562,102
100	191,132	157,210
1,000	111,687	112,589
10,000	70,288	62,041
100,000	12,325	7,912

SCALE

0 400 800 FEET

APTIM

TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 3
TRICHLOROETHENE CONCENTRATION MAP
ZONE 1 BEDROCK - PRE-INJECTION CONDITIONS THROUGH MARCH 2019
2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
--	E. Schlegel	C. Byers	--	631232612-B19

OFFICE	DATE
Pittsburgh, PA	4/22/19

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Plotted By: Evan.Schlegel
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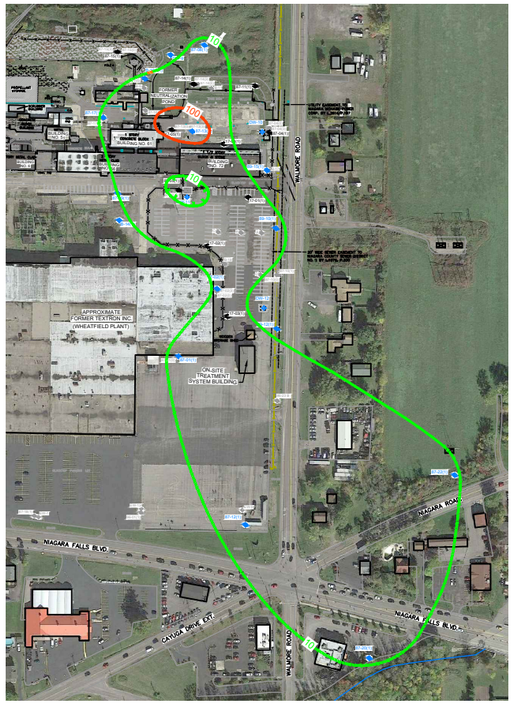
PRE-INJECTION CONDITIONS (MAY AND NOVEMBER 2017)



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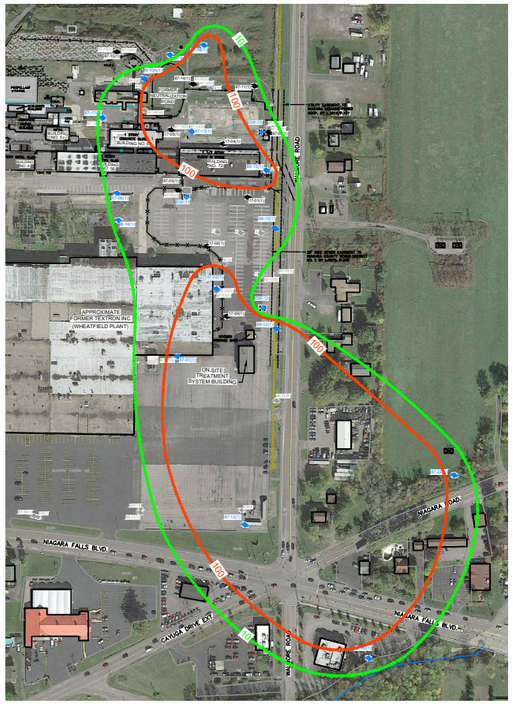

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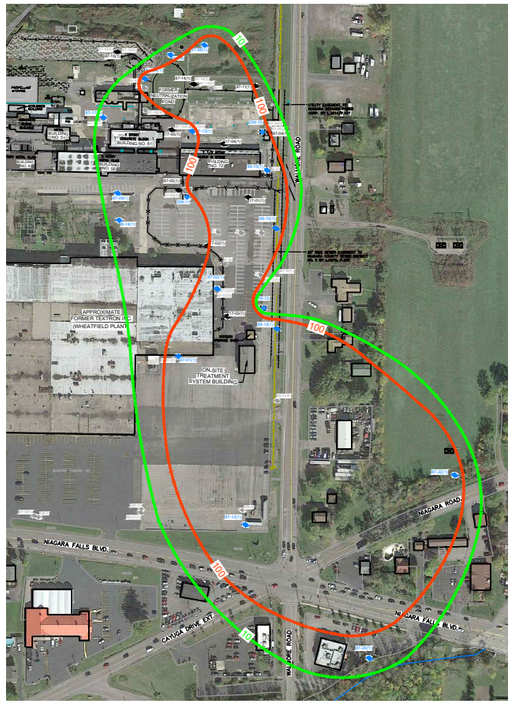
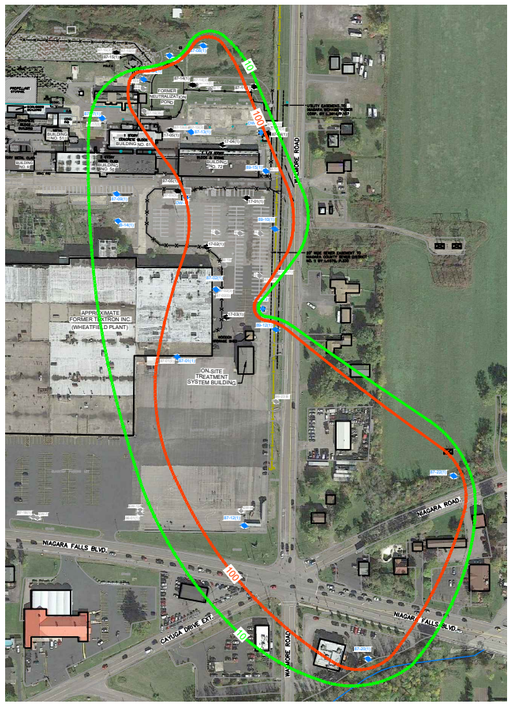
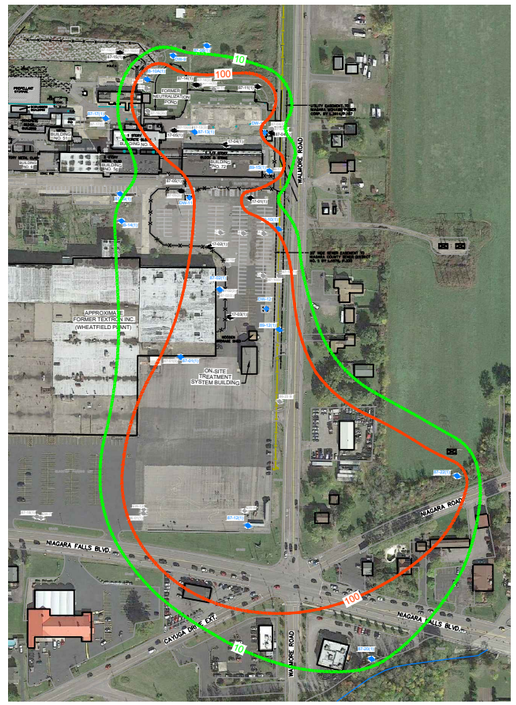


DECEMBER 2018



MARCH 2019



N

LEGEND:

- INJECTION LOCATION (ZONE 1)
- EXTRACTION WELL OR DNAPL WELL (ZONE 1)
- ZONE 1 MONITORING WELL
- MONITORING WELL NOT USED IN MONITORING PROGRAM
- MANHOLE
- CATCH BASIN
- APPROXIMATE NIAGARA COUNTY SEWER DISTRICT LINE
- 100 — ETHENE ISOCONCENTRATION CONTOUR (ppb, DASHED WHERE INFERRED)

Ethene		
Concentration (ppb)	Pre-Injection Area in Sq. FT.	March 2019 Area in Sq. Ft.
10	658,814	1,017,771
100	10,230	671,573

NOTE:

ETHENE IS THE FINAL DAUGHTER PRODUCT OF TRICHLOROETHENE (TCE) DEGRADATION AND ITS PRESENCE INDICATES COMPLETE REDUCTIVE DECHLORINATION.

SCALE

0 200 400 FEET

APTIM

TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 4
ETHENE CONCENTRATION MAP
ZONE 1 BEDROCK - PRE-INJECTION CONDITIONS THROUGH MARCH 2019

2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

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--	E. Schlegel	C. Byers	--	631232612-B23

OFFICE	DATE
Pittsburgh, PA	1/23/19

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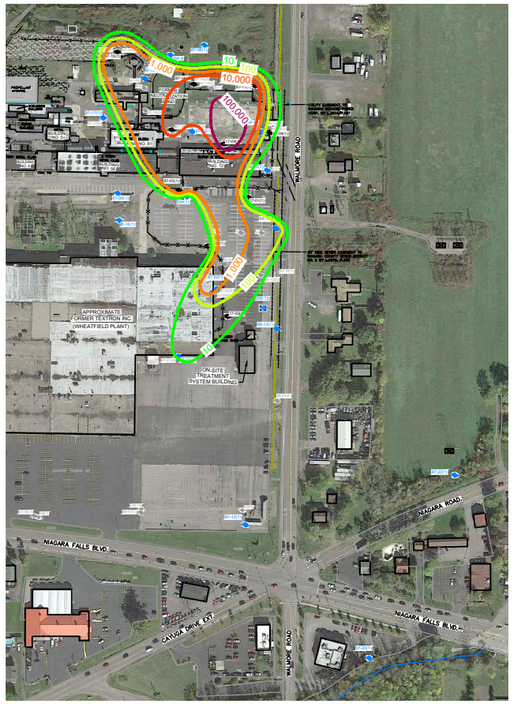

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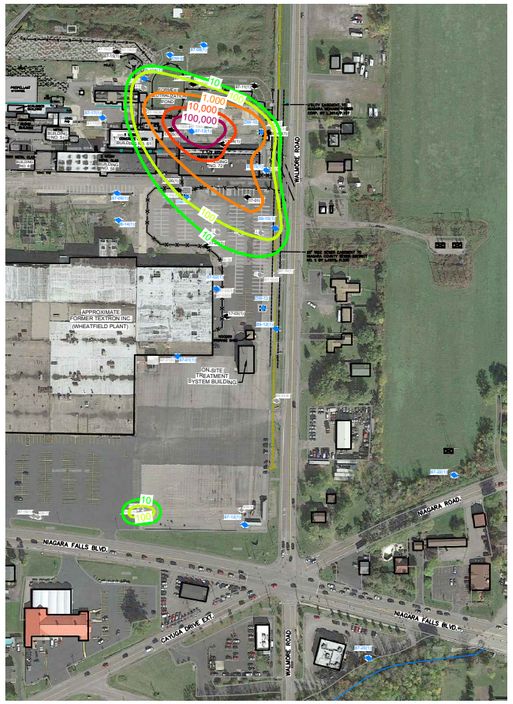

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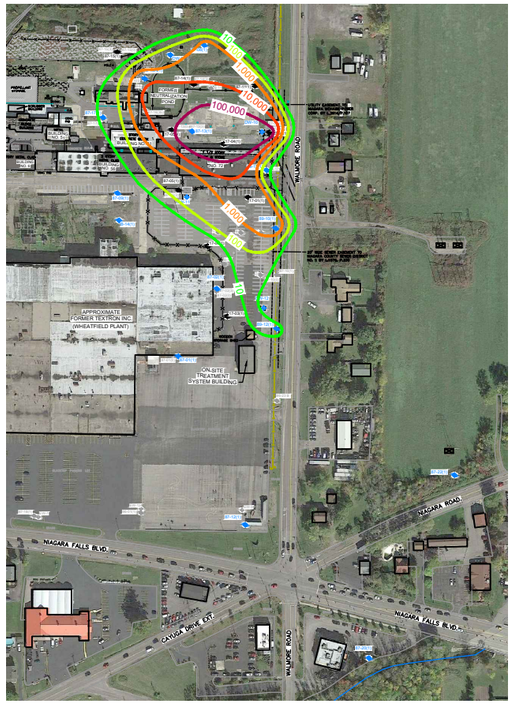

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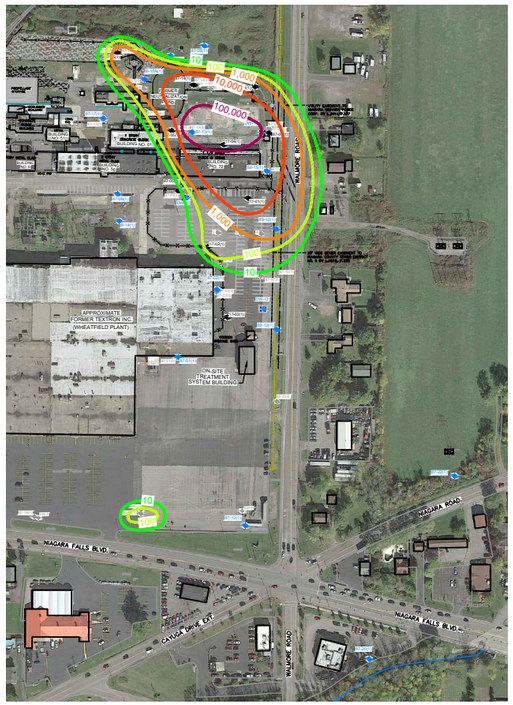
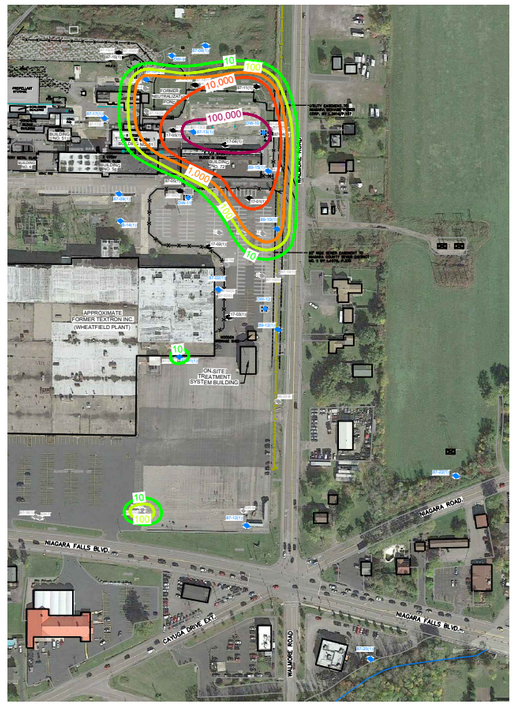


MARCH 2019



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LEGEND:

- INJECTION LOCATION (ZONE 1)
- EXTRACTION WELL OR DNAPL WELL (ZONE 1)
- ZONE 1 MONITORING WELL
- MONITORING WELL NOT USED IN MONITORING PROGRAM
- MANHOLE
- CATCH BASIN
- APPROXIMATE NIAGARA COUNTY SEWER DISTRICT LINE
- 1,000 METHYLENE CHLORIDE ISOCONCENTRATION CONTOUR (ppb, DASHED WHERE INFERRED)

Methylene Chloride		
Concentration (ppb)	Pre-Injection Area in Sq. FT.	March 2019 Area in Sq. Ft.
10	219,238	179,153
100	167,677	145,498
1,000	129,695	117,579
10,000	39,641	74,405
100,000	9,596	18,932

SCALE

0 200 400 FEET

APTIM

TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 5
METHYLENE CHLORIDE CONCENTRATION MAP
ZONE 1 BEDROCK - PRE-INJECTION CONDITIONS THROUGH MARCH 2019
2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
--	E. Schlegel	C. Byers	--	631232612-B20

OFFICE	DATE
Pittsburgh, PA	4/22/19

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Plotted By: Evan.Schlegel
Xref:
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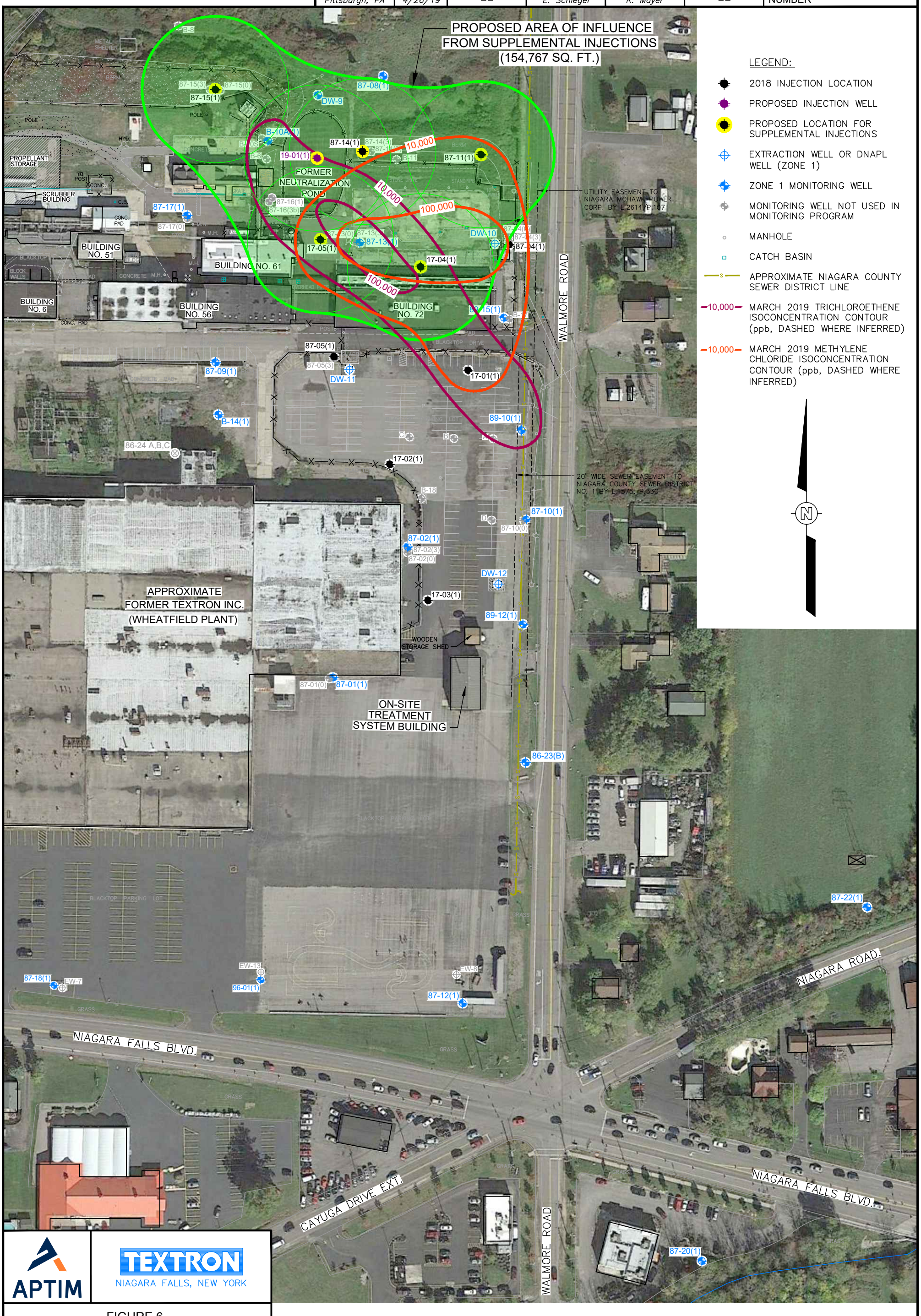

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NIAGARA FALLS, NEW YORK

FIGURE 6
PROPOSED INJECTION LOCATIONS

2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

REFERENCE:

DERIVED FROM FONTANESE, FOLTS, AUBRECHT, AND ERNST ARCHITECTS, "MOOG INC.–PROJECT BELL–SITE PLAN", DATED JUNE 12, 2017.

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Plotted By: Evan.Schlegel

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Pittsburgh, PA	7/16/19	--	E. Schlegel	R. Mayer	--	631232612-B25

PROPOSED AREA OF INFLUENCE
FROM SUPPLEMENTAL INJECTIONS
(154,767 SQ. FT.)

LEGEND:

- 2018 INJECTION LOCATION
- PROPOSED INJECTION WELL
- PROPOSED LOCATION FOR SUPPLEMENTAL INJECTIONS
- PROPOSED MONITORING WELL LOCATION
- EXTRACTION WELL OR DNAPL WELL (ZONE 1)
- ZONE 1 MONITORING WELL
- MONITORING WELL NOT USED IN MONITORING PROGRAM
- MANHOLE
- CATCH BASIN
- APPROXIMATE NIAGARA COUNTY SEWER DISTRICT LINE
- 10,000 MARCH 2019 TRICHLOROETHENE ISOCONCENTRATION CONTOUR (ppb, DASHED WHERE INFERRED)
- 10,000 MARCH 2019 METHYLENE CHLORIDE ISOCONCENTRATION CONTOUR (ppb, DASHED WHERE INFERRED)

N

APTIM

TEXTRON
NIAGARA FALLS, NEW YORK

FIGURE 7
PROPOSED MONITORING WELL LOCATIONS
2221 NIAGARA FALLS BOULEVARD
NIAGARA FALLS, NEW YORK

SCALE
0 120 240 FEET

REFERENCE:

DERIVED FROM FONTANESE, FOLTS, AUBRECHT, AND ERNST ARCHITECTS, "MOOG INC.–PROJECT BELL–SITE PLAN", DATED JUNE 12, 2017.

Appendix A

Material Safety Data Sheets
SDC-9™, MDB-1™, S-Micro ZVI™, Chemical Reducing Solution®

Safety Data Sheet

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: DHC microbial consortium (SDC-9)

Manufacturer Aptim 17 Princess Road, Lawrenceville, NJ 08648. Phone (609) 895-5340

CAS #: N/A (Not Applicable)

Product Use: For remediation of contaminated groundwater (environmental applications).

Material Description: Non-toxic, naturally occurring, non-pathogenic, non-genetically altered anaerobic microbes in a water-based medium.

IN CASE OF EMERGENCY CALL CHEMTREC 24 HOUR EMERGENCY RESPONSE PHONE NUMBER (800) 424-9300

SECTION 2 – COMPOSITIONS AND INFORMATION ON INGREDIENTS

Components	%	OSHA PEL	ACGIH TLV	OTHER LIMITS
Non-Hazardous Ingredients	100	N/A	N/A	N/A

Based on Microbial Insights QuantArray® analysis, the DHC microbial consortium (SDC-9) is comprised of microorganisms of the genera *Dehalococcoides, Desulfovibrio, Desulfitobacterium, Dehalobium, and Dehalobacter* as well as sulfate reducing bacteria and methanogenic archaebacteria.

SECTION 3 – HAZARDS IDENTIFICATION

The available data indicates no known hazards associated with exposure to this product. Nevertheless, individuals who are allergic to enzymes or other related proteins should avoid exposure and handling. Health effects associated with exposure to similar organisms are listed below.

Ingestion: Ingestion of large quantities may result in abdominal discomfort including nausea, vomiting, cramps, diarrhea, and fever.

Inhalation: Hypersensitive individuals may experience breathing difficulties after inhalation of aerosols.

Skin Absorption: May cause irritation upon prolonged contact. Hypersensitive individuals may experience allergic reactions.

Eye contact: May cause irritation unless immediately rinsed.

SECTION 4 – FIRST-AID MEASURES

Ingestion: Thoroughly rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation: Get medical attention if allergic symptoms develop.

Skin Absorption: N/A

Skin Contact: Wash affected area with soap and water. Get medical attention if allergic symptoms develop.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes using an eyewash fountain, if available. Get medical attention if irritation occurs.

NOTE TO PHYSICIANS: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this material may have occurred.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammability of the Product: Non-flammable

Flash Point: N/A

Flammable Limits: N/A

Fire Hazard in Presence of Various Substances: N/A

Explosion Hazard in Presence of Various Substances: N/A

Extinguishing Media: Foam, carbon dioxide, water

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Reportable quantities (in lbs of EPA Hazardous Substances): N/A

No emergency results from spillage. However, spills should be cleaned up promptly. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. All personnel involved in the cleanup must wear protective clothing and avoid skin contact. After clean-up, disinfect all cleaning materials and storage containers that come in contact with the spilled liquid.

SECTION 7 – HANDLING AND STORAGE

Avoid breathing breathe aerosol. Avoid contact with skin. Use personal protective equipment recommended in Section 8.
Keep containers tightly closed in a cool, well-ventilated area. The DHC microbial consortium (SDC-9) is typically supplied in stainless steel kegs equipped with pressure relief valves. The kegs are pressurized with Nitrogen gas (N_2) up to the pressure of 15 psi. **Do not exceed pressure of 15 psi during transfer of DHC microbial consortium (SDC-9) from kegs.** Don't open keg if content of the keg is under pressure.

DHC microbial consortium (SDC-9) may be stored for up to 4 weeks at temperature 2-4°C without aeration. Avoid freezing.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Hand Protection: Rubber, nitrile, or vinyl gloves.

Eye Protection: Safety goggles or glasses with side splash shields.

Protective Clothing: Use adequate clothing to prevent skin contact.

Respiratory Protection: N95 respirator if aerosols might be generated.

Ventilation: Provide adequate ventilation to remove odors.

Other Precautions: An eyewash station in the work area is recommended.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Light greenish murky liquid. Musty odor.

Boiling Point: 100°C (water)	Specific Gravity (H_2O = 1): 0.9 - 1.1
Vapor Pressure @ 25°C: 24 mm Hg (water)	Melting Point: 0°C (water)
Vapor Density: N/A	Evaporation Rate (H_2O = 1): 0.9 - 1.1
Solubility in Water: Soluble	Water Reactive: No

pH: 6.0 - 8.0

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Conditions to Avoid: None

Incompatibility (Materials to Avoid): Water-reactive materials

Hazardous Decomposition Byproducts: None

SECTION 11 – TOXICOLOGICAL INFORMATION

This product contains no toxic ingredients.
SDC-9 consortium has tested negative for pathogenic microorganisms such as *Bacillus cereus*, *Listeria monocytogens*, *Salmonella* sp., Fecal Coliforms, Total Coliforms, Yeast and Mold and *Pseudomonas* sp.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: this material will degrade in the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method: No special disposal methods are required. The material is compatible with all known biological treatment methods. To reduce odors and permanently inactivate microorganisms, mix 100 parts (by volume) of SDC-9 consortium with 1 part (by volume) of bleach. Dispose of in accordance with local, state and federal regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Classification: N/A
Labeling: NA
Shipping Name: Not regulated

SECTION 15 – REGULATORY INFORMATION

Federal and State Regulations: N/A

SECTION 16 – OTHER INFORMATION

MSDS Code: ENV 1033
MSDS Creation Date: 10/06/2003
Last Revised: March 15, 2019.

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, APTIM MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

Safety Data Sheet

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MDB-1 microbial consortium

Manufacturer Aptim 17 Princess Road, Lawrenceville, NJ 08648. Phone (609) 895-5340

CAS #: N/A (Not Applicable)

Product Use: For remediation of contaminated groundwater (environmental applications).

Material Description: Non-toxic, naturally occurring, non-pathogenic, non-genetically altered anaerobic microbes in a water-based medium.

IN CASE OF EMERGENCY CALL CHEMTREC 24 HOUR EMERGENCY RESPONSE PHONE NUMBER (800) 424-9300

SECTION 2 – COMPOSITIONS AND INFORMATION ON INGREDIENTS

Components	%	OSHA PEL	ACGIH TLV	OTHER LIMITS
Non-Hazardous Ingredients	100	N/A	N/A	N/A

MDB-1 microbial consortium comprised of microorganism of the genus *Dehalobacter spp.. Dehalobacter DCM, Desulfitobacterium spp.,Dehalobium chlorocoercia, Desulfuromonas spp., Sulfate Reducing Bacteria* and Methanogens

SECTION 3 – HAZARDS IDENTIFICATION

The available data indicates no known hazards associated with exposure to this product. Nevertheless, individuals who are allergic to enzymes or other related proteins should avoid exposure and handling. Health effects associated with exposure to similar organisms are listed below.

Ingestion: Ingestion of large quantities may result in abdominal discomfort including nausea, vomiting, cramps, diarrhea, and fever.

Inhalation: Hypersensitive individuals may experience breathing difficulties after inhalation of aerosols.

Skin Absorption: May cause irritation upon prolonged contact. Hypersensitive individuals may experience allergic reactions..

Eye contact: May cause irritation unless immediately rinsed.

SECTION 4 – FIRST AID MEASURES

Ingestion: Thoroughly rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

Inhalation: Get medical attention if allergic symptoms develop.

Skin Absorption: N/A

Skin Contact: Wash affected area with soap and water. Get medical attention if allergic symptoms develop.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes using an eyewash fountain, if available. Get medical attention if irritation occurs.

NOTE TO PHYSICIANS: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this material may have occurred.

SECTION 5 – FIRE AND EXPLOSION DATA

Flammability of the Product: Non-flammable

Flash Point: N/A

Flammable Limits: N/A

Fire Hazard in Presence of Various Substances: N/A

Explosion Hazard in Presence of Various Substances: N/A

Extinguishing Media: Foam, carbon dioxide, water

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Reportable quantities (in lbs of EPA Hazardous Substances): N/A

No emergency results from spillage. However, spills should be cleaned up promptly. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. All personnel involved in the cleanup must wear protective clothing and avoid skin contact. After clean-up, disinfect all cleaning materials and storage containers that come in contact with the spilled liquid.

SECTION 7 – HANDLING AND STORAGE

Avoid breathing breathe aerosol. Avoid contact with skin. Use personal protective equipment recommended in Section 8.
Keep containers tightly closed in a cool, well-ventilated area. The DHC microbial consortium (RTB-1) can be supplied in stainless steel kegs designed for maximum working pressure of 130 psi and equipped with pressure relief valves. The kegs are pressurized with Nitrogen up to the pressure of 15 psi. Do not exceed pressure of 15 psi during transfer of DHC microbial consortium (RTB-1) from kegs. Don't open keg if content of the keg is under pressure.

DHC microbial consortium (RTB-1) may be stored for up to 3 weeks at temperature 2-4°C without aeration. Avoid freezing.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Hand Protection: Rubber, nitrile, or vinyl gloves.

Eye Protection: Safety goggles or glasses with side splash shields.

Protective Clothing: Use adequate clothing to prevent skin contact.

Respiratory Protection: N95 respirator if aerosols might be generated.

Ventilation: Provide adequate ventilation to remove odors.

Other Precautions: An eyewash station in the work area is recommended.

SECTION 9 – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical state and appearance: Light greenish murky liquid. Musty odor.

Boiling Point: 100°C (water)

Specific Gravity (H_2O = 1): 0.9 - 1.1

Vapor Pressure @ 25°C: 24 mm Hg (water)

Melting Point: 0°C (water)

Vapor Density: N/A

Evaporation Rate (H_2O = 1): 0.9 - 1.1

Solubility in Water: Soluble

Water Reactive: No

pH: 6.0 - 8.0

SECTION 10 – STABILITY AND REACTIVITY DATA

Stability: Stable

Conditions to Avoid: None

Incompatibility (Materials to Avoid): Water-reactive materials

Hazardous Decomposition Byproducts: None

SECTION 11 – TOXICOLOGICAL INFORMATION

This product contains no toxic ingredients.
RTB-1 consortium has tested negative for pathogenic microorganisms such as Bacillus cereus, Listeria monocytogens, Salmonella sp., Fecal Coliform, Total Coliform, Yeast and Mold and Pseudomonas sp.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: this material will degrade in the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method: No special disposal methods are required. The material is compatible with all known biological treatment methods. To reduce odors and permanently inactivate microorganisms, mix 100 parts (by volume) of RTB-1 consortium with 1 part (by volume) of bleach. Dispose of in accordance with local, state and federal regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Classification: N/A
Labeling: NA
Shipping Name: Not regulated

SECTION 15 – REGULATORY INFORMATION

Federal and State Regulations: N/A

SECTION 16 – OTHER INFORMATION

MSDS Code: ENV 1033
MSDS Creation Date: 10/06/2003
Last Revised: July 31, 2017.

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Aptim MAKES NO WARRANTY WITH RESPECT HERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

SAFETY DATA SHEET

1. Identification

Product identifier **S-MicroZVI or S-MZVI**

Other means of identification None.

Recommended use Remediation of contaminants in soil and groundwater.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Regenesis

Address 1011 Calle Sombra
San Clemente, CA 92673 USA

General information 949-366-8000

E-mail CustomerService@regenesis.com

Emergency phone number For Hazardous Materials Incidents ONLY (spill, leak, fire, exposure or accident), call CHEMTREC 24/7 at:

USA, Canada, Mexico 1-800-424-9300

International 1-703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Contact with acids liberates very toxic gas.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Glycerol	56-81-5	40 - 50
Zero valent iron	7439-89-6	30 - 50
Iron(II) sulfide	1317-37-9	1 - 4

Composition comments All concentrations are in percent by weight unless otherwise indicated.
Components not listed are either non-hazardous or are below reportable limits.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides, iron oxides.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	This material will not burn until the water has evaporated. Residue can burn. When dry may form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Glycerol (CAS 56-81-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Skin protection	
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Viscous metallic suspension.
Color	Dark gray
Odor	Slight.
Odor threshold	Not available.
pH	7 - 8 (When mixed with water) 10 (As shipped)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	3000 cP (77 °F (25 °C))
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Contact with acids will release highly flammable and highly toxic hydrogen sulfide gas. Can react with some acids with the evolution of hydrogen.
Conditions to avoid	Contact with incompatible materials. Avoid drying out product. May generate combustible dust if material dries.
Incompatible materials	Strong oxidizing agents. Acids.

Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Spray mist may irritate the respiratory system. For dry material: Dust may irritate respiratory system.

Skin contact Prolonged or repeated exposure may cause minor irritation.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
Glycerol (CAS 56-81-5)		
Acute		
Dermal		
LD50	Rabbit	> 18700 mg/kg
Oral		
LD50	Rat	27200 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Further information Contains an ingredient known to produce adverse effects in a small percentage of hypersensitive individuals exhibited as respiratory distress and allergic skin reactions.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components		Species	Test Results
Glycerol (CAS 56-81-5)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia magna	> 10000 mg/l, 24 Hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

Glycerol (CAS 56-81-5)	-1.76

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Glycerol (CAS 56-81-5)	Other Flavoring Substances with OSHA PEL's

US state regulations

US. Massachusetts RTK - Substance List

Glycerol (CAS 56-81-5)

US. New Jersey Worker and Community Right-to-Know Act

Glycerol (CAS 56-81-5)

US. Pennsylvania Worker and Community Right-to-Know Law

Glycerol (CAS 56-81-5)

US. Rhode Island RTK

Glycerol (CAS 56-81-5)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Zero valent iron (CAS 7439-89-6)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 27-December-2018

Revision date -

Version # 01

HMIS® ratings Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings

Disclaimer Regenesis cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

REGENESIS
Technology-Based Solutions for the Environment

SAFETY DATA SHEET

1. Identification

Product identifier **Chemical Reducing Solution (CRS®)**

Other means of identification None.

Recommended use Soil and Groundwater Remediation.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Regenesis
Address 1011 Calle Sombra
San Clemente, CA 92673
Telephone 949-366-8000
E-mail CustomerService@regenesis.com
Emergency phone number CHEMTREC® at 1-800-424-9300 (International)

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Chemical name	CAS number	%
Water	7732-18-5	85-92
Ferrous Gluconate	299-29-6	8-15

Composition comments All concentrations are in percent by weight unless otherwise indicated.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Remove contaminated clothing and shoes. Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Small fires: Dry chemical powder. Larger fires: Water spray, fog or foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. Combustion products may include: carbon monoxide, carbon dixoide, iron oxides.
Special protective equipment and precautions for firefighters	Use protective equipment appropriate for surrounding materials.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to keep fire-exposed containers cool.
General fire hazards	No unusual fire or explosion hazards noted. The product itself does not burn.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid contact with spilled material. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Avoid breathing spray mist. Use with adequate ventilation. Observe good industrial hygiene practices. Wear appropriate personal protective equipment (See Section 8).
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a cool, dry, well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep away from extreme heat and strong oxidizing agents.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection	Use safety glasses. Where contact with eyes is likely, use chemical goggles. Use a face shield as needed.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing. Wear appropriate chemical resistant gloves.

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Dark green to black.
Odor	Odorless.
Odor threshold	Not available.
pH	6 - 8
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not flammable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1 - 1.2
Solubility(ies)	
Solubility (water)	Miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	A component of this product can oxidize in air: iron (II) to iron (III).
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Keep from freezing.
Incompatible materials	Oxidizing agents.
Hazardous decomposition products	Thermal decomposition can produce oxides of carbon and iron.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Prolonged or repeated skin contact may result in minor irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.
Further information	Ferrous Gluconate Dihydrate (6047-12-7) is Generally Recognized as Safe (GRAS) (21 CFR §184.1308).

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	Expected to be highly mobile in soil.
Other adverse effects	None known.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

Not Listed.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 26-February-2015

Revision date -

Version # 01

Further information HMIS® is a registered trade and service mark of the American Coatings Association (ACA).

HMIS® ratings
Health: 1
Flammability: 0
Physical hazard: 0

NFPA ratings

Disclaimer Regenesis cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.