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December 15, 2017
File: 190500014

Attention: Mr. Todd Caffoe, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon NY 14414-9519

Reference: Periodic Review Report
Ward Street Site, BCA Site No.: C828117
8-28 Ward Street Site, BCA Site No.: C828136
Rochester, New York

Dear Todd:

On behalf of Germanow-Simon Corporation (Germanow-Simon), Stantec Consulting Services, Inc. (Stantec) has prepared this Periodic Review Report and completed the Institutional and Engineering Control Certification (IC/EC) Forms for the period November 15, 2016 to November 15, 2017 for Germanow-Simon to fulfill its obligation as a Volunteer under the Brownfield Cleanup Agreement (BCA) for its properties known as the Ward Street Site (BCA Site #C828117) and the 8-28 Ward Street Site (BCA Site #C828136). These adjacent sites are located on Ward Street in the City of Rochester, Monroe County, New York.

As indicated on the IC/EC form for the Ward Street Site, we ask that the Department please update the address for the site as follows:

408 St. Paul Street
Rochester, NY 14605

Please do not hesitate to call should you have any questions or require further information.

Regards,

STANTEC CONSULTING SERVICES INC.

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Attachment: Periodic Review Report – Ward Street Site No. C828117 and No. C282136

c. John Dole (Germanow-Simon)

PERIODIC REVIEW REPORT
WARD STREET SITE – SITE NO. C828117
and
8-28 WARD STREET SITE - NO. C828136

Ward Street at St. Paul Street,
Rochester, New York

Prepared for:
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Prepared on behalf of:
Germanow-Simon Corporation
408 St. Paul Street
Rochester, New York 14601

Prepared by:
Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester, New York 14614

December 15, 2017

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1.0 INTRODUCTION AND OVERVIEW

Stantec Consulting Services Inc. (Stantec) has prepared this Periodic Review Report (PRR) and the attached Institutional Control/Engineering Control (IC/EC) forms (Appendix A) to summarize Site Management (SM) activities at the contiguous Ward Street and 8-28 Ward Street Brownfield Cleanup Program sites (the Sites) for the period November 15, 2016 to November 15, 2017.

The PRR was prepared on behalf of Germanow-Simon Corporation (Germanow-Simon), the owner of the Sites, to fulfill the PRR requirements of the Brownfield Cleanup Program (BCP) of the New York State Department of Environmental Conservation (NYSDEC, the Department). The Ward Street Site is identified by NYSDEC as BCP Site No. C828117. The 8-28 Ward Street Site is identified as BCP Site No. C828136.

The Sites are located in the City of Rochester, Monroe County, New York along the north side of Ward Street between the intersection of Ward Street with St. Paul Street on the southwest and Emmett Street on the northeast. A map showing the locations of the Sites is presented on Figure 1.

1.1 SUMMARY OF SITE CONTAMINATION AND REMEDIAL HISTORY

Germanow-Simon and the Department agreed to pursue a program of environmental investigation and cleanup activities at the Sites to address past releases of industrial and dry-cleaning solvents and petroleum products that resulted in subsurface contamination by volatile organic compounds (VOCs). The BCP activities led to the implementation of a Multi-Phase Vacuum Extraction (MPVE) cleanup system for the Sites. MPVE is a contaminant remediation technology that uses a vacuum pump and extraction wells to remove VOCs from subsurface soils, soil vapor and groundwater. The layout of the MPVE system is provided in Figure 2 (Well Locations).

Construction, installation, and commissioning of MPVE at the Ward Street Site were completed in October 2006. The 8-28 Ward Street Site component of the MPVE system was added in October 2008. Pursuant to NYSDEC approval, the MPVE system was shut down on February 22, 2011 and has not been restarted since that time. At that time, the previously installed sub-slab depressurization (SSD) system beneath the Building B Annex Area was reactivated (as it had been during previous sampling or MPVE maintenance related shut-down periods). Pursuant to the NYSDEC-approved Remedial Program Supplement, Enhanced Reductive Dechlorination Work Plan, dated March 2011 (Stantec, 2011) and NYSDEC's November 14, 2011 approval letter, an *in-situ* bioremediation polishing program was conducted in November/December 2011. Pursuant to the Proposed Supplemental Injection Program correspondence dated October 2012, and NYSDEC's November 6, 2012 approval letter, a supplemental *in-situ* bioremediation polishing program was conducted in November 2012. Further details on the November 2012 injection program are included in Stantec's December 21, 2012 Enhanced Reductive Dechlorination Supplemental Injection Program Summary Report.

Because groundwater in the former Lilac Laundry area was found to meet the Department's groundwater quality standards (refer to Ward Street Site Semi-Annual Progress Report #8, Ward Street Site (Site #C828117) and 8-28 Ward Street Site (Site #C828136), Rochester, New York (Stantec, February 2011), and in preparation for site improvements, as per NYSDEC approval, in October 2011, the following wells were decommissioned at the Ward Street Site: MW-3, MW-5, MW-9, MW-9R, MW-20, MW-21, MW-32, MW-213, MW-214, MW-215, MW-216, MW-217, MW-218, and MW-219. In addition, since no significant groundwater impacts were present on the 8-28 Ward Street Site, and in preparation for site improvements, per NYSDEC approval, in October 2011, the following wells were decommissioned at the 8-28 Ward Street Site: GQ1/MW1, GQ2/MW2, GQ4/MW4, GQ8/MW5, MW-19, MW-45, MW-46, MW-46R, and MW-47.

The results of the groundwater sampling event conducted in October 2013 indicated that significant dissolved-phase VOC reduction had occurred within the treatment area. Based on this observed reduction since the commencement of remedial measures, and the continued success of the Enhanced Reductive Dichlorination (ERD) process, it was proposed in the 2015 PRR to: (1) discontinue the ERD groundwater treatment program; (2) reduce the number of wells that are monitored; (3) reduce the number of analytes that are monitored; and (4) reduce the frequency of monitoring. The PRR proposed that an annual groundwater sampling event be performed involving MW-16, MW-16R, MW-23, and MW-23R, MW-105, MW-207R with analysis for VOCs by USEPA Method 8260 and total organic carbon (TOC) by USEPA Method 5310. This revised sampling and analysis approach was accepted in the NYSDEC February 4, 2016 letter to Germanow-Simon; a copy of the letter was included in Appendix B of the 2016 PRR.

The results of the annual groundwater sampling event completed in June 2015 showed that very anaerobic and reducing geochemical conditions had been maintained at the wells sampled. Results at wells MW-16 and MW-23R indicated that the parent compounds tetrachloroethylene (PCE) and trichloroethylene (TCE) were below detection limits. Concentrations of daughter products at MW-16 had increased, suggesting that degradation was progressing but was incomplete. The only contaminant of concern detected at MW-23R was cis-dichloroethylene (cis-DCE) and the concentration was below clean-up criteria. Decreased concentrations were observed for all contaminants of concern at MW-105. However, increases in contaminants of concern were observed at MW-16R, MW-23, and MW-207R. After discussion with NYSDEC, it was proposed to complete another round of groundwater monitoring at these six wells in the spring of 2016 to assess the progress of the ERD process.

The groundwater parameters measured in the field during the March 2016 sampling event indicated that anaerobic and reducing geochemical conditions had been maintained or improved slightly since 2015 at all sampled wells. This indicated that the ERD injection performed in November 2012 continued to promote an environment suitable for the breakdown of chlorinated VOCs. Groundwater parameters are provided on Table 2.

The VOC data (Table 1) indicated that ERD continues under, and downgradient from, the Building B Annex shipping/receiving area. Low and decreasing concentrations of 'parent' VOC compounds, tetrachloroethylene (PCE) and trichloroethylene (TCE), were observed in MW-105; and only 'daughter' products, cis/trans-1,2-Dichloroethene (DCE) and vinyl chloride (VC), were observed downgradient at MW-16 and MW-16R. VOC concentrations at downgradient well MW-207R remained generally similar to those observed during the previous round of groundwater sampling in June 2015 with only daughter VOC compounds detected.

In 2016, favorable conditions at the 8-28 Ward Street Site (No. C828136) were maintained within the bedrock zone as VOC concentrations were at or below laboratory detection limits for all compounds at MW-23R. The results from MW-23, however, showed increases in PCE and TCE concentrations to levels last observed prior to the initial injection activities. The increases in the concentrations of parent compounds were indicative of additional residual source material that had not been effectively treated by past remedial efforts in the area of MW-23. The groundwater results were forwarded to the Department on April 14, 2016 (Appendix B of the 2016 PRR).

Following discussion with the Department, Stantec performed a two-day Geoprobe investigation (May 23-24, 2016) to investigate the potential source and extent of impacted soil in the vicinity of MW-23 which was contributing to the groundwater results. Figure 3 provides the locations of 19 borings that were performed.

The groundwater table was encountered at approximately 12 to 13.5 ft below ground surface (bgs) during the program but groundwater was not evident in every boring. Generally, evidence of impacted soil was observed just above the groundwater table on-Site to the north and northwest of MW-23. The exception to this was boring B1, located off-Site and immediately adjacent to MW-23, where impacted soil was encountered below the groundwater table. Only two of the samples collected contained contaminants of concern at concentrations above applicable NYSDEC soil cleanup objectives (SCOs). One sample, which was collected from below the groundwater at 13.2 to 13.7 ft bgs in off-site boring B1, had a concentration of cis-1,2-DCE of 608 micrograms per kilogram (µg/kg). The second sample, which was collected from above the water table at 8.5 to 9 ft bgs in on-Site boring B5, had a concentration of PCE of 4,220 µg/kg. Concentrations of either PCE or TCE which were reported below SCOs, but above approximately 100 µg/kg were detected in borings B1, B2, B5, B7, B8, B10, B15, B16, and B17.

Since the reported impacts at B5, B7, B8, B10, B15, B16, and B17 were situated above the water table, and upgradient from B1 and B2, Stantec recommended performing an on-Site remedial excavation of source material. This remedial approach would be supplemented with the addition of an electron-donor, sodium lactate, to further facilitate the breakdown of residual contamination in groundwater within the source area and downgradient. The proposed excavation would extend from the property line on the south side to the fence line on the north side, and from B10 on the west side to B15 on the east side, as depicted on Figure 3. The results of the soil boring program and the recommended remedial approach was shared with the

Department both in correspondence dated October 27, 2016 and the December 15, 2016 PRR. Included as a part of the remedial approach set forth in the 2016 PRR, the next groundwater monitoring event was proposed to be completed three months after completion of the excavation program. The 2016 PRR was accepted by the Department and included a request for a Work Plan for the proposed remedial activities (see Appendix B).

1.2 SITE MANAGEMENT REQUIREMENTS

Site Management activities were implemented in accordance with the Department-approved Site Management Plans (SMPs) for each site. The SMPs for the Sites include the following required Institutional and Engineering Controls (ICECs):

- Use of the Sites for commercial and industrial purposes is allowed as long as the following long-term controls are employed:
  - The MPVE system is operated in accordance with a Department-approved Operation, Maintenance & Monitoring (OM&M) plan until remedial requirements are achieved to the satisfaction of the Department.
  - A sub-slab depressurization system (SSDS) constructed in conjunction with the MPVE system is operated continuously in the Building B Annex Area to mitigate the potential for soil vapor intrusion (SVI) when the MPVE system is shut down.
  - Impervious surfaces covering specific areas of the Sites (building floor slabs and parking lot pavements) are maintained.
  - NYSDEC approval must be obtained in advance for activities which breach impervious surfaces or disturb soils in those same areas of the Sites, and those activities must be performed in accordance with the SMPs.
  - NYSDEC approval must be obtained in advance for use for any purpose of groundwater at the Sites.
- The Sites may not be used for purposes with a higher level of use than the commercial and industrial purposes described above.
- An environmental easement granted to the Department must be maintained on the property deed and any subsequent instrument of land conveyance, lease, license, or other instruments granting rights of use of the Sites.
- Annually (or as otherwise directed by the Department), Germanow-Simon must certify to the Department as to the continued presence and effectiveness of the controls described above.

The MPVE system OM&M Plan for the Sites specified a program of maintenance activities and provided for monthly system performance monitoring, periodic groundwater monitoring, and annual indoor/outdoor air testing. Indoor air testing was previously conducted in the Building B Annex and Building B along with outdoor testing to obtain background conditions; however, due to NYSDEC's approval in 2014 to forego this testing, it is no longer conducted. The OM&M Plan specifies periodic reporting on OM&M activities, monitoring results and remedial progress. However, pursuant to NYSDEC approval, the MPVE system was shut down on February 22, 2011 and has not been operated since that time. The system was subsequently decommissioned. Therefore, OM&M activities related to the MPVE system have not been required since it was shut down in February 2011. On February 22, 2011, the SSDS was turned on and has operated continuously since that time. The facility manager has confirmed its continued proper operation.

Due to building expansion/renovation and site improvement activities at the Sites during the September 15, 2011 to September 15, 2012 reporting period, the SMPs for both Sites were revised. Revised versions of these documents were submitted to the NYSDEC along with the PRR for that reporting period.

As previously noted, the next groundwater monitoring event will occur three months after completion of the excavation program as per the Department's approval of the 2016 PRR.

1.3 EFFECTIVENESS OF THE REMEDIAL PROGRAM

The IC/ECs required under the SM program remained in place and were effective.

1.4 COMPLIANCE

Compliance with the SMPs for both Sites was maintained throughout the reporting period.

1.5 RECOMMENDATIONS

No change to the currently approved frequency of PRRs (currently annual) is recommended at this time. As noted in Section 1.2, the SMPs for both Sites were revised in 2012. It is recommended that the requirements specified within the updated SMPs continue to be fulfilled.

2.0 REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

A work plan to address the suspected source area on the south end of the 8-28 Ward Street Site was submitted to the Department on July 18, 2017 and subsequently approved on September 5, 2017. On October 5, 2017, a crushed stone product submittal was forwarded to the Department for material proposed for use as clean backfill. On October 6, 2017, the Department approved the use of the crushed stone backfill material via email (Appendix B). The proposed excavation was rectangular, 10ft wide x 15ft long x 12ft deep in size. The Work Plan called for staging and reuse of approximately 33 cubic yards (CY) of topsoil and non-impacted soil from the upper half of the excavation (0 - 0.5 ft. bgs. and 0.5 - 6 ft. bgs, respectively) and the off-site disposal of approximately 33 CY of impacted soil from the lower half of the excavated material (6 - 12+/- ft. bgs).

In an effort to evaluate if the soil from the upper portion of the excavation would be acceptable for reuse as backfill and the bottom portion of the excavation would qualify for a Contained-In Determination (CID), allowing for disposal as non-hazardous waste, collection and analysis of two samples was scheduled. In preparation for the remedial excavation, a pre-characterization test boring (B-101on Figure 4) was performed within the proposed excavation footprint on September 8, 2017. A test boring log summarizing the conditions is provided in Appendix C.

Two samples were collected and laboratory analysis completed to satisfy DER-10 requirements for reusing excavated material as backfill, CID requirements, and the landfill's disposal requirements. Analytical results (TCLP VOCs) for the soil samples (Sample IDs: 828-B101-S1-g and 828-B101-S2) from boring B-101 are included in Appendix D. PCE was detected in the sample extract from the lower impacted material at a concentration of 76.7 µg/L. The sample from the non-impacted upper layer met Commercial SCOs. The results were submitted to the Department on October 3, 2017. The Department approved reuse of the non-impacted soils as a backfill in email correspondence, also dated October 3, 2017 (Appendix B).

The excavation work was performed on October 10-12, 2017, when seasonal low groundwater conditions would be likely. The excavation required removal of two trees, approximately 40 ft. of fence for a period of several days, and temporary closure of a sidewalk after obtaining the required permit from the City of Rochester (Appendix E). During excavation, the non-impacted materials were staged separately on-site, with the impacted materials stockpiled on top of and covered by 6-mil polyethylene sheeting. During excavation, soil was screened with a photoionization detector (PID); all readings were less than 1 part per million (ppm). A Community Air Monitoring Program (CAMP) was implemented and completed as outlined in the Work Plan. CAMP data is provided in Appendix F. There were no particulate or VOC exceedances during the excavation program.

Confirmatory sidewall and bottom samples were analyzed for Target Compound List (TCL) VOCs to further demonstrate that the impacted material had been adequately removed. The excavation limits and approximate sampling locations are included in Figure 4. Analytical results for confirmatory soil samples (Sample IDs: 828-2017-N-Wall, 828-2017-E-Wall, 828-2017-S-Wall, 828-2017-W-Wall, 828-2017-Floor-W) are presented in Appendix D. A summary of the confirmatory soil parameters is presented in Table 4. All results were well below the applicable SCOs.

At the completion of the excavation, and prior to backfilling, approximately 600 lbs. of sodium lactate in solution was applied to the bottom of the excavation to facilitate the remediation of residual groundwater impacts. Following backfill with crushed stone and reused, non-impacted overburden soils, 6 in. of reused topsoil was placed, the fence was reinstalled, and the topsoil was seeded.

The CID was approved by the Department on November 3, 2017. Subsequently, a Waste Profile was submitted to Waste Management and approved on November 16, 2017. Loading and transport of the stockpile to the High Acres Landfill occurred on November 20, 2017. The CAMP was also implemented during this process, with no particulate or VOC exceedances noted. CAMP data is provided in Appendix F. Disposal manifests and weight tickets are included in Appendix G.

The three-month post-excavation groundwater monitoring event is scheduled to occur in January 2018.

3.0 COMPLIANCE WITH IC/EC REQUIREMENTS AND THE OM&M PLAN

During the reporting period, compliance with the required ICs and ECs has been maintained.

- Use of the Sites has been limited to the industrial manufacturing and support activities conducted by the Germanow-Simon Corporation and its affiliated enterprises.
- In accordance with NYSDEC approval, the MPVE system was operated until February 22, 2011, at which time it was shutdown indefinitely. The MVPE system was decommissioned, cleaned out, and disconnected from the sewer during the 2014 reporting period.
- A sub-slab depressurization system (SSDS) constructed in conjunction with the MPVE system has been operated continuously in the Building B Annex Area to mitigate the potential for soil vapor intrusion (SVI) when the MPVE system was shut down. As noted above, on February 22, 2011, the SSDS was turned on and has operated continuously since that time.
- No groundwater use has occurred at the Sites.
- An environmental easement granted to the Department has been maintained on the property deed and any subsequent instrument of land conveyance, lease, license, or other instruments granting rights of use of the Sites. (At the request of the NYSDEC, the separate environmental easement mapping for the two sites was combined into a single Environmental Easement map dated August 1, 2012).

Forms certifying to the Department the continued presence and effectiveness of the controls described above are presented in Appendix A.

The MPVE system OM&M Plan for the Sites specifies a program of maintenance activities, provides for monthly system performance monitoring and periodic groundwater monitoring, and annual indoor/outdoor air testing. The OM&M Plan specifies periodic reporting on OM&M activities, monitoring results and remedial progress. However, pursuant to NYSDEC approval, the MPVE system was shut down on February 22, 2011 and has not been restarted since that time. Therefore, OM&M activities related to the MPVE system have not been required since it was shut down.

Sampling results from February 22, 2013 indicated that the SSDS system, which has been operating continuously since February 22, 2011 when the MPVE system was shut down, continued to successfully mitigate potential SVI at the Building B Annex. Based on these results and discussion with and subsequent approval by NYSDEC, annual indoor and outdoor air sampling was discontinued in 2015. The system was checked in 2015, 2016 and 2017 and was found to be operating properly.

Remedial progress during the reporting period has been reported to the NYSDEC.

4.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

It was proposed in the PRR from the previous reporting period to perform an on-Site remedial excavation of source material in late summer of 2017 with the addition of electron-donor, sodium lactate, to further facilitate the breakdown of parent products TCE and PCE in groundwater. The excavation program occurred in October 2017. The excavation limits extended from the property line in the south to the fence line in the north, and from B10 in the west to B15 in the east as depicted on Figure 4. Sodium lactate was placed in the excavation prior to backfilling.

As proposed in the 2016 PRR report, a follow-up groundwater monitoring event will be performed at four boundary wells, one interior well and one exterior well approximately three-months post-excavation to assess the effectiveness of the remedial excavation and *in-situ* groundwater remediation. This groundwater monitoring event is scheduled for January 2018. Results from the groundwater monitoring program will be used to develop further recommendations for the Sites; however, in the interim, recommendations include the continuation of annual groundwater monitoring of the specified wells and annual completion of the PRR. It is proposed that an annual groundwater monitoring event be scheduled for October 2018, one year post excavation.

Tables

Table 1
Summary of Volatile Organic Compounds in Groundwater – September 2011 to March 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			MW16											
Sample Date			27-Sep-11	3-Feb-12	2-Mar-12	5-Jun-12	5-Sep-12	23-Jan-13	11-Apr-13	3-Jul-13	9-Oct-13	9-Oct-13	17-Jun-15	9-Mar-16
Sample ID			WSR-MW-16-GW-18	WSR-MW-16-GW-19	WSR-MW-16-GW-20	WSR-MW-16-GW-21	WSR-MW-16-GW-22	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	828-MW-16-GW	WSR-MW-16-GW
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			P11-4090	12:0472	12:0936	12:2364	12:3668	13:0353	131259	132490	133891	133926	152493	160970
Laboratory Sample ID			14083	12:0472-06	12:0936-02	12:2364-06	12:3668-05	130353-05	131259-05	132490-06	133891-05	133926-05	152493-03	160970-03
Sample Type	Units	TOGS												
Volatile Organic Compounds														
Acetone	µg/L	50^{A}	500 U	500 U	500 U	500 U	500 U	10 U	10.0 U	10.0 U	-	13.6 J	10.0 U	10.0 U
Benzene	µg/L	1^{B}	35.0 U	35.0 U	35.0 U	35.0 U	35.0 U	0.70 U	0.700 U	0.700 U	-	1 U	1.00 U	1.00 U
Bromobenzene	µg/L	5_{**}^{B}	-	-	-	-	-	5.0 U	5.00 U	-	-	-	-	-
Bromodichloromethane	µg/L	50^{A}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Bromoform (Tribromomethane)	µg/L	50^{A}	250 U	250 U	250 U	250 U	250 U	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Bromomethane (Methyl bromide)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Butylbenzene, n-	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60^{A}	250 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobromomethane	µg/L	5_{**}^{B}	250 U	250 U	250 U	250 U	-	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Chloroethane (Ethyl Chloride)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	-	-	-	-	500 U	10 U	10.0 U	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	7^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloromethane	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Cyclohexane	µg/L	n/v	500 U	500 U	500 U	500 U	-	10 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04^{B}	500 U	500 U	500 U	500 U	-	10 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromochloromethane	µg/L	50^{A}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,2-	µg/L	3^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,3-	µg/L	3^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,4-	µg/L	3^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,1-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,2-	µg/L	0.6^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, 1,1-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, cis-1,2-	µg/L	5_{**}^{B}	1790^{B}	8600^{B}	2770^{B}	2720^{B}	772^{B}	8.3^{B}	23.6^{B}	9.39^{B}	-	2.89	165^{B}	118^{B}
Dichloroethene, trans-1,2-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	24.3^{B}	4.89	-	13.3^{B}	8.33^{B}	2.43
Dichloropropane, 1,2-	µg/L	1^{B}	100 U	100 U	100 U	100 U	100 U	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,3-	µg/L	5_{**}^{B}	-	-	-	-	-	2.0 U	2.00 U	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5_{**}^{B}	-	-	-	-	-	2.0 U	2.00 U	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4_{p}^{B}	100 U	100 U	100 U	100 U	100 U	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropene, trans-1,3-	µg/L	0.4_{p}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dioxane, 1,4-	µg/L	n/v	-	-	-	-	-	20 U	20.0 U	20.0 U	-	R	20.0 U	20.0 U
Ethylbenzene	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006^{B}	100 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50^{A}	250 U	250 U	250 U	250 U	250 U	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Isopropylbenzene	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Isopropyltoluene, p- (Cymene)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Methyl Acetate	µg/L	n/v	100 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methyl Ethyl Ketone (MEK)	µg/L	50^{A}	500 U	500 U	500 U	500 U	500 U	33	10.0 U	10.0 U	-	9.98 J	10.0 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	250 U	250 U	250 U	250 U	250 U	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10^{A}	100 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methylcyclohexane	µg/L	n/v	100 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methylene Chloride (Dichloromethane)	µg/L	5_{**}^{B}	250 U	250 U	250 U	250 U	250 U	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Naphthalene	µg/L	10^{B}	250 U	250 U	250 U	250 U	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Styrene	µg/L	5_{**}^{B}	250 U	250 U	250 U	250 U	250 U	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Tetrachloroethene (PCE)	µg/L	5_{**}^{B}	2390^{B}	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Toluene	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5_{**}^{B}	250 U	250 U	250 U	250 U	-	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichlorobenzene, 1,2,4-	µg/L	5_{**}^{B}	250 U	250 U	250 U	250 U	-	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichloroethane, 1,1,1-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethane, 1,1,2-	µg/L	1^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethene (TCE)	µg/L	5_{**}^{B}	1140^{B}	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	-	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trimethylbenzene, 1,2,4-	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5_{**}^{B}	250 U	100 U	100 U	100 U	-	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	250 U	-	-	-	-	-	-	-
Vinyl chloride	µg/L	2^{B}	100 U	100 U	183^{B}	945^{B}	879^{B}	13^{B}	81.8^{B}	6.65^{B}	-	3.52^{B}	140^{B}	135^{B}
Xylene, m & p-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Xylene, o-	µg/L	5_{**}^{B}	100 U	100 U	100 U	100 U	100 U	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Total VOC	µg/L	n/v	5320	8600	2953	3665	1651	54.3	129.7	20.93	-	43.29	313.33	255.43
Miscellaneous Parameters														
Arsenic	mg/L	0.025^{B}	0.010 U	0.048^{B}	0.013	0.024	-	-	0.0432^{B}	-	-	-	-	-
Iron	mg/L	0.3_{*}^{B}	3.42^{B}	20.8^{B}	2.35^{B}	19.3^{B}	-	-	$16.9\ L^{B}$	-	-	-	-	-
Manganese	mg/L	0.3_{*}^{B}	0.294	0.117	0.155	0.109	-	-	0.218 L	-	-	-	-	-
Sodium	mg/L	20^{B}	1270^{B}	1250^{B}	407^{B}	1280^{B}	2290^{B}	2000^{B}	1160^{B}	-	-	-	-	-
Total Organic Carbon	mg/L	n/v	5.2	122	8.5	8.9	20.5	750	144	92.0	41.0	-	15	10.8

Sample Location			MW16R													
Sample Date			28-Sep-11	5-Jan-12	3-Feb-12	1-Mar-12	1-Mar-12	5-Jun-12	5-Sep-12	23-Jan-13	11-Apr-13	3-Jul-13	9-Oct-13	9-Oct-13	18-Jun-15	9-Mar-16
Sample ID			WSR-MW-16R-GW-18	WSR-MW-16R-GW-19	WSR-MW-16R-GW-20	WSR-MW-16R-GW-21	WSR-MW-DUP-GW-21	WSR-MW-16R-GW-22	WSR-MW-16R-GW-23	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	828-MW-16R-GW	WSR-MW-16R-GW
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			P11-4106	P12-0069	12:0472	12:0906	12:0906	12:2364	12:3668	13:0353	131259	132490	133891	133926	152493	160970
Laboratory Sample ID			14149	12:0069-02	12:0472-07	12:0906-05	12:0906-06	12:2364-05	12:3668-04	130353-04	131259-04	132490-05	133891-04	133926-04	152493-05	160970-04
Sample Type	Units	TOGS					Field Duplicate									
Volatile Organic Compounds																
Acetone	µg/L	50^{A}	50.0 U	25.0 U	500 U	100 U	100 U	500 U	500 U	250 U	100 U	100 U	-	100 U	100 U	250 U
Benzene	µg/L	1^{B}	3.50 U	1.75 U	35.0 U	7.00 U	7.00 U	35.0 U	35.0 U	18 U	7.00 U	7.00 U	-	10 U	10.0 U	25.0 U
Bromobenzene	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	130 U	50.0 U	-	-	-	-	-
Bromodichloromethane	µg/L	50^{A}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Bromoform (Tribromomethane)	µg/L	50^{A}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	250 U	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Bromomethane (Methyl bromide)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Butylbenzene, n-	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60^{A}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Chlorobenzene (Monochlorobenzene)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Chlorobromomethane	µg/L	5_{**}^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	-	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Chloroethane (Ethyl Chloride)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	-	-	-	-	-	-	500 U	250 U	100 U	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	7^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Chloromethane	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Cyclohexane	µg/L	n/v	50.0 U	25.0 U	500 U	100 U	100 U	500 U	-	250 U	100 U	100 U	-	100 U	100 U	250 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04^{B}	50.0 U	25.0 U	500 U	100 U	100 U	500 U	-	250 U	100 U	100 U	-	100 U	100 U	250 U
Dibromochloromethane	µg/L	50^{A}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichlorobenzene, 1,2-	µg/L	3^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichlorobenzene, 1,3-	µg/L	3^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichlorobenzene, 1,4-	µg/L	3^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichlorodifluoromethane (Freon 12)	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloroethane, 1,1-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloroethane, 1,2-	µg/L	0.6^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloroethene, 1,1-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloroethene, cis-1,2-	µg/L	5_{**}^{B}	1150^{B}	110^{B}	3810^{B}	2260^{B}	2360^{B}	2630^{B}	1410^{B}	1000^{B}	841^{B}	664^{B}	-	77.7^{B}	1520^{B}	1610^{B}
Dichloroethene, trans-1,2-	µg/L	5_{**}^{B}	10.6^{B}	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	36.0^{B}	50.0 U
Dichloropropane, 1,2-	µg/L	1^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	-	-	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloropropane, 1,3-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	50 U	20.0 U	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	50 U	20.0 U	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4_{p}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	-	-	20.0 U	-	20.0 U	20.0 U	50.0 U
Dichloropropene, trans-1,3-	µg/L	0.4_{p}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Dioxane, 1,4-	µg/L	n/v	-	-	-	-	-	-	-	500 U	200 U	200 U	-	R	200 U	500 U
Ethylbenzene	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50^{A}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	250 U	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Isopropylbenzene	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Isopropyltoluene, p- (Cymene)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Methyl Acetate	µg/L	n/v	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Methyl Ethyl Ketone (MEK)	µg/L	50^{A}	50.0 U	25.0 U	500 U	100 U	100 U	500 U	500 U	250 U	100 U	100 U	-	100 UJ	100 U	250 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	250 U	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Methyl tert-butyl ether (MTBE)	µg/L	10^{A}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Methylcyclohexane	µg/L	n/v	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Methylene Chloride (Dichloromethane)	µg/L	5_{**}^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	250 U	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Naphthalene	µg/L	10^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Styrene	µg/L	5_{**}^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	250 U	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Tetrachloroethane, 1,1,2,2-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Tetrachloroethene (PCE)	µg/L	5_{**}^{B}	832^{B}	299^{B}	100 U	65.4^{B}	64.4^{B}	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	694^{B}	50.0 U
Toluene	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Trichlorobenzene, 1,2,3-	µg/L	5_{**}^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	-	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Trichlorobenzene, 1,2,4-	µg/L	5_{**}^{B}	25.0 U	12.5 U	250 U	50.0 U	50.0 U	250 U	-	130 U	50.0 U	50.0 U	-	50.0 U	50.0 U	125 U
Trichloroethane, 1,1,1-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Trichloroethane, 1,1,2-	µg/L	1^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Trichloroethene (TCE)	µg/L	5_{**}^{B}	651^{B}	57.1^{B}	100 U	20.0 U	20.0 U	100 U	100 U	50 U	167^{B}	20.0 U	-	20.0 U	350^{B}	50.0 U
Trichlorofluoromethane (Freon 11)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	-	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Trimethylbenzene, 1,2,4-	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5_{**}^{B}	25.0 U	12.5 U	100 U	20.0 U	20.0 U	100 U	-	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	-	-	250 U	-	-	-	-	-	-	-
Vinyl chloride	µg/L	2^{B}	23.3^{B}	5.00 U	717^{B}	997^{B}	1030^{B}	1060^{B}	790^{B}	1100^{B}	558^{B}	1040^{B}	-	33.1^{B}	537^{B}	961^{B}
Xylene, m & p-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Xylene, o-	µg/L	5_{**}^{B}	10.0 U	5.00 U	100 U	20.0 U	20.0 U	100 U	100 U	50 U	20.0 U	20.0 U	-	20.0 U	20.0 U	50.0 U
Total VOC	µg/L	n/v	2666.9	466.1	4527	3322.4	3454.4	3690	2200	2100	1566	1704	-	110.8	3137	2571
Miscellaneous Parameters																
Arsenic	mg/L	0.025^{B}	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	-	-	0.0100 U	-	-	-	-	-
Iron	mg/L	0.3_{*}^{B}	1.81^{B}	0.100 U	0.381^{B}	1.00^{B}	1.05^{B}	2.68^{B}	-	-	0.144 L	-	-	-	-	-
Manganese	mg/L	0.3_{*}^{B}	0.068	0.015 U	0.072	0.287	0.242	0.109	-	-	0.146 L	-	-	-	-	-
Sodium	mg/L	20^{B}	461^{B}	675^{B}	1070^{B}	590^{B}	598^{B}	659^{B}	758^{B}	820^{B}	340^{B}	-	-	-	-	-
Total Organic Carbon	mg/L	n/v	4.3	4.4	5.7	3.9	5.7	4.2	16.2	230	49.6	42.0	11.0	-	3.9	10.3

Stantec

Table 1
Summary of Volatile Organic Compounds in Groundwater – September 2011 to March 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			MW23															MW23R					
Sample Date			28-Sep-11	5-Jan-12	6-Feb-12	2-Mar-12	5-Jun-12	5-Jun-12	6-Sep-12	24-Jan-13	10-Apr-13	5-Jul-13	10-Oct-13	10-Oct-13	10-Oct-13	17-Jun-15	9-Mar-16	28-Sep-11	5-Jan-12	6-Feb-12	2-Mar-12	5-Jun-12	6-Sep-12
Sample ID			WSR-MW-23-GW-7	828-MW-23-GW-8	828-MW-23-GW-9	828-MW-23-GW-10	828-MW-23-GW-11	828-MW-DUP-GW-11	828-MW-23-GW-12	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-DUP-GW	828-MW-23-GW	828-MW-23-GW	WSR-MW-23R-GW-7	828-MW-23R-GW-8	828-MW-23R-GW-9	828-MW-23R-GW-10	828-MW-23R-GW-11	828-MW-23R-GW-12
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			P11-4106	P12-0069	12:0488	12:0936	12:2364	12:2364	12:3694	13:0365	131242	132505	133909	133925	133925	152493	160970	P11-4106	P12-0069	12:0488	12:0936	12:2364	12:3694
Laboratory Sample ID			14150	12:0069-06	12:0488-02	12:0936-05	12:2364-02	12:2364-03	12:3694-05	130365-05	131242-02	132505-03	133909-01	133925-02	133925-03	152493-02	160970-01	14151	12:0069-05	12:0488-03	12:0936-06	12:2364-04	12:3694-06
Sample Type	Units	TOGS						Field Duplicate							Field Duplicate								
Volatile Organic Compounds																							
Acetone	µg/L	50[A]	100 U	500 U	500 U	500 U	1000 U	1000 U	1000 U	1000 U	100 U	100 U	-	100 U	100 U	100 U	250 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	30.6
Benzene	µg/L	1[B]	7.00 U	35.0 U	35.0 U	35.0 U	70.0 U	70.0 U	70.0 U	70 U	7.00 U	7.00 U	-	10 U	10 U	10.0 U	25.0 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U
Bromobenzene	µg/L	5..[B]	-	-	-	-	-	-	-	500 U	50.0 U	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	50[A]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Bromoform (Tribromomethane)	µg/L	50[A]	50.0 U	250 U	250 U	250 U	500 U	500 U	500 U	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Bromomethane (Methyl bromide)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Butylbenzene, n-	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Butylbenzene, tert-	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Carbon Disulfide	µg/L	60[A]	50.0 U	250 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chlorobromomethane	µg/L	5..[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	-	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-
Chloroethane (Ethyl Chloride)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	-	-	-	-	-	-	1000 U	1000 U	100 U	-	-	-	-	-	-	-	-	-	-	-	10.0 U
Chloroform (Trichloromethane)	µg/L	7[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chloromethane	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cyclohexane	µg/L	n/v	100 U	500 U	500 U	500 U	1000 U	1000 U	-	1000 U	100 U	100 U	-	100 U	100 U	100 U	250 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	-
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04[B]	100 U	500 U	500 U	500 U	1000 U	1000 U	-	1000 U	100 U	100 U	-	100 U	100 U	100 U	250 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	-
Dibromochloromethane	µg/L	50[A]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,2-	µg/L	3[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,3-	µg/L	3[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,4-	µg/L	3[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Dichloroethane, 1,1-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,2-	µg/L	0.6[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethene, 1,1-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethene, cis-1,2-	µg/L	5..[B]	20.0 U	100 U	4130[B]	10900[B]	5120[B]	5240[B]	3940[B]	8900[B]	242[B]	862[B]	-	86.8 J[B]	142 J[B]	1040[B]	1110[B]	63.8[B]	82.4[B]	17.4[B]	13.1[B]	32.6[B]	5.30[B]
Dichloroethene, trans-1,2-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,2-	µg/L	1[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	-	-	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,3-	µg/L	5..[B]	-	-	-	-	-	-	-	200 U	20.0 U	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5..[B]	-	-	-	-	-	-	-	200 U	20.0 U	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4p[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	-	-	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloropropene, trans-1,3-	µg/L	0.4p[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dioxane, 1,4-	µg/L	n/v	-	-	-	-	-	-	-	2000 U	200 U	200 U	-	R	R	200 U	500 U	-	-	-	-	-	-
Ethylbenzene	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50[A]	50.0 U	250 U	250 U	250 U	500 U	500 U	500 U	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Isopropylbenzene	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Isopropyltoluene, p- (Cymene)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Methyl Acetate	µg/L	n/v	20.0 U	100 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Methyl Ethyl Ketone (MEK)	µg/L	50[A]	100 U	500 U	500 U	500 U	1000 U	1000 U	1000 U	1000 U	100 U	100 U	-	100 UJ	100 UJ	100 U	250 U	10.0 U	10.0 U	11.9	10.0 U	10.0 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	50.0 U	250 U	250 U	250 U	500 U	500 U	500 U	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10[A]	20.0 U	100 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Methylcyclohexane	µg/L	n/v	20.0 U	100 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Methylene Chloride (Dichloromethane)	µg/L	5..[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	500 U	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Naphthalene	µg/L	10[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-
Propylbenzene, n-	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Styrene	µg/L	5..[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	500 U	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Tetrachloroethene (PCE)	µg/L	5..[B]	2240[B]	4010[B]	2500[B]	107[B]	1150[B]	1130[B]	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	663[B]	4810[B]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Toluene	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5..[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	-	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-
Trichlorobenzene, 1,2,4-	µg/L	5..[B]	50.0 U	250 U	250 U	250 U	500 U	500 U	-	500 U	50.0 U	50.0 U	-	50.0 U	50.0 U	50.0 U	125 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-
Trichloroethane, 1,1,1-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichloroethane, 1,1,2-	µg/L	1[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichloroethene (TCE)	µg/L	5..[B]	36.4[B]	100 U	407[B]	100 U	562[B]	549[B]	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	251[B]	1060[B]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	-	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-
Trimethylbenzene, 1,2,4-	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Trimethylbenzene, 1,3,5-	µg/L	5..[B]	50.0 U	250 U	100 U	100 U	200 U	200 U	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	-	-	500 U	-	-	-	-	-	-	-	-	-	-	-	-	-	5.00 U
Vinyl chloride	µg/L	2[B]	20.0 U	100 U	100 U	100 U	1090[B]	1130[B]	1110[B]	970[B]	154[B]	636[B]	-	241 J[B]	399 J[B]	73.3[B]	50.0 U	2.21[B]	2.00 U	2.00 U	2.00 U	5.95[B]	3.46[B]
Xylene, m & p-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Xylene, o-	µg/L	5..[B]	20.0 U	100 U	100 U	100 U	200 U	200 U	200 U	200 U	20.0 U	20.0 U	-	20.0 U	20.0 U	20.0 U	50.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Total VOC	µg/L	n/v	2276.4	4010	7037	11007	7922	8049	5050	9870	396	1498	-	327.8	541	2027.3	6980	66.01	82.4	29.3	13.1	38.55	39.36
Miscellaneous Parameters																							
Arsenic	mg/L	0.025[B]	0.010 U	0.010 U	0.018	0.014	0.021	0.021	-	-	0.0217	-	-	-	-	-	-	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	-
Iron	mg/L	0.3.[B]	0.100 U	111[B]	23.3[B]	12.5[B]	15.7[B]	15.5[B]	-	-	13.2 L[B]	-	-	-	-	-	-	0.819[B]	3.04[B]	7.52[B]	3.08[B]	4.21[B]	-
Manganese	mg/L	0.3.[B]	0.226	4.07[B]	0.161	0.523[B]	0.165	0.189	-	-	0.445 L[B]	-	-	-	-	-	-	0.040	0.129	0.053	0.081 M	0.034	-
Sodium	mg/L	20[B]	1450[B]	1660[B]	1090[B]	1090[B]	1130[B]	1150[B]	1120[B]	1300[B]	1000[B]	-	-	-	-	-	-	417[B]	392[B]	751[B]	766[B]	458[B]	568[B]
Total Organic Carbon	mg/L	n/v	3.7	1880	118	68.4	6.0	6.0	64.3	560	165	23.0	8.50	-	-	3.5	9.17 J	3.6	38.4	33.0	31.1	4.0	58.6

Table 1
Summary of Volatile Organic Compounds in Groundwater – September 2011 to March 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location	Units	TOGS	MW23R						
Sample Date			24-Jan-13	10-Apr-13	5-Jul-13	10-Oct-13	10-Oct-13	17-Jun-15	9-Mar-16
Sample ID			828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			13:0365	131242	132505	133909	133925	152493	160970
Laboratory Sample ID			130365-04	131242-03	132505-02	133909-02	133925-04	152493-01	160970-02
Sample Type									
Volatile Organic Compounds									
Acetone	µg/L	50[A]	10 U	10.0 U	11.1	-	18.3 J	10.0 U	10.0 U
Benzene	µg/L	1[B]	0.70 U	0.700 U	0.700 U	-	1 U	1.00 U	1.00 U
Bromobenzene	µg/L	5**[B]	5.0 U	5.00 U	-	-	-	-	-
Bromodichloromethane	µg/L	50[A]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Bromoform (Tribromomethane)	µg/L	50[A]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Bromomethane (Methyl bromide)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Butylbenzene, n-	µg/L	5**[B]	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5**[B]	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5**[B]	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60[A]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobromomethane	µg/L	5**[B]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Chloroethane (Ethyl Chloride)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	10 U	10.0 U	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	7[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloromethane	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Cyclohexane	µg/L	n/v	10 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04[B]	10 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromochloromethane	µg/L	50[A]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,2-	µg/L	3[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,3-	µg/L	3[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,4-	µg/L	3[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,1-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,2-	µg/L	0.6[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, 1,1-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, cis-1,2-	µg/L	5**[B]	5.8[B]	5.83[B]	4.81	-	9.16[B]	1.46 J	1.86 J
Dichloroethene, trans-1,2-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,2-	µg/L	1[B]	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,3-	µg/L	5**[B]	2.0 U	2.00 U	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5**[B]	2.0 U	2.00 U	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4p[B]	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropene, trans-1,3-	µg/L	0.4p[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dioxane, 1,4-	µg/L	n/v	20 U	20.0 U	20.0 U	-	R	20.0 U	20.0 U
Ethylbenzene	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50[A]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Isopropylbenzene	µg/L	5**[B]	-	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Isopropyltoluene, p- (Cymene)	µg/L	5**[B]	-	-	-	-	-	-	-
Methyl Acetate	µg/L	n/v	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methyl Ethyl Ketone (MEK)	µg/L	50[A]	130[A]	80.7[A]	76.9[A]	-	107 J[A]	10.0 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10[A]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methylcyclohexane	µg/L	n/v	2.0 U	2.00 U	2.00 U	-	2.00 U	1.59 J	1.37 J
Methylene Chloride (Dichloromethane)	µg/L	5**[B]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Naphthalene	µg/L	10[B]	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5**[B]	-	-	-	-	-	-	-
Styrene	µg/L	5**[B]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Tetrachloroethene (PCE)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Toluene	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5**[B]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichlorobenzene, 1,2,4-	µg/L	5**[B]	5.0 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichloroethane, 1,1,1-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethane, 1,1,2-	µg/L	1[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethene (TCE)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trimethylbenzene, 1,2,4-	µg/L	5**[B]	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5**[B]	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	-	-	-
Vinyl chloride	µg/L	2[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Xylene, m & p-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Xylene, o-	µg/L	5**[B]	2.0 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Total VOC	µg/L	n/v	135.8	86.53	92.81	-	134.46	3.05	3.23
Miscellaneous Parameters									
Arsenic	mg/L	0.025[B]	-	0.0100 U	-	-	-	-	-
Iron	mg/L	0.3*[B]	-	3.08 L[B]	-	-	-	-	-
Manganese	mg/L	0.3*[B]	-	0.0702 L	-	-	-	-	-
Sodium	mg/L	20[B]	1200[B]	529[B]	-	-	-	-	-
Total Organic Carbon	mg/L	n/v	670	368	86.0	175	-	6.8	12.0

Sample Location	MW105												
Sample Date	28-Sep-11	4-Jan-12	2-Feb-12	29-Feb-12	4-Jun-12	4-Sep-12	22-Jan-13	11-Apr-13	2-Jul-13	8-Oct-13	8-Oct-13	18-Jun-15	10-Mar-16
Sample ID	WSR-MW-105-GW-12	WSR-MW-105-GW-13	WSR-MW-105-GW-14	WSR-MW-105-GW-15	WSR-MW-105-GW-16	WSR-MW-105-GW-17	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW
Sampling Company	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order	P11-4106	P12-0041	12:0443	12:0868	12:2335	12:3644	13:0329	131259	132471	133887	133927	152493	160970
Laboratory Sample ID	14152	12:0041-02	12:0443-02	12:0868-02	12:2335-05	12:3644-02	130329-05	131259-02	132471-02	133887-01	133927-02	152493-07	160970-06
Sample Type													
Volatile Organic Compounds													
Acetone	50.0 U	50.0 U	35.4 B	20.0 U	10.0 U	20.0 U	50 U	32.8	10.0 U	-	10.0 U	10.0 U	10.0 U
Benzene	3.50 U	3.50 U	1.75 U	1.40 U	0.700 U	1.40 U	3.5 U	0.700 U	0.700 U	-	1 U	1.00 U	1.00 U
Bromobenzene	-	-	-	-	-	-	25 U	5.00 U	-	-	-	-	-
Bromodichloromethane	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Bromoform (Tribromomethane)	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	10.0 U	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Bromomethane (Methyl bromide)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Butylbenzene, n-	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Butylbenzene, tert-	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Carbon Disulfide	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobenzene (Monochlorobenzene)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chlorobromomethane	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	-	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Chloroethane (Ethyl Chloride)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloroethyl Vinyl Ether, 2-	-	-	-	-	-	20.0 U	50 U	10.0 U	-	-	-	-	-
Chloroform (Trichloromethane)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Chloromethane	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Cyclohexane	50.0 U	50.0 U	25.0 U	20.0 U	10.0 U	-	50 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	50.0 U	50.0 U	25.0 U	20.0 U	10.0 U	-	50 U	10.0 U	10.0 U	-	10.0 U	10.0 U	10.0 U
Dibromochloromethane	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,2-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,3-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,4-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichlorodifluoromethane (Freon 12)	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,1-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,2-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, 1,1-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloroethene, cis-1,2-	480[B]	179[B]	220[B]	155[B]	81.9[B]	145[B]	210[B]	159[B]	83.6[B]	-	151[B]	111[B]	129[B]
Dichloroethene, trans-1,2-	358[B]	134[B]	183[B]	120[B]	59.0[B]	115[B]	120[B]	83.6[B]	86.4[B]	-	196[B]	130[B]	115[B]
Dichloropropane, 1,2-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,3-	-	-	-	-	-	-	10 U	2.00 U	-	-	-	-	-
Dichloropropane, 2,2-	-	-	-	-	-	-	10 U	2.00 U	-	-	-	-	-
Dichloropropene, cis-1,3-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	-	-	2.00 U	-	2.00 U	2.00 U	2.00 U
Dichloropropene, trans-1,3-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Dioxane, 1,4-	-	-	-	-	-	-	100 U	20.0 U	20.0 U	-	R	20.0 U	20.0 U
Ethylbenzene	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Hexanone, 2- (Methyl Butyl Ketone)	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	10.0 U	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Isopropylbenzene	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Isopropyltoluene, p- (Cymene)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Methyl Acetate	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methyl Ethyl Ketone (MEK)	50.0 U	50.0 U	25.0 U	20.0 U	10.0 U	20.0 U	110[A]	32.2	10.0 U	-	10.0 UJ	10.0 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	10.0 U	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Methyl tert-butyl ether (MTBE)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methylcyclohexane	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Methylene Chloride (Dichloromethane)	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	10.0 U	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Naphthalene	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	-	-	-	-	-	-	-	-
Propylbenzene, n-	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Styrene	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	10.0 U	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Tetrachloroethane, 1,1,2,2-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Tetrachloroethene (PCE)	10.0 U	10.0 U	6.71[B]	4.92	5.21[B]	5.59[B]	10 U	2.00 U	2.00 U	-	2.00 U	1.38 J	2.36
Toluene	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorobenzene, 1,2,3-	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	-	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichlorobenzene, 1,2,4-	25.0 U	25.0 U	12.5 U	10.0 U	5.00 U	-	25 U	5.00 U	5.00 U	-	5.00 U	5.00 U	5.00 U
Trichloroethane, 1,1,1-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethane, 1,1,2-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichloroethene (TCE)	431[B]	221[B]	264[B]	200[B]	139[B]	229[B]	230[B]	13.9[B]	20.3[B]	-	16.8[B]	9.94[B]	10.1[B]
Trichlorofluoromethane (Freon 11)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	-	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Trimethylbenzene, 1,2,4-	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	25.0 U	25.0 U	12.5 U	4.00 U	2.00 U	-	-	-	-	-	-	-	-
Vinyl Acetate	-	-	-	-	-	10.0 U	-	-	-	-	-	-	-
Vinyl chloride	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	23.6[B]	18.8[B]	-	78.3[B]	48.5[B]	55.5[B]
Xylene, m & p-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Xylene, o-	10.0 U	10.0 U	5.00 U	4.00 U	2.00 U	4.00 U	10 U	2.00 U	2.00 U	-	2.00 U	2.00 U	2.00 U
Total VOC	1269	534	709.11	479.92	285.11	494.59	670	345.1	209.1	-	442.1	300.82	311.96
Miscellaneous Parameters													
Arsenic	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	-	-	0.0194	-	-	-	-	-
Iron	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	-	-	3.91 L[B]	-	-	-	-	-
Manganese	0.092	0.021	0.033	0.041	0.015 U	-	-	0.0860 L	-	-	-	-	-
Sodium	318[B]	346[B]	352[B]	342[B]	356[B]	361[B]	1100[B]	302[B]	-	-	-	-	-
Total Organic Carbon	3.2	3	3.2	2.9	3.3	3.2	1200	164	12.0	4.70	-	2.5	6.14

Sample Location	MW207R					
Sample Date	27-Sep-11	27-Sep-11	6-Feb-12	2-Mar-12	6-Jun-12	6-Sep-12
Sample ID	WSR-MW-207R-GW-12	WSR-MW-Dup-GW-13	WSR-MW-207R-GW-13	WSR-MW-207R-GW-14	WSR-MW-207R-GW-15	WSR-MW-207R-GW-16
Sampling Company	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order	P11-4089	P11-4089	12:0488	12:0936	12:2392	12:3694
Laboratory Sample ID	14074	14075	12:0488-04	12:0936-03	12:2392-03	12:3694-02
Sample Type		Field Duplicate				
Volatile Organic Compounds						
Acetone	50.0 U	50.0 U	100 U	100 U	50.0 U	50.0 U
Benzene	3.50 U	3.50 U	7.00 U	7.00 U	3.50 U	3.50 U
Bromobenzene	-	-	-	-	-	-
Bromodichloromethane	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Bromoform (Tribromomethane)	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	25.0 U
Bromomethane (Methyl bromide)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Butylbenzene, n-	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Butylbenzene, sec- (2-Phenylbutane)	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Butylbenzene, tert-	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Carbon Disulfide	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Carbon Tetrachloride (Tetrachloromethane)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Chlorobenzene (Monochlorobenzene)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Chlorobromomethane	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	-
Chloroethane (Ethyl Chloride)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Chloroethyl Vinyl Ether, 2-	-	-	-	-	-	50.0 U
Chloroform (Trichloromethane)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Chloromethane	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Cyclohexane	50.0 U	50.0 U	100 U	100 U	50.0 U	-
Dibromo-3-Chloropropane, 1,2- (DBCP)	50.0 U	50.0 U	100 U	100 U	50.0 U	-
Dibromochloromethane	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichlorobenzene, 1,2-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichlorobenzene, 1,3-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichlorobenzene, 1,4-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichlorodifluoromethane (Freon 12)	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Dichloroethane, 1,1-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichloroethane, 1,2-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichloroethene, 1,1-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichloroethene, cis-1,2-	908[B]	913[B]	1330[B]	1480[B]	432[B]	98.4[B]
Dichloroethene, trans-1,2-	22.7[B]	22.3[B]	20.0 U	20.0 U	13.9[B]	26.0[B]
Dichloropropane, 1,2-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichloropropane, 1,3-	-	-	-	-	-	-
Dichloropropane, 2,2-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dichloropropene, trans-1,3-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Dioxane, 1,4-	-	-	-	-	-	-
Ethylbenzene	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Ethylene Dibromide (Dibromoethane, 1,2-)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Hexanone, 2- (Methyl Butyl Ketone)	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	25.0 U
Isopropylbenzene	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Isopropyltoluene, p- (Cymene)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Methyl Acetate	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Methyl Ethyl Ketone (MEK)	50.0 U	50.0 U	100 U	100 U	50.0 U	50.0 U
Methyl Isobutyl Ketone (MIBK)	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	25.0 U
Methyl tert-butyl ether (MTBE)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Methylcyclohexane	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Methylene Chloride (Dichloromethane)	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	25.0 U
Naphthalene	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	-
Propylbenzene, n-	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Styrene	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	25.0 U
Tetrachloroethane, 1,1,2,2-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Tetrachloroethene (PCE)	132[B]	130[B]	20.0 U	20.0 U	10.0 U	10.0 U
Toluene	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Trichlorobenzene, 1,2,3-	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	-
Trichlorobenzene, 1,2,4-	25.0 U	25.0 U	50.0 U	50.0 U	25.0 U	-
Trichloroethane, 1,1,1-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Trichloroethane, 1,1,2-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Trichloroethene (TCE)	182[B]	184[B]	20.0 U	20.0 U	10.0 U	10.0 U
Trichlorofluoromethane (Freon 11)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Trichlorotrifluoroethane (Freon 113)	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	-
Trimethylbenzene, 1,2,4-	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Trimethylbenzene, 1,3,5-	25.0 U	25.0 U	20.0 U	20.0 U	10.0 U	-
Vinyl Acetate	-	-	-	-	-	25.0 U
Vinyl chloride	203[B]	213[B]	1010[B]	936[B]	627[B]	184[B]
Xylene, m & p-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Xylene, o-	10.0 U	10.0 U	20.0 U	20.0 U	10.0 U	10.0 U
Total VOC	1447.7	1462.3	2340	2416	1072.9	308.4
Miscellaneous Parameters						
Arsenic	-	-	0.010 U	0.014	0.010 U	-
Iron	-	-	0.100 U	0.100 U	0.100 U	-
Manganese	-	-	0.045	0.145	0.057	-
Sodium	-	-	543[B]	439[B]	538[B]	531[B]
Total Organic Carbon	-	-	18.5	8.7	9.4	1.7

Table 1
Summary of Volatile Organic Compounds in Groundwater – September 2011 to March 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location						MW207R																Trip Blank						
Sample Date			24-Jan-13	12-Apr-13	5-Jul-13	10-Oct-13	10-Oct-13	18-Jun-15	10-Mar-16	4-Jan-12	5-Jan-12	2-Feb-12	3-Feb-12	6-Feb-12	29-Feb-12	1-Mar-12	2-Mar-12	4-Jun-12	5-Jun-12	6-Jun-12	4-Sep-12	5-Sep-12	6-Sep-12	22-Jan-13	23-Jan-13	24-Jan-13	10-Apr-13
Sample ID			WSR-MW-207R-GW	WSR-MW-207R-GW	WSR-MW-207R-GW	WSR-MW-207R-GW	WSR-MW-207R-GW	WSR-MW-207R-GW	WSR-MW-207R-GW	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			13:0365	131283	132505	133909	133925	152493	160970	P12-0041	P12-0069	12:0443	12:0472	12:0488	12:0868	12:0906	12:0936	12:2335	12:2364	12:2392	12:3644	12:3668	12:3694	13:0329	13:0353	13:0365	131242
Laboratory Sample ID			130365-02	131283-04	132505-04	133909-04	133925-06	152493-06	160970-05	12:0041-01	12:0069-01	12:0443-01	12:0472-01	12:0488-01	12:0868-01	12:0906-01	12:0936-01	12:2335-01	12:2364-01	12:2392-01	12:3644-01	12:3668-01	12:3694-01	130329-01	130353-01	130365-01	131242-01
Sample Type	Units	TOGS								Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Volatile Organic Compounds																											
Acetone	µg/L	50[A]	50 U	50.0 U	200 U	-	200 U	200 U	100 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	28.1 B	10.0 U	10.0 U	10 U	10 U	10 U	13.3
Benzene	µg/L	1[B]	3.5 U	3.50 U	14.0 U	-	20 U	20.0 U	10.0 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	0.70 U	0.70 U	0.70 U	0.700 U
Bromobenzene	µg/L	5**[B]	25 U	25.0 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	50[A]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Bromoform (Tribromomethane)	µg/L	50[A]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.0 U	5.0 U	5.0 U	5.00 U
Bromomethane (Methyl bromide)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Butylbenzene, n-	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60[A]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Chlorobromomethane	µg/L	5**[B]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-	-	-	5.0 U	5.0 U	5.0 U	5.00 U
Chloroethane (Ethyl Chloride)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	50 U	50.0 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.0 U	10.0 U	10.0 U	-	-	-	-
Chloroform (Trichloromethane)	µg/L	7[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Chloromethane	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Cyclohexane	µg/L	n/v	50 U	50.0 U	200 U	-	200 U	200 U	100 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	-	-	-	10 U	10 U	10 U	10.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04[B]	50 U	50.0 U	200 U	-	200 U	200 U	100 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	-	-	-	10 U	10 U	10 U	10.0 U
Dibromochloromethane	µg/L	50[A]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichlorobenzene, 1,2-	µg/L	3[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichlorobenzene, 1,3-	µg/L	3[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichlorobenzene, 1,4-	µg/L	3[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Dichloroethane, 1,1-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloroethane, 1,2-	µg/L	0.6[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloroethene, 1,1-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloroethene, cis-1,2-	µg/L	5**[B]	500[B]	250[B]	193[B]	-	40.0 U	537[B]	690[B]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloroethene, trans-1,2-	µg/L	5**[B]	24[B]	10.0 U	40.0 U	-	40.0 U	40.0 U	14.7 J[B]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloropropane, 1,2-	µg/L	1[B]	-	-	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloropropane, 1,3-	µg/L	5**[B]	10 U	10.0 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5**[B]	10 U	10.0 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4p[B]	-	-	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dichloropropene, trans-1,3-	µg/L	0.4p[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Dioxane, 1,4-	µg/L	n/v	100 U	100 U	400 U	-	R	400 U	200 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20 U	20 U	20 U	20.0 U
Ethylbenzene	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50[A]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.0 U	5.0 U	5.0 U	5.00 U
Isopropylbenzene	µg/L	5**[B]	-	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Isopropyltoluene, p- (Cymene)	µg/L	5**[B]	-	-	-	-	-	-	-	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Methyl Acetate	µg/L	n/v	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Methyl Ethyl Ketone (MEK)	µg/L	50[A]	140[A]	61.0[A]	200 U	-	200 UJ	200 U	100 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.0 U	5.0 U	5.0 U	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10[A]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Methylcyclohexane	µg/L	n/v	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Methylene Chloride (Dichloromethane)	µg/L	5**[B]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.0 U	5.0 U	5.0 U	5.00 U
Naphthalene	µg/L	10[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Styrene	µg/L	5**[B]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.0 U	5.0 U	5.0 U	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Tetrachloroethene (PCE)	µg/L	5**[B]	19[B]	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Toluene	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5**[B]	25 U	25.0 U	100 U	-	100 U	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-	-	-	5.0 U	5.0 U	5.0 U	5.00 U
Trichlorobenzene, 1,2,4-	µg/L	5**[B]	25 U	25.0 U	100 U	-	100 UJ	100 U	50.0 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	-	-	-	5.0 U	5.0 U	5.0 U	5.00 U
Trichloroethane, 1,1,1-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Trichloroethane, 1,1,2-	µg/L	1[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Trichloroethene (TCE)	µg/L	5**[B]	55[B]	10.0 U	40.0 U	-	40.0 U	20.5 J[B]	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	2.0 U	2.0 U	2.0 U	2.00 U
Trimethylbenzene, 1,2,4-	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5**[B]	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.00 U	5.00 U	5.00 U	-	-	-	-
Vinyl chloride	µg/L	2[B]	1000[B]	327[B]	1850[B]	-	451[B]	829[B]	582[B]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Xylene, m & p-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Xylene, o-	µg/L	5**[B]	10 U	10.0 U	40.0 U	-	40.0 U	40.0 U	20.0 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.0 U	2.0 U	2.0 U	2.00 U
Total VOC	µg/L	n/v	1738	638	2043	-	451	1386.5	1286.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28.1	ND	ND	ND	ND	ND	13.3
Miscellaneous Parameters																											
Arsenic	mg/L	0.025[B]	-	0.0100 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.3*[B]	-	0.100 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.3*[B]	-	0.0207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	20[B]	840[B]	493[B]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	n/v	530	131	28.0	18.4	-	4.1	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1
Summary of Volatile Organic Compounds in Groundwater – September 2011 to March 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			Trip Blank									
Sample Date			11-Apr-13	12-Apr-13	2-Jul-13	3-Jul-13	5-Jul-13	8-Oct-13	9-Oct-13	10-Oct-13	17-Jun-15	9-Mar-16
Sample ID			Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	TRIP-06172015, T-633	Trip Blank (T-693)
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			131259	131283	132471	132490	132505	133927	133926	133925	152493	160970
Laboratory Sample ID			131259-01	131283-01	132471-01	132490-01	132505-01	133927-01	133926-01	133925-01	152493-04	160970-07
Sample Type	Units	TOGS	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank
Volatile Organic Compounds												
Acetone	µg/L	50^{A}	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Benzene	µg/L	1^{B}	0.700 U	0.700 U	0.700 U	0.700 U	0.700 U	1 U	1 U	1 U	1.00 U	1.00 U
Bromobenzene	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	50^{A}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Bromoform (Tribromomethane)	µg/L	50^{A}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Bromomethane (Methyl bromide)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Butylbenzene, n-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Butylbenzene, sec- (2-Phenylbutane)	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Butylbenzene, tert-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Carbon Disulfide	µg/L	60^{A}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Carbon Tetrachloride (Tetrachloromethane)	µg/L	5^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chlorobenzene (Monochlorobenzene)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chlorobromomethane	µg/L	5_{**}^{B}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Chloroethane (Ethyl Chloride)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chloroethyl Vinyl Ether, 2-	µg/L	n/v	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/L	7^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Chloromethane	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cyclohexane	µg/L	n/v	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/L	0.04^{B}	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***	***10.0 U***
Dibromochloromethane	µg/L	50^{A}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,2-	µg/L	3^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,3-	µg/L	3^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorobenzene, 1,4-	µg/L	3^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichlorodifluoromethane (Freon 12)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,1-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethane, 1,2-	µg/L	0.6^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Dichloroethene, 1,1-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethene, cis-1,2-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloroethene, trans-1,2-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Dichloropropane, 1,2-	µg/L	1^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Dichloropropane, 1,3-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Dichloropropane, 2,2-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/L	0.4_{p}^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Dichloropropene, trans-1,3-	µg/L	0.4_{p}^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Dioxane, 1,4-	µg/L	n/v	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	R	R	R	20.0 U	20.0 U
Ethylbenzene	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/L	0.0006^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Hexanone, 2- (Methyl Butyl Ketone)	µg/L	50^{A}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Isopropylbenzene	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Isopropyltoluene, p- (Cymene)	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Methyl Acetate	µg/L	n/v	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Methyl Ethyl Ketone (MEK)	µg/L	50^{A}	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 UJ	10.0 UJ	10.0 UJ	10.0 U	10.0 U
Methyl Isobutyl Ketone (MIBK)	µg/L	n/v	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Methyl tert-butyl ether (MTBE)	µg/L	10^{A}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Methylcyclohexane	µg/L	n/v	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Methylene Chloride (Dichloromethane)	µg/L	5_{**}^{B}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Naphthalene	µg/L	10^{B}	-	-	-	-	-	-	-	-	-	-
Propylbenzene, n-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	5_{**}^{B}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Tetrachloroethane, 1,1,2,2-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Tetrachloroethene (PCE)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Toluene	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorobenzene, 1,2,3-	µg/L	5_{**}^{B}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Trichlorobenzene, 1,2,4-	µg/L	5_{**}^{B}	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Trichloroethane, 1,1,1-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichloroethane, 1,1,2-	µg/L	1^{B}	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***	***2.00 U***
Trichloroethene (TCE)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorofluoromethane (Freon 11)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trichlorotrifluoroethane (Freon 113)	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Trimethylbenzene, 1,2,4-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	5_{**}^{B}	-	-	-	-	-	-	-	-	-	-
Vinyl Acetate	µg/L	n/v	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	2^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Xylene, m & p-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Xylene, o-	µg/L	5_{**}^{B}	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Total VOC	µg/L	n/v	ND	ND	0	0	0	ND	ND	ND	ND	ND
Miscellaneous Parameters												
Arsenic	mg/L	0.025^{B}	-	-	-	-	-	-	-	-	-	-
Iron	mg/L	0.3_{*}^{B}	-	-	-	-	-	-	-	-	-	-
Manganese	mg/L	0.3_{*}^{B}	-	-	-	-	-	-	-	-	-	-
Sodium	mg/L	20^{B}	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	n/v	-	-	-	-	-	-	-	-	-	-

Notes:

TOGS	NYSDEC TOGS 1.1.1 (Reissued June 1998 with errata in January 1999 and addenda in April 2000 and June 2004)
A	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Guida
B	TOGS 1.1.1 - Table 1 - Ambient Water Quality Standards and Guidance Values, Division of Water, Technical and Operational Guidance Series (TOGS 1.1.1); Stand
6.5^{A}	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.50 U	Laboratory reporting limit was greater than the applicable standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
*	The standard for Iron and Manganese is 500 ug/L, which applies to the sum of these substances. As individual standards, the standard is 300 ug/L.
**	The principal organic contaminant standard for groundwater of 5 ug/L (described elsewhere in the TOGS table) applies to this substance.
p	Applies to the sum of cis- and trans-1,3-dichloropropene.
B	Indicates analyte was found in associated blank, as well as in the sample.
J	The reported result is an estimated value.
L	Detection limit adjustment for sample matrix effects.
M	Denotes matrix spike recoveries outside QC limits. Matrix bias indicated.
UJ	Indicates estimated non-detect.

Table 2
Summary of Field Parameters in Groundwater – September 2011 to March 2016
WARD STREET SITE
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Area of interest		On-Site Area 1: Building B Annex											
Sample Location		MW105											
Sample Date		28-Sep-11	4-Jan-12	2-Feb-12	29-Feb-12	4-Jun-12	4-Sep-12	22-Jan-13	11-Apr-13	2-Jul-13	8-Oct-13	18-Jun-15*	10-Mar-16
Sample ID		WSR-MW-105-GW-12	WSR-MW-105-GW-13	WSR-MW-105-GW-14	WSR-MW-105-GW-15	WSR-MW-105-GW-16	WSR-MW-105-GW-17	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW	WSR-MW-105-GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters													
Color (Visual)	none	clear	clear	clear	clear	clear	cloudy	clear	Black precipitate	clear with some brown precipitate	clear	cloudy	clear
Conductivity, Field	mS/cm	2.50	2.72	0.267	2.36	0.318	2.60	4.66	2.71	2.55	2.76	2.24	2.31
Dissolved Oxygen, Field	mg/L	0.00	0.53	0.00	0.25	0.97	0.53	0.17	0.79	0.32	0.21	0.42	0.35
Odor	none	none	no odor	no odor	no odor	sulfur odor	no odor	sulfur odor	Strong sulfur odor	none	none	none	slight sulfur
Oxidation Reduction Potential	mV	111	227	297	235	-132	195.3	-199.2	-219.6	-152.6	-70.2	-28.0	-90.2
pH, Field	S.U.	6.87	7.25	7.28	7.33	7.09	7.16	6.90	7.37	8.47	7.26	7.18	7.22
Temperature, Field	deg C	20.46	20.49	19.22	20.43	19.4	21.3	18.9	18.7	19.6	19.4	19.2	19.6
Turbidity, Field	NTU	58.5	31.3	3.44	9.75	4.41	17.6	4.99	4.36	5.56	3.56	47.8	13.0
Volume Purged	gal	0.6	3 ~	3.5 ~	2.0	1.0	1.1	2.7	1.3	1.35	1.0	0.3	1.3

Area of interest		On-Site Area 1: Building B Annex										
Sample Location		MW207R										
Sample Date		27-Sep-11	6-Feb-12	2-Mar-12	6-Jun-12	6-Sep-12	24-Jan-13	12-Apr-13	5-Jul-13	10-Oct-13	18-Jun-15	10-Mar-16
Sample ID		WSR-MW-207R GW-12	WSR-MW-207R GW-13	WSR-MW-207R GW-14	WSR-MW-207R GW-15	WSR-MW-207R GW-16	WSR-MW-207R GW	WSR-MW-207R GW	WSR-MW-207R GW	WSR-MW-207R GW	WSR-MW-207R GW	WSR-MW-207R GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters												
Color (Visual)	none	clear	clear w/ black flecks	clear w/ black flecks	clear	clear w/ black flecks	murky w/ black flecks	Black precipitate	clear with black precipitate	clear with black particulates	slightly yellow	clear
Conductivity, Field	mS/cm	0.50	0.541	4.32	0.490	4.59	49.93	3.85	4.00	3.57	3.84	3.48
Dissolved Oxygen, Field	mg/L	0.7	0.00	0.00	0.62	0.41	0.36	0.74	0.15	0.14	0.67	0.4
Odor	none	sulfur odor	odor	sulfur odor	strong sulfur odor	sulfur	sulfur odor	odor	strong sulfur odor	strong sulfur odor	sulfur odor	sulfur odor
Oxidation Reduction Potential	mV	-134	-345	-374	-358	-301.6	-351.9	-346.1	-349.2	-288.8	-248.2	-67.0
pH, Field	S.U.	6.93	6.73	7.22	6.68	6.87	6.77	8.04	6.78	6.93	6.79	7.00
Temperature, Field	deg C	17.9	14.27	13.28	15.9	20.1	14.0	11.7	18.7	18.6	15.0	14.2
Turbidity, Field	NTU	4.21	-0.29	5.79	0.70	3.92	1.72	2.31	3.53	3.66	1.52	2.29
Volume Purged	gal	1.5	1.1	0.5	1.3	1.2	3.6	1.6	2.0	1.5	1.5	1.6

*parameters at the end of low-flow purge; ORP was -96 at end of volumetric purge by bailer

See Notes on Last Page

Table 2
Summary of Field Parameters in Groundwater – September 2011 to March 2016
WARD STREET SITE
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Area of interest		Off-Site Area 1: MW-16/ Ward Street										
Sample Location		MW16										
Sample Date		27-Sep-11	3-Feb-12	2-Mar-12	5-Jun-12	5-Sep-12	23-Jan-13	11-Apr-13	3-Jul-13	9-Oct-13	17-Jun-15*	9-Mar-16
Sample ID		WSR-MW-16-GW-18	WSR-MW-16-GW-19	WSR-MW-16-GW-20	WSR-MW-16-GW-21	WSR-MW-16-GW-22	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW	WSR-MW-16-GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters												
Color (Visual)	none	sl.red	clear	slightly cloudy	clear	clear	clear	clear with black precipitate	clear with black precipitate	clear with black specks	clear with black sulfide deposits	clear with black sulfide deposits
Conductivity, Field	mS/cm	6.72	0.762	2.33	0.843	10.52	7.63	10.63	9.73	10.13	11.94	12.76
Dissolved Oxygen, Field	mg/L	0	0.0	0.00	1.09	0.40	0.51	0.8	0.19	0.10	0.35	0.13
Odor	none	0	no odor	no odor	no odor	sulfur	sewage odor	Sulfur odor	slight sulfur odor	sulfur odor	none	sulfur odor
Oxidation Reduction Potential	mV	-107	-259	-181	-291	-319.5	-208.0	-361.2	-207.6	-188.0	-150.0	-120.2
pH, Field	S.U.	6.82	7.13	7.52	7.20	7.26	7.06	7.10	7.13	7.33	7.08	7.06
Temperature, Field	deg C	19.29	11.68	11.23	19.6	21.7	8.7	8.3	18.1	19.3	16.5	14.9
Turbidity, Field	NTU	30	11.1	17.6	37.0	7.11	1.01	4.55	8.59	11.4	8.98	11.55
Volume Purged	gal	0.9	3.0	1.9	0.5	1.1	2.8	3.3	1.3	0.8	1.0	1.1

Area of interest		Off-Site Area 1: MW-16/ Ward Street											
Sample Location		MW16R											
Sample Date		28-Sep-11	5-Jan-12	3-Feb-12	1-Mar-12	5-Jun-12	5-Sep-12	23-Jan-13	11-Apr-13	3-Jul-13	9-Oct-13	17-June-15*	9-Mar-16
Sample ID		WSR-MW-16R-GW-18	WSR-MW-16R-GW-19	WSR-MW-16R-GW-20	WSR-MW-16R-GW-21	WSR-MW-16R-GW-22	WSR-MW-16R-GW-23	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW	WSR-MW-16R-GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters													
Color (Visual)	none	clear	clear	clear	clear w/ black flecks	clear	clear	murky	Slightly clouded	clear with black precipitate	clear with black precipitate	clear with black particulate	clear with black particulate
Conductivity, Field	mS/cm	4.31	3.75	0.782	4.90	0.629	5.19	5.32	4.06	4.40	2.67	8.04	3.72
Dissolved Oxygen, Field	mg/L	1.12	2.63	0.00	0.00	1.00	0.16	0.90	0.76	0.25	0.14	0.16	0.11
Odor	none	none	no odor	no odor	stale odor	no odor	sulfur	sulfur	Sulfur odor	slight sulfur odor	sulfur odor	none	none
Oxidation Reduction Potential	mV	-62	104	-247	-196	-247	-328.6	-346.8	-313.9	-354.5	-264.3	-205.9	-144.3
pH, Field	S.U.	6.56	7.53	6.84	7.04	6.53	6.96	6.76	7.04	6.90	6.58	7.00	6.95
Temperature, Field	deg C	17.78	7.26	12.28	10.95	18.3	20.9	11.1	8.3	19.0	19.7	16.0	17.2
Turbidity, Field	NTU	37	44.3	12.7	29	15.0	11.48	3.97	13.9	12.50	6.42	9.79	3.76
Volume Purged	gal	1.0	0.6	2.7	2.1	0.8	1.9	1.2	2.8	2.0	1.1	0.3	1.4

See Notes on Last Page

*parameters at the end of low-flow purge

*parameters at the end of low-flow purge

Table 2
Summary of Field Parameters in Groundwater – September 2011 to March 2016
WARD STREET SITE
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Area of interest		8-28 Ward St											
Sample Location		MW23											
Sample Date		28-Sep-11	5-Jan-12	6-Feb-12	2-Mar-12	5-Jun-12	6-Sep-12	24-Jan-13	10-Apr-13	5-Jul-13	10-Oct-13	17-Jun-15*	9-Mar-16
Sample ID		WSR-MW-23-GW-7	828-MW-23-GW-8	828-MW-23-GW-9	828-MW-23-GW-10	828-MW-23-GW-11	828-MW-23-GW-12	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW	828-MW-23-GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters													
Color (Visual)	none	clear	clear	clear w/ black flecks	clear w/ black flecks	clear, no black flecks	clear/black pieces	clear w/ black flecks	Black precipitate	clear with black precipitate	clear with black precipitate	slightly yellow, brown particulate	
Conductivity, Field	mS/cm	7.37	7.12	0.596	6.06	0.828	6.62	4.66	4.38	3.48	5.96	4.34	5.21
Dissolved Oxygen, Field	mg/L	0.0	2.61	0.00	0.00	0.42	0.16	0.35	0.22	0.11	0.13	0.47	0.32
Odor	none	none	no odor	no odor	no odor	no odor	no odor	sewage odor	No odor	slight sulfur odor	sulfur odor	none	none
Oxidation Reduction Potential	mV	31	-135	-187	-238	-211	-147.1	-232.0	-149.2	-271.7	-149.3	-101.3	-22.2
pH, Field	S.U.	6.66	6.73	7.09	7.57	6.71	7.04	7.09	7.13	6.44	6.93	7.13	7.09
Temperature, Field	deg C	14.63	11.85	6.47	12.18	13.8	21.0	11.0	9.8	18.1	15.3	15.8	12.7
Turbidity, Field	NTU	45	12.2	9.78	24	1.35	9.14	3.72	9.72	9.23	3.66	25.3	8.52
Volume Purged	gal	2.1	1.6	0.5	0.6	2.5	1.6	0.9	1.0	1.1	1.2	0.8	1.7

See Notes on Last Page

*parameters at the end of low-flow purge

Table 2
Summary of Field Parameters in Groundwater – September 2011 to March 2016
WARD STREET SITE
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Area of interest		8-28 Ward St											
Sample Location		MW23R											
Sample Date		28-Sep-11	5-Jan-12	6-Feb-12	2-Mar-12	5-Jun-12	6-Sep-12	24-Jan-13	10-Apr-13	5-Jul-13	10-Oct-13	17-Jun-15	9-Mar-16
Sample ID		WSR-MW-23R-GW-7	828-MW-23R-GW-8	828-MW-23R-GW-9	828-MW-23R-GW-10	828-MW-23R-GW-11	828-MW-23R-GW-12	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW	828-MW-23R-GW
Sampling Company	Units	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Field Parameters													
Color (Visual)	none	clear	clear w/ black flecks	clear w/ black flecks	clear w/ black flecks	clear w/ black flecks	black	murky	0	clear with black precipitate	clear with black precipitate	clear, black sulfide deposits	clear, black sulfide deposits
Conductivity, Field	mS/cm	3.44	4.24	0.671	7.03	0.635	4.74	6.34	6.52	6.45	5.28	5.18	4.78
Dissolved Oxygen, Field	mg/L	0.00	0.00	0.00	0.00	0.57	0.24	0.33	0.11	0.11	0.41	0.14	0.09
Odor	none	none	no odor	odor	sulfur odor	no odor	sulfur	slight sulfur odor	0	strong sulfur odor	strong sulfur odor	sulfur odor	sulfur odor
Oxidation Reduction Potential	mV	-23	-168	-262	-317	-211	-375.3	-438.3	-358.9	-408.0	-347.1	-307.0	-138.5
pH, Field	S.U.	6.63	7.38	6.71	6.86	6.59	7.02	6.65	6.67	6.79	6.97	7.16	7.25
Temperature, Field	deg C	22.26	12.61	11.12	12.97	16.1	19.7	11.5	10.8	17.5	15.5	14.3	14.2
Turbidity, Field	NTU	3.3	6.24	1.04	11.3	3.27	0.92	1.60	1.25	0.82	3.84	2.87	3.58
Volume Purged	gal	0.7	1.3	1.7	2.2	1.1	1.4	1.5	2.3	2.3	0.9	1.8	1.5

See Notes on Last Page

Table 3
Summary of Volatile Organic Compounds in Soil – May 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			B1	B2	B3	B4	B5	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16		B17	B18	B19
Sample Date			23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16
Sample ID			828-2016-B1-S	828-2016-B2-S	828-2016-B3-S	828-2016-B4-S	828-2016-B5-S	828-2016-B7-S	828-2016-B8-S	828-2016-B9-S	828-2016-B10-S	828-2016-B11-S	828-2016-B12-S	828-2016-B13-S	828-2016-B14-S	828-2016-B15-S	828-2016-B16-S	828-2016-FD-S	828-2016-B17-S	828-2016-B18-S	828-2016-B19-S
Sample Depth			13.2 - 13.7 ft	13.3 - 13.8 ft	8.3 - 8.8 ft	13 - 13.5 ft	8.5 - 9 ft	7.5 - 8 ft	11.5 - 12 ft	13 - 13.5 ft	9 - 9.5 ft	5 - 5.5 ft	9.5 - 10 ft	5.5 - 6 ft	14 - 14.5 ft	11 - 11.5 ft	9.5 - 10 ft	9.5 - 10 ft	10 - 10.5 ft	7 - 7.5 ft	12.5 - 13 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126
Laboratory Sample ID			162126-01	162126-02	162126-03	162126-04	162126-05	162126-06	162126-07	162126-08	162126-09	162126-10	162126-11	162126-12	162126-13	162126-14	162126-15	162126-19	162126-16	162126-17	162126-18
Sample Type	Units	NYSDEC-Part 375																Field Duplicate			
Volatile Organic Compounds																					
Acetone	µg/kg	$500000_c^A\ 1000000_d^B\ 50^C$	41.6 U	39.8 U	20.1 U	20.6 U	***230 U***	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	***51.8 U***	***100 U***	22.0 U	22.1 U	19.6 U
Benzene	µg/kg	$44000^A\ 89000^B\ 60^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Bromodichloromethane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Bromoform (Tribromomethane)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Bromomethane (Methyl bromide)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Carbon Disulfide	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	5.84 J	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	$22000^A\ 44000^B\ 760^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chlorobenzene (Monochlorobenzene)	µg/kg	$500000_c^A\ 1000000_d^B\ 1100^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chlorobromomethane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Chloroethane (Ethyl Chloride)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chloroform (Trichloromethane)	µg/kg	$350000^A\ 700000^B\ 370^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chloromethane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Cyclohexane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	41.6 U	39.8 U	20.1 U	20.6 U	230 U	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	41.6 U	39.8 U	20.1 U	20.6 U	230 U	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Dibromochloromethane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 1100^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,3-	µg/kg	$280000^A\ 560000^B\ 2400^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,4-	µg/kg	$130000^A\ 250000^B\ 1800^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorodifluoromethane (Freon 12)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethane, 1,1-	µg/kg	$240000^A\ 480000^B\ 270^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethane, 1,2-	µg/kg	$30000^A\ 60000^B\ 20_g^C$	8.32 U	7.96 U	4.02 U	4.12 U	***46.0 U***	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, 1,1-	µg/kg	$500000_c^A\ 1000000_d^B\ 330^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, cis-1,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 250^C$	**608**^{C}	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, trans-1,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 190^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropane, 1,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropene, cis-1,3-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropene, trans-1,3-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dioxane, 1,4-	µg/kg	$130000^A\ 250000^B\ 100_f^C$	83.2 U	79.6 U	40.2 U	41.2 U	***460 U***	44.0 U	35.6 U	36.9 U	39.1 U	44.2 U	42.6 U	44.9 U	37.8 U	33.2 U	***104 U***	***200 U***	44.0 U	44.2 U	39.2 U
Ethylbenzene	µg/kg	$390000^A\ 780000^B\ 1000^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Isopropylbenzene	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methyl Acetate	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	$500000_c^A\ 1000000_d^B\ 120^C$	41.6 U	39.8 U	20.1 U	20.6 U	***230 U***	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Methyl tert-butyl ether (MTBE)	µg/kg	$500000_c^A\ 1000000_d^B\ 930^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methylcyclohexane	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methylene Chloride (Dichloromethane)	µg/kg	$500000_c^A\ 1000000_d^B\ 50^C$	20.8 U	19.9 U	10.0 U	10.3 U	***115 U***	11.0 U	8.90 U	9.22 U	5.21 J	9.63 J	5.91 J	7.98 J	6.76 J	8.30 U	25.9 U	***50.1 U***	10.2 J	11.1 U	5.62 J
Styrene	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Tetrachloroethane, 1,1,2,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Tetrachloroethene (PCE)	µg/kg	$150000^A\ 300000^B\ 1300^C$	565	516	23.3	19.1	**4220**^{C}	109	166	3.69 U	314	33.0	4.30	10.5	8.71	260	423	977	193	31.2	2.19 J
Toluene	µg/kg	$500000_c^A\ 1000000_d^B\ 700^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichlorobenzene, 1,2,3-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Trichlorobenzene, 1,2,4-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Trichloroethane, 1,1,1-	µg/kg	$500000_c^A\ 1000000_d^B\ 680^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichloroethane, 1,1,2-	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichloroethene (TCE)	µg/kg	$200000^A\ 400000^B\ 470^C$	97.1	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	10.6	7.58 J	17.3 J	4.40 U	4.42 U	3.92 U
Trichlorofluoromethane (Freon 11)	µg/kg	$500000_c^A\ 1000000_d^B\ 1000000_d^C$	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U

Stantec

Table 3
Summary of Volatile Organic Compounds in Soil – May 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			B1	B2	B3	B4	B5	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16		B17	B18	B19
Sample Date			23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16
Sample ID			828-2016-B1-S	828-2016-B2-S	828-2016-B3-S	828-2016-B4-S	828-2016-B5-S	828-2016-B7-S	828-2016-B8-S	828-2016-B9-S	828-2016-B10-S	828-2016-B11-S	828-2016-B12-S	828-2016-B13-S	828-2016-B14-S	828-2016-B15-S	828-2016-B16-S	828-2016-FD-S	828-2016-B17-S	828-2016-B18-S	828-2016-B19-S
Sample Depth			13.2 - 13.7 ft	13.3 - 13.8 ft	8.3 - 8.8 ft	13 - 13.5 ft	8.5 - 9 ft	7.5 - 8 ft	11.5 - 12 ft	13 - 13.5 ft	9 - 9.5 ft	5 - 5.5 ft	9.5 - 10 ft	5.5 - 6 ft	14 - 14.5 ft	11 - 11.5 ft	9.5 - 10 ft	9.5 - 10 ft	10 - 10.5 ft	7 - 7.5 ft	12.5 - 13 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126
Laboratory Sample ID			162126-01	162126-02	162126-03	162126-04	162126-05	162126-06	162126-07	162126-08	162126-09	162126-10	162126-11	162126-12	162126-13	162126-14	162126-15	162126-19	162126-16	162126-17	162126-18
Sample Type	Units	NYSDEC-Part 375																Field Duplicate			
Trichlorotrifluoroethane (Freon 113)	µg/kg	500000_{c}^{A} 1000000_{d}^{B} 1000000_{d}^{C}	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Vinyl chloride	µg/kg	13000^{A} 27000^{B} 20^{C}	8.32 U	7.96 U	4.02 U	4.12 U	***46.0 U***	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Xylene, m & p-	µg/kg	$500000_{c,p}^{A}$ $1000000_{d,p}^{B}$ 1600_{p}^{C}	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Xylene, o-	µg/kg	$500000_{c,p}^{A}$ $1000000_{d,p}^{B}$ 1600_{p}^{C}	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Total VOC	µg/kg	n/v	1275.94	516	23.3	19.1	4220	109	166	ND	319.21	42.63	10.21	18.48	15.47	270.6	430.58	994.3	203.2	31.2	7.81
Tentatively Identified Compound (TIC)	µg/kg	n/v	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Total VOC TICs	µg/kg	n/v	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U

See notes on last page.

Table 3
Summary of Volatile Organic Compounds in Soil – May 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Notes:

NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.50 U	Laboratory reporting limit was greater than the applicable standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c,p	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d[BC]	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d,p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
f	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
J	The reported result is an estimated value.

Table 4
Summary of Volatile Organic Compounds in Soil – October 2017
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			2017-E-Wall	2017-Floor E	2017-Floor W	2017-N-Wall		2017-S-Wall	2017-W-Wall
Sample Date			10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17
Sample ID			828-2017-E-Wall	828-2017-Floor E	828-2017-Floor W	828-2017-N-Wall	828-2017-Dup	828-2017-S-Wall	828-2017-W-Wall
Sample Depth									
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			174573	174573	174573	174573	174573	174573	174573
Laboratory Sample ID			174573-04	174573-01	174573-06	174573-02	174573-07	174573-03	174573-05
Sample Type	Units	NYSDEC-Part 375					Field Duplicate		
Volatile Organic Compounds									
Acetone	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 50^C	23.6 U	22.5 U	15.0 J	12.9 J	16.3 J	21.8 U	22.9 U
Benzene	µg/kg	44,000^A 89,000^B 60^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Bromodichloromethane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Bromoform (Tribromomethane)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Bromomethane (Methyl bromide)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Butylbenzene, n-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 12,000^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Butylbenzene, sec- (2-Phenylbutane)	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 11,000^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Butylbenzene, tert-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 5,900^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Carbon Disulfide	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	22,000^A 44,000^B 760^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Chlorobenzene (Monochlorobenzene)	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 1,100^C	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Chlorobromomethane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Chloroethane (Ethyl Chloride)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Chloroform (Trichloromethane)	µg/kg	350,000^A 700,000^B 370^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Chloromethane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Cyclohexane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	23.6 U	22.5 U	18.1 U	24.1 U	23.0 U	21.8 U	22.9 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	23.6 U	22.5 U	18.1 U	24.1 U	23.0 U	21.8 U	22.9 U
Dibromochloromethane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichlorobenzene, 1,2-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 1,100^C	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichlorobenzene, 1,3-	µg/kg	280,000^A 560,000^B 2,400^C	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichlorobenzene, 1,4-	µg/kg	130,000^A 250,000^B 1,800^C	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichlorodifluoromethane (Freon 12)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dichloroethane, 1,1-	µg/kg	240,000^A 480,000^B 270^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dichloroethane, 1,2-	µg/kg	30,000^A 60,000^B 20$_g^C$	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichloroethene, 1,1-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 330^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dichloroethene, cis-1,2-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 250^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dichloroethene, trans-1,2-	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 190^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dichloropropane, 1,2-	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichloropropene, cis-1,3-	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 UM	4.60 U	4.36 U	4.58 U
Dichloropropene, trans-1,3-	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Dioxane, 1,4-	µg/kg	130,000^A 250,000^B 100$_f^C$	47.2 U	45.1 U	36.2 U	48.3 U	46.0 U	43.6 U	45.8 U
Ethylbenzene	µg/kg	390,000^A 780,000^B 1,000^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Isopropylbenzene	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Isopropyltoluene, p- (Cymene)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Methyl Acetate	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 120^C	23.6 U	22.5 U	18.1 U	24.1 U	23.0 U	21.8 U	22.9 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Methyl tert-butyl ether (MTBE)	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 930^C	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Methylcyclohexane	µg/kg	500,000$_c^A$ 1,000,000$_d^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Methylene Chloride (Dichloromethane)	µg/kg	500,000$_c^A$ 1,000,000$_d^B$ 50^C	11.8 U	6.39 J	9.05 U	6.30 J	6.76 J	5.52 J	7.37 J
M-P-Xylene	µg/kg	500,000$_{c,p}^A$ 1,000,000$_{d,p}^B$ 1,600$_p^C$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	2.69 J

Table 4
Summary of Volatile Organic Compounds in Soil – October 2017
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			2017-E-Wall	2017-Floor E	2017-Floor W	2017-N-Wall		2017-S-Wall	2017-W-Wall
Sample Date			10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17	10-Oct-17
Sample ID			828-2017-E-Wall	828-2017-Floor E	828-2017-Floor W	828-2017-N-Wall	828-2017-Dup	828-2017-S-Wall	828-2017-W-Wall
Sample Depth									
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			174573	174573	174573	174573	174573	174573	174573
Laboratory Sample ID			174573-04	174573-01	174573-06	174573-02	174573-07	174573-03	174573-05
Sample Type	Units	NYSDEC-Part 375					Field Duplicate		
Naphthalene	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{B}$ $12,000^{C}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Propylbenzene, n-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{B}$ $3,900^{C}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Styrene	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Tetrachloroethane, 1,1,2,2-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Tetrachloroethene (PCE)	µg/kg	$150,000^{A}$ $300,000^{B}$ $1,300^{C}$	22.5	37.8	131	26.9	19.5	37.1	25.2
Toluene	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{B}$ 700^{C}	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	3.90 J
Trichlorobenzene, 1,2,3-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Trichlorobenzene, 1,2,4-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	11.8 U	11.3 U	9.05 U	12.1 U	11.5 U	10.9 U	11.4 U
Trichloroethane, 1,1,1-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{B}$ 680^{C}	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trichloroethane, 1,1,2-	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trichloroethene (TCE)	µg/kg	$200,000^{A}$ $400,000^{B}$ 470^{C}	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trichlorofluoromethane (Freon 11)	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	$500,000_{c}^{A}$ $1,000,000_{d}^{BC}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trimethylbenzene, 1,2,4-	µg/kg	$190,000^{A}$ $380,000^{B}$ $3,600^{C}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Trimethylbenzene, 1,3,5-	µg/kg	$190,000^{A}$ $380,000^{B}$ $8,400^{C}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Vinyl Chloride	µg/kg	$13,000^{A}$ $27,000^{B}$ 20^{C}	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
Xylene, o-	µg/kg	$500,000_{c,p}^{A}$ $1,000,000_{d,p}^{B}$ $1,600_{p}^{C}$	4.72 U	4.51 U	3.62 U	4.83 U	4.60 U	4.36 U	4.58 U
VOC Tentatively Identified Compounds									
Unknown TIC 01 (TIC)	µg/kg	n/v	11.8 U	15.7	9.07	13.4	12.9	15.2	11.6
Unknown TIC 02 (TIC)	µg/kg	n/v	-	-	-	35.9	16.3	-	23.7
Total VOC TICs	µg/kg	n/v	11.8 U	15.7	9.07	49.3	29.3	15.2	35.3

Notes:

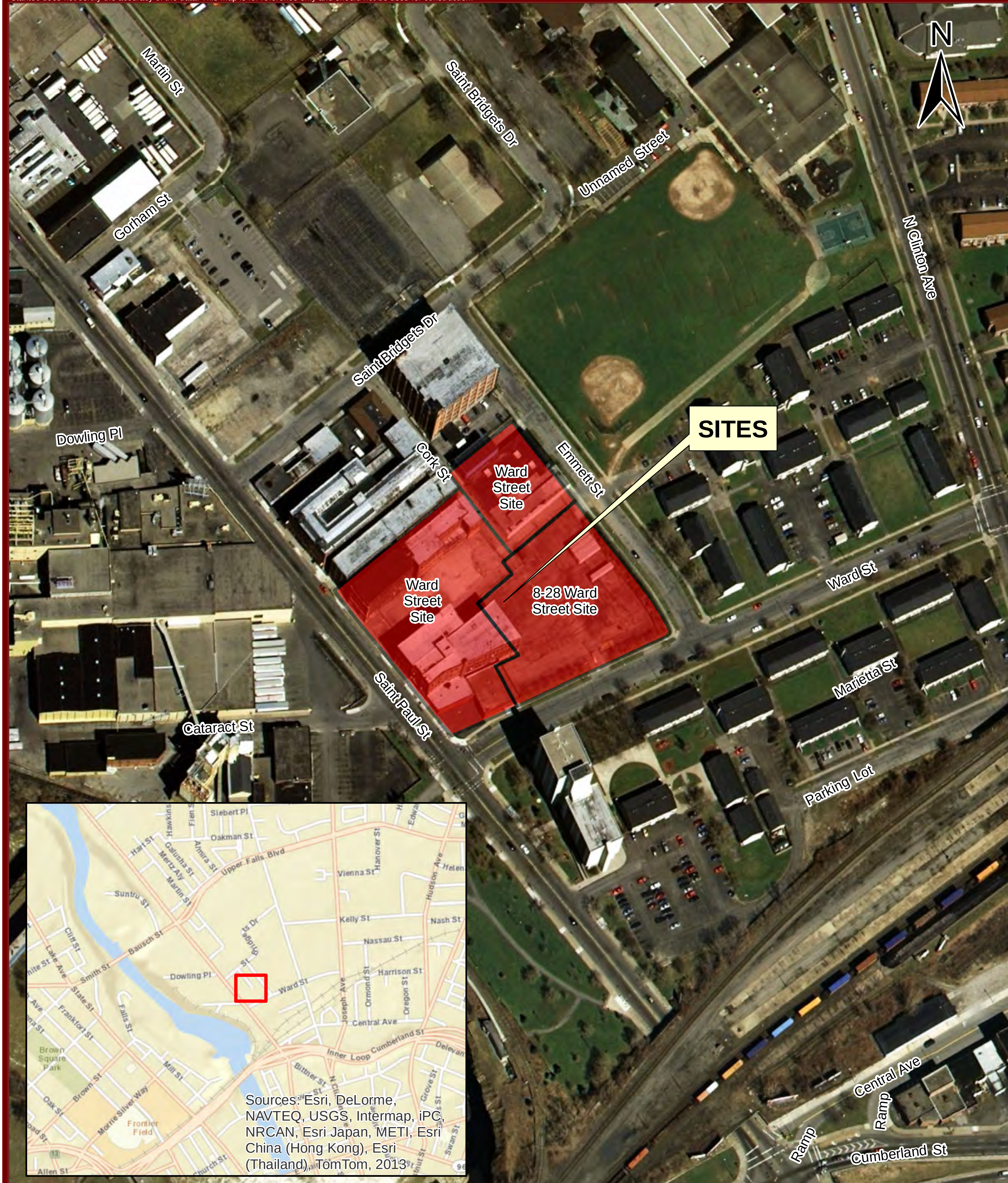
NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
6.5^{A}	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
< 0.50	Laboratory reporting limit was greater than the applicable standard.
< 0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c,p	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d^{BC}	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d,p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
f	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
J	The reported result is an estimated value.
M	Matrix spike recoveries outside QC limits. Matrix bias indicated.

Stantec

Figures

This map may contain data from a variety of sources. This map is not intended to replace a survey by a Licensed Surveyor.
Stantec does not certify the accuracy of the data. This map is for reference only and should not be used for construction.

Cartographic Design By: Marc Bouchard



Geographic Information Systems

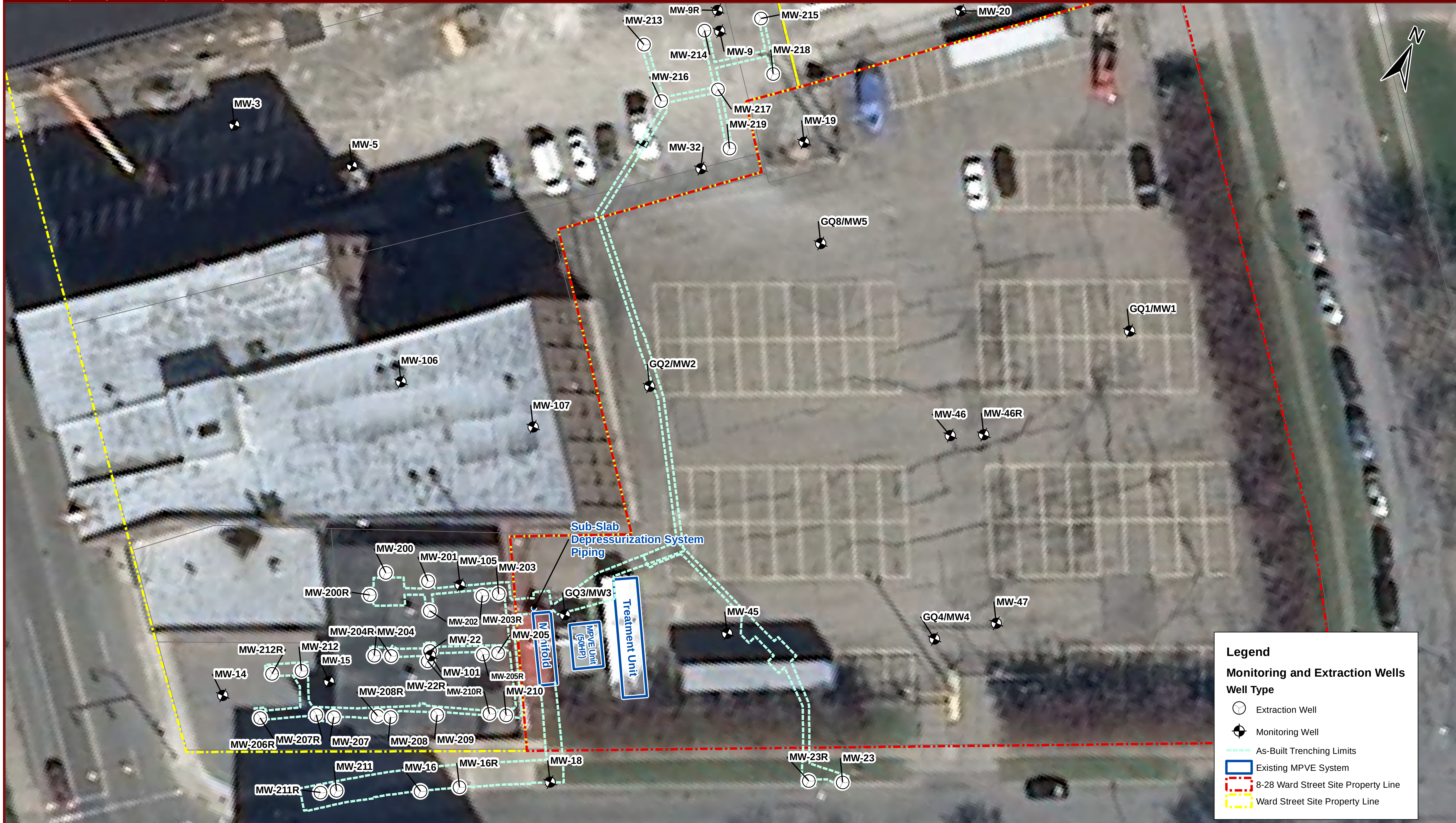
Feb ,2011
U:\1405205\docs\ERD\Figures

Stantec Consulting
61 Commercial Street
Rochester, NY 14614
Phone 585.475.1440 Fax 585.272.1814
www.stantec.com

Stantec

Figure 1 - Site Location Map

Ward Street Site
Rochester, NY



Geographic Information Systems

Cartographic Design By: Andrew Less

U:\1405205\docs\ERD\Figures

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61 Commercial Street
Rochester, NY 14614
Phone 585.475.1440 Fax 585.272.1814
www.stantec.com

Figure 2 - Well Locations

Ward Street Site
Rochester, NY

Geographic Information Systems

Document Path: U:\190500014\Excavation Work Plan\01_Figures\GIS\mxd\Fig 3 Boring Locations and Proposed Excavation.mxd

Cartographic Design By: Andrew Less

Stantec Consulting
61 Commercial Street
Rochester, NY 14614
Phone 585.475.1440 Fax 585.272.1814
www.stantec.com

0 5 10 20 30 40 Feet

1 inch = 10 feet

Figure 3 - Boring Locations and Proposed Excavation

Ward Street Site
Rochester, NY

Geographic Information Systems

Document Path: U:\190500014\Excavation Work Plan\01_Figures\GIS\mxd\Fig 4 Sampling Locations and Excavation.mxd

Cartographic Design By: Andrew Less

Stantec
Stantec Consulting
61 Commercial Street
Rochester, NY 14614
Phone 585.475.1440 Fax 585.272.1814
www.stantec.com

0 5 10 20 30 40 Feet

1 inch = 10 feet

Figure 4 - Sampling Locations and Excavation

Ward Street Site
Rochester, NY

Appendix A - IC/EC CERTIFICATION FORMS

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C828136**

Site Name 8-28 Ward Street

Site Address: 8-28 Ward Street Zip Code: 14603-1061
City/Town: Rochester
County: Monroe
Site Acreage: 1.2

Reporting Period: November 15, 2016 to November 15, 2017

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

Box 2

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

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

		Box 2A	
		YES	NO
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	X
	If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	X	☐
	If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C828136 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
106.63-1-16	Germanow-Simon Corporation	
		Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan Monitoring Plan

Groundwater use is prohibited;

A Site Management Plan (SMP) must be implemented;

Soils shall be managed in accordance with the SMP;

The potential for vapor intrusion for any new buildings must be evaluated and mitigated as necessary;

Periodic review is required to certifiy all controls are in place.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
106.63-1-16	
	Groundwater Treatment System Cover System

A multi-phase vacuum extraction system ("MPVE") was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications;

Existing surface and near surface soils, asphalt-paved surfaces, concrete-paved surfaces, and any existing buildings act as a cover system and must be maintained;

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

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

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

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

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

____ ________________

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. C828136

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ANDREW GERMANOW at GERMANOW SIMON Corporation
print name — print business address

am certifying as OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

[signature] 12/12/2017

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I PETER NIELSEN at STANTEC 61 COMMERCIAL ST ROCHESTER NY 14614

print name — print business address

am certifying as a Professional Engineer for the OWNER

(Owner or Remedial Party)

STATE OF NEW YORK
PETER NIELSEN
No. 061499-1
LICENSED PROFESSIONAL ENGINEER

12/13/17

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **C828117**

Site Name **Ward Street Site**

Site Address: Corner of Ward St. & St. Paul St. Zip Code: 14603
City/Town: Rochester
County: Monroe
Site Acreage: 1.9

408 St. Paul Street
Rochester, NY 14605

Reporting Period: November 15, 2016 to November 15, 2017

		YES	NO
1.	Is the information above correct?	☐	☒
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

		YES	NO
5.	Is the site currently undergoing development?	☐	☒

Box 2

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

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

____ ______________
Signature of Owner, Remedial Party or Designated Representative Date

		YES	NO
8.	Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒
	If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9.	Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐
	If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C828117

Description of Institutional Controls

Parcel	Owner	Institutional Control
106.62-01-028	Germanow-Simon Corporation	
		Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan Monitoring Plan

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-029	Germanow-Simon Corporation	
		Monitoring Plan Site Management Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-030	Germanow-Simon Corporation	
		Site Management Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-031	Germanow-Simon Corporation	
		Site Management Plan Monitoring Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-032	Germanow-Simon Corporation	
		Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan Monitoring Plan

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-057	Germanow-Simon Corporation	
		Soil Management Plan Site Management Plan Ground Water Use Restriction Landuse Restriction Monitoring Plan

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

106.62-01-21	Germanow-Simon Corporation	

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction

Monitoring Plan
Site Management Plan

Restrict site usage to commercial or industrial. Restrict groundwater use. Any on-site soil excavation shall comply with the approved Soil Management Plan; and maintain Environmental Easement Agreement.

Description of Engineering Controls

Parcel	Engineering Control

106.62-01-028

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-029

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-030

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-031

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-032

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Operate a sub-slab depressurization system; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-057

Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

106.62-01-21

Vapor Mitigation
Cover System

A multi-phase vacuum extraction system (MPVE) was operated at the site until February 22, 2011. DEC has approved the shutdown and decommissioning of the system. An enhanced reductive dechlorination (ERD) program was implemented at the site in November 2011. Continued groundwater

Parcel | Engineering Control

monitoring and periodic injections are required until cleanup goals are achieved or DEC approves program modifications; Maintain asphalt and concrete surfaces in the area of contamination.

Periodic Review Report (PRR) Certification Statements

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

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

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

YES ☒ NO ☐

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

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

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

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES ☒ NO ☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

______________________________ Signature of Owner, Remedial Party or Designated Representative

______________ Date

IC CERTIFICATIONS
SITE NO. C828117

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ANDREW GERMANOW at GERMANOW-SIMON CORPORATION
print name print business address

am certifying as OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

A Germanow

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

12/11/2014
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I PETER NIELSEN at STANTEC 61 COMMERCIAL ST. ROCHESTER, NY 14614
print name — print business address

am certifying as a Professional Engineer for the OWNER
(Owner or Remedial Party)

STATE OF NEW YORK
PETER NIELSEN
No. 061499-1
LICENSED PROFESSIONAL ENGINEER

12/13/17

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date

Appendix B - NYSDEC CORRESPONDENCE

From:	Caffoe, Todd (DEC)
To:	agermanow@teltru.com
Cc:	Storonsky, Mike; Schilling, Bernette (DEC)
Subject:	Ward Street Sites PRR Acceptance Letter
Date:	Monday, March 06, 2017 11:17:55 AM
Attachments:	image001.png image002.png letter.c828136.2017-03-06.PRR-Acceptance.pdf

---

The attached was sent via first class mail.

Todd M. Caffoe, P.E.
Environmental Engineer 2, Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

www.dec.ny.gov | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5353 | F: (585) 226-8139
www.dec.ny.gov

March 6, 2017

Mr. Andrew Germanow
Germanow-Simon Corporation
408 St. Paul Street, P.O. Box 1091
Rochester, New York 14603-1091

RE: Ward Street and 8-28 Ward Street Sites (C828117 and C828136)
Periodic Review and IC/EC Certification Report
Monroe(C), Rochester(C)

Dear Mr. Germanow:

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for the November 15, 2015 through November 15, 2016 period.

The Department hereby accepts the PRR and associated Certification. The frequencies of Periodic Reviews for these sites are annually, and your next PRR is due on *December 15, 2017*. As a courtesy, you may receive a reminder letter and updated certification form 45-days prior to the due date. If you do not receive a letter, the PRR and certification must be submitted to this office by the due date.

With regards to the proposed excavation just north or MW-23, please provide a brief work plan and schedule prior to commencement of this work.

If you have any questions, or need additional forms, please contact me at 226-5350. Thank you for your continued cooperation.

Sincerely,

Todd M. Caffoe, P.E.
Division of Environmental Remediation
Email: todd.caffoe@dec.ny.gov

ec: B. Schilling
M. Storonsky

From:	Storonsky, Mike
To:	"Caffoe, Todd (DEC) (todd.caffoe@dec.ny.gov)"
Cc:	Nielsen, Peter; Haravitch, Ben; Mahoney, Robert; "John Dole"
Subject:	Soil Removal Work Plan, 8-28 Ward Street Site, BCA Site No. C828136
Date:	Tuesday, July 18, 2017 3:02:00 PM
Attachments:	workplan.c828136.2017.07.11_Soil_Removal.pdf

Todd,

On behalf of Germanow-Simon, and as previously discussed in several sets of correspondence, including the 2016 Periodic Review Report, please find enclosed the proposed Soil Removal Work Plan for a small suspected source area on the south end of the 8-28 Ward Street Site, upgradient from MW-23. We would like to move forward with this program in late summer when groundwater conditions should be at their lowest levels of the year.

We look forward to the Department's review and comment on, or approval of, this Work Plan. Please let us know if you have any questions or if you require further information.

Sincerely,
Mike

Michael P. Storonsky
Managing Principal, Environmental Services
Stantec
Phone: (585) 413-5266
Cell: (585) 298-2386
mike.storonsky@stantec.com

Soil Removal Work Plan
8-28 Ward Street Site – Site No. C828136
8-28 Ward Street
Rochester, New York

Prepared for:
New York State Department of Environmental Conservation
6274 East Avon-Lima Road
Avon, New York 14414

Prepared on behalf of:
Germanow-Simon Corporation
408 St. Paul Street
Rochester, New York 14601

Prepared by:
Stantec Consulting Services Inc.
61 Commercial Street Suite 100
Rochester, New York 14614

July 2017

CERTIFICATIONS

I, Peter Nielsen, of Stantec Consulting Services, Inc., certify that I am currently a New York State-registered professional engineer and that this Soil Removal Work Plan was prepared in accordance with applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

STATE OF NEW YORK PETER NIELSEN No. 061499-1 LICENSED PROFESSIONAL ENGINEER

7/11/2017

Signature

Date

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LIST OF APPENDICES

1.0 INTRODUCTION

This Soil Removal Work Plan is being submitted to the New York State Department of Environmental Conservation (NYSDEC) on behalf of the Germanow-Simon Corporation for the Brownfield Cleanup Program (BCP) Site known as 8-28 Ward Street Site (No. C828136) The Site is located along the north side of Ward Street between the intersection of Ward Street with St. Paul Street on the southwest and Emmett Street on the northeast in the City of Rochester, Monroe County, New York. The adjacent BCP Site known as the Ward Street Site (No. C828117) is also owned by the Germanow-Simon Corporation. A map showing the Site location is presented in Figure 1. This Work Plan describes excavation, removal, and disposal of contaminated soil near monitoring well MW-23. The previously-reported presence of contamination is outlined in the *Periodic Review Report Ward Street Site – Site No. C828117 and 8-28 Ward Street Site - No. C828136* (2016 PRR) submitted to the NYDEC on December 15, 2016.

1.1 Background and Purpose

Germanow-Simon and the NYSDEC agreed to pursue a program of environmental investigation and cleanup activities at the Site to address past releases of industrial and dry-cleaning solvents and petroleum products that resulted in subsurface contamination by volatile organic compounds (VOCs). The Brownfield Cleanup Program (BCP) activities led to the implementation of a Multi-Phase Vacuum Extraction (MPVE) cleanup system for the two adjacent sites. MPVE is a contaminant remediation technology that uses a vacuum pump and extraction wells to remove VOCs from subsurface soils, soil vapor and groundwater. The layout of the MPVE system is shown in Figure 2 of the 2016 PRR.

Installation and commissioning of MPVE at the Ward Street Site were completed in October 2006. The 8-28 Ward Street Site component of the MPVE system was added in October 2008. With NYSDEC approval, the MPVE system was shut down on February 22, 2011 and has not been restarted since that time. At that time, the previously installed sub-slab depressurization (SSD) system beneath the Building B Annex Area on the adjacent Ward Street Site was turned on (as it had been during previous sampling or MPVE maintenance related shut-down periods). Pursuant to the NYSDEC-approved *Remedial Program Supplement, Enhanced Reductive Dechlorination Work Plan*, dated March 2011 (Stantec, 2011) and NYSDEC's November 14, 2011 approval letter, an in-situ bioremediation polishing program was conducted in November/December 2011. Pursuant to the Proposed Supplemental Injection Program correspondence dated October 2012, and NYSDEC's November 6, 2012 approval letter, a supplemental in-situ bioremediation program was conducted in November 2012. Further details on the November 2012 injection program are presented in Stantec's December 21, 2012 report titled *Enhanced Reductive Dechlorination Supplemental Injection Program*.

Because groundwater in the portion of the Site referred to as former Lilac Laundry area was found to meet NYSDEC's groundwater quality standards (refer to *Ward Street Site Semi-Annual Progress Report #8, Ward Street Site (Site #C828117) and 8-28 Ward Street Site (Site #C828136), Rochester, New York. Stantec*, February 2011), and in preparation for site improvements, per NYSDEC approval, in October 2011, the following wells were decommissioned at the Ward Street

Site: MW-3, MW-5, MW-9, MW-9R, MW-20, MW-21, MW-32, MW-213, MW-214, MW-215, MW-216, MW-217, MW-218, and MW-219. In addition, since no significant groundwater impacts were present on the 8-28 Ward Street Site, and in preparation for site improvements, per NYSDEC approval, in October 2011, the following wells were decommissioned at the 8-28 Ward Street Site: GQ1/MW1, GQ2/MW2, GQ4/MW4, GQ8/MW5, MW-19, MW-45, MW-46, MW-46R, and MW-47.

The results of the groundwater sampling event conducted in October 2013 indicated that significant dissolved-phase VOC reduction had occurred within the treatment area. Based on this observed reduction since the commencement of remedial measures, and the continued success of the Enhanced Reductive Dichlorination (ERD) process, it was proposed in the 2015 PRR to: 1) discontinue the ERD groundwater treatment program; 2) reduce the number of wells that are monitored; 3) reduce the number of analytes that are monitored; and 4) reduce the frequency of monitoring. The PRR also proposed that an annual groundwater sampling event be performed with a reduced number of wells, including MW-16, MW-16R, MW-23, and MW-23R, MW-105, MW-207R, and to limit laboratory analysis to volatile organic compounds (VOCs) by EPA Method 8260 and total organic carbon (TOC) by EPA Method 5310. This revised sampling and analysis approach was accepted in the NYSDEC February 4, 2016 letter to Germanow-Simon; a copy of the letter is included in Appendix B of the 2016 PRR.

At the 8-28 Ward Street Site (No. C828136), favorable conditions were maintained in 2016 within the bedrock zone as VOC concentrations were at or below laboratory detection limits for all compounds at MW-23R. The results from MW-23, however, showed increases in PCE and TCE concentrations to levels last observed prior to the initial injection activities. The increases in the concentrations of parent compounds are indicative of additional residual source material that had not been effectively treated by past remedial efforts in the area of MW-23. The groundwater results were forwarded to the Department on April 14, 2016 (Appendix B of the 2016 PRR).

Following discussion with the Department, Stantec performed a two-day Geoprobe investigation (May 23-24, 2016) to investigate the potential source and extent of impacted soil in the vicinity of MW-23 which may be contributing to the groundwater results. Figure 2 presents the locations of 19 borings performed. Analytical results of the soils sampled during the program are provided on Table 1 and boring logs are included in Appendix A.

The groundwater table was encountered at approximately 12 to 13.5 ft. bgs. during the program but was not encountered at every boring. Generally, evidence of impacted soil was observed just above the groundwater table on-Site to the north and northwest of MW-23. The exception to this was boring B1, located off-Site and immediately adjacent to MW-23, where impacted soil was encountered below the groundwater table. Only two of the samples collected contained contaminants of concern at concentrations above applicable NYSDEC soil cleanup objectives (SCOs) for the protection of Groundwater (POGW). One sample, which was collected from below the groundwater table at 13.2 to 13.7 ft blow ground surface (bgs) in off-site boring B1, had a concentration of cis-1,2-dichloroethene (cis-1,2-DCE) of 608 µg/kg. The second sample, which was collected from above the water table at 8.5 to 9 ft bgs in on-Site boring B5, had a concentration of tetrachloroethene (PCE) of 4,220 ug/kg. Concentrations of either PCE or trichloroethene (TCE) which were reported below SCOs, but above approximately 100 µg/kg were detected in borings B1, B2, B5, B7, B8, B10, B15, B16, and B17.

In order to address the suspected source of the rebound in the groundwater contaminant concentrations at MW-23, Stantec proposes to excavate and dispose impacted soil in an area encompassing soil boring B5.

2.0 SOIL REMOVAL WORK PLAN

Stantec will engage an environmental remediation contractor, TREC Environmental (TREC), to perform impacted soil removal in the area surrounding soil boring B5. This section describes the Work Plan objectives.

2.1 Work Plan Objectives

The objectives of the Work Plan described herein are to:

- Sample and pre-characterize impacted soil material present above the groundwater table for disposal;
- Temporarily remove approximately 40 feet of chain-link fence for a period of several days, remove two trees, and temporarily close the adjacent sidewalk after obtaining the required permit from the City of Rochester;
- Separate apparent non-impacted overburden soil from contaminated source material based on field screening with a photoionization detector (PID); and stockpile for sampling and potential later reuse as backfill;
- Remove and dispose of source area soil present above the groundwater table in the vicinity of MW-23;
- Control and containerize groundwater from the excavation, if encountered;
- Apply approximately 600 lbs. of sodium lactate, in solution to the bottom of the excavation to assist in the remediation of residual groundwater impacts;
- Contingent on satisfactory pre-characterization testing results to confirm its suitability for re-use, backfill and compact stockpiled non-impacted overburden soil;
- Import clean soils for use as excavation backfill, and compact;
- Dispose of impacted soil and water wastes at appropriately-licensed waste disposal facilities; and
- Reinstall the fence, plant two replacement trees, replace topsoil, and seed the disturbed areas.

2.2 Design Basis and Strategy

During the soil boring investigation, Stantec selected one soil sample per location for laboratory analysis based on field observations. During the investigation, the water table was generally observed to be in the range of 12-13.5 ft. below ground surface (bgs). PCE-impacted soil was reported in one boring, B5, at a concentration of 4,220 micrograms per kilogram (µg/kg) which exceeds the POGW SCO. Since this sample was collected from a depth of 8.5 – 9 ft., which is above the water table, Stantec believes excavation of soil above the water table would be the most efficient remedial approach to remove the source of PCE observed in groundwater at MW-23. Figure 2 depicts the approximate limits of the proposed excavation of TCE-impacted soil above the water table on the 8-28 Ward Street site upgradient from MW-23. Note that cis-1,2-DCE was reported in the off-site boring B1 at a depth of 13.2-13.7 ft. bgs, at a concentration of 608 µg/kg, which exceeds the PGOW SCO; however off-site soil excavation around B1 is not proposed since Germanow-Simon is a Volunteer in the Brownfield Cleanup Program and therefore is not obligated to remediate off-site impacts.

2.3 Excavation Plan

This section describes the approach proposed to accomplish the Work Plan objectives. The work is proposed to be performed by TREC under Stantec observation. Stantec's oversight role will generally include performing environmental monitoring, including community air monitoring plan (CAMP) air monitoring, soil (and potentially groundwater) sampling, tracking waste streams, documenting activities and results, and reporting. TREC will perform the excavation, transportation and disposal and will assist with soil sampling, coordination with waste facilities to characterize wastes, development of waste profiles..

2.3.1 Underground Utilities

Prior to the start of excavation, TREC will arrange for an underground utility location to mark out existing utilities, in accordance with the DigSafelyNY program. Note that the previous phase of subsurface investigation included a similar utility stake out and no underground utilities were identified in the proposed excavation location.

2.3.2 Safety and Site Security

The limits of the proposed excavation will be limited to privately-owned property, however it is anticipated that the staging of equipment and some work activities will require the closure of the sidewalk adjacent to the excavation area. Accordingly, a permit will be obtained from the City of Rochester. In addition, a City of Rochester permit will also be required to disturb the right of way (ROW).
The City of Rochester has established a procedure for "flagging" the tax account numbers of properties that require special environmental reviews as a result of hazardous waste or hazardous substance contamination. The reviews are conducted as referrals to the City's Division of Environmental Quality (DEQ) for any permit applications for properties where soil management plans or environmental contingency plans need to be established and followed during construction activities.

In addition to these measures, a chain-link fence will be erected around the work area to prevent public access. In the event that the excavation is to be left open overnight, orange construction fence will also be installed surrounding the open excavation to provide additional security.

A site-specific HASP has been in use for the Remedial Action portion of the work at this Site; a copy is included as Appendix B. The contractor will also be required to develop a HASP for its employees.

The generic New York State Department of Health (NYSDOH) CAMP will be implemented for the project and is included as Appendix C. CAMP monitoring will be conducted by Stantec on behalf of the Germanow-Simon Corporation and will include continuous upwind and downwind monitoring both for particulates using Dust Track instruments and VOCs with PIDs. The instruments will have datalogging capabilities; these instruments will be checked periodically and manual readings will be recorded on an instrument-specific log form. Dust control measures will be employed if CAMP thresholds are exceeded.

Work will be performed in Level D Personnel Protective Equipment (PPE); however if VOC levels in the worker's breathing zones exceed the thresholds listed in the HASP, site personnel will be prepared to upgrade PPE levels appropriately, including the use of air purifying respirators.

2.3.3 Pre-Characterization, Excavation, Field Screening and Material Segregation

The soil will be pre-characterized for disposal approval to avoid the need for stockpiling and sampling of impacted soil on-site. TREC will perform one Geoprobe® boring within the excavation area and Stantec will collect samples for re-use pre-characterization.

The excavation work will be performed using a track-mounted excavator. If necessary support equipment such as a front-end loader and dump truck may be employed to efficiently handle and stockpile excavated materials.

Fill soils overlying the impacted material will be excavated and stockpiled on poly sheeting within the limits of the parking lot area to the north. Stantec will perform soil screening for VOC presence with a PID to provide guidance on the segregation of impacted and non-impacted materials. A threshold PID value of 5 parts per million (ppm) will be used to segregate impacted from non-impacted soil. In addition, soils with visual evidence of gross contamination (staining, sheen, oil product presence, etc.) will be considered impacted.

The proposed excavation area is approximately 15 feet by 10 feet and it is anticipated to reach a depth of approximately 12 feet. The excavation work will take place in two phases, to limit the need for shoring along the adjacent sidewalk. The final excavation limits are not expected to go beyond those shown on Figure 2.

2.3.4 Confirmation Soil Sampling

Confirmation soil samples will be collected from the excavation sidewalls and bottom to characterize the levels of soil contamination, if any, left in place. However, excavation backfill will be performed prior to receipt of lab results due to safety and subsidence concerns.

One sidewall grab soil sample will be collected from each of the four sidewalls and one excavation bottom grab soil sample will be collected from the excavation bottom area.

Sampling and analytical activities will be conducted in accordance with the environmental sampling and analytical guidelines and protocols contained in the Quality Assurance Project Plan (QAPP; see Appendix D).

Laboratory analyses will be performed by a laboratory accredited under the New York State Department of Health Environmental Laboratory Accreditation Program (ELAP). Confirmatory soil samples are proposed to be analyzed for VOCs using USEPA Method 8260C only, unless field observations or pre-characterization results indicate additional analyses are warranted.

2.3.5 Soil and Waste Stockpiles

Excavated materials will be segregated as described below. It is currently anticipated that the first category of material will be placed in a stockpile constructed on a continuous sheet (no seams) of minimum 6-mil-thick poly sheeting that will serve as the bottom liner of the stockpile. The liner will be placed on the asphalt parking lot to the north of the excavation area which will be prepared by removing rocks and debris that could cause a puncture. The location of the stockpile will be a sufficient distance away from stormwater drainage structures to prevent potential contamination. The stockpile(s) will be constructed in such a way as to divert stormwater around the pile. There is ample room within the parking lot for stockpiling; therefore, multiple piles may be constructed to maintain manageable pile size and access. The stockpile(s) will be kept as close to the excavation area as reasonably possible to lower the probability of spilled material. This stockpile will be covered with poly sheeting at the end of each work day and only uncovered when in active use.

1. **Overlying Fill Soils –** This material will consist of soil exhibiting PID screening readings of less than 5 ppm, and generally free of visible evidence of impairment (staining, sheen, oil product, etc.). It is anticipated that approximately 53 tons of this material will be excavated, stockpiled, and reused as backfill.
2. **Impacted Soil –** Soil appearing impacted either by visual observation or from field PID readings greater than 5 ppm. Further refinement as to the separation between impacted and non-impacted soil will be gathered following the pre-characterization sampling. It is proposed that impacted material will be live-loaded into tarped dump trucks to prevent the need for stockpiling. Reasonable efforts will be made to prevent the spillage of this material while loading the trucks. Any spilled material will be promptly cleaned and loaded into the trucks. It is anticipated that approximately 55 tons of this material will be excavated and disposed.

2.3.6 Groundwater & Stormwater Management

It is possible that groundwater may be encountered and may accumulate in the excavation. The excavation depth is proposed to terminate above the previously measured ground water levels and the work will be performed in the late summer to limit the probability of encountering high groundwater. The open excavation could also collect precipitation or runoff during a rain event. Water that accumulates within the excavation will be collected and directly pumped to a temporary storage container. Groundwater management will follow Section 7.3 of the *Site Management Plan, 8-28 Ward Street Site,* *Index #B8-0566-99-10, Site #C828136* dated November 2008. Potential disposal of the water is discussed below in Section 2.4.

The layout and preparation of the excavation area will be maintained to minimize the potential for stormwater to enter the excavation.

2.3.7 Backfilling

After excavation is complete and confirmation samples have been collected, approximately 600 lbs. of a sodium lactate solution will be applied to the bottom of the excavation. A demarcation layer such as orange construction fence, geotextile fabric, or other similar material will then be placed in the excavation area to mark where the excavation ceased. Overburden soils previously stockpiled will be reused as backfill. These materials will be sampled during the pre-characterization program and analyzed for the full suite of compounds, in accordance with DER-10. A summary of analytical methodologies, and reporting/detection limits for the constituents to be analyzed is available in the QAPP (Appendix D). Additional imported material will also be required to bring the excavation area back to original grade. These imported materials will also first be sampled and analyzed for the full suite of compounds, in accordance with DER-10 unless prior analytical or geotechnical data are available and are satisfactory to the NYSDEC. The top four inches of the excavation area will be covered with previously-excavated topsoil and grass-seeded.

2.3.8 Survey Control

The limits of excavation will be periodically surveyed using hand-held GPS equipment with sub-meter accuracy. At the completion of the project the final excavation limits will also be established. Final excavation depth will also be routinely measured and recorded.

2.4 Waste Management, Sampling and Disposal

One waste stream is anticipated to be generated as a result of the work described in this plan, and the remaining materials are proposed to remain on site. The final waste disposal facility cannot be identified until pre-characterization analytical results are received, waste profiles are prepared, and disposal approval is received; however, Stantec will attempt to identify tentative disposal facilities in advance and adjust sampling requirements to those required by the facilities. Disposal and on-site reuse of soil material will follow the procedures and requirements specified in the *Site Management Plan, 8-28 Ward Street Site, Index #B8-0566-99-10, Site #C828136* dated November 2008.

Stantec will pre-characterize the soil from the excavation area via sampling and analysis to determine appropriate disposal, and will interact with potential disposal facilities to obtain the necessary waste profile. In addition, given that the material is impacted with TCE, Stantec has assumed a Contained-In Demonstration (CID) would be required by NYSDEC, and assuming the results are acceptable, will obtain approval from the NYSDEC to dispose of the material by landfilling as non-hazardous waste.

Sampling frequency and methodology will be in accordance with DER-10. Samples for VOC analyses will be discrete; samples for other analyses will be composites.

If water is pumped from the excavation, it is likely that it will be discharged to the sanitary sewer in accordance with a temporary discharge permit obtained from the Monroe County Department of Environmental Services. This would require sampling and analysis of the water to demonstrate that contaminant levels are below MCDES allowable limits. If these limits cannot be met, other disposal options will be evaluated.

3.0 RELATED DOCUMENTS

The supplemental plans developed in conjunction with the Remedial Action Work Plan will remain in effect during the Soil Removal Work described herein, and are included in the attached appendices:

- **HASP**: Describes personal safety protection standards and procedures to be followed by Stantec personnel during the planned activities at the Site (Appendix B). Material Safety Data Sheets (MSDS) for the chemicals suspected to be encountered at the Site are provided as an appendix to the HASP.
- **CAMP**: Describes procedures for monitoring and controlling air quality issues related to VOCs and particulates (dust) that may arise during activities that will disturb potentially-impacted materials (Appendix C).
- **QAPP**: Outlines the procedures to be used to assure that analytical results obtained from the investigation meet data quality objectives (Appendix D).

4.0 PROJECT CONTACTS

The following list will be updated immediately prior to work initiation and a copy provided to all involved parties.

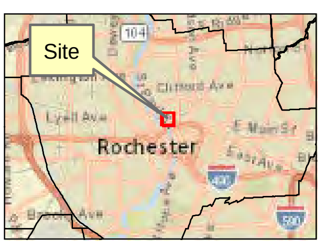
Entity	Name	Telephone	Cell Phone	Email
Germanow-Simon Corporation	Andy Germanow	585-295-0254	585-202-5070	agermanow@teltru.com
	John Dole	585-295-0220	585-732-0202	jdole@gsoptics.com
NYSDEC	Todd Caffoe	585-226-5350	-	todd.caffoe@dec.ny.gov
Stantec	Mike Storonsky	585-413-5266	585-298-2386	mike.storonsky@stantec.com
	Peter Nielsen	585-413-5280	585-729-0848	peter.nielsen@stantec.com
	Ben Haravitch	585-475-1440	585-978-5248	ben.haravitch@stantec.com
	Kyle Stone	585-413-5209	585-284-6433	kyle.stone@stantec.com
Remedial Contractor (TREC Environmental)	Keith Hambley	585-594-5545	585-314-6189	khambley@trecenv.com

5.0 PROJECT SCHEDULE

Following NYSDEC approval of this Work Plan, pre-characterization sampling is expected to be completed in one-half day. The excavation and backfilling activities are anticipated to be completed in two days. NYSDEC will be notified approximately two weeks in advance of commencement of the work. It is expected that the work will begin in late summer. NYSDEC will be kept informed via email updates as the work progresses.

Figures

U:\190500014\2016 boring program\Field Data\GPS Points\Figure 1 - Site Location Map - 7-11-2017.mxd Revised: 2017-07-11 By: aless



Legend

- Site
- Surrounding Properties
- Proposed Excavation Area

0 300 600 Feet

1:3,600 (at original document size of 8.5x11)

Stantec

Project Location	190500014 REVA
8-28 Ward Street Monroe County Rochester , NY	Prepared by APL on 2017-07-11 Technical Review by BM on 2017-07-11 Independent Review by MPS on 2017-07-11

Client/Project

Soil Removal Work Plan
Brownfield Cleanup Program Site
Site # C828136

Figure No.
1

Title

Site Location Map

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

2. Aerial Source : WMS Site - NYSGIS - 2015

Stantec

Legend

- 2016 Boring Locations
- Monitoring Wells
- Proposed Excavation Area
- 8-28 Ward Street Site Property Line

0 5 10 20 30

1 inch = 10 feet Feet

Notes

1. Coordinate System: NAD 1983 StatePlane New York Long Island FIPS 3104 Feet
2. Key Map : ArcGIS ESRI : StreetMap USA

Project Location

Rochester, Monroe County , New York

190500014 REVA
Prepared by KTS on 2017-06-02
Independent Review by MPS on 2017-06-02

Client/Project

Soil Removal Work Plan
8-28 Ward Street Site, Brownfield Cleanup Program Site #C828136
8-28 Ward Street, Rochester, Monroe County, New York

Figure No.
2

Title

Proposed Excavation Area

Tables

Table 1
Summary of Volatile Organic Compounds in Soil – May 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Sample Location			B1	B2	B3	B4	B5	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16		B17	B18	B19
Sample Date			23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	23-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16	24-May-16
Sample ID			828-2016-B1-S	828-2016-B2-S	828-2016-B3-S	828-2016-B4-S	828-2016-B5-S	828-2016-B7-S	828-2016-B8-S	828-2016-B9-S	828-2016-B10-S	828-2016-B11-S	828-2016-B12-S	828-2016-B13-S	828-2016-B14-S	828-2016-B15-S	828-2016-B16-S	828-2016-FD-S	828-2016-B17-S	828-2016-B18-S	828-2016-B19-S
Sample Depth			13.2 - 13.7 ft	13.3 - 13.8 ft	8.3 - 8.8 ft	13 - 13.5 ft	8.5 - 9 ft	7.5 - 8 ft	11.5 - 12 ft	13 - 13.5 ft	9 - 9.5 ft	5 - 5.5 ft	9.5 - 10 ft	5.5 - 6 ft	14 - 14.5 ft	11 - 11.5 ft	9.5 - 10 ft	9.5 - 10 ft	10 - 10.5 ft	7 - 7.5 ft	12.5 - 13 ft
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH	PARAROCH
Laboratory Work Order			162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126	162126
Laboratory Sample ID			162126-01	162126-02	162126-03	162126-04	162126-05	162126-06	162126-07	162126-08	162126-09	162126-10	162126-11	162126-12	162126-13	162126-14	162126-15	162126-19	162126-16	162126-17	162126-18
Sample Type	Units	NYSDEC-Part 375																Field Duplicate			
Volatile Organic Compounds																					
Acetone	µg/kg	500000_c^A 1000000_d^B 50^C	41.6 U	39.8 U	20.1 U	20.6 U	***230 U***	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	***51.8 U***	***100 U***	22.0 U	22.1 U	19.6 U
Benzene	µg/kg	44000^A 89000^B 60^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Bromodichloromethane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Bromoform (Tribromomethane)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Bromomethane (Methyl bromide)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Carbon Disulfide	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	5.84 J	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Carbon Tetrachloride (Tetrachloromethane)	µg/kg	22000^A 44000^B 760^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chlorobenzene (Monochlorobenzene)	µg/kg	500000_c^A 1000000_d^B 1100^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chlorobromomethane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Chloroethane (Ethyl Chloride)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chloroform (Trichloromethane)	µg/kg	350000^A 700000^B 370^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Chloromethane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Cyclohexane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	41.6 U	39.8 U	20.1 U	20.6 U	230 U	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Dibromo-3-Chloropropane, 1,2- (DBCP)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	41.6 U	39.8 U	20.1 U	20.6 U	230 U	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Dibromochloromethane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,2-	µg/kg	500000_c^A 1000000_d^B 1100^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,3-	µg/kg	280000^A 560000^B 2400^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorobenzene, 1,4-	µg/kg	130000^A 250000^B 1800^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichlorodifluoromethane (Freon 12)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethane, 1,1-	µg/kg	240000^A 480000^B 270^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethane, 1,2-	µg/kg	30000^A 60000^B 20_g^C	8.32 U	7.96 U	4.02 U	4.12 U	***46.0 U***	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, 1,1-	µg/kg	500000_c^A 1000000_d^B 330^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, cis-1,2-	µg/kg	500000_c^A 1000000_d^B 250^C	**608^C**	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloroethene, trans-1,2-	µg/kg	500000_c^A 1000000_d^B 190^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropane, 1,2-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropene, cis-1,3-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dichloropropene, trans-1,3-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Dioxane, 1,4-	µg/kg	130000^A 250000^B 100_f^C	83.2 U	79.6 U	40.2 U	41.2 U	***460 U***	44.0 U	35.6 U	36.9 U	39.1 U	44.2 U	42.6 U	44.9 U	37.8 U	33.2 U	***104 U***	***200 U***	44.0 U	44.2 U	39.2 U
Ethylbenzene	µg/kg	390000^A 780000^B 1000^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Hexanone, 2- (Methyl Butyl Ketone)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Isopropylbenzene	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methyl Acetate	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/kg	500000_c^A 1000000_d^B 120^C	41.6 U	39.8 U	20.1 U	20.6 U	***230 U***	22.0 U	17.8 U	18.4 U	19.6 U	22.1 U	21.3 U	22.4 U	18.9 U	16.6 U	51.8 U	100 U	22.0 U	22.1 U	19.6 U
Methyl Isobutyl Ketone (MIBK)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Methyl tert-butyl ether (MTBE)	µg/kg	500000_c^A 1000000_d^B 930^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methylcyclohexane	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Methylene Chloride (Dichloromethane)	µg/kg	500000_c^A 1000000_d^B 50^C	20.8 U	19.9 U	10.0 U	10.3 U	***115 U***	11.0 U	8.90 U	9.22 U	5.21 J	9.63 J	5.91 J	7.98 J	6.76 J	8.30 U	25.9 U	***50.1 U***	10.2 J	11.1 U	5.62 J
Styrene	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Tetrachloroethane, 1,1,2,2-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Tetrachloroethene (PCE)	µg/kg	150000^A 300000^B 1300^C	565	516	23.3	19.1	**4220^C**	109	166	3.69 U	314	33.0	4.30	10.5	8.71	260	423	977	193	31.2	2.19 J
Toluene	µg/kg	500000_c^A 1000000_d^B 700^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichlorobenzene, 1,2,3-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Trichlorobenzene, 1,2,4-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Trichloroethane, 1,1,1-	µg/kg	500000_c^A 1000000_d^B 680^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichloroethane, 1,1,2-	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichloroethene (TCE)	µg/kg	200000^A 400000^B 470^C	97.1	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	10.6	7.58 J	17.3 J	4.40 U	4.42 U	3.92 U
Trichlorofluoromethane (Freon 11)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Trichlorotrifluoroethane (Freon 113)	µg/kg	500000_c^A 1000000_d^B 1000000_d^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Vinyl chloride	µg/kg	13000^A 27000^B 20^C	8.32 U	7.96 U	4.02 U	4.12 U	***46.0 U***	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Xylene, m & p-	µg/kg	$500000_{c,p}^A$ $1000000_{d,p}^B$ 1600_p^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Xylene, o-	µg/kg	$500000_{c,p}^A$ $1000000_{d,p}^B$ 1600_p^C	8.32 U	7.96 U	4.02 U	4.12 U	46.0 U	4.40 U	3.56 U	3.69 U	3.91 U	4.42 U	4.26 U	4.49 U	3.78 U	3.32 U	10.4 U	20.0 U	4.40 U	4.42 U	3.92 U
Total VOC	µg/kg	n/v	1275.94	516	23.3	19.1	4220	109	166	ND	319.21	42.63	10.21	18.48	15.47	270.6	430.58	994.3	203.2	31.2	7.81
Tentatively Identified Compound (TIC)	µg/kg	n/v	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U
Total VOC TICs	µg/kg	n/v	20.8 U	19.9 U	10.0 U	10.3 U	115 U	11.0 U	8.90 U	9.22 U	9.78 U	11.1 U	10.6 U	11.2 U	9.44 U	8.30 U	25.9 U	50.1 U	11.0 U	11.1 U	9.80 U

See notes on last page.

Table
Summary of Volatile Organic Compounds in Soil – May 2016
PERIODIC REVIEW REPORT, WARD STREET SITES
GERMANOW-SIMON CORPORATION
ROCHESTER, NY

Notes:

NYSDEC-Part 375	NYSDEC 6 NYCRR Part 375 Soil Clean-up Objectives (SCOs)
A	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Commercial
B	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Human Health - Industrial
C	NYSDEC 6 NYCRR Part 375 - Restricted Use SCO - Protection of Groundwater
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
0.50 U	Laboratory reporting limit was greater than the applicable standard.
0.03 U	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
c	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3.
c,p	The SCOs for commercial use were capped at a maximum value of 500 mg/kg. See TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
d[BC]	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg (Organics) and 10000 mg/kg (Inorganics). See 6 NYCRR Part 375 TSD Section 9.3.
d,p	The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 mg/kg. See 6 NYCRR Part 375 TSD Section 9.3. The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
f	For constituents where the calculated SCO was lower than the CRQL, the CRQL is used as the SCO value.
g	For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the DEC/DOH rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
p	The criterion is applicable to total xylenes, and the individual isomers should be added for comparison.
J	The reported result is an estimated value.

Appendix A

Soil Boring Logs – May 2016

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B1

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-2' Brown f. to m. SAND, trace gravel concrete/gravel layer at 2'
2	0	33"		
3				2-4' Brown f. to m. SAND, trace gravel, trace silt includes red sandstone gravel chunks
4	0			4-5' Same. Some gravel and concrete chunks.
5				
6	0	36"		5-6' Brown f. SAND and SILT, trace clay, some gravel.
7	0			6-7' Brown f. SAND and SILT, some clay. Workable.
8	0			7-8' Brown f. SAND and SILT, trace clay, some gravel
9	0.4			
10	0.8	44"		8-10' Light brown f. SAND and SILT, little gravel, little clay. Workable.
11	0.8			
12	1.1			10-12' Same. Gray-brown. Slight black staining at 12'. **WET** at 12'.
	2.4			
13	4.1			
	14.1			12-14.6' Same. Some gravel from 13-14.6'.
14	9		828-2016-B1-S	
	6.2		13.2 - 13.7 ft. bgs	
15			12:00	Bottom of boring at 14.6'
16				
17				
18				
19				
20				

Notes:

1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B2

Project:	Ward Street	Drill Contractor:	Trec
Project #:	190500014.000	Driller:	Eric
Client:	Germanow-Simon	Elevation:	
Location:	8-28 Ward Street	Weather:	Sunny, 70s

Start Date:	5/23/2016
Completion Date:	5/23/2016
Drilling Method:	Direct Push
Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-1.5' Brown f. to m. SAND, some gravel
2		32"		1.5-2.5' Brown f. to m. SAND and gravel, concrete chunks
	0.1			
3				2.5-4' Brown, moist f. SAND, some silt, trace clay, trace gravel
	0.1			
4	0.2			
				4-5' Brown f. SAND and SILT, some clay, trace gravel. Hard
5	0.2			
6	0.2	36"		5-6' Brown f. SAND and SILT, little clay. Soft and workable
7	0.2			
8	0.2			6-8' Brown f. SAND and SILT, some gravel with red SS chunks
9	0.2			
				8-12' Brown f. SAND and SILT, trace gravel, trace clay. **WET** at 12'
10	0.2	44"		
11	0.4			
12	0.4			12-13' Same, some coarse gravel
	0.3			
13	1.2			
	7.2			13-13.8' Same. Gray-brown
14				
			828-2016-B2-S	Bottom of boring at 13.8'
15			13.3 - 13.8 ft. bgs	
			13:00:00 PM	
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B3

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.2			0-1.5' Brown f. to m. SAND, some gravel, concrete layer at 1.5'
2	0.1	31"		
3	0.1			1.5-4' Brown f. SAND, some silt, trace gravel
4	0.1			
				4-5' Same. Trace clay
5	0.2			
6	0.3	35"		5-6' Brown f. SAND, some silt, trace gravel. Moist
7	0.2			
8	0.2			6-9' Brown f. SAND and SILT, trace clay, trace gravel
	0.7			
9	0.2			
			828-2016-B3-S	
10	0.3	26"	8.3 - 8.8 ft. bgs	
			13:50:00 PM	9-14' Same. Gray-Brown, cohesive, coarse gravel. **WET** at 12'
11	0.3			
12	0.3			
	0.3			
13	0.2			
	0.2	41"		
14	0.2			14-14.6' Same. No clay
	0.2			
15				Bottom of boring at 14.6'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B4

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-2' Brown SAND mixed with rounded gravel
2	0.1	32"		
3	0.1			
4	0.1			2-5' Brown SAND and SILT, trace clay, little gravel. Some black blebs in soil, possibly organic.
5	0.1			
6	0.1	48"		
7	0.1			5-9' Brown SILT, some f. sand, some clay, trace gravel. Orange-brown at top, Gray-brown near bottom. Cohesive and workable.
8	0.2			
9	0.2			9-9.5' Gravel layer
10	0.1	38"		9.5 -11' Brown f. SAND and SILT, little gravel
11	0.1			
12	0.1			
	0.3			
13	0.3			11-14.5' Same. Some gravel, trace clay. Slightly gray. **WET** @ 13.5
	0.2	18"		
14	0.2		828-2016-B4-S	
	0.2		13-13.5 ft. bgs	
15			14:30:00 PM	14.5-14.9' Gravel, some silt and clay
				Bottom of boring at 14.9'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B5

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-1.5' Brown SAND and gravel
2	0.1	38"		
3	0.1			1.5-4' Brown f. SAND, little silt, little coarse gravel. Some black staining.
4	0.1			
5	0.1			
6	0.4	48"		4-8' Brown SILT, some clay, little sand and gravel
7	6.7			
8	3.5			
9	7.5			
			828-2016-B5-S	8-10.5' Brown f. SAND and SILT, trace clay, little gravel
10	3	48"	8.5-9 ft. bgs	
			15:00:00 PM	
11	6.5			
				10.5-12' Gray-brown f. to m. SAND, some gravel, little silt
12	4.9			
	1.5			
13	1.4			
		48"		12-15.2' Same. Trace clay. **WET** @ 13'.
14	0.4			
15	0.4			
				Bottom of boring at 15.2'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B7

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-2' Brown SAND and gravel fill.
2	0.1	35"		
3	0.2			2-5' Brown f. SAND, some silt, some gravel.
4	0.2			
5	0.2			
6		46"		5-6' Light brown SILT, some clay, trace f. sand.
	0.4			
7	0.3			6-7' Brown m. SAND, well sorted.
8	1.4			7-8' Light brown f. SAND and SILT, some gravel, little clay
			828-2016-B7-S	
9	0.3		7.5-8 ft. bgs	
			15:40:00 PM	
10	0.6	41"		
11	0.9			8-12' Brown f. SAND, some silt, some gravel.
12	0.8			
13	0.2			
		48"		12-14' Same, gray-brown towards bottom. **WET** @ 13'.
14	0.2			
				Bottom of boring at 14'
15				
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B8

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/23/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/23/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample
0			
1			
	0.2		
2		38"	
3	0.2		
4	0.2		
5	0.2		
6	0.1	48"	
7	0.1		
8	0.2		
9			
10	0.3	22"	
11	0.3		
12	0.9		
	0.5		828-2016-B8-S
13	0.2		11.5-12 ft. bgs
		48"	16:20:00 PM
14	0.2		
15	0.2		
16			
17			
18			
19			
20			

Soil Information

0-2.5' Dark brown f. SAND soil, some gravel and brick fragments.

2.5-5' Light brown to Brown SAND, some silt, little gravel.

5-7.5' Brown f. SAND and SILT, some clay, trace gravel.

7.5-8' Brown f. SAND, some silt, some gravel.

8-10' Brown f. SAND, some silt, little clay, little gravel.

10-11' Brown f. to m. SAND, well sorted.

11-14.9' Brown f. SAND, some silt, some gravel, **WET** @ 12.5'

Bottom of boring at 14.9'

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B9

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	1.6			0-2' Dark brown f. SAND soil, some gravel, some silt.
2	0	40"		
3	0			2-4' Brown f. SAND, some silt.
4	0			
5	0			4-6.5' Brown SILT, some f. sand, some clay
6	0	48"		
7	0			6.5-8' Brown f. SAND, some silt.
8	0			
9	0			8-9.5' Brown f. SAND and SILT, trace clay, little gravel.
10	0.1	40"		9.5-15.3' Gray brown f. SAND, some silt, little gravel. More cohesive and slightly more gravel towards bottom.
11	0			
12	0.1			
13	0.3			
	0.3	36"		
14	0.2		828-2016-B9-S	
			13-13.5 ft. bgs	
15	0.2		8:50	Bottom of boring at 15.3'
16				
17				
18				
19				
20				

Notes:

1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B10

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample
0			
1	0.2		
2	0.2	34"	
3	0.3		
4	0.3		
5			
	0.3		
6		39"	
7	0.2		
8	0.7		
	1.2		
9	2.1		
10	2	44"	828-2016-B10-S
			9-9.5 ft. bgs
11	1		9:30
12	0.5		
13	0.3		
		48"	
14	0.4		
15	0.3		
16			
17			
18			
19			
20			

Soil Information

0-2' Dark brown and black SANDY soil, and gravel and brick fragments.

2-4' Brown f. SAND, some silt.

4-5' Brown f. SAND and SILT, some clay, some coarse gravel, chunky

5-6.5' Light brown SILT, some clay, little f. sand.

6.5-8' Brown f. SAND and SILT, well sorted.

8-12' Brown f. SAND and SILT, little gravel, trace clay, Poorly sorted, cohesive, more gravel at bottom.

12-15.4' Brown f. SAND, some silt, some gravel, poorly sorted, more cohesive toward bottom, **WET**@ 13'

Bottom of boring at 15.4'

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B11

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-1.5' Asphalt and gravel.
	0.4			
2		34"		
	0.3			1.5-2.5' Dark brown and black sand and gravel and misc. fill.
3	0.3			
4	0.2			2.5-4.5' Light brown f. SAND, some silt, little gravel.
5	0.7			4.5-5.5' Light brown SILT and coarse gravel, some clay, little sand. poorly sorted.
6	0.4	39"	828-2016-B11-S	
			5-5.5 ft. bgs	5.5-7' Light brown SILT, some clay, trace gravel, well sorted.
7	0.4		10:20	
				7-8.5' Brown f. SAND and SILT, well sorted.
8	0.4			
	0.5			
9	0.4			
10	0.4	44"		
11	0.2			8.5-13.8' Brown f. SAND and SILT, little gravel, trace clay. **WET** @ 13'
12	0.4			
13	0.4			
	0.3	48"		
14				
				Bottom of boring at 13.8'
15				
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B12

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-1.5' Asphalt and gravel.
	0.3			
2	0.4	37"		
				1.5-2.5' Dark brown SAND and SILT with some gravel fill
3	0.4			2.5-3.5' gray crushed STONE and LIMESTONE chips, some soil throughout
				3.5-4.0' black and orange SAND, SILT and GRAVEL
4	0.4			4.0-5.0' Light brown and orange SILT, some clay, trace f. gravel and f. sand
5	0.4			5.0-6.5' light brown SILT, some f. sand, minor clay
6	0.4	48"		
				6.5-8.0' light brown f. SAND and SILT
7	0.3			
8	0.3			8.0-14.8 brown f. SAND and SILT, little gravel **WET** @ 13'
9	0.6			
10	0.7	40"		
			828-2016-B12-S	
11	0.5		9.5-10 ft. bgs	
			10:50	
12	0.4			
13	0.5			
14	0.4			
15	0.4			Bottom of boring at 14.8'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B13

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-1.5' Asphalt and gravel.
	0.5			1.5-2.5' SAND and GRAVEL, some clay and misc. fill
2		37"		
	0.4			2.5-3.0' GRAVEL, crushed stone
3				3.0-4.0' light brown f. SAND, little silt, well sorted
	0.4			
4				
	0.3			4.0-5.0 light brown and orange SILT, some clay, trace f. gravel
5	0.6			5.0-6.5' light brown SILT, some f. sand, little clay
6	0.6	48"		
			828-2016-B13-S	6.5-8.5' light brown f. SAND and SILT, little gravel, well sorted
7	0.5		5.5-6 ft. bgs	
			11:40	
8	0.5			
				8.5-14.0' brown f. SAND and SILT, some gravel, **WET** @ 13', poorly sorted
9	0.4			
10	0.4	40"		
11	0.4			
12	0.4			
13	0.4			
14	0.4			14.0-15.1 gray brown f. SAND and GRAVEL, some silt
15	0.3			
				Bottom of boring at 15.1'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B14

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-1.0' black and tan SAND and GRAVEL
				1.0-2.5 brown f.SAND, little gravel, little silt
2	0.1	38"		
				2.5-4.5' light brown f. SAND, some silt, well sorted
3	0.1			
4	0.1			
	0.1			4.5-5.0' brown, CLAY, SILT, SAND, GRAVEL, poorly sorted
5	0.1			5.0-5.5' brown SILT and CLAY, little gravel
				5.5 -8.0' brown, f. SAND and SILT
6	0.2	48"		
7	0.2			
8	0.2			8.0-9.0' brown, f.SAND and SILT, trace clay, little gravel
9	0.2			9.0-15.6' brown, f. SAND and SILT, little gravel, **WET** @ 13.5'
10	0.3	48"		
11	0.3			
12	0.3			
	0.3			
13	0.3			12.5' coarse SAND pocket
14	0.4			
	0.4			
15			828-2016-B14-S	15.6 gravel pocket
	0.4		14.0-14.5 ft. bgs	Bottom of boring at 15.6'
16			13:10	
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B15

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.1			0-1.5' light brown f. SAND and GRAVEL
2	0.2	37"		1.5-4.5' brown f. SAND, some silt, little gravel
3	0			
4	0.1			4.5-5.0' HARD CLAY, SILT, GRAVEL
5	0.3			5.0-6.5' light brown SILT , some clay
6	0.3	48"		6.5-7.5' light brown SILT, some f. sand, little clay, little gravel
7	0.3			7.5-8.5' light brown f. SAND and SILT, some gravel
8	0.2			8.5-15.1' gray brown f. SAND and SILT, little f. gravel **NO CLEAR WET**
9	0.3			
10	0.3	47"		
11	0.5			
12	0.5		828-2016-B15-S 11.0-11.5 ft. bgs	
13	0.3		13:40:00 PM	
14	0.3			
15	0.3			Bottom of boring at 15.1'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B16

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1	0.2			0-1.5' black and brown SANDand GRAVEL, soi 1.5-4.0' brown f. SAND, little silt, little gravel
2		34"		
3	0.3			--
4	0.2			4.0-4.5' mixed CLAY, GRAVEL, SAND, SILT, hard 4.5-5.5' light brown SILT, some clay
5	0.3			
6	0.4	48"		5.5-12.0' light brown SILT and SAND, little gravel, trace clay
7	0.9			
8	1.8			
9	7			
	8.3			
10	9.5	47"		
			828-2016-B16-S	
11	2.6		9.5-10.0 ft. bgs	
			14:15:00 PM	
12	5.9			12.0-14.7' reddish gray-brown, SILT and SAND little gravel, no clay, **WET** @ 13'
13	1.5			
14	1			
15	0.3			Bottom of boring at 14.7'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B17

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-3.5' URBAN FILL, SAND and GRAVEL
2		28"		
	0.7			
3				3.0-3.25' BRICK; 3.25-3.5' CONCRETE with black staining
	0.5			3.5-4.5' brown f. SAND, little gravel
4	0.5			
				4.5-5.0' HARD CLAY, SILT, GRAVEL, mixed
5	0.4			5.0-6.0' light brown CLAY and SILT, hard
6	0.5	47"		6.0-7.5' light brown SILT and SAND
7	0.6			
				7.0-14.7' light brown SILT and SAND, some gravel, NO CLEAR **WET**
8	0.9			
9	1.3			
10	1.7	48"		
11	1.5		828-2016-B17-S	
			10.0-10.5 ft. bgs	
12	0.6		14:50:00 PM	
13	0.4			
		38"		
14	0.3			
	0.3			
15				Bottom of boring at 14.7'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B18

Project:	Ward Street	Drill Contractor:	Trec
Project #:	190500014.000	Driller:	Eric
Client:	Germanow-Simon	Elevation:	
Location:	8-28 Ward Street	Weather:	Sunny, 70s

Start Date:	5/24/2016
Completion Date:	5/24/2016
Drilling Method:	Direct Push
Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-3.0' URBAN FILL and SAND; fill includes asphalt, concrete and slag
2	0.5	36"		
3	0.3			3.0-4.0' light brown, f. SAND and SILT
4	0.2			4.0-4.5'- HARD CLAY, SILT, SAND and GRAVEL mixed 4.5-5.0' Hlight brown CLAY and SILT, little gravel
5	0.4			5.0-6.0' light brown SILT, some clay, trace gravel, little sand
6	0.4	48"		6.0-7.5' light brown f. SAND and SILT, trace gravel and clay
7	0.5			7.5-8.0' SAND and course SAND
8	0.4		828-2016-B18-S 7.0-7.5 ft. bgs	8.0-14.2' light brown and gray-brown f. SAND and SILT, some f. gravel
9	0.4		15:50:00 PM	
10	0.4	48"		
11	0.3			
12	0.2			
13	0.2			**NO CLEAR WET**
14	0.2			
15				Bottom of boring at 14.7'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Stantec

61 Commercial Street
Rochester, NY 14614
(585) 475-1440

Test Boring No.: B19

Project:	Ward Street	Drill Contractor:	Trec	Start Date:	5/24/2016
Project #:	190500014.000	Driller:	Eric	Completion Date:	5/24/2016
Client:	Germanow-Simon	Elevation:		Drilling Method:	Direct Push
Location:	8-28 Ward Street	Weather:	Sunny, 70s	Supervisor:	Ben Haravitch

Depth	PID	Rec.	Sample	Soil Information
0				
1				0-3.0' URBAN FILL (Asphalt) GRAVEL, f. SAND;
	0.3			
2		34"		
	0.3			
3				3.0-3.5' BRICK or CLAY 3.5-4.5' URBAN FILL (slag, glass, cinders)
4	0.4			4.5-6' light brown f. SAND, some silt, trace clay and gravel, poorly sorted
5	0.3			
6	0.2	48"		6.0-7.5' light brown f. SAND and SILT, well sorted
7	0.2			
8	0.3			7.5-8.0' brown f. SAND and SILT, some gravel, poorly sorted 8.0-10' brown f. SAND and SILT, little f. gravel with rounded pebbles
9	0.3			
10	0.3	44"		10.0-14.1' gray-brown f. SAND and SILT, little f. gravel with rounded pebbles **WET** @ 12.5'
11	0.2			
12	0.2			
13	0.4			
			828-2016-B19-S	
14	0.3		12.5-13.0 ft. bgs	
			16:15:00 PM	
15				Bottom of boring at 14.1'
16				
17				
18				
19				
20				

Notes:
1. PID Model Mini-Rae 2000 with 10.6eV lamp.

Appendix B

Site-Specific Health and Safety Plan (HASP)

Appendix B

Health and Safety Plan

Soil Removal Work Plan
8-28 Ward Street Site – Site No. C828136
8-28 Ward Street
Rochester, New York

Prepared for:
New York State Department of Environmental Conservation
6724 East Avon-Lima Road
Avon, New York 14414-9519

Prepared on behalf of:
Germanow-Simon Corporation
408 St. Paul Street
Rochester, New York 14601

Prepared by:
Stantec Consulting Services Inc.
61 Commercial Street Suite 100
Rochester, New York 14614

July 2017

Revision 2

Health and Safety Plan
Soil Removal Work Plan
8-28 Ward Street Site – Site No. C828136
8-28 Ward Street
Rochester, New York
Revision 2

Emergency Information

Ambulance: 911	
Hospital: Highland Hospital 1000 South Ave. Rochester, NY 14620 585-473-2200	
Fire Department: **911**	Poison Control Center: **800-222-1222**
Police: **911**	Utility Emergency: **911**

Project Contacts

Entity	Name	Telephone	Cell Phone	Email
Entity	**Name**	**Telephone**	**Cell Phone**	**Email**
Germanow-Simon Corporation	Andy Germanow	585-295-0254	585-202-5070	AGermanow@teltru.com
	John Dole	585-295-0220	585-732-0202	JDole@gsoptics.com
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Stantec	Mike Storonsky	585-413-5266	585-298-2386	mike.storonsky@stantec.com
	Peter Nielson	585-413-5280	585-729-0848	peter.nielson@stantec.com
	Ben Haravitch	585-475-1440	585-978-5248	ben.haravitch@stantec.com
	Kyle Stone	585-413-5209	585-284-6433	kyle.stone@stantec.com
Remedial Contractor (TREC Environmental)	Keith Hambley	585-594-5545	585-314-6189	khambley@trecenv.com

Revision History

Revision Number	Date	Modifications
Original	November 1999	N/A
Revision 1	April 2006	Minor Updates
Revision 2	July 2017	Formatting Updates

Stantec

Health and Safety Plan Acknowledgement

The undersigned acknowledge they have read and understand this Health and Safety Plan and agree to abide by the requirements included in this document.

Print Name	Signature	Date
Print Name	Signature	Date
Print Name	Signature	Date
Print Name	Signature	Date
Print Name	Signature	Date
Print Name	Signature	Date
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Print Name	Signature	Date
Print Name	Signature	Date

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1.0 INTRODUCTION

The following Health and Safety Plan (HASP) describes personal safety protection standards and procedures to be followed by Stantec staff during planned Soil Removal activities at 8-28 Ward Street in Rochester, New York (Figure 1).

This HASP establishes mandatory safety procedures and personal protection standards pursuant to the Occupational Safety and Health Administration (OSHA) regulations 29 Code of Federal Regulations (CFR) 1910.120. The HASP applies to all Stantec personnel conducting any Site work, as defined in 29 CFR 1910.120(a). All personnel involved in the mentioned activities must familiarize themselves with this HASP, comply with its requirements and have completed the required health and safety training and medical surveillance program participation pursuant to 29 CFR 1910.120 prior to beginning any work onsite.

THIS HASP IS FOR THE EXPRESS USE OF STANTEC EMPLOYEES. ALL OTHER CONTRACTORS TO BE WORKING IN THE EXCLUSION AREAS ARE REQUIRED BY LAW TO DEVELOP THEIR OWN HASP, AS WELL TO MEET ALL PERTINENT ASPECTS OF OSHA REGULATIONS. STANTEC RESERVES THE RIGHT TO STOP ANY SITE WORK WHICH IS DEEMED TO POSE A HEALTH AND SAFETY THREAT TO ITS STAFF.

1.1 BACKGROUND

This Soil Removal Work Plan is being submitted to the New York State Department of Environmental Conservation (NYSDEC) on behalf of the Germanow-Simon Corporation for the Brownfield Cleanup Program (BCP) Site known as 8-28 Ward Street Site (No. C828136), located along the north side of Ward Street between the intersection of Ward Street with St. Paul Street on the southwest and Emmett Street on the northeast in the City of Rochester, Monroe County, New York. The adjacent BCP Site known as the Ward Street Site (No. C828117) is also owned by the Germanow-Simon Corporation. A map showing the Site location is presented in Figure 1.

The objectives of the Work Plan are to:

- Pre-characterize impacted soil material present above the groundwater table for disposal;
- Remove approximately 40 feet of chain-link fence for a period of several days, remove two (2) trees, and temporarily close the adjacent sidewalk after obtaining the required permit from the City of Rochester;
- Separate and stockpile apparent clean overburden soil from contaminated source material present above the groundwater table;

- Remove and dispose of source material present above the groundwater table in the vicinity of MW-23;
- Control and containerize groundwater from the excavation if encountered;
- Apply approximately 600 lbs. of a sodium lactate solution to the bottom of the excavation to assist in the remediation of residual groundwater impacts;
- Contingent on satisfactory pre-characterization testing results to confirm its suitability for re-use, backfill and compact stockpiled clean overburden soil;
- Import clean soils for use as excavation backfill, and compact;
- Dispose of impacted soil and water wastes at appropriately licensed waste disposal facilities; and
- Reinstall the fence, plant two replacement trees, replace topsoil, and seed the disturbed areas.

1.2 SITE-SPECIFIC CHEMICALS OF CONCERN

Volatile Organic Compounds (VOCs)

The primary VOCs of concern documented to be present in the soil and groundwater at the Site are listed in Table 1. Material Safety Data Sheets (MSDSs) for these compounds are presented in HASP Appendix A. The air monitoring action levels will be based on one-half of the current Threshold Limit Valve (TLV) or Permissible Exposure Limit (PEL) for Tetrachloroethene (PCE) with a margin of safety built into the action levels to account for the non-specificity of the field monitoring instruments. Exposure limits for less hazardous compounds will be satisfied by meeting the more stringent exposure limits for benzene. Table 1 summarizes health and safety data for the volatile compounds of primary concern.

MSDSs for these compounds are included in Appendix A.

Table 1: Health and Safety Data for Contaminants of Concern

Compound	PEL/ TWA	Physical Description	Odor Threshold in Air	Route of Exposure	Symptoms	Target Organs
VOCs						
Trichloroethylene (TCE)	100 ppm	Colorless liquid with a chloroform-like odor	1.36 ppm	inhalation, skin absorption, ingestion, skin and/or eye contact	Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Eyes, skin, respiratory system, heart, liver, kidneys, central nervous system
Tetrachloroethene (PCE)	25 ppm	Colorless liquid with a mild chloroform-like odor.	4.68-50 ppm	inhalation ingestion dermal contact	Confusion, dizziness, euphoria, forgetfulness, headache, irritability, light-headedness, loss of consciousness, loss of coordination, sleepiness, and slurred speech, Cough, eye and nose irritation, and upper airway irritation.	Liver, Kidneys, eyes, upper respiratory, central nervous system.

Notes:
PEL - permissible exposure limits
TWA - time weighted average, 8-hour workday
ppm - parts per million

2.0 STANTEC PERSONNEL ORGANIZATION

The following Stantec personnel will be involved in health and safety operations at 8-28 Ward Street Rochester, NY:

2.1 PROJECT MANAGER

The Project Manager is responsible for ensuring that all Stantec procedures and methods are carried out, and that all Stantec personnel abide by the provisions of this Health and Safety Plan.

2.2 SITE SAFETY OFFICER/FIELD TEAM LEADER

The Site Safety Officer (SSO) and Field Team Leader (FTL) will report directly to the Project Manager and will be responsible for the implementation of this HASP as well as daily calibration of Stantec's safety monitoring instruments. The FTL/SSO will keep a log book of all calibration data and instrument readings for the Site.

2.3 HEALTH AND SAFETY COORDINATOR

The Health and Safety Coordinator will be responsible for overall coordination of Health and Safety issues on the project.

2.4 DAILY MEETINGS

All Stantec personnel and contractors working within the exclusion zone will be required to read this document and sign off on the daily safety meeting form presented in HASP Appendix B.

3.0 MEDICAL SURVEILLANCE REQUIREMENTS

3.1 INTRODUCTION

Hazardous waste site workers can often experience high levels of physical and chemical stress. Their daily tasks may expose them to toxic chemicals, physical hazards, biologic hazards, or radiation. They may develop heat stress while wearing protective equipment or working under temperature extremes, or face life-threatening emergencies such as explosions and fires. Therefore, a medical program is essential to: assess and monitor worker's health and fitness both prior to employment and during the course of the work; provide emergency and other treatment as needed; and keep accurate records for future reference. In addition, OSHA requires a medical evaluation for employees that may be required to work on hazardous waste sites and/or wear a respirator (29 CFR Part 1910.120 and 1910.134), and certain OSHA standards include specific medical surveillance requirements (e.g., 29 CFR Part 1926.62, Part 1910.95 and Parts 1910.1001 through 1910.1045).

3.2 MEDICAL EXAMINATIONS

A. All Stantec personnel working in areas of the Site where Site-related contaminants may be present shall have been examined by a licensed physician as prescribed in 29 CFR Part 1910.120, and determined to be medically fit to perform their duties for work conditions which require respirators. Employees will be provided with medical examinations as outlined below:

- Pre-job physical examination
- Annually thereafter if contract duration exceeds 1 year;
- Termination of employment;
- Upon reassignment in accordance with CFR 29 Part 1910.120(e)(3)(i)(C);
- If the employee develops signs or symptoms of illness related to workplace exposures;
- If the physician determines examinations need to be conducted more often than once a year; and
- When an employee develops a lost time injury or illness during the contract period.

B. Examinations will be performed by, or under the supervision of a licensed physician, preferably one knowledgeable in occupational medicine, and will be provided without cost to the employee, without loss of pay and at a reasonable time and place. Medical surveillance protocols and examination and test results shall be reviewed by the Occupational Physician.

4.0 ONSITE HAZARDS

4.1 CHEMICAL HAZARDS

The primary potential chemical hazards include certain VOCs. Material safety data sheets for the anticipated chemicals are presented in Appendix A.

The soil and groundwater contaminants are volatile, therefore, any activity at the Site which causes physical disturbance of the soil can potentially allow the release of contaminants into the air. For volatiles, this can include release of organic vapors into the air. Such an occurrence may be recognized by noticeable chemical odors. Field personnel should be aware of the odor threshold for these chemicals and their relation to the action levels and Permissible Exposure Limits.

Symptoms of overexposure to primary compounds of concern are detailed in Table 1. To prevent exposure to these chemicals, dermal contact will be minimized by using disposable surgical gloves or reusable chemical resistant gloves with work gloves (as appropriate) when handling soil, groundwater equipment or samples. Real time, breathing zone levels of total VOCs will be monitored using a portable photoionization detector (PID). If ambient levels exceed action levels, all Site activities will be performed using Level C PPE until ambient concentrations dissipate. Where levels exceed 50 ppm, work will cease and the project manager will be notified immediately. Intrusive work may also be halted where required by action levels detailed in the Community Air Monitoring Plan (CAMP), Appendix B of the Soil Removal Work Plan.

In addition, depending on seasonal conditions, disturbance of the Site soils may cause the particulate contaminants to become airborne as dust. Therefore, particulates will be monitored as discussed in Section 6.1 and dust-suppression methods used where appropriate as discussed in Section 6.2, or in the CAMP.

Finally, aeration of the groundwater may cause volatilization of chemicals into the air, particularly VOCs. Table 2 below summarizes first aid instructions for exposure pathways for the contaminants of concern.

Table 2: Exposure Pathways and First Aid Response for Contaminants of Concern

Substance	Exposure Pathways	First-Aid Instructions
VOCs listed in Table 1	Eye	Irrigate immediately
	Dermal	Soap wash immediately
	Inhalation	Respiratory support; or Fresh air
	Ingestion	Medical attention immediately

4.2 PHYSICAL HAZARDS

Hazards typically encountered at construction sites with drilling and excavation activities will be a concern at this Site. These hazards include slippery and uneven ground surfaces, holes, and operation of heavy machinery and equipment. Field team members will wear the basic safety apparel such as steel-toed shoes, hard hat, high visibility clothing, and safety glasses during all appropriate activities.

Under no circumstances will Stantec personnel approach a borehole during active drilling operation. All field personnel working around the rig will be shown the location and operation of kill switches, which are to be tested daily.

Multi-purpose fire extinguishers, functional and within annual inspection period, will be staged and readily accessible for use.

The use of electrical equipment in any established exclusion zones will be limited to areas verified as containing non-explosive atmospheres (<10% LEL) prior to operation, unless the equipment has been previously demonstrated or designed to be FM or UL rated as intrinsically safe. Care will be taken to avoid an ignition source while working in the presence of vapors.

The driller shall make all necessary contacts with utilities and/or underground utility locater hotlines prior to drilling, and shall meet OSHA requirements for distances between the drilling rig and overhead utilities. No drilling work will be carried out where the drill rig chassis has not been stabilized and the rig is not to be moved between locations with its boom in a vertical position.

4.2.1 Excavation

Excavations for soil removal present potential hazards related to exposure due to contact with impacted soil or groundwater or the vapors from such materials, working in close proximity to excavation equipment, excavation sidewall caving and the potential for falling into an open excavation.

During excavation, field personnel will generally perform observation from the end of the excavation opposite the excavation equipment and will avoid standing along the long sidewalls of the hole. If it is necessary to make observations from a point along the long side of the excavation, they will maintain adequate distance between themselves and the excavation walls, and be mindful of signs that caving may be likely. These could include raveling of sidewall material into the hole, or the development of cracks in the ground surface.

Personnel will not enter any excavation deeper than 4 ft. unless it is benched or shored in accordance with OSHA regulations. Such shored or benched excavations will have been evaluated by a competent person, as defined by OSHA regulations.

As with any soil disturbance, monitoring for VOCs with a photoionization detector (PID) will be performed continuously during excavation activities, including in the worker's breathing zone and upwind and downwind locations in accordance with the Community Air Monitoring Program (CAMP). Work will be stopped and the area vacated if sustained PID readings are observed at concentrations in excess of the Action Levels specified in Section 6.

4.2.2 Noise

The use of heavy machinery/equipment and operation may result in noise exposures, which require hearing protection. Exposure to noise can result in temporary hearing losses, interference with speech communication, interference with complicated tasks or permanent hearing loss due to repeated exposure to noise.

During the investigative activities, all Stantec field team members will use hearing protection when sound levels are in excess of 90 dB TWA.

4.2.3 Heat and Cold Stress Exposure

Heat is a potential threat to the health and safety of Site personnel. The Site Safety Officer under the direction of the Project Manager will determine the schedule of work and rest. These schedules will be employed as necessary so that personnel do not suffer adverse effects from heat. Table 3 summarizes exposure symptoms and first aid instructions for heat stress. Non-caffeinated, thirst replenishment liquids will be available onsite.

Cold stress is also a potential threat to the health and safety of Site personnel. Symptoms of cold stress include, shivering, blanching of the extremities, numbness or burning sensations, blue, purple or gray discoloration of hands and feet, frostbite, hypothermia, and loss of consciousness. Cold stress can be prevented by acclimatizing one's self to the cold, increasing fluid intake, avoiding caffeine and alcohol, maintaining proper salt and electrolyte intake, eating a wellbalanced diet, wearing proper clothing, building heated enclosures to work in, and taking regular breaks to warm up. If any of the above symptoms are encountered the person should be removed from the cold area. Depending on the severity of the cold stress, 911 should be contacted and first aid administered. No fluids should be given to an unconscious person.

Table 3: Exposure Symptoms and First Aid for Heat Exposure

Hazard	Exposure Symptoms	First-Aid Instructions
Heat Stress	Fatigue, sweating, irritability	rest; take fluids
	Dizziness, disorientation, perspiration ceases, loss of consciousness	remove from hot area, activate 911, administer first aid, no fluids to be administered to unconscious victim.

4.2.4 Roadway Hazards

Field activities may take place near active roadways. Where such work zones are established, personnel shall assure that protective measures including signage, cones, and shielding through use of vehicles parked at the work perimeter, are in place. All contractors shall be responsible for meeting signage requirements of DOT. Fluorescent safety vests shall be worn by all personnel during activities in or adjacent to roadways and driveways.

4.2.5 Electrical Work

Site work involving electrical installation or energized equipment must be performed by a qualified electrician. All electrical work will be performed in accordance with the OSHA electrical safety requirements found in 29 CFR 1926.400 through 1926.449. Workers are not permitted to work near electrical power circuits unless the worker is protected against electric shock by de-energizing and grounding the circuit or by guarding or barricading the circuit and providing proper personal protective equipment. All electrical installations must comply with NEC regulations. All electrical wiring and equipment used must be listed by a nationally recognized testing laboratory.

All electrical circuits and equipment must be grounded in accordance with the NEC regulations. The path to ground from circuits, equipment, and enclosures will be permanent and continuous. Ground fault circuit interrupters (GFCIs) are required on all 120-volt, single phase, 15- and 20-amp outlets in work areas that are not part of the permanent wiring of the building or structure. A GFCI is required when using an extension cord. GFCIs must be tested regularly with a GFCI tester.

Heavy-duty extension cords will be used; flat-type extension cords are not allowed. All extension cords must be the three-wire type, and designed for hard/extra hard usage. Electrical wire or cords passing through work areas must be protected from water and damage. Worn, frayed, or damaged cords and cables will not be used. Walkways and work spaces will be kept clear of cords and cables to prevent a tripping hazard. Extension cords and cables may not be secured with staples, hung from nails, or otherwise temporarily secured. Cords or cables passing through holes in covers, outlet boxes, etc., will be protected by bushings or fittings.

All lamps used in temporary lighting will be protected from accidental contact and breakage. Metal shell and paper-lined lamp holders are not permitted. Fixtures, lamp holders, lamps, receptacles, etc. are not permitted to have live parts. Workers must not have wet hands while plugging/unplugging energized equipment. Plugs and receptacles will be kept out of water (unless they are approved for submersion).

4.2.6 Lock-Out/Tag-Out

Before a worker sets up, services, or repairs a system where unexpected energizing (or release of stored energy) could occur and cause injury or electrocution, the circuits energizing the parts must be locked-out and tagged. Only authorized personnel will perform lock-out/tag-out procedures. All workers affected by the lock-out/tag-out will be notified prior to, and upon completion of, the lock-out/tag-out procedure.

Lock-out/tag-out devices must be capable of withstanding the environment to which they are exposed. Locks will be attached in such a way as to prevent other personnel from operating the equipment, circuit, or control, or from removing the lock unless they resort to excessive force. Tags will identify the worker who attached the device, and contain information, which warns against the hazardous condition that will result from the system's unauthorized start-up. Tags must be legible and understood by all affected workers and incidental personnel. The procedures for attaching and removing lock-out/tag-out devices include the steps outlined in the following table.

STEP	LOCK-OUT/TAG-OUT PROCEDURES
1	Disconnect the circuits and/or equipment to be worked on from all electrical energy sources.
2	Ensure that the system is completely isolated so that it cannot be operated at that shut-off point or at any other location.
3	Release stored electrical energy.
4	Block or relieve stored non-electrical energy.

5	Place a lock on each shut-off or disconnect point necessary to isolate all potential energy sources. Place the lock in such a manner that it will maintain the shut-off/disconnect in the off position.
6	Place a tag on each shut-off or disconnect point. The tag must contain a statement prohibiting the unauthorized re-start or re-connect of the energy source and the removal of the tag, and the identity of the individual performing the tag and lock-out.
7	Workers who will be working on the system must place their own lock and tag on each lock-out point.
8	A qualified person must verify the system cannot be re-started or re-connected, and de-energization of the system has been accomplished.
Once the service or repairs have been made on the system:	
1	A qualified person will conduct an inspection of the work area, to verify that all tools, jumpers, shorts, grounds, etc., have been removed so that the system can then be safely re-energized.
2	All workers stand clear of the system.
3	Each lock and tag will be removed by the worker who attached it. If the worker has left the site, then the lock and tag may be removed by a qualified person under the following circumstances:
	a. The qualified person ensures the worker who placed the lock and tag has left the site; and
	b. The qualified person ensures the worker is aware the lock and tag has been removed before the worker resumes work on-site.

If maintenance work is required, the electrical supply to the equipment must be disconnected. Turning off the MAIN breaker using the disconnect switch will disconnect all power to the system. Once the disconnect switch has been turned off, the switch will be locked-out using the steps outlined below.

4.2.7 Ladders

One-third of worker deaths in construction result from falls. Many falls occur because ladders are not placed or used safely. Ladder use will comply with OSHA 1926.1053 through 1926.1060, including the following safety requirements.

STEP	PROPER LADDER USE PROCEDURE
1	Choose the right ladder for the task--the proper type and size, with a sufficient rating for the task.
2	Check the condition of the ladder before climbing. • Do not use a ladder with broken, loose, or cracked rails or rungs. • Do not use a ladder with oil, grease, or dirt on its rungs. • The ladder should have safety feet.
3	Place the ladder on firm footing, with a four-to-one pitch.
4	Support the ladder by: • Tying it off; • Using ladder outrigger stabilizers; or • Have another worker hold the ladder at the bottom. If another worker holds the ladder, they must: • Wear a hard hat; • Hold the ladder with both hands; • Brace the ladder with their feet; and • Not look up.
5	Keep the areas around the top and bottom of the ladder clear.
6	Extend the top of the ladder at least 36 inches (3 feet) above the landing.
7	Climb the ladder carefully - facing it - and use both hands. • Use a tool belt and hand-line to carry material to the top or bottom of the ladder. • Wear shoes in good repair with clean soles.
8	Inspect the ladder every day, prior to use, for the following problems: • Rail or rung damage • Broken feet • Rope or pulley damage • Rung lock defects or damage • Excessive dirt, oil, or grease If the ladder fails inspection, it must be removed from service and tagged with a "Do Not Use" sign.

4.2.8 Hand and Power Tools

All hand and power tools will be maintained in a safe condition and in good repair. Hand and power tools will be used in accordance with 29 CFR 1926, Subpart I (1926.300 through 1926.307). Neither Stantec nor its subcontractors will issue unsafe tools, and workers are not permitted to bring unsafe tools on-site. All tools will be used, inspected, and maintained in accordance with the manufacturer's instructions. Throwing tools or dropping tools to lower levels is prohibited. Hand and power tools will be inspected, tested, and determined to be in safe operating condition prior to each use. Periodic safety inspections of all tools will be conducted to assure that the tools are in good condition, all guards are in place, and the tools are being properly maintained. Any tool that fails an inspection will be immediately removed from service and tagged with a "Do Not Use" sign.

Workers using hand and power tools, who are exposed to falling, flying, abrasive, or splashing hazards will be required to wear personal protective equipment (PPE). Eye protection must always be worn when working on-site. Additional eye and face protection, such as safety goggles or face shields, may also be required when working with specific hand and power tools. Workers, when on-site, will wear hard hats. Additional hearing protection may be required when working with certain power tools. Workers using tools, which may subject their hands to an injury, such as cuts, abrasions, punctures, or burns, will wear protective gloves. Loose or frayed clothing, dangling jewelry, or loose long hair will not be worn when working with power tools.

Electric power-operated tools will be double insulated or grounded, and equipped with an on/off switch. Guards must be provided to protect the operator and other nearby workers from hazards such as in-going nip points, rotating parts, flying chips, and sparks. All reciprocating, rotating and moving parts of tools will be guarded if contact is possible. Removing machine guards is prohibited.

Abrasive wheels will only be used on equipment provided with safety guards. Safety guards must be strong enough to withstand the effect of a bursting wheel. Abrasive wheels will not be operated in excess of their rated speed. Work or tool rests will not be adjusted while the wheel is in motion. All abrasive wheels will be closely inspected and ring tested before each use, and any cracked or damaged wheels will be removed immediately and destroyed.

Circular saws must be equipped with guards that completely enclose the cutting edges and have anti-kickback devices. All planer and joiner blades must be fully guarded. The use of cracked, bent, or otherwise defective parts is prohibited. Chain saws must have an automatic chain brake or kickback device. The worker operating the chain saw will hold it with both hands during cutting operations. A chain saw must never be used to cut above the operator's shoulder height. Chain saws will not be re-fueled while running or hot. Power saws will not be left unattended.

Only qualified workers will operate pneumatic tools, powder-actuated tools, and abrasive blasting tools.

4.2.9 Manual Lifting

Back injuries are among the leading occupational injuries reported by industrial workers. Back injuries such as pulls and disc impairments can be reduced by using proper manual lifting techniques. Leg muscles are stronger than back muscles, so workers should lift with their legs and not with their back. Proper manual lifting techniques include the following steps:

STEP	PROPER MANUAL LIFTING PROCEDURE
1	Plan the lift before lifting the load. Take into consideration the weight, size, and shape of the load.
2	Preview the intended path of travel and the destination to ensure there are no tripping hazards along the path.
3	Wear heavy-duty work gloves to protect hands and fingers from rough edges, sharp corners, and metal straps. Also, keep hands away from potential pinch points between the load and other objects.
4	Get the load close to your ankles, and spread your feet apart. Keep your back straight and do not bend your back too far; instead bend at your knees.
5	Feel the weight; test it.
6	Lift the load smoothly, and let your legs do the lifting. If you must pivot, do not swing just the load; instead, move your feet and body with the load.

If the load is too heavy, then do not lift it alone. Lifting is always easier when performed with another person. Assistance should always be used when it is available.

4.2.10 Weather-Related Hazards

Weather-related hazards include the potential for heat or cold stress, electrical storms, treacherous weather-related working conditions, or limited visibility. These hazards correlate with the season in which Site activities occur. Outside work will be suspended during electrical storms. In the event of other adverse weather conditions, the Site Safety Officer will determine if work can continue without endangering the health and safety of Site personnel.

4.2.11 Ticks and Lyme Disease

Lyme disease is typically transferred by 'hard ticks". Early symptoms of Lyme Disease include fever, headache, fatigue, depression, and a characteristic "bulls-eye" rash on 30% of cases. Ticks bites are often painless and in partially protected areas on the body (underarms, back of knee, behind the ear). Reports of ticks carrying Lyme Disease have been confirmed in every Canadian province and most U.S. states. Preventative measures for ticks include:

- Spraying clothing with insect repellant as a barrier.
- Wearing protective clothing including: a hat, long sleeved shirt tucked into pants, and pants tucked into socks or boots. At regular intervals throughout the day, check to ensure clothes remain tucked in.
- Checking for ticks on or under clothing after working in a tick infested area. Use a mirror if needed, as ticks may feed on hard to see areas of the body.
- If you discover a tick, remove it by using a bank card or Tick Key to scrape slowly and remove the entire tick. You can also use fine tipped tweezers to grasp the tick as close to the skins surface as possible. Try not to squeeze the body as this may increase the chance of bacteria entering the bloodstream. Wash the affected area with soap and water or disinfectant.

5.0 SITE WORK ZONES

The following work zones will be delineated by Stantec during the investigation activities.

5.1 CONTROL ZONES

Control boundaries will be established within the areas of Site activities. Examples of boundary zones include the exclusion and decontamination zone. All boundaries will be dynamic, and will be determined by the planned activities for the day. The Field Team Leader will record the names of any visitors to the Site.

5.2 EXCLUSION ZONE

The controlled portion of the Site will be delineated to identify the exclusion zone, wherein a higher level of personal protective equipment (PPE) may be required for entry during intrusive activities. The limits of the exclusion zone will be designated at each work location appropriately. A decontamination zone will be located immediately outside the entrance to the exclusion zone. Personnel leaving the exclusion zone will be required to adhere to proper decontamination procedures.

A "super exclusion" zone will be established around the borehole or excavation which will not be entered by Stantec personnel at any time during any active drilling, slambar, cathead, silica sand dumping, excavation, or other related activities. The drilling or excavation contractor will be directed to stop such activity when Stantec site team members have a need to enter this zone.

5.3 DECONTAMINATION ZONE

The decontamination zone will be located immediately outside the entrance to the exclusion zone on its apparent upwind side, if feasible, and will be delineated with caution tape and traffic cones as needed. This zone will contain the necessary decontamination materials for personnel decontamination. Decontamination procedures are outlined in Section 8.0 of this plan.

6.0 SITE MONITORING AND ACTION LEVELS

6.1 SITE MONITORING

Field activities associated with drilling, excavation, and sampling may create potentially hazardous conditions due to the migration of contaminants into the breathing zone. These substances may be in the form of mists, vapors, dusts, or fumes that can enter the body through ingestion, inhalation, absorption, and direct dermal contact. Monitoring for VOCs and particulates will be performed as needed to ensure appropriate personal protective measures are employed during site activities.

A separate Community Air Monitoring Plan (CAMP) has also been developed (Appendix C of the Soil Removal Work Plan) to protect the surrounding neighborhood. It is assumed that continuous downwind particulate and VOC monitoring will not be required during drilling and that air monitoring will not be required during groundwater monitoring events.

The following describes the conditions that will be monitored for during excavation activities. All background and Site readings will be logged, and all instrument calibrations, etc., will be logged.

Organic Vapor Concentrations – During drilling and excavation activities, organic vapors will be monitored continuously in the breathing zone in the work area with a portable photoionization detector (PID), such as a miniRAE Model 3000 with a 10.2 eV lamp. The instrument will be calibrated daily or as per the manufacturer's recommendations. PID readings will be used as the criteria for upgrading or downgrading protective equipment and for implementing additional precautions or procedures.

Split spoons or other soil sampling devices will be monitored using the PID at the time they are opened, with appropriate PPE to be used where soils exhibit measurable volatile organic compound levels.

Particulates - Should subsurface conditions be observed to be dry, Stantec will perform particulate monitoring with an aerosol monitor (such as the TSI 8530 DustTrak II) within the outdoor work area to monitor personal exposures to particulates and to compare work area readings with downwind and upwind readings. The first readings of the day will be obtained prior to the commencement of work to obtain a daily background reading, and the instrument will be zeroed daily and calibrated to manufacturer's specifications. Readings will be recorded approximately every 30 minutes thereafter. If the work area particulate levels exceed the background levels by more than 0.15 mg/m^3, the Contractor will be instructed to implement dust suppression measures.

6.2 ACTION LEVELS

During the course of any activity, as long as PID readings in the breathing zone are less than 5 ppm above background, Level D protection will be considered adequate. Level C protection will be required when VOC concentrations in ambient air in the work zone exceed 5 ppm total VOCs above background but remain below 50 ppm total VOCs.

If concentrations in the work zone exceed 50 ppm for a period of 5 minutes or longer, work will immediately be terminated by the Site Safety Officer. Options to allow continued drilling or excavation would then be discussed amongst all parties. Supplied-air respiratory protection is generally required for drilling to resume under these conditions. If Level B protection is not used, work may resume in Level C once monitoring concentrations have decreased below 50 ppm and conditions outlined in the CAMP are met.

If the monitoring of fugitive particulate levels within the work area exceeds 0.15 mg/m^3 above background, then the drilling Contractor will be directed to implement fugitive dust control measures which may include use of engineering controls such as water spray at the borehole.

7.0 PERSONAL PROTECTIVE EQUIPMENT

Based on an evaluation of the hazards at the Site, personal protective equipment (PPE) will be required for all personnel and visitors entering the drilling exclusion zone(s). It is anticipated that all Stantec oversight work will be performed in Level D. All contractors will be responsible for selection and implementation of PPE for their personnel.

7.1 PROTECTIVE CLOTHING/RESPIRATORY PROTECTION

Protective equipment for each level of protection is as follows:

If PID readings are above 50 ppm, requiring an upgrade to Level B, Site work will be halted pending review of conditions and options by Stantec and other involved parties.

When PID readings range between 5 and 50 ppm, upgrade to Level C:

Level C

- Full face, air purifying respirator with organic/HEPA cartridge;
- Disposable chemical resistant one-piece suit (Tyvek or Saranex, as appropriate);
- Inner and outer chemical resistant gloves;
- Hard hat;
- High visibility clothing;
- Steel-toed boots; and
- Disposable booties or chemical resistant boots are required.

When PID readings range between background and 5 ppm use Level D:

Level D

- Safety glasses;
- High visibility clothing;
- Steel-toed boots;
- Protective cotton, latex or leather gloves depending on Site duties;
- Hard hat; and
- Tyvek coverall (optional).

8.0 DECONTAMINATION

8.1 PERSONAL DECONTAMINATION

For complete decontamination, all personnel will observe the following procedures upon leaving the exclusion zone:

1. Remove disposable outer boots and outer gloves and place in disposal drum.
2. If using a respirator, remove respirator, dispose of cartridges if necessary, and set aside for later cleaning.
3. Remove disposable chemical resistant suits and dispose of articles in drum.
4. Remove and dispose of inner gloves.

Decontamination solutions shall be supplied at the decontamination zone. The wash solution will consist of water and detergent such as Alconox or trisodium phosphate (TSP), and the rinse solution will consist of clean water.

Contaminated wash solutions shall be collected in drums for disposal. All other disposable health and safety equipment will be decontaminated and disposed of as non-hazardous waste.

8.2 EQUIPMENT DECONTAMINATION

If equipment is used during field activities, it will be properly washed or steam-cleaned prior to exiting the decontamination zone. Pre- or post-use rinsing using solvents will be done wearing appropriate PPE.

When feasible, monitoring instruments will be either wrapped in plastic or carried by personnel not involved in handling contaminated materials, to reduce the need for decontamination. All instruments will be wet-wiped prior to removal from the work zone.

9.0 EMERGENCY PROCEDURES

The Site Safety Officer will coordinate emergency procedures and will be responsible for initiating emergency response activities. Emergency communications at the Site will be conducted verbally and by means of an air or vehicle horn. All personnel will be informed of the location of the cellular telephone and horn. Three blasts on the air or vehicle horn will be used to signal distress.

9.1 LIST OF EMERGENCY CONTACTS

Ambulance: 911
Hospital: **Highland Hospital: 585-473-2200**
Fire Department: 911
Police: 911
Poison Control Center: 1-800-222-1222
Utility Emergency: 911

9.2 DIRECTIONS TO HOSPITAL

A map presenting directions to the hospital is provided in Figure 2. The route shall be reviewed at the initial site safety meeting onsite.

9.3 ACCIDENT INVESTIGATION AND REPORTING

A. All accidents requiring first aid, which occur incidental to activities onsite, will be investigated. The investigation format will be as follows:

- interviews with witnesses,
- pictures, if applicable, and
- necessary actions to alleviate the problem.

B. In the event that an accident or some other incident such as an explosion or exposure to toxic chemicals occurs during the course of the project, the Project Health and Safety Officer will be telephoned as soon as possible and receive a written notification within 24 hours. The report will include the following items:

- Name of injured;
- Name and title of person(s) reporting;
- Date and time of accident/incident;
- Location of accident/incident, building number, facility name;
- Brief summary of accident/incident giving pertinent details including type of operation ongoing at the time of the accident/incident;
- Cause of accident/incident;
- Casualties (fatalities, disabling injuries), hospitalizations;
- Details of any existing chemical hazard or contamination;
- Estimated property damage, if applicable;
- Nature of damage; effect on contract schedule;
- Action taken to insure safety and security; and

- Other damage or injuries sustained (public or private).

Where reportable injuries, hospitalizations or fatalities occur amongst Stantec personnel, the necessary document required by OSHA will be submitted within timeframes allowed by law.

The accident report form is illustrated in Table 4.

TABLE 4
ACCIDENT REPORT

Project 8-28 Ward Street, Rochester NY Date of Occurrence______________

Location ____
____

Type of Occurrence: (check all that Apply)

☐ Disabling Injury ☐ Other Injury
☐ Property Damage ☐ Equip. Failure
☐ Chemical Exposure ☐ Fire
☐ Explosion ☐ Vehicle Accident
☐ Other (explain)____
____

Witnesses to Accident/Injury:

_____________________ ________________
_____________________ ________________
_____________________ ________________

Injuries:
Name of Injured ____

What was being done at the time of the accident/injury?

____
____

What corrective actions will be taken to prevent recurrence? _________________________
____
____

SIGNATURES

Health and Safety Officer _________________ Date _______________________

Project Manager _______________________ Date _______________________

Reviewer ____________________________ Date _______________________

Comments by reviewer ____
____
____

FIGURES

Stantec

Project Location

Rochester, Monroe County , New York

190500014 REVA
Prepared by KTS on 2017-06-02
Independent Review by MPS on 2017-06-02

Figure No.
1

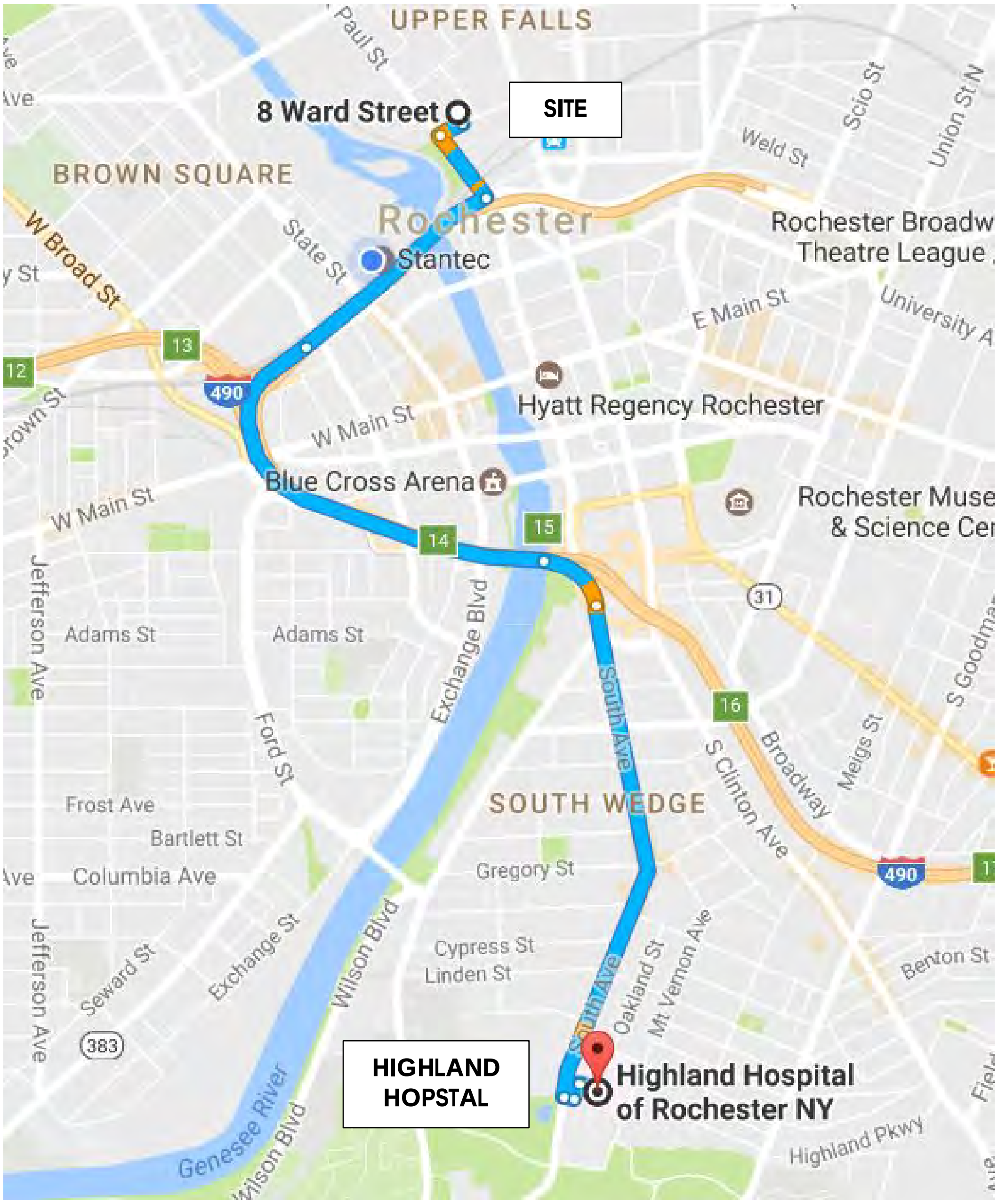
Client/Project

Soil Removal Work Plan
8-28 Ward Street Site, Brownfield Cleanup Program Site #C828136 8-28 Ward Street, Rochester, Monroe County, New York

Title

Site Location Map

FIGURE 2
Map and Driving Directions to Hospital
Highland Hospital
1000 South Ave.
Rochester, NY 14620
Phone: (607) 324-8000



8 Ward St

Rochester, NY 14605

1. Head southwest on Ward St toward St Paul St

13 s (279 ft)

Take I-490 E and South Ave to Bellevue Dr

7 min (2.8 mi)

2. Turn left onto St Paul St

0.2 mi

3. Turn right to merge onto Inner Loop

0.5 mi

4. Use the left lane to merge onto I-490 E toward Inner Loop

0.9 mi

5. Take exit 15 for NY-15

0.2 mi

6. Merge onto South Ave

1.0 mi

Drive to your destination

2 min (394 ft)

7. Turn left onto Bellevue Dr

112 ft

8. Turn left

174 ft

9. Turn right

Destination will be on the right

108 ft

Highland Hospital of Rochester NY

1000 South Ave, Rochester, NY 14620

HEALTH & SAFETY PLAN

APPENDIX A

MATERIAL SAFETY DATA SHEETS

MATHESON TRI•GAS
ask. . .The Gas Professionals™

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.
150 Allen Road Suite 302
Basking Ridge, New Jersey 07920
Information: 1-800-416-2505

Emergency Contact:
CHEMTREC 1-800-424-9300
Calls Originating Outside the US:
703-527-3887 (Collect Calls Accepted)

SUBSTANCE: TETRACHLOROETHYLENE

TRADE NAMES/SYNONYMS:
MTG MSDS 238; PERCHLOROETHYLENE; 1,1,2,2-TETRACHLOROETHYLENE; ETHYLENE TETRACHLORIDE; PERC; TETRACHLORETHYLENE; PERCHLORETHYLENE; TETRACHLOROETHENE; PCE; RCRA U210; UN 1897; C2Cl4; MAT22900; RTECS KX3850000

CHEMICAL FAMILY: halogenated, aliphatic

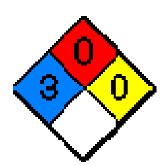
CREATION DATE: Jan 24 1989
REVISION DATE: Dec 11 2008

2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: TETRACHLOROETHYLENE
CAS NUMBER: 127-18-4
PERCENTAGE: 100.0

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=0 REACTIVITY=0



EMERGENCY OVERVIEW:
COLOR: colorless
PHYSICAL FORM: volatile liquid
ODOR: faint odor, sweet odor
MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation, central nervous system depression, cancer hazard (in humans)

POTENTIAL HEALTH EFFECTS:
INHALATION:
SHORT TERM EXPOSURE: irritation, nausea, vomiting, chest pain, difficulty breathing, irregular

heartbeat, headache, drowsiness, dizziness, disorientation, mood swings, loss of coordination, blurred vision, lung congestion, kidney damage, liver damage
LONG TERM EXPOSURE: irritation, nausea, stomach pain, loss of appetite, headache, drowsiness, dizziness, disorientation, sleep disturbances, pain in extremities, loss of coordination, blurred vision, hormonal disorders, internal bleeding, heart damage, liver damage, birth defects, brain damage, tumors, cancer
SKIN CONTACT:
SHORT TERM EXPOSURE: irritation (possibly severe)
LONG TERM EXPOSURE: irritation
EYE CONTACT:
SHORT TERM EXPOSURE: irritation
LONG TERM EXPOSURE: irritation
INGESTION:
SHORT TERM EXPOSURE: same as effects reported in short term inhalation
LONG TERM EXPOSURE: same as effects reported in long term inhalation

---

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

NOTE TO PHYSICIAN: For inhalation, consider oxygen. For ingestion, consider gastric lavage. Consider oxygen.

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5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Negligible fire hazard.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

FLASH POINT: No data available.

6. ACCIDENTAL RELEASE MEASURES

SOIL RELEASE:
Dig holding area such as lagoon, pond or pit for containment. Dike for later disposal. Absorb with sand or other non-combustible material.

WATER RELEASE:
Absorb with activated carbon. Remove trapped material with suction hoses. Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:
Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Small liquid spills: Absorb with sand or other non-combustible material. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Store in a cool, dry place. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
TETRACHLOROETHYLENE:
TETRACHLOROETHYLENE (PERCHLOROETHYLENE):
100 ppm OSHA TWA
200 ppm OSHA ceiling
300 ppm OSHA peak (5 minutes in any 3 hours)
25 ppm (170 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
25 ppm ACGIH TWA
100 ppm ACGIH STEL
NIOSH TWA (lowest feasible concentration)

VENTILATION: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
At any detectable concentration -
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Escape -
Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.
Any appropriate escape-type, self-contained breathing apparatus.
For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid
APPEARANCE: clear
COLOR: colorless
PHYSICAL FORM: volatile liquid
ODOR: faint odor, sweet odor
MOLECULAR WEIGHT: 165.83
MOLECULAR FORMULA: Cl2-C-C-Cl2
BOILING POINT: 250 F (121 C)
FREEZING POINT: -2 F (-19 C)
VAPOR PRESSURE: 14 mmHg @ 20 C
VAPOR DENSITY (air=1): 5.83
SPECIFIC GRAVITY (water=1): 1.6227
WATER SOLUBILITY: 0.015%
PH: Not available
VOLATILITY: Not available
ODOR THRESHOLD: 50 ppm
EVAPORATION RATE: 2.8 (butyl acetate=1)

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available
SOLVENT SOLUBILITY:
Soluble: alcohol, ether, benzene, chloroform, oils

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

INCOMPATIBILITIES: acids, metals, bases, oxidizing materials, combustible materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: phosgene, halogenated compounds, oxides of carbon

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

TETRACHLOROETHYLENE:
IRRITATION DATA: 810 mg/24 hour(s) skin-rabbit severe; 500 mg/24 hour(s) skin-rabbit mild; 162 mg eyes-rabbit mild; 500 mg/24 hour(s) eyes-rabbit mild
TOXICITY DATA: 4100 ppm/6 hour(s) inhalation-rat LC50; >10000 mg/kg skin-rabbit LD50 (Dow); 2629 mg/kg oral-rat LD50
CARCINOGEN STATUS: NTP: Anticipated Human Carcinogen; IARC: Human Limited Evidence, Animal Sufficient Evidence, Group 2A; ACGIH: A3 -Confirmed Animal Carcinogen; EC: Category 2
LOCAL EFFECTS:
Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Moderately Toxic: ingestion
Slightly Toxic: inhalation
TARGET ORGANS: central nervous system
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: eye disorders, heart or cardiovascular disorders, kidney disorders, liver disorders, nervous system disorders, skin disorders and allergies
TUMORIGENIC DATA: Available.
MUTAGENIC DATA: Available.
REPRODUCTIVE EFFECTS DATA: Available.
ADDITIONAL DATA: May be excreted in breast milk. Alcohol may enhance the toxic effects. Stimulants such as epinephrine may induce ventricular fibrillation.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:
FISH TOXICITY: 8430 ug/L 96 hour(s) LC50 (Mortality) Flagfish (Jordanella floridae)

INVERTEBRATE TOXICITY: 7500 ug/L 48 hour(s) EC50 (Immobilization) Water flea (Daphnia magna)

ALGAL TOXICITY: 509000 ug/L 96 hour(s) EC50 (Photosynthesis) Diatom (Skeletonema costatum)

FATE AND TRANSPORT:
BIOCONCENTRATION: 49 ug/L 1-21 hour(s) BCF (Residue) Bluegill (Lepomis macrochirus) 3.43 ug/L

13. DISPOSAL CONSIDERATIONS

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U210. Hazardous Waste Number(s): D039. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 0.7 mg/L. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Tetrachloroethylene
ID NUMBER: UN1897
HAZARD CLASS OR DIVISION: 6.1
PACKING GROUP: III
LABELING REQUIREMENTS: 6.1
MARINE POLLUTANT: TETRACHLOROETHYLENE

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
SHIPPING NAME: Tetrachloroethylene
UN NUMBER: UN1897
CLASS: 6.1
PACKING GROUP/CATEGORY: III

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
TETRACHLOROETHYLENE (PERCHLOROETHYLENE): 100 LBS RQ

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart

C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B and C):
ACUTE: Yes
CHRONIC: Yes
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65:
Known to the state of California to cause the following:
TETRACHLOROETHYLENE (PERCHLOROETHYLENE)
Cancer (Apr 01, 1988)

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: D2

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Not determined.

16. OTHER INFORMATION

MATHESON TRI-GAS, INC. MAKES NO EXPRESS OR IMPLIED WARRANTIES, GUARANTEES OR REPRESENTATIONS REGARDING THE PRODUCT OR THE INFORMATION HEREIN, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR USE. MATHESON TRI-GAS, INC. SHALL NOT BE LIABLE FOR ANY PERSONAL INJURY, PROPERTY OR OTHER DAMAGES OF ANY NATURE, WHETHER COMPENSATORY, CONSEQUENTIAL, EXEMPLARY, OR OTHERWISE, RESULTING FROM ANY PUBLICATION, USE OR RELIANCE UPON THE INFORMATION HEREIN.

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATHESON TRI-GAS, INC.
150 Allen Road Suite 302
Basking Ridge, New Jersey 07920
Information: 1-800-416-2505

Emergency Contact:
CHEMTREC 1-800-424-9300
Calls Originating Outside the US:
703-527-3887 (Collect Calls Accepted)

SUBSTANCE: TRICHLOROETHYLENE

TRADE NAMES/SYNONYMS:
MTG MSDS 199; ACETYLENE TRICHLORIDE; ETHYLENE TRICHLORIDE; 1-CHLORO-2,2-DICHLOROETHYLENE; 1,1-DICHLORO-2-CHLOROETHYLENE; TCE; ETHINYL TRICHLORIDE; TRICHLOROETHENE; 1,1,2-TRICHLOROETHYLENE; 1,1,2-TRICHLOROETHENE; UN 1710; RCRA U228; C2HCl3; MAT23850; RTECS KX4550000

CHEMICAL FAMILY: halogenated, alkenes

CREATION DATE: Jan 24 1989
REVISION DATE: Dec 11 2008

2. COMPOSITION, INFORMATION ON INGREDIENTS

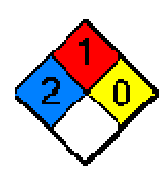
COMPONENT: TRICHLOROETHYLENE
CAS NUMBER: 79-01-6
PERCENTAGE: >99

COMPONENT: INHIBITORS
CAS NUMBER: Not assigned.
PERCENTAGE: <0.1

COMPONENT: AMINES
CAS NUMBER: Not assigned.
PERCENTAGE: <0.1

3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=1 REACTIVITY=0



EMERGENCY OVERVIEW:

COLOR: colorless
PHYSICAL FORM: liquid
ODOR: sweet odor
MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation, central nervous system depression, allergic reactions, cancer hazard (in humans)
PHYSICAL HAZARDS: May polymerize. Containers may rupture or explode. May decompose on contact with air, light, moisture, heat or storage and use above room temperature. Releases toxic, corrosive, flammable or explosive gases.

POTENTIAL HEALTH EFFECTS:
INHALATION:
SHORT TERM EXPOSURE: irritation, changes in blood pressure, nausea, vomiting, stomach pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, mood swings, tremors, loss of coordination, visual disturbances, bluish skin color, lung congestion, kidney damage, liver damage, unconsciousness, coma
LONG TERM EXPOSURE: same as effects reported in short term exposure, loss of appetite, weight loss, blood disorders, brain damage, cancer
SKIN CONTACT:
SHORT TERM EXPOSURE: irritation, allergic reactions
LONG TERM EXPOSURE: irritation, allergic reactions, nausea, loss of appetite, weight loss, difficulty breathing, headache, drowsiness, dizziness, joint pain, loss of coordination, visual disturbances, paralysis
EYE CONTACT:
SHORT TERM EXPOSURE: irritation (possibly severe), blurred vision
LONG TERM EXPOSURE: irritation (possibly severe), eye damage
INGESTION:
SHORT TERM EXPOSURE: same as effects reported in short term inhalation
LONG TERM EXPOSURE: same as effects reported in long term inhalation

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

NOTE TO PHYSICIAN: For ingestion, consider gastric lavage. Consider oxygen.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile).

FLASH POINT: No data available.
LOWER FLAMMABLE LIMIT: 7.8% @ 100 C
UPPER FLAMMABLE LIMIT: 52% @ 100 C
AUTOIGNITION: 770 F (410 C)

6. ACCIDENTAL RELEASE MEASURES

AIR RELEASE:
Reduce vapors with water spray. Collect runoff for disposal as potential hazardous waste.

SOIL RELEASE:
Dig holding area such as lagoon, pond or pit for containment. Dike for later disposal. Absorb with sand or other non-combustible material.

WATER RELEASE:
Absorb with activated carbon. Remove trapped material with suction hoses. Collect spilled material using mechanical equipment. Subject to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Keep out of water supplies and sewers.

OCCUPATIONAL RELEASE:
Avoid heat, flames, sparks and other sources of ignition. Stop leak if possible without personal risk. Small liquid spills: Absorb with sand or other non-combustible material. Large spills: Dike for later disposal. Remove sources of ignition. Keep unnecessary people away, isolate hazard area and deny entry. Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Store in a cool, dry place. Store in a well-ventilated area. Avoid heat, flames, sparks and other sources of ignition. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:
TRICHLOROETHYLENE:
100 ppm OSHA TWA
200 ppm OSHA ceiling
300 ppm OSHA peak (5 minutes in any 2 hours)
50 ppm (269 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993)
200 ppm (1070 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993)
10 ppm ACGIH TWA
25 ppm ACGIH STEL
25 ppm NIOSH TWA 10 hour(s)
2 ppm NIOSH ceiling 60 minute(s) (used as halogenated anesthetic gas)

VENTILATION: Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Wear appropriate chemical resistant clothing.

GLOVES: Wear appropriate chemical resistant gloves.

RESPIRATOR: The following respirators and maximum use concentrations are drawn from NIOSH and/or OSHA.
At any detectable concentration -
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Escape -
Any air-purifying full-facepiece respirator (gas mask) with a chin-style, front-mounted or back-mounted organic vapor canister.
Any appropriate escape-type, self-contained breathing apparatus.
For Unknown Concentrations or Immediately Dangerous to Life or Health -
Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.
Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid
COLOR: colorless
ODOR: sweet odor
MOLECULAR WEIGHT: 131.39
MOLECULAR FORMULA: Cl-C-H-C-Cl2
BOILING POINT: 189 F (87 C)
FREEZING POINT: -99 F (-73 C)
VAPOR PRESSURE: 58 mmHg @ 20 C
VAPOR DENSITY (air=1): 4.53
SPECIFIC GRAVITY (water=1): 1.4642
WATER SOLUBILITY: 0.1%
PH: Not available
VOLATILITY: Not available
ODOR THRESHOLD: 21 ppm
EVAPORATION RATE: 0.69 (carbon tetrachloride=1)
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available
SOLVENT SOLUBILITY:
Soluble: alcohol, ether, acetone, chloroform, benzene, vegetable oils

10. STABILITY AND REACTIVITY

REACTIVITY: May decompose on contact with air, light, moisture, heat or storage and use above room temperature. Releases toxic, corrosive, flammable or explosive gases.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

INCOMPATIBILITIES: bases, metals, combustible materials, oxidizing materials

HAZARDOUS DECOMPOSITION:
Thermal decomposition products: phosgene, halogenated compounds, oxides of carbon

POLYMERIZATION: May polymerize. Avoid contact with heat or light and monitor inhibitor content.

11. TOXICOLOGICAL INFORMATION

TRICHLOROETHYLENE:
IRRITATION DATA: 2 mg/24 hour(s) skin-rabbit severe; 20 mg/24 hour(s) eyes-rabbit moderate
TOXICITY DATA: 140700 mg/m3/1 hour(s) inhalation-rat LC50; >20 gm/kg skin-rabbit LD50; 4920 mg/kg oral-rat LD50
CARCINOGEN STATUS: NTP: Anticipated Human Carcinogen; IARC: Human Limited Evidence,

Animal Sufficient Evidence, Group 2A; ACGIH: A2 -Suspected Human Carcinogen
LOCAL EFFECTS:
Irritant: inhalation, skin, eye
ACUTE TOXICITY LEVEL:
Moderately Toxic: ingestion
Slightly Toxic: inhalation
Relatively Non-toxic: dermal absorption
TARGET ORGANS: immune system (sensitizer), central nervous system
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: heart problems
TUMORIGENIC DATA: Available.
MUTAGENIC DATA: Available.
REPRODUCTIVE EFFECTS DATA: Available.
ADDITIONAL DATA: May cross the placenta. Stimulants such as epinephrine may induce ventricular fibrillation.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:
FISH TOXICITY: 3100 ug/L 96 hour(s) LC50 (Mortality) Flagfish (Jordanella floridae)

INVERTEBRATE TOXICITY: 1700 ug/L 7 hour(s) EC50 (Regeneration) Flatworm (Dugesia japonica)

OTHER TOXICITY: 45000 ug/L 48 week(s) LC50 (Mortality) Clawed toad (Xenopus laevis)

FATE AND TRANSPORT:
BIOCONCENTRATION: 17 ug/L 1-14 hour(s) BCF (Residue) Bluegill (Lepomis macrochirus) 8.23 ug/L

13. DISPOSAL CONSIDERATIONS

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): U228. Hazardous Waste Number(s): D040. Dispose of in accordance with U.S. EPA 40 CFR 262 for concentrations at or above the Regulatory level. Regulatory level- 0.5 mg/L. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DOT 49 CFR 172.101:
PROPER SHIPPING NAME: Trichloroethylene
ID NUMBER: UN1710
HAZARD CLASS OR DIVISION: 6.1
PACKING GROUP: III
LABELING REQUIREMENTS: 6.1

CANADIAN TRANSPORTATION OF DANGEROUS GOODS:
SHIPPING NAME: Trichloroethylene
UN NUMBER: UN1710
CLASS: 6.1
PACKING GROUP/CATEGORY: III

15. REGULATORY INFORMATION

U.S. REGULATIONS:
CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):
TRICHLOROETHYLENE: 100 LBS RQ

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B and C):
ACUTE: Yes
CHRONIC: Yes
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):
TRICHLOROETHYLENE

OSHA PROCESS SAFETY (29 CFR 1910.119): Not regulated.

STATE REGULATIONS:
California Proposition 65:
Known to the state of California to cause the following:
TRICHLOROETHYLENE
Cancer (Apr 01, 1988)

CANADIAN REGULATIONS:
WHMIS CLASSIFICATION: D2

NATIONAL INVENTORY STATUS:
U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

CANADA INVENTORY (DSL/NDSL): Not determined.

16. OTHER INFORMATION

MATHESON TRI-GAS, INC. MAKES NO EXPRESS OR IMPLIED WARRANTIES, GUARANTEES OR REPRESENTATIONS REGARDING THE PRODUCT OR THE INFORMATION HEREIN, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR USE. MATHESON TRI-GAS, INC. SHALL NOT BE LIABLE FOR ANY PERSONAL INJURY, PROPERTY OR OTHER DAMAGES OF ANY NATURE, WHETHER COMPENSATORY, CONSEQUENTIAL, EXEMPLARY, OR OTHERWISE, RESULTING FROM ANY PUBLICATION, USE OR RELIANCE UPON THE INFORMATION HEREIN.

HEALTH & SAFETY PLAN

APPENDIX B

ONSITE SAFETY MEETING FORMS

Stantec

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 1 DAY – RMS 2

Project: ______________________ Project No: ______________

Client: ______________________

Location: ______________________

Start Date: ______________________

Work Description

Provide a general description of the work to be conducted.

Documentation and Procedure Review

1. Risk Management Strategy (RMS1) form and/or Site Specific Health and Safety Plan signed and reviewed? ☐ Yes ☐ **No***
2. Emergency Response Plan reviewed? ☐ Yes ☐ **No*** ☐ N/A
3. Tested two-way communications (cell phone, satellite phone) and security measures? ☐ Yes ☐ **No***
4. Attended Client Site Health and Safety meeting? ☐ Yes ☐ **No*** ☐ N/A
5. Conducted Stantec site safety meeting with all workforces? ☐ Yes ☐ **No*** ☐ N/A
6. Are there any new or unexpected hazards not identified in the RMS1/HASP? ☐ Yes ☐ No
   If yes, include in the Job Safety Analysis (JSA).
7. Working alone or remote work? ☐ Yes ☐ No
   If yes, complete call in/out process – Safe Work form must be completed.

Notifications and Permits

8. Are work permits required for this site? ☐ Yes ☐ No
   If yes, have they been completed and submitted as required? ☐ Yes ☐ **No***
9. Are utility locates required for this site? ☐ Yes ☐ No
   If yes, have they been completed and reviewed? ☐ Yes ☐ **No***
10. Does the Client require any notification prior to starting the work? ☐ Yes ☐ No
    If yes, has the notification been provided? ☐ Yes ☐ **No***

***Contact your Project Manager immediately.**

Personal Protective Equipment

List specific PPE as needed. Verify type and inspect condition.

☐ Head Protection Type: ________	☐ Hearing Protection: ________	☐ Gloves Type: ________
☐ Foot Protection Type: ________	☐ Respiratory Protection: ________	☐ Water Safety Gear: ________
☐ Eye Protection Type: ________	☐ Fire Retardant Coveralls: ________	☐ ________
☐ High Visibility Vest: ________	☐ Fall Protection: ________	☐ ________

Tools and Equipment

List specific equipment to be used. Verify type and inspect condition.

☐	☐	☐
☐	☐	☐

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 1 DAY – RMS 2

Daily Tailgate Discussions/Subcontractor Input

Start	Time:	Weather:
Mid-Day	Time:	Weather:
Post-Day	Time:	Weather:

I know the hazards:

By signing here, you are stating the following:

1. I have been involved in the Job Safety Analysis and understand the hazards and risk control actions associated with each task I am about to perform.
2. I understand the permit to work requirements applicable to the work I am about to perform (if it includes permitted activities).
3. I am aware that no jobs or work (that is not risk-assessed) is to be performed.
4. I am aware of my obligation to "**Stop Work**" (*See Stop Work Section).*

I arrived and departed fit for duty:

5. I am physically and mentally fit for duty.
6. I am not under the influence of any type of medication, drugs or alcohol that could affect my ability to work safely.
7. I am aware of my responsibility to bring any illness, injury (regardless of where or when it occurred) or fatigue issue I may have to the attention of the Crew Lead.
8. I signed out uninjured unless I have otherwise informed the Crew Lead.

Insert fitness level under corresponding time column: Fit for Duty = F Alternate Plan = AP
Team Lead to contact Project Manager for any personnel identified as AP

Individual Name/Company Name/Signature	Time:	Time:	Time:

I will STOP the job any time anyone is concerned or uncertain about safety.

I will STOP the job if anyone identifies a hazard or additional mitigation not recorded.

I will be alert to any changes in personnel or their fitness level (AP), conditions at the work site or hazards.

If it is necessary to **STOP THE JOB**, I will reassess the task, hazards and mitigations; and then proceed only when safe to do so.

Conclusion of day: I certify that the planned work activities are completed for the day and all injuries and first aids have been reported via RMS3.

Signature of Crew Lead: ______________________ **Date:** ______________

Stantec

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 5 DAY – RMS 2

Project: ______________________ Project No: ______________

Client: ______________________

Location: ______________________

Start Date: ______________________

Documentation and Procedure Review

1. Risk Management Strategy (RMS1) form and/or Site Specific Health and Safety Plan signed and reviewed? ☐ Yes ☐ **No***
2. Emergency Response Plan reviewed? ☐ Yes ☐ **No*** ☐ N/A
3. Tested two-way communications (cell phone, satellite phone) and security measures? ☐ Yes ☐ **No***
4. Attended Client Site Health and Safety meeting? ☐ Yes ☐ **No*** ☐ N/A
5. Conducted Stantec site safety meeting with all workforces? ☐ Yes ☐ **No*** ☐ N/A
6. Are there any new or unexpected hazards not identified in the RMS1/HASP? ☐ Yes ☐ No
   If yes, include in the Job Safety Analysis (JSA).
7. Working alone or remote work? ☐ Yes ☐ No
   If yes, complete call in/out process – Safe Work form must be completed.

Notifications and Permits

8. Are work permits required for this site? ☐ Yes ☐ No
   If yes, have they been completed and submitted as required? ☐ Yes ☐ **No***
9. Are utility locates required for this site? ☐ Yes ☐ No
   If yes, have they been completed and reviewed? ☐ Yes ☐ **No***
10. Does the Client require any notification prior to starting the work? ☐ Yes ☐ No
    If yes, has the notification been provided? ☐ Yes ☐ **No***

***Contact your Project Manager immediately.**

Work Description

Provide a general description of the work to be conducted.

Personal Protective Equipment

List specific PPE as needed. Verify type and inspect condition.

☐ Head Protection Type: ______	☐ Hearing Protection: ______	☐ Gloves Type: ______
☐ Foot Protection Type: ______	☐ Respiratory Protection: ______	☐ Water Safety Gear: ______
☐ Eye Protection Type: ______	☐ Fire Retardant Coveralls: ______	☐ ______
☐ High Visibility Vest: ______	☐ Fall Protection: ______	☐ ______

Tools and Equipment

List specific equipment to be used. Verify type and inspect condition.

☐	☐	☐
☐	☐	☐

Stantec

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 5 DAY – RMS 2

Daily Tailgate Discussions/Subcontractor Input

Date:		**Time:**	**Weather:**
Start			
Mid-Day			
Post-Day			
Date:		**Time:**	**Weather:**
Start			
Mid-Day			
Post-Day			
Date:		**Time:**	**Weather:**
Start			
Mid-Day			
Post-Day			
Date:		**Time:**	**Weather:**
Start			
Mid-Day			
Post-Day			
Date:		**Time:**	**Weather:**
Start			
Mid-Day			
Post-Day			

Incidents involving injury, potential injury, or report of pain, soreness, or discomfort must be reported immediately (within one hour) to a supervisor. Supervisors will then immediately contact their HSE representative to develop a plan for assessment and care. This form must be completed and **submitted within 24 hours** of any incident. Do not delay submission waiting for signatures. **Email to hse@stantec.com or fax unsigned report to (780) 969-2030** and file locally in compliance with the corporate records retention policy and practices once all signatures have been obtained.

This document contains privileged and confidential information prepared at the request of Stantec's Legal Counsel. The contents of this report are restricted to HR personnel, Risk Management Representatives, Project Manager and PC Leader, and Stantec's Insurer, Adjuster and Legal Counsel. Information collected will be used solely for the purpose of meeting the requirements of Stantec's HSE and insurance programs, complying with applicable legislation, and will be used in accordance with any governing privacy legislation. The information collected will be maintained electronically and may be included in required reports.

SECTION 1: GENERAL INFORMATION			
Office location:		PC number:	
Location of incident:			
Incident date and time:		Date and time reported:	
Project name:		Project number:	
Client Name:			
Person in charge:		Person in Charge Phone:	

SECTION 2: STANTEC EMPLOYEE INFORMATION (if more than one identify extras in incident details below)			
Name:		Phone:	
Job position:		Group name:	
Time employee began work:		Job Experience (in years)	
Type of employment:	Full Time ☐ ; Visitor ☐ ; Contract ☐ ; Volunteer ☐ ; Seasonal ☐		
Supervisor:		Supervisor Phone:	

SECTION 3: INCIDENT DETAILS			
Type of Incident:	*incident types marked with an asterisk, please complete pages 1 and 4 only **See StanNet for a list of Incident Type Definitions**		
	☐ **Report Only*	☐ ***Hazard Identification***	☐ ***Near Miss***
	☐ First Aid	☐ Motor Vehicle Incident	☐ 3rd Party Incident (i.e., Public)
	☐ Medical Aid – No Lost Time	☐ Property Damage - Vehicle	☐ Spill or Release
	☐ Restricted Work	☐ Property Damage - Other	☐ Utility Strike
	☐ Lost Time	☐ Theft	☐ Fire/Explosion/Flood
	☐ Fatality	☐ Contractor Recordable Incident	☐ Stop Work Authority
	☐ Violence or Harassment	☐ Non-compliance	☐ Other (specify details below)

Describe incident in detail: (include any issues related to people, equipment, materials, environment, and processes)

Immediate corrective actions taken:

CE (Atlantic) – Neil Clements (506-639-2961); CE (Ontario/Quebec) – Jim Elkins (613-404-8508);
CW (AB ECR/BC) – Yvonne Beattie (780-616-8909); CW (AB South, North & Central/SK/MB) – Shawna Robichaud (587-894-2635);
International – Kev Metcalfe (780-231-2185); US East (New England, Tri-State & Mid-Atlantic) – Fred Miller (610-235-7315);
US East (Great Lakes, South & Southeast) - Keith Kuhlmann (740-816-6170); US West – Fred Miller and Keith Kuhlmann

SECTION 4: MEDICAL INFORMATION	
Name of first aid attendant:	Injury recorded in first aid log? Yes ☐ No ☐ N/A ☐
Description of first aid or medical treatment administered:	
Clinic/hospital sent to:	
Attending physician/paramedic (if known):	

Area of Injury – Please check all that apply:

☐ Head	☐ Teeth	☐ Upper back	Left		Right	Left		Right	Left		Right	Left		Right
☐ Face	☐ Neck	☐ Lower back	☐	Shoulder	☐	☐	Wrist	☐	☐	Hip	☐	☐	Ankle	☐
☐ Eye(s)	☐ Chest	☐ Abdomen	☐	Arm	☐	☐	Hand	☐	☐	Thigh	☐	☐	Foot	☐
☐ Ear(s)		☐ Pelvis	☐	Elbow	☐	☐	Finger(s)	☐	☐	Knee	☐	☐	Toe(s)	☐
☐ Other	Specify		☐	Forearm	☐				☐	Lower Leg	☐			

Has the injured employee had a previous similar injury or disability?	Yes ☐	No ☐

SECTION 5: PROPERTY OR VEHICLE DAMAGE: STANTEC			
Ownership Details (choose one):	☐ Rented (attach rental agreement)	☐ Stantec Owned	☐ Personal (employee vehicle)
Year, Make, and Model of Vehicle:		Vehicle ID # (VIN)	
Nature of damage:		Estimated cost of damage:	$
Description of damaged property:			
Attending police officer (if known):		Badge #:	
Copy of police report received	Yes ☐ No ☐ If yes, file number: (attach copy of police report)		
PROPERTY OR VEHICLE DAMAGE: 3RD PARTY			
Name of owner and contact number:			
Year, Make, and Model of Vehicle:		License Plate Number:	
Insurer and Policy Number:			
Injured parties? Yes ☐ No ☐	If yes, describe Injuries:		
Diagram or photographs attached?	Yes ☐ No ☐		

WITNESS INFORMATION - #1			
Name:		Phone Number:	
Witness statement provided?	Yes (attached) ☐	No ☐	

WITNESS INFORMATION - #2			
Name:		Phone Number:	
Witness statement provided?	Yes (attached) ☐	No ☐	

SECTION 6: SPILL OR RELEASE			
Substance:			
Quantity:		Employee(s) exposed via:	☐ Inhalation ☐ Contact ☐ Ingestion ☐ n/a
Off-site impacts observed or anticipated?	Yes ☐ No ☐ If yes, describe:		
Name of regulatory agencies contacted:			
Contact name, number, date and time of call:			

CE (Atlantic) – Neil Clements (506-639-2961); CE (Ontario/Quebec) – Jim Elkins (613-404-8508);
CW (AB ECR/BC) – Yvonne Beattie (780-616-8909); CW (AB South, North & Central/SK/MB) – Shawna Robichaud (587-894-2635);
International – Kev Metcalfe (780-231-2185); US East (New England, Tri-State & Mid-Atlantic) – Fred Miller (610-235-7315);
US East (Great Lakes, South & Southeast) - Keith Kuhlmann (740-816-6170); US West – Fred Miller and Keith Kuhlmann

SECTION 7: ANALYSIS

IMMEDIATE/DIRECT CAUSES

A. **UNSAFE ACTIONS** (check off as many as necessary)

- ☐ Operating equipment without authority
- ☐ Failure to warn
- ☐ Failure to secure
- ☐ Operating at improper speed
- ☐ Making safety devices inoperative
- ☐ Removing safety devices
- ☐ Using defective/improper equipment
- ☐ Using equipment improperly
- ☐ Failing to use personal protective equipment properly
- ☐ Improper loading
- ☐ Improper placement
- ☐ Improper lifting or handling
- ☐ Improper position for a task
- ☐ Servicing equipment in operation
- ☐ Horseplay
- ☐ Failure to follow procedure, policy or practice
- ☐ Failure to identify hazard or risk
- ☐ Inattention
- ☐ Failure to communicate
- ☐ Other: Specify

B. **UNSAFE CONDITIONS** (check off as many as necessary)

- ☐ Inadequate guards/barriers
- ☐ Improper/inadequate PPE
- ☐ Defective tools or equipment
- ☐ Congested work area
- ☐ Inadequate warning system
- ☐ Fire and explosion hazards
- ☐ Poor housekeeping; disorder
- ☐ Noise exposure
- ☐ Radiation exposure
- ☐ High or low temperature exposures
- ☐ Inadequate or excess illumination
- ☐ Inadequate ventilation
- ☐ Presence of harmful materials
- ☐ Inadequate instructions/procedures
- ☐ Hazardous environmental conditions; gases, dusts, smokes, fumes, vapours
- ☐ Inadequate information/data
- ☐ Inadequate preparation/planning
- ☐ Inadequate support/assistance
- ☐ Road conditions
- ☐ Weather conditions
- ☐ Other: Specify

BASIC/ROOT CAUSES

C. PERSONAL FACTORS (check off as many as necessary)

- ☐ Inadequate physical capability
- ☐ Physical stress
- ☐ Mental stress
- ☐ Lack of skill
- ☐ Lack of knowledge
- ☐ Other: Specify

D. JOB FACTORS (check off as many as necessary)

- ☐ Inadequate leadership or supervision
- ☐ Inadequate engineering
- ☐ Inadequate purchasing
- ☐ Abuse or misuse
- ☐ Inadequate maintenance (scheduled or preventative)
- ☐ Inadequate tools or equipment
- ☐ Inadequate work standards
- ☐ Other: Specify
- ☐ Excessive wear and tear
- ☐ Inadequate communications
- ☐ Improper motivation

SECTION 8: FOLLOW-UP

Short-term:	**Corrective Action**	**Assigned To**	**Target Date**	**Completion Date**
Long-term:	**Corrective Action**	**Assigned To**	**Target Date**	**Completion Date**

CE (Atlantic) – Neil Clements (506-639-2961); CE (Ontario/Quebec) – Jim Elkins (613-404-8508);
CW (AB ECR/BC) – Yvonne Beattie (780-616-8909); CW (AB South, North & Central/SK/MB) – Shawna Robichaud (587-894-2635);
International – Kev Metcalfe (780-231-2185); US East (New England, Tri-State & Mid-Atlantic) – Fred Miller (610-235-7315);
US East (Great Lakes, South & Southeast) - Keith Kuhlmann (740-816-6170); US West – Fred Miller and Keith Kuhlmann

REVIEW COMMENTS		
Involved Employee Comments:		
Signature:	Print Name:	Date:
Job Title:		
Lead Investigator Comments:		
Signature:	Print Name:	Date:
Job Title:		
Supervisor/Project Manager:		
Signature:	Print Name:	Date:
Job Title:		
HSE Representative (OSEC/JH&S Committee/RSEC/HSE Manager):		
Signature:	Print Name:	Date:
Job Title:		
Management Review:		
Signature:	Print Name:	Date:
Job Title:		
Client Review (if required):		
Signature:	Print Name:	Date:
Job Title:		
Additional Comments:		

CE (Atlantic) – Neil Clements (506-639-2961); CE (Ontario/Quebec) – Jim Elkins (613-404-8508);
CW (AB ECR/BC) – Yvonne Beattie (780-616-8909); CW (AB South, North & Central/SK/MB) – Shawna Robichaud (587-894-2635);
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US East (Great Lakes, South & Southeast) - Keith Kuhlmann (740-816-6170); US West – Fred Miller and Keith Kuhlmann

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 5 DAY – RMS 2

I know the hazards:

By signing here, you are stating the following:

1. I have been involved in the Job Safety Analysis (JSA) and understand the hazards and risk control actions associated with each task I am about to perform.
2. I understand the permit to work requirements applicable to the work I am about to perform (if it includes permitted activities).
3. I am aware that work that has not been risk–assessed must not be performed.
4. I am aware of my ability and obligation to **Stop Work** (*See below).*

I arrived and departed fit for duty (see Fit for Duty card for further information):

5. I am physically and mentally fit for duty.
6. I am not under the influence of any type of medication, drugs or alcohol that could affect my ability to work safely.
7. I am aware of my responsibility to bring any illness, injury (regardless of where or when it occurred), symptoms of soreness or discomfort, or fatigue issue I may have to the attention of the Crew Lead or Supervisor.
8. I sign out uninjured unless I have otherwise informed the Crew Lead or Supervisor.

Insert fitness level under corresponding time column: Fit for Duty = F Alternate Plan = AP Team Lead to contact Project Manager for any personnel identified as AP															
Individual Name/Company Name/Signature	Date:			Date:			Date:			Date:			Date:		
	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:

I will STOP WORK any time anyone is concerned or uncertain about safety. **I will STOP WORK** if anyone identifies a hazard or additional mitigation not recorded. **I will** be alert to any changes in personnel or their fitness level (AP), conditions at the work site or hazards. If it is necessary to **STOP WORK**, I will reassess the task, hazards and mitigations; and then proceed only when safe to do so.

Conclusion of day: I certify that the planned work activities are completed for the day and all injuries and first aids have been reported via RMS3.

Signature of Crew Lead: ______________________ **Date:** ____________

Signature of Crew Lead: ______________________ **Date:** ____________

Signature of Crew Lead: ______________________ **Date:** ____________

Signature of Crew Lead: ______________________ **Date:** ____________

Signature of Crew Lead: ______________________ **Date:** ____________

Stantec

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 5 DAY – RMS 2

Job Safety Analysis (JSA) **Must be completed for all field activities.**

Basic Job Steps	Potential Hazards	Controls to Reduce or Eliminate Hazard	Person Responsible

Review the hazard categories below and check the mitigation measures applicable to the identified scope of work.

Environmental Hazards

1. Work area clean ☐
2. Material storage identified ☐
3. Dust/Mist/Fume ☐
4. Noise in area ☐
5. Extreme temperatures ☐
6. Spill potential ☐
7. Waste containers needed ☐
8. Waste properly disposed ☐
9. Waste plan identified ☐
10. Excavation permit required ☐
11. Other workers in area ☐
12. Weather conditions ☐
13. MSDS reviewed ☐

Ergonomic Hazards

14. Awkward body position ☐
15. Over extension ☐
16. Prolonged twisting/bending motion ☐
17. Working in a tight area ☐
18. Lift too heavy/awkward to lift ☐
19. Parts of body in line of fire ☐
20. Repetitive motion ☐
21. Hands not in line of sight ☐
22. Working above your head ☐

Access/Egress Hazards

23. Aerial life/Man basket (inspected & tagged) ☐
24. Scaffold (inspected & tagged) ☐
25. Ladders (tied off) ☐
26. Slips & trips ☐
27. Hoisting (tools, equipment) ☐
28. Evacuation (alarms, routes, ph. #) ☐
29. Confined space entry permit required ☐

Overhead Hazards

30. Barricades & signs in place ☐
31. Hole coverings identified ☐
32. Harness/lanyard inspected ☐
33. 100% Tie-off with harness ☐
34. Tie off points identified ☐
35. Falling items ☐
36. Foreign bodies in eyes ☐
37. Hoisting or moving loads overhead ☐

Rigging & Hoisting Hazards

38. Lift study required ☐
39. Proper tools used ☐
40. Tools inspected ☐
41. Equipment inspected ☐
42. Slings inspected ☐
43. Others working overhead/below ☐
44. Critical lift permit ☐

Electrical Hazards

45. GFI test ☐
46. Lighting levels too low ☐
47. Working on/near energized equipment ☐
48. Electrical cords condition ☐
49. Electrical tools condition ☐
50. Fire extinguisher ☐
51. Hot work or electrical permit required ☐

Personal Limitations/Hazards

52. Procedure not available for task ☐
53. Confusing instructions ☐
54. No training for task or tools to be used ☐
55. First time performing the task ☐
56. Micro break (stretching/flexing) ☐
57. Report **all injuries** to your supervisor ☐

It is important that all relevant hazards have plans in place to reduce risk.
Be sure that all associated permits are closed off at the end of the job.

Remember: Stop and Think

Reviewed by Name and Signature: ______________________________

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 1 DAY – RMS 2

Job Safety Analysis (JSA) **Must be completed for all field activities.**

Basic Job Steps	Potential Hazards	Controls to Reduce or Eliminate Hazard	Person Responsible

Review the hazard categories below and check the mitigation measures applicable to the identified scope of work.

Environmental Hazards

1. Work area clean ☐
2. Material storage identified ☐
3. Dust/Mist/Fume ☐
4. Noise in area ☐
5. Extreme temperatures ☐
6. Spill potential ☐
7. Waste containers needed ☐
8. Waste properly disposed ☐
9. Waste plan identified ☐
10. Excavation permit required ☐
11. Other workers in area ☐
12. Weather conditions ☐
13. MSDS reviewed ☐

Ergonomic Hazards

14. Awkward body position ☐
15. Over extension ☐
16. Prolonged twisting/bending motion ☐
17. Working in a tight area ☐
18. Lift too heavy/awkward to lift ☐
19. Parts of body in line of fire ☐
20. Repetitive motion ☐
21. Hands not in line of sight ☐
22. Working above your head ☐

Access/Egress Hazards

23. Aerial life/Man basket (inspected & tagged) ☐
24. Scaffold (inspected & tagged) ☐
25. Ladders (tied off) ☐
26. Slips & trips ☐
27. Hoisting (tools, equipment) ☐
28. Evacuation (alarms, routes, ph. #) ☐
29. Confined space entry permit required ☐

Overhead Hazards

30. Barricades & signs in place ☐
31. Hole coverings identified ☐
32. Harness/lanyard inspected ☐
33. 100% Tie-off with harness ☐
34. Tie off points identified ☐
35. Falling items ☐
36. Foreign bodies in eyes ☐
37. Hoisting or moving loads overhead ☐

Rigging & Hoisting Hazards

38. Lift study required ☐
39. Proper tools used ☐
40. Tools inspected ☐
41. Equipment inspected ☐
42. Slings inspected ☐
43. Others working overhead/below ☐
44. Critical lift permit ☐

Electrical Hazards

45. GFI test ☐
46. Lighting levels too low ☐
47. Working on/near energized equipment ☐
48. Electrical cords condition ☐
49. Electrical tools condition ☐
50. Fire extinguisher ☐
51. Hot work or electrical permit required ☐

Personal Limitations/Hazards

52. Procedure not available for task ☐
53. Confusing instructions ☐
54. No training for task or tools to be used ☐
55. First time performing the task ☐
56. Micro break (stretching/flexing) ☐
57. Report **all injuries** to your supervisor ☐

It is important that all relevant hazards have plans in place to reduce risk.
Be sure that all associated permits are closed off at the end of the job.

Remember: Stop and Think

Reviewed by Name and Signature: ____

Stantec

FIELD LEVEL RISK ASSESSMENT (FIT FOR DUTY), 1 DAY – RMS 2

Fit for Duty

Safety is influenced by many factors, but the most important is the health and well-being of Stantec's employees and partners. Physical and mental health are just as important as good tools, good practices, and good job planning.

This card is designed to help you do a quick self-assessment of your physical and mental health. Any concerns resulting from your assessment regarding your ability to carry out your job responsibilities safely and in good health need to be discussed with your supervisor before starting work.

- Am I feeling good today and ready to work at my typical level of physical activity and responsibility?
- Do I have any sprains/strains, areas of weakness or soreness?
- Am I managing multiple sources of stress?
- Am I well hydrated?
- Any physically-demanding activities recently (chores, sports, hobbies)?
- Am I well-rested with a good energy level? When did I eat last?
- Am I taking any medications that can make me drowsy or adversely affect my safe performance?
- Any cuts/scrapes are clean and bandaged?
- Did I remember to bring with me my health maintenance medications (blood pressure, diabetes, cholesterol, heart, etc.)?

If your answers to any of the questions above indicate that you may not be ready to work, contact your supervisor immediately to discuss a plan of action.

LAST-MINUTE RISK ASSESSMENT (LMRA)

1. STOP and Think

2. Look around

Is the work area safe?
Will my work endanger others?
Will other people pose risk?

3. Assess risk

Do I clearly understand the task?
Will lifting or manual handling be required?
Potential for slips, trips, or falls?
Are there driving or vehicle concerns?
Have I considered all underground services?
Moving or pressurized equipment?
What could go wrong?

4. Control risk

What can I do to control hazards?
Do I have the right tools?
Is the SWP (Safe Work Practice) appropriate?
Do I have the appropriate PPE?
Are emergency plans in place?

5. Begin/Resume work

If you're unsure, talk to your supervisor.

Are you ready to work safely?

Appendix C

Community Air Monitoring Plan (CAMP)

Appendix C
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

<u>VOC Monitoring, Response Levels, and Actions</u>

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

<u>Particulate Monitoring, Response Levels, and Actions</u>

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix C
Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50^{o} C (14 to 122^{o} F);
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

Appendix D

Quality Assurance Project Plan (QAPP)

Appendix D

Quality Assurance Project Plan

Soil Removal Work Plan
8-28 Ward Street Site – Site No. C828136
8-28 Ward Street
Rochester, New York

Prepared for:
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8-28 Ward Street
Rochester, New York

1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) is to be used in conjunction with the Soil Removal Work Plan (Work Plan) for the Brownfield Cleanup Program (BCP) Site known as the 8-28 Ward Street Site (No. C828136) in the City of Rochester, Monroe County, New York (Site; see Figure 1). This QAPP presents the policies, organization, objectives, functional activities, and specific quality assurance and quality control activities to ensure the validity of data generated in the completion of the investigation. The purpose of this QAPP program is to help ensure that technical data generated are accurate and representative.

Quality assurance (QA) is a management system for ensuring that information, data, and decisions resulting from investigation and environmental monitoring programs are technically sound, and properly documented. Quality control (QC) is the functional mechanism through which quality assurance achieves its goals. Quality control programs, for example, define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective actions to resolve these problems, thus ensuring high quality data. As such, a quality assurance and quality control program pertains to data collection, evaluation, and review activities which are part of the investigation.

QA/QC procedures will be in accordance with applicable professional technical standards, government regulations and guidelines, and specific project goals and requirements. This QAPP has been prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) Region II guidance documents.

The QAPP incorporates the following activities:

- Sample collection, control, chain-of-custody, and laboratory analysis;
- Document control;
- Laboratory instrumentation, analysis, and control; and
- Review of project reports.

Laboratory analysis of project samples will be performed by an independent laboratory with the experience and certifications appropriate to the analyses to be performed. Analyses will be performed by laboratories accredited pursuant to the New York State Department of Health (NYSDOHP Environmental Laboratory Accreditation Program (ELAP) for the category of parameters to be analyzed by the laboratory. It is anticipated that Stantec will send samples to Paradigm Environmental Services for analysis.

Duplicates, replicates, and spiked samples will be used to identify the quality of the analytical data. Field audits may be conducted to verify that proper sampling techniques and chain-of-custody procedures are followed. Field data compilation, tabulation, and analysis will be checked for accuracy. Calculations and other post-field tasks will be reviewed by senior project personnel. Equipment used to take field measurements will be maintained and calibrated in accordance with established procedures. Records of calibration and maintenance will be kept by assigned personnel. Field instrumentation, screening and data acquisition will be performed following guidelines as described herein.

Document control procedures will be used to coordinate the distribution, coding, storage, retrieval, and review of data collected during sampling tasks.

A Data Usability Summary Report (DUSR) will be prepared for analytical results from each monitoring activity, with the exception of sampling data utilized for screening and survey purposes only. These screening and survey samples will be specified in the SCWP. The DUSR will be prepared by an independent consultant with the required experience, in accordance with NYSDEC's "Guidance for the Development of Data Usability Summary Reports," revised 1997 and NYSDEC's DER-10 "Technical Guidance for Site Investigation and Remediation," May 2010 (DER-10).

2.0 PROJECT DESCRIPTION

This QAPP pertains to the completion of field activities and subsequent laboratory and data analysis associated with the Soil Removal at 8-28 Ward Street in Rochester, New York. A description of the Site and the Soil Removal activities planned is presented in the Work Plan to which this QAPP is attached as Appendix A. The Work Plan also describes the previous environmental investigations, including laboratory analysis, performed for the Site.

3.0 PROJECT ORGANIZATION AND RESPONSIBILITY

This QAPP provides for designated qualified personnel to review products and provide guidance on QA matters. This QAPP also outlines the approach to be followed to ensure that products of sufficient quality are obtained. This structure will provide for direct and constant operational responsibility, clear lines of authority, and the integration of QA activities. The QA-related functions of the project positions are as follows:

Project Manager
The project manager will have overall responsibility for ensuring that the project meets the objectives and quality standards as presented in the SCWP and this QAPP. He/She will be responsible for implementing the project and will have the authority to commit the resources necessary to meet project objectives and requirements. The project manager's primary function is to ensure that technical, financial, and scheduling objectives are achieved successfully. The project manager will provide the major point of contact and control for matters concerning the project. In addition, he/she will be responsible for technical quality control and project oversight.

Team Leaders
The project manager will be supported by a team leader or leaders who will be responsible for leading and coordinating the day-to-day activities of the various resource specialists under their supervision. The team leader is a highly experienced environmental professional who will report directly to the project manager.

Technical Staff

The technical staff (team members) for this project will be drawn from corporate resources and appropriately qualified subcontractors. The technical team staff will be used to gather and analyze data, and to prepare various task reports and support materials. The designated technical team members will be experienced professionals who possess the degree of specialization and technical competence required to effectively and efficiently perform the required work.

Project QA Director

The Project QA Director will be responsible for maintaining QA for the project.

Laboratory Director

The laboratory director will be responsible for analytical work and works in conjunction with the QA unit. He/She maintains liaison with the QA officer regarding QA and custody requirements.

Laboratory Manager

The laboratory manager will maintain liaison with the laboratory director regarding QA elements of specific sample analyses tasks. He/She will report to the laboratory director and work in conjunction with the laboratory QA unit.

Laboratory QA Coordinator

The Laboratory QA officer will be responsible for overseeing the QA program within the laboratory and for maintaining QC documentation. He/She reports directly to the laboratory director.

Laboratory Staff

Each member of the laboratory staff will perform an assigned QA or analytical function that is pertinent to and within the scope of his or her knowledge, experience, training, and aptitude. An individual will be assigned the responsibility for checking, reviewing, or otherwise verifying that a sample analysis activity has been correctly performed.

Laboratory Facilities

Laboratory work will be performed in accordance with guidelines established by NYSDEC, NYSDOH, USEPA, the Water Pollution Control Federation, and/or the American Society for Testing and Materials (ASTM). In case of conflict, these guidelines and protocols will be considered in the order shown (i.e., NYSDEC criteria is of primary precedence). In addition, QA and QC programs will be maintained for the instruments and the analytical procedures used. A NYSDOH ELAP certified laboratory capable of providing NYSDEC Analytical Services Protocol (ASP) Category B deliverables will be identified to provide laboratory services for this project. With the exception of data collected solely for screening and survey purposes, data will be reported with a NYSDEC ASP Category B deliverable. The laboratory's preventative maintenance procedures will be provided and outlined in their Laboratory Quality Assurance Manual.

4.0 QA OBJECTIVES FOR DATA MEASUREMENT

Measurements will be made to ensure that analytical results are representative of the media and conditions measured. Unless otherwise specified, data will be calculated and reported in units consistent with other organizations who report similar data to allow comparability of databases among organizations.

The key considerations for the QA assessment of generated data are accuracy, precision, completeness, representativeness, and comparability. These characteristics are defined below:

Accuracy: Accuracy is the degree of agreement of a measurement or average of measurements with an accepted reference or "true" value and is a measure of bias in the system.

Precision: Precision is the degree of mutual agreement among individual measurements of a given parameter.

Completeness: Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount expected to be obtained under correct normal conditions.

Representativeness: Representativeness expresses the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition.

Comparability: Comparability expresses the confidence with which one data set can be compared to another.

4.1 GOALS

The QA/QC goal will focus on controlling measurement error within the limits established and will ultimately provide a database for estimating the actual uncertainty in the measurement data.

Target values for detection limit, percent spike recovery and percent "true" value of known check standards, and RPD of duplicates/replicates are provided in the referenced analytical procedures. It should be noted that target values are not always attainable. Instances may arise where high sample concentrations, non-homogeneity of samples, or matrix interferences preclude achievement of target detection limits or other quality control criteria. In such instances, the laboratory will report reasons for deviations from these detection limits or noncompliance with quality control criteria.

5.0 SAMPLING PROCEDURES

The sampling of various environmental media will be completed as part of the Soil Removal activities. The Work Plan presents the location, type, and analytical requirements of samples to be collected as part of the Site Characterization activities.

5.1 SAMPLING PROGRAM

The sampling and field procedures for the following activities are described in the Work Plan:

- Pre-characterization sampling; and
- Confirmatory sampling.

The sample containers, preservation, and holding time that will be used are identified in Table 1. The sample containers will be labeled in accordance with Section 6.2. Sample handling, packaging and shipping procedures are presented in Section 6.3.

5.2 FIELD QUALITY CONTROL SAMPLES

Field quality control samples will consist of trip blanks, field blanks, field duplicates, matrix spikes and matrix spike duplicates, as shown on Table 2.

5.2.1 Field Duplicates

Field quality control samples will be collected to verify reproducibility of the sampling and analytical methods. Field duplicates will be obtained at a rate of one per 20 original field samples, as shown in Table 2.

5.2.2 Trip Blanks

Trip blanks will be used to assess whether groundwater has been exposed to volatile constituents during sample storage and transport. The trip blanks will consist of a container filled by the laboratory with analyte-free water. The trip blanks will remain unopened throughout the sampling event and will only be analyzed for volatile organic compounds. The trip blanks will be collected as shown in Table 2.

5.2.3 Matrix Spike/Matrix Spike Duplicates

Matrix Spike/Matrix Spike Duplicates (MS/MSD) will be obtained to determine if the matrix is interfering with the sample analysis. MS/MSDs will be collected at a rate of one per 20 original field samples, as shown on Table 2.

5.2.4 Rinsate Blanks

Rinsate blanks will be used to assess decontamination procedures for non-dedicated equipment. Rinsate blanks will be collected as shown in Table 2.

5.2.5 Laboratory Quality Control Checks

Internal laboratory quality control checks will be used to monitor data integrity. These checks include method (equipment) blanks, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards.

5.3 SAMPLE CONTAINERS

The volumes and containers required for the sampling activities are included in Table 1. Pre-washed sample containers will be provided by the laboratory. All bottles are to be prepared in accordance with USEPA bottle washing procedures.

5.4 DECONTAMINATION

Dedicated and/or disposable sampling equipment will be used to the extent possible to minimize decontamination requirements and the possibility of cross-contamination.

Split spoon samplers, hand augers, and sediment samplers are examples of sampling equipment that could be used at more than one location. The water level indicator will be decontaminated between locations by using the following decontamination procedures:

- Initial cleaning of any foreign matter with paper towels, if needed;
- Low-phosphate detergent wash; and
- Distilled water rinse;

The samplers used for drilling and soil sampling in test borings will be decontaminated with a bucket wash consisting of a low-phosphate detergent wash followed by potable water rinse. During monitoring well installation, the drill rig, augers, rods, and other related downhole equipment will be decontaminated using high-pressure steam prior to initiating the soil boring program. Steam cleaning will be performed in a designated on-site decontamination area. Throughout and after the cleaning processes, direct contact between the equipment and the ground surface will not be permitted. Decontamination waste water will be containerized for later characterization and disposal. The drill rig and associated equipment will also be cleaned upon completion of the investigation prior to departure from the site using the following methods:

- Initial cleaning of foreign matter; and
- Wash down with high-pressure wash.

5.5 LEVELS OF PROTECTION/SITE SAFETY

Sampling will be conducted under a written Health and Safety Plan. On the basis of air monitoring, the level of protection may be downgraded or upgraded at the discretion of the site safety officer. Crew members will stand upwind of open boreholes or wellheads during the collection of samples, when possible.

Work will initially be conducted in Level D (refer to Site Specific Health and Safety Plan). Air purifying respirators (APRs) will be available if monitoring indicates an upgrade to Level C is appropriate.

6.0 SAMPLE CUSTODY

This section describes standard operating procedures for sample identification and chain-of-custody to be used for field activities. The purpose of these procedures is to ensure that the quality of the samples is maintained during collection, transportation, storage, and analysis. Chain-of-custody requirements comply with standard operating procedures indicated in USEPA and NYSDEC sample-handling protocol.

Sample identification documents must be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include:

- Field records,
- Sample labels,
- Custody seals, and
- Chain-of-custody records.

6.1 CHAIN-OF-CUSTODY

The primary objective of the chain-of-custody procedures is to provide an accurate written or computerized record that can be used to trace the possession and handling of a sample from collection to completion of required analyses.

6.1.1 Sample Labels

Sample labels attached to, or affixed around, the sample container must be used to properly identify samples collected in the field. To the extent possible, the sample labels are to be placed on the bottles so as not to obscure any QA/QC lot numbers on the bottles. Sample information must be printed in a legible manner using waterproof ink. Field identification must be sufficient to enable cross-reference with the field sampling records or sample logbook. For chain-of-custody purposes, QC samples are subject to the same custodial procedures and documentation as "real" samples.

6.1.2 Custody Seals

Custody seals are preprinted adhesive-backed seals often with security slots which are designed to break if the seals are disturbed. Sample shipping containers (coolers, cardboard boxes, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. On receipt at the laboratory, the custodian must check (and certify, by completing logbook entries) that seals on shipping containers are intact. Strapping tape should be placed over the seals to ensure that seals on shipping containers are not accidentally broken during shipment.

6.1.3 Chain-of-Custody Record

The chain-of-custody record must be completed at least in duplicate by the field personnel designated by the project manager as being responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (e.g., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the custody record.

6.1.4 Field Custody Procedures

- As few parties as possible should handle samples.
- Sample bottles will be obtained pre-cleaned by the laboratory and shipped to the sampling personnel in charge of the field activities. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- The sample collector is responsible for the care and custody of samples collected until they are transferred to another person or dispatched properly under chain-of-custody rules.
- The sample collector will record sample data in a controlled field notebook and/or on appropriate field sampling records.
- The site team leader will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

6.2 DOCUMENTATION

6.2.1 Sample Identification

Containers of samples collected from the project will be identified using the following format on a label or tag fixed to the sample container:

WSR-aaaa-B, where:

- "WARDSR" - This shorthand indicates the project located at 8-28 Ward Street in Rochester, New York (**W**ard Street **S**oil **R**emoval).
- "aaaa" - These characters (alpha-numeric) will be individual sample-specific. The number of characters may vary depending on the sample location and type. Sample identifications and locations will be recorded on the sampling record. Field duplicates, field blanks and rinsate blanks will be assigned unique sample numbers.
- "B" - This initial will identify the sample matrix in accordance with the following abbreviations:
    - V – Vapor Sample
    - W– Water Sample
    - S – Soil Sample

Each sample will be labeled, chemically preserved, if required, and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection to the extent possible. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers. The sample label will give the following information:

- Name or initials of sampler;
- Date (and time, if possible) of collection;
- Sample identification;
- Intended analysis; and
- Preservation performed.

6.2.2 Daily Logs

Daily logs and data forms are necessary to provide sufficient data and observations to enable participants to reconstruct events that occurred during the project. Daily logs will be kept in a notebook and consecutively numbered. Entries will be made in waterproof ink, dated, and signed. Sampling data will be recorded in the sampling records. Information will be completed in waterproof ink. Corrections will be made according to the procedures given at the end of this section.

6.3 SAMPLE HANDLING, PACKAGING, AND SHIPPING

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample, but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (USDOT) in the Code of Federal Regulations, 49 CFR 171 through 177.

All chain-of-custody requirements must comply with standard operating procedures in the NYSDEC and USEPA sample handling protocol. Field personnel will make arrangements for transportation of samples to the laboratory. When custody is relinquished to a shipper, field personnel will ensure that the laboratory custodian or project manager is aware of the expected time of arrival of the sample shipment and of any time constraints on sample analysis(es). Samples will be delivered to the laboratory in a timely manner to help ensure that holding times are followed.

7.0 CALIBRATION PROCEDURES AND FREQUENCY

Instruments and equipment used during sampling and analysis will be operated, calibrated, and maintained according to the manufacturer's guidelines and recommendations as well as criteria set forth in the applicable analytical methodology references.

7.1 FIELD INSTRUMENTS

A calibration program will be implemented to ensure that routine calibration is performed on field instruments. Calibration will typically be performed on a daily basis unless manufacturer’s instructions indicate differently. More frequent calibrations may be performed as necessary to maintain analytical integrity. Field personnel familiar with the calibration and operations of the equipment will maintain proficiency and perform the prescribed calibration procedures outlined in the operation manuals accompanying the respective instruments. Calibration records for each field instrument used on the project will be maintained on-site during the respective field activities and a copy will be kept in the project files.

7.2 LABORATORY INSTRUMENTS

Laboratory calibration procedures are addressed in detail in the laboratory Quality Assurance Manual (QAM), which can be provided upon selection of a laboratory. Calibration procedures will be consistent with the method used for analysis.

8.0 ANALYTICAL PROCEDURES

8.1 FIELD

On-site procedures for analysis of total organic vapor and other field parameters are addressed in the Work Plan, if applicable.

8.2 LABORATORY

Specific analytical methods for constituents of interest in soil and groundwater are listed in Table 1. The laboratory will maintain and have available for the appropriate operators standard operating procedures relating to sample preparation and analysis according to the methods stipulated in Table 1.

9.0 DATA REDUCTION AND REPORTING

QA/QC requirements will be strictly adhered to during sampling and analytical work. Data generated will be reviewed by comparing and interpreting results from chromatograms (responses, stability of retention times), accuracy (mean percent recovery of spiked samples), and precision (reproducibility of results). Refer to Section 10 for a discussion of QA/QC protocol.

Data storage and documentation will be maintained using logbooks and data sheets that will be kept on file. Analytical QC will be documented and included in the analytical testing report. A central file will be maintained for the sampling and analytical effort after the final laboratory report is issued.

Calculations and data manipulations are included in the appropriate methodology references. Control charts and calibration curves will be used to review the data and identify outlying results. Prior to the submission of the report to the client, data will be evaluated for precision, accuracy, and completeness. Sections 4.0, and 13.0 of this document include some of the QC criteria to be used in the data evaluation process.

Laboratory reports will be reviewed by the laboratory supervisor, the QA officer, laboratory manager and/or director, and the project manager. Analytical reports will contain a data tabulation including results and supporting QC information will be provided. Raw data will be available for later inspection, if required, and maintained in the control job file. With the exception of data collected solely for screening and survey purposes, data will be reported in NYSDEC ASP Category B deliverable format.

Finalized data will be provided to NYSDEC in an electronic data deliverable (EDD) format, in accordance with DER-10 and the NYSDEC's "Electronic Data Deliverable Manual" (v.3, April 2013). The EDD will reflect DUSR-related modifications, as appropriate.

10.0 INTERNAL QUALITY CONTROL CHECKS

QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of glassware and reagents. The procedures to be followed for internal quality control checks are consistent with NYSDEC ASP protocols.

11.0 PERFORMANCE AND SYSTEM AUDITS

11.1 FIELD AUDITS

The Project QA Director may conduct episodic audits of the operations at the site to ensure that work is being performed in accordance with the work plan and associated standard operating practice. The audit will cover, but not necessarily be limited to, such areas as:

- Conformance to standard operating procedures;
- Completeness and accuracy of documentation;
- Chain-of-custody procedures; and
- Construction specifications.

11.2 LABORATORY AUDITS

In addition to any audits required by the NYSDEC, the Project QA Director may choose to audit the laboratory. These additional audits may take the form of performance evaluation samples or on-site inspections of the laboratory. Performance evaluation samples may be either blind samples or samples of known origin to the laboratory. Reasonable notice will be provided if the audit is to include an on-site inspection of the laboratory.

12.0 PREVENTATIVE MAINTENANCE

12.1 FIELD

Field personnel assigned to complete the work will be responsible for preventative maintenance of field instruments. The field sampling personnel will protect the field instruments by placing them in portable boxes and/or protective cases, and by minimizing their exposure to precipitation to the extent practicable.

Field equipment will be subject to a routine maintenance program, prior to and after each use. The routine maintenance program for each piece of equipment will be in accordance with the manufacturer's operations and maintenance manual. Equipment will be cleaned and checked for integrity after each use. Necessary repairs will be performed immediately after any defects are observed, and before the item of equipment is used again. Equipment parts with a limited life (such as batteries, membranes, sensors and some electronic components) will be periodically checked and replaced or recharged as necessary according to the manufacturer's specifications.

12.2 LABORATORY

The laboratory's preventative maintenance procedures can be provided as outlined in their Laboratory Quality Assurance Manual.

13.0 DATA ASSESSMENT PROCEDURES

Performance of the following calculations will be completed to evaluate the accuracy, precision and completeness of collected measurement data.

13.1 PRECISION

Precision of a particular analysis is measured by assessing its performance with duplicate or replicate samples. Duplicate samples are pairs of samples taken in the field and transported to the laboratory as distinct samples. Their identity as duplicates is sometimes not known to the laboratory and usually not known to bench analysts, so their usefulness for monitoring analytical precision at bench level is limited. For most purposes, precision is determined by the analysis of replicate pairs (i.e., two samples prepared at the laboratory from one original sample). Often in replicate analysis the sample chosen for replication does not contain target analytes so that quantification of precision is impossible. Replicate pairs of spiked samples, known as matrix spike/matrix spike duplicate samples, are used for precision studies. This has the advantage that two real positive values for a target analyte can be compared.

Precision is calculated in terms of Relative Percent Difference (RPD), which is expressed as follows:

$$RPD = \frac{(x_1 - x_2)\times 100}{(x_1 + x_2)/2}$$

where X1 and X2 represent the individual values found for the target analyte in the two replicate analyses or in the matrix spike/matrix spike duplicate analyses.

RPDs must be compared to the method RPD for the analysis. The analyst or his supervisor must investigate the cause of RPDs outside stated acceptance limits. This may include a visual inspection of the sample for non-homogeneity, analysis of check samples, etc. Follow-up action may include sample re-analysis or flagging of the data as suspect if problems cannot be resolved.

13.2 ACCURACY

Accuracy of a particular analysis is measured by assessing its performance with "known" samples. These "knowns" can take the form of USEPA or NBS traceable standards (usually spiked into a pure water matrix), or laboratory prepared solutions of target analytes into a pure water or sample matrix; or (in the case of GC or GC/MS analyses) solutions of surrogate compounds which can be spiked into every sample and are designed to mimic the behavior of target analytes without interfering with their determination. In each case the recovery of the analyte is measured as a percentage, corrected for analytes known to be present in the original sample if necessary, as in the case of a matrix spike analysis. For USEPA or NBS supplied known solutions, this recovery is compared to the published data that accompany the solution. For prepared solutions, the recovery is compared to USEPA-developed data or historical data as available. For surrogate compounds, recoveries are compared to USEPA CLP acceptable recovery tables. If recoveries do not meet required criteria, then the analytical data for the batch (or, in the case of surrogate compounds, for the individual sample) are considered potentially inaccurate.

For highly contaminated samples, recovery of matrix spike may depend on sample homogeneity. As a rule, analyses are not corrected for recovery of matrix spike or surrogate compounds.

13.3 COMPLETENESS

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the total amount expected to be obtained under normal conditions. Completeness for each parameter is calculated as:

$$Completeness = \frac{Number\ of\ Successful\ Analyses \times 100}{Number\ of\ Requested\ Analyses}$$

Target value for completeness for parameters is 100%. A completeness value of 95% will be considered acceptable. Incomplete results will be reported to the client project officer.

13.4 REPRESENTATIVENESS

The characteristic of representativeness is not quantifiable. Subjective factors to be taken into account are as follows:

- The degree of homogeneity of a site;
- The degree of homogeneity of a sample taken from one point in a site; and
- The available information on which a sampling plan is based.

To maximize representativeness of results, sampling techniques and sample locations will be carefully chosen so that they provide laboratory samples representative of the site and the specific area.

14.0 CORRECTIVE ACTION

Corrective actions can be initiated as a result of performance and system audits, laboratory and interfield comparison studies, data validation, and/or a QA program audit. They may also be required as a result of a request from project representatives. Corrective action necessary to resolve analytical problems will be taken. Success or failure of corrective actions will be reported with an estimate of effect on data quality, if any.

Corrective actions may include altering procedures in the field, conducting subsequent audits, or modifying project protocol. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. The project manager is responsible for initiating corrective action and the team leader is responsible for its implementation in the correction of field non-conformance corrective actions.

15.0 QUALITY ASSURANCE REPORTS

Upon completion of a project sampling effort, with the exception of sampling efforts conducted solely for screening and survey purposes, analytical and QC data will be included in a Data Usability Summary Report (DUSR) that summarizes the work and provides a data evaluation. A discussion of the usability of the results in the context of QA/QC procedures will be made, as well as a summation of the QA/QC activity. The DUSR will be performed in accordance with the DEC's "Guidance for the Development of Data Usability Summary Reports," revised 1997, and DER-10.

Serious analytical problems will be reported. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. Corrective actions may include altering procedures in the field, conducting an audit, or modifying laboratory protocol. Corrective action will be implemented after notification of the project representatives.

Figures

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Project Location

Rochester, Monroe County , New York

190500014 REVA
Prepared by KTS on 2017-06-02
Independent Review by MPS on 2017-06-02

Figure No.
1

Client/Project

Soil Removal Work Plan
8-28 Ward Street Site, Brownfield Cleanup Program Site #C828136 8-28 Ward Street, Rochester, Monroe County, New York

Title

Site Location Map

Tables

Table 1
Required Sample Containers, Volumes, Sample Preservation, and Holding Times
Quality Assurance Project Plan

Media	Type of Analysis	Method	Required Container	Preferred Sample Volume	Preservation	Maximum Holding Time
Soil Vapor	TCL VOCs	EPA 8260	BeSure Sample Collection Kit - borosilicate glass vial	15 ml	None	VTSR + 30 days
Soil	TCL plus CP-51 VOCs +TICs	EPA 8260	(2) Pre-tared 40 ml glass vials with water, (1) Pre-tared 40 ml glass vial with methanol, (1) 2 oz. cwm	5 grams per container	Cool 4°C	Within 48 hours of collection, or frozen within 48 hours of collection and analyzed within 14 days
	TCL SVOCs + TICs	EPA 8270	4 oz. cwm	4 oz.	Cool 4°C	VTSR + 5 days
	Pesticides/Herbicides	EPA 8081	4 oz. cwm	4 oz.	Cool 4°C	VTSR + 5 days
	PCBs	EPA 8082	4 oz. cwm	4 oz.	Cool 4°C	VTSR + 5 days
	TAL Inorganics	EPA 6010/7000 Series	4 oz. cwm	4 oz.	Cool 4°C	VTSR + 6 months; 28 days for mercury
	Total Organic Carbon	9060	4 oz. cwm	4 oz.	Cool 4°C	28 days from collection
Groundwater	TCL plus CP-51 VOCs +TICs	EPA 8260	(3) 40 ml glass vials	120 ml	pH < 2, HCl	VTSR + 10 days if acidified with HCl
	TCL SVOCs + TICs	EPA 8270	(2) 1000 ml amber glass jars	2000 ml	pH < 2, HCl	VTSR + 7 day/40 day*
	Pesticides	EPA 8081	(2) 500 ml amber glass jars	1000 ml	Cool 4°C	VTSR + 7 day/40 day*
	Herbicides	EPA 8151	(2) 1000 ml amber glass jars	2000 ml	Cool 4°C	VTSR + 7 day/40 day*
	PCBs	EPA 8082	(2) 1000 ml amber glass jars	2000 ml	Cool 4°C	VTSR + 7 day/40 day*
	TAL Metals	EPA 6010/7000 Series	(1) 500 ml plastic jar	500 ml	pH < 2, HNO3	VTSR + 6 months; 28 days for mercury
	Cyanide	EPA 9012	(1) 250 ml plastic jar	250 ml	pH < 12, NaOH, cool 4°C	VTSR + 14 day
	Nitrate	EPA 300	(1) 250 ml plastic jar	250 ml	Cool 4°C	VTSR + 48 hours
	Sulfate	EPA 300	(1) 250 ml plastic jar	250 ml	Cool 4°C	VTSR + 28 days
	Chloride	4500CL-E	4 oz. or 8 oz. plastic	4 oz. or 8 oz.	Cool 4°C	28 days from collection

Key:

cwm	clear wide mouth jar
EPA	U.S. Environmental Protection Agency
HCl	Hydrochloric acid
ml	milliliter
HNO_3	Nitric acid
PCBs	Polychlorinated biphenyls
SVOCs	Semivolatile organic compounds
TAL	Target analyte list
TCL	Target compound list
VOCs	Volatile organic compounds
VTSR	Verified Time of Sample Receipt at laboratory
oz	ounces

Notes:

* Holding time is 7 days from collection to extraction and 40 days from extraction to analysis.

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Table 2
Summary of Field Quality Control Checks
Quality Assurance Project Plan

Analysis Parameters	Analysis Method (USEPA SW846 method number)	Estimated Number of Site Samples	QA/QC Samples				Total Number of Samples
			Field Duplicates[1]	Trip Blanks[2]	Rinsate Blanks[3]	MS/MSD[4]	
Subsurface Soil Sampling							
TCL plus CP-51 VOCs	8260	7	1	0	1	2	11
TCL SVOCs	8270	2	1	0	1	2	6
TCL PCBs	8082	2	1	0	1	2	6
TCL Pesticides	8081	2	1	0	1	2	6
TCL Herbicides	8081	2	1	0	1	2	6
TAL Inorganics	6010/7000 series	2	1	0	1	2	6
Total Organic Carbon	9060	2	1	0	1	2	6

Key:

MS/MSD Matrix Spike/Matrix Spike Duplicate
PCBs Polychlorinated biphenyls
QA/QC Quality Assurance/Quality Control
SVOCs TCL Semivolatile organic compounds plus up to 20 TICs
TAL USEPA's Target Analyte List
TCL USEPA's Target Compound List
TICs Tentatively identified compounds
VOCs TCL Volatile organic compounds plus additional NYSDEC CP-51 VOCs plus up to 10 TICs.

Notes:

[1] Field duplicates will be collected at a frequency of 1 per 20 samples for each sample medium.
[2] Trip blanks will be collected at a frequency of 1 per cooler containing aqueous samples to be analyzed for VOCs.
[3] Rinsate blanks will be collected at a frequency of 1 per mobilization for each sampling method using non-dedicated equipment.
[4] MS/MSDs will be collected at a frequency of 1 per 20 samples for each sample medium.

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Appendix A - Paradigm Environmental Services Statement of Qualifications

PARADIGM
ENVIRONMENTAL SERVICES, INC.

STATEMENT OF QUALIFICATIONS

TABLE OF CONTENTS

COMPANY PROFILE

Paradigm Environmental Ser vices was established in 1988 to simplify today's complex environmental concerns. Utilizing a team approach, Paradigm provides architects, engineers, building owners, industrial clients, and contractors with advice and solutions to environmentally related problems.

Initially, Paradigm's environmental laboratory specialized in analysis of bulk materials and air samples for asbestos. Our clients included municipalities, schools, and industries involved in abatement projects. With an emphasis on fast, reliable ser vice, Paradigm quickly developed a reputation as one of the leading asbestos laboratories in this area.

Next, we added project design and management ser vices. With this addition, Paradigm was able to provide its clients with architectural design suppor t ser vices, and project management for asbestos abatement and remediation projects.

In early 1992, Paradigm decided to diversify into environmental chemistry. We began by offering inorganic and microbiological sample collection and analysis. In 1993 we added an organics laboratory, fur ther enhancing our capabilities, and allowing us to offer our clients full, in-house laboratory ser vices. Paradigm now provides a comprehensive list of ser vices to industry, consultants, and contractors covering solid, aqueous, and air matrices.

Paradigm's staff of around one hundred professionals including chemists, biologists, environmental specialists, industrial hygienists, and support personnel. Ninety percent of Paradigm's staff holds formal professional degrees.

Within the environmental consulting community, Paradigm has a reputation for service to its clients that is second to none. Our philosophy of service embraces quality, responsiveness, integrity and technical excellence.

Client oriented service and technical expertise will continue to be the focus of our future endeavors.

PROFESSIONAL & TECHNICAL SERVICES

PARADIGM ENVIRONMENTAL IS PROUD TO OFFER THE FOLLOWING LIST OF VALUE ADDED SERVICES:

ASBESTOS

Personal Air Sample Analysis (PCM)

Bulk Asbestos Sample Analysis (PLM & TEM)

Abatement Monitoring Air Sample Analysis (PCM &TEM)

ENVIRONMENTAL CHEMISTRY

Industrial Wastewater Monitoring

Groundwater Monitoring

Petroleum Contaminated Soil Analysis

Hazardous Waste Characterizations

Site Investigation Support

Field Sampling

LEAD BASED PAINT

Abatement Wipe Sampling & Analysis

CONSUMER PRODUCT TESTING

Phthalates

Flame Retardants (TDCPP)

Lead & Heavy Metals

LABORATORY CAPABILITY

ENVIRONMENTAL ANALYSIS: AIR & EMISSIONS

- Fibers (Asbestos) PCM & TEM
- Purgeable Halocarbons
- Metals I, II and III
- Purgeable Aromatics
- Polychlorinated Biphenyls

ENVIRONMENTAL ANALYSIS: SOLID & HAZARDOUS WASTE

- Corrosivity (pH)
- Ignitability
- TCLP
- Asbestos
- Lead in Paint
- Lead in Wipes
- Purgeable Aromatics
- Purgeable Halocarbons
- Chlorinated Hydrocarbons
- Chlorinated Hydrocarbon Pesticides
- Chlorophenoxy Acid Pesticides
- Metal I, II and III
- Polychlorinated Biphenyls
- Nitroaromatics Isophorone
- Nitrosamines
- Phthalate Esters
- Haloethers
- Polynuclear Aromatics Hydrocarbons
- Priority Pollutant Phenols

ENVIRONMENTAL ANALYSIS: NON-POTABLE WATER

- Amines
- Chlorinated Hydrocarbons
- Chlorinated Hydrocarbons Pesticides
- Chlorophenoxy Acid Pesticides
- Waste Water Metals I
- Waste Water Metals II
- Waste Water Metals III
- pH
- Purgeable Aromatics
- Purgeable Halocarbons
- Purgeable Organics
- Nitroaromatics and Isophorone
- Polynuclear Aromatics
- Phthalate Esters
- Benzinides
- Haloethers
- Nitrosoamines
- Polychlorinated Biphenyls
- Priority Pollutant Phenols
- TCLP Additional Compounds
- Total Hardness
- Specific Conductance

LABORATORY CERTIFICATIONS

Paradigm Environmental Services maintains the following Environmental Laboratory certifications:

New York State Department of Health (NELAC)

Environmental Analysis/Air and Emissions Lab ID # 10958

New York State Department of Health (NELAC)

Environmental Analysis/Non-Potable Water Lab ID # 10958

New York State Department of Health (NELAC)

Environmental Analysis/Solid and Hazardous Waste Lab ID # 10958

National Voluntary Laboratory Accreditation (NVLAP)

Airborne Asbestos Fiber Analysis/Bulk Asbestos Fiber Analysis Lab Code 200530-0

Pennsylvania Department of Environmental Protection (NELAP)

Asbestos, Lab ID 68-02351

ANALYTICAL INSTRUMENTATION

ASBESTOS ANALYSIS INSTRUMENTATION

- Olympus Compound Microscopes capable of both Polarized Light and Phase Contrast Microscopy, Model BH-2.
- Olympus Stereo Microscopes with 7x-40x Magnification, Model SZ.
- Thermolyne Muffle Furnace, Model 48000.
- JEOL TEM 100CX Electron Microscope with EVEX EDX detector
- Hitachi TEM 100CX Electron Microscope with EVEX EDX detector

ATOMIC ABSORPTION INSTRUMENTATION

- Perkin-Elmer FIMS-100 mercury analyzer with AS-90 autosampler
- Perkin-Elmer Inductively Coupled Plasma (ICP) - 7300DV, autosampler model S-10

GAS CHROMATOGRAPH & GCMS INSTRUMENTATION

- Agilent 7890A Gas Chromatograph, Agilent 5975C MSD, Agilent7693 autosampler, Agilent MSD Chemstation software.
- Agilent 6890 Gas Chromatograph, Agilent 5973 MSD, EST 8100 autosampler, EST Encon purge and trap concentrator, Agilent MSD Chemstation software.
- Agilent 6890 Gas Chromatograph, micro-ECD Electron Capture detector, Agilent 7683 autosampler, Agilent GC Chemstation software.
- HP 5890 Series II Gas Chromatograph, dual ECD detectors, HP 7673 autosampler, Agilent GC Chemstation software.
- HP 5890 Series II Gas Chromatograph, Flame Ionization detector, HP 7673 autosampler, Agilent GC Chemstation software.

METHODOLOGIES

Paradigm Environmental Services uses EPA and New York State Department of Health approved methodologies. Listed below is a summary of applied methodologies:

- Asbestos Regulations for the Construction Industry, EPA, 29 CFR 1926.1101
- Interim Method for the Determination of Asbestos in Bulk Insulation Samples

  EPA publication 600/M4-82-020 December 1982
- Methods for Chemical Analysis of Water and Wastes, EPA 600/4 79 020
- Methods for the Determination of Organic Compounds in Drinking Water, EPA-600/4-88/039
- Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater

  EPA, 40 CFR Part 136, Appendix A
- New York State Department of Health Environmental Laboratory approval

  Program Certification Manual Items 198.1, 198.4, 198.6
- NIOSH Manual of Analytical Methods, 2nd & 3rd Editions
- Standard Methods for the Examination of Water and Wastewater

  19th edition, APHA, AWWA, WPCF
- Test Methods for Evaluating Solid Waste and Physical/Chemical Methods

  EPA SW 846, Revision 4

STANDARD
TURNAROUND TIME

Whenever possible, Standard Turnaround Times will be adhered to. If results are available sooner, they will be relayed to the client at that time. All analyses can be performed on an expedited basis upon client request. Emergency asbestos analysis can often be performed within hours of receipt.

ASBESTOS ANALYSIS

Verbal and written results for PCM analyses will be available 72 hours after samples arrive at the Paradigm laboratory. PLM and TEM bulk samples have a standard turn-around time for 3-5 business days, and TEM airs have a standard turn-around of 3 days after receipt at the laboratory.

INORGANIC ANALYSIS

Verbal and written results will be available one week after samples arrive at the Paradigm laboratory.

ORGANIC ANALYSIS

Verbal and written results will be available one week after samples arrive at the Paradigm laboratory.

PROJECT HISTORY
ASBESTOS

EASTMAN KODAK COMPANY

Background: Eastman Kodak Company needed to consolidate production facilities and operations at Kodak Park when they decided to change its business focus from a photographic film manufacturer. Kodak Park is a 120-year-old physical plant that spreads over 1000 acres with more than 200 buildings totaling over 15 million square feet of production facilities.

Challenge: Paradigm Environmental was contracted as Project Manager to oversee asbestos & hazardous waste characterization for decommissioning at Kodak Park.

Services Provided:

- Laboratory Analysis
- TEM,PLM,PCM Microscopy
- Environmental Chemistry
- Project Management
- Lead & PCB Analysis

Value Added: Paradigm Environmental worked with inspectors, engineers and contractors who performed field sampling for this large project. Paradigm completed all analysis and generated reports for the project. Additional duties included project scheduling, client services and training of technical staff. Turnaround time for deliverables was expedited and time sensitive during the five year duration of the first phase. Paradigm's laboratory was available 24/7 and centrally located for samples needing an immediate response.

Our success is attributable to our expertise and ability to work closely with our clients. We provide the exact level of support that they need and strive to work as an extension of our client's staff. This approach enables us to recognize any potential problems which may arise during the course of a project.

KALEIDA HEALTH SYSTEM

Background: Kaleida Health is the largest healthcare provider in Western New York, serving the area's eight counties with state-of-the-art technology and comprehensive healthcare services. Kaleida Health has over five million square feet of hospital space in the region. Its expert, compassionate healthcare professionals are committed to providing the best possible outcomes and experience for patients and visitors.

Challenge: Paradigm Environmental was contracted to oversee renovations and select demolition at Kaleida Health's five local hospitals in Buffalo, NY.

Services Provided:

- Laboratory Analysis
- TEM,PLM,PCM Microscopy
- Environmental Chemistry
- Project Management and Scheduling
- Lead & PCB Analysis
- Code Interpretation

Value Added: Paradigm's Buffalo laboratory is available 24/7 and centrally located for samples needing an immediate response. We understand deliverables to the client are time sensitive due to hospital/ patient sensitivity. Kaleida Health System understands the value of working with an experienced local service provider. Our success is attributable to our expertise and ability to work closely with the hospital staff, environmental health & safety workers, engineers and contractors who perform field sampling for Kaleida. We provide the exact level of support that they need to get patients back into rooms and staff back to work quickly. We strive to exceed the expectation of our partners knowing it saves them money.

Kaleida Health

UNIVERSITY OF ROCHESTER
UNIVERSITY OF ROCHESTER MEDICAL CENTER

Background: For over 20 years Paradigm has provided the University of Rochester and the URMC with our services as the University has invested millions of dollars in facility upgrade projects. The projects have ranged from several thousand square feet to one million square feet of floor space.

Challenge: Paradigm Environmental was contracted as Project Manager to oversee the University of Rochester and the URMC asbestos program, all while keeping the facilities operating.

Services Provided:

- Laboratory Analysis
- TEM,PLM,PCM Microscopy
- Asbestos Demolition Surveys
- Project Management
- Design Services
- Air Monitoring

Value Added: Paradigm Environmental continues to work with the University of Rochester and the URMC's facility managers to help them through the asbestos portion of any project that they do. Paradigm's laboratory is available 24/7 and centrally located for samples needing an immediate response.

Our success is attributable to our expertise and ability to work closely with our clients. We provide the exact level of support that they need and strive to work as an extension of our client's staff. This approach enables us to recognize any potential problems which may arise during the course of a project.

PROJECT HISTORY
ENVIRONMENTAL

CITY OF ROCHESTER

Background: The City of Rochester's Division of Environmental Quality (DEQ) manages environmental compliance for municipal facilities, performs site investigations & cleanups associated with property acquisitions, maintains & operates remediation systems, and manages the redevelopment of abandoned or under-utilized commercial and industrial properties.

Challenge: Provide consistent, reliable analytical services to DEQ personnel to facilitate effective management of the City's environmental programs.

Services Provided:

- Analysis of Soils, Groundwaters, & Treatment System Effluents
- Waste Characterizations
- Standard 5 Business Day Turnaround
- Accelerated Turnaround on Demand
- Technical & Logistical Support

Value Added: For nearly 25 years Paradigm has successfully served the City of Rochester's Department of Environmental Quality. Our convenient, centralized location has facilitated the transfer of samples and supplies, and enhanced communication; and our excellent turnaround, reliability, and commitment to quality have positioned us as a preferred source of analytical services with the environmental consultants and contractors working on City owned properties.

ROCHESTER GAS & ELECTRIC

Background: The Canandaigua Gas Light Company operated a coal tar gas manufacturing facility incommonly known as the old Wegmans parking lot, at the southeast corner of Routes 5 and 20 and South Main Street, commonly known as the old Wegmans parking lot, at the southeast corner of Routes 5 and 20 and South Main Street. The City of Canandaigua from 1853-1913. The facility was sold in 1952 and demolished in the 1960's. The EPA judged the site as "NFRAP" - "No Further Remedial Action Planned" (meaning that it would not be sent to the National Priority List), and remedial responsibility was shifted to the NY State Department of Environmental Conservation. In 2007 the DEC began to urge the historic operational owner, Rochester Gas & Electric, to begin efforts to rid the site of the toxic gas-manufacturing residuals and waste left in the ground. Pollutants at the site are believed to stem from activities between 1910 and 1928, when Canandaigua Gas Light Co. operated a gas plant there. The plant produced gas by heating coal and oil. RG&E acquired the plant in the early 1920s, stopped its manufacturing there in 1928 and later used it to store natural gas. RG&E sold the site in 1952, and the buildings were demolished in the 1960s.

Challenge: RG&E's remediation plans required the utmost in contractor-lab coordination, seamless communication, and reliably fast analytical turnaround over a period of several months.

Services Provided:

- Analysis of soil samples for BTEX, PAH's, and Total Cyanide
- 48 hour turnaround
- Electronic deliverables in NYSDEC EQuIS format
- Preparation of NYSDEC Category B report packages
- Logistics support (delivery of supplies & sample pickups as needed)

Value Added: Paradigm assembled a project team specifically tasked with addressing each critical component of the analytical program. This included coordination with site personnel, sample receipt and processing, sample analysis, reporting, and invoicing. In doing so we were able to problem solve in real time, and successfully manage the incoming workload, to allow on-site remediation activities to proceed without delay.

RG&E

GLEASON CORPORATION

Background: The Gleason Corporation has operated a major manufacturing facility on University Avenue in Rochester, NY for over 100 years. This facility manufactures machinery and equipment for the production of bevel and cylindrical gears. On site operations have included everything from metal forging, to plating, to finish coating.

Challenge: As environmental regulations have grown over the last 40 years, so too have Gleason's obligations to evaluate, monitor, and reduce the discharge of pollutants. Reliable field sampling and analytical services are a key to the success of their efforts.

Services Provided:

- Pretreatment Effluent Monitoring
- Solid Waste Characterization
- PCB Monitoring
- Asbestos Assessments and Materials Evaluations

Value Added: Over the course of a nearly 25 year relationship, Paradigm has become a true partner in Gleason Corporation's EH&S activities. Our staff of experienced professionals is always available to assist Gleason's personnel, and our familiarity with their operations and facilities allows us to provide valuable feedback. Our commitment to quality ensures the delivery of reliable data, and our commitment to service ensures it is delivered on time. In doing so we allow Gleason's EH&S personnel to focus on making the daily decisions necessary to protect both the environment, and their workforce.

QUALITY ASSURANCE PROGRAM

ASBESTOS ANALYTICAL

Paradigm's quality assurance program is based on criteria determined by the U.S. Environmental Protection Agency (EPA), the NYS Department of Health Environmental Laboratory Approval Program (ELAP), and the NYS Department of Environmental Conservation (DEC). Within New York State the Department of Health is the official certifying body for laboratories and as such we follow their requirements for all certifiable analyses. The New York State Department of Health has adopted the NELAC quality systems as the basis for qualifying laboratories wishing to be certifies. NELAP is a nationally recognized program whereby laboratories are held to a higher, unified quality standard to ensure consistency and quality among accredited labs. The NELAC quality systems incorporate ISO 17025, and as such are proven rigorous systems. Paradigm is certified by the NYS Department of Health to perform analysis of Air & Emissions, Solid & Hazardous Waste, Potable Water, and Non-Potable Water.

As a certified environmental laboratory, Paradigm is subject to routine audits by the NYS Department of Health and NVLAP. This audit is performed in-person by a DOH or NVLAP representative, and covers all aspects of laboratory operations. This includes sample receipt and processing, sample storage, sample analysis, instrument calibration and maintenance, standards and reagent preparation, and record keeping. Deficiencies are noted to the laboratory director in writing, and require documentation of corrective actions taken in response. Failure to correct deficiencies can lead to decertification.

The laboratory is also audited annually by the Quality Assurance Officer. The findings from this audit also require documentation of corrective actions, and the Quality Assurance Officer is responsible for conducting follow-up audits to verify the corrective actions are being implemented. Additionally, the Quality Assurance Officer conducts quarterly audits of projects that have been completed. Where errors are found that affect the reported results, the reports are revised and re-sent to the client with a letter documenting the error and correction.

In addition to the lab audits, proficiency samples are sent to Paradigm four times yearly by NYSDOH and also NVLAP. Continuing demonstration of analytical proficiency is required to maintain certification.

QUALITY ASSURANCE PROGRAM

ASBESTOS ANALYTICAL
AIR SAMPLE QUALITY CONTROL

MICROSCOPE CALIBRATION

Alignment of the phase contrast microscope or TEM is verified daily, and proper calibration is recorded in a workstation logbook.

FIELD BLANKS

A field blank is submitted with each set of environmental samples. Blanks and environmental samples are analyzed with identical procedure. A contaminated field blanks require correction, qualification, or rejection of the associated sample data.

REFERENCE SAMPLES

Reference samples are analyzed daily by all analysts, and used to determine intra and inter counter standard deviations.

DUPLICATE SAMPLES

10% of all samples are reanalyzed to assess variability. Results are closely monitored relative to statistically established control windows.

PROFICIENCY SAMPLES

Semiannually, Paradigm Environmental analyzes performance evaluation samples from the NYS Department of Health and NVLAP. Samples are received covering air and bulk samples within the certifying categories previously listed. Analytical results are reported on the proper forms, and statistically evaluated against the pool of laboratory respondents. Results must fall within acceptance limits to maintain certification for category. Failure to submit acceptance results for two periods in a row results in decertification.

QUALITY ASSURANCE PROGRAM

ASBESTOS ANALYTICAL
BULK SAMPLE QUALITY CONTROL

MICROSCOPE CALIBRATION
Alignment of the polarized light microscope or TEM is verified daily, and proper calibration recorded in a work station logbook.

REPLICATE SAMPLES
Ten percent of each analyst's samples are re-analyzed by another analyst. These results are compared to check for problems identifying and quantitating asbestos in both friable and non-friable organically bound materials. The results are tabulated daily and quality control charts are printed out monthly.

DUPLICATE SAMPLES
Ten percent of each analyst's samples are re-analyzed by the same analyst. These results are compared to check the reproducibility of the analyst's results. The results are tabulated daily and printed out monthly.

REFERENCE SAMPLE
The laboratory manager supplies the analysts with standard reference samples on a daily basis. For friable materials, the reference standards are taken from previous rounds of proficiency samples so that a formulated weight is known. For non-friable organically bound materials, the reference standards are floor tile samples that have been analyzed by transmission electron microscopy. The results of the T.E.M. analysis are kept in the laboratory manager's files. Complete details of QA/QC procedures for asbestos analysis of bulk and air samples are found in NIOSH and ELAP methods manuals, and in the laboratory standard operating procedures.

PROFICIENCY SAMPLES
Semiannually, Paradigm Environmental analyzes performance evaluation samples from the NYS Department of Health. Samples are received covering air and bulk samples within the certifying categories previously listed. Analytical results are reported on Department of Health forms, and statistically evaluated against the pool of laboratory respondents. Results must fall within acceptance limits to maintain certification for category. Failure to submit acceptance results for two periods in a row results in decertification.

INTER-LABORATORY TESTING
Paradigm is required to participate in round-robin testing with at least two other independent laboratories. Samples are submitted to these laboratories at the rate of one in every two hundred samples analyzed. This aids in calibrating the analysts against those from other laboratories.

QUALITY ASSURANCE PROGRAM

ENVIRONMENTAL CHEMISTRY

Paradigm's quality assurance program is based on criteria determined by the USA Environmental Protection Agency (EPA), the NYS Department of Health Environmental Laboratory Approval Program (ELAP), and the NYS Department of Environmental Conservation (DEC). Within New York State the Department of Health is the official certifying body for laboratories, and as such we follow their requirements for all certifiable analyses.

Paradigm is certified by the NYS Department of Health to perform analysis of Air & Emissions, Solid & Hazardous Waste, and Non-Potable Water.

LABORATORY AUDITS

As a certified environmental laboratory, Paradigm is subject to a biennial audit by the NYS Department of Health. This audit is performed in-person by a team of trained DOH auditors, and covers all aspects of laboratory operations. This includes sample receipt and processing, sample storage, sample analysis, instrument calibration and maintenance, standards and reagent preparation, and record keeping. Deficiencies are noted to the laboratory director in writing, and require documentation of corrective actions taken in response. Failure to correct deficiencies can lead to decertification.

The laboratory is also audited annually by the Quality Assurance Officer. The findings from this audit also require documentation of corrective actions, and the Quality Assurance Officer is responsible for conducting follow-up audits to verify the corrective actions are being implemented. Additionally, the Quality Assurance Officer conducts quarterly audits of projects that have been completed. Where errors are found that affect the reported results, the reports are revised and re-sent to the client with a letter documenting the error and correction.

PERFORMANCE EVALUATION SAMPLES

Quarterly, Paradigm Environmental analyzes performance evaluation samples from the NYS Department of Health. Samples are received covering individual parameters and/or parameter groups within the certifying categories. Analytical results are reported and statistically evaluated against the pool of laboratory respondents. Results must fall within acceptance limits to maintain certification for an individual parameter or parameter group.

QUALITY ASSURANCE PROGRAM

ENVIRONMENTAL CHEMISTRY

QUALITY CONTROL SAMPLES

Good laboratory practices include the regular preparation and analysis of quality control samples. In addition, each regulatory program has specific requirements regarding the frequency and type of QC required. A comprehensive description of the QC required for analysis can be found in our Quality Assurance Manual, The EPA and DOH Methods Manuals, and our standard operating procedures.

The basic elements of laboratory quality control include:

- Method Blanks
- Laboratory Control Samples
- Matrix Spikes
- Duplicates
- Surrogates
- References
- Certified Reference Materials

BLANKS

Preparation blanks consist of laboratory pure water, or a clean solid matrix, which is subjected to any extractions, digestions or distillations required to prepare samples for analysis. The resulting blank sample is then analyzed along side environmental samples under identical conditions. Blanks measure the cleanliness of an analytical system. Blanks are analyzed at a minimum frequency of 1 per 20 environmental samples or with each analytical or preparation batch.

LABORATORY CONTROL SAMPLES

Reference check samples are laboratory pure water, which has been spiked with a known amount of the analyte(s) of interest. Reference checks measure the accuracy of an analytical procedure. Reference check samples are analyzed at a minimum frequency of 1 per 20 environmental samples.

MATRIX SPIKES

Matrix spikes are duplicate environmental samples to which a known amount of the analyte(s) of interest have been added. Matrix spikes serve to measure the ability of an analytical system to accurately recover the analyte(s) of interest from the sample matrix. Matrix interferences may be positive or negative, causing false high or low readings respectively. Matrix spikes are analyzed at a minimum frequency of 1 per 20 environmental samples.

QUALITY ASSURANCE PROGRAM

ENVIRONMENTAL CHEMISTRY

DUPLICATES

Duplicate analyses measure the precision, or reproducibility, of an analytical system. Duplicates are created from identical portions of an environmental sample which has been split in the lab, and are analyzed at a minimum frequency of 1 per 20 environmental samples. Due to lack of measurable quantities, organics precision is often measured using duplicate matrix spikes.

SURROGATES

Surrogates are spikes which are added to all environmental samples and quality control samples destined for organics analysis. They consist of organic compounds which are similar in nature to the analytes of interest, but are not expected to be found in the environment. Surrogates are added prior to sample preparation, and are used to measure the performance of the analytical system as well as any matrix interferences.

REFERENCES

Reference samples are generally samples that are analyzed without being taken through the entire preparatory process. These samples verify the instrument is properly calibrated and that the calibration remains consistent throughout the duration of the analytical process.

CERTIFIED REFERENCE MATERIALS

Quality control samples are purchased from independent vendors who certify their standards to NIST-traceable reference standards. These samples have been previously tested and they come with pre-determined acceptance limits. These quality control samples are taken through the entire preparatory and analytical process, and the derived values are compared to the manufacturer supplied acceptance limits. These samples are matrix specific and enable the laboratory to keep their analytical edge sharp.

QUALITY CONTROL LIMITS

Data concerning quality control is accumulated over time and used to statistically generate acceptance limits. QC recoveries which fall outside these limits, or outside EPA regulatory limits, indicate a problem with the analytical system or the sample matrix. Failure of the analytical system requires immediate suspension of analysis, corrective action, and re-analysis of any affected samples.

Matrix interferences are specific to a sample or group of samples, and are caused by the nature of the sample itself. Matrix interferences can in some cases be eliminated with additional preparatory procedures. For those samples with unavoidable matrix interferences, the data is flagged as a warning to the user.

EMPLOYEE PROFILES

BRUCE HOOGESTEGER

POSITION

Technical Director & President

EDUCATION

Bachelor's Degree in Chemistry from the University of New Hampshire
Masters Degree in Environmental Management from Washington University in St. Louis.

POST-GRADUATE EDUCATION

Extranuclear GC/MS Operations and Maintenance; Extranuclear Corporation, Pittsburgh, PA.
GC/MS Troubleshooting and Maintenance; Hewlett-Packard Corporation, Andover, MA
HPLC Operation and Maintenance; Waters Corporation, Hopkinton, MA
Total Quality Management; Pace, Inc., Hampton, NH
Front Line Leadership; Millpore Corporation, Bedford, MA
Strategic Cost Management; Eastman Kodak, Rochester, NY

FIELDS OF SPECIALIZATION

His responsibilities at Paradigm include administrative and technical management of the asbestos, inorganic, and organic laboratories. He is responsible for directing method development and validation and for verifying that proper quality control procedures are being followed. Mr. Hoogesteger oversees the Rochester, Buffalo, and Syracuse offices of Paradigm, and directs the asbestos, environmental, and IH staff in all three offices.

EXPERIENCE SUMMARY

Prior to joining Paradigm, Mr. Hoogesteger was employed at a national environmental laboratory for eight years. He served as the Organics Laboratory Manager in a 60 person full service environmental laboratory where he was responsible for technical development, QC oversight and project management. The lab was fully accredited and actively participated in all major Federal restoration/investigation analytical programs.

He has over 15 years of experience in the environmental analytical testing field and 2 years of experience in the food and drug testing field. He has worked extensively with GC, GC/MS, HPLC, and AA instrumentation and has firsthand experience with all major ELAP & EPA programs and methods.

MARSHALL E. SHANNON

POSITION
Environmental Sales Director

EDUCATION
Bachelor's of Science Degree in Chemistry and Biology from SUNY Brockport.

POST-GRADUATE EDUCATION
40 Hour OS HA Hazardous Materials Health and Safety Training
Xerox "Leadership Through Quality" training
ACIL Short Courses:
-Developing a Clear Business Strategy
-Effectively Marketing your Professional Services

FIELDS OF SPECIALIZATION
Mr. Shannon's responsibilities at Paradigm include identifying prospective clients and maintaining the long term viability of existing relationships.

EXPERIENCE SUMMARY
Mr. Shannon has over 35 years experience in the environmental field. He began his career in 1980 serving as a chemist in an environmental laboratory and quickly progressed to Laboratory Manager. He next took on the role of Customer Service Director, assembling and managing groups responsible for sales, customer service, sample receipt and processing and field sampling. More recently, Mr. Shannon held the position of Marketing Director for a local environmental laboratory, where he created and implemented a comprehensive marketing program, directed all sales activity, and assisted the servicing of major clients.

Mr. Shannon has a wide range of experience covering many aspects of environmental monitoring and compliance. His experience includes environmental chemistry, field sampling, on-site waste evaluations and waste disposal. He has participated in site assessments at major manufacturing facilities, conducted sampling and analysis in support of large scale CSO Studies, and managed countless sampling and analysis programs for industry, municipalities, and consultants.

JANE DALOIA

POSITION
Client Services Manager

EDUCATION
Bachelors of Science Degree in Biology from SUNY Brockport.

POST-GRADUATE EDUCATION
Team Leader Skills Training
Fred Pryor Seminar- "How to Supervise People"
Cornell University Extension- "Supervisory Skills"

FIELDS OF SPECIALIZATION
Ms. Daloia joined Paradigm in 1998 as our customer Service Manager. Her responsibilities include client interaction relative to environmental chemistry, subcontracted services, and sample receipt/processing. Ms. Daloia is also involved in invoicing, waste disposal, and sample tracking.

EXPERIENCE SUMMARY
Ms. Daloia began her environmental career in 1985 as a laboratory technician with the Monroe County Department of Health. While at the Health Department, her responsibilities included bacteriological analysis, chemical analysis, field sampling, and personnel management. After leaving the Health Department in 1988, Ms. Daloia worked for a Rochester area environmental laboratory until joining Paradigm in 1998. While there, she held a variety of significant positions, including Wet Chemistry Supervisor, Metals Analyst Supervisor, and Quality Assurance Manager. As supervisor of both Wet Chemistry and Metals Analysis, Ms. Daloia scheduled and coordinated over 50 different environmental test procedures, and managed a staff of up to eight people.

JOHN HOFFMANN

POSITION

Buffalo Client Services Manager

EDUCATION

Bachelors of Science Degree in Geology from SUNY Oneonta.

CERTIFICATIONS & TRAINING

40 Hour Haz-woper

H M-181 DOT Regulations

PROFESSIONAL MEMBERSHIPS

Buffalo Association of Professional Geologists

Director; Air and Waste Management Association (Niagara Frontier Chapter)

EXPERIENCE SUMMARY

Mr. Hoffmann started working for Paradigm in 2002, but has been in the environmental field since 1980. He started his career in Houston, TX and since 1989 has spent most of his time in Buffalo, NY where he provided technical expertise to customers in the areas of environmental compliance. His responsibilities at Paradigm include: maintaining and developing client relationships, managing logistical operations and personnel for the Buffalo/Niagara region, advising clients on analytical requirements for waste characterization, site remediation and asbestos removal, and taking field samples at client specified locations.

REBECCA ROZTOCIL

POSITION
Quality Assurance Officer

EDUCATION
Bachelor of Science Degree in Biochemistry from Nazareth College in Rochester, N.Y.

POST-GRADUATE EDUCATION
Quality Control/Quality Assurance in Environ-Mental Laboratories, Alloway
Troubleshooting and Maintenance of A As and ICPs, Perkin-Elmer Corporation
Numerous seminars in all areas of laboratory focus sponsored by NYAAEL

FIELDS OF SPECIALIZATION
Ms. Roztocil developed the operational methodologues and wrote the Standard Operating Procedures for the Inorganic Laboratory at its inception. For ten years Ms. Roztocil served as primary analyst and manager of the Inorganic Laboratory, eventually training analysts as the laboratory grew. Initially, flame and furnace absorption spectrophotometry were the primary analytical instruments being used for metal analysis. These were eventually replaced by ICP emission spectroscopy, and the capability to analyze mercury by cold vapor was added during Ms. Roztocil's supervision in the Inorganic Laboratory.

Currently Ms. Roztocil is responsible for maintaining the integrity of the data reported to clients through the oversight of all quality related funtions of the laboratory. She verifies that all laboratory functions are within conformance to the referenced methods and internal standards operating procedures. She works with laboratory supervisors to identify and coreect problem areas detected through routine QC samples and system audits, and communicates with the State and National Accrediting Authorities concerning accreditation, audits, and proficiency evaluations.

Ms. Roztocil has also been heavily involved with NYAAEL (New York Association of Approved Environmental Laboratories) since 2004. She joined the board of directors in 2006 and served as Chairperson for the association from 2010-2014. Through her active involvement with NYAAEL, Ms. Roztocil has been active in many seminars and has also written and delivered many presentations.

EXPERIENCE SUMMARY
While employed with a privately owned and operated environmental testing firm, Ms. Roztocil acquired experience in testing environmental samples for inorganic contaminants. This includes both metallic and non-metallic analyses. Additionally, she gained experience in flame and furnace atomic absorption, spectroscopy, cold vapor analysis, and inductively coupled plasma atomic emission spectroscopy and wet chemistry.

NATHAN BEACH

POSITION

Database Administrator and IT Support

EDUCATION

SUNY College at Fredonia - Bachelors of Science Degree in Geochemistry

ASSOCIATIONS

American Chemical Society

American Society of Mass Spectrometry

FIELD OF SPECIALIZATION

Had served as lead chemist in the organics prep department from 1997-2000

Had served as an assistant chemist in the metals prep department from 1997-200

Has served as an assistant chemist from 2000-present

Had served as lead analyst in the organics department from 2000-2010

Has served as assistant analyst in the organics department from 2010-present

Has served as the lead developer in the IT department from 2010-present

EXPERIENCE SUMMARY

As a chemist, Mr. Beach's duties have included sample preparation for organic analysis by liquid/ liquid and solid/ liquid extraction and for metal analysis by acid digestion. As an analytical chemist, Mr. Beach's instrumental duties have included data analysis using GC/ECD, GC/FID, and GC/MS

Mr. Beach was the organics laboratory supervisor from 2000 through 2010. Responsibilities included overseeing the organic prep staff; analysis of samples for PCB, Pesticide, VOA, SVOA, and Petrolium Hydrocarbons; development of the TO-15 analytical system; reporting of analytical results; quality control of the organics laboratory. In that time, Mr. Beach oversaw anywhere between 2 and 5 chemists.

Currently Mr. Beach is serving as the lead administrator and programmer for a LIMS database. Using SQL and Microsoft Access, Mr. Beach has been custom tailoring a commercial Laboratory Information Management System to meet the specific needs of Paradigm Environmental. Mr. Beach also helps fix general IT issues.

MATTHEW M. MILLER

POSITION

Environmental Laboratory Manager

EDUCATION

Bachelor of Science, Aquatic Biology from SUNY College at Brockport, Brockport, NY.

PROFESSIONAL EXPERIENCE

Volatiles Depar tment Manager (Feb.2008-Sept.2009) Columbia Analytical Services-Rochester, NY

•GC volatiles and GCMS volatiles departments were merged and I became manager of the newly integrated department.

•Manage all aspects of the department consisting of 10 analysts, 6 GC systems, 6 GCMS systems, 1 Headspace GCMS, and 1 TO15 GCMS.

•Responsibilities are the same as those listed below for the GC volatiles depar tment.

GC Volatiles Department Manager (1999-2008) Columbia Analytical Services-Rochester, NY

•Responsible for coordinating unit workload, training and developing analysts, supervising analysts' work, reviewing and validating data, and writing and reviewing departmental SOP's.

•Personnel responsibilities include conducting employee performance evaluations, setting employee goals, recommending personnel changes, and conducting new hire interviews.

•Also responsible for meeting all corporate and client specific QA requirements. Ensure adherence to corporate safety policies.

•Analytical duties include performing soil and water analyses by GCMS methods 8260B and 624.

•Additional duties include troubleshooting, maintenance, and repair of all GC and GCMS instrumentation.

GC Volatiles Analyst (1996-1999) Columbia Analytical Ser vices-Rochester, NY

•Responsible for analyzing water and soil samples by GC methods 8021, 601/602, and 8015. Also analyzed soil, oil, and water samples for TOC and TOX.

•Proficient in the operation, calibration, troubleshooting, and maintenance of purge and trap autosamplers and concentrators, capillary columns, gas chromatographs, and PID, FID, and ELCD detectors.

•Developed Massachusetts DEP Volatile Petroleum Hydrocarbon method.

STEVEN M. DeVITO

POSITION
Metals Lab Manager

EDUCATION
University at Buffalo, Bachelors of Science Degree, Chemistry, 1998.

QUALIFICATIONS
- Knowledge of Methods 6010C, 200.7, 7470/7471, 245.1, 6020A and 200.8
- Ability to run multiple instruments in a high through-put laboratory
- Participated in numerous audits including NELAC, DoD

EXPERIENCE SUMMARY
Previously, Mr. DeVito spent his entire career working for ALS Environmental. He held multiple positions including Senior Analyst of the General Chemistry Department, Scientist in the Metals Department, and Assistant Supervisor in the Inorganics Department.

During his time at ALS his duties included; reviewing and validating other analysts data, generating CLP data packages using MARRS software, daily analysis of metal samples using ICP and ICP-MS techniques, routine maintenance on instruments, Mercury digestion and analysis, digestion of raw aliquots for elemental analysis, and carrying our various inorganic tests using Ion Chromatography, titration, FIAS, organic extractions (liquid-liquid and solid phase)

EMILY FARMEN

POSITION
Semi-Volatile Organics Lab Supervisor

EDUCATION
Buffalo State College - Bachelors of Science in Forensic Chemistry

EXPERIENCE SUMMARY
Ms. Farmen's main duties involve analysis of chemicals using GC/uECD, GC/ECD, GC/FID, and GC/MS along with the supervision and technical support of the technicians in the preperation laboratory. She is proficient in the maintenance of each instrument she works on.

MARY DOHR

POSITION

Asbestos Operations Manager/Technical Director

POST-GRADUATE EDUCATION

Microscopical Identification of Asbestos by Polarized Light Microscopy; McCrone Research Institute, Chicago, Illinois. 1993
NIOSH 582, Asbestos Air Analysis, February 1996.
Asbestos Analysis by TEM, MVA Associates, Atlanta (Norcross), GS: October 2000
Microscopy of Dust, Spores and Pollen; McCrone Research Institute, Chicago, Illinois; September 2001

FIELDS OF SPECIALIZATION

Ms. Dohr served as the asbestos laboratory manager for Paradigm Environmental Services for over ten years. Her experience began in 1990 and spans over 25 years completing PCM, PLM and TEM analysis.

Ms. Dohr manages report generation/record keeping procedures. She is also intimately involved with the laboratory and its personnel. Additionally, Ms. Dohr provides consultations to clients on sample analysis results, air monitoring procedures, and regulations involving federal and state governments.

EXPERIENCE SUMMARY

At Paradigm, Ms. Dohr's responsibilities include coordinating asbestos projects and every facet of information necessary to complete the project. Often this involves regular interfacing with clients. Through her efforts the laboratory is certified by the New York State Depar tment of Health for Environmental Analyses/Air and Emissions (Serial #031063), and Environmental Analyses/Solid and Hazardous Waste (Serial#031374). The laboratory is certified by the National Voluntary Laboratory Accreditation Program to analyze asbestos in air and bulk samples.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

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WWW.PARADIGMENV.COM

From:	Caffoe, Todd (DEC)
To:	Storonsky, Mike
Cc:	Schilling, Bernette (DEC)
Subject:	8-28 Ward Street Soil Removal Work Plan
Date:	Friday, September 01, 2017 3:32:09 PM
Attachments:	image001.png image002.png

Mike,

I have reviewed the referenced work plan and it is hereby approved. Please make sure to submit the required information (chemical or geotechnical) for the imported backfill prior to the beginning of fieldwork. Thanks and have a nice weekend.

-Todd

Todd M. Caffoe, P.E.
Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

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From:	Mahoney, Robert
To:	todd.caffoe@dec.ny.gov; henry.wilkie@dec.ny.gov
Cc:	Storonsky, Mike; Ignaszak, Kevin
Subject:	Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination
Date:	Tuesday, October 03, 2017 2:10:01 PM
Attachments:	Stantec Summary 174083.pdf

Todd and Henry – As Mike Storonsky discussed with you recently, a sample Stantec recently took at the Ward Street site of PCE-impacted soil that was intended for excavation, live-loading and landfill disposal was analyzed for TCLP VOCs (for pre-disposal characterization per a Contained-In Determination), but the result was above the Contained in Action Level (76.7 µg/L vs. the CIAL of 5 µg/L). A copy of the lab report is attached.

We understand from our discussions with you that modifying our approach to include stockpiling the material and testing the stockpile would be acceptable. We have tentatively planned to perform the excavation work early next week (on or about October 9-10), and expect to provide stockpile analytical results to you shortly thereafter for review and hopefully approval for disposal.

As we have also discussed, the shallow, non-impacted soils will also be segregated and stockpiled, for intended use as backfill. The attached lab report also contains the results of a sample from that zone which was submitted for "Full Suite" analyses. We have annotated the chain-of-custody form on page 15 of the pdf for sample ID clarity.

Please confirm that this material overlying the impacted zone will be acceptable for reuse.

Todd – we have not yet confirmed with TREC what imported clean material will be used to make up the remainder of the backfill, but they have indicated they will be providing that information to us tomorrow. We will update you when that is established with TREC.

Contact us anytime with questions.

Thanks

Bob Mahoney

Robert Mahoney, P.G.
Senior Environmental Geologist
Stantec
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Cell: (585) 645-2567
robert.mahoney@stantec.com

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-g		
Lab Sample ID:	174083-01	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2,2-Tetrachloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dibromo-3-Chloropropane	< 20.4	ug/Kg		9/13/2017 14:02
1,2-Dibromoethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloropropane	< 4.07	ug/Kg		9/13/2017 14:02
1,3,5-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,3-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-dioxane	< 40.7	ug/Kg		9/13/2017 14:02
2-Butanone	< 20.4	ug/Kg		9/13/2017 14:02
2-Hexanone	< 10.2	ug/Kg		9/13/2017 14:02
4-Methyl-2-pentanone	< 10.2	ug/Kg		9/13/2017 14:02
Acetone	**18.2**	ug/Kg	J	9/13/2017 14:02
Benzene	< 4.07	ug/Kg		9/13/2017 14:02
Bromochloromethane	< 10.2	ug/Kg		9/13/2017 14:02
Bromodichloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Bromoform	< 10.2	ug/Kg		9/13/2017 14:02
Bromomethane	< 4.07	ug/Kg		9/13/2017 14:02
Carbon disulfide	< 4.07	ug/Kg		9/13/2017 14:02

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-g
Lab Sample ID: 174083-01 **Date Sampled:** 9/8/2017
Matrix: Soil **Date Received:** 9/11/2017

Carbon Tetrachloride	< 4.07	ug/Kg		9/13/2017 14:02
Chlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
Chloroethane	< 4.07	ug/Kg		9/13/2017 14:02
Chloroform	< 4.07	ug/Kg		9/13/2017 14:02
Chloromethane	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02
Cyclohexane	< 20.4	ug/Kg		9/13/2017 14:02
Dibromochloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Dichlorodifluoromethane	< 4.07	ug/Kg		9/13/2017 14:02
Ethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Freon 113	< 4.07	ug/Kg		9/13/2017 14:02
Isopropylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
m,p-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
Methyl acetate	< 4.07	ug/Kg		9/13/2017 14:02
Methyl tert-butyl Ether	< 4.07	ug/Kg		9/13/2017 14:02
Methylcyclohexane	< 4.07	ug/Kg		9/13/2017 14:02
Methylene chloride	< 10.2	ug/Kg		9/13/2017 14:02
Naphthalene	< 10.2	ug/Kg		9/13/2017 14:02
n-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
n-Propylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
o-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
p-Isopropyltoluene	< 4.07	ug/Kg		9/13/2017 14:02
sec-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Styrene	< 10.2	ug/Kg		9/13/2017 14:02
tert-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Tetrachloroethene	**12.1**	ug/Kg		9/13/2017 14:02
Toluene	**3.03**	ug/Kg	J	9/13/2017 14:02
trans-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
trans-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-g

Lab Sample ID: 174083-01 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Trichloroethene	**2.55**	ug/Kg	J	9/13/2017	14:02
Trichlorofluoromethane	< 4.07	ug/Kg		9/13/2017	14:02
Vinyl chloride	< 4.07	ug/Kg		9/13/2017	14:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**108**	86.2 - 128		9/13/2017	14:02
4-Bromofluorobenzene	**92.6**	69.8 - 123		9/13/2017	14:02
Pentafluorobenzene	**98.5**	82.2 - 114		9/13/2017	14:02
Toluene-D8	**95.5**	81.3 - 113		9/13/2017	14:02

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45142.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**3.13**	mg/Kg		9/13/2017 17:25
Barium	**34.0**	mg/Kg		9/13/2017 17:25
Beryllium	**0.287**	mg/Kg		9/13/2017 17:25
Cadmium	**0.193**	mg/Kg	J	9/13/2017 17:25
Chromium	**7.83**	mg/Kg		9/13/2017 17:25
Copper	**12.1**	mg/Kg		9/13/2017 17:25
Lead	**22.3**	mg/Kg		9/13/2017 17:25
Manganese	**275**	mg/Kg		9/13/2017 17:25
Nickel	**9.08**	mg/Kg		9/13/2017 17:25
Selenium	< 1.05	mg/Kg		9/15/2017 09:47
Silver	**0.806**	mg/Kg		9/13/2017 17:25
Zinc	**39.6**	mg/Kg		9/13/2017 17:25

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 9/13/2017
Data File: 170913B

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0276**	mg/Kg		9/13/2017 12:34

Method Reference(s): EPA 7471B
Preparation Date: 9/12/2017
Data File: Hg170913A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1221	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1232	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1242	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1248	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1254	**0.0237**	mg/Kg	J	9/14/2017 11:26
PCB-1260	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1262	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1268	< 0.0270	mg/Kg		9/14/2017 11:26

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**79.6**	22.2 - 140		9/14/2017 11:26
Tetrachloro-m-xylene	**33.8**	11.8 - 125		9/14/2017 11:26

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 9/12/2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDE	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDT	**4.07**	ug/Kg		9/15/2017 20:39
Aldrin	< 2.70	ug/Kg		9/15/2017 20:39
alpha-BHC	< 2.70	ug/Kg		9/15/2017 20:39
beta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
cis-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39
delta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
Dieldrin	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan I	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan II	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan Sulfate	**1.83**	ug/Kg	JP	9/15/2017 20:39
Endrin	**2.18**	ug/Kg	J	9/15/2017 20:39
Endrin Aldehyde	< 2.70	ug/Kg		9/15/2017 20:39
Endrin Ketone	< 2.70	ug/Kg		9/15/2017 20:39
gamma-BHC (Lindane)	**2.11**	ug/Kg	JP	9/15/2017 20:39
Heptachlor	< 2.70	ug/Kg		9/15/2017 20:39
Heptachlor Epoxide	< 2.70	ug/Kg		9/15/2017 20:39
Methoxychlor	**1.43**	ug/Kg	JP	9/15/2017 20:39
Toxaphene	< 27.0	ug/Kg		9/15/2017 20:39
trans-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**90.2**	31.5 - 168		9/15/2017 20:39
Tetrachloro-m-xylene (1)	**53.6**	26.7 - 117		9/15/2017 20:39

Method Reference(s): EPA 8081B
EPA 3550C

Preparation Date: 9/12/2017

Report Prepared Monday, September 18, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c
Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017
Matrix: Soil **Date Received:** 9/11/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 322	ug/Kg		9/13/2017 15:42
1,2,4,5-Tetrachlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2,4-Trichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,3-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,4-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
2,2-Oxybis (1-chloropropane)	< 322	ug/Kg		9/13/2017 15:42
2,3,4,6-Tetrachlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4,5-Trichlorophenol	< 645	ug/Kg		9/13/2017 15:42
2,4,6-Trichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dimethylphenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dinitrophenol	< 645	ug/Kg		9/13/2017 15:42
2,4-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2,6-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2-Chloronaphthalene	< 322	ug/Kg		9/13/2017 15:42
2-Chlorophenol	< 322	ug/Kg		9/13/2017 15:42
2-Methylnapthalene	< 322	ug/Kg		9/13/2017 15:42
2-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
2-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
2-Nitrophenol	< 322	ug/Kg		9/13/2017 15:42
3&4-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
3,3'-Dichlorobenzidine	< 322	ug/Kg		9/13/2017 15:42
3-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
4,6-Dinitro-2-methylphenol	< 645	ug/Kg		9/13/2017 15:42
4-Bromophenyl phenyl ether	< 322	ug/Kg		9/13/2017 15:42
4-Chloro-3-methylphenol	< 322	ug/Kg		9/13/2017 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

4-Chloroaniline	< 322	ug/Kg	9/13/2017 15:42
4-Chlorophenyl phenyl ether	< 322	ug/Kg	9/13/2017 15:42
4-Nitroaniline	< 645	ug/Kg	9/13/2017 15:42
4-Nitrophenol	< 645	ug/Kg	9/13/2017 15:42
Acenaphthene	< 322	ug/Kg	9/13/2017 15:42
Acenaphthylene	< 322	ug/Kg	9/13/2017 15:42
Acetophenone	< 322	ug/Kg	9/13/2017 15:42
Anthracene	< 322	ug/Kg	9/13/2017 15:42
Atrazine	< 322	ug/Kg	9/13/2017 15:42
Benzaldehyde	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) anthracene	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) pyrene	< 322	ug/Kg	9/13/2017 15:42
Benzo (b) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Benzo (g,h,i) perylene	< 322	ug/Kg	9/13/2017 15:42
Benzo (k) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethoxy) methane	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethyl) ether	< 322	ug/Kg	9/13/2017 15:42
Bis (2-ethylhexyl) phthalate	< 322	ug/Kg	9/13/2017 15:42
Butylbenzylphthalate	< 322	ug/Kg	9/13/2017 15:42
Caprolactam	< 322	ug/Kg	9/13/2017 15:42
Carbazole	< 322	ug/Kg	9/13/2017 15:42
Chrysene	< 322	ug/Kg	9/13/2017 15:42
Dibenz (a,h) anthracene	< 322	ug/Kg	9/13/2017 15:42
Dibenzofuran	< 322	ug/Kg	9/13/2017 15:42
Diethyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Dimethyl phthalate	< 645	ug/Kg	9/13/2017 15:42
Di-n-butyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Di-n-octylphthalate	< 322	ug/Kg	9/13/2017 15:42
Fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Fluorene	< 322	ug/Kg	9/13/2017 15:42

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Hexachlorobenzene	< 322	ug/Kg	9/13/2017	15:42
Hexachlorobutadiene	< 322	ug/Kg	9/13/2017	15:42
Hexachlorocyclopentadiene	< 322	ug/Kg	9/13/2017	15:42
Hexachloroethane	< 322	ug/Kg	9/13/2017	15:42
Indeno (1,2,3-cd) pyrene	< 322	ug/Kg	9/13/2017	15:42
Isophorone	< 322	ug/Kg	9/13/2017	15:42
Naphthalene	< 322	ug/Kg	9/13/2017	15:42
Nitrobenzene	< 322	ug/Kg	9/13/2017	15:42
N-Nitroso-di-n-propylamine	< 322	ug/Kg	9/13/2017	15:42
N-Nitrosodiphenylamine	< 322	ug/Kg	9/13/2017	15:42
Pentachlorophenol	< 645	ug/Kg	9/13/2017	15:42
Phenanthrene	< 322	ug/Kg	9/13/2017	15:42
Phenol	< 322	ug/Kg	9/13/2017	15:42
Pyrene	< 322	ug/Kg	9/13/2017	15:42

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
2,4,6-Tribromophenol	**77.6**	55.4 - 114		9/13/2017	15:42
2-Fluorobiphenyl	**50.8**	39.9 - 112		9/13/2017	15:42
2-Fluorophenol	**49.6**	41.9 - 97.1		9/13/2017	15:42
Nitrobenzene-d5	**44.5**	41 - 96		9/13/2017	15:42
Phenol-d5	**51.1**	43.7 - 101		9/13/2017	15:42
Terphenyl-d14	**76.4**	71.7 - 115		9/13/2017	15:42

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 9/12/2017
Data File: B22821.D

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.551	mg/Kg		9/15/2017

Method Reference(s): EPA 9014
Preparation Date: 9/14/2017

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S2

Lab Sample ID: 174083-03 **Date Sampled:** 9/8/2017

Matrix: TCLP Extract **Date Received:** 9/11/2017

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		9/14/2017 17:52
1,2-Dichloroethane	< 20.0	ug/L	500		9/14/2017 17:52
2-Butanone	< 100	ug/L	200000		9/14/2017 17:52
Benzene	< 10.0	ug/L	500		9/14/2017 17:52
Carbon Tetrachloride	< 20.0	ug/L	500		9/14/2017 17:52
Chlorobenzene	< 20.0	ug/L	100000		9/14/2017 17:52
Chloroform	< 20.0	ug/L	6000		9/14/2017 17:52
Tetrachloroethene	**76.7**	ug/L	700		9/14/2017 17:52
Trichloroethene	< 20.0	ug/L	500		9/14/2017 17:52
Vinyl chloride	< 20.0	ug/L	200		9/14/2017 17:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	85.9 - 118		9/14/2017 17:52
4-Bromofluorobenzene	**96.1**	69.4 - 123		9/14/2017 17:52
Pentafluorobenzene	**95.9**	81.6 - 114		9/14/2017 17:52
Toluene-D8	**97.6**	82.7 - 112		9/14/2017 17:52

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x45187.D

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM

CHAIN OF CUSTODY

1 of 2

REPORT TO:	INVOICE TO:	
CLIENT: Stantec	CLIENT: Same	LAB PROJECT ID: 174083
ADDRESS: 61 Commercial, Suite	ADDRESS:	
CITY: Roch STATE: ZIP	CITY: STATE: ZIP:	Quotation #:
PHONE: 475-1440	PHONE:	Email: Bob.Mahoney@stantec.com
ATTN: Bob Mahoney	ATTN:	

PROJECT REFERENCE
190500014

Matrix Codes:
AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS

Part 375 per test 1st @ 9/11/17

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE	MATRIX CODES	NUMBER OF CONTAINERS	8260	8270	Metals	Pest	PCB	TCN	Hex Cr	Silvex	TCLP VOCs		REMARKS	PARADIGM LAB SAMPLE NUMBER
9/8/17	0815		X	828-B101-S1-g	So	1	X										CAT B RPT	01
↓	0820	X		828-B101-S1-C	So	1		X	X	X	X	X	X	X			CAT B RPT	02
	0830	X		828-B101-S2	So	1									X		CAT B RPT	03
	0840	X		~~828-B101-S3~~	~~So~~	~~2~~											~~Hold for instructions on~~ analysis.	

Shallow soil for reuse as backfill

Impacted soil for disposal

Extra sample not analyzed

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	None Required	☐	None Required	☐
10 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	X
Rush 2 day	☐	Category B (2 samples only)	X		
Rush 1 day	☐				
Other please indicate date needed:	☐	Other please indicate package needed:	☐	Other EDD please indicate EDD needed:	☐

Sampled By: R J Mahoney — Date/Time: 9/8/17 0840

Relinquished By: RJ Mahoney — Date/Time: 9/8/17 1825

Received By: C [signature] — Date/Time: 9/8/17 @ 1825 — 5°C per CS 9/11/17

Received @ Lab By: [signature] — Date/Time: 9/11/17 11:01

Total Cost:

P.I.F.

Custody Seal N/A, Samples delivered by client 9/11/17

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: Stantec **Completed by:** Glenn Pezzulo

Lab Project ID: 174083 **Date:** 9/11/17

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X	X 5035	
Comments	Portion of sample 02 transferred to 4oz glass jar for Silver, Hex Cr sub-out.		
Transferred to method-compliant container	X 93 to 9a sub-out		X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	5°C 9/8/17 18:25		
Sufficient Sample Quantity	X		
Comments			

ANALYTICAL REPORT

Lab Number:	L1732019
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	174083
Project Number:	174083
Report Date:	09/15/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1732019-01	828-B101-S1-C 174083-02	SOIL	Not Specified	09/08/17 08:20	09/11/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kara Lindquist

Title: Technical Director/Representative Date: 09/15/17

ORGANICS

PESTICIDES

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

SAMPLE RESULTS

Lab ID: L1732019-01
Client ID: 828-B101-S1-C 174083-02
Sample Location: Not Specified

Date Collected: 09/08/17 08:20
Date Received: 09/11/17
Field Prep: Not Specified
Extraction Method: EPA 8151A
Extraction Date: 09/12/17 08:03

Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/13/17 14:55
Analyst: SL
Percent Solids: 89%
Methylation Date: 09/12/17 17:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	185	4.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	91		30-150	B

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/13/17 13:51
Analyst: SL

Extraction Method: EPA 8151A
Extraction Date: 09/12/17 08:03

Methylation Date: 09/12/17 17:12

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1040624-1						
2,4,5-TP (Silvex)	ND		ug/kg	163	4.34	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	81		30-150	A
DCAA	73		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1040624-2 WG1040624-3									
2,4,5-TP (Silvex)	82		81		30-150	1		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	96		94		30-150	A
DCAA	101		101		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

SAMPLE RESULTS

Lab ID:	L1732019-01	Date Collected:	09/08/17 08:20
Client ID:	828-B101-S1-C 174083-02	Date Received:	09/11/17
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	09/12/17 11:07	121,2540G	RI
Chromium, Hexavalent	ND		mg/kg	0.90	0.18	1	09/14/17 04:20	09/14/17 12:17	1,7196A	NH

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1041499-1										
Chromium, Hexavalent	ND		mg/kg	0.80	0.16	1	09/14/17 04:20	09/14/17 12:00	1,7196A	NH

Lab Control Sample Analysis
Batch Quality Control

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1041499-2								
Chromium, Hexavalent	82		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-4 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02												
Chromium, Hexavalent	ND	856	810	95		-	-		75-125	-		20

Project Name: 174083
Project Number: 174083

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1732019
Report Date: 09/15/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1040660-1 QC Sample: L1731928-01 Client ID: DUP Sample						
Solids, Total	84.5	85.8	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-6 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1732019-01A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		HERB-APA(14),TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:09151718:38

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

1 of 1

L1732019

11148

REPORT TO:		INVOICE TO:	
COMPANY:	Paradigm Environmental	COMPANY:	Same
ADDRESS:	179 Lake Avenue	ADDRESS:	
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:
PHONE:	FAX:	PHONE:	FAX:
ATTN:	Reporting	ATTN:	Accounts Payable
COMMENTS:	Please email results to reporting@paradigmenv.com		

LAB PROJECT #:

CLIENT PROJECT #:

TURNAROUND TIME: (WORKING DAYS) 1 ☐ 2 ☐ 3 ☐ STD 5 ☒ OTHER ☐

Date Due: 9/19/17 for data

PROJECT NAME/SITE NAME:

REQUESTED ANALYSIS

ASP Cat B Package Due 10/3/17
Report J. Flass
Report as dry wt.
SW-846 HT's.

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER CONTAINERS	Silvex	Hex Cr	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	9/8/17	08:20			828-B101-S1-c	Soil	1	X	X	174083-02	
2											
3											
4											
5											
6											
7											
8											
9											
10											

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type: Comments:	Y ☐ N ☐
Preservation: Comments:	Y ☐ N ☐
Holding Time: Comments:	Y ☐ N ☐
Temperature: Comments:	Y ☐ N ☐

Client

	Signature	Date/Time
Sampled By	[signature]	9/11/17 16:00
Relinquished By	[signature]	9/11/17 17:57
Received By	[signature]	9/12/17 0055
Received By		
Received @ Lab By		

Total Cost:

P.I.F.

From:	Caffoe, Todd (DEC)
To:	Mahoney, Robert
Cc:	Storonsky, Mike; Ignaszak, Kevin; Schilling, Bernette (DEC)
Subject:	RE: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination
Date:	Tuesday, October 03, 2017 3:50:51 PM
Attachments:	image001.png image002.png

Bob,

I have reviewed the data for the non-impacted soils 828-B101-S1-g and 828-B101-S1-c. These soils are acceptable for re-use as backfill on-site. The levels are well below commercial use SCOs and these soils can be used as cover in non-paved areas. Please let me know if you have any questions and keep me posted on the fieldwork schedule.

-Todd

Todd M. Caffoe, P.E.
Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

www.dec.ny.gov | |

From: Mahoney, Robert [mailto:Bob.Mahoney@stantec.com]
Sent: Tuesday, October 03, 2017 2:03 PM
To: Caffoe, Todd (DEC) <todd.caffoe@dec.ny.gov>; Wilkie, Henry (DEC) <henry.wilkie@dec.ny.gov>
Cc: Storonsky, Mike <mike.storonsky@stantec.com>; Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>
Subject: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination

Todd and Henry – As Mike Storonsky discussed with you recently, a sample Stantec recently took at the Ward Street site of PCE-impacted soil that was intended for excavation, live-loading and landfill disposal was analyzed for TCLP VOCs (for pre-disposal characterization per a Contained-In Determination), but the result was above the Contained in Action Level (76.7 µg/L vs. the CIAL of 5 µg/L). A copy of the lab report is attached.

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Please confirm that this material overlying the impacted zone will be acceptable for reuse.

Todd – we have not yet confirmed with TREC what imported clean material will be used to make up the remainder of the backfill, but they have indicated they will be providing that information to us tomorrow. We will update you when that is established with TREC.

Contact us anytime with questions.

Thanks

Bob Mahoney

Robert Mahoney, P.G.
Senior Environmental Geologist
Stantec
61 Commercial Street Suite 100, Rochester NY 14614-1009
Phone: (585) 413-5301
Cell: (585) 645-2567
robert.mahoney@stantec.com

From:	Storonsky, Mike
To:	"Caffoe, Todd (DEC)"
Cc:	Ignaszak, Kevin; Mahoney, Robert
Subject:	8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Clean Backfill
Date:	Thursday, October 05, 2017 5:28:00 PM
Attachments:	Report.C828136.2017-10-05.backfill.pdf image001.png image002.png
Importance:	High

Todd,

Attached is the crushed stone material submittal for the clean backfill that TREC is proposing to bring in from the Brockport Dolomite facility for backfilling the 8-28 Ward Street excavation that is schedule for Monday – Tuesday next week. Please confirm this material will be acceptable for use at your earliest opportunity.

Thanks,
Mike

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To: Caffoe, Todd (DEC) <todd.caffoe@dec.ny.gov>; Wilkie, Henry (DEC) <henry.wilkie@dec.ny.gov>

Cc: Storonsky, Mike <mike.storonsky@stantec.com>; Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>
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Contact us anytime with questions.

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robert.mahoney@stantec.com

THE DOLOMITE GROUP

DOLOMITE PRODUCTS COMPANY, INC
MANITOU CONSTRUCTION COMPANY, INC
ROCHESTER ASPHALT MATERIALS
IROQUOIS ROCK PRODUCTS
NORTHRUP MATERIALS

THE DOLOMITE GROUP

MATERIAL SUBMITTAL

1150 Penfield Road
Rochester, N.Y. 14625
Phone: (585) 381-7010
Fax : (585) 381-0208

DATE: 12/13/2016
PAGE: 1

TO: Paul Willey
OF: Trec Environmental Inc.
FAX or E-MAIL: pwilley@trecenv.com

PROJECT:

CRUSHED STONE: Brockport Plant

NYSDOT Source #: 4-5R
Current NYSDOT Test #: 13AR58

This is to certify that the Crushed Stone to be used on the above referenced project will be produced in accordance with the most current New York State Department of Transportation's, "Standard Specifications" and Addenda. All stone properties conform to sections 703.0201, 203, 304, 605 and 620 of the Specification. Specific values are listed below.

PROPERTY	VALUE	SPEC.
Mag. Sulfate Loss	16	18 max.
LA Abrasion Loss	19	35 max.
Flat and Elongated Pieces - 3:1	10	30 max.
5:1	0	10 max.
Crushed Particles	100	n.a.
Deleterious Materials	0	2 max.

TYPICAL GRADATIONS (All Values are % Passing)

SIEVE SIZE	CRUSHER RUN #2	CRUSHER RUN #1	#1 STONE	#2 STONE	#1 STONE WASHED	#1A WASHED
4" (100 mm)						
3" (75)						
2" (50)	100					
1 1/2" (37.5)	100			100		
1" (25)	82	100	100	94	100	
1/2" (12.5)	54		93	11	90.22	100
1/4" (6.3)	36	57	12	1	3.1	91.3
#40 (0.425)	11	18			(#10) 1.8	(#10) 5.5
# 80 (0.180)	8	9				
#200 (0.075)	7.6	6.5	0.8	0.2	(#20) 1.75	(#20) 1.5
Typical Item Numbers	203.____ 304.12___				605.0901	605.1001

LIGHT STONE FILL		
SIZE	VALUE	SPEC
Lighter Than 100 Lbs.	100	90 - 100
Larger Than 6"	55	50 - 100
Smaller Than 1/2"	8	0 - 10

Notes:

1) Proctor Density typically runs 138 +/- 2 pcf at 6-8% Moisture.(For Crusher Run products only)

2) Medium and Heavy Stone Fill Items are selected at time of purchase to satisfy project requirements.

Signed By: *Lila L. Smith* *Sales Representative*

From:	Caffoe, Todd (DEC)
To:	Storonsky, Mike
Cc:	Ignaszak, Kevin; Mahoney, Robert
Subject:	RE: 8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Clean Backfill
Date:	Friday, October 06, 2017 11:42:13 AM
Attachments:	image001.png image002.png

Mike,

The referenced backfill material that TREC is proposing for the 8-28 Ward Street site is acceptable for use. Please let me know if you have any questions.

-Todd

Todd M. Caffoe, P.E.
Division of Environmental Remediation

New York State Department of Environmental Conservation
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Sent: Thursday, October 05, 2017 5:29 PM
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<Kevin.Ignaszak@stantec.com>; Schilling, Bernette (DEC) <bernette.schilling@dec.ny.gov>
Subject: RE: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination

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robert.mahoney@stantec.com

From:	Storonsky, Mike
To:	"Caffoe, Todd (DEC)"
Subject:	8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Weather Delay
Date:	Monday, October 09, 2017 7:57:00 AM
Attachments:	image001.png image002.png

Todd,

Due to today's inclement weather, the start of the excavation at 8-28 Ward St. is being delayed by one day and it is currently scheduled to begin on Tuesday, October 10.

Sincerely,
Mike

From: Caffoe, Todd (DEC) [mailto:todd.caffoe@dec.ny.gov]
Sent: Friday, October 06, 2017 11:42 AM
To: Storonsky, Mike <mike.storonsky@stantec.com>
Cc: Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>; Mahoney, Robert <Bob.Mahoney@stantec.com>
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Subject: 8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Clean Backfill
Importance: High

unknown senders or unexpected emails.

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Subject: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

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robert.mahoney@stantec.com

From:	Mahoney, Robert
To:	henry.wilkie@dec.ny.gov
Cc:	Storonsky, Mike
Subject:	Site #C828136 - 8-28 Ward Street, Rochester. NY: Contained-In Determination approval request
Date:	Tuesday, October 31, 2017 2:08:07 PM
Attachments:	letter.c828136.2017-10.31.CID_SoilResults.pdf

Henry – Attached please find a request for a Contained-In Determination approval for a small PCE-impacted soil stockpile at the referenced site, along with supporting information. We have had recent email correspondence and telephone communication with you regarding this material.

Please let us know if you need anything else related to this request.

Thanks

Bob Mahoney

Robert Mahoney, P.G.
Senior Environmental Geologist
Stantec
61 Commercial Street Suite 100, Rochester NY 14614-1009
Phone: (585) 413-5301
Cell: (585) 645-2567
robert.mahoney@stantec.com

Stantec Consulting Services Inc.
61 Commercial Street, Suite 100
Rochester NY 14614-1009
Tel: (585) 475-1440
Fax: (585) 272-1814

October 31, 2017

Henry Wilkie
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7015

Reference: Soil Sampling and Analysis
Contained-In Determination
Brownfield Cleanup Program Site # C828136
8-28 Ward Street, Rochester, New York

Dear Mr. Wilkie:

This letter and attachments provide project information and soil sampling results for recently-excavated and stockpiled soil from the referenced site, and a request for NYSDEC Contained-In Determination approval to dispose of this material in a Part-360-permitted landfill. The soil contains tetrachloroethene (PCE). We are seeking a Contained-In Determination approval for disposal of approximately 50-60 tons of soil from an excavation performed on October 10 and 11, 2017 which was stockpiled on site.

The excavation location is shown on the attached Figure 2.

Site Description and History

The Site is a 1.2-acre parcel located at the corner of Ward Street and Emmett Street in Rochester, New York (see location map, Figure 1. Historic Sanborn maps indicate that by the 1890s the Site was occupied by several residences. By 1911, a woodworking concern (Rochester Trim Company, 18 Ward St.) occupied the central portion of the Site, while the rest of the Site was still occupied by residences. By 1950, the woodworking shop had become a machine shop and a Lilac Laundry facility (14 Ward Street) was present on the west portion of the Site. From other available information, the Lilac Laundry is known to have been the site of dry cleaning operations. Both the laundry and machine shop were still present in 1971. Historic city directories listed lens manufacturing (1925), radiator and fender repair (1930), and plastics manufacturing (1969) businesses at the 18 or 16-20 Ward Street addresses.

The Site property was later acquired and used as a parking lot by the Genesee Brewery, which is now known as High Falls Brewing Corporation, and has remained a parking lot since being acquired by Germanow-Simon, the current owner. Germanow-Simon and its affiliated companies produce bimetal thermometers, plastic optics, and gauge and watch crystals.

Reference: **Soil Sampling and Analysis**
Contained-In Determination
Brownfield Cleanup Program Site # C828136
8-28 Ward Street, Rochester, New York

Sampling and Analytical Results

Prior to performing the excavation, samples of the soil were obtained from a series of 19 test borings (B-1 through B-19; see locations on Figure 2) performed in September 2016 to delineate the limits of the PCE-impacted area. A soil sample from each boring was submitted for analysis for total volatile organic compounds (VOCs). The lab report is included in Attachment A.

Note that borings B-1 through B-3 were located off the property; however since Germanow-Simon is a BCP Volunteer, it is not responsible for remediation in offsite areas.

Of the remaining borings, 16 samples (and one duplicate sample) exhibited detections of PCE, and in some samples other VOCs were also detected at low levels. The highest PCE detection was 4,220 µg/Kg (sample 828-2016-B5-S).

Additionally, in preparation for performing the remedial excavation, test boring B-101 was performed within the proposed excavation footprint on September 8, 2017. The location of B-101 is shown on Figure 2. Analytical results (TCLP VOCs) for a soil sample (282-B101-S2) from that boring are included in Attachment A. PCE was detected in the sample extract at 76.7 µg/L.

During excavation the soil was screened with a photoionization detector (PID); all readings were less than 1 part per million (ppm).

Stantec requests that you provide a letter formally approving this Contained-In Determination, so that a waste profile can be completed for the following intended disposal facility:

Waste Management
High Acres Landfill
425 Perinton Parkway
Fairport, NY 14450
NYSDEC Part 360 Permit #8-9908-00162/00032
Expiration Date 07/08/2023

We look forward to your response to this request. If you have any questions or require further information, please do not hesitate to contact us.

**Reference: Soil Sampling and Analysis
Contained-In Determination
Brownfield Cleanup Program Site # C828136
8-28 Ward Street, Rochester, New York**

Regards,

STANTEC CONSULTING SERVICES INC.

Michael P. Storonsky
Managing Principal
(585) 413-5266
Mike.Storonsky@stantec.com

Robert J. Mahoney, P.G.
Senior Environmental Geologist
(585) 413-5301
Robert.Mahoney@stantec.com

Attachments

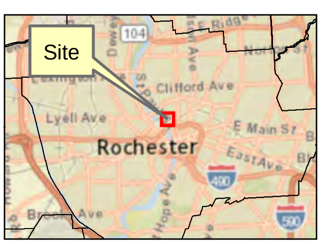
Figure 1 - Project Location Map
Figure 2 - Test Boring and Excavation Plan
Attachment 1- Analytical Laboratory Reports

U:\190500014\Implementation\CID\letter.c828136.2014-06-23.CID_SoilResults.docx

Stantec

FIGURES

U:\190500817\05_report_deliv\dwgs_desgn\figures_general\GIS\mxd\RI\Figure 1 - Site Location Map - 10-31-2017.mxd Revised: 2017-10-31 By: aless



Legend

- Site
- Surrounding Properties
- Excavation Area

0 300 600 Feet

1:3,600 (at original document size of 8.5x11)

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

2. Aerial Source : WMS Site - NYSGIS - 2015

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Stantec

Project Location — 190500014 REVA

8-28 Ward Street
Monroe County
Rochester , NY

Prepared by APL on 2017-10-31
Technical Review by BM on 2017-10-31
Independent Review by MPS on 2017-10-31

Client/Project

Soil Removal
Brownfield Cleanup Program Site
Site # C828136

Figure No.
1

Title
Site Location Map

Stantec

LEGEND

B1 Test Boring Sept. 2016

B-101 Test Boring Oct. 2017

8-28 Ward Street
Rochester, NY

TEST BORING AND EXCAVATION LOCATION PLAN

FIGURE 2

Stantec

ATTACHMENT 1
Analytical Laboratory Reports

2016

Soil Borings B1 – B19

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B1-S

Lab Sample ID: 162126-01 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.32	ug/Kg		6/3/2016 19:19
1,1,2,2-Tetrachloroethane	< 8.32	ug/Kg		6/3/2016 19:19
1,1,2-Trichloroethane	< 8.32	ug/Kg		6/3/2016 19:19
1,1-Dichloroethane	< 8.32	ug/Kg		6/3/2016 19:19
1,1-Dichloroethene	< 8.32	ug/Kg		6/3/2016 19:19
1,2,3-Trichlorobenzene	< 20.8	ug/Kg		6/3/2016 19:19
1,2,4-Trichlorobenzene	< 20.8	ug/Kg		6/3/2016 19:19
1,2-Dibromo-3-Chloropropane	< 41.6	ug/Kg		6/3/2016 19:19
1,2-Dibromoethane	< 8.32	ug/Kg		6/3/2016 19:19
1,2-Dichlorobenzene	< 8.32	ug/Kg		6/3/2016 19:19
1,2-Dichloroethane	< 8.32	ug/Kg		6/3/2016 19:19
1,2-Dichloropropane	< 8.32	ug/Kg		6/3/2016 19:19
1,3-Dichlorobenzene	< 8.32	ug/Kg		6/3/2016 19:19
1,4-Dichlorobenzene	< 8.32	ug/Kg		6/3/2016 19:19
1,4-dioxane	< 83.2	ug/Kg		6/3/2016 19:19
2-Butanone	< 41.6	ug/Kg		6/3/2016 19:19
2-Hexanone	< 20.8	ug/Kg		6/3/2016 19:19
4-Methyl-2-pentanone	< 20.8	ug/Kg		6/3/2016 19:19
Acetone	< 41.6	ug/Kg		6/3/2016 19:19
Benzene	< 8.32	ug/Kg		6/3/2016 19:19
Bromochloromethane	< 20.8	ug/Kg		6/3/2016 19:19
Bromodichloromethane	< 8.32	ug/Kg		6/3/2016 19:19
Bromoform	< 20.8	ug/Kg		6/3/2016 19:19
Bromomethane	< 8.32	ug/Kg		6/3/2016 19:19
Carbon disulfide	**5.84**	ug/Kg	J	6/3/2016 19:19
Carbon Tetrachloride	< 8.32	ug/Kg		6/3/2016 19:19
Chlorobenzene	< 8.32	ug/Kg		6/3/2016 19:19

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B1-S

Lab Sample ID: 162126-01 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 8.32	ug/Kg	6/3/2016 19:19
Chloroform	< 8.32	ug/Kg	6/3/2016 19:19
Chloromethane	< 8.32	ug/Kg	6/3/2016 19:19
cis-1,2-Dichloroethene	**608**	ug/Kg	6/3/2016 19:19
cis-1,3-Dichloropropene	< 8.32	ug/Kg	6/3/2016 19:19
Cyclohexane	< 41.6	ug/Kg	6/3/2016 19:19
Dibromochloromethane	< 8.32	ug/Kg	6/3/2016 19:19
Dichlorodifluoromethane	< 8.32	ug/Kg	6/3/2016 19:19
Ethylbenzene	< 8.32	ug/Kg	6/3/2016 19:19
Freon 113	< 8.32	ug/Kg	6/3/2016 19:19
Isopropylbenzene	< 8.32	ug/Kg	6/3/2016 19:19
m,p-Xylene	< 8.32	ug/Kg	6/3/2016 19:19
Methyl acetate	< 8.32	ug/Kg	6/3/2016 19:19
Methyl tert-butyl Ether	< 8.32	ug/Kg	6/3/2016 19:19
Methylcyclohexane	< 8.32	ug/Kg	6/3/2016 19:19
Methylene chloride	< 20.8	ug/Kg	6/3/2016 19:19
o-Xylene	< 8.32	ug/Kg	6/3/2016 19:19
Styrene	< 20.8	ug/Kg	6/3/2016 19:19
Tetrachloroethene	**565**	ug/Kg	6/3/2016 19:19
Toluene	< 8.32	ug/Kg	6/3/2016 19:19
trans-1,2-Dichloroethene	< 8.32	ug/Kg	6/3/2016 19:19
trans-1,3-Dichloropropene	< 8.32	ug/Kg	6/3/2016 19:19
Trichloroethene	**97.1**	ug/Kg	6/3/2016 19:19
Trichlorofluoromethane	< 8.32	ug/Kg	6/3/2016 19:19
Vinyl chloride	< 8.32	ug/Kg	6/3/2016 19:19

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B1-S

Lab Sample ID: 162126-01 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**111**	85.4 - 122		6/3/2016	19:19
4-Bromofluorobenzene	**96.3**	81.1 - 115		6/3/2016	19:19
Pentafluorobenzene	**96.6**	90.7 - 109		6/3/2016	19:19
Toluene-D8	**101**	88.5 - 110		6/3/2016	19:19

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32918.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B2-S

Lab Sample ID: 162126-02 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 7.96	ug/Kg		6/3/2016 19:43
1,1,2,2-Tetrachloroethane	< 7.96	ug/Kg		6/3/2016 19:43
1,1,2-Trichloroethane	< 7.96	ug/Kg		6/3/2016 19:43
1,1-Dichloroethane	< 7.96	ug/Kg		6/3/2016 19:43
1,1-Dichloroethene	< 7.96	ug/Kg		6/3/2016 19:43
1,2,3-Trichlorobenzene	< 19.9	ug/Kg		6/3/2016 19:43
1,2,4-Trichlorobenzene	< 19.9	ug/Kg		6/3/2016 19:43
1,2-Dibromo-3-Chloropropane	< 39.8	ug/Kg		6/3/2016 19:43
1,2-Dibromoethane	< 7.96	ug/Kg		6/3/2016 19:43
1,2-Dichlorobenzene	< 7.96	ug/Kg		6/3/2016 19:43
1,2-Dichloroethane	< 7.96	ug/Kg		6/3/2016 19:43
1,2-Dichloropropane	< 7.96	ug/Kg		6/3/2016 19:43
1,3-Dichlorobenzene	< 7.96	ug/Kg		6/3/2016 19:43
1,4-Dichlorobenzene	< 7.96	ug/Kg		6/3/2016 19:43
1,4-dioxane	< 79.6	ug/Kg		6/3/2016 19:43
2-Butanone	< 39.8	ug/Kg		6/3/2016 19:43
2-Hexanone	< 19.9	ug/Kg		6/3/2016 19:43
4-Methyl-2-pentanone	< 19.9	ug/Kg		6/3/2016 19:43
Acetone	< 39.8	ug/Kg		6/3/2016 19:43
Benzene	< 7.96	ug/Kg		6/3/2016 19:43
Bromochloromethane	< 19.9	ug/Kg		6/3/2016 19:43
Bromodichloromethane	< 7.96	ug/Kg		6/3/2016 19:43
Bromoform	< 19.9	ug/Kg		6/3/2016 19:43
Bromomethane	< 7.96	ug/Kg		6/3/2016 19:43
Carbon disulfide	< 7.96	ug/Kg		6/3/2016 19:43
Carbon Tetrachloride	< 7.96	ug/Kg		6/3/2016 19:43
Chlorobenzene	< 7.96	ug/Kg		6/3/2016 19:43

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B2-S

Lab Sample ID: 162126-02 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 7.96	ug/Kg		6/3/2016 19:43
Chloroform	< 7.96	ug/Kg		6/3/2016 19:43
Chloromethane	< 7.96	ug/Kg		6/3/2016 19:43
cis-1,2-Dichloroethene	< 7.96	ug/Kg		6/3/2016 19:43
cis-1,3-Dichloropropene	< 7.96	ug/Kg		6/3/2016 19:43
Cyclohexane	< 39.8	ug/Kg		6/3/2016 19:43
Dibromochloromethane	< 7.96	ug/Kg		6/3/2016 19:43
Dichlorodifluoromethane	< 7.96	ug/Kg		6/3/2016 19:43
Ethylbenzene	< 7.96	ug/Kg		6/3/2016 19:43
Freon 113	< 7.96	ug/Kg		6/3/2016 19:43
Isopropylbenzene	< 7.96	ug/Kg		6/3/2016 19:43
m,p-Xylene	< 7.96	ug/Kg		6/3/2016 19:43
Methyl acetate	< 7.96	ug/Kg		6/3/2016 19:43
Methyl tert-butyl Ether	< 7.96	ug/Kg		6/3/2016 19:43
Methylcyclohexane	< 7.96	ug/Kg		6/3/2016 19:43
Methylene chloride	< 19.9	ug/Kg		6/3/2016 19:43
o-Xylene	< 7.96	ug/Kg		6/3/2016 19:43
Styrene	< 19.9	ug/Kg		6/3/2016 19:43
Tetrachloroethene	**516**	ug/Kg		6/3/2016 19:43
Toluene	< 7.96	ug/Kg		6/3/2016 19:43
trans-1,2-Dichloroethene	< 7.96	ug/Kg		6/3/2016 19:43
trans-1,3-Dichloropropene	< 7.96	ug/Kg		6/3/2016 19:43
Trichloroethene	< 7.96	ug/Kg		6/3/2016 19:43
Trichlorofluoromethane	< 7.96	ug/Kg		6/3/2016 19:43
Vinyl chloride	< 7.96	ug/Kg		6/3/2016 19:43

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B2-S

Lab Sample ID: 162126-02 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**108**	85.4 - 122		6/3/2016	19:43
4-Bromofluorobenzene	**91.4**	81.1 - 115		6/3/2016	19:43
Pentafluorobenzene	**87.9**	90.7 - 109	*	6/3/2016	19:43
Toluene-D8	**97.6**	88.5 - 110		6/3/2016	19:43

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32919.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B3-S		
Lab Sample ID:	162126-03	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.02	ug/Kg		6/2/2016 18:29
1,1,2,2-Tetrachloroethane	< 4.02	ug/Kg		6/2/2016 18:29
1,1,2-Trichloroethane	< 4.02	ug/Kg		6/2/2016 18:29
1,1-Dichloroethane	< 4.02	ug/Kg		6/2/2016 18:29
1,1-Dichloroethene	< 4.02	ug/Kg		6/2/2016 18:29
1,2,3-Trichlorobenzene	< 10.0	ug/Kg		6/2/2016 18:29
1,2,4-Trichlorobenzene	< 10.0	ug/Kg		6/2/2016 18:29
1,2-Dibromo-3-Chloropropane	< 20.1	ug/Kg		6/2/2016 18:29
1,2-Dibromoethane	< 4.02	ug/Kg		6/2/2016 18:29
1,2-Dichlorobenzene	< 4.02	ug/Kg		6/2/2016 18:29
1,2-Dichloroethane	< 4.02	ug/Kg		6/2/2016 18:29
1,2-Dichloropropane	< 4.02	ug/Kg		6/2/2016 18:29
1,3-Dichlorobenzene	< 4.02	ug/Kg		6/2/2016 18:29
1,4-Dichlorobenzene	< 4.02	ug/Kg		6/2/2016 18:29
1,4-dioxane	< 40.2	ug/Kg		6/2/2016 18:29
2-Butanone	< 20.1	ug/Kg		6/2/2016 18:29
2-Hexanone	< 10.0	ug/Kg		6/2/2016 18:29
4-Methyl-2-pentanone	< 10.0	ug/Kg		6/2/2016 18:29
Acetone	< 20.1	ug/Kg		6/2/2016 18:29
Benzene	< 4.02	ug/Kg		6/2/2016 18:29
Bromochloromethane	< 10.0	ug/Kg		6/2/2016 18:29
Bromodichloromethane	< 4.02	ug/Kg		6/2/2016 18:29
Bromoform	< 10.0	ug/Kg		6/2/2016 18:29
Bromomethane	< 4.02	ug/Kg		6/2/2016 18:29
Carbon disulfide	< 4.02	ug/Kg		6/2/2016 18:29
Carbon Tetrachloride	< 4.02	ug/Kg		6/2/2016 18:29
Chlorobenzene	< 4.02	ug/Kg		6/2/2016 18:29

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B3-S

Lab Sample ID: 162126-03 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.02	ug/Kg	6/2/2016	18:29
Chloroform	< 4.02	ug/Kg	6/2/2016	18:29
Chloromethane	< 4.02	ug/Kg	6/2/2016	18:29
cis-1,2-Dichloroethene	< 4.02	ug/Kg	6/2/2016	18:29
cis-1,3-Dichloropropene	< 4.02	ug/Kg	6/2/2016	18:29
Cyclohexane	< 20.1	ug/Kg	6/2/2016	18:29
Dibromochloromethane	< 4.02	ug/Kg	6/2/2016	18:29
Dichlorodifluoromethane	< 4.02	ug/Kg	6/2/2016	18:29
Ethylbenzene	< 4.02	ug/Kg	6/2/2016	18:29
Freon 113	< 4.02	ug/Kg	6/2/2016	18:29
Isopropylbenzene	< 4.02	ug/Kg	6/2/2016	18:29
m,p-Xylene	< 4.02	ug/Kg	6/2/2016	18:29
Methyl acetate	< 4.02	ug/Kg	6/2/2016	18:29
Methyl tert-butyl Ether	< 4.02	ug/Kg	6/2/2016	18:29
Methylcyclohexane	< 4.02	ug/Kg	6/2/2016	18:29
Methylene chloride	< 10.0	ug/Kg	6/2/2016	18:29
o-Xylene	< 4.02	ug/Kg	6/2/2016	18:29
Styrene	< 10.0	ug/Kg	6/2/2016	18:29
Tetrachloroethene	**23.3**	ug/Kg	6/2/2016	18:29
Toluene	< 4.02	ug/Kg	6/2/2016	18:29
trans-1,2-Dichloroethene	< 4.02	ug/Kg	6/2/2016	18:29
trans-1,3-Dichloropropene	< 4.02	ug/Kg	6/2/2016	18:29
Trichloroethene	< 4.02	ug/Kg	6/2/2016	18:29
Trichlorofluoromethane	< 4.02	ug/Kg	6/2/2016	18:29
Vinyl chloride	< 4.02	ug/Kg	6/2/2016	18:29

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B3-S

Lab Sample ID: 162126-03 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**98.3**	85.4 - 122		6/2/2016	18:29
4-Bromofluorobenzene	**98.4**	81.1 - 115		6/2/2016	18:29
Pentafluorobenzene	**97.1**	90.7 - 109		6/2/2016	18:29
Toluene-D8	**101**	88.5 - 110		6/2/2016	18:29

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32863.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B4-S		
Lab Sample ID:	162126-04	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.12	ug/Kg		6/2/2016 18:53
1,1,2,2-Tetrachloroethane	< 4.12	ug/Kg		6/2/2016 18:53
1,1,2-Trichloroethane	< 4.12	ug/Kg		6/2/2016 18:53
1,1-Dichloroethane	< 4.12	ug/Kg		6/2/2016 18:53
1,1-Dichloroethene	< 4.12	ug/Kg		6/2/2016 18:53
1,2,3-Trichlorobenzene	< 10.3	ug/Kg		6/2/2016 18:53
1,2,4-Trichlorobenzene	< 10.3	ug/Kg		6/2/2016 18:53
1,2-Dibromo-3-Chloropropane	< 20.6	ug/Kg		6/2/2016 18:53
1,2-Dibromoethane	< 4.12	ug/Kg		6/2/2016 18:53
1,2-Dichlorobenzene	< 4.12	ug/Kg		6/2/2016 18:53
1,2-Dichloroethane	< 4.12	ug/Kg		6/2/2016 18:53
1,2-Dichloropropane	< 4.12	ug/Kg		6/2/2016 18:53
1,3-Dichlorobenzene	< 4.12	ug/Kg		6/2/2016 18:53
1,4-Dichlorobenzene	< 4.12	ug/Kg		6/2/2016 18:53
1,4-dioxane	< 41.2	ug/Kg		6/2/2016 18:53
2-Butanone	< 20.6	ug/Kg		6/2/2016 18:53
2-Hexanone	< 10.3	ug/Kg		6/2/2016 18:53
4-Methyl-2-pentanone	< 10.3	ug/Kg		6/2/2016 18:53
Acetone	< 20.6	ug/Kg		6/2/2016 18:53
Benzene	< 4.12	ug/Kg		6/2/2016 18:53
Bromochloromethane	< 10.3	ug/Kg		6/2/2016 18:53
Bromodichloromethane	< 4.12	ug/Kg		6/2/2016 18:53
Bromoform	< 10.3	ug/Kg		6/2/2016 18:53
Bromomethane	< 4.12	ug/Kg		6/2/2016 18:53
Carbon disulfide	< 4.12	ug/Kg		6/2/2016 18:53
Carbon Tetrachloride	< 4.12	ug/Kg		6/2/2016 18:53
Chlorobenzene	< 4.12	ug/Kg		6/2/2016 18:53

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B4-S

Lab Sample ID: 162126-04 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.12	ug/Kg	6/2/2016 18:53
Chloroform	< 4.12	ug/Kg	6/2/2016 18:53
Chloromethane	< 4.12	ug/Kg	6/2/2016 18:53
cis-1,2-Dichloroethene	< 4.12	ug/Kg	6/2/2016 18:53
cis-1,3-Dichloropropene	< 4.12	ug/Kg	6/2/2016 18:53
Cyclohexane	< 20.6	ug/Kg	6/2/2016 18:53
Dibromochloromethane	< 4.12	ug/Kg	6/2/2016 18:53
Dichlorodifluoromethane	< 4.12	ug/Kg	6/2/2016 18:53
Ethylbenzene	< 4.12	ug/Kg	6/2/2016 18:53
Freon 113	< 4.12	ug/Kg	6/2/2016 18:53
Isopropylbenzene	< 4.12	ug/Kg	6/2/2016 18:53
m,p-Xylene	< 4.12	ug/Kg	6/2/2016 18:53
Methyl acetate	< 4.12	ug/Kg	6/2/2016 18:53
Methyl tert-butyl Ether	< 4.12	ug/Kg	6/2/2016 18:53
Methylcyclohexane	< 4.12	ug/Kg	6/2/2016 18:53
Methylene chloride	< 10.3	ug/Kg	6/2/2016 18:53
o-Xylene	< 4.12	ug/Kg	6/2/2016 18:53
Styrene	< 10.3	ug/Kg	6/2/2016 18:53
Tetrachloroethene	**19.1**	ug/Kg	6/2/2016 18:53
Toluene	< 4.12	ug/Kg	6/2/2016 18:53
trans-1,2-Dichloroethene	< 4.12	ug/Kg	6/2/2016 18:53
trans-1,3-Dichloropropene	< 4.12	ug/Kg	6/2/2016 18:53
Trichloroethene	< 4.12	ug/Kg	6/2/2016 18:53
Trichlorofluoromethane	< 4.12	ug/Kg	6/2/2016 18:53
Vinyl chloride	< 4.12	ug/Kg	6/2/2016 18:53

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B4-S

Lab Sample ID: 162126-04 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**96.8**	85.4 - 122		6/2/2016	18:53
4-Bromofluorobenzene	**101**	81.1 - 115		6/2/2016	18:53
Pentafluorobenzene	**96.0**	90.7 - 109		6/2/2016	18:53
Toluene-D8	**102**	88.5 - 110		6/2/2016	18:53

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32864.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B5-S

Lab Sample ID: 162126-05 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 46.0	ug/Kg		6/3/2016 20:06
1,1,2,2-Tetrachloroethane	< 46.0	ug/Kg		6/3/2016 20:06
1,1,2-Trichloroethane	< 46.0	ug/Kg		6/3/2016 20:06
1,1-Dichloroethane	< 46.0	ug/Kg		6/3/2016 20:06
1,1-Dichloroethene	< 46.0	ug/Kg		6/3/2016 20:06
1,2,3-Trichlorobenzene	< 115	ug/Kg		6/3/2016 20:06
1,2,4-Trichlorobenzene	< 115	ug/Kg		6/3/2016 20:06
1,2-Dibromo-3-Chloropropane	< 230	ug/Kg		6/3/2016 20:06
1,2-Dibromoethane	< 46.0	ug/Kg		6/3/2016 20:06
1,2-Dichlorobenzene	< 46.0	ug/Kg		6/3/2016 20:06
1,2-Dichloroethane	< 46.0	ug/Kg		6/3/2016 20:06
1,2-Dichloropropane	< 46.0	ug/Kg		6/3/2016 20:06
1,3-Dichlorobenzene	< 46.0	ug/Kg		6/3/2016 20:06
1,4-Dichlorobenzene	< 46.0	ug/Kg		6/3/2016 20:06
1,4-dioxane	< 460	ug/Kg		6/3/2016 20:06
2-Butanone	< 230	ug/Kg		6/3/2016 20:06
2-Hexanone	< 115	ug/Kg		6/3/2016 20:06
4-Methyl-2-pentanone	< 115	ug/Kg		6/3/2016 20:06
Acetone	< 230	ug/Kg		6/3/2016 20:06
Benzene	< 46.0	ug/Kg		6/3/2016 20:06
Bromochloromethane	< 115	ug/Kg		6/3/2016 20:06
Bromodichloromethane	< 46.0	ug/Kg		6/3/2016 20:06
Bromoform	< 115	ug/Kg		6/3/2016 20:06
Bromomethane	< 46.0	ug/Kg		6/3/2016 20:06
Carbon disulfide	< 46.0	ug/Kg		6/3/2016 20:06
Carbon Tetrachloride	< 46.0	ug/Kg		6/3/2016 20:06
Chlorobenzene	< 46.0	ug/Kg		6/3/2016 20:06

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B5-S
Lab Sample ID: 162126-05 **Date Sampled:** 5/23/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 46.0	ug/Kg	6/3/2016	20:06
Chloroform	< 46.0	ug/Kg	6/3/2016	20:06
Chloromethane	< 46.0	ug/Kg	6/3/2016	20:06
cis-1,2-Dichloroethene	< 46.0	ug/Kg	6/3/2016	20:06
cis-1,3-Dichloropropene	< 46.0	ug/Kg	6/3/2016	20:06
Cyclohexane	< 230	ug/Kg	6/3/2016	20:06
Dibromochloromethane	< 46.0	ug/Kg	6/3/2016	20:06
Dichlorodifluoromethane	< 46.0	ug/Kg	6/3/2016	20:06
Ethylbenzene	< 46.0	ug/Kg	6/3/2016	20:06
Freon 113	< 46.0	ug/Kg	6/3/2016	20:06
Isopropylbenzene	< 46.0	ug/Kg	6/3/2016	20:06
m,p-Xylene	< 46.0	ug/Kg	6/3/2016	20:06
Methyl acetate	< 46.0	ug/Kg	6/3/2016	20:06
Methyl tert-butyl Ether	< 46.0	ug/Kg	6/3/2016	20:06
Methylcyclohexane	< 46.0	ug/Kg	6/3/2016	20:06
Methylene chloride	< 115	ug/Kg	6/3/2016	20:06
o-Xylene	< 46.0	ug/Kg	6/3/2016	20:06
Styrene	< 115	ug/Kg	6/3/2016	20:06
Tetrachloroethene	**4220**	ug/Kg	6/3/2016	20:06
Toluene	< 46.0	ug/Kg	6/3/2016	20:06
trans-1,2-Dichloroethene	< 46.0	ug/Kg	6/3/2016	20:06
trans-1,3-Dichloropropene	< 46.0	ug/Kg	6/3/2016	20:06
Trichloroethene	< 46.0	ug/Kg	6/3/2016	20:06
Trichlorofluoromethane	< 46.0	ug/Kg	6/3/2016	20:06
Vinyl chloride	< 46.0	ug/Kg	6/3/2016	20:06

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B5-S		
Lab Sample ID:	162126-05	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**114**	85.4 - 122		6/3/2016	20:06
4-Bromofluorobenzene	**93.0**	81.1 - 115		6/3/2016	20:06
Pentafluorobenzene	**90.3**	90.7 - 109	*	6/3/2016	20:06
Toluene-D8	**99.1**	88.5 - 110		6/3/2016	20:06

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32920.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B7-S		
Lab Sample ID:	162126-06	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.40	ug/Kg		6/2/2016 19:41
1,1,2,2-Tetrachloroethane	< 4.40	ug/Kg		6/2/2016 19:41
1,1,2-Trichloroethane	< 4.40	ug/Kg		6/2/2016 19:41
1,1-Dichloroethane	< 4.40	ug/Kg		6/2/2016 19:41
1,1-Dichloroethene	< 4.40	ug/Kg		6/2/2016 19:41
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		6/2/2016 19:41
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		6/2/2016 19:41
1,2-Dibromo-3-Chloropropane	< 22.0	ug/Kg		6/2/2016 19:41
1,2-Dibromoethane	< 4.40	ug/Kg		6/2/2016 19:41
1,2-Dichlorobenzene	< 4.40	ug/Kg		6/2/2016 19:41
1,2-Dichloroethane	< 4.40	ug/Kg		6/2/2016 19:41
1,2-Dichloropropane	< 4.40	ug/Kg		6/2/2016 19:41
1,3-Dichlorobenzene	< 4.40	ug/Kg		6/2/2016 19:41
1,4-Dichlorobenzene	< 4.40	ug/Kg		6/2/2016 19:41
1,4-dioxane	< 44.0	ug/Kg		6/2/2016 19:41
2-Butanone	< 22.0	ug/Kg		6/2/2016 19:41
2-Hexanone	< 11.0	ug/Kg		6/2/2016 19:41
4-Methyl-2-pentanone	< 11.0	ug/Kg		6/2/2016 19:41
Acetone	< 22.0	ug/Kg		6/2/2016 19:41
Benzene	< 4.40	ug/Kg		6/2/2016 19:41
Bromochloromethane	< 11.0	ug/Kg		6/2/2016 19:41
Bromodichloromethane	< 4.40	ug/Kg		6/2/2016 19:41
Bromoform	< 11.0	ug/Kg		6/2/2016 19:41
Bromomethane	< 4.40	ug/Kg		6/2/2016 19:41
Carbon disulfide	< 4.40	ug/Kg		6/2/2016 19:41
Carbon Tetrachloride	< 4.40	ug/Kg		6/2/2016 19:41
Chlorobenzene	< 4.40	ug/Kg		6/2/2016 19:41

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B7-S

Lab Sample ID: 162126-06 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.40	ug/Kg	6/2/2016	19:41
Chloroform	< 4.40	ug/Kg	6/2/2016	19:41
Chloromethane	< 4.40	ug/Kg	6/2/2016	19:41
cis-1,2-Dichloroethene	< 4.40	ug/Kg	6/2/2016	19:41
cis-1,3-Dichloropropene	< 4.40	ug/Kg	6/2/2016	19:41
Cyclohexane	< 22.0	ug/Kg	6/2/2016	19:41
Dibromochloromethane	< 4.40	ug/Kg	6/2/2016	19:41
Dichlorodifluoromethane	< 4.40	ug/Kg	6/2/2016	19:41
Ethylbenzene	< 4.40	ug/Kg	6/2/2016	19:41
Freon 113	< 4.40	ug/Kg	6/2/2016	19:41
Isopropylbenzene	< 4.40	ug/Kg	6/2/2016	19:41
m,p-Xylene	< 4.40	ug/Kg	6/2/2016	19:41
Methyl acetate	< 4.40	ug/Kg	6/2/2016	19:41
Methyl tert-butyl Ether	< 4.40	ug/Kg	6/2/2016	19:41
Methylcyclohexane	< 4.40	ug/Kg	6/2/2016	19:41
Methylene chloride	< 11.0	ug/Kg	6/2/2016	19:41
o-Xylene	< 4.40	ug/Kg	6/2/2016	19:41
Styrene	< 11.0	ug/Kg	6/2/2016	19:41
Tetrachloroethene	**109**	ug/Kg	6/2/2016	19:41
Toluene	< 4.40	ug/Kg	6/2/2016	19:41
trans-1,2-Dichloroethene	< 4.40	ug/Kg	6/2/2016	19:41
trans-1,3-Dichloropropene	< 4.40	ug/Kg	6/2/2016	19:41
Trichloroethene	< 4.40	ug/Kg	6/2/2016	19:41
Trichlorofluoromethane	< 4.40	ug/Kg	6/2/2016	19:41
Vinyl chloride	< 4.40	ug/Kg	6/2/2016	19:41

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B7-S

Lab Sample ID: 162126-06 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**98.7**	85.4 - 122		6/2/2016	19:41
4-Bromofluorobenzene	**99.0**	81.1 - 115		6/2/2016	19:41
Pentafluorobenzene	**95.5**	90.7 - 109		6/2/2016	19:41
Toluene-D8	**101**	88.5 - 110		6/2/2016	19:41

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32866.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B8-S		
Lab Sample ID:	162126-07	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.56	ug/Kg		6/2/2016 20:05
1,1,2,2-Tetrachloroethane	< 3.56	ug/Kg		6/2/2016 20:05
1,1,2-Trichloroethane	< 3.56	ug/Kg		6/2/2016 20:05
1,1-Dichloroethane	< 3.56	ug/Kg		6/2/2016 20:05
1,1-Dichloroethene	< 3.56	ug/Kg		6/2/2016 20:05
1,2,3-Trichlorobenzene	< 8.90	ug/Kg		6/2/2016 20:05
1,2,4-Trichlorobenzene	< 8.90	ug/Kg		6/2/2016 20:05
1,2-Dibromo-3-Chloropropane	< 17.8	ug/Kg		6/2/2016 20:05
1,2-Dibromoethane	< 3.56	ug/Kg		6/2/2016 20:05
1,2-Dichlorobenzene	< 3.56	ug/Kg		6/2/2016 20:05
1,2-Dichloroethane	< 3.56	ug/Kg		6/2/2016 20:05
1,2-Dichloropropane	< 3.56	ug/Kg		6/2/2016 20:05
1,3-Dichlorobenzene	< 3.56	ug/Kg		6/2/2016 20:05
1,4-Dichlorobenzene	< 3.56	ug/Kg		6/2/2016 20:05
1,4-dioxane	< 35.6	ug/Kg		6/2/2016 20:05
2-Butanone	< 17.8	ug/Kg		6/2/2016 20:05
2-Hexanone	< 8.90	ug/Kg		6/2/2016 20:05
4-Methyl-2-pentanone	< 8.90	ug/Kg		6/2/2016 20:05
Acetone	< 17.8	ug/Kg		6/2/2016 20:05
Benzene	< 3.56	ug/Kg		6/2/2016 20:05
Bromochloromethane	< 8.90	ug/Kg		6/2/2016 20:05
Bromodichloromethane	< 3.56	ug/Kg		6/2/2016 20:05
Bromoform	< 8.90	ug/Kg		6/2/2016 20:05
Bromomethane	< 3.56	ug/Kg		6/2/2016 20:05
Carbon disulfide	< 3.56	ug/Kg		6/2/2016 20:05
Carbon Tetrachloride	< 3.56	ug/Kg		6/2/2016 20:05
Chlorobenzene	< 3.56	ug/Kg		6/2/2016 20:05

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B8-S

Lab Sample ID: 162126-07 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 3.56	ug/Kg	6/2/2016 20:05
Chloroform	< 3.56	ug/Kg	6/2/2016 20:05
Chloromethane	< 3.56	ug/Kg	6/2/2016 20:05
cis-1,2-Dichloroethene	< 3.56	ug/Kg	6/2/2016 20:05
cis-1,3-Dichloropropene	< 3.56	ug/Kg	6/2/2016 20:05
Cyclohexane	< 17.8	ug/Kg	6/2/2016 20:05
Dibromochloromethane	< 3.56	ug/Kg	6/2/2016 20:05
Dichlorodifluoromethane	< 3.56	ug/Kg	6/2/2016 20:05
Ethylbenzene	< 3.56	ug/Kg	6/2/2016 20:05
Freon 113	< 3.56	ug/Kg	6/2/2016 20:05
Isopropylbenzene	< 3.56	ug/Kg	6/2/2016 20:05
m,p-Xylene	< 3.56	ug/Kg	6/2/2016 20:05
Methyl acetate	< 3.56	ug/Kg	6/2/2016 20:05
Methyl tert-butyl Ether	< 3.56	ug/Kg	6/2/2016 20:05
Methylcyclohexane	< 3.56	ug/Kg	6/2/2016 20:05
Methylene chloride	< 8.90	ug/Kg	6/2/2016 20:05
o-Xylene	< 3.56	ug/Kg	6/2/2016 20:05
Styrene	< 8.90	ug/Kg	6/2/2016 20:05
Tetrachloroethene	**166**	ug/Kg	6/2/2016 20:05
Toluene	< 3.56	ug/Kg	6/2/2016 20:05
trans-1,2-Dichloroethene	< 3.56	ug/Kg	6/2/2016 20:05
trans-1,3-Dichloropropene	< 3.56	ug/Kg	6/2/2016 20:05
Trichloroethene	< 3.56	ug/Kg	6/2/2016 20:05
Trichlorofluoromethane	< 3.56	ug/Kg	6/2/2016 20:05
Vinyl chloride	< 3.56	ug/Kg	6/2/2016 20:05

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B8-S		
Lab Sample ID:	162126-07	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**98.4**	85.4 - 122		6/2/2016	20:05
4-Bromofluorobenzene	**97.4**	81.1 - 115		6/2/2016	20:05
Pentafluorobenzene	**94.8**	90.7 - 109		6/2/2016	20:05
Toluene-D8	**101**	88.5 - 110		6/2/2016	20:05

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32867.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B9-S		
Lab Sample ID:	162126-08	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.69	ug/Kg		6/3/2016 12:53
1,1,2,2-Tetrachloroethane	< 3.69	ug/Kg		6/3/2016 12:53
1,1,2-Trichloroethane	< 3.69	ug/Kg		6/3/2016 12:53
1,1-Dichloroethane	< 3.69	ug/Kg		6/3/2016 12:53
1,1-Dichloroethene	< 3.69	ug/Kg		6/3/2016 12:53
1,2,3-Trichlorobenzene	< 9.22	ug/Kg		6/3/2016 12:53
1,2,4-Trichlorobenzene	< 9.22	ug/Kg		6/3/2016 12:53
1,2-Dibromo-3-Chloropropane	< 18.4	ug/Kg		6/3/2016 12:53
1,2-Dibromoethane	< 3.69	ug/Kg		6/3/2016 12:53
1,2-Dichlorobenzene	< 3.69	ug/Kg	M	6/3/2016 12:53
1,2-Dichloroethane	< 3.69	ug/Kg		6/3/2016 12:53
1,2-Dichloropropane	< 3.69	ug/Kg		6/3/2016 12:53
1,3-Dichlorobenzene	< 3.69	ug/Kg	M	6/3/2016 12:53
1,4-Dichlorobenzene	< 3.69	ug/Kg	M	6/3/2016 12:53
1,4-dioxane	< 36.9	ug/Kg		6/3/2016 12:53
2-Butanone	< 18.4	ug/Kg		6/3/2016 12:53
2-Hexanone	< 9.22	ug/Kg		6/3/2016 12:53
4-Methyl-2-pentanone	< 9.22	ug/Kg		6/3/2016 12:53
Acetone	< 18.4	ug/Kg		6/3/2016 12:53
Benzene	< 3.69	ug/Kg		6/3/2016 12:53
Bromochloromethane	< 9.22	ug/Kg		6/3/2016 12:53
Bromodichloromethane	< 3.69	ug/Kg		6/3/2016 12:53
Bromoform	< 9.22	ug/Kg		6/3/2016 12:53
Bromomethane	< 3.69	ug/Kg		6/3/2016 12:53
Carbon disulfide	< 3.69	ug/Kg		6/3/2016 12:53
Carbon Tetrachloride	< 3.69	ug/Kg		6/3/2016 12:53
Chlorobenzene	< 3.69	ug/Kg	M	6/3/2016 12:53

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B9-S

Lab Sample ID: 162126-08 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 3.69	ug/Kg	6/3/2016 12:53
Chloroform	< 3.69	ug/Kg	6/3/2016 12:53
Chloromethane	< 3.69	ug/Kg	6/3/2016 12:53
cis-1,2-Dichloroethene	< 3.69	ug/Kg	6/3/2016 12:53
cis-1,3-Dichloropropene	< 3.69	ug/Kg	6/3/2016 12:53
Cyclohexane	< 18.4	ug/Kg	6/3/2016 12:53
Dibromochloromethane	< 3.69	ug/Kg	6/3/2016 12:53
Dichlorodifluoromethane	< 3.69	ug/Kg	6/3/2016 12:53
Ethylbenzene	< 3.69	ug/Kg	6/3/2016 12:53
Freon 113	< 3.69	ug/Kg	6/3/2016 12:53
Isopropylbenzene	< 3.69	ug/Kg	6/3/2016 12:53
m,p-Xylene	< 3.69	ug/Kg	6/3/2016 12:53
Methyl acetate	< 3.69	ug/Kg	6/3/2016 12:53
Methyl tert-butyl Ether	< 3.69	ug/Kg	6/3/2016 12:53
Methylcyclohexane	< 3.69	ug/Kg	6/3/2016 12:53
Methylene chloride	< 9.22	ug/Kg	6/3/2016 12:53
o-Xylene	< 3.69	ug/Kg	6/3/2016 12:53
Styrene	< 9.22	ug/Kg	6/3/2016 12:53
Tetrachloroethene	< 3.69	ug/Kg	6/3/2016 12:53
Toluene	< 3.69	ug/Kg	6/3/2016 12:53
trans-1,2-Dichloroethene	< 3.69	ug/Kg	6/3/2016 12:53
trans-1,3-Dichloropropene	< 3.69	ug/Kg	6/3/2016 12:53
Trichloroethene	< 3.69	ug/Kg	6/3/2016 12:53
Trichlorofluoromethane	< 3.69	ug/Kg	6/3/2016 12:53
Vinyl chloride	< 3.69	ug/Kg	6/3/2016 12:53

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B9-S

Lab Sample ID: 162126-08 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**107**	85.4 - 122		6/3/2016	12:53
4-Bromofluorobenzene	**95.3**	81.1 - 115		6/3/2016	12:53
Pentafluorobenzene	**93.4**	90.7 - 109		6/3/2016	12:53
Toluene-D8	**99.9**	88.5 - 110		6/3/2016	12:53

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32903.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B10-S		
Lab Sample ID:	162126-09	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.91	ug/Kg		6/3/2016 13:42
1,1,2,2-Tetrachloroethane	< 3.91	ug/Kg		6/3/2016 13:42
1,1,2-Trichloroethane	< 3.91	ug/Kg		6/3/2016 13:42
1,1-Dichloroethane	< 3.91	ug/Kg		6/3/2016 13:42
1,1-Dichloroethene	< 3.91	ug/Kg		6/3/2016 13:42
1,2,3-Trichlorobenzene	< 9.78	ug/Kg		6/3/2016 13:42
1,2,4-Trichlorobenzene	< 9.78	ug/Kg		6/3/2016 13:42
1,2-Dibromo-3-Chloropropane	< 19.6	ug/Kg		6/3/2016 13:42
1,2-Dibromoethane	< 3.91	ug/Kg		6/3/2016 13:42
1,2-Dichlorobenzene	< 3.91	ug/Kg		6/3/2016 13:42
1,2-Dichloroethane	< 3.91	ug/Kg		6/3/2016 13:42
1,2-Dichloropropane	< 3.91	ug/Kg		6/3/2016 13:42
1,3-Dichlorobenzene	< 3.91	ug/Kg		6/3/2016 13:42
1,4-Dichlorobenzene	< 3.91	ug/Kg		6/3/2016 13:42
1,4-dioxane	< 39.1	ug/Kg		6/3/2016 13:42
2-Butanone	< 19.6	ug/Kg		6/3/2016 13:42
2-Hexanone	< 9.78	ug/Kg		6/3/2016 13:42
4-Methyl-2-pentanone	< 9.78	ug/Kg		6/3/2016 13:42
Acetone	< 19.6	ug/Kg		6/3/2016 13:42
Benzene	< 3.91	ug/Kg		6/3/2016 13:42
Bromochloromethane	< 9.78	ug/Kg		6/3/2016 13:42
Bromodichloromethane	< 3.91	ug/Kg		6/3/2016 13:42
Bromoform	< 9.78	ug/Kg		6/3/2016 13:42
Bromomethane	< 3.91	ug/Kg		6/3/2016 13:42
Carbon disulfide	< 3.91	ug/Kg		6/3/2016 13:42
Carbon Tetrachloride	< 3.91	ug/Kg		6/3/2016 13:42
Chlorobenzene	< 3.91	ug/Kg		6/3/2016 13:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B10-S		
Lab Sample ID:	162126-09	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Chloroethane	< 3.91	ug/Kg		6/3/2016 13:42
Chloroform	< 3.91	ug/Kg		6/3/2016 13:42
Chloromethane	< 3.91	ug/Kg		6/3/2016 13:42
cis-1,2-Dichloroethene	< 3.91	ug/Kg		6/3/2016 13:42
cis-1,3-Dichloropropene	< 3.91	ug/Kg		6/3/2016 13:42
Cyclohexane	< 19.6	ug/Kg		6/3/2016 13:42
Dibromochloromethane	< 3.91	ug/Kg		6/3/2016 13:42
Dichlorodifluoromethane	< 3.91	ug/Kg		6/3/2016 13:42
Ethylbenzene	< 3.91	ug/Kg		6/3/2016 13:42
Freon 113	< 3.91	ug/Kg		6/3/2016 13:42
Isopropylbenzene	< 3.91	ug/Kg		6/3/2016 13:42
m,p-Xylene	< 3.91	ug/Kg		6/3/2016 13:42
Methyl acetate	< 3.91	ug/Kg		6/3/2016 13:42
Methyl tert-butyl Ether	< 3.91	ug/Kg		6/3/2016 13:42
Methylcyclohexane	< 3.91	ug/Kg		6/3/2016 13:42
Methylene chloride	**5.21**	ug/Kg	J	6/3/2016 13:42
o-Xylene	< 3.91	ug/Kg		6/3/2016 13:42
Styrene	< 9.78	ug/Kg		6/3/2016 13:42
Tetrachloroethene	**314**	ug/Kg		6/3/2016 13:42
Toluene	< 3.91	ug/Kg		6/3/2016 13:42
trans-1,2-Dichloroethene	< 3.91	ug/Kg		6/3/2016 13:42
trans-1,3-Dichloropropene	< 3.91	ug/Kg		6/3/2016 13:42
Trichloroethene	< 3.91	ug/Kg		6/3/2016 13:42
Trichlorofluoromethane	< 3.91	ug/Kg		6/3/2016 13:42
Vinyl chloride	< 3.91	ug/Kg		6/3/2016 13:42

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B10-S		
Lab Sample ID:	162126-09	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**106**	85.4 - 122		6/3/2016	13:42
4-Bromofluorobenzene	**91.2**	81.1 - 115		6/3/2016	13:42
Pentafluorobenzene	**91.2**	90.7 - 109		6/3/2016	13:42
Toluene-D8	**99.1**	88.5 - 110		6/3/2016	13:42

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32904.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B11-S		
Lab Sample ID:	162126-10	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.42	ug/Kg		6/3/2016 14:06
1,1,2,2-Tetrachloroethane	< 4.42	ug/Kg		6/3/2016 14:06
1,1,2-Trichloroethane	< 4.42	ug/Kg		6/3/2016 14:06
1,1-Dichloroethane	< 4.42	ug/Kg		6/3/2016 14:06
1,1-Dichloroethene	< 4.42	ug/Kg		6/3/2016 14:06
1,2,3-Trichlorobenzene	< 11.1	ug/Kg		6/3/2016 14:06
1,2,4-Trichlorobenzene	< 11.1	ug/Kg		6/3/2016 14:06
1,2-Dibromo-3-Chloropropane	< 22.1	ug/Kg		6/3/2016 14:06
1,2-Dibromoethane	< 4.42	ug/Kg		6/3/2016 14:06
1,2-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 14:06
1,2-Dichloroethane	< 4.42	ug/Kg		6/3/2016 14:06
1,2-Dichloropropane	< 4.42	ug/Kg		6/3/2016 14:06
1,3-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 14:06
1,4-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 14:06
1,4-dioxane	< 44.2	ug/Kg		6/3/2016 14:06
2-Butanone	< 22.1	ug/Kg		6/3/2016 14:06
2-Hexanone	< 11.1	ug/Kg		6/3/2016 14:06
4-Methyl-2-pentanone	< 11.1	ug/Kg		6/3/2016 14:06
Acetone	< 22.1	ug/Kg		6/3/2016 14:06
Benzene	< 4.42	ug/Kg		6/3/2016 14:06
Bromochloromethane	< 11.1	ug/Kg		6/3/2016 14:06
Bromodichloromethane	< 4.42	ug/Kg		6/3/2016 14:06
Bromoform	< 11.1	ug/Kg		6/3/2016 14:06
Bromomethane	< 4.42	ug/Kg		6/3/2016 14:06
Carbon disulfide	< 4.42	ug/Kg		6/3/2016 14:06
Carbon Tetrachloride	< 4.42	ug/Kg		6/3/2016 14:06
Chlorobenzene	< 4.42	ug/Kg		6/3/2016 14:06

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B11-S
Lab Sample ID: 162126-10 **Date Sampled:** 5/24/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.42	ug/Kg		6/3/2016 14:06
Chloroform	< 4.42	ug/Kg		6/3/2016 14:06
Chloromethane	< 4.42	ug/Kg		6/3/2016 14:06
cis-1,2-Dichloroethene	< 4.42	ug/Kg		6/3/2016 14:06
cis-1,3-Dichloropropene	< 4.42	ug/Kg		6/3/2016 14:06
Cyclohexane	< 22.1	ug/Kg		6/3/2016 14:06
Dibromochloromethane	< 4.42	ug/Kg		6/3/2016 14:06
Dichlorodifluoromethane	< 4.42	ug/Kg		6/3/2016 14:06
Ethylbenzene	< 4.42	ug/Kg		6/3/2016 14:06
Freon 113	< 4.42	ug/Kg		6/3/2016 14:06
Isopropylbenzene	< 4.42	ug/Kg		6/3/2016 14:06
m,p-Xylene	< 4.42	ug/Kg		6/3/2016 14:06
Methyl acetate	< 4.42	ug/Kg		6/3/2016 14:06
Methyl tert-butyl Ether	< 4.42	ug/Kg		6/3/2016 14:06
Methylcyclohexane	< 4.42	ug/Kg		6/3/2016 14:06
Methylene chloride	**9.63**	ug/Kg	J	6/3/2016 14:06
o-Xylene	< 4.42	ug/Kg		6/3/2016 14:06
Styrene	< 11.1	ug/Kg		6/3/2016 14:06
Tetrachloroethene	**33.0**	ug/Kg		6/3/2016 14:06
Toluene	< 4.42	ug/Kg		6/3/2016 14:06
trans-1,2-Dichloroethene	< 4.42	ug/Kg		6/3/2016 14:06
trans-1,3-Dichloropropene	< 4.42	ug/Kg		6/3/2016 14:06
Trichloroethene	< 4.42	ug/Kg		6/3/2016 14:06
Trichlorofluoromethane	< 4.42	ug/Kg		6/3/2016 14:06
Vinyl chloride	< 4.42	ug/Kg		6/3/2016 14:06

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B11-S

Lab Sample ID: 162126-10 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	85.4 - 122		6/3/2016	14:06
4-Bromofluorobenzene	**92.5**	81.1 - 115		6/3/2016	14:06
Pentafluorobenzene	**91.0**	90.7 - 109		6/3/2016	14:06
Toluene-D8	**97.6**	88.5 - 110		6/3/2016	14:06

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32905.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B12-S		
Lab Sample ID:	162126-11	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.26	ug/Kg		6/3/2016 14:30
1,1,2,2-Tetrachloroethane	< 4.26	ug/Kg		6/3/2016 14:30
1,1,2-Trichloroethane	< 4.26	ug/Kg		6/3/2016 14:30
1,1-Dichloroethane	< 4.26	ug/Kg		6/3/2016 14:30
1,1-Dichloroethene	< 4.26	ug/Kg		6/3/2016 14:30
1,2,3-Trichlorobenzene	< 10.6	ug/Kg		6/3/2016 14:30
1,2,4-Trichlorobenzene	< 10.6	ug/Kg		6/3/2016 14:30
1,2-Dibromo-3-Chloropropane	< 21.3	ug/Kg		6/3/2016 14:30
1,2-Dibromoethane	< 4.26	ug/Kg		6/3/2016 14:30
1,2-Dichlorobenzene	< 4.26	ug/Kg		6/3/2016 14:30
1,2-Dichloroethane	< 4.26	ug/Kg		6/3/2016 14:30
1,2-Dichloropropane	< 4.26	ug/Kg		6/3/2016 14:30
1,3-Dichlorobenzene	< 4.26	ug/Kg		6/3/2016 14:30
1,4-Dichlorobenzene	< 4.26	ug/Kg		6/3/2016 14:30
1,4-dioxane	< 42.6	ug/Kg		6/3/2016 14:30
2-Butanone	< 21.3	ug/Kg		6/3/2016 14:30
2-Hexanone	< 10.6	ug/Kg		6/3/2016 14:30
4-Methyl-2-pentanone	< 10.6	ug/Kg		6/3/2016 14:30
Acetone	< 21.3	ug/Kg		6/3/2016 14:30
Benzene	< 4.26	ug/Kg		6/3/2016 14:30
Bromochloromethane	< 10.6	ug/Kg		6/3/2016 14:30
Bromodichloromethane	< 4.26	ug/Kg		6/3/2016 14:30
Bromoform	< 10.6	ug/Kg		6/3/2016 14:30
Bromomethane	< 4.26	ug/Kg		6/3/2016 14:30
Carbon disulfide	< 4.26	ug/Kg		6/3/2016 14:30
Carbon Tetrachloride	< 4.26	ug/Kg		6/3/2016 14:30
Chlorobenzene	< 4.26	ug/Kg		6/3/2016 14:30

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B12-S		
Lab Sample ID:	162126-11	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Chloroethane	< 4.26	ug/Kg		6/3/2016 14:30
Chloroform	< 4.26	ug/Kg		6/3/2016 14:30
Chloromethane	< 4.26	ug/Kg		6/3/2016 14:30
cis-1,2-Dichloroethene	< 4.26	ug/Kg		6/3/2016 14:30
cis-1,3-Dichloropropene	< 4.26	ug/Kg		6/3/2016 14:30
Cyclohexane	< 21.3	ug/Kg		6/3/2016 14:30
Dibromochloromethane	< 4.26	ug/Kg		6/3/2016 14:30
Dichlorodifluoromethane	< 4.26	ug/Kg		6/3/2016 14:30
Ethylbenzene	< 4.26	ug/Kg		6/3/2016 14:30
Freon 113	< 4.26	ug/Kg		6/3/2016 14:30
Isopropylbenzene	< 4.26	ug/Kg		6/3/2016 14:30
m,p-Xylene	< 4.26	ug/Kg		6/3/2016 14:30
Methyl acetate	< 4.26	ug/Kg		6/3/2016 14:30
Methyl tert-butyl Ether	< 4.26	ug/Kg		6/3/2016 14:30
Methylcyclohexane	< 4.26	ug/Kg		6/3/2016 14:30
Methylene chloride	**5.91**	ug/Kg	J	6/3/2016 14:30
o-Xylene	< 4.26	ug/Kg		6/3/2016 14:30
Styrene	< 10.6	ug/Kg		6/3/2016 14:30
Tetrachloroethene	**4.30**	ug/Kg		6/3/2016 14:30
Toluene	< 4.26	ug/Kg		6/3/2016 14:30
trans-1,2-Dichloroethene	< 4.26	ug/Kg		6/3/2016 14:30
trans-1,3-Dichloropropene	< 4.26	ug/Kg		6/3/2016 14:30
Trichloroethene	< 4.26	ug/Kg		6/3/2016 14:30
Trichlorofluoromethane	< 4.26	ug/Kg		6/3/2016 14:30
Vinyl chloride	< 4.26	ug/Kg		6/3/2016 14:30

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B12-S

Lab Sample ID: 162126-11 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**110**	85.4 - 122		6/3/2016	14:30
4-Bromofluorobenzene	**96.6**	81.1 - 115		6/3/2016	14:30
Pentafluorobenzene	**92.1**	90.7 - 109		6/3/2016	14:30
Toluene-D8	**101**	88.5 - 110		6/3/2016	14:30

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32906.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B13-S		
Lab Sample ID:	162126-12	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.49	ug/Kg		6/3/2016 14:54
1,1,2,2-Tetrachloroethane	< 4.49	ug/Kg		6/3/2016 14:54
1,1,2-Trichloroethane	< 4.49	ug/Kg		6/3/2016 14:54
1,1-Dichloroethane	< 4.49	ug/Kg		6/3/2016 14:54
1,1-Dichloroethene	< 4.49	ug/Kg		6/3/2016 14:54
1,2,3-Trichlorobenzene	< 11.2	ug/Kg		6/3/2016 14:54
1,2,4-Trichlorobenzene	< 11.2	ug/Kg		6/3/2016 14:54
1,2-Dibromo-3-Chloropropane	< 22.4	ug/Kg		6/3/2016 14:54
1,2-Dibromoethane	< 4.49	ug/Kg		6/3/2016 14:54
1,2-Dichlorobenzene	< 4.49	ug/Kg		6/3/2016 14:54
1,2-Dichloroethane	< 4.49	ug/Kg		6/3/2016 14:54
1,2-Dichloropropane	< 4.49	ug/Kg		6/3/2016 14:54
1,3-Dichlorobenzene	< 4.49	ug/Kg		6/3/2016 14:54
1,4-Dichlorobenzene	< 4.49	ug/Kg		6/3/2016 14:54
1,4-dioxane	< 44.9	ug/Kg		6/3/2016 14:54
2-Butanone	< 22.4	ug/Kg		6/3/2016 14:54
2-Hexanone	< 11.2	ug/Kg		6/3/2016 14:54
4-Methyl-2-pentanone	< 11.2	ug/Kg		6/3/2016 14:54
Acetone	< 22.4	ug/Kg		6/3/2016 14:54
Benzene	< 4.49	ug/Kg		6/3/2016 14:54
Bromochloromethane	< 11.2	ug/Kg		6/3/2016 14:54
Bromodichloromethane	< 4.49	ug/Kg		6/3/2016 14:54
Bromoform	< 11.2	ug/Kg		6/3/2016 14:54
Bromomethane	< 4.49	ug/Kg		6/3/2016 14:54
Carbon disulfide	< 4.49	ug/Kg		6/3/2016 14:54
Carbon Tetrachloride	< 4.49	ug/Kg		6/3/2016 14:54
Chlorobenzene	< 4.49	ug/Kg		6/3/2016 14:54

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B13-S

Lab Sample ID: 162126-12 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.49	ug/Kg		6/3/2016	14:54
Chloroform	< 4.49	ug/Kg		6/3/2016	14:54
Chloromethane	< 4.49	ug/Kg		6/3/2016	14:54
cis-1,2-Dichloroethene	< 4.49	ug/Kg		6/3/2016	14:54
cis-1,3-Dichloropropene	< 4.49	ug/Kg		6/3/2016	14:54
Cyclohexane	< 22.4	ug/Kg		6/3/2016	14:54
Dibromochloromethane	< 4.49	ug/Kg		6/3/2016	14:54
Dichlorodifluoromethane	< 4.49	ug/Kg		6/3/2016	14:54
Ethylbenzene	< 4.49	ug/Kg		6/3/2016	14:54
Freon 113	< 4.49	ug/Kg		6/3/2016	14:54
Isopropylbenzene	< 4.49	ug/Kg		6/3/2016	14:54
m,p-Xylene	< 4.49	ug/Kg		6/3/2016	14:54
Methyl acetate	< 4.49	ug/Kg		6/3/2016	14:54
Methyl tert-butyl Ether	< 4.49	ug/Kg		6/3/2016	14:54
Methylcyclohexane	< 4.49	ug/Kg		6/3/2016	14:54
Methylene chloride	**7.98**	ug/Kg	J	6/3/2016	14:54
o-Xylene	< 4.49	ug/Kg		6/3/2016	14:54
Styrene	< 11.2	ug/Kg		6/3/2016	14:54
Tetrachloroethene	**10.5**	ug/Kg		6/3/2016	14:54
Toluene	< 4.49	ug/Kg		6/3/2016	14:54
trans-1,2-Dichloroethene	< 4.49	ug/Kg		6/3/2016	14:54
trans-1,3-Dichloropropene	< 4.49	ug/Kg		6/3/2016	14:54
Trichloroethene	< 4.49	ug/Kg		6/3/2016	14:54
Trichlorofluoromethane	< 4.49	ug/Kg		6/3/2016	14:54
Vinyl chloride	< 4.49	ug/Kg		6/3/2016	14:54

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B13-S

Lab Sample ID: 162126-12 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**110**	85.4 - 122		6/3/2016	14:54
4-Bromofluorobenzene	**94.1**	81.1 - 115		6/3/2016	14:54
Pentafluorobenzene	**91.6**	90.7 - 109		6/3/2016	14:54
Toluene-D8	**98.5**	88.5 - 110		6/3/2016	14:54

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32907.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B14-S		
Lab Sample ID:	162126-13	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.78	ug/Kg		6/3/2016 15:18
1,1,2,2-Tetrachloroethane	< 3.78	ug/Kg		6/3/2016 15:18
1,1,2-Trichloroethane	< 3.78	ug/Kg		6/3/2016 15:18
1,1-Dichloroethane	< 3.78	ug/Kg		6/3/2016 15:18
1,1-Dichloroethene	< 3.78	ug/Kg		6/3/2016 15:18
1,2,3-Trichlorobenzene	< 9.44	ug/Kg		6/3/2016 15:18
1,2,4-Trichlorobenzene	< 9.44	ug/Kg		6/3/2016 15:18
1,2-Dibromo-3-Chloropropane	< 18.9	ug/Kg		6/3/2016 15:18
1,2-Dibromoethane	< 3.78	ug/Kg		6/3/2016 15:18
1,2-Dichlorobenzene	< 3.78	ug/Kg		6/3/2016 15:18
1,2-Dichloroethane	< 3.78	ug/Kg		6/3/2016 15:18
1,2-Dichloropropane	< 3.78	ug/Kg		6/3/2016 15:18
1,3-Dichlorobenzene	< 3.78	ug/Kg		6/3/2016 15:18
1,4-Dichlorobenzene	< 3.78	ug/Kg		6/3/2016 15:18
1,4-dioxane	< 37.8	ug/Kg		6/3/2016 15:18
2-Butanone	< 18.9	ug/Kg		6/3/2016 15:18
2-Hexanone	< 9.44	ug/Kg		6/3/2016 15:18
4-Methyl-2-pentanone	< 9.44	ug/Kg		6/3/2016 15:18
Acetone	< 18.9	ug/Kg		6/3/2016 15:18
Benzene	< 3.78	ug/Kg		6/3/2016 15:18
Bromochloromethane	< 9.44	ug/Kg		6/3/2016 15:18
Bromodichloromethane	< 3.78	ug/Kg		6/3/2016 15:18
Bromoform	< 9.44	ug/Kg		6/3/2016 15:18
Bromomethane	< 3.78	ug/Kg		6/3/2016 15:18
Carbon disulfide	< 3.78	ug/Kg		6/3/2016 15:18
Carbon Tetrachloride	< 3.78	ug/Kg		6/3/2016 15:18
Chlorobenzene	< 3.78	ug/Kg		6/3/2016 15:18

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B14-S		
Lab Sample ID:	162126-13	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Chloroethane	< 3.78	ug/Kg		6/3/2016 15:18
Chloroform	< 3.78	ug/Kg		6/3/2016 15:18
Chloromethane	< 3.78	ug/Kg		6/3/2016 15:18
cis-1,2-Dichloroethene	< 3.78	ug/Kg		6/3/2016 15:18
cis-1,3-Dichloropropene	< 3.78	ug/Kg		6/3/2016 15:18
Cyclohexane	< 18.9	ug/Kg		6/3/2016 15:18
Dibromochloromethane	< 3.78	ug/Kg		6/3/2016 15:18
Dichlorodifluoromethane	< 3.78	ug/Kg		6/3/2016 15:18
Ethylbenzene	< 3.78	ug/Kg		6/3/2016 15:18
Freon 113	< 3.78	ug/Kg		6/3/2016 15:18
Isopropylbenzene	< 3.78	ug/Kg		6/3/2016 15:18
m,p-Xylene	< 3.78	ug/Kg		6/3/2016 15:18
Methyl acetate	< 3.78	ug/Kg		6/3/2016 15:18
Methyl tert-butyl Ether	< 3.78	ug/Kg		6/3/2016 15:18
Methylcyclohexane	< 3.78	ug/Kg		6/3/2016 15:18
Methylene chloride	**6.76**	ug/Kg	J	6/3/2016 15:18
o-Xylene	< 3.78	ug/Kg		6/3/2016 15:18
Styrene	< 9.44	ug/Kg		6/3/2016 15:18
Tetrachloroethene	**8.71**	ug/Kg		6/3/2016 15:18
Toluene	< 3.78	ug/Kg		6/3/2016 15:18
trans-1,2-Dichloroethene	< 3.78	ug/Kg		6/3/2016 15:18
trans-1,3-Dichloropropene	< 3.78	ug/Kg		6/3/2016 15:18
Trichloroethene	< 3.78	ug/Kg		6/3/2016 15:18
Trichlorofluoromethane	< 3.78	ug/Kg		6/3/2016 15:18
Vinyl chloride	< 3.78	ug/Kg		6/3/2016 15:18

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B14-S		
Lab Sample ID:	162126-13	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**111**	85.4 - 122		6/3/2016	15:18
4-Bromofluorobenzene	**95.5**	81.1 - 115		6/3/2016	15:18
Pentafluorobenzene	**92.4**	90.7 - 109		6/3/2016	15:18
Toluene-D8	**97.9**	88.5 - 110		6/3/2016	15:18

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32908.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B15-S		
Lab Sample ID:	162126-14	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.32	ug/Kg		6/3/2016 15:42
1,1,2,2-Tetrachloroethane	< 3.32	ug/Kg		6/3/2016 15:42
1,1,2-Trichloroethane	< 3.32	ug/Kg		6/3/2016 15:42
1,1-Dichloroethane	< 3.32	ug/Kg		6/3/2016 15:42
1,1-Dichloroethene	< 3.32	ug/Kg		6/3/2016 15:42
1,2,3-Trichlorobenzene	< 8.30	ug/Kg		6/3/2016 15:42
1,2,4-Trichlorobenzene	< 8.30	ug/Kg		6/3/2016 15:42
1,2-Dibromo-3-Chloropropane	< 16.6	ug/Kg		6/3/2016 15:42
1,2-Dibromoethane	< 3.32	ug/Kg		6/3/2016 15:42
1,2-Dichlorobenzene	< 3.32	ug/Kg		6/3/2016 15:42
1,2-Dichloroethane	< 3.32	ug/Kg		6/3/2016 15:42
1,2-Dichloropropane	< 3.32	ug/Kg		6/3/2016 15:42
1,3-Dichlorobenzene	< 3.32	ug/Kg		6/3/2016 15:42
1,4-Dichlorobenzene	< 3.32	ug/Kg		6/3/2016 15:42
1,4-dioxane	< 33.2	ug/Kg		6/3/2016 15:42
2-Butanone	< 16.6	ug/Kg		6/3/2016 15:42
2-Hexanone	< 8.30	ug/Kg		6/3/2016 15:42
4-Methyl-2-pentanone	< 8.30	ug/Kg		6/3/2016 15:42
Acetone	< 16.6	ug/Kg		6/3/2016 15:42
Benzene	< 3.32	ug/Kg		6/3/2016 15:42
Bromochloromethane	< 8.30	ug/Kg		6/3/2016 15:42
Bromodichloromethane	< 3.32	ug/Kg		6/3/2016 15:42
Bromoform	< 8.30	ug/Kg		6/3/2016 15:42
Bromomethane	< 3.32	ug/Kg		6/3/2016 15:42
Carbon disulfide	< 3.32	ug/Kg		6/3/2016 15:42
Carbon Tetrachloride	< 3.32	ug/Kg		6/3/2016 15:42
Chlorobenzene	< 3.32	ug/Kg		6/3/2016 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B15-S
Lab Sample ID: 162126-14 **Date Sampled:** 5/24/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 3.32	ug/Kg	6/3/2016 15:42
Chloroform	< 3.32	ug/Kg	6/3/2016 15:42
Chloromethane	< 3.32	ug/Kg	6/3/2016 15:42
cis-1,2-Dichloroethene	< 3.32	ug/Kg	6/3/2016 15:42
cis-1,3-Dichloropropene	< 3.32	ug/Kg	6/3/2016 15:42
Cyclohexane	< 16.6	ug/Kg	6/3/2016 15:42
Dibromochloromethane	< 3.32	ug/Kg	6/3/2016 15:42
Dichlorodifluoromethane	< 3.32	ug/Kg	6/3/2016 15:42
Ethylbenzene	< 3.32	ug/Kg	6/3/2016 15:42
Freon 113	< 3.32	ug/Kg	6/3/2016 15:42
Isopropylbenzene	< 3.32	ug/Kg	6/3/2016 15:42
m,p-Xylene	< 3.32	ug/Kg	6/3/2016 15:42
Methyl acetate	< 3.32	ug/Kg	6/3/2016 15:42
Methyl tert-butyl Ether	< 3.32	ug/Kg	6/3/2016 15:42
Methylcyclohexane	< 3.32	ug/Kg	6/3/2016 15:42
Methylene chloride	< 8.30	ug/Kg	6/3/2016 15:42
o-Xylene	< 3.32	ug/Kg	6/3/2016 15:42
Styrene	< 8.30	ug/Kg	6/3/2016 15:42
Tetrachloroethene	**260**	ug/Kg	6/3/2016 15:42
Toluene	< 3.32	ug/Kg	6/3/2016 15:42
trans-1,2-Dichloroethene	< 3.32	ug/Kg	6/3/2016 15:42
trans-1,3-Dichloropropene	< 3.32	ug/Kg	6/3/2016 15:42
Trichloroethene	**10.6**	ug/Kg	6/3/2016 15:42
Trichlorofluoromethane	< 3.32	ug/Kg	6/3/2016 15:42
Vinyl chloride	< 3.32	ug/Kg	6/3/2016 15:42

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B15-S

Lab Sample ID: 162126-14 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	85.4 - 122		6/3/2016	15:42
4-Bromofluorobenzene	**90.0**	81.1 - 115		6/3/2016	15:42
Pentafluorobenzene	**91.0**	90.7 - 109		6/3/2016	15:42
Toluene-D8	**97.8**	88.5 - 110		6/3/2016	15:42

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32909.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B16-S		
Lab Sample ID:	162126-15	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 10.4	ug/Kg		6/3/2016 20:30
1,1,2,2-Tetrachloroethane	< 10.4	ug/Kg		6/3/2016 20:30
1,1,2-Trichloroethane	< 10.4	ug/Kg		6/3/2016 20:30
1,1-Dichloroethane	< 10.4	ug/Kg		6/3/2016 20:30
1,1-Dichloroethene	< 10.4	ug/Kg		6/3/2016 20:30
1,2,3-Trichlorobenzene	< 25.9	ug/Kg		6/3/2016 20:30
1,2,4-Trichlorobenzene	< 25.9	ug/Kg		6/3/2016 20:30
1,2-Dibromo-3-Chloropropane	< 51.8	ug/Kg		6/3/2016 20:30
1,2-Dibromoethane	< 10.4	ug/Kg		6/3/2016 20:30
1,2-Dichlorobenzene	< 10.4	ug/Kg		6/3/2016 20:30
1,2-Dichloroethane	< 10.4	ug/Kg		6/3/2016 20:30
1,2-Dichloropropane	< 10.4	ug/Kg		6/3/2016 20:30
1,3-Dichlorobenzene	< 10.4	ug/Kg		6/3/2016 20:30
1,4-Dichlorobenzene	< 10.4	ug/Kg		6/3/2016 20:30
1,4-dioxane	< 104	ug/Kg		6/3/2016 20:30
2-Butanone	< 51.8	ug/Kg		6/3/2016 20:30
2-Hexanone	< 25.9	ug/Kg		6/3/2016 20:30
4-Methyl-2-pentanone	< 25.9	ug/Kg		6/3/2016 20:30
Acetone	< 51.8	ug/Kg		6/3/2016 20:30
Benzene	< 10.4	ug/Kg		6/3/2016 20:30
Bromochloromethane	< 25.9	ug/Kg		6/3/2016 20:30
Bromodichloromethane	< 10.4	ug/Kg		6/3/2016 20:30
Bromoform	< 25.9	ug/Kg		6/3/2016 20:30
Bromomethane	< 10.4	ug/Kg		6/3/2016 20:30
Carbon disulfide	< 10.4	ug/Kg		6/3/2016 20:30
Carbon Tetrachloride	< 10.4	ug/Kg		6/3/2016 20:30
Chlorobenzene	< 10.4	ug/Kg		6/3/2016 20:30

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B16-S
Lab Sample ID: 162126-15 **Date Sampled:** 5/24/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 10.4	ug/Kg		6/3/2016 20:30
Chloroform	< 10.4	ug/Kg		6/3/2016 20:30
Chloromethane	< 10.4	ug/Kg		6/3/2016 20:30
cis-1,2-Dichloroethene	< 10.4	ug/Kg		6/3/2016 20:30
cis-1,3-Dichloropropene	< 10.4	ug/Kg		6/3/2016 20:30
Cyclohexane	< 51.8	ug/Kg		6/3/2016 20:30
Dibromochloromethane	< 10.4	ug/Kg		6/3/2016 20:30
Dichlorodifluoromethane	< 10.4	ug/Kg		6/3/2016 20:30
Ethylbenzene	< 10.4	ug/Kg		6/3/2016 20:30
Freon 113	< 10.4	ug/Kg		6/3/2016 20:30
Isopropylbenzene	< 10.4	ug/Kg		6/3/2016 20:30
m,p-Xylene	< 10.4	ug/Kg		6/3/2016 20:30
Methyl acetate	< 10.4	ug/Kg		6/3/2016 20:30
Methyl tert-butyl Ether	< 10.4	ug/Kg		6/3/2016 20:30
Methylcyclohexane	< 10.4	ug/Kg		6/3/2016 20:30
Methylene chloride	< 25.9	ug/Kg		6/3/2016 20:30
o-Xylene	< 10.4	ug/Kg		6/3/2016 20:30
Styrene	< 25.9	ug/Kg		6/3/2016 20:30
Tetrachloroethene	**423**	ug/Kg		6/3/2016 20:30
Toluene	< 10.4	ug/Kg		6/3/2016 20:30
trans-1,2-Dichloroethene	< 10.4	ug/Kg		6/3/2016 20:30
trans-1,3-Dichloropropene	< 10.4	ug/Kg		6/3/2016 20:30
Trichloroethene	**7.58**	ug/Kg	J	6/3/2016 20:30
Trichlorofluoromethane	< 10.4	ug/Kg		6/3/2016 20:30
Vinyl chloride	< 10.4	ug/Kg		6/3/2016 20:30

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B16-S

Lab Sample ID: 162126-15 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	85.4 - 122		6/3/2016	20:30
4-Bromofluorobenzene	**93.0**	81.1 - 115		6/3/2016	20:30
Pentafluorobenzene	**90.9**	90.7 - 109		6/3/2016	20:30
Toluene-D8	**99.7**	88.5 - 110		6/3/2016	20:30

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32921.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B17-S

Lab Sample ID: 162126-16 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.40	ug/Kg		6/3/2016 16:30
1,1,2,2-Tetrachloroethane	< 4.40	ug/Kg		6/3/2016 16:30
1,1,2-Trichloroethane	< 4.40	ug/Kg		6/3/2016 16:30
1,1-Dichloroethane	< 4.40	ug/Kg		6/3/2016 16:30
1,1-Dichloroethene	< 4.40	ug/Kg		6/3/2016 16:30
1,2,3-Trichlorobenzene	< 11.0	ug/Kg		6/3/2016 16:30
1,2,4-Trichlorobenzene	< 11.0	ug/Kg		6/3/2016 16:30
1,2-Dibromo-3-Chloropropane	< 22.0	ug/Kg		6/3/2016 16:30
1,2-Dibromoethane	< 4.40	ug/Kg		6/3/2016 16:30
1,2-Dichlorobenzene	< 4.40	ug/Kg		6/3/2016 16:30
1,2-Dichloroethane	< 4.40	ug/Kg		6/3/2016 16:30
1,2-Dichloropropane	< 4.40	ug/Kg		6/3/2016 16:30
1,3-Dichlorobenzene	< 4.40	ug/Kg		6/3/2016 16:30
1,4-Dichlorobenzene	< 4.40	ug/Kg		6/3/2016 16:30
1,4-dioxane	< 44.0	ug/Kg		6/3/2016 16:30
2-Butanone	< 22.0	ug/Kg		6/3/2016 16:30
2-Hexanone	< 11.0	ug/Kg		6/3/2016 16:30
4-Methyl-2-pentanone	< 11.0	ug/Kg		6/3/2016 16:30
Acetone	< 22.0	ug/Kg		6/3/2016 16:30
Benzene	< 4.40	ug/Kg		6/3/2016 16:30
Bromochloromethane	< 11.0	ug/Kg		6/3/2016 16:30
Bromodichloromethane	< 4.40	ug/Kg		6/3/2016 16:30
Bromoform	< 11.0	ug/Kg		6/3/2016 16:30
Bromomethane	< 4.40	ug/Kg		6/3/2016 16:30
Carbon disulfide	< 4.40	ug/Kg		6/3/2016 16:30
Carbon Tetrachloride	< 4.40	ug/Kg		6/3/2016 16:30
Chlorobenzene	< 4.40	ug/Kg		6/3/2016 16:30

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B17-S
Lab Sample ID: 162126-16 **Date Sampled:** 5/24/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 4.40	ug/Kg		6/3/2016 16:30
Chloroform	< 4.40	ug/Kg		6/3/2016 16:30
Chloromethane	< 4.40	ug/Kg		6/3/2016 16:30
cis-1,2-Dichloroethene	< 4.40	ug/Kg		6/3/2016 16:30
cis-1,3-Dichloropropene	< 4.40	ug/Kg		6/3/2016 16:30
Cyclohexane	< 22.0	ug/Kg		6/3/2016 16:30
Dibromochloromethane	< 4.40	ug/Kg		6/3/2016 16:30
Dichlorodifluoromethane	< 4.40	ug/Kg		6/3/2016 16:30
Ethylbenzene	< 4.40	ug/Kg		6/3/2016 16:30
Freon 113	< 4.40	ug/Kg		6/3/2016 16:30
Isopropylbenzene	< 4.40	ug/Kg		6/3/2016 16:30
m,p-Xylene	< 4.40	ug/Kg		6/3/2016 16:30
Methyl acetate	< 4.40	ug/Kg		6/3/2016 16:30
Methyl tert-butyl Ether	< 4.40	ug/Kg		6/3/2016 16:30
Methylcyclohexane	< 4.40	ug/Kg		6/3/2016 16:30
Methylene chloride	**10.2**	ug/Kg	J	6/3/2016 16:30
o-Xylene	< 4.40	ug/Kg		6/3/2016 16:30
Styrene	< 11.0	ug/Kg		6/3/2016 16:30
Tetrachloroethene	**193**	ug/Kg		6/3/2016 16:30
Toluene	< 4.40	ug/Kg		6/3/2016 16:30
trans-1,2-Dichloroethene	< 4.40	ug/Kg		6/3/2016 16:30
trans-1,3-Dichloropropene	< 4.40	ug/Kg		6/3/2016 16:30
Trichloroethene	< 4.40	ug/Kg		6/3/2016 16:30
Trichlorofluoromethane	< 4.40	ug/Kg		6/3/2016 16:30
Vinyl chloride	< 4.40	ug/Kg		6/3/2016 16:30

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B17-S

Lab Sample ID: 162126-16 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**110**	85.4 - 122		6/3/2016	16:30
4-Bromofluorobenzene	**91.4**	81.1 - 115		6/3/2016	16:30
Pentafluorobenzene	**86.8**	90.7 - 109	*	6/3/2016	16:30
Toluene-D8	**98.5**	88.5 - 110		6/3/2016	16:30

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32911.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B18-S		
Lab Sample ID:	162126-17	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.42	ug/Kg		6/3/2016 16:54
1,1,2,2-Tetrachloroethane	< 4.42	ug/Kg		6/3/2016 16:54
1,1,2-Trichloroethane	< 4.42	ug/Kg		6/3/2016 16:54
1,1-Dichloroethane	< 4.42	ug/Kg		6/3/2016 16:54
1,1-Dichloroethene	< 4.42	ug/Kg		6/3/2016 16:54
1,2,3-Trichlorobenzene	< 11.1	ug/Kg		6/3/2016 16:54
1,2,4-Trichlorobenzene	< 11.1	ug/Kg		6/3/2016 16:54
1,2-Dibromo-3-Chloropropane	< 22.1	ug/Kg		6/3/2016 16:54
1,2-Dibromoethane	< 4.42	ug/Kg		6/3/2016 16:54
1,2-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 16:54
1,2-Dichloroethane	< 4.42	ug/Kg		6/3/2016 16:54
1,2-Dichloropropane	< 4.42	ug/Kg		6/3/2016 16:54
1,3-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 16:54
1,4-Dichlorobenzene	< 4.42	ug/Kg		6/3/2016 16:54
1,4-dioxane	< 44.2	ug/Kg		6/3/2016 16:54
2-Butanone	< 22.1	ug/Kg		6/3/2016 16:54
2-Hexanone	< 11.1	ug/Kg		6/3/2016 16:54
4-Methyl-2-pentanone	< 11.1	ug/Kg		6/3/2016 16:54
Acetone	< 22.1	ug/Kg		6/3/2016 16:54
Benzene	< 4.42	ug/Kg		6/3/2016 16:54
Bromochloromethane	< 11.1	ug/Kg		6/3/2016 16:54
Bromodichloromethane	< 4.42	ug/Kg		6/3/2016 16:54
Bromoform	< 11.1	ug/Kg		6/3/2016 16:54
Bromomethane	< 4.42	ug/Kg		6/3/2016 16:54
Carbon disulfide	< 4.42	ug/Kg		6/3/2016 16:54
Carbon Tetrachloride	< 4.42	ug/Kg		6/3/2016 16:54
Chlorobenzene	< 4.42	ug/Kg		6/3/2016 16:54

Report Prepared Thursday, June 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B18-S		
Lab Sample ID:	162126-17	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Chloroethane	< 4.42	ug/Kg	6/3/2016 16:54
Chloroform	< 4.42	ug/Kg	6/3/2016 16:54
Chloromethane	< 4.42	ug/Kg	6/3/2016 16:54
cis-1,2-Dichloroethene	< 4.42	ug/Kg	6/3/2016 16:54
cis-1,3-Dichloropropene	< 4.42	ug/Kg	6/3/2016 16:54
Cyclohexane	< 22.1	ug/Kg	6/3/2016 16:54
Dibromochloromethane	< 4.42	ug/Kg	6/3/2016 16:54
Dichlorodifluoromethane	< 4.42	ug/Kg	6/3/2016 16:54
Ethylbenzene	< 4.42	ug/Kg	6/3/2016 16:54
Freon 113	< 4.42	ug/Kg	6/3/2016 16:54
Isopropylbenzene	< 4.42	ug/Kg	6/3/2016 16:54
m,p-Xylene	< 4.42	ug/Kg	6/3/2016 16:54
Methyl acetate	< 4.42	ug/Kg	6/3/2016 16:54
Methyl tert-butyl Ether	< 4.42	ug/Kg	6/3/2016 16:54
Methylcyclohexane	< 4.42	ug/Kg	6/3/2016 16:54
Methylene chloride	< 11.1	ug/Kg	6/3/2016 16:54
o-Xylene	< 4.42	ug/Kg	6/3/2016 16:54
Styrene	< 11.1	ug/Kg	6/3/2016 16:54
Tetrachloroethene	**31.2**	ug/Kg	6/3/2016 16:54
Toluene	< 4.42	ug/Kg	6/3/2016 16:54
trans-1,2-Dichloroethene	< 4.42	ug/Kg	6/3/2016 16:54
trans-1,3-Dichloropropene	< 4.42	ug/Kg	6/3/2016 16:54
Trichloroethene	< 4.42	ug/Kg	6/3/2016 16:54
Trichlorofluoromethane	< 4.42	ug/Kg	6/3/2016 16:54
Vinyl chloride	< 4.42	ug/Kg	6/3/2016 16:54

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B18-S

Lab Sample ID: 162126-17 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	85.4 - 122		6/3/2016	16:54
4-Bromofluorobenzene	**92.9**	81.1 - 115		6/3/2016	16:54
Pentafluorobenzene	**92.2**	90.7 - 109		6/3/2016	16:54
Toluene-D8	**101**	88.5 - 110		6/3/2016	16:54

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32912.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B19-S		
Lab Sample ID:	162126-18	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.92	ug/Kg		6/3/2016 17:18
1,1,2,2-Tetrachloroethane	< 3.92	ug/Kg		6/3/2016 17:18
1,1,2-Trichloroethane	< 3.92	ug/Kg		6/3/2016 17:18
1,1-Dichloroethane	< 3.92	ug/Kg		6/3/2016 17:18
1,1-Dichloroethene	< 3.92	ug/Kg		6/3/2016 17:18
1,2,3-Trichlorobenzene	< 9.80	ug/Kg		6/3/2016 17:18
1,2,4-Trichlorobenzene	< 9.80	ug/Kg		6/3/2016 17:18
1,2-Dibromo-3-Chloropropane	< 19.6	ug/Kg		6/3/2016 17:18
1,2-Dibromoethane	< 3.92	ug/Kg		6/3/2016 17:18
1,2-Dichlorobenzene	< 3.92	ug/Kg		6/3/2016 17:18
1,2-Dichloroethane	< 3.92	ug/Kg		6/3/2016 17:18
1,2-Dichloropropane	< 3.92	ug/Kg		6/3/2016 17:18
1,3-Dichlorobenzene	< 3.92	ug/Kg		6/3/2016 17:18
1,4-Dichlorobenzene	< 3.92	ug/Kg		6/3/2016 17:18
1,4-dioxane	< 39.2	ug/Kg		6/3/2016 17:18
2-Butanone	< 19.6	ug/Kg		6/3/2016 17:18
2-Hexanone	< 9.80	ug/Kg		6/3/2016 17:18
4-Methyl-2-pentanone	< 9.80	ug/Kg		6/3/2016 17:18
Acetone	< 19.6	ug/Kg		6/3/2016 17:18
Benzene	< 3.92	ug/Kg		6/3/2016 17:18
Bromochloromethane	< 9.80	ug/Kg		6/3/2016 17:18
Bromodichloromethane	< 3.92	ug/Kg		6/3/2016 17:18
Bromoform	< 9.80	ug/Kg		6/3/2016 17:18
Bromomethane	< 3.92	ug/Kg		6/3/2016 17:18
Carbon disulfide	< 3.92	ug/Kg		6/3/2016 17:18
Carbon Tetrachloride	< 3.92	ug/Kg		6/3/2016 17:18
Chlorobenzene	< 3.92	ug/Kg		6/3/2016 17:18

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B19-S

Lab Sample ID: 162126-18 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 3.92	ug/Kg		6/3/2016	17:18
Chloroform	< 3.92	ug/Kg		6/3/2016	17:18
Chloromethane	< 3.92	ug/Kg		6/3/2016	17:18
cis-1,2-Dichloroethene	< 3.92	ug/Kg		6/3/2016	17:18
cis-1,3-Dichloropropene	< 3.92	ug/Kg		6/3/2016	17:18
Cyclohexane	< 19.6	ug/Kg		6/3/2016	17:18
Dibromochloromethane	< 3.92	ug/Kg		6/3/2016	17:18
Dichlorodifluoromethane	< 3.92	ug/Kg		6/3/2016	17:18
Ethylbenzene	< 3.92	ug/Kg		6/3/2016	17:18
Freon 113	< 3.92	ug/Kg		6/3/2016	17:18
Isopropylbenzene	< 3.92	ug/Kg		6/3/2016	17:18
m,p-Xylene	< 3.92	ug/Kg		6/3/2016	17:18
Methyl acetate	< 3.92	ug/Kg		6/3/2016	17:18
Methyl tert-butyl Ether	< 3.92	ug/Kg		6/3/2016	17:18
Methylcyclohexane	< 3.92	ug/Kg		6/3/2016	17:18
Methylene chloride	**5.62**	ug/Kg	J	6/3/2016	17:18
o-Xylene	< 3.92	ug/Kg		6/3/2016	17:18
Styrene	< 9.80	ug/Kg		6/3/2016	17:18
Tetrachloroethene	**2.19**	ug/Kg	J	6/3/2016	17:18
Toluene	< 3.92	ug/Kg		6/3/2016	17:18
trans-1,2-Dichloroethene	< 3.92	ug/Kg		6/3/2016	17:18
trans-1,3-Dichloropropene	< 3.92	ug/Kg		6/3/2016	17:18
Trichloroethene	< 3.92	ug/Kg		6/3/2016	17:18
Trichlorofluoromethane	< 3.92	ug/Kg		6/3/2016	17:18
Vinyl chloride	< 3.92	ug/Kg		6/3/2016	17:18

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B19-S

Lab Sample ID: 162126-18 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**112**	85.4 - 122		6/3/2016	17:18
4-Bromofluorobenzene	**92.0**	81.1 - 115		6/3/2016	17:18
Pentafluorobenzene	**91.2**	90.7 - 109		6/3/2016	17:18
Toluene-D8	**99.0**	88.5 - 110		6/3/2016	17:18

Method Reference(s): EPA 8260C
EPA 5035
Data File: x32913.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-FD-S		
Lab Sample ID:	162126-19	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 20.0	ug/Kg		6/3/2016 20:54
1,1,2,2-Tetrachloroethane	< 20.0	ug/Kg		6/3/2016 20:54
1,1,2-Trichloroethane	< 20.0	ug/Kg		6/3/2016 20:54
1,1-Dichloroethane	< 20.0	ug/Kg		6/3/2016 20:54
1,1-Dichloroethene	< 20.0	ug/Kg		6/3/2016 20:54
1,2,3-Trichlorobenzene	< 50.1	ug/Kg		6/3/2016 20:54
1,2,4-Trichlorobenzene	< 50.1	ug/Kg		6/3/2016 20:54
1,2-Dibromo-3-Chloropropane	< 100	ug/Kg		6/3/2016 20:54
1,2-Dibromoethane	< 20.0	ug/Kg		6/3/2016 20:54
1,2-Dichlorobenzene	< 20.0	ug/Kg		6/3/2016 20:54
1,2-Dichloroethane	< 20.0	ug/Kg		6/3/2016 20:54
1,2-Dichloropropane	< 20.0	ug/Kg		6/3/2016 20:54
1,3-Dichlorobenzene	< 20.0	ug/Kg		6/3/2016 20:54
1,4-Dichlorobenzene	< 20.0	ug/Kg		6/3/2016 20:54
1,4-dioxane	< 200	ug/Kg		6/3/2016 20:54
2-Butanone	< 100	ug/Kg		6/3/2016 20:54
2-Hexanone	< 50.1	ug/Kg		6/3/2016 20:54
4-Methyl-2-pentanone	< 50.1	ug/Kg		6/3/2016 20:54
Acetone	< 100	ug/Kg		6/3/2016 20:54
Benzene	< 20.0	ug/Kg		6/3/2016 20:54
Bromochloromethane	< 50.1	ug/Kg		6/3/2016 20:54
Bromodichloromethane	< 20.0	ug/Kg		6/3/2016 20:54
Bromoform	< 50.1	ug/Kg		6/3/2016 20:54
Bromomethane	< 20.0	ug/Kg		6/3/2016 20:54
Carbon disulfide	< 20.0	ug/Kg		6/3/2016 20:54
Carbon Tetrachloride	< 20.0	ug/Kg		6/3/2016 20:54
Chlorobenzene	< 20.0	ug/Kg		6/3/2016 20:54

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-FD-S
Lab Sample ID: 162126-19 **Date Sampled:** 5/24/2016
Matrix: Soil **Date Received:** 5/25/2016

Chloroethane	< 20.0	ug/Kg		6/3/2016	20:54
Chloroform	< 20.0	ug/Kg		6/3/2016	20:54
Chloromethane	< 20.0	ug/Kg		6/3/2016	20:54
cis-1,2-Dichloroethene	< 20.0	ug/Kg		6/3/2016	20:54
cis-1,3-Dichloropropene	< 20.0	ug/Kg		6/3/2016	20:54
Cyclohexane	< 100	ug/Kg		6/3/2016	20:54
Dibromochloromethane	< 20.0	ug/Kg		6/3/2016	20:54
Dichlorodifluoromethane	< 20.0	ug/Kg		6/3/2016	20:54
Ethylbenzene	< 20.0	ug/Kg		6/3/2016	20:54
Freon 113	< 20.0	ug/Kg		6/3/2016	20:54
Isopropylbenzene	< 20.0	ug/Kg		6/3/2016	20:54
m,p-Xylene	< 20.0	ug/Kg		6/3/2016	20:54
Methyl acetate	< 20.0	ug/Kg		6/3/2016	20:54
Methyl tert-butyl Ether	< 20.0	ug/Kg		6/3/2016	20:54
Methylcyclohexane	< 20.0	ug/Kg		6/3/2016	20:54
Methylene chloride	< 50.1	ug/Kg		6/3/2016	20:54
o-Xylene	< 20.0	ug/Kg		6/3/2016	20:54
Styrene	< 50.1	ug/Kg		6/3/2016	20:54
Tetrachloroethene	**977**	ug/Kg		6/3/2016	20:54
Toluene	< 20.0	ug/Kg		6/3/2016	20:54
trans-1,2-Dichloroethene	< 20.0	ug/Kg		6/3/2016	20:54
trans-1,3-Dichloropropene	< 20.0	ug/Kg		6/3/2016	20:54
Trichloroethene	**17.3**	ug/Kg	J	6/3/2016	20:54
Trichlorofluoromethane	< 20.0	ug/Kg		6/3/2016	20:54
Vinyl chloride	< 20.0	ug/Kg		6/3/2016	20:54

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-FD-S

Lab Sample ID: 162126-19 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**116**	85.4 - 122		6/3/2016	20:54
4-Bromofluorobenzene	**95.6**	81.1 - 115		6/3/2016	20:54
Pentafluorobenzene	**91.8**	90.7 - 109		6/3/2016	20:54
Toluene-D8	**99.4**	88.5 - 110		6/3/2016	20:54

Method Reference(s): EPA 8260C
EPA 5035

Data File: x32922.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B1-S

Lab Sample ID: 162126-01 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 20.8	ug/Kg		6/3/2016
Total Reported TICS	< 20.8	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B2-S		
Lab Sample ID:	162126-02	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 19.9	ug/Kg		6/3/2016
Total Reported TICS	< 19.9	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Lab Project ID: 162126

Client: Stantec

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B3-S		
Lab Sample ID:	162126-03	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 10.0	ug/Kg		6/2/2016
Total Reported TICS	< 10.0	ug/Kg		6/2/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B4-S		
Lab Sample ID:	162126-04	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 10.3	ug/Kg		6/2/2016
Total Reported TICS	< 10.3	ug/Kg		6/2/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B5-S		
Lab Sample ID:	162126-05	**Date Sampled:**	5/23/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 115	ug/Kg		6/3/2016
Total Reported TICS	< 115	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B7-S

Lab Sample ID: 162126-06 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.0	ug/Kg		6/2/2016
Total Reported TICS	< 11.0	ug/Kg		6/2/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B8-S

Lab Sample ID: 162126-07 **Date Sampled:** 5/23/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 8.90	ug/Kg		6/2/2016
Total Reported TICS	< 8.90	ug/Kg		6/2/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B9-S

Lab Sample ID: 162126-08 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 9.22	ug/Kg		6/3/2016
Total Reported TICS	< 9.22	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B10-S

Lab Sample ID: 162126-09 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 9.78	ug/Kg		6/3/2016
Total Reported TICS	< 9.78	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B11-S

Lab Sample ID: 162126-10 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.1	ug/Kg		6/3/2016
Total Reported TICS	< 11.1	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B12-S

Lab Sample ID: 162126-11 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 10.6	ug/Kg		6/3/2016
Total Reported TICS	< 10.6	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B13-S

Lab Sample ID: 162126-12

Date Sampled: 5/24/2016

Matrix: Soil

Date Received: 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.2	ug/Kg		6/3/2016
Total Reported TICS	< 11.2	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B14-S

Lab Sample ID: 162126-13 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 9.44	ug/Kg		6/3/2016
Total Reported TICS	< 9.44	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B15-S		
Lab Sample ID:	162126-14	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 8.30	ug/Kg		6/3/2016
Total Reported TICS	< 8.30	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B16-S

Lab Sample ID: 162126-15 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 25.9	ug/Kg		6/3/2016
Total Reported TICS	< 25.9	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-B17-S		
Lab Sample ID:	162126-16	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.0	ug/Kg		6/3/2016
Total Reported TICS	< 11.0	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Report Prepared Thursday, June 09, 2016

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B18-S

Lab Sample ID: 162126-17 **Date Sampled:** 5/24/2016

Matrix: Soil **Date Received:** 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.1	ug/Kg		6/3/2016
Total Reported TICS	< 11.1	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier: 828-2016-B19-S

Lab Sample ID: 162126-18

Date Sampled: 5/24/2016

Matrix: Soil

Date Received: 5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 9.80	ug/Kg		6/3/2016
Total Reported TICS	< 9.80	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 162126

Client: **Stantec**

Project Reference: 8-28 Ward St

Sample Identifier:	828-2016-FD-S		
Lab Sample ID:	162126-19	**Date Sampled:**	5/24/2016
Matrix:	Soil	**Date Received:**	5/25/2016

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 50.1	ug/Kg		6/3/2016
Total Reported TICS	< 50.1	ug/Kg		6/3/2016

Method Reference(s): EPA 8260C
EPA 5035A

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Report Prepared Thursday, June 09, 2016

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

PARADIGM ENVIRONMENTAL SERVICES, INC.
179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
CLIENT: Stantec	CLIENT:	LAB PROJECT ID: 162126
ADDRESS: 61 Commercial St	ADDRESS:	
CITY: Rochester STATE: NY ZIP: 14614	CITY: STATE: ZIP:	Quotation #:
PHONE: ~~431~~ 413-5266	PHONE:	Email:
ATTN: Mike Storonsky	ATTN: Ben Haravitch	mike.storonsky@stantec.com

PROJECT REFERENCE: 8-28 Ward St

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCL VOC	TICs per BH GP 5/26/16	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	5/23/16	1200		X	828-2016-B1-S	SO	1	X	X		01
2	↓	1300		↓	828-2016-B2-S	↓	↓	↓	↓		02
3		1350			828-2016-B3-S						03
4		1430			828-2016-B4-S						04
5		1500			828-2016-B5-S						05
6		1540			828-2016-B7-S						06
7		1620			828-2016-B8-S						07
8	5/24/16	0850			828-2016-B9-S		3			MS/MSD	08
9	↓	0930			828-2016-B10-S		1				09
10		1020			828-2016-B11-S		1				10

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☒
Rush 2 day	☐	Category B	☒		
Rush 1 day	☐				
Other please indicate: 10-day	☒	Other please indicate:	☐	Other EDD please indicate: Stantec	☒

Sampled By: Ben Haravitch Date/Time: 5/24/16 1615

Relinquished By: Ben Haravitch Date/Time: 5/25/16 12:20

Received By: [signature] Date/Time: 5/25/16 12:20

Received @ Lab By: [signature] Date/Time: 5/25/16 15:23

Total Cost:

P.I.F.

4°C iced 5/25/16 13:10. Custody seal N/A, samples delivered by client. GP 5/25/16

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
CLIENT: Stantec	CLIENT:	LAB PROJECT ID: 162126
ADDRESS: 61 Commercial St	ADDRESS:	
CITY: Rochester STATE: NY ZIP: 14614	CITY: STATE: ZIP:	Quotation #:
PHONE: 413-5266	PHONE:	Email:
ATTN: Mike Storonsky	ATTN: Ben Haravitch	mike.storonsky@stantec.com

PROJECT REFERENCE

8-28 Ward St

Matrix Codes:
AQ - Aqueous Liquid
NQ - Non-Aqueous Liquid
WA - Water
WG - Groundwater
DW - Drinking Water
WW - Wastewater
SO - Soil
SL - Sludge
SD - Solid
PT - Paint
WP - Wipe
CK - Caulk
OL - Oil
AR - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCL VOC	TICs per BH GP 5/26/16								REMARKS	PARADIGM LAB SAMPLE NUMBER	
1	5/24/16	1050		X	828-2016-B12-S	SO	1	X	X									1	1
2	↓	1170		↓	828-2016-B13-S	↓	↓	↓	↓									1	2
3	↓	1310		↓	828-2016-B14-S	↓	↓	↓	↓									1	3
4	↓	1340		↓	828-2016-B15-S	↓	↓	↓	↓									1	4
5	↓	1415		↓	828-2016-B16-S	↓	↓	↓	↓									1	5
6	↓	1450		↓	828-2016-B17-S	↓	↓	↓	↓									1	6
7	↓	1550		↓	828-2016-B18-S	↓	↓	↓	↓									1	7
8	↓	1615		↓	828-2016-B19-S	↓	↓	↓	↓									1	8
9	↓	1420		↓	828-2016-FD-S	↓	↓	↓	↓									1	9
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☒
Rush 2 day	☐	Category B	☒		
Rush 1 day	☐				
Other please indicate: 10-day	☒	Other please indicate:	☐	Other EDD please indicate: Stantec	☒

Ben Haravitch 5/24/16 1615
Sampled By — Date/Time

Ben Haravitch 5/25/16 12:20
Relinquished By — Date/Time

[signature] 5/25/16 12:20
Received By — Date/Time

[signature] 5/25/16 15:23
Received @ Lab By — Date/Time

Total Cost:

P.I.F.

PARADIGM

Chain of Custody Supplement

Client:	Stantec	**Completed by:**	Glenn Pezzulo
Lab Project ID:	162126	**Date:**	5/25/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
	NELAC compliance with the sample condition requirements upon receipt		
Container Type	X	X 5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		
Comments	4°C iced 5/25/16 13:10		
Sufficient Sample Quantity	X		
Comments			

2017

Soil Boring B-101

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier: 828-B101-S1-g

Lab Sample ID: 174083-01 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2,2-Tetrachloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dibromo-3-Chloropropane	< 20.4	ug/Kg		9/13/2017 14:02
1,2-Dibromoethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloropropane	< 4.07	ug/Kg		9/13/2017 14:02
1,3,5-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,3-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-dioxane	< 40.7	ug/Kg		9/13/2017 14:02
2-Butanone	< 20.4	ug/Kg		9/13/2017 14:02
2-Hexanone	< 10.2	ug/Kg		9/13/2017 14:02
4-Methyl-2-pentanone	< 10.2	ug/Kg		9/13/2017 14:02
Acetone	**18.2**	ug/Kg	J	9/13/2017 14:02
Benzene	< 4.07	ug/Kg		9/13/2017 14:02
Bromochloromethane	< 10.2	ug/Kg		9/13/2017 14:02
Bromodichloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Bromoform	< 10.2	ug/Kg		9/13/2017 14:02
Bromomethane	< 4.07	ug/Kg		9/13/2017 14:02
Carbon disulfide	< 4.07	ug/Kg		9/13/2017 14:02

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-g

Lab Sample ID: 174083-01 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Carbon Tetrachloride	< 4.07	ug/Kg		9/13/2017 14:02
Chlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
Chloroethane	< 4.07	ug/Kg		9/13/2017 14:02
Chloroform	< 4.07	ug/Kg		9/13/2017 14:02
Chloromethane	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02
Cyclohexane	< 20.4	ug/Kg		9/13/2017 14:02
Dibromochloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Dichlorodifluoromethane	< 4.07	ug/Kg		9/13/2017 14:02
Ethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Freon 113	< 4.07	ug/Kg		9/13/2017 14:02
Isopropylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
m,p-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
Methyl acetate	< 4.07	ug/Kg		9/13/2017 14:02
Methyl tert-butyl Ether	< 4.07	ug/Kg		9/13/2017 14:02
Methylcyclohexane	< 4.07	ug/Kg		9/13/2017 14:02
Methylene chloride	< 10.2	ug/Kg		9/13/2017 14:02
Naphthalene	< 10.2	ug/Kg		9/13/2017 14:02
n-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
n-Propylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
o-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
p-Isopropyltoluene	< 4.07	ug/Kg		9/13/2017 14:02
sec-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Styrene	< 10.2	ug/Kg		9/13/2017 14:02
tert-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Tetrachloroethene	**12.1**	ug/Kg		9/13/2017 14:02
Toluene	**3.03**	ug/Kg	J	9/13/2017 14:02
trans-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
trans-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-g		
Lab Sample ID:	174083-01	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Trichloroethene	**2.55**	ug/Kg		J	9/13/2017 14:02
Trichlorofluoromethane	< 4.07	ug/Kg			9/13/2017 14:02
Vinyl chloride	< 4.07	ug/Kg			9/13/2017 14:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**108**	86.2 - 128		9/13/2017 14:02
4-Bromofluorobenzene	**92.6**	69.8 - 123		9/13/2017 14:02
Pentafluorobenzene	**98.5**	82.2 - 114		9/13/2017 14:02
Toluene-D8	**95.5**	81.3 - 113		9/13/2017 14:02

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45142.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**3.13**	mg/Kg		9/13/2017 17:25
Barium	**34.0**	mg/Kg		9/13/2017 17:25
Beryllium	**0.287**	mg/Kg		9/13/2017 17:25
Cadmium	**0.193**	mg/Kg	J	9/13/2017 17:25
Chromium	**7.83**	mg/Kg		9/13/2017 17:25
Copper	**12.1**	mg/Kg		9/13/2017 17:25
Lead	**22.3**	mg/Kg		9/13/2017 17:25
Manganese	**275**	mg/Kg		9/13/2017 17:25
Nickel	**9.08**	mg/Kg		9/13/2017 17:25
Selenium	< 1.05	mg/Kg		9/15/2017 09:47
Silver	**0.806**	mg/Kg		9/13/2017 17:25
Zinc	**39.6**	mg/Kg		9/13/2017 17:25

Method Reference(s): EPA 6010C
EPA 3050B
Preparation Date: 9/13/2017
Data File: 170913B

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0276**	mg/Kg		9/13/2017 12:34

Method Reference(s): EPA 7471B
Preparation Date: 9/12/2017
Data File: Hg170913A

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1221	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1232	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1242	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1248	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1254	**0.0237**	mg/Kg	J	9/14/2017 11:26
PCB-1260	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1262	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1268	< 0.0270	mg/Kg		9/14/2017 11:26

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**79.6**	22.2 - 140		9/14/2017 11:26
Tetrachloro-m-xylene	**33.8**	11.8 - 125		9/14/2017 11:26

Method Reference(s): EPA 8082A
EPA 3550C
Preparation Date: 9/12/2017

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDE	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDT	**4.07**	ug/Kg		9/15/2017 20:39
Aldrin	< 2.70	ug/Kg		9/15/2017 20:39
alpha-BHC	< 2.70	ug/Kg		9/15/2017 20:39
beta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
cis-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39
delta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
Dieldrin	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan I	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan II	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan Sulfate	**1.83**	ug/Kg	JP	9/15/2017 20:39
Endrin	**2.18**	ug/Kg	J	9/15/2017 20:39
Endrin Aldehyde	< 2.70	ug/Kg		9/15/2017 20:39
Endrin Ketone	< 2.70	ug/Kg		9/15/2017 20:39
gamma-BHC (Lindane)	**2.11**	ug/Kg	JP	9/15/2017 20:39
Heptachlor	< 2.70	ug/Kg		9/15/2017 20:39
Heptachlor Epoxide	< 2.70	ug/Kg		9/15/2017 20:39
Methoxychlor	**1.43**	ug/Kg	JP	9/15/2017 20:39
Toxaphene	< 27.0	ug/Kg		9/15/2017 20:39
trans-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**90.2**	31.5 - 168		9/15/2017 20:39
Tetrachloro-m-xylene (1)	**53.6**	26.7 - 117		9/15/2017 20:39

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 9/12/2017

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Report Prepared Monday, September 18, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 322	ug/Kg		9/13/2017 15:42
1,2,4,5-Tetrachlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2,4-Trichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,3-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,4-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
2,2-Oxybis (1-chloropropane)	< 322	ug/Kg		9/13/2017 15:42
2,3,4,6-Tetrachlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4,5-Trichlorophenol	< 645	ug/Kg		9/13/2017 15:42
2,4,6-Trichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dimethylphenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dinitrophenol	< 645	ug/Kg		9/13/2017 15:42
2,4-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2,6-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2-Chloronaphthalene	< 322	ug/Kg		9/13/2017 15:42
2-Chlorophenol	< 322	ug/Kg		9/13/2017 15:42
2-Methylnapthalene	< 322	ug/Kg		9/13/2017 15:42
2-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
2-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
2-Nitrophenol	< 322	ug/Kg		9/13/2017 15:42
3&4-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
3,3'-Dichlorobenzidine	< 322	ug/Kg		9/13/2017 15:42
3-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
4,6-Dinitro-2-methylphenol	< 645	ug/Kg		9/13/2017 15:42
4-Bromophenyl phenyl ether	< 322	ug/Kg		9/13/2017 15:42
4-Chloro-3-methylphenol	< 322	ug/Kg		9/13/2017 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: <u>Stantec</u>

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

4-Chloroaniline	< 322	ug/Kg	9/13/2017 15:42
4-Chlorophenyl phenyl ether	< 322	ug/Kg	9/13/2017 15:42
4-Nitroaniline	< 645	ug/Kg	9/13/2017 15:42
4-Nitrophenol	< 645	ug/Kg	9/13/2017 15:42
Acenaphthene	< 322	ug/Kg	9/13/2017 15:42
Acenaphthylene	< 322	ug/Kg	9/13/2017 15:42
Acetophenone	< 322	ug/Kg	9/13/2017 15:42
Anthracene	< 322	ug/Kg	9/13/2017 15:42
Atrazine	< 322	ug/Kg	9/13/2017 15:42
Benzaldehyde	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) anthracene	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) pyrene	< 322	ug/Kg	9/13/2017 15:42
Benzo (b) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Benzo (g,h,i) perylene	< 322	ug/Kg	9/13/2017 15:42
Benzo (k) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethoxy) methane	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethyl) ether	< 322	ug/Kg	9/13/2017 15:42
Bis (2-ethylhexyl) phthalate	< 322	ug/Kg	9/13/2017 15:42
Butylbenzylphthalate	< 322	ug/Kg	9/13/2017 15:42
Caprolactam	< 322	ug/Kg	9/13/2017 15:42
Carbazole	< 322	ug/Kg	9/13/2017 15:42
Chrysene	< 322	ug/Kg	9/13/2017 15:42
Dibenz (a,h) anthracene	< 322	ug/Kg	9/13/2017 15:42
Dibenzofuran	< 322	ug/Kg	9/13/2017 15:42
Diethyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Dimethyl phthalate	< 645	ug/Kg	9/13/2017 15:42
Di-n-butyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Di-n-octylphthalate	< 322	ug/Kg	9/13/2017 15:42
Fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Fluorene	< 322	ug/Kg	9/13/2017 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c			
Lab Sample ID:	174083-02		**Date Sampled:**	9/8/2017
Matrix:	Soil		**Date Received:**	9/11/2017

Hexachlorobenzene	< 322	ug/Kg			9/13/2017 15:42
Hexachlorobutadiene	< 322	ug/Kg			9/13/2017 15:42
Hexachlorocyclopentadiene	< 322	ug/Kg			9/13/2017 15:42
Hexachloroethane	< 322	ug/Kg			9/13/2017 15:42
Indeno (1,2,3-cd) pyrene	< 322	ug/Kg			9/13/2017 15:42
Isophorone	< 322	ug/Kg			9/13/2017 15:42
Naphthalene	< 322	ug/Kg			9/13/2017 15:42
Nitrobenzene	< 322	ug/Kg			9/13/2017 15:42
N-Nitroso-di-n-propylamine	< 322	ug/Kg			9/13/2017 15:42
N-Nitrosodiphenylamine	< 322	ug/Kg			9/13/2017 15:42
Pentachlorophenol	< 645	ug/Kg			9/13/2017 15:42
Phenanthrene	< 322	ug/Kg			9/13/2017 15:42
Phenol	< 322	ug/Kg			9/13/2017 15:42
Pyrene	< 322	ug/Kg			9/13/2017 15:42

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**
2,4,6-Tribromophenol	**77.6**	55.4 - 114		9/13/2017 15:42
2-Fluorobiphenyl	**50.8**	39.9 - 112		9/13/2017 15:42
2-Fluorophenol	**49.6**	41.9 - 97.1		9/13/2017 15:42
Nitrobenzene-d5	**44.5**	41 - 96		9/13/2017 15:42
Phenol-d5	**51.1**	43.7 - 101		9/13/2017 15:42
Terphenyl-d14	**76.4**	71.7 - 115		9/13/2017 15:42

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 9/12/2017
Data File: B22821.D

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.551	mg/Kg		9/15/2017

Method Reference(s): EPA 9014
Preparation Date: 9/14/2017

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Report Prepared Monday, September 18, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S2		
Lab Sample ID:	174083-03	**Date Sampled:**	9/8/2017
Matrix:	TCLP Extract	**Date Received:**	9/11/2017

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		9/14/2017 17:52
1,2-Dichloroethane	< 20.0	ug/L	500		9/14/2017 17:52
2-Butanone	< 100	ug/L	200000		9/14/2017 17:52
Benzene	< 10.0	ug/L	500		9/14/2017 17:52
Carbon Tetrachloride	< 20.0	ug/L	500		9/14/2017 17:52
Chlorobenzene	< 20.0	ug/L	100000		9/14/2017 17:52
Chloroform	< 20.0	ug/L	6000		9/14/2017 17:52
Tetrachloroethene	**76.7**	ug/L	700		9/14/2017 17:52
Trichloroethene	< 20.0	ug/L	500		9/14/2017 17:52
Vinyl chloride	< 20.0	ug/L	200		9/14/2017 17:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	85.9 - 118		9/14/2017 17:52
4-Bromofluorobenzene	**96.1**	69.4 - 123		9/14/2017 17:52
Pentafluorobenzene	**95.9**	81.6 - 114		9/14/2017 17:52
Toluene-D8	**97.6**	82.7 - 112		9/14/2017 17:52

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x45187.D

PARADIGM
ENVIRONMENTAL SERVICES, INC

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM

CHAIN OF CUSTODY

1 of 2

REPORT TO:		INVOICE TO:		
CLIENT: Stantec		CLIENT: Same		LAB PROJECT ID: 174083
ADDRESS: 61 Commercial, Suite 1		ADDRESS:		
CITY: Roch	STATE: ZIP	CITY:	STATE: ZIP:	Quotation #:
PHONE: 475-1440		PHONE:		Email: Bob.Mahoney@stantec.com
ATTN: Bob Mahoney		ATTN:		

PROJECT REFERENCE: 190500014

Matrix Codes:
AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS

Pat+375 per test list @9/11/17

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	8260	8270	Metals	Pest	PCB	TCN	Hex Cr	Silvex	TCLP VOCs		REMARKS	PARADIGM LAB SAMPLE NUMBER
9/8/17	0815		X	828-B101-~~S1-4~~ S1-9	SO	1	X										CAT B RPT	01
↓	0820	X		828-B101-S1-C	SO	1		X	X	X	X	X	X	X			CAT B RPT	02
	0830	X		828-B101-S2	SO	1									X		CAT B RPT	03
	0840	X		828-B101-S3-C	SO	2											Hold for instructions on analysis.	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☒	None Required	☐	None Required	☐
10 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☒
Rush 2 day	☐	Category B (2 samples only)	☒		
Rush 1 day	☐				
Other please indicate date needed:	☐	Other please indicate package needed:	☐	Other EDD please indicate EDD needed:	☐

Sampled By: RJ Mahoney	Date/Time: 9/8/17 0840	Total Cost:
Relinquished By: RJ Mahoney	Date/Time: 9/8/17 1825	
Received By: C [illegible]	Date/Time: 9/8/17 @ 1825 - 5°C per CS GP 9/11/17	P.I.F.
Received @ Lab By: [illegible]	Date/Time: 9/11/17 11:01	

Custody Seal N/A, samples delivered by client GP 9/11/17

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: Stantec
Completed by: Glenn Pezzulo
Lab Project ID: 174083
Date: 9/11/17

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	*NELAC compliance with the sample condition requirements upon receipt* Yes	No	N/A
Container Type	X	X 5035	
Comments	Portion of sample 02 transferred to 4oz glass jar for Silver, Hex Cr sub-out.		
Transferred to method-compliant container	X 93 to 94 sub-out		X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	5°C 9/8/17 18:25		
Sufficient Sample Quantity	X		
Comments			

ANALYTICAL REPORT

Lab Number:	L1732019
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	174083
Project Number:	174083
Report Date:	09/15/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name:	174083	**Lab Number:**	L1732019
Project Number:	174083	**Report Date:**	09/15/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1732019-01	828-B101-S1-C 174083-02	SOIL	Not Specified	09/08/17 08:20	09/11/17

Project Name:	174083	**Lab Number:**	L1732019
Project Number:	174083	**Report Date:**	09/15/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kara Lindquist

Title: Technical Director/Representative Date: 09/15/17

ORGANICS

PESTICIDES

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

SAMPLE RESULTS

Lab ID:	L1732019-01	Date Collected:	09/08/17 08:20
Client ID:	828-B101-S1-C 174083-02	Date Received:	09/11/17
Sample Location:	Not Specified	Field Prep:	Not Specified
		Extraction Method:	EPA 8151A
Matrix:	Soil	Extraction Date:	09/12/17 08:03
Analytical Method:	1,8151A		
Analytical Date:	09/13/17 14:55		
Analyst:	SL		
Percent Solids:	89%		
Methylation Date:	09/12/17 17:12		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	185	4.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	91		30-150	B

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/13/17 13:51
Analyst: SL

Extraction Method: EPA 8151A
Extraction Date: 09/12/17 08:03

Methylation Date: 09/12/17 17:12

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1040624-1						
2,4,5-TP (Silvex)	ND		ug/kg	163	4.34	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	81		30-150	A
DCAA	73		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1040624-2 WG1040624-3									
2,4,5-TP (Silvex)	82		81		30-150	1		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	96		94		30-150	A
DCAA	101		101		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

SAMPLE RESULTS

Lab ID: L1732019-01
Client ID: 828-B101-S1-C 174083-02
Sample Location: Not Specified
Matrix: Soil

Date Collected: 09/08/17 08:20
Date Received: 09/11/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	09/12/17 11:07	121,2540G	RI
Chromium, Hexavalent	ND		mg/kg	0.90	0.18	1	09/14/17 04:20	09/14/17 12:17	1,7196A	NH

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1041499-1										
Chromium, Hexavalent	ND		mg/kg	0.80	0.16	1	09/14/17 04:20	09/14/17 12:00	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: 174083

Project Number: 174083

Lab Number: L1732019

Report Date: 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1041499-2								
Chromium, Hexavalent	82		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-4 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02												
Chromium, Hexavalent	ND	856	810	95		-	-		75-125	-		20

Project Name: 174083
Project Number: 174083

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1732019
Report Date: 09/15/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1040660-1 QC Sample: L1731928-01 Client ID: DUP Sample						
Solids, Total	84.5	85.8	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-6 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1732019-01A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		HERB-APA(14),TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:09151718:38

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

1 of 1

L1732019

11148

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:	
COMPANY:	Paradigm Environmental	COMPANY:	Same
ADDRESS:	179 Lake Avenue	ADDRESS:	
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:
PHONE:	FAX:	PHONE:	FAX:
ATTN:	Reporting	ATTN:	Accounts Payable
COMMENTS:	Please email results to reporting@paradigmenv.com		

PROJECT NAME/SITE NAME:

LAB PROJECT #:

CLIENT PROJECT #:

TURNAROUND TIME: (WORKING DAYS)

☐ 1 ☐ 2 ☐ 3 ☒ 5 (STD) OTHER ☐

Date Due: 9/19/17 for data

ASP Cat B Package Due 10/3/17

Report J. Flags

SW-846 HT's.

Report as dry wt.

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	Silvex	Hex Cr								REMARKS	PARADIGM LAB SAMPLE NUMBER
1	9/8/17	08:20			828-B101-S1-c	Soil	1	X	X								174083-02	
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance
Container Type: Comments:	Y ☐ N ☐
Preservation: Comments:	Y ☐ N ☐
Holding Time: Comments:	Y ☐ N ☐
Temperature: Comments:	Y ☐ N ☐

Client

	Signature	Date/Time
Sampled By	[signature]	9/11/17 16:00
Relinquished By	[signature]	9/11/17 17:57
Received By	[signature]	9/12/17 0055
Received By		
Received @ Lab By		

Total Cost:

P.I.F.

From:	Wilkie, Henry (DEC)
To:	Mahoney, Robert
Cc:	Storonsky, Mike; Caffoe, Todd (DEC)
Subject:	RE: Site #C828136 - 8-28 Ward Street, Rochester. NY: Contained-In Determination approval request
Date:	Thursday, November 02, 2017 10:31:19 AM
Attachments:	image001.png image002.png Letter-Correspondence.BCP.C828136.2017-11-02.8-28 Ward Street Contained In Determination Approval.pdf

---

Good Morning,

Attached is the "Contained-In" Determination Approval letter. This email copies you on correspondence from the New York State Department of Environmental Conservation, Division of Environmental Remediation. Electronic attachments may be attached. This document has also been entered into the DECDOC system. A hard copy version will not follow in the mail.

If you have any additional questions, please feel free to contact me.

Henry Wilkie

Henry Wilkie

Assistant Engineer, Division of Environmental Remediation

New York State Department of Environmental Conservation

625 Broadway, Albany, New York 12233-7252

P: (518) 402-9611 | F: (518) 402-9627 | henry.wilkie@dec.ny.gov

www.dec.ny.gov | |

From: Mahoney, Robert [mailto:Bob.Mahoney@stantec.com]
Sent: Tuesday, October 31, 2017 2:08 PM
To: Wilkie, Henry (DEC) <henry.wilkie@dec.ny.gov>
Cc: Storonsky, Mike <mike.storonsky@stantec.com>
Subject: Site #C828136 - 8-28 Ward Street, Rochester. NY: Contained-In Determination approval request

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Henry – Attached please find a request for a Contained-In Determination approval for a small PCE-impacted soil stockpile at the referenced site, along with supporting information. We have had recent email correspondence and telephone communication with you regarding this material.

Please let us know if you need anything else related to this request.

Thanks

Bob Mahoney

Robert Mahoney, P.G.

Senior Environmental Geologist

Stantec
61 Commercial Street Suite 100, Rochester NY 14614-1009
Phone: (585) 413-5301
Cell: (585) 645-2567
robert.mahoney@stantec.com

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Bureau of Program Management
625 Broadway, 12th Floor, Albany, NY 12233-7012
P: (518) 402-9764 I F: (518) 402-9722
www.dec.ny.gov

November 2, 2017

Mr. Robert Mahoney, P.G.
Senior Environmental Geologist
Stantec
61 Commercial Street, Suite 100
Rochester NY 14614-1009

Re: Soil Sampling and Analysis
Contained-In Determination
Brownfield Cleanup Program Site # C828136
8-28 Ward Street, Rochester, New York

Mr. Mahoney:

The New York State Department of Environmental Conservation has reviewed the analytical soil data (Lab Report ID: 162126, 174083 and L1732019) submitted with your October 31, 2017 request for a “contained-in” determination for excavated and stockpiled soil from the above referenced site.

Concentrations detected for individual VOCs were all significantly less than their current NYSDEC "contained in" soil action levels and Land Disposal Restriction concentrations. Most of the individual VOCs were not detected above the detection limit. No hazardous constituents exhibited a hazardous waste characteristic by exceeding their TCLP regulatory level.

Concentrations for tetrachloroethene (PCE) were detected was significantly less than its current "contained-in" soil action levels and Land Disposal Restriction concentrations. Therefore, the stockpiled soil, approximately 50 – 60 tons, does not have to be managed as hazardous waste when transported to High Acres Landfill located in Fairport, NY, for disposal as non-hazardous.

Should you have any questions regarding the content of this letter, please do not hesitate to contact me at (518) 402-9611 or email me at henry.wilkie@dec.ny.gov.

Sincerely,

Henry Wilkie
Environmental Engineer 1
Resource Management Section

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation ec: T. Caffoe, Region 8

From:	Storonsky, Mike
To:	"Caffoe, Todd (DEC)"
Cc:	Mahoney, Robert
Subject:	RE: 8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester
Date:	Thursday, November 16, 2017 2:24:00 PM
Attachments:	Fwd WMSolutions.com Profile 118451NY (Germanow-Simon Corp) has been approved.msg image001.png image002.png

---

Todd,

The soil pile at 8-28 Ward Street is scheduled to be removed on Monday, Nov. 20 as per the attached approved Waste Profile.

Please contact us with any questions.

Thanks,
Mike

Michael P. Storonsky
Managing Principal, Environmental Services
Stantec
Phone: (585) 413-5266
Cell: (585) 298-2386
mike.storonsky@stantec.com

From: Caffoe, Todd (DEC) [mailto:todd.caffoe@dec.ny.gov]
Sent: Friday, October 06, 2017 11:42 AM
To: Storonsky, Mike <mike.storonsky@stantec.com>
Cc: Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>; Mahoney, Robert <Bob.Mahoney@stantec.com>
Subject: RE: 8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Clean Backfill

Mike,
The referenced backfill material that TREC is proposing for the 8-28 Ward Street site is acceptable for use. Please let me know if you have any questions.

-Todd

Todd M. Caffoe, P.E.
Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

www.dec.ny.gov | |

From: Storonsky, Mike [mailto:mike.storonsky@stantec.com]
Sent: Thursday, October 05, 2017 5:29 PM
To: Caffoe, Todd (DEC) <todd.caffoe@dec.ny.gov>
Cc: Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>; Mahoney, Robert <Bob.Mahoney@stantec.com>
Subject: 8-28 Ward Street, #828136 - 8-28 Ward Street, Rochester - Clean Backfill
Importance: High

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Todd,

Attached is the crushed stone material submittal for the clean backfill that TREC is proposing to bring in from the Brockport Dolomite facility for backfilling the 8-28 Ward Street excavation that is schedule for Monday – Tuesday next week. Please confirm this material will be acceptable for use at your earliest opportunity.

Thanks,
Mike

From: Caffoe, Todd (DEC) [mailto:todd.caffoe@dec.ny.gov]
Sent: Tuesday, October 03, 2017 3:51 PM
To: Mahoney, Robert <Bob.Mahoney@stantec.com>
Cc: Storonsky, Mike <mike.storonsky@stantec.com>; Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>; Schilling, Bernette (DEC) <bernette.schilling@dec.ny.gov>
Subject: RE: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination

Bob,
I have reviewed the data for the non-impacted soils 828-B101-S1-g and 828-B101-S1-c. These soils are acceptable for re-use as backfill on-site. The levels are well below commercial use SCOs and these soils can be used as cover in non-paved areas. Please let me know if you have any questions and keep me posted on the fieldwork schedule.

-Todd

Todd M. Caffoe, P.E.
Division of Environmental Remediation

New York State Department of Environmental Conservation
6274 East Avon-Lima Road, Avon, NY 14414
P: (585) 226-5350 |Todd.Caffoe@dec.ny.gov

www.dec.ny.gov | |

From: Mahoney, Robert [mailto:Bob.Mahoney@stantec.com]
Sent: Tuesday, October 03, 2017 2:03 PM
To: Caffoe, Todd (DEC) <todd.caffoe@dec.ny.gov>; Wilkie, Henry (DEC) <henry.wilkie@dec.ny.gov>
Cc: Storonsky, Mike <mike.storonsky@stantec.com>; Ignaszak, Kevin <Kevin.Ignaszak@stantec.com>
Subject: Site #828136 - 8-28 Ward Street, Rochester - Soil for Contained-In Determination

Todd and Henry – As Mike Storonsky discussed with you recently, a sample Stantec recently took at the Ward Street site of PCE-impacted soil that was intended for excavation, live-loading and landfill disposal was analyzed for TCLP VOCs (for pre-disposal characterization per a Contained-In Determination), but the result was above the Contained in Action Level (76.7 µg/L vs. the CIAL of 5 µg/L). A copy of the lab report is attached.

We understand from our discussions with you that modifying our approach to include stockpiling the material and testing the stockpile would be acceptable. We have tentatively planned to perform the excavation work early next week (on or about October 9-10), and expect to provide stockpile analytical results to you shortly thereafter for review and hopefully approval for disposal.

As we have also discussed, the shallow, non-impacted soils will also be segregated and stockpiled, for intended use as backfill. The attached lab report also contains the results of a sample from that zone which was submitted for "Full Suite" analyses. We have annotated the chain-of-custody form on page 15 of the pdf for sample ID clarity.

Please confirm that this material overlying the impacted zone will be acceptable for reuse.

Todd – we have not yet confirmed with TREC what imported clean material will be used to make up the remainder of the backfill, but they have indicated they will be providing that information to us tomorrow. We will update you when that is established with TREC.

Contact us anytime with questions.

Thanks

Bob Mahoney

Robert Mahoney, P.G.
Senior Environmental Geologist
Stantec
61 Commercial Street Suite 100, Rochester NY 14614-1009
Phone: (585) 413-5301
Cell: (585) 645-2567
robert.mahoney@stantec.com

From:	Keith Hambley
To:	Storonsky, Mike; Mahoney, Robert
Subject:	Fwd: [WMSolutions.com] Profile 118451NY (Germanow-Simon Corp) has been approved
Date:	Thursday, November 16, 2017 2:13:58 PM

Keith Hambley
President

TREC Environmental, Inc

1018 Washington Street, Spencerport, NY 14559
office: 585-594-5545 | mobile: 585-314-6189 | email: khambley@trecenv.com |
website: http://www.trecenv.com/

---------- Forwarded message ----------
From: **New York TSC** <wm@wmsolutions.com>
Date: Thu, Nov 16, 2017 at 1:58 PM
Subject: [WMSolutions.com] Profile 118451NY (Germanow-Simon Corp) has been approved
To: khambley@trecenv.com
Cc: tsceastny@wm.com, khambley@trecenv.com

Notice of Profile Approval: 118451NY

Profile Number:	118451NY
Waste Stream:	Non Hazardous Soil
Generator Name:	Germanow-Simon Corp
Disposal Site:	High Acres Landfill
Expiration Date:	11/15/2018

Dear Keith Hambley,

We are pleased to inform you that Profile 118451NY has been approved by our New York TSC Technical Service Center. Your Waste Approval Terms and Conditions can be found on either your *Profile Form* or *Approval Form*. Both documents are available as a PDF in the *Approved Tab* in your

WMSolutions.com account.

Please feel free to email us at TSCEastNY@wm.com or call 800-963-4776 with any questions.

Thank you for choosing Waste Management.

New York TSC
1550 Balmer Road
Model City, NY 14107
Phone: 716-286-1550
TSCEastNY@wm.com

Appendix C - TEST BORING LOG

61 Commercial St
Rochester, NY 14614
(585) 475-1440

TEST BORING LOG

Test Boring No: B-101
Page: 1 of 1

Project:	Excavation Pre-characterization	**Drill Contractor:**	TREC	**Start Date:**	09.08.17
Project #:	190500787.225/230	**Driller:**	J Agar	**Completion Date:**	09.08.17
Client:	City of Rochester	**Elevation:**	- -	**Drilling Method:**	Geoprobe
Location:	540 Jefferson Ave Rochester, NY	**Weather:**	50s, cloudy	**Stantec Rep:**	Mahoney/Kelly

	SAMPLE				
0	PID (ppm)	Rec. (ft)	No.	Depth (ft)	SOIL DESCRIPTION, STRATA CHANGES AND OBSERVATIONS
	0.0	3.0	S1		Brown Sand and Gravel
	0.0				- FILL -
	1.5			3	Gray crushed stone - FILL -
4					
	0.0	4.0	S2		Brown Silt, trace to little clay, trace sand; Wet, with occasional saturated seams
	0.0				- LACUSTRINE
	0.0				
8					
	3.5	4.0	S3		Brown Silt, little clay, trace to litle gravel (rounded stones); Wet with occasional saturated seams
	2.0				- LACUSTRINE
12	0.2				
	0.2	4.0	S4		
	1.6			14	Sandy SILT, trace clay; Damp to Moist
16	0.0				- Glacial Till -
					Refusal and BOE @ 16'
20					

Notes:

1. PID Model Mini-Rae 3000 with 10.6eV lamp.
2. BOE = Bottom of Exploration

Remarks: Sample obtained 3-3.5' (Grab VOC)
Sample obtained 3.5 - 8 ft (Stockpile)
Sample obtained 9.5 (TCLP VOCs)
Sample obtained 10-12 (Waste Char.)

Appendix D - LABORATORY ANALYTICAL REPORTS

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-B101-S1-g		
Lab Sample ID:	174083-01	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2,2-Tetrachloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1,2-Trichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,1-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
1,2,3-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trichlorobenzene	< 10.2	ug/Kg		9/13/2017 14:02
1,2,4-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dibromo-3-Chloropropane	< 20.4	ug/Kg		9/13/2017 14:02
1,2-Dibromoethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloroethane	< 4.07	ug/Kg		9/13/2017 14:02
1,2-Dichloropropane	< 4.07	ug/Kg		9/13/2017 14:02
1,3,5-Trimethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,3-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-Dichlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
1,4-dioxane	< 40.7	ug/Kg		9/13/2017 14:02
2-Butanone	< 20.4	ug/Kg		9/13/2017 14:02
2-Hexanone	< 10.2	ug/Kg		9/13/2017 14:02
4-Methyl-2-pentanone	< 10.2	ug/Kg		9/13/2017 14:02
Acetone	**18.2**	ug/Kg	J	9/13/2017 14:02
Benzene	< 4.07	ug/Kg		9/13/2017 14:02
Bromochloromethane	< 10.2	ug/Kg		9/13/2017 14:02
Bromodichloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Bromoform	< 10.2	ug/Kg		9/13/2017 14:02
Bromomethane	< 4.07	ug/Kg		9/13/2017 14:02
Carbon disulfide	< 4.07	ug/Kg		9/13/2017 14:02

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-g

Lab Sample ID: 174083-01 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Carbon Tetrachloride	< 4.07	ug/Kg		9/13/2017 14:02
Chlorobenzene	< 4.07	ug/Kg		9/13/2017 14:02
Chloroethane	< 4.07	ug/Kg		9/13/2017 14:02
Chloroform	< 4.07	ug/Kg		9/13/2017 14:02
Chloromethane	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
cis-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02
Cyclohexane	< 20.4	ug/Kg		9/13/2017 14:02
Dibromochloromethane	< 4.07	ug/Kg		9/13/2017 14:02
Dichlorodifluoromethane	< 4.07	ug/Kg		9/13/2017 14:02
Ethylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Freon 113	< 4.07	ug/Kg		9/13/2017 14:02
Isopropylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
m,p-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
Methyl acetate	< 4.07	ug/Kg		9/13/2017 14:02
Methyl tert-butyl Ether	< 4.07	ug/Kg		9/13/2017 14:02
Methylcyclohexane	< 4.07	ug/Kg		9/13/2017 14:02
Methylene chloride	< 10.2	ug/Kg		9/13/2017 14:02
Naphthalene	< 10.2	ug/Kg		9/13/2017 14:02
n-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
n-Propylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
o-Xylene	< 4.07	ug/Kg		9/13/2017 14:02
p-Isopropyltoluene	< 4.07	ug/Kg		9/13/2017 14:02
sec-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Styrene	< 10.2	ug/Kg		9/13/2017 14:02
tert-Butylbenzene	< 4.07	ug/Kg		9/13/2017 14:02
Tetrachloroethene	**12.1**	ug/Kg		9/13/2017 14:02
Toluene	**3.03**	ug/Kg	J	9/13/2017 14:02
trans-1,2-Dichloroethene	< 4.07	ug/Kg		9/13/2017 14:02
trans-1,3-Dichloropropene	< 4.07	ug/Kg		9/13/2017 14:02

Report Prepared Monday, September 18, 2017

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-g		
Lab Sample ID:	174083-01	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Trichloroethene	**2.55**	ug/Kg	J	9/13/2017 14:02
Trichlorofluoromethane	< 4.07	ug/Kg		9/13/2017 14:02
Vinyl chloride	< 4.07	ug/Kg		9/13/2017 14:02

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**108**	86.2 - 128		9/13/2017 14:02
4-Bromofluorobenzene	**92.6**	69.8 - 123		9/13/2017 14:02
Pentafluorobenzene	**98.5**	82.2 - 114		9/13/2017 14:02
Toluene-D8	**95.5**	81.3 - 113		9/13/2017 14:02

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x45142.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Metals

Analyte	Result	Units	Qualifier	Date Analyzed
Arsenic	**3.13**	mg/Kg		9/13/2017 17:25
Barium	**34.0**	mg/Kg		9/13/2017 17:25
Beryllium	**0.287**	mg/Kg		9/13/2017 17:25
Cadmium	**0.193**	mg/Kg	J	9/13/2017 17:25
Chromium	**7.83**	mg/Kg		9/13/2017 17:25
Copper	**12.1**	mg/Kg		9/13/2017 17:25
Lead	**22.3**	mg/Kg		9/13/2017 17:25
Manganese	**275**	mg/Kg		9/13/2017 17:25
Nickel	**9.08**	mg/Kg		9/13/2017 17:25
Selenium	< 1.05	mg/Kg		9/15/2017 09:47
Silver	**0.806**	mg/Kg		9/13/2017 17:25
Zinc	**39.6**	mg/Kg		9/13/2017 17:25

Method Reference(s):	EPA 6010C
	EPA 3050B
Preparation Date:	9/13/2017
Data File:	170913B

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Mercury

Analyte	Result	Units	Qualifier	Date Analyzed
Mercury	**0.0276**	mg/Kg		9/13/2017 12:34

Method Reference(s):	EPA 7471B
Preparation Date:	9/12/2017
Data File:	Hg170913A

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1221	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1232	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1242	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1248	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1254	**0.0237**	mg/Kg	J	9/14/2017 11:26
PCB-1260	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1262	< 0.0270	mg/Kg		9/14/2017 11:26
PCB-1268	< 0.0270	mg/Kg		9/14/2017 11:26

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl	**79.6**	22.2 - 140		9/14/2017 11:26
Tetrachloro-m-xylene	**33.8**	11.8 - 125		9/14/2017 11:26

Method Reference(s): EPA 8082A
EPA 3550C

Preparation Date: 9/12/2017

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c

Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017

Matrix: Soil **Date Received:** 9/11/2017

Chlorinated Pesticides

Analyte	Result	Units	Qualifier	Date Analyzed
4,4-DDD	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDE	< 2.70	ug/Kg		9/15/2017 20:39
4,4-DDT	**4.07**	ug/Kg		9/15/2017 20:39
Aldrin	< 2.70	ug/Kg		9/15/2017 20:39
alpha-BHC	< 2.70	ug/Kg		9/15/2017 20:39
beta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
cis-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39
delta-BHC	< 2.70	ug/Kg		9/15/2017 20:39
Dieldrin	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan I	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan II	< 2.70	ug/Kg		9/15/2017 20:39
Endosulfan Sulfate	**1.83**	ug/Kg	JP	9/15/2017 20:39
Endrin	**2.18**	ug/Kg	J	9/15/2017 20:39
Endrin Aldehyde	< 2.70	ug/Kg		9/15/2017 20:39
Endrin Ketone	< 2.70	ug/Kg		9/15/2017 20:39
gamma-BHC (Lindane)	**2.11**	ug/Kg	JP	9/15/2017 20:39
Heptachlor	< 2.70	ug/Kg		9/15/2017 20:39
Heptachlor Epoxide	< 2.70	ug/Kg		9/15/2017 20:39
Methoxychlor	**1.43**	ug/Kg	JP	9/15/2017 20:39
Toxaphene	< 27.0	ug/Kg		9/15/2017 20:39
trans-Chlordane	< 2.70	ug/Kg		9/15/2017 20:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Decachlorobiphenyl (1)	**90.2**	31.5 - 168		9/15/2017 20:39
Tetrachloro-m-xylene (1)	**53.6**	26.7 - 117		9/15/2017 20:39

Method Reference(s): EPA 8081B
EPA 3550C
Preparation Date: 9/12/2017

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 322	ug/Kg		9/13/2017 15:42
1,2,4,5-Tetrachlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2,4-Trichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,2-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,3-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
1,4-Dichlorobenzene	< 322	ug/Kg		9/13/2017 15:42
2,2-Oxybis (1-chloropropane)	< 322	ug/Kg		9/13/2017 15:42
2,3,4,6-Tetrachlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4,5-Trichlorophenol	< 645	ug/Kg		9/13/2017 15:42
2,4,6-Trichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dichlorophenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dimethylphenol	< 322	ug/Kg		9/13/2017 15:42
2,4-Dinitrophenol	< 645	ug/Kg		9/13/2017 15:42
2,4-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2,6-Dinitrotoluene	< 322	ug/Kg		9/13/2017 15:42
2-Chloronaphthalene	< 322	ug/Kg		9/13/2017 15:42
2-Chlorophenol	< 322	ug/Kg		9/13/2017 15:42
2-Methylnapthalene	< 322	ug/Kg		9/13/2017 15:42
2-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
2-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
2-Nitrophenol	< 322	ug/Kg		9/13/2017 15:42
3&4-Methylphenol	< 322	ug/Kg		9/13/2017 15:42
3,3'-Dichlorobenzidine	< 322	ug/Kg		9/13/2017 15:42
3-Nitroaniline	< 645	ug/Kg		9/13/2017 15:42
4,6-Dinitro-2-methylphenol	< 645	ug/Kg		9/13/2017 15:42
4-Bromophenyl phenyl ether	< 322	ug/Kg		9/13/2017 15:42
4-Chloro-3-methylphenol	< 322	ug/Kg		9/13/2017 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier: 828-B101-S1-c
Lab Sample ID: 174083-02 **Date Sampled:** 9/8/2017
Matrix: Soil **Date Received:** 9/11/2017

4-Chloroaniline	< 322	ug/Kg	9/13/2017 15:42
4-Chlorophenyl phenyl ether	< 322	ug/Kg	9/13/2017 15:42
4-Nitroaniline	< 645	ug/Kg	9/13/2017 15:42
4-Nitrophenol	< 645	ug/Kg	9/13/2017 15:42
Acenaphthene	< 322	ug/Kg	9/13/2017 15:42
Acenaphthylene	< 322	ug/Kg	9/13/2017 15:42
Acetophenone	< 322	ug/Kg	9/13/2017 15:42
Anthracene	< 322	ug/Kg	9/13/2017 15:42
Atrazine	< 322	ug/Kg	9/13/2017 15:42
Benzaldehyde	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) anthracene	< 322	ug/Kg	9/13/2017 15:42
Benzo (a) pyrene	< 322	ug/Kg	9/13/2017 15:42
Benzo (b) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Benzo (g,h,i) perylene	< 322	ug/Kg	9/13/2017 15:42
Benzo (k) fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethoxy) methane	< 322	ug/Kg	9/13/2017 15:42
Bis (2-chloroethyl) ether	< 322	ug/Kg	9/13/2017 15:42
Bis (2-ethylhexyl) phthalate	< 322	ug/Kg	9/13/2017 15:42
Butylbenzylphthalate	< 322	ug/Kg	9/13/2017 15:42
Caprolactam	< 322	ug/Kg	9/13/2017 15:42
Carbazole	< 322	ug/Kg	9/13/2017 15:42
Chrysene	< 322	ug/Kg	9/13/2017 15:42
Dibenz (a,h) anthracene	< 322	ug/Kg	9/13/2017 15:42
Dibenzofuran	< 322	ug/Kg	9/13/2017 15:42
Diethyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Dimethyl phthalate	< 645	ug/Kg	9/13/2017 15:42
Di-n-butyl phthalate	< 322	ug/Kg	9/13/2017 15:42
Di-n-octylphthalate	< 322	ug/Kg	9/13/2017 15:42
Fluoranthene	< 322	ug/Kg	9/13/2017 15:42
Fluorene	< 322	ug/Kg	9/13/2017 15:42

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Hexachlorobenzene	< 322	ug/Kg		9/13/2017 15:42
Hexachlorobutadiene	< 322	ug/Kg		9/13/2017 15:42
Hexachlorocyclopentadiene	< 322	ug/Kg		9/13/2017 15:42
Hexachloroethane	< 322	ug/Kg		9/13/2017 15:42
Indeno (1,2,3-cd) pyrene	< 322	ug/Kg		9/13/2017 15:42
Isophorone	< 322	ug/Kg		9/13/2017 15:42
Naphthalene	< 322	ug/Kg		9/13/2017 15:42
Nitrobenzene	< 322	ug/Kg		9/13/2017 15:42
N-Nitroso-di-n-propylamine	< 322	ug/Kg		9/13/2017 15:42
N-Nitrosodiphenylamine	< 322	ug/Kg		9/13/2017 15:42
Pentachlorophenol	< 645	ug/Kg		9/13/2017 15:42
Phenanthrene	< 322	ug/Kg		9/13/2017 15:42
Phenol	< 322	ug/Kg		9/13/2017 15:42
Pyrene	< 322	ug/Kg		9/13/2017 15:42

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**
2,4,6-Tribromophenol	**77.6**	55.4 - 114		9/13/2017 15:42
2-Fluorobiphenyl	**50.8**	39.9 - 112		9/13/2017 15:42
2-Fluorophenol	**49.6**	41.9 - 97.1		9/13/2017 15:42
Nitrobenzene-d5	**44.5**	41 - 96		9/13/2017 15:42
Phenol-d5	**51.1**	43.7 - 101		9/13/2017 15:42
Terphenyl-d14	**76.4**	71.7 - 115		9/13/2017 15:42

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 9/12/2017
Data File: B22821.D

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S1-c		
Lab Sample ID:	174083-02	**Date Sampled:**	9/8/2017
Matrix:	Soil	**Date Received:**	9/11/2017

Total Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Cyanide, Total	< 0.551	mg/Kg		9/15/2017

Method Reference(s): EPA 9014
Preparation Date: 9/14/2017

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Monday, September 18, 2017

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174083

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-B101-S2		
Lab Sample ID:	174083-03	**Date Sampled:**	9/8/2017
Matrix:	TCLP Extract	**Date Received:**	9/11/2017

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		9/14/2017 17:52
1,2-Dichloroethane	< 20.0	ug/L	500		9/14/2017 17:52
2-Butanone	< 100	ug/L	200000		9/14/2017 17:52
Benzene	< 10.0	ug/L	500		9/14/2017 17:52
Carbon Tetrachloride	< 20.0	ug/L	500		9/14/2017 17:52
Chlorobenzene	< 20.0	ug/L	100000		9/14/2017 17:52
Chloroform	< 20.0	ug/L	6000		9/14/2017 17:52
Tetrachloroethene	**76.7**	ug/L	700		9/14/2017 17:52
Trichloroethene	< 20.0	ug/L	500		9/14/2017 17:52
Vinyl chloride	< 20.0	ug/L	200		9/14/2017 17:52

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	85.9 - 118		9/14/2017 17:52
4-Bromofluorobenzene	**96.1**	69.4 - 123		9/14/2017 17:52
Pentafluorobenzene	**95.9**	81.6 - 114		9/14/2017 17:52
Toluene-D8	**97.6**	82.7 - 112		9/14/2017 17:52

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x45187.D

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: Stantec		CLIENT: Same		174083
ADDRESS: 61 Commercial, Suite		ADDRESS:		
CITY: Roch	STATE: ZIP	CITY:	STATE: ZIP:	Quotation #:
PHONE: 475-1440		PHONE:		Email: Bob.Mahoney@stantec.com
ATTN: Bob Mahoney		ATTN:		

PROJECT REFERENCE
190500014

Matrix Codes:
AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS

Part 375 per test list @ 9/11/17

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	8260	8270	Metals	Pest	PCB	TCN	Hex Cr	Silvex	TCLP VOCs		REMARKS	PARADIGM LAB SAMPLE NUMBER
9/8/17	0815		X	828-B101-S1-9	SO	1	X										CAT B RPT	01
	0820	X		828-B101-S1-C	SO	1		X	X	X	X	X	X	X			CAT B RPT	02
	0830	X		828-B101-S2	SO	1									X		CAT B RPT	03
	0840	X		~~828-B101-S3~~	~~SO~~	~~2~~											~~Hold for instructions on analysis.~~	

Shallow soil for reuse as backfill

Impacted soil for disposal

Extra sample not analyzed

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☒	None Required	☐	None Required	☐
10 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☒
Rush 2 day	☐	Category B (2 samples only)	☒		
Rush 1 day	☐				
Other please indicate date needed:	☐	Other please indicate package needed:	☐	Other EDD please indicate EDD needed:	☐

	Date/Time	
Sampled By: R J Mahoney	9/8/17 0840	Total Cost:
Relinquished By: RJ Mahoney	9/8/17 1825	
Received By: C [signature]	9/8/17 @ 1825 - 5°C per CS 9/11/17	P.I.F.
Received @ Lab By: [signature]	9/11/17 11:01	

Custody Seal N/A, Samples delivered by client 9/11/17

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Chain of Custody Supplement

Client: Stantec **Completed by:** Glenn Pezzulo

Lab Project ID: 174083 **Date:** 9/11/17

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	*NELAC compliance with the sample condition requirements upon receipt* **Yes**	**No**	**N/A**
Container Type	X	X 5035	
Comments	Portion of sample 02 transferred to 4oz glass jar for Silver, Hex Cr sub-out.		
Transferred to method-compliant container	X 93 to 9a sub-out		X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	5°C 9/8/17 18:25		
Sufficient Sample Quantity	X		
Comments			

ANALYTICAL REPORT

Lab Number:	L1732019
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	174083
Project Number:	174083
Report Date:	09/15/17

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1732019-01	828-B101-S1-C 174083-02	SOIL	Not Specified	09/08/17 08:20	09/11/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kara Lindquist

Title: Technical Director/Representative Date: 09/15/17

ORGANICS

PESTICIDES

Project Name:	174083	**Lab Number:**	L1732019
Project Number:	174083	**Report Date:**	09/15/17

SAMPLE RESULTS

Lab ID:	L1732019-01	Date Collected:	09/08/17 08:20
Client ID:	828-B101-S1-C 174083-02	Date Received:	09/11/17
Sample Location:	Not Specified	Field Prep:	Not Specified
		Extraction Method:	EPA 8151A
Matrix:	Soil	Extraction Date:	09/12/17 08:03
Analytical Method:	1,8151A		
Analytical Date:	09/13/17 14:55		
Analyst:	SL		
Percent Solids:	89%		
Methylation Date:	09/12/17 17:12		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4,5-TP (Silvex)	ND		ug/kg	185	4.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	91		30-150	B

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/13/17 13:51
Analyst: SL

Extraction Method: EPA 8151A
Extraction Date: 09/12/17 08:03

Methylation Date: 09/12/17 17:12

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1040624-1						
2,4,5-TP (Silvex)	ND		ug/kg	163	4.34	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	81		30-150	A
DCAA	73		30-150	B

Lab Control Sample Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1040624-2 WG1040624-3									
2,4,5-TP (Silvex)	82		81		30-150	1		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	96		94		30-150	A
DCAA	101		101		30-150	B

INORGANICS
&
MISCELLANEOUS

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

SAMPLE RESULTS

Lab ID:	L1732019-01	Date Collected:	09/08/17 08:20
Client ID:	828-B101-S1-C 174083-02	Date Received:	09/11/17
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Soil		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.0		%	0.100	NA	1	-	09/12/17 11:07	121,2540G	RI
Chromium, Hexavalent	ND		mg/kg	0.90	0.18	1	09/14/17 04:20	09/14/17 12:17	1,7196A	NH

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1041499-1										
Chromium, Hexavalent	ND		mg/kg	0.80	0.16	1	09/14/17 04:20	09/14/17 12:00	1,7196A	NH

Lab Control Sample Analysis
Batch Quality Control

Project Name: 174083 **Lab Number:** L1732019

Project Number: 174083 **Report Date:** 09/15/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1041499-2								
Chromium, Hexavalent	82		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-4 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02												
Chromium, Hexavalent	ND	856	810	95		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 174083
Project Number: 174083

Lab Number: L1732019
Report Date: 09/15/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1040660-1 QC Sample: L1731928-01 Client ID: DUP Sample						
Solids, Total	84.5	85.8	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1041499-6 QC Sample: L1732019-01 Client ID: 828-B101-S1-C 174083-02						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1732019-01A	Glass 120ml/4oz unpreserved	A	NA		2.9	Y	Absent		HERB-APA(14),TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: 174083 **Lab Number:** L1732019
Project Number: 174083 **Report Date:** 09/15/17

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

1 of 1
L1732019

11148

REPORT TO:		INVOICE TO:	
COMPANY:	Paradigm Environmental	COMPANY:	Same
ADDRESS:	179 Lake Avenue	ADDRESS:	
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:
PHONE:	FAX:	PHONE:	FAX:
ATTN:	Reporting	ATTN:	Accounts Payable
COMMENTS:	Please email results to reporting@paradigmenv.com		

PROJECT NAME/SITE NAME:

LAB PROJECT #:

CLIENT PROJECT #:

TURNAROUND TIME: (WORKING DAYS)

☐ 1 ☐ 2 ☐ 3 ☒ 5 (STD) OTHER ☐

Date Due: 9/19/17 for data

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	Silvex	Hex Cr	REMARKS: ASP Cat B Package Due 10/3/17; Report J. Flags; Report as dry wt.	PARADIGM LAB SAMPLE NUMBER: SW-846 HT's.
1	9/8/17	08:20			828-B101-S1-c	Soil	1	X	X	174083-02	
2											
3											
4											
5											
6											
7											
8											
9											
10											

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature:	Y ☐	N ☐
Comments:		

Client

	Signature	Date/Time	
Sampled By	[signature]	9/11/17	16:00
Relinquished By	[signature]	9/11/17	17:57
Received By	[signature]	9/12/17	0655
Received By			
Received @ Lab By			

Total Cost: ☐

P.I.F. ☐

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-Floor E		
Lab Sample ID:	174573-01	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.51	ug/Kg		10/16/2017 13:57
1,1,2,2-Tetrachloroethane	< 4.51	ug/Kg		10/16/2017 13:57
1,1,2-Trichloroethane	< 4.51	ug/Kg		10/16/2017 13:57
1,1-Dichloroethane	< 4.51	ug/Kg		10/16/2017 13:57
1,1-Dichloroethene	< 4.51	ug/Kg		10/16/2017 13:57
1,2,3-Trichlorobenzene	< 11.3	ug/Kg		10/16/2017 13:57
1,2,4-Trichlorobenzene	< 11.3	ug/Kg		10/16/2017 13:57
1,2,4-Trimethylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
1,2-Dibromo-3-Chloropropane	< 22.5	ug/Kg		10/16/2017 13:57
1,2-Dibromoethane	< 4.51	ug/Kg		10/16/2017 13:57
1,2-Dichlorobenzene	< 4.51	ug/Kg		10/16/2017 13:57
1,2-Dichloroethane	< 4.51	ug/Kg		10/16/2017 13:57
1,2-Dichloropropane	< 4.51	ug/Kg		10/16/2017 13:57
1,3,5-Trimethylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
1,3-Dichlorobenzene	< 4.51	ug/Kg		10/16/2017 13:57
1,4-Dichlorobenzene	< 4.51	ug/Kg		10/16/2017 13:57
1,4-dioxane	< 45.1	ug/Kg		10/16/2017 13:57
2-Butanone	< 22.5	ug/Kg		10/16/2017 13:57
2-Hexanone	< 11.3	ug/Kg		10/16/2017 13:57
4-Methyl-2-pentanone	< 11.3	ug/Kg		10/16/2017 13:57
Acetone	< 22.5	ug/Kg		10/16/2017 13:57
Benzene	< 4.51	ug/Kg		10/16/2017 13:57
Bromochloromethane	< 11.3	ug/Kg		10/16/2017 13:57
Bromodichloromethane	< 4.51	ug/Kg		10/16/2017 13:57
Bromoform	< 11.3	ug/Kg		10/16/2017 13:57
Bromomethane	< 4.51	ug/Kg		10/16/2017 13:57
Carbon disulfide	< 4.51	ug/Kg		10/16/2017 13:57

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: <u>Stantec</u>

Project Reference: 190500014

Sample Identifier: 828-2017-Floor E

Lab Sample ID: 174573-01 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Carbon Tetrachloride	< 4.51	ug/Kg		10/16/2017 13:57
Chlorobenzene	< 4.51	ug/Kg		10/16/2017 13:57
Chloroethane	< 4.51	ug/Kg		10/16/2017 13:57
Chloroform	< 4.51	ug/Kg		10/16/2017 13:57
Chloromethane	< 4.51	ug/Kg		10/16/2017 13:57
cis-1,2-Dichloroethene	< 4.51	ug/Kg		10/16/2017 13:57
cis-1,3-Dichloropropene	< 4.51	ug/Kg		10/16/2017 13:57
Cyclohexane	< 22.5	ug/Kg		10/16/2017 13:57
Dibromochloromethane	< 4.51	ug/Kg		10/16/2017 13:57
Dichlorodifluoromethane	< 4.51	ug/Kg		10/16/2017 13:57
Ethylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
Freon 113	< 4.51	ug/Kg		10/16/2017 13:57
Isopropylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
m,p-Xylene	< 4.51	ug/Kg		10/16/2017 13:57
Methyl acetate	< 4.51	ug/Kg		10/16/2017 13:57
Methyl tert-butyl Ether	< 4.51	ug/Kg		10/16/2017 13:57
Methylcyclohexane	< 4.51	ug/Kg		10/16/2017 13:57
Methylene chloride	**6.39**	ug/Kg	J	10/16/2017 13:57
Naphthalene	< 11.3	ug/Kg		10/16/2017 13:57
n-Butylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
n-Propylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
o-Xylene	< 4.51	ug/Kg		10/16/2017 13:57
p-Isopropyltoluene	< 4.51	ug/Kg		10/16/2017 13:57
sec-Butylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
Styrene	< 11.3	ug/Kg		10/16/2017 13:57
tert-Butylbenzene	< 4.51	ug/Kg		10/16/2017 13:57
Tetrachloroethene	**37.8**	ug/Kg		10/16/2017 13:57
Toluene	< 4.51	ug/Kg		10/16/2017 13:57
trans-1,2-Dichloroethene	< 4.51	ug/Kg		10/16/2017 13:57
trans-1,3-Dichloropropene	< 4.51	ug/Kg		10/16/2017 13:57

Report Prepared Thursday, October 19, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: Stantec

Project Reference: 190500014

Sample Identifier: 828-2017-Floor E

Lab Sample ID: 174573-01 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Trichloroethene	< 4.51	ug/Kg	10/16/2017 13:57
Trichlorofluoromethane	< 4.51	ug/Kg	10/16/2017 13:57
Vinyl chloride	< 4.51	ug/Kg	10/16/2017 13:57

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**99.9**	86.2 - 128		10/16/2017 13:57
4-Bromofluorobenzene	**85.1**	69.8 - 123		10/16/2017 13:57
Pentafluorobenzene	**90.6**	82.2 - 114		10/16/2017 13:57
Toluene-D8	**93.2**	81.3 - 113		10/16/2017 13:57

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45932.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-2017-N-Wall		
Lab Sample ID:	174573-02	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.83	ug/Kg		10/16/2017 16:22
1,1,2,2-Tetrachloroethane	< 4.83	ug/Kg		10/16/2017 16:22
1,1,2-Trichloroethane	< 4.83	ug/Kg		10/16/2017 16:22
1,1-Dichloroethane	< 4.83	ug/Kg		10/16/2017 16:22
1,1-Dichloroethene	< 4.83	ug/Kg		10/16/2017 16:22
1,2,3-Trichlorobenzene	< 12.1	ug/Kg		10/16/2017 16:22
1,2,4-Trichlorobenzene	< 12.1	ug/Kg		10/16/2017 16:22
1,2,4-Trimethylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
1,2-Dibromo-3-Chloropropane	< 24.1	ug/Kg		10/16/2017 16:22
1,2-Dibromoethane	< 4.83	ug/Kg		10/16/2017 16:22
1,2-Dichlorobenzene	< 4.83	ug/Kg	M	10/16/2017 16:22
1,2-Dichloroethane	< 4.83	ug/Kg	M	10/16/2017 16:22
1,2-Dichloropropane	< 4.83	ug/Kg	M	10/16/2017 16:22
1,3,5-Trimethylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
1,3-Dichlorobenzene	< 4.83	ug/Kg	M	10/16/2017 16:22
1,4-Dichlorobenzene	< 4.83	ug/Kg	M	10/16/2017 16:22
1,4-dioxane	< 48.3	ug/Kg		10/16/2017 16:22
2-Butanone	< 24.1	ug/Kg		10/16/2017 16:22
2-Hexanone	< 12.1	ug/Kg		10/16/2017 16:22
4-Methyl-2-pentanone	< 12.1	ug/Kg		10/16/2017 16:22
Acetone	**12.9**	ug/Kg	J	10/16/2017 16:22
Benzene	< 4.83	ug/Kg		10/16/2017 16:22
Bromochloromethane	< 12.1	ug/Kg		10/16/2017 16:22
Bromodichloromethane	< 4.83	ug/Kg	M	10/16/2017 16:22
Bromoform	< 12.1	ug/Kg		10/16/2017 16:22
Bromomethane	< 4.83	ug/Kg		10/16/2017 16:22
Carbon disulfide	< 4.83	ug/Kg		10/16/2017 16:22

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-2017-N-Wall		
Lab Sample ID:	174573-02	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Carbon Tetrachloride	< 4.83	ug/Kg		10/16/2017 16:22
Chlorobenzene	< 4.83	ug/Kg	M	10/16/2017 16:22
Chloroethane	< 4.83	ug/Kg		10/16/2017 16:22
Chloroform	< 4.83	ug/Kg		10/16/2017 16:22
Chloromethane	< 4.83	ug/Kg		10/16/2017 16:22
cis-1,2-Dichloroethene	< 4.83	ug/Kg		10/16/2017 16:22
cis-1,3-Dichloropropene	< 4.83	ug/Kg	M	10/16/2017 16:22
Cyclohexane	< 24.1	ug/Kg		10/16/2017 16:22
Dibromochloromethane	< 4.83	ug/Kg	M	10/16/2017 16:22
Dichlorodifluoromethane	< 4.83	ug/Kg		10/16/2017 16:22
Ethylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
Freon 113	< 4.83	ug/Kg		10/16/2017 16:22
Isopropylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
m,p-Xylene	< 4.83	ug/Kg		10/16/2017 16:22
Methyl acetate	< 4.83	ug/Kg		10/16/2017 16:22
Methyl tert-butyl Ether	< 4.83	ug/Kg		10/16/2017 16:22
Methylcyclohexane	< 4.83	ug/Kg		10/16/2017 16:22
Methylene chloride	**6.30**	ug/Kg	J	10/16/2017 16:22
Naphthalene	< 12.1	ug/Kg		10/16/2017 16:22
n-Butylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
n-Propylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
o-Xylene	< 4.83	ug/Kg		10/16/2017 16:22
p-Isopropyltoluene	< 4.83	ug/Kg		10/16/2017 16:22
sec-Butylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
Styrene	< 12.1	ug/Kg		10/16/2017 16:22
tert-Butylbenzene	< 4.83	ug/Kg		10/16/2017 16:22
Tetrachloroethene	**26.9**	ug/Kg		10/16/2017 16:22
Toluene	< 4.83	ug/Kg		10/16/2017 16:22
trans-1,2-Dichloroethene	< 4.83	ug/Kg		10/16/2017 16:22
trans-1,3-Dichloropropene	< 4.83	ug/Kg		10/16/2017 16:22

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-N-Wall		
Lab Sample ID:	174573-02	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Trichloroethene	< 4.83	ug/Kg			10/16/2017 16:22
Trichlorofluoromethane	< 4.83	ug/Kg			10/16/2017 16:22
Vinyl chloride	< 4.83	ug/Kg			10/16/2017 16:22

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**105**	86.2 - 128		10/16/2017 16:22
4-Bromofluorobenzene	**83.2**	69.8 - 123		10/16/2017 16:22
Pentafluorobenzene	**90.0**	82.2 - 114		10/16/2017 16:22
Toluene-D8	**92.2**	81.3 - 113		10/16/2017 16:22

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45938.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-S-Wall		
Lab Sample ID:	174573-03	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.36	ug/Kg		10/16/2017 14:21
1,1,2,2-Tetrachloroethane	< 4.36	ug/Kg		10/16/2017 14:21
1,1,2-Trichloroethane	< 4.36	ug/Kg		10/16/2017 14:21
1,1-Dichloroethane	< 4.36	ug/Kg		10/16/2017 14:21
1,1-Dichloroethene	< 4.36	ug/Kg		10/16/2017 14:21
1,2,3-Trichlorobenzene	< 10.9	ug/Kg		10/16/2017 14:21
1,2,4-Trichlorobenzene	< 10.9	ug/Kg		10/16/2017 14:21
1,2,4-Trimethylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
1,2-Dibromo-3-Chloropropane	< 21.8	ug/Kg		10/16/2017 14:21
1,2-Dibromoethane	< 4.36	ug/Kg		10/16/2017 14:21
1,2-Dichlorobenzene	< 4.36	ug/Kg		10/16/2017 14:21
1,2-Dichloroethane	< 4.36	ug/Kg		10/16/2017 14:21
1,2-Dichloropropane	< 4.36	ug/Kg		10/16/2017 14:21
1,3,5-Trimethylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
1,3-Dichlorobenzene	< 4.36	ug/Kg		10/16/2017 14:21
1,4-Dichlorobenzene	< 4.36	ug/Kg		10/16/2017 14:21
1,4-dioxane	< 43.6	ug/Kg		10/16/2017 14:21
2-Butanone	< 21.8	ug/Kg		10/16/2017 14:21
2-Hexanone	< 10.9	ug/Kg		10/16/2017 14:21
4-Methyl-2-pentanone	< 10.9	ug/Kg		10/16/2017 14:21
Acetone	< 21.8	ug/Kg		10/16/2017 14:21
Benzene	< 4.36	ug/Kg		10/16/2017 14:21
Bromochloromethane	< 10.9	ug/Kg		10/16/2017 14:21
Bromodichloromethane	< 4.36	ug/Kg		10/16/2017 14:21
Bromoform	< 10.9	ug/Kg		10/16/2017 14:21
Bromomethane	< 4.36	ug/Kg		10/16/2017 14:21
Carbon disulfide	< 4.36	ug/Kg		10/16/2017 14:21

Report Prepared Thursday, October 19, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-S-Wall
Lab Sample ID: 174573-03 **Date Sampled:** 10/10/2017
Matrix: Soil **Date Received:** 10/11/2017

Carbon Tetrachloride	< 4.36	ug/Kg		10/16/2017 14:21
Chlorobenzene	< 4.36	ug/Kg		10/16/2017 14:21
Chloroethane	< 4.36	ug/Kg		10/16/2017 14:21
Chloroform	< 4.36	ug/Kg		10/16/2017 14:21
Chloromethane	< 4.36	ug/Kg		10/16/2017 14:21
cis-1,2-Dichloroethene	< 4.36	ug/Kg		10/16/2017 14:21
cis-1,3-Dichloropropene	< 4.36	ug/Kg		10/16/2017 14:21
Cyclohexane	< 21.8	ug/Kg		10/16/2017 14:21
Dibromochloromethane	< 4.36	ug/Kg		10/16/2017 14:21
Dichlorodifluoromethane	< 4.36	ug/Kg		10/16/2017 14:21
Ethylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
Freon 113	< 4.36	ug/Kg		10/16/2017 14:21
Isopropylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
m,p-Xylene	< 4.36	ug/Kg		10/16/2017 14:21
Methyl acetate	< 4.36	ug/Kg		10/16/2017 14:21
Methyl tert-butyl Ether	< 4.36	ug/Kg		10/16/2017 14:21
Methylcyclohexane	< 4.36	ug/Kg		10/16/2017 14:21
Methylene chloride	**5.52**	ug/Kg	J	10/16/2017 14:21
Naphthalene	< 10.9	ug/Kg		10/16/2017 14:21
n-Butylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
n-Propylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
o-Xylene	< 4.36	ug/Kg		10/16/2017 14:21
p-Isopropyltoluene	< 4.36	ug/Kg		10/16/2017 14:21
sec-Butylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
Styrene	< 10.9	ug/Kg		10/16/2017 14:21
tert-Butylbenzene	< 4.36	ug/Kg		10/16/2017 14:21
Tetrachloroethene	**37.1**	ug/Kg		10/16/2017 14:21
Toluene	< 4.36	ug/Kg		10/16/2017 14:21
trans-1,2-Dichloroethene	< 4.36	ug/Kg		10/16/2017 14:21
trans-1,3-Dichloropropene	< 4.36	ug/Kg		10/16/2017 14:21

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-S-Wall		
Lab Sample ID:	174573-03	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Trichloroethene	< 4.36	ug/Kg			10/16/2017 14:21
Trichlorofluoromethane	< 4.36	ug/Kg			10/16/2017 14:21
Vinyl chloride	< 4.36	ug/Kg			10/16/2017 14:21

Surrogate	**Percent Recovery**	**Limits**	**Outliers**	**Date Analyzed**
1,2-Dichloroethane-d4	**102**	86.2 - 128		10/16/2017 14:21
4-Bromofluorobenzene	**86.7**	69.8 - 123		10/16/2017 14:21
Pentafluorobenzene	**91.6**	82.2 - 114		10/16/2017 14:21
Toluene-D8	**92.1**	81.3 - 113		10/16/2017 14:21

Method Reference(s): EPA 8260C
EPA 5035A - L
Data File: x45933.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-E-Wall

Lab Sample ID: 174573-04 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.72	ug/Kg		10/16/2017 14:45
1,1,2,2-Tetrachloroethane	< 4.72	ug/Kg		10/16/2017 14:45
1,1,2-Trichloroethane	< 4.72	ug/Kg		10/16/2017 14:45
1,1-Dichloroethane	< 4.72	ug/Kg		10/16/2017 14:45
1,1-Dichloroethene	< 4.72	ug/Kg		10/16/2017 14:45
1,2,3-Trichlorobenzene	< 11.8	ug/Kg		10/16/2017 14:45
1,2,4-Trichlorobenzene	< 11.8	ug/Kg		10/16/2017 14:45
1,2,4-Trimethylbenzene	< 4.72	ug/Kg		10/16/2017 14:45
1,2-Dibromo-3-Chloropropane	< 23.6	ug/Kg		10/16/2017 14:45
1,2-Dibromoethane	< 4.72	ug/Kg		10/16/2017 14:45
1,2-Dichlorobenzene	< 4.72	ug/Kg		10/16/2017 14:45
1,2-Dichloroethane	< 4.72	ug/Kg		10/16/2017 14:45
1,2-Dichloropropane	< 4.72	ug/Kg		10/16/2017 14:45
1,3,5-Trimethylbenzene	< 4.72	ug/Kg		10/16/2017 14:45
1,3-Dichlorobenzene	< 4.72	ug/Kg		10/16/2017 14:45
1,4-Dichlorobenzene	< 4.72	ug/Kg		10/16/2017 14:45
1,4-dioxane	< 47.2	ug/Kg		10/16/2017 14:45
2-Butanone	< 23.6	ug/Kg		10/16/2017 14:45
2-Hexanone	< 11.8	ug/Kg		10/16/2017 14:45
4-Methyl-2-pentanone	< 11.8	ug/Kg		10/16/2017 14:45
Acetone	< 23.6	ug/Kg		10/16/2017 14:45
Benzene	< 4.72	ug/Kg		10/16/2017 14:45
Bromochloromethane	< 11.8	ug/Kg		10/16/2017 14:45
Bromodichloromethane	< 4.72	ug/Kg		10/16/2017 14:45
Bromoform	< 11.8	ug/Kg		10/16/2017 14:45
Bromomethane	< 4.72	ug/Kg		10/16/2017 14:45
Carbon disulfide	< 4.72	ug/Kg		10/16/2017 14:45

Report Prepared Thursday, October 19, 2017

PARADIGM

ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-E-Wall

Lab Sample ID: 174573-04 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Carbon Tetrachloride	< 4.72	ug/Kg	10/16/2017 14:45
Chlorobenzene	< 4.72	ug/Kg	10/16/2017 14:45
Chloroethane	< 4.72	ug/Kg	10/16/2017 14:45
Chloroform	< 4.72	ug/Kg	10/16/2017 14:45
Chloromethane	< 4.72	ug/Kg	10/16/2017 14:45
cis-1,2-Dichloroethene	< 4.72	ug/Kg	10/16/2017 14:45
cis-1,3-Dichloropropene	< 4.72	ug/Kg	10/16/2017 14:45
Cyclohexane	< 23.6	ug/Kg	10/16/2017 14:45
Dibromochloromethane	< 4.72	ug/Kg	10/16/2017 14:45
Dichlorodifluoromethane	< 4.72	ug/Kg	10/16/2017 14:45
Ethylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
Freon 113	< 4.72	ug/Kg	10/16/2017 14:45
Isopropylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
m,p-Xylene	< 4.72	ug/Kg	10/16/2017 14:45
Methyl acetate	< 4.72	ug/Kg	10/16/2017 14:45
Methyl tert-butyl Ether	< 4.72	ug/Kg	10/16/2017 14:45
Methylcyclohexane	< 4.72	ug/Kg	10/16/2017 14:45
Methylene chloride	< 11.8	ug/Kg	10/16/2017 14:45
Naphthalene	< 11.8	ug/Kg	10/16/2017 14:45
n-Butylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
n-Propylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
o-Xylene	< 4.72	ug/Kg	10/16/2017 14:45
p-Isopropyltoluene	< 4.72	ug/Kg	10/16/2017 14:45
sec-Butylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
Styrene	< 11.8	ug/Kg	10/16/2017 14:45
tert-Butylbenzene	< 4.72	ug/Kg	10/16/2017 14:45
Tetrachloroethene	**22.5**	ug/Kg	10/16/2017 14:45
Toluene	< 4.72	ug/Kg	10/16/2017 14:45
trans-1,2-Dichloroethene	< 4.72	ug/Kg	10/16/2017 14:45
trans-1,3-Dichloropropene	< 4.72	ug/Kg	10/16/2017 14:45

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-E-Wall		
Lab Sample ID:	174573-04	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Trichloroethene	< 4.72	ug/Kg			10/16/2017 14:45
Trichlorofluoromethane	< 4.72	ug/Kg			10/16/2017 14:45
Vinyl chloride	< 4.72	ug/Kg			10/16/2017 14:45

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**100**	86.2 - 128		10/16/2017 14:45
4-Bromofluorobenzene	**83.6**	69.8 - 123		10/16/2017 14:45
Pentafluorobenzene	**92.9**	82.2 - 114		10/16/2017 14:45
Toluene-D8	**93.0**	81.3 - 113		10/16/2017 14:45

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45934.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-2017-W-Wall		
Lab Sample ID:	174573-05	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.58	ug/Kg		10/16/2017 15:10
1,1,2,2-Tetrachloroethane	< 4.58	ug/Kg		10/16/2017 15:10
1,1,2-Trichloroethane	< 4.58	ug/Kg		10/16/2017 15:10
1,1-Dichloroethane	< 4.58	ug/Kg		10/16/2017 15:10
1,1-Dichloroethene	< 4.58	ug/Kg		10/16/2017 15:10
1,2,3-Trichlorobenzene	< 11.4	ug/Kg		10/16/2017 15:10
1,2,4-Trichlorobenzene	< 11.4	ug/Kg		10/16/2017 15:10
1,2,4-Trimethylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
1,2-Dibromo-3-Chloropropane	< 22.9	ug/Kg		10/16/2017 15:10
1,2-Dibromoethane	< 4.58	ug/Kg		10/16/2017 15:10
1,2-Dichlorobenzene	< 4.58	ug/Kg		10/16/2017 15:10
1,2-Dichloroethane	< 4.58	ug/Kg		10/16/2017 15:10
1,2-Dichloropropane	< 4.58	ug/Kg		10/16/2017 15:10
1,3,5-Trimethylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
1,3-Dichlorobenzene	< 4.58	ug/Kg		10/16/2017 15:10
1,4-Dichlorobenzene	< 4.58	ug/Kg		10/16/2017 15:10
1,4-dioxane	< 45.8	ug/Kg		10/16/2017 15:10
2-Butanone	< 22.9	ug/Kg		10/16/2017 15:10
2-Hexanone	< 11.4	ug/Kg		10/16/2017 15:10
4-Methyl-2-pentanone	< 11.4	ug/Kg		10/16/2017 15:10
Acetone	< 22.9	ug/Kg		10/16/2017 15:10
Benzene	< 4.58	ug/Kg		10/16/2017 15:10
Bromochloromethane	< 11.4	ug/Kg		10/16/2017 15:10
Bromodichloromethane	< 4.58	ug/Kg		10/16/2017 15:10
Bromoform	< 11.4	ug/Kg		10/16/2017 15:10
Bromomethane	< 4.58	ug/Kg		10/16/2017 15:10
Carbon disulfide	< 4.58	ug/Kg		10/16/2017 15:10

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-W-Wall

Lab Sample ID: 174573-05 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Carbon Tetrachloride	< 4.58	ug/Kg		10/16/2017 15:10
Chlorobenzene	< 4.58	ug/Kg		10/16/2017 15:10
Chloroethane	< 4.58	ug/Kg		10/16/2017 15:10
Chloroform	< 4.58	ug/Kg		10/16/2017 15:10
Chloromethane	< 4.58	ug/Kg		10/16/2017 15:10
cis-1,2-Dichloroethene	< 4.58	ug/Kg		10/16/2017 15:10
cis-1,3-Dichloropropene	< 4.58	ug/Kg		10/16/2017 15:10
Cyclohexane	< 22.9	ug/Kg		10/16/2017 15:10
Dibromochloromethane	< 4.58	ug/Kg		10/16/2017 15:10
Dichlorodifluoromethane	< 4.58	ug/Kg		10/16/2017 15:10
Ethylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
Freon 113	< 4.58	ug/Kg		10/16/2017 15:10
Isopropylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
m,p-Xylene	**2.69**	ug/Kg	J	10/16/2017 15:10
Methyl acetate	< 4.58	ug/Kg		10/16/2017 15:10
Methyl tert-butyl Ether	< 4.58	ug/Kg		10/16/2017 15:10
Methylcyclohexane	< 4.58	ug/Kg		10/16/2017 15:10
Methylene chloride	**7.37**	ug/Kg	J	10/16/2017 15:10
Naphthalene	< 11.4	ug/Kg		10/16/2017 15:10
n-Butylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
n-Propylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
o-Xylene	< 4.58	ug/Kg		10/16/2017 15:10
p-Isopropyltoluene	< 4.58	ug/Kg		10/16/2017 15:10
sec-Butylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
Styrene	< 11.4	ug/Kg		10/16/2017 15:10
tert-Butylbenzene	< 4.58	ug/Kg		10/16/2017 15:10
Tetrachloroethene	**25.2**	ug/Kg		10/16/2017 15:10
Toluene	**3.90**	ug/Kg	J	10/16/2017 15:10
trans-1,2-Dichloroethene	< 4.58	ug/Kg		10/16/2017 15:10
trans-1,3-Dichloropropene	< 4.58	ug/Kg		10/16/2017 15:10

Report Prepared Thursday, October 19, 2017

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-W-Wall		
Lab Sample ID:	174573-05	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Trichloroethene	< 4.58	ug/Kg			10/16/2017 15:10
Trichlorofluoromethane	< 4.58	ug/Kg			10/16/2017 15:10
Vinyl chloride	< 4.58	ug/Kg			10/16/2017 15:10

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**101**	86.2 - 128		10/16/2017 15:10
4-Bromofluorobenzene	**83.4**	69.8 - 123		10/16/2017 15:10
Pentafluorobenzene	**90.6**	82.2 - 114		10/16/2017 15:10
Toluene-D8	**93.2**	81.3 - 113		10/16/2017 15:10

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45935.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: Stantec

Project Reference: 190500014

Sample Identifier:	828-2017-Floor W		
Lab Sample ID:	174573-06	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 3.62	ug/Kg		10/16/2017 15:34
1,1,2,2-Tetrachloroethane	< 3.62	ug/Kg		10/16/2017 15:34
1,1,2-Trichloroethane	< 3.62	ug/Kg		10/16/2017 15:34
1,1-Dichloroethane	< 3.62	ug/Kg		10/16/2017 15:34
1,1-Dichloroethene	< 3.62	ug/Kg		10/16/2017 15:34
1,2,3-Trichlorobenzene	< 9.05	ug/Kg		10/16/2017 15:34
1,2,4-Trichlorobenzene	< 9.05	ug/Kg		10/16/2017 15:34
1,2,4-Trimethylbenzene	< 3.62	ug/Kg		10/16/2017 15:34
1,2-Dibromo-3-Chloropropane	< 18.1	ug/Kg		10/16/2017 15:34
1,2-Dibromoethane	< 3.62	ug/Kg		10/16/2017 15:34
1,2-Dichlorobenzene	< 3.62	ug/Kg		10/16/2017 15:34
1,2-Dichloroethane	< 3.62	ug/Kg		10/16/2017 15:34
1,2-Dichloropropane	< 3.62	ug/Kg		10/16/2017 15:34
1,3,5-Trimethylbenzene	< 3.62	ug/Kg		10/16/2017 15:34
1,3-Dichlorobenzene	< 3.62	ug/Kg		10/16/2017 15:34
1,4-Dichlorobenzene	< 3.62	ug/Kg		10/16/2017 15:34
1,4-dioxane	< 36.2	ug/Kg		10/16/2017 15:34
2-Butanone	< 18.1	ug/Kg		10/16/2017 15:34
2-Hexanone	< 9.05	ug/Kg		10/16/2017 15:34
4-Methyl-2-pentanone	< 9.05	ug/Kg		10/16/2017 15:34
Acetone	**15.0**	ug/Kg	J	10/16/2017 15:34
Benzene	< 3.62	ug/Kg		10/16/2017 15:34
Bromochloromethane	< 9.05	ug/Kg		10/16/2017 15:34
Bromodichloromethane	< 3.62	ug/Kg		10/16/2017 15:34
Bromoform	< 9.05	ug/Kg		10/16/2017 15:34
Bromomethane	< 3.62	ug/Kg		10/16/2017 15:34
Carbon disulfide	< 3.62	ug/Kg		10/16/2017 15:34

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-Floor W		
Lab Sample ID:	174573-06	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Carbon Tetrachloride	< 3.62	ug/Kg	10/16/2017 15:34
Chlorobenzene	< 3.62	ug/Kg	10/16/2017 15:34
Chloroethane	< 3.62	ug/Kg	10/16/2017 15:34
Chloroform	< 3.62	ug/Kg	10/16/2017 15:34
Chloromethane	< 3.62	ug/Kg	10/16/2017 15:34
cis-1,2-Dichloroethene	< 3.62	ug/Kg	10/16/2017 15:34
cis-1,3-Dichloropropene	< 3.62	ug/Kg	10/16/2017 15:34
Cyclohexane	< 18.1	ug/Kg	10/16/2017 15:34
Dibromochloromethane	< 3.62	ug/Kg	10/16/2017 15:34
Dichlorodifluoromethane	< 3.62	ug/Kg	10/16/2017 15:34
Ethylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
Freon 113	< 3.62	ug/Kg	10/16/2017 15:34
Isopropylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
m,p-Xylene	< 3.62	ug/Kg	10/16/2017 15:34
Methyl acetate	< 3.62	ug/Kg	10/16/2017 15:34
Methyl tert-butyl Ether	< 3.62	ug/Kg	10/16/2017 15:34
Methylcyclohexane	< 3.62	ug/Kg	10/16/2017 15:34
Methylene chloride	< 9.05	ug/Kg	10/16/2017 15:34
Naphthalene	< 9.05	ug/Kg	10/16/2017 15:34
n-Butylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
n-Propylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
o-Xylene	< 3.62	ug/Kg	10/16/2017 15:34
p-Isopropyltoluene	< 3.62	ug/Kg	10/16/2017 15:34
sec-Butylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
Styrene	< 9.05	ug/Kg	10/16/2017 15:34
tert-Butylbenzene	< 3.62	ug/Kg	10/16/2017 15:34
Tetrachloroethene	**131**	ug/Kg	10/16/2017 15:34
Toluene	< 3.62	ug/Kg	10/16/2017 15:34
trans-1,2-Dichloroethene	< 3.62	ug/Kg	10/16/2017 15:34
trans-1,3-Dichloropropene	< 3.62	ug/Kg	10/16/2017 15:34

Report Prepared Thursday, October 19, 2017

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-Floor W		
Lab Sample ID:	174573-06	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Trichloroethene	< 3.62	ug/Kg		10/16/2017 15:34
Trichlorofluoromethane	< 3.62	ug/Kg		10/16/2017 15:34
Vinyl chloride	< 3.62	ug/Kg		10/16/2017 15:34

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**102**	86.2 - 128		10/16/2017 15:34
4-Bromofluorobenzene	**84.7**	69.8 - 123		10/16/2017 15:34
Pentafluorobenzene	**90.0**	82.2 - 114		10/16/2017 15:34
Toluene-D8	**92.1**	81.3 - 113		10/16/2017 15:34

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45936.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier:	828-2017-Dup		
Lab Sample ID:	174573-07	**Date Sampled:**	10/10/2017
Matrix:	Soil	**Date Received:**	10/11/2017

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 4.60	ug/Kg		10/16/2017 15:58
1,1,2,2-Tetrachloroethane	< 4.60	ug/Kg		10/16/2017 15:58
1,1,2-Trichloroethane	< 4.60	ug/Kg		10/16/2017 15:58
1,1-Dichloroethane	< 4.60	ug/Kg		10/16/2017 15:58
1,1-Dichloroethene	< 4.60	ug/Kg		10/16/2017 15:58
1,2,3-Trichlorobenzene	< 11.5	ug/Kg		10/16/2017 15:58
1,2,4-Trichlorobenzene	< 11.5	ug/Kg		10/16/2017 15:58
1,2,4-Trimethylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
1,2-Dibromo-3-Chloropropane	< 23.0	ug/Kg		10/16/2017 15:58
1,2-Dibromoethane	< 4.60	ug/Kg		10/16/2017 15:58
1,2-Dichlorobenzene	< 4.60	ug/Kg		10/16/2017 15:58
1,2-Dichloroethane	< 4.60	ug/Kg		10/16/2017 15:58
1,2-Dichloropropane	< 4.60	ug/Kg		10/16/2017 15:58
1,3,5-Trimethylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
1,3-Dichlorobenzene	< 4.60	ug/Kg		10/16/2017 15:58
1,4-Dichlorobenzene	< 4.60	ug/Kg		10/16/2017 15:58
1,4-dioxane	< 46.0	ug/Kg		10/16/2017 15:58
2-Butanone	< 23.0	ug/Kg		10/16/2017 15:58
2-Hexanone	< 11.5	ug/Kg		10/16/2017 15:58
4-Methyl-2-pentanone	< 11.5	ug/Kg		10/16/2017 15:58
Acetone	**16.3**	ug/Kg	J	10/16/2017 15:58
Benzene	< 4.60	ug/Kg		10/16/2017 15:58
Bromochloromethane	< 11.5	ug/Kg		10/16/2017 15:58
Bromodichloromethane	< 4.60	ug/Kg		10/16/2017 15:58
Bromoform	< 11.5	ug/Kg		10/16/2017 15:58
Bromomethane	< 4.60	ug/Kg		10/16/2017 15:58
Carbon disulfide	< 4.60	ug/Kg		10/16/2017 15:58

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-Dup

Lab Sample ID: 174573-07 | **Date Sampled:** 10/10/2017

Matrix: Soil | **Date Received:** 10/11/2017

Carbon Tetrachloride	< 4.60	ug/Kg		10/16/2017 15:58
Chlorobenzene	< 4.60	ug/Kg		10/16/2017 15:58
Chloroethane	< 4.60	ug/Kg		10/16/2017 15:58
Chloroform	< 4.60	ug/Kg		10/16/2017 15:58
Chloromethane	< 4.60	ug/Kg		10/16/2017 15:58
cis-1,2-Dichloroethene	< 4.60	ug/Kg		10/16/2017 15:58
cis-1,3-Dichloropropene	< 4.60	ug/Kg		10/16/2017 15:58
Cyclohexane	< 23.0	ug/Kg		10/16/2017 15:58
Dibromochloromethane	< 4.60	ug/Kg		10/16/2017 15:58
Dichlorodifluoromethane	< 4.60	ug/Kg		10/16/2017 15:58
Ethylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
Freon 113	< 4.60	ug/Kg		10/16/2017 15:58
Isopropylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
m,p-Xylene	< 4.60	ug/Kg		10/16/2017 15:58
Methyl acetate	< 4.60	ug/Kg		10/16/2017 15:58
Methyl tert-butyl Ether	< 4.60	ug/Kg		10/16/2017 15:58
Methylcyclohexane	< 4.60	ug/Kg		10/16/2017 15:58
Methylene chloride	**6.76**	ug/Kg	J	10/16/2017 15:58
Naphthalene	< 11.5	ug/Kg		10/16/2017 15:58
n-Butylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
n-Propylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
o-Xylene	< 4.60	ug/Kg		10/16/2017 15:58
p-Isopropyltoluene	< 4.60	ug/Kg		10/16/2017 15:58
sec-Butylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
Styrene	< 11.5	ug/Kg		10/16/2017 15:58
tert-Butylbenzene	< 4.60	ug/Kg		10/16/2017 15:58
Tetrachloroethene	**19.5**	ug/Kg		10/16/2017 15:58
Toluene	< 4.60	ug/Kg		10/16/2017 15:58
trans-1,2-Dichloroethene	< 4.60	ug/Kg		10/16/2017 15:58
trans-1,3-Dichloropropene	< 4.60	ug/Kg		10/16/2017 15:58

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-Dup

Lab Sample ID: 174573-07 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Trichloroethene	< 4.60	ug/Kg	10/16/2017 15:58
Trichlorofluoromethane	< 4.60	ug/Kg	10/16/2017 15:58
Vinyl chloride	< 4.60	ug/Kg	10/16/2017 15:58

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**102**	86.2 - 128		10/16/2017 15:58
4-Bromofluorobenzene	**84.9**	69.8 - 123		10/16/2017 15:58
Pentafluorobenzene	**91.1**	82.2 - 114		10/16/2017 15:58
Toluene-D8	**91.9**	81.3 - 113		10/16/2017 15:58

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x45937.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-Floor E

Lab Sample ID: 174573-01 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**15.7**	ug/Kg		10/16/2017
Total Reported TICS	**15.7**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, October 19, 2017

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-N-Wall

Lab Sample ID: 174573-02 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**13.4**	ug/Kg		10/16/2017
Unknown	**35.9**	ug/Kg		10/16/2017
Total Reported TICS	**49.3**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-S-Wall

Lab Sample ID: 174573-03 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**15.2**	ug/Kg		10/16/2017
Total Reported TICS	**15.2**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-E-Wall

Lab Sample ID: 174573-04 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
None Found	< 11.8	ug/Kg		10/16/2017
Total Reported TICS	< 11.8	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM
ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-W-Wall

Lab Sample ID: 174573-05 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**11.6**	ug/Kg		10/16/2017
Unknown	**23.7**	ug/Kg		10/16/2017
Total Reported TICS	**35.3**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-Floor W

Lab Sample ID: 174573-06 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**9.07**	ug/Kg		10/16/2017
Total Reported TICS	**9.07**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

PARADIGM ENVIRONMENTAL SERVICES, INC

Lab Project ID: 174573

Client: **Stantec**

Project Reference: 190500014

Sample Identifier: 828-2017-Dup

Lab Sample ID: 174573-07 **Date Sampled:** 10/10/2017

Matrix: Soil **Date Received:** 10/11/2017

Volatile Tentatively Identified Compounds

Tentatively Identified Compound	Result	Units	Qualifier	Date Analyzed
Unknown	**12.9**	ug/Kg		10/16/2017
Unknown	**16.3**	ug/Kg		10/16/2017
Total Reported TICS	**29.3**	ug/Kg		10/16/2017

Method Reference(s): EPA 8260C
EPA 5035A - L

Tentatively Identified Compound results are estimated values, based on Internal Standard response factors.

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified “reported as received”. Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an “A” suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

“<” = Analyzed for but not detected at or above the quantitation limit.
“E” = Result has been estimated, calibration limit exceeded.
“Z” = See case narrative.
“D” = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
“M” = Matrix spike recoveries outside QC limits. Matrix bias indicated.
“B” = Method blank contained trace levels of analyte. Refer to included method blank report.
“J” = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
“P” = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM

CHAIN OF CUSTODY

1 of 2

REPORT TO:	INVOICE TO:	
CLIENT: STANTEC	CLIENT: SAME	LAB PROJECT ID 174573
ADDRESS: 61 COMMERCIAL ST, SUITE 100	ADDRESS:	
CITY: ROCHESTER STATE: NY ZIP 14614.	CITY: STATE: ZIP:	Quotation #:
PHONE: 585-475-1440	PHONE:	Email: BOB.MAHONEY@STANTEC.COM
ATTN: BOB MAHONEY	ATTN:	

PROJECT REFERENCE
190500014

Matrix Codes:
AQ - Aqueous Liquid, NQ - Non-Aqueous Liquid, WA - Water, WG - Groundwater, DW - Drinking Water, WW - Wastewater, SO - Soil, SL - Sludge, SD - Solid, PT - Paint, WP - Wipe, CK - Caulk, OL - Oil, AR - Air

REQUESTED ANALYSIS: VOCs 8260C; TCLP-CP51-HTT CR RM 10/11/17; Pakeen; See email

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	VOCs 8260C	REMARKS	PARADIGM LAB SAMPLE NUMBER
10/10/17	13:29		X	828-2017 - FLOOR E	SO	1	X		01
10/10/17	14:15		X	828-2017 - N-WALL	SO	+3	X	MS/MSD per client CP 10/11/17	02
10/10/17	14:30		X	828-2017 - S-WALL	SO	1	X	per client CP 10/11/17	03
10/10/17	14:36		X	828-2017 - E-WALL	SO	1	X		04
10/10/17	14:11		X	828-2017 - W-WALL	SO	1	X		05
10/10/17	13:36		X	828-2017 - FLOOR W	SO	1	X		06
10/10/17	14:15			828-2017 - DUP	SO	1	X		07
				per sample label CP 10/11/17	per client CP 10/11/17				
								5°C iced 10/10/17 1748 h/o	

No custody seals client delivered mg 10/10/17

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	☒	None Required	☐	None Required	☐
10 day	☐	Batch QC	☐	Basic EDD	☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD	☒
Rush 2 day	☐	Category B	☒		
Rush 1 day	☐				
Other please indicate date needed:	☐	Other please indicate package needed:	☐	Other EDD please indicate EDD needed :	☐

Sampled By: Amanda Kett	Date/Time: 10/10/17 1430	Total Cost:
Relinquished By: Amanda Kett	Date/Time: 10/10/17 1744	
Received By: [signature]	Date/Time: 10/10/17 17:44	P.I.F.
Received @ Lab By: [signature]	Date/Time: 10/11/17 16:22	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

PARADIGM

Chain of Custody Supplement

Client: Stantec **Completed by:** Glenn Pezzulo

Lab Project ID: 174573 **Date:** 10/11/17

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

NELAC compliance with the sample condition requirements upon receipt

Condition	Yes	No	N/A
Container Type	X	X 5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		
Comments	5°C iced 10/10/17 17:48		
Sufficient Sample Quantity	X		
Comments			

Appendix E - PERMITS

City of Rochester
Right-of-Way Permit

Dig Safely. New York Call 811 before you dig

FAX (585) 428-6291
Phone (585) 428-6848

Department of Environmental Services

Architecture and Engineering Service
Permit Office, City Hall, Room 225-B
30 Church Street
Rochester, New York 14614-1279

Permit Number: 1170986 **Valid: 10/09/2017 to 10/13/2017**

Fees:

Base	$250.00	Mnmt.	$0.00
RPR	$0.00	Penalty	$0.00
Ext. Maint.	$0.00	Amt Waived	$0.00
Water	$0.00	**Total**	**$250.00**
Other Adjustments	$0.00		

BUILDING BUREAU
ROOM 121
1:30PM Oct 5/17
01-0002 001 BUD
#39716
DES Base Fee$250.00
INFO 1170986
CHECK $250.00

Cash Register Stamp

Permit Holder: **Trec Environmental, Inc.**
1018 Washington Street
Spencerport, NY 14559
(585) 594-5545

Contact: **Steve Stockmaster**
(585) 594-5545

Type of Work: Street Obstruction / Street Obstruction

Work Locations

Number	Street Name
8 - 28	WARD ST

Excavation Information

RC	RH	Pavement Type	Length (ft)	Width (ft)	Area (sq ft)
No	No	Medium	0	0	0

Work Description: See page 2

All work performed pursuant to this permit shall conform to the specific conditions contained herein, the general terms and conditions attached hereto, and the City of Rochester's Standards for Work in the Right-of-Way. This permit may be revoked at any time by the City Engineer. This permit is not valid without the signature of the City Engineer.

This 5 day of October 2017

Signature of Permit Holder

Commissioner of Deeds

City Engineer

City of Rochester
Right-of-Way Permit

Dig Safely. New York Call811 before you dig

FAX (585) 428-6291
Phone (585) 428-6848

Department of Environmental Services

Architecture and Engineering Service
Permit Office, City Hall, Room 225-B
30 Church Street
Rochester, New York 14614-1279

Permit Number: 1170986 **Valid: 10/09/2017 to 10/13/2017**

Work Description: Work performed between the side walk and chainlink fence on private property. Excavate impacted soil, load out, residual treatment, backfilling and restoration. All work is being overseen by Santec Consulting and NYS DEC. Applicant is to close sidewalk, place fence around work area, and provide detour/closed signs. See attached drawing.

Appendix F - CAMP DATA

Downwind Dust
10/10/2017

Instrument		Data Properties	
Model	DustTrak II	Start Date	10/10/2017
Instrument S/N	8530143310	Start Time	08:58:43
		Stop Date	10/10/2017
		Stop Time	16:16:43
		Total Time	0:07:18:00
		Logging Interval	60 seconds

Statistics	
	AEROSOL
Avg	0.025 mg/m^3
Max	0.076 mg/m^3
Max Date	10/10/2017
Max Time	09:00:43
Min	0.011 mg/m^3
Min Date	10/10/2017
Min Time	15:23:43
TWA (8 hr)	0.023
TWA Start Date	10/10/2017
TWA Start Time	08:58:43
TWA End Time	16:16:43

Test Data

Data Point	Date	Time	AEROSOL mg/m^3
1	10/10/2017	08:59:43	0.069
2	10/10/2017	09:00:43	0.076
3	10/10/2017	09:01:43	0.076
4	10/10/2017	09:02:43	0.072
5	10/10/2017	09:03:43	0.069
6	10/10/2017	09:04:43	0.067
7	10/10/2017	09:05:43	0.066
8	10/10/2017	09:06:43	0.065
9	10/10/2017	09:07:43	0.061
10	10/10/2017	09:08:43	0.059
11	10/10/2017	09:09:43	0.063
12	10/10/2017	09:10:43	0.065
13	10/10/2017	09:11:43	0.062
14	10/10/2017	09:12:43	0.061
15	10/10/2017	09:13:43	0.060
16	10/10/2017	09:14:43	0.063
17	10/10/2017	09:15:43	0.060
18	10/10/2017	09:16:43	0.060
19	10/10/2017	09:17:43	0.063
20	10/10/2017	09:18:43	0.060
21	10/10/2017	09:19:43	0.055
22	10/10/2017	09:20:43	0.059
23	10/10/2017	09:21:43	0.058
24	10/10/2017	09:22:43	0.060
25	10/10/2017	09:23:43	0.058
26	10/10/2017	09:24:43	0.055
27	10/10/2017	09:25:43	0.049
28	10/10/2017	09:26:43	0.052

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
29	10/10/2017	09:27:43	0.055
30	10/10/2017	09:28:43	0.050
31	10/10/2017	09:29:43	0.049
32	10/10/2017	09:30:43	0.053
33	10/10/2017	09:31:43	0.055
34	10/10/2017	09:32:43	0.054
35	10/10/2017	09:33:43	0.059
36	10/10/2017	09:34:43	0.055
37	10/10/2017	09:35:43	0.052
38	10/10/2017	09:36:43	0.049
39	10/10/2017	09:37:43	0.049
40	10/10/2017	09:38:43	0.055
41	10/10/2017	09:39:43	0.051
42	10/10/2017	09:40:43	0.053
43	10/10/2017	09:41:43	0.054
44	10/10/2017	09:42:43	0.053
45	10/10/2017	09:43:43	0.057
46	10/10/2017	09:44:43	0.054
47	10/10/2017	09:45:43	0.053
48	10/10/2017	09:46:43	0.054
49	10/10/2017	09:47:43	0.059
50	10/10/2017	09:48:43	0.058
51	10/10/2017	09:49:43	0.054
52	10/10/2017	09:50:43	0.050
53	10/10/2017	09:51:43	0.044
54	10/10/2017	09:52:43	0.042
55	10/10/2017	09:53:43	0.042
56	10/10/2017	09:54:43	0.040
57	10/10/2017	09:55:43	0.043
58	10/10/2017	09:56:43	0.044
59	10/10/2017	09:57:43	0.043
60	10/10/2017	09:58:43	0.045
61	10/10/2017	09:59:43	0.043
62	10/10/2017	10:00:43	0.042
63	10/10/2017	10:01:43	0.043
64	10/10/2017	10:02:43	0.044
65	10/10/2017	10:03:43	0.045
66	10/10/2017	10:04:43	0.043
67	10/10/2017	10:05:43	0.048
68	10/10/2017	10:06:43	0.040
69	10/10/2017	10:07:43	0.037
70	10/10/2017	10:08:43	0.031
71	10/10/2017	10:09:43	0.033
72	10/10/2017	10:10:43	0.030
73	10/10/2017	10:11:43	0.031
74	10/10/2017	10:12:43	0.031
75	10/10/2017	10:13:43	0.029
76	10/10/2017	10:14:43	0.027
77	10/10/2017	10:15:43	0.031
78	10/10/2017	10:16:43	0.035
79	10/10/2017	10:17:43	0.038
80	10/10/2017	10:18:43	0.033
81	10/10/2017	10:19:43	0.033
82	10/10/2017	10:20:43	0.031
83	10/10/2017	10:21:43	0.029

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
84	10/10/2017	10:22:43	0.030
85	10/10/2017	10:23:43	0.031
86	10/10/2017	10:24:43	0.027
87	10/10/2017	10:25:43	0.026
88	10/10/2017	10:26:43	0.028
89	10/10/2017	10:27:43	0.030
90	10/10/2017	10:28:43	0.031
91	10/10/2017	10:29:43	0.026
92	10/10/2017	10:30:43	0.025
93	10/10/2017	10:31:43	0.025
94	10/10/2017	10:32:43	0.027
95	10/10/2017	10:33:43	0.027
96	10/10/2017	10:34:43	0.022
97	10/10/2017	10:35:43	0.021
98	10/10/2017	10:36:43	0.025
99	10/10/2017	10:37:43	0.026
100	10/10/2017	10:38:43	0.027
101	10/10/2017	10:39:43	0.032
102	10/10/2017	10:40:43	0.028
103	10/10/2017	10:41:43	0.028
104	10/10/2017	10:42:43	0.031
105	10/10/2017	10:43:43	0.025
106	10/10/2017	10:44:43	0.024
107	10/10/2017	10:45:43	0.019
108	10/10/2017	10:46:43	0.020
109	10/10/2017	10:47:43	0.021
110	10/10/2017	10:48:43	0.020
111	10/10/2017	10:49:43	0.018
112	10/10/2017	10:50:43	0.021
113	10/10/2017	10:51:43	0.021
114	10/10/2017	10:52:43	0.018
115	10/10/2017	10:53:43	0.018
116	10/10/2017	10:54:43	0.022
117	10/10/2017	10:55:43	0.019
118	10/10/2017	10:56:43	0.020
119	10/10/2017	10:57:43	0.020
120	10/10/2017	10:58:43	0.023
121	10/10/2017	10:59:43	0.019
122	10/10/2017	11:00:43	0.020
123	10/10/2017	11:01:43	0.018
124	10/10/2017	11:02:43	0.019
125	10/10/2017	11:03:43	0.021
126	10/10/2017	11:04:43	0.018
127	10/10/2017	11:05:43	0.018
128	10/10/2017	11:06:43	0.020
129	10/10/2017	11:07:43	0.020
130	10/10/2017	11:08:43	0.021
131	10/10/2017	11:09:43	0.020
132	10/10/2017	11:10:43	0.021
133	10/10/2017	11:11:43	0.020
134	10/10/2017	11:12:43	0.019
135	10/10/2017	11:13:43	0.017
136	10/10/2017	11:14:43	0.016
137	10/10/2017	11:15:43	0.018
138	10/10/2017	11:16:43	0.024

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
139	10/10/2017	11:17:43	0.019
140	10/10/2017	11:18:43	0.019
141	10/10/2017	11:19:43	0.021
142	10/10/2017	11:20:43	0.022
143	10/10/2017	11:21:43	0.020
144	10/10/2017	11:22:43	0.023
145	10/10/2017	11:23:43	0.020
146	10/10/2017	11:24:43	0.020
147	10/10/2017	11:25:43	0.019
148	10/10/2017	11:26:43	0.026
149	10/10/2017	11:27:43	0.022
150	10/10/2017	11:28:43	0.024
151	10/10/2017	11:29:43	0.029
152	10/10/2017	11:30:43	0.027
153	10/10/2017	11:31:43	0.022
154	10/10/2017	11:32:43	0.021
155	10/10/2017	11:33:43	0.022
156	10/10/2017	11:34:43	0.021
157	10/10/2017	11:35:43	0.018
158	10/10/2017	11:36:43	0.022
159	10/10/2017	11:37:43	0.020
160	10/10/2017	11:38:43	0.019
161	10/10/2017	11:39:43	0.018
162	10/10/2017	11:40:43	0.019
163	10/10/2017	11:41:43	0.021
164	10/10/2017	11:42:43	0.021
165	10/10/2017	11:43:43	0.019
166	10/10/2017	11:44:43	0.019
167	10/10/2017	11:45:43	0.016
168	10/10/2017	11:46:43	0.016
169	10/10/2017	11:47:43	0.020
170	10/10/2017	11:48:43	0.016
171	10/10/2017	11:49:43	0.017
172	10/10/2017	11:50:43	0.017
173	10/10/2017	11:51:43	0.018
174	10/10/2017	11:52:43	0.019
175	10/10/2017	11:53:43	0.019
176	10/10/2017	11:54:43	0.018
177	10/10/2017	11:55:43	0.017
178	10/10/2017	11:56:43	0.015
179	10/10/2017	11:57:43	0.017
180	10/10/2017	11:58:43	0.016
181	10/10/2017	11:59:43	0.016
182	10/10/2017	12:00:43	0.017
183	10/10/2017	12:01:43	0.016
184	10/10/2017	12:02:43	0.017
185	10/10/2017	12:03:43	0.015
186	10/10/2017	12:04:43	0.016
187	10/10/2017	12:05:43	0.017
188	10/10/2017	12:06:43	0.018
189	10/10/2017	12:07:43	0.017
190	10/10/2017	12:08:43	0.019
191	10/10/2017	12:09:43	0.018
192	10/10/2017	12:10:43	0.019
193	10/10/2017	12:11:43	0.018

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
194	10/10/2017	12:12:43	0.017
195	10/10/2017	12:13:43	0.020
196	10/10/2017	12:14:43	0.019
197	10/10/2017	12:15:43	0.019
198	10/10/2017	12:16:43	0.017
199	10/10/2017	12:17:43	0.016
200	10/10/2017	12:18:43	0.023
201	10/10/2017	12:19:43	0.037
202	10/10/2017	12:20:43	0.027
203	10/10/2017	12:21:43	0.023
204	10/10/2017	12:22:43	0.023
205	10/10/2017	12:23:43	0.016
206	10/10/2017	12:24:43	0.017
207	10/10/2017	12:25:43	0.016
208	10/10/2017	12:26:43	0.017
209	10/10/2017	12:27:43	0.016
210	10/10/2017	12:28:43	0.016
211	10/10/2017	12:29:43	0.016
212	10/10/2017	12:30:43	0.016
213	10/10/2017	12:31:43	0.016
214	10/10/2017	12:32:43	0.016
215	10/10/2017	12:33:43	0.013
216	10/10/2017	12:34:43	0.013
217	10/10/2017	12:35:43	0.017
218	10/10/2017	12:36:43	0.017
219	10/10/2017	12:37:43	0.019
220	10/10/2017	12:38:43	0.019
221	10/10/2017	12:39:43	0.020
222	10/10/2017	12:40:43	0.018
223	10/10/2017	12:41:43	0.018
224	10/10/2017	12:42:43	0.017
225	10/10/2017	12:43:43	0.015
226	10/10/2017	12:44:43	0.016
227	10/10/2017	12:45:43	0.016
228	10/10/2017	12:46:43	0.019
229	10/10/2017	12:47:43	0.018
230	10/10/2017	12:48:43	0.018
231	10/10/2017	12:49:43	0.020
232	10/10/2017	12:50:43	0.018
233	10/10/2017	12:51:43	0.017
234	10/10/2017	12:52:43	0.015
235	10/10/2017	12:53:43	0.015
236	10/10/2017	12:54:43	0.015
237	10/10/2017	12:55:43	0.019
238	10/10/2017	12:56:43	0.018
239	10/10/2017	12:57:43	0.018
240	10/10/2017	12:58:43	0.016
241	10/10/2017	12:59:43	0.016
242	10/10/2017	13:00:43	0.018
243	10/10/2017	13:01:43	0.019
244	10/10/2017	13:02:43	0.019
245	10/10/2017	13:03:43	0.025
246	10/10/2017	13:04:43	0.024
247	10/10/2017	13:05:43	0.019
248	10/10/2017	13:06:43	0.018

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
249	10/10/2017	13:07:43	0.018
250	10/10/2017	13:08:43	0.015
251	10/10/2017	13:09:43	0.017
252	10/10/2017	13:10:43	0.016
253	10/10/2017	13:11:43	0.015
254	10/10/2017	13:12:43	0.015
255	10/10/2017	13:13:43	0.016
256	10/10/2017	13:14:43	0.015
257	10/10/2017	13:15:43	0.015
258	10/10/2017	13:16:43	0.015
259	10/10/2017	13:17:43	0.019
260	10/10/2017	13:18:43	0.017
261	10/10/2017	13:19:43	0.017
262	10/10/2017	13:20:43	0.016
263	10/10/2017	13:21:43	0.017
264	10/10/2017	13:22:43	0.017
265	10/10/2017	13:23:43	0.017
266	10/10/2017	13:24:43	0.019
267	10/10/2017	13:25:43	0.017
268	10/10/2017	13:26:43	0.019
269	10/10/2017	13:27:43	0.020
270	10/10/2017	13:28:43	0.016
271	10/10/2017	13:29:43	0.022
272	10/10/2017	13:30:43	0.019
273	10/10/2017	13:31:43	0.019
274	10/10/2017	13:32:43	0.017
275	10/10/2017	13:33:43	0.017
276	10/10/2017	13:34:43	0.020
277	10/10/2017	13:35:43	0.017
278	10/10/2017	13:36:43	0.016
279	10/10/2017	13:37:43	0.017
280	10/10/2017	13:38:43	0.020
281	10/10/2017	13:39:43	0.021
282	10/10/2017	13:40:43	0.020
283	10/10/2017	13:41:43	0.016
284	10/10/2017	13:42:43	0.017
285	10/10/2017	13:43:43	0.016
286	10/10/2017	13:44:43	0.018
287	10/10/2017	13:45:43	0.016
288	10/10/2017	13:46:43	0.017
289	10/10/2017	13:47:43	0.022
290	10/10/2017	13:48:43	0.022
291	10/10/2017	13:49:43	0.023
292	10/10/2017	13:50:43	0.020
293	10/10/2017	13:51:43	0.021
294	10/10/2017	13:52:43	0.019
295	10/10/2017	13:53:43	0.018
296	10/10/2017	13:54:43	0.019
297	10/10/2017	13:55:43	0.016
298	10/10/2017	13:56:43	0.018
299	10/10/2017	13:57:43	0.019
300	10/10/2017	13:58:43	0.019
301	10/10/2017	13:59:43	0.019
302	10/10/2017	14:00:43	0.017
303	10/10/2017	14:01:43	0.020

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
304	10/10/2017	14:02:43	0.018
305	10/10/2017	14:03:43	0.019
306	10/10/2017	14:04:43	0.023
307	10/10/2017	14:05:43	0.020
308	10/10/2017	14:06:43	0.019
309	10/10/2017	14:07:43	0.017
310	10/10/2017	14:08:43	0.016
311	10/10/2017	14:09:43	0.017
312	10/10/2017	14:10:43	0.019
313	10/10/2017	14:11:43	0.019
314	10/10/2017	14:12:43	0.018
315	10/10/2017	14:13:43	0.017
316	10/10/2017	14:14:43	0.018
317	10/10/2017	14:15:43	0.018
318	10/10/2017	14:16:43	0.018
319	10/10/2017	14:17:43	0.019
320	10/10/2017	14:18:43	0.017
321	10/10/2017	14:19:43	0.016
322	10/10/2017	14:20:43	0.016
323	10/10/2017	14:21:43	0.016
324	10/10/2017	14:22:43	0.015
325	10/10/2017	14:23:43	0.016
326	10/10/2017	14:24:43	0.016
327	10/10/2017	14:25:43	0.016
328	10/10/2017	14:26:43	0.015
329	10/10/2017	14:27:43	0.015
330	10/10/2017	14:28:43	0.016
331	10/10/2017	14:29:43	0.015
332	10/10/2017	14:30:43	0.014
333	10/10/2017	14:31:43	0.015
334	10/10/2017	14:32:43	0.015
335	10/10/2017	14:33:43	0.016
336	10/10/2017	14:34:43	0.017
337	10/10/2017	14:35:43	0.015
338	10/10/2017	14:36:43	0.017
339	10/10/2017	14:37:43	0.018
340	10/10/2017	14:38:43	0.018
341	10/10/2017	14:39:43	0.017
342	10/10/2017	14:40:43	0.019
343	10/10/2017	14:41:43	0.016
344	10/10/2017	14:42:43	0.013
345	10/10/2017	14:43:43	0.013
346	10/10/2017	14:44:43	0.014
347	10/10/2017	14:45:43	0.015
348	10/10/2017	14:46:43	0.015
349	10/10/2017	14:47:43	0.014
350	10/10/2017	14:48:43	0.014
351	10/10/2017	14:49:43	0.014
352	10/10/2017	14:50:43	0.016
353	10/10/2017	14:51:43	0.015
354	10/10/2017	14:52:43	0.015
355	10/10/2017	14:53:43	0.014
356	10/10/2017	14:54:43	0.012
357	10/10/2017	14:55:43	0.014
358	10/10/2017	14:56:43	0.014

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
359	10/10/2017	14:57:43	0.014
360	10/10/2017	14:58:43	0.013
361	10/10/2017	14:59:43	0.013
362	10/10/2017	15:00:43	0.013
363	10/10/2017	15:01:43	0.014
364	10/10/2017	15:02:43	0.017
365	10/10/2017	15:03:43	0.017
366	10/10/2017	15:04:43	0.015
367	10/10/2017	15:05:43	0.016
368	10/10/2017	15:06:43	0.019
369	10/10/2017	15:07:43	0.017
370	10/10/2017	15:08:43	0.016
371	10/10/2017	15:09:43	0.013
372	10/10/2017	15:10:43	0.015
373	10/10/2017	15:11:43	0.014
374	10/10/2017	15:12:43	0.013
375	10/10/2017	15:13:43	0.014
376	10/10/2017	15:14:43	0.013
377	10/10/2017	15:15:43	0.015
378	10/10/2017	15:16:43	0.013
379	10/10/2017	15:17:43	0.014
380	10/10/2017	15:18:43	0.019
381	10/10/2017	15:19:43	0.015
382	10/10/2017	15:20:43	0.014
383	10/10/2017	15:21:43	0.018
384	10/10/2017	15:22:43	0.012
385	10/10/2017	15:23:43	0.011
386	10/10/2017	15:24:43	0.015
387	10/10/2017	15:25:43	0.019
388	10/10/2017	15:26:43	0.020
389	10/10/2017	15:27:43	0.014
390	10/10/2017	15:28:43	0.014
391	10/10/2017	15:29:43	0.014
392	10/10/2017	15:30:43	0.020
393	10/10/2017	15:31:43	0.026
394	10/10/2017	15:32:43	0.016
395	10/10/2017	15:33:43	0.012
396	10/10/2017	15:34:43	0.012
397	10/10/2017	15:35:43	0.014
398	10/10/2017	15:36:43	0.014
399	10/10/2017	15:37:43	0.020
400	10/10/2017	15:38:43	0.021
401	10/10/2017	15:39:43	0.021
402	10/10/2017	15:40:43	0.022
403	10/10/2017	15:41:43	0.023
404	10/10/2017	15:42:43	0.023
405	10/10/2017	15:43:43	0.023
406	10/10/2017	15:44:43	0.023
407	10/10/2017	15:45:43	0.025
408	10/10/2017	15:46:43	0.025
409	10/10/2017	15:47:43	0.027
410	10/10/2017	15:48:43	0.031
411	10/10/2017	15:49:43	0.027
412	10/10/2017	15:50:43	0.026
413	10/10/2017	15:51:43	0.025

Test Data			
Data Point	Date	Time	AEROSOL mg/m^3
414	10/10/2017	15:52:43	0.026
415	10/10/2017	15:53:43	0.025
416	10/10/2017	15:54:43	0.024
417	10/10/2017	15:55:43	0.022
418	10/10/2017	15:56:43	0.023
419	10/10/2017	15:57:43	0.023
420	10/10/2017	15:58:43	0.022
421	10/10/2017	15:59:43	0.021
422	10/10/2017	16:00:43	0.021
423	10/10/2017	16:01:43	0.020
424	10/10/2017	16:02:43	0.023
425	10/10/2017	16:03:43	0.020
426	10/10/2017	16:04:43	0.021
427	10/10/2017	16:05:43	0.021
428	10/10/2017	16:06:43	0.022
429	10/10/2017	16:07:43	0.021
430	10/10/2017	16:08:43	0.021
431	10/10/2017	16:09:43	0.021
432	10/10/2017	16:10:43	0.021
433	10/10/2017	16:11:43	0.021
434	10/10/2017	16:12:43	0.021
435	10/10/2017	16:13:43	0.021
436	10/10/2017	16:14:43	0.020
437	10/10/2017	16:15:43	0.020
438	10/10/2017	16:16:43	0.019

Upwind Dust
10/10/2017

Instrument		Data Properties	
Model	DustTrak II	Start Date	10/10/2017
Instrument S/N	8530163102	Start Time	09:00:15
		Stop Date	10/10/2017
		Stop Time	16:14:15
		Total Time	0:07:14:00
		Logging Interval	60 seconds

Statistics	
	AEROSOL
Avg	0.029 mg/m^3
Max	0.098 mg/m^3
Max Date	10/10/2017
Max Time	09:14:15
Min	0.015 mg/m^3
Min Date	10/10/2017
Min Time	12:35:15
TWA (8 hr)	0.026
TWA Start Date	10/10/2017
TWA Start Time	09:00:15
TWA End Time	16:14:15

Test Data

Data Point	Date	Time	AEROSOL mg/m^3
1	10/10/2017	09:01:15	0.074
2	10/10/2017	09:02:15	0.070
3	10/10/2017	09:03:15	0.067
4	10/10/2017	09:04:15	0.067
5	10/10/2017	09:05:15	0.066
6	10/10/2017	09:06:15	0.065
7	10/10/2017	09:07:15	0.066
8	10/10/2017	09:08:15	0.063
9	10/10/2017	09:09:15	0.060
10	10/10/2017	09:10:15	0.061
11	10/10/2017	09:11:15	0.062
12	10/10/2017	09:12:15	0.066
13	10/10/2017	09:13:15	0.061
14	10/10/2017	09:14:15	0.098
15	10/10/2017	09:15:15	0.063
16	10/10/2017	09:16:15	0.062
17	10/10/2017	09:17:15	0.060
18	10/10/2017	09:18:15	0.063
19	10/10/2017	09:19:15	0.064
20	10/10/2017	09:20:15	0.060
21	10/10/2017	09:21:15	0.055
22	10/10/2017	09:22:15	0.055
23	10/10/2017	09:23:15	0.054
24	10/10/2017	09:24:15	0.057
25	10/10/2017	09:25:15	0.055
26	10/10/2017	09:26:15	0.053
27	10/10/2017	09:27:15	0.050
28	10/10/2017	09:28:15	0.051

Test Data			
Data Point	Date	Time	AEROSOL mg/m^3
29	10/10/2017	09:29:15	0.055
30	10/10/2017	09:30:15	0.049
31	10/10/2017	09:31:15	0.050
32	10/10/2017	09:32:15	0.053
33	10/10/2017	09:33:15	0.054
34	10/10/2017	09:34:15	0.055
35	10/10/2017	09:35:15	0.058
36	10/10/2017	09:36:15	0.054
37	10/10/2017	09:37:15	0.052
38	10/10/2017	09:38:15	0.050
39	10/10/2017	09:39:15	0.052
40	10/10/2017	09:40:15	0.054
41	10/10/2017	09:41:15	0.050
42	10/10/2017	09:42:15	0.054
43	10/10/2017	09:43:15	0.053
44	10/10/2017	09:44:15	0.056
45	10/10/2017	09:45:15	0.058
46	10/10/2017	09:46:15	0.056
47	10/10/2017	09:47:15	0.057
48	10/10/2017	09:48:15	0.060
49	10/10/2017	09:49:15	0.085
50	10/10/2017	09:50:15	0.056
51	10/10/2017	09:51:15	0.049
52	10/10/2017	09:52:15	0.047
53	10/10/2017	09:53:15	0.044
54	10/10/2017	09:54:15	0.045
55	10/10/2017	09:55:15	0.044
56	10/10/2017	09:56:15	0.043
57	10/10/2017	09:57:15	0.043
58	10/10/2017	09:58:15	0.046
59	10/10/2017	09:59:15	0.049
60	10/10/2017	10:00:15	0.047
61	10/10/2017	10:01:15	0.044
62	10/10/2017	10:02:15	0.046
63	10/10/2017	10:03:15	0.048
64	10/10/2017	10:04:15	0.048
65	10/10/2017	10:05:15	0.046
66	10/10/2017	10:06:15	0.049
67	10/10/2017	10:07:15	0.046
68	10/10/2017	10:08:15	0.045
69	10/10/2017	10:09:15	0.037
70	10/10/2017	10:10:15	0.036
71	10/10/2017	10:11:15	0.037
72	10/10/2017	10:12:15	0.034
73	10/10/2017	10:13:15	0.035
74	10/10/2017	10:14:15	0.039
75	10/10/2017	10:15:15	0.041
76	10/10/2017	10:16:15	0.044
77	10/10/2017	10:17:15	0.049
78	10/10/2017	10:18:15	0.046
79	10/10/2017	10:19:15	0.042
80	10/10/2017	10:20:15	0.036
81	10/10/2017	10:21:15	0.037
82	10/10/2017	10:22:15	0.039
83	10/10/2017	10:23:15	0.037

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
84	10/10/2017	10:24:15	0.034
85	10/10/2017	10:25:15	0.034
86	10/10/2017	10:26:15	0.028
87	10/10/2017	10:27:15	0.029
88	10/10/2017	10:28:15	0.030
89	10/10/2017	10:29:15	0.040
90	10/10/2017	10:30:15	0.028
91	10/10/2017	10:31:15	0.030
92	10/10/2017	10:32:15	0.027
93	10/10/2017	10:33:15	0.023
94	10/10/2017	10:34:15	0.026
95	10/10/2017	10:35:15	0.024
96	10/10/2017	10:36:15	0.024
97	10/10/2017	10:37:15	0.023
98	10/10/2017	10:38:15	0.025
99	10/10/2017	10:39:15	0.028
100	10/10/2017	10:40:15	0.028
101	10/10/2017	10:41:15	0.029
102	10/10/2017	10:42:15	0.028
103	10/10/2017	10:43:15	0.028
104	10/10/2017	10:44:15	0.029
105	10/10/2017	10:45:15	0.025
106	10/10/2017	10:46:15	0.023
107	10/10/2017	10:47:15	0.021
108	10/10/2017	10:48:15	0.023
109	10/10/2017	10:49:15	0.019
110	10/10/2017	10:50:15	0.019
111	10/10/2017	10:51:15	0.022
112	10/10/2017	10:52:15	0.020
113	10/10/2017	10:53:15	0.021
114	10/10/2017	10:54:15	0.021
115	10/10/2017	10:55:15	0.023
116	10/10/2017	10:56:15	0.024
117	10/10/2017	10:57:15	0.021
118	10/10/2017	10:58:15	0.020
119	10/10/2017	10:59:15	0.021
120	10/10/2017	11:00:15	0.020
121	10/10/2017	11:01:15	0.020
122	10/10/2017	11:02:15	0.020
123	10/10/2017	11:03:15	0.021
124	10/10/2017	11:04:15	0.026
125	10/10/2017	11:05:15	0.035
126	10/10/2017	11:06:15	0.019
127	10/10/2017	11:07:15	0.020
128	10/10/2017	11:08:15	0.022
129	10/10/2017	11:09:15	0.023
130	10/10/2017	11:10:15	0.021
131	10/10/2017	11:11:15	0.023
132	10/10/2017	11:12:15	0.022
133	10/10/2017	11:13:15	0.023
134	10/10/2017	11:14:15	0.021
135	10/10/2017	11:15:15	0.018
136	10/10/2017	11:16:15	0.019
137	10/10/2017	11:17:15	0.054
138	10/10/2017	11:18:15	0.021

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
139	10/10/2017	11:19:15	0.023
140	10/10/2017	11:20:15	0.023
141	10/10/2017	11:21:15	0.023
142	10/10/2017	11:22:15	0.021
143	10/10/2017	11:23:15	0.022
144	10/10/2017	11:24:15	0.022
145	10/10/2017	11:25:15	0.020
146	10/10/2017	11:26:15	0.020
147	10/10/2017	11:27:15	0.020
148	10/10/2017	11:28:15	0.022
149	10/10/2017	11:29:15	0.026
150	10/10/2017	11:30:15	0.026
151	10/10/2017	11:31:15	0.024
152	10/10/2017	11:32:15	0.025
153	10/10/2017	11:33:15	0.024
154	10/10/2017	11:34:15	0.020
155	10/10/2017	11:35:15	0.020
156	10/10/2017	11:36:15	0.019
157	10/10/2017	11:37:15	0.018
158	10/10/2017	11:38:15	0.019
159	10/10/2017	11:39:15	0.018
160	10/10/2017	11:40:15	0.026
161	10/10/2017	11:41:15	0.019
162	10/10/2017	11:42:15	0.021
163	10/10/2017	11:43:15	0.023
164	10/10/2017	11:44:15	0.020
165	10/10/2017	11:45:15	0.020
166	10/10/2017	11:46:15	0.018
167	10/10/2017	11:47:15	0.016
168	10/10/2017	11:48:15	0.020
169	10/10/2017	11:49:15	0.017
170	10/10/2017	11:50:15	0.018
171	10/10/2017	11:51:15	0.017
172	10/10/2017	11:52:15	0.018
173	10/10/2017	11:53:15	0.017
174	10/10/2017	11:54:15	0.019
175	10/10/2017	11:55:15	0.020
176	10/10/2017	11:56:15	0.018
177	10/10/2017	11:57:15	0.018
178	10/10/2017	11:58:15	0.017
179	10/10/2017	11:59:15	0.018
180	10/10/2017	12:00:15	0.016
181	10/10/2017	12:01:15	0.020
182	10/10/2017	12:02:15	0.026
183	10/10/2017	12:03:15	0.023
184	10/10/2017	12:04:15	0.019
185	10/10/2017	12:05:15	0.017
186	10/10/2017	12:06:15	0.020
187	10/10/2017	12:07:15	0.018
188	10/10/2017	12:08:15	0.018
189	10/10/2017	12:09:15	0.021
190	10/10/2017	12:10:15	0.020
191	10/10/2017	12:11:15	0.020
192	10/10/2017	12:12:15	0.018
193	10/10/2017	12:13:15	0.018

Test Data			
Data Point	Date	Time	AEROSOL mg/m^3
194	10/10/2017	12:14:15	0.018
195	10/10/2017	12:15:15	0.020
196	10/10/2017	12:16:15	0.019
197	10/10/2017	12:17:15	0.019
198	10/10/2017	12:18:15	0.022
199	10/10/2017	12:19:15	0.028
200	10/10/2017	12:20:15	0.026
201	10/10/2017	12:21:15	0.032
202	10/10/2017	12:22:15	0.026
203	10/10/2017	12:23:15	0.023
204	10/10/2017	12:24:15	0.017
205	10/10/2017	12:25:15	0.018
206	10/10/2017	12:26:15	0.017
207	10/10/2017	12:27:15	0.023
208	10/10/2017	12:28:15	0.017
209	10/10/2017	12:29:15	0.016
210	10/10/2017	12:30:15	0.018
211	10/10/2017	12:31:15	0.017
212	10/10/2017	12:32:15	0.016
213	10/10/2017	12:33:15	0.023
214	10/10/2017	12:34:15	0.018
215	10/10/2017	12:35:15	0.015
216	10/10/2017	12:36:15	0.017
217	10/10/2017	12:37:15	0.020
218	10/10/2017	12:38:15	0.019
219	10/10/2017	12:39:15	0.022
220	10/10/2017	12:40:15	0.023
221	10/10/2017	12:41:15	0.027
222	10/10/2017	12:42:15	0.020
223	10/10/2017	12:43:15	0.018
224	10/10/2017	12:44:15	0.018
225	10/10/2017	12:45:15	0.017
226	10/10/2017	12:46:15	0.018
227	10/10/2017	12:47:15	0.018
228	10/10/2017	12:48:15	0.023
229	10/10/2017	12:49:15	0.020
230	10/10/2017	12:50:15	0.022
231	10/10/2017	12:51:15	0.025
232	10/10/2017	12:52:15	0.020
233	10/10/2017	12:53:15	0.020
234	10/10/2017	12:54:15	0.020
235	10/10/2017	12:55:15	0.019
236	10/10/2017	12:56:15	0.021
237	10/10/2017	12:57:15	0.021
238	10/10/2017	12:58:15	0.020
239	10/10/2017	12:59:15	0.020
240	10/10/2017	13:00:15	0.019
241	10/10/2017	13:01:15	0.020
242	10/10/2017	13:02:15	0.024
243	10/10/2017	13:03:15	0.026
244	10/10/2017	13:04:15	0.024
245	10/10/2017	13:05:15	0.025
246	10/10/2017	13:06:15	0.024
247	10/10/2017	13:07:15	0.020
248	10/10/2017	13:08:15	0.021

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
249	10/10/2017	13:09:15	0.022
250	10/10/2017	13:10:15	0.023
251	10/10/2017	13:11:15	0.020
252	10/10/2017	13:12:15	0.026
253	10/10/2017	13:13:15	0.024
254	10/10/2017	13:14:15	0.023
255	10/10/2017	13:15:15	0.022
256	10/10/2017	13:16:15	0.023
257	10/10/2017	13:17:15	0.026
258	10/10/2017	13:18:15	0.024
259	10/10/2017	13:19:15	0.025
260	10/10/2017	13:20:15	0.019
261	10/10/2017	13:21:15	0.020
262	10/10/2017	13:22:15	0.020
263	10/10/2017	13:23:15	0.026
264	10/10/2017	13:24:15	0.021
265	10/10/2017	13:25:15	0.038
266	10/10/2017	13:26:15	0.033
267	10/10/2017	13:27:15	0.028
268	10/10/2017	13:28:15	0.027
269	10/10/2017	13:29:15	0.027
270	10/10/2017	13:30:15	0.028
271	10/10/2017	13:31:15	0.028
272	10/10/2017	13:32:15	0.026
273	10/10/2017	13:33:15	0.022
274	10/10/2017	13:34:15	0.020
275	10/10/2017	13:35:15	0.032
276	10/10/2017	13:36:15	0.025
277	10/10/2017	13:37:15	0.021
278	10/10/2017	13:38:15	0.020
279	10/10/2017	13:39:15	0.021
280	10/10/2017	13:40:15	0.028
281	10/10/2017	13:41:15	0.028
282	10/10/2017	13:42:15	0.024
283	10/10/2017	13:43:15	0.022
284	10/10/2017	13:44:15	0.025
285	10/10/2017	13:45:15	0.022
286	10/10/2017	13:46:15	0.022
287	10/10/2017	13:47:15	0.022
288	10/10/2017	13:48:15	0.029
289	10/10/2017	13:49:15	0.027
290	10/10/2017	13:50:15	0.029
291	10/10/2017	13:51:15	0.026
292	10/10/2017	13:52:15	0.042
293	10/10/2017	13:53:15	0.025
294	10/10/2017	13:54:15	0.024
295	10/10/2017	13:55:15	0.027
296	10/10/2017	13:56:15	0.023
297	10/10/2017	13:57:15	0.028
298	10/10/2017	13:58:15	0.028
299	10/10/2017	13:59:15	0.024
300	10/10/2017	14:00:15	0.023
301	10/10/2017	14:01:15	0.021
302	10/10/2017	14:02:15	0.021
303	10/10/2017	14:03:15	0.024

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
304	10/10/2017	14:04:15	0.021
305	10/10/2017	14:05:15	0.028
306	10/10/2017	14:06:15	0.029
307	10/10/2017	14:07:15	0.024
308	10/10/2017	14:08:15	0.022
309	10/10/2017	14:09:15	0.021
310	10/10/2017	14:10:15	0.021
311	10/10/2017	14:11:15	0.021
312	10/10/2017	14:12:15	0.022
313	10/10/2017	14:13:15	0.021
314	10/10/2017	14:14:15	0.021
315	10/10/2017	14:15:15	0.021
316	10/10/2017	14:16:15	0.025
317	10/10/2017	14:17:15	0.023
318	10/10/2017	14:18:15	0.025
319	10/10/2017	14:19:15	0.021
320	10/10/2017	14:20:15	0.021
321	10/10/2017	14:21:15	0.019
322	10/10/2017	14:22:15	0.021
323	10/10/2017	14:23:15	0.023
324	10/10/2017	14:24:15	0.021
325	10/10/2017	14:25:15	0.020
326	10/10/2017	14:26:15	0.020
327	10/10/2017	14:27:15	0.019
328	10/10/2017	14:28:15	0.019
329	10/10/2017	14:29:15	0.019
330	10/10/2017	14:30:15	0.020
331	10/10/2017	14:31:15	0.019
332	10/10/2017	14:32:15	0.019
333	10/10/2017	14:33:15	0.020
334	10/10/2017	14:34:15	0.020
335	10/10/2017	14:35:15	0.020
336	10/10/2017	14:36:15	0.022
337	10/10/2017	14:37:15	0.021
338	10/10/2017	14:38:15	0.022
339	10/10/2017	14:39:15	0.021
340	10/10/2017	14:40:15	0.024
341	10/10/2017	14:41:15	0.020
342	10/10/2017	14:42:15	0.020
343	10/10/2017	14:43:15	0.028
344	10/10/2017	14:44:15	0.045
345	10/10/2017	14:45:15	0.021
346	10/10/2017	14:46:15	0.023
347	10/10/2017	14:47:15	0.021
348	10/10/2017	14:48:15	0.019
349	10/10/2017	14:49:15	0.026
350	10/10/2017	14:50:15	0.020
351	10/10/2017	14:51:15	0.019
352	10/10/2017	14:52:15	0.020
353	10/10/2017	14:53:15	0.019
354	10/10/2017	14:54:15	0.018
355	10/10/2017	14:55:15	0.018
356	10/10/2017	14:56:15	0.016
357	10/10/2017	14:57:15	0.018
358	10/10/2017	14:58:15	0.017

Test Data			
Data Point	Date	Time	AEROSOL mg/m^3
359	10/10/2017	14:59:15	0.018
360	10/10/2017	15:00:15	0.017
361	10/10/2017	15:01:15	0.019
362	10/10/2017	15:02:15	0.023
363	10/10/2017	15:03:15	0.021
364	10/10/2017	15:04:15	0.023
365	10/10/2017	15:05:15	0.034
366	10/10/2017	15:06:15	0.025
367	10/10/2017	15:07:15	0.027
368	10/10/2017	15:08:15	0.029
369	10/10/2017	15:09:15	0.027
370	10/10/2017	15:10:15	0.021
371	10/10/2017	15:11:15	0.019
372	10/10/2017	15:12:15	0.023
373	10/10/2017	15:13:15	0.026
374	10/10/2017	15:14:15	0.022
375	10/10/2017	15:15:15	0.023
376	10/10/2017	15:16:15	0.024
377	10/10/2017	15:17:15	0.019
378	10/10/2017	15:18:15	0.020
379	10/10/2017	15:19:15	0.021
380	10/10/2017	15:20:15	0.023
381	10/10/2017	15:21:15	0.024
382	10/10/2017	15:22:15	0.038
383	10/10/2017	15:23:15	0.019
384	10/10/2017	15:24:15	0.015
385	10/10/2017	15:25:15	0.015
386	10/10/2017	15:26:15	0.020
387	10/10/2017	15:27:15	0.026
388	10/10/2017	15:28:15	0.023
389	10/10/2017	15:29:15	0.021
390	10/10/2017	15:30:15	0.023
391	10/10/2017	15:31:15	0.017
392	10/10/2017	15:32:15	0.016
393	10/10/2017	15:33:15	0.015
394	10/10/2017	15:34:15	0.021
395	10/10/2017	15:35:15	0.015
396	10/10/2017	15:36:15	0.017
397	10/10/2017	15:37:15	0.019
398	10/10/2017	15:38:15	0.022
399	10/10/2017	15:39:15	0.022
400	10/10/2017	15:40:15	0.026
401	10/10/2017	15:41:15	0.026
402	10/10/2017	15:42:15	0.026
403	10/10/2017	15:43:15	0.042
404	10/10/2017	15:44:15	0.030
405	10/10/2017	15:45:15	0.035
406	10/10/2017	15:46:15	0.032
407	10/10/2017	15:47:15	0.031
408	10/10/2017	15:48:15	0.032
409	10/10/2017	15:49:15	0.034
410	10/10/2017	15:50:15	0.033
411	10/10/2017	15:51:15	0.032
412	10/10/2017	15:52:15	0.031
413	10/10/2017	15:53:15	0.031

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
414	10/10/2017	15:54:15	0.031
415	10/10/2017	15:55:15	0.030
416	10/10/2017	15:56:15	0.028
417	10/10/2017	15:57:15	0.027
418	10/10/2017	15:58:15	0.029
419	10/10/2017	15:59:15	0.027
420	10/10/2017	16:00:15	0.027
421	10/10/2017	16:01:15	0.027
422	10/10/2017	16:02:15	0.027
423	10/10/2017	16:03:15	0.029
424	10/10/2017	16:04:15	0.027
425	10/10/2017	16:05:15	0.033
426	10/10/2017	16:06:15	0.029
427	10/10/2017	16:07:15	0.036
428	10/10/2017	16:08:15	0.028
429	10/10/2017	16:09:15	0.026
430	10/10/2017	16:10:15	0.027
431	10/10/2017	16:11:15	0.031
432	10/10/2017	16:12:15	0.035
433	10/10/2017	16:13:15	0.027
434	10/10/2017	16:14:15	0.025

Downwind Dust
11/20/2017

Instrument		Data Properties	
Model	DustTrak II	Start Date	11/20/2017
Instrument S/N	8530163611	Start Time	09:10:57
		Stop Date	11/20/2017
		Stop Time	13:38:57
		Total Time	0:04:28:00
		Logging Interval	60 seconds

Statistics	
	AEROSOL
Avg	0.030 mg/m^3
Max	0.158 mg/m^3
Max Date	11/20/2017
Max Time	09:11:57
Min	0.019 mg/m^3
Min Date	11/20/2017
Min Time	09:12:57
TWA (8 hr)	0.017
TWA Start Date	11/20/2017
TWA Start Time	09:10:57
TWA End Time	13:38:57

Test Data

Data Point	Date	Time	AEROSOL mg/m^3
1	11/20/2017	09:11:57	0.158
2	11/20/2017	09:12:57	0.019
3	11/20/2017	09:13:57	0.022
4	11/20/2017	09:14:57	0.021
5	11/20/2017	09:15:57	0.022
6	11/20/2017	09:16:57	0.026
7	11/20/2017	09:17:57	0.019
8	11/20/2017	09:18:57	0.019
9	11/20/2017	09:19:57	0.024
10	11/20/2017	09:20:57	0.074
11	11/20/2017	09:21:57	0.022
12	11/20/2017	09:22:57	0.021
13	11/20/2017	09:23:57	0.020
14	11/20/2017	09:24:57	0.023
15	11/20/2017	09:25:57	0.021
16	11/20/2017	09:26:57	0.024
17	11/20/2017	09:27:57	0.022
18	11/20/2017	09:28:57	0.022
19	11/20/2017	09:29:57	0.024
20	11/20/2017	09:30:57	0.022
21	11/20/2017	09:31:57	0.022
22	11/20/2017	09:32:57	0.023
23	11/20/2017	09:33:57	0.023
24	11/20/2017	09:34:57	0.024
25	11/20/2017	09:35:57	0.025
26	11/20/2017	09:36:57	0.024
27	11/20/2017	09:37:57	0.051
28	11/20/2017	09:38:57	0.023

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
29	11/20/2017	09:39:57	0.024
30	11/20/2017	09:40:57	0.031
31	11/20/2017	09:41:57	0.024
32	11/20/2017	09:42:57	0.026
33	11/20/2017	09:43:57	0.025
34	11/20/2017	09:44:57	0.026
35	11/20/2017	09:45:57	0.024
36	11/20/2017	09:46:57	0.028
37	11/20/2017	09:47:57	0.025
38	11/20/2017	09:48:57	0.027
39	11/20/2017	09:49:57	0.031
40	11/20/2017	09:50:57	0.027
41	11/20/2017	09:51:57	0.024
42	11/20/2017	09:52:57	0.024
43	11/20/2017	09:53:57	0.022
44	11/20/2017	09:54:57	0.023
45	11/20/2017	09:55:57	0.024
46	11/20/2017	09:56:57	0.023
47	11/20/2017	09:57:57	0.022
48	11/20/2017	09:58:57	0.022
49	11/20/2017	09:59:57	0.023
50	11/20/2017	10:00:57	0.024
51	11/20/2017	10:01:57	0.023
52	11/20/2017	10:02:57	0.023
53	11/20/2017	10:03:57	0.023
54	11/20/2017	10:04:57	0.026
55	11/20/2017	10:05:57	0.024
56	11/20/2017	10:06:57	0.023
57	11/20/2017	10:07:57	0.022
58	11/20/2017	10:08:57	0.027
59	11/20/2017	10:09:57	0.024
60	11/20/2017	10:10:57	0.022
61	11/20/2017	10:11:57	0.023
62	11/20/2017	10:12:57	0.023
63	11/20/2017	10:13:57	0.024
64	11/20/2017	10:14:57	0.024
65	11/20/2017	10:15:57	0.023
66	11/20/2017	10:16:57	0.023
67	11/20/2017	10:17:57	0.024
68	11/20/2017	10:18:57	0.027
69	11/20/2017	10:19:57	0.023
70	11/20/2017	10:20:57	0.024
71	11/20/2017	10:21:57	0.025
72	11/20/2017	10:22:57	0.024
73	11/20/2017	10:23:57	0.024
74	11/20/2017	10:24:57	0.034
75	11/20/2017	10:25:57	0.025
76	11/20/2017	10:26:57	0.024
77	11/20/2017	10:27:57	0.027
78	11/20/2017	10:28:57	0.024
79	11/20/2017	10:29:57	0.023
80	11/20/2017	10:30:57	0.023
81	11/20/2017	10:31:57	0.024
82	11/20/2017	10:32:57	0.026
83	11/20/2017	10:33:57	0.025

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
84	11/20/2017	10:34:57	0.024
85	11/20/2017	10:35:57	0.026
86	11/20/2017	10:36:57	0.024
87	11/20/2017	10:37:57	0.029
88	11/20/2017	10:38:57	0.024
89	11/20/2017	10:39:57	0.025
90	11/20/2017	10:40:57	0.024
91	11/20/2017	10:41:57	0.028
92	11/20/2017	10:42:57	0.026
93	11/20/2017	10:43:57	0.026
94	11/20/2017	10:44:57	0.025
95	11/20/2017	10:45:57	0.026
96	11/20/2017	10:46:57	0.028
97	11/20/2017	10:47:57	0.025
98	11/20/2017	10:48:57	0.025
99	11/20/2017	10:49:57	0.026
100	11/20/2017	10:50:57	0.025
101	11/20/2017	10:51:57	0.025
102	11/20/2017	10:52:57	0.027
103	11/20/2017	10:53:57	0.029
104	11/20/2017	10:54:57	0.028
105	11/20/2017	10:55:57	0.026
106	11/20/2017	10:56:57	0.025
107	11/20/2017	10:57:57	0.025
108	11/20/2017	10:58:57	0.025
109	11/20/2017	10:59:57	0.026
110	11/20/2017	11:00:57	0.028
111	11/20/2017	11:01:57	0.028
112	11/20/2017	11:02:57	0.026
113	11/20/2017	11:03:57	0.028
114	11/20/2017	11:04:57	0.031
115	11/20/2017	11:05:57	0.030
116	11/20/2017	11:06:57	0.028
117	11/20/2017	11:07:57	0.046
118	11/20/2017	11:08:57	0.032
119	11/20/2017	11:09:57	0.030
120	11/20/2017	11:10:57	0.035
121	11/20/2017	11:11:57	0.036
122	11/20/2017	11:12:57	0.038
123	11/20/2017	11:13:57	0.030
124	11/20/2017	11:14:57	0.028
125	11/20/2017	11:15:57	0.029
126	11/20/2017	11:16:57	0.036
127	11/20/2017	11:17:57	0.031
128	11/20/2017	11:18:57	0.031
129	11/20/2017	11:19:57	0.031
130	11/20/2017	11:20:57	0.030
131	11/20/2017	11:21:57	0.034
132	11/20/2017	11:22:57	0.033
133	11/20/2017	11:23:57	0.034
134	11/20/2017	11:24:57	0.030
135	11/20/2017	11:25:57	0.034
136	11/20/2017	11:26:57	0.037
137	11/20/2017	11:27:57	0.037
138	11/20/2017	11:28:57	0.043

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
139	11/20/2017	11:29:57	0.031
140	11/20/2017	11:30:57	0.030
141	11/20/2017	11:31:57	0.030
142	11/20/2017	11:32:57	0.064
143	11/20/2017	11:33:57	0.035
144	11/20/2017	11:34:57	0.030
145	11/20/2017	11:35:57	0.029
146	11/20/2017	11:36:57	0.029
147	11/20/2017	11:37:57	0.031
148	11/20/2017	11:38:57	0.030
149	11/20/2017	11:39:57	0.030
150	11/20/2017	11:40:57	0.030
151	11/20/2017	11:41:57	0.046
152	11/20/2017	11:42:57	0.043
153	11/20/2017	11:43:57	0.038
154	11/20/2017	11:44:57	0.035
155	11/20/2017	11:45:57	0.037
156	11/20/2017	11:46:57	0.035
157	11/20/2017	11:47:57	0.035
158	11/20/2017	11:48:57	0.034
159	11/20/2017	11:49:57	0.033
160	11/20/2017	11:50:57	0.036
161	11/20/2017	11:51:57	0.032
162	11/20/2017	11:52:57	0.034
163	11/20/2017	11:53:57	0.032
164	11/20/2017	11:54:57	0.032
165	11/20/2017	11:55:57	0.033
166	11/20/2017	11:56:57	0.032
167	11/20/2017	11:57:57	0.032
168	11/20/2017	11:58:57	0.032
169	11/20/2017	11:59:57	0.033
170	11/20/2017	12:00:57	0.032
171	11/20/2017	12:01:57	0.035
172	11/20/2017	12:02:57	0.032
173	11/20/2017	12:03:57	0.032
174	11/20/2017	12:04:57	0.033
175	11/20/2017	12:05:57	0.033
176	11/20/2017	12:06:57	0.033
177	11/20/2017	12:07:57	0.033
178	11/20/2017	12:08:57	0.034
179	11/20/2017	12:09:57	0.032
180	11/20/2017	12:10:57	0.034
181	11/20/2017	12:11:57	0.031
182	11/20/2017	12:12:57	0.036
183	11/20/2017	12:13:57	0.034
184	11/20/2017	12:14:57	0.032
185	11/20/2017	12:15:57	0.032
186	11/20/2017	12:16:57	0.033
187	11/20/2017	12:17:57	0.031
188	11/20/2017	12:18:57	0.031
189	11/20/2017	12:19:57	0.030
190	11/20/2017	12:20:57	0.030
191	11/20/2017	12:21:57	0.033
192	11/20/2017	12:22:57	0.032
193	11/20/2017	12:23:57	0.032

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
194	11/20/2017	12:24:57	0.033
195	11/20/2017	12:25:57	0.033
196	11/20/2017	12:26:57	0.032
197	11/20/2017	12:27:57	0.053
198	11/20/2017	12:28:57	0.033
199	11/20/2017	12:29:57	0.032
200	11/20/2017	12:30:57	0.032
201	11/20/2017	12:31:57	0.032
202	11/20/2017	12:32:57	0.033
203	11/20/2017	12:33:57	0.032
204	11/20/2017	12:34:57	0.031
205	11/20/2017	12:35:57	0.031
206	11/20/2017	12:36:57	0.032
207	11/20/2017	12:37:57	0.034
208	11/20/2017	12:38:57	0.033
209	11/20/2017	12:39:57	0.032
210	11/20/2017	12:40:57	0.033
211	11/20/2017	12:41:57	0.033
212	11/20/2017	12:42:57	0.034
213	11/20/2017	12:43:57	0.032
214	11/20/2017	12:44:57	0.032
215	11/20/2017	12:45:57	0.032
216	11/20/2017	12:46:57	0.032
217	11/20/2017	12:47:57	0.032
218	11/20/2017	12:48:57	0.032
219	11/20/2017	12:49:57	0.033
220	11/20/2017	12:50:57	0.032
221	11/20/2017	12:51:57	0.031
222	11/20/2017	12:52:57	0.030
223	11/20/2017	12:53:57	0.030
224	11/20/2017	12:54:57	0.031
225	11/20/2017	12:55:57	0.030
226	11/20/2017	12:56:57	0.029
227	11/20/2017	12:57:57	0.030
228	11/20/2017	12:58:57	0.032
229	11/20/2017	12:59:57	0.032
230	11/20/2017	13:00:57	0.031
231	11/20/2017	13:01:57	0.030
232	11/20/2017	13:02:57	0.031
233	11/20/2017	13:03:57	0.033
234	11/20/2017	13:04:57	0.031
235	11/20/2017	13:05:57	0.031
236	11/20/2017	13:06:57	0.031
237	11/20/2017	13:07:57	0.030
238	11/20/2017	13:08:57	0.032
239	11/20/2017	13:09:57	0.031
240	11/20/2017	13:10:57	0.030
241	11/20/2017	13:11:57	0.033
242	11/20/2017	13:12:57	0.035
243	11/20/2017	13:13:57	0.031
244	11/20/2017	13:14:57	0.030
245	11/20/2017	13:15:57	0.032
246	11/20/2017	13:16:57	0.031
247	11/20/2017	13:17:57	0.032
248	11/20/2017	13:18:57	0.031

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
249	11/20/2017	13:19:57	0.032
250	11/20/2017	13:20:57	0.031
251	11/20/2017	13:21:57	0.034
252	11/20/2017	13:22:57	0.032
253	11/20/2017	13:23:57	0.032
254	11/20/2017	13:24:57	0.032
255	11/20/2017	13:25:57	0.033
256	11/20/2017	13:26:57	0.032
257	11/20/2017	13:27:57	0.032
258	11/20/2017	13:28:57	0.031
259	11/20/2017	13:29:57	0.031
260	11/20/2017	13:30:57	0.033
261	11/20/2017	13:31:57	0.032
262	11/20/2017	13:32:57	0.033
263	11/20/2017	13:33:57	0.032
264	11/20/2017	13:34:57	0.032
265	11/20/2017	13:35:57	0.050
266	11/20/2017	13:36:57	0.032
267	11/20/2017	13:37:57	0.033
268	11/20/2017	13:38:57	0.063

one hour difference (time on unit is one hour ahead of actual time) - LB

Upwind Dust
11/20/2017

Instrument		Data Properties	
Model	DustTrak II	Start Date	11/20/2017
Instrument S/N	8530162503	Start Time	10:09:22
		Stop Date	11/20/2017
		Stop Time	14:36:22
		Total Time	0:04:27:00
		Logging Interval	60 seconds

Statistics	
	AEROSOL
Avg	0.032 mg/m^3
Max	0.050 mg/m^3
Max Date	11/20/2017
Max Time	10:10:22
Min	0.021 mg/m^3
Min Date	11/20/2017
Min Time	10:11:22
TWA (8 hr)	0.018
TWA Start Date	11/20/2017
TWA Start Time	10:09:22
TWA End Time	14:36:22

Test Data

Data Point	Date	Time	AEROSOL mg/m^3
1	11/20/2017	10:10:22	0.050
2	11/20/2017	10:11:22	0.021
3	11/20/2017	10:12:22	0.021
4	11/20/2017	10:13:22	0.027
5	11/20/2017	10:14:22	0.023
6	11/20/2017	10:15:22	0.024
7	11/20/2017	10:16:22	0.024
8	11/20/2017	10:17:22	0.024
9	11/20/2017	10:18:22	0.021
10	11/20/2017	10:19:22	0.028
11	11/20/2017	10:20:22	0.021
12	11/20/2017	10:21:22	0.024
13	11/20/2017	10:22:22	0.023
14	11/20/2017	10:23:22	0.024
15	11/20/2017	10:24:22	0.025
16	11/20/2017	10:25:22	0.023
17	11/20/2017	10:26:22	0.024
18	11/20/2017	10:27:22	0.024
19	11/20/2017	10:28:22	0.027
20	11/20/2017	10:29:22	0.027
21	11/20/2017	10:30:22	0.026
22	11/20/2017	10:31:22	0.028
23	11/20/2017	10:32:22	0.026
24	11/20/2017	10:33:22	0.028
25	11/20/2017	10:34:22	0.025
26	11/20/2017	10:35:22	0.027
27	11/20/2017	10:36:22	0.025
28	11/20/2017	10:37:22	0.026

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
29	11/20/2017	10:38:22	0.025
30	11/20/2017	10:39:22	0.026
31	11/20/2017	10:40:22	0.025
32	11/20/2017	10:41:22	0.031
33	11/20/2017	10:42:22	0.026
34	11/20/2017	10:43:22	0.029
35	11/20/2017	10:44:22	0.031
36	11/20/2017	10:45:22	0.027
37	11/20/2017	10:46:22	0.024
38	11/20/2017	10:47:22	0.028
39	11/20/2017	10:48:22	0.025
40	11/20/2017	10:49:22	0.023
41	11/20/2017	10:50:22	0.026
42	11/20/2017	10:51:22	0.023
43	11/20/2017	10:52:22	0.023
44	11/20/2017	10:53:22	0.024
45	11/20/2017	10:54:22	0.026
46	11/20/2017	10:55:22	0.025
47	11/20/2017	10:56:22	0.022
48	11/20/2017	10:57:22	0.022
49	11/20/2017	10:58:22	0.026
50	11/20/2017	10:59:22	0.024
51	11/20/2017	11:00:22	0.026
52	11/20/2017	11:01:22	0.025
53	11/20/2017	11:02:22	0.023
54	11/20/2017	11:03:22	0.030
55	11/20/2017	11:04:22	0.028
56	11/20/2017	11:05:22	0.028
57	11/20/2017	11:06:22	0.031
58	11/20/2017	11:07:22	0.027
59	11/20/2017	11:08:22	0.028
60	11/20/2017	11:09:22	0.027
61	11/20/2017	11:10:22	0.025
62	11/20/2017	11:11:22	0.027
63	11/20/2017	11:12:22	0.026
64	11/20/2017	11:13:22	0.024
65	11/20/2017	11:14:22	0.024
66	11/20/2017	11:15:22	0.030
67	11/20/2017	11:16:22	0.026
68	11/20/2017	11:17:22	0.025
69	11/20/2017	11:18:22	0.027
70	11/20/2017	11:19:22	0.026
71	11/20/2017	11:20:22	0.027
72	11/20/2017	11:21:22	0.026
73	11/20/2017	11:22:22	0.026
74	11/20/2017	11:23:22	0.025
75	11/20/2017	11:24:22	0.026
76	11/20/2017	11:25:22	0.027
77	11/20/2017	11:26:22	0.027
78	11/20/2017	11:27:22	0.026
79	11/20/2017	11:28:22	0.028
80	11/20/2017	11:29:22	0.025
81	11/20/2017	11:30:22	0.027
82	11/20/2017	11:31:22	0.024
83	11/20/2017	11:32:22	0.031

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
84	11/20/2017	11:33:22	0.025
85	11/20/2017	11:34:22	0.027
86	11/20/2017	11:35:22	0.026
87	11/20/2017	11:36:22	0.029
88	11/20/2017	11:37:22	0.028
89	11/20/2017	11:38:22	0.028
90	11/20/2017	11:39:22	0.026
91	11/20/2017	11:40:22	0.027
92	11/20/2017	11:41:22	0.030
93	11/20/2017	11:42:22	0.026
94	11/20/2017	11:43:22	0.025
95	11/20/2017	11:44:22	0.025
96	11/20/2017	11:45:22	0.025
97	11/20/2017	11:46:22	0.030
98	11/20/2017	11:47:22	0.029
99	11/20/2017	11:48:22	0.033
100	11/20/2017	11:49:22	0.026
101	11/20/2017	11:50:22	0.024
102	11/20/2017	11:51:22	0.030
103	11/20/2017	11:52:22	0.027
104	11/20/2017	11:53:22	0.028
105	11/20/2017	11:54:22	0.031
106	11/20/2017	11:55:22	0.028
107	11/20/2017	11:56:22	0.029
108	11/20/2017	11:57:22	0.025
109	11/20/2017	11:58:22	0.026
110	11/20/2017	11:59:22	0.029
111	11/20/2017	12:00:22	0.033
112	11/20/2017	12:01:22	0.027
113	11/20/2017	12:02:22	0.031
114	11/20/2017	12:03:22	0.047
115	11/20/2017	12:04:22	0.032
116	11/20/2017	12:05:22	0.037
117	11/20/2017	12:06:22	0.035
118	11/20/2017	12:07:22	0.039
119	11/20/2017	12:08:22	0.034
120	11/20/2017	12:09:22	0.027
121	11/20/2017	12:10:22	0.028
122	11/20/2017	12:11:22	0.033
123	11/20/2017	12:12:22	0.033
124	11/20/2017	12:13:22	0.030
125	11/20/2017	12:14:22	0.029
126	11/20/2017	12:15:22	0.028
127	11/20/2017	12:16:22	0.031
128	11/20/2017	12:17:22	0.033
129	11/20/2017	12:18:22	0.034
130	11/20/2017	12:19:22	0.029
131	11/20/2017	12:20:22	0.029
132	11/20/2017	12:21:22	0.037
133	11/20/2017	12:22:22	0.032
134	11/20/2017	12:23:22	0.032
135	11/20/2017	12:24:22	0.031
136	11/20/2017	12:25:22	0.030
137	11/20/2017	12:26:22	0.029
138	11/20/2017	12:27:22	0.030

Test Data			
Data Point	Date	Time	AEROSOL mg/m^3
139	11/20/2017	12:28:22	0.031
140	11/20/2017	12:29:22	0.031
141	11/20/2017	12:30:22	0.029
142	11/20/2017	12:31:22	0.028
143	11/20/2017	12:32:22	0.029
144	11/20/2017	12:33:22	0.029
145	11/20/2017	12:34:22	0.030
146	11/20/2017	12:35:22	0.029
147	11/20/2017	12:36:22	0.035
148	11/20/2017	12:37:22	0.037
149	11/20/2017	12:38:22	0.044
150	11/20/2017	12:39:22	0.038
151	11/20/2017	12:40:22	0.044
152	11/20/2017	12:41:22	0.038
153	11/20/2017	12:42:22	0.035
154	11/20/2017	12:43:22	0.033
155	11/20/2017	12:44:22	0.033
156	11/20/2017	12:45:22	0.037
157	11/20/2017	12:46:22	0.040
158	11/20/2017	12:47:22	0.038
159	11/20/2017	12:48:22	0.039
160	11/20/2017	12:49:22	0.036
161	11/20/2017	12:50:22	0.033
162	11/20/2017	12:51:22	0.034
163	11/20/2017	12:52:22	0.033
164	11/20/2017	12:53:22	0.035
165	11/20/2017	12:54:22	0.047
166	11/20/2017	12:55:22	0.036
167	11/20/2017	12:56:22	0.037
168	11/20/2017	12:57:22	0.036
169	11/20/2017	12:58:22	0.034
170	11/20/2017	12:59:22	0.035
171	11/20/2017	13:00:22	0.034
172	11/20/2017	13:01:22	0.037
173	11/20/2017	13:02:22	0.036
174	11/20/2017	13:03:22	0.039
175	11/20/2017	13:04:22	0.033
176	11/20/2017	13:05:22	0.034
177	11/20/2017	13:06:22	0.032
178	11/20/2017	13:07:22	0.036
179	11/20/2017	13:08:22	0.040
180	11/20/2017	13:09:22	0.039
181	11/20/2017	13:10:22	0.035
182	11/20/2017	13:11:22	0.040
183	11/20/2017	13:12:22	0.036
184	11/20/2017	13:13:22	0.036
185	11/20/2017	13:14:22	0.034
186	11/20/2017	13:15:22	0.037
187	11/20/2017	13:16:22	0.034
188	11/20/2017	13:17:22	0.038
189	11/20/2017	13:18:22	0.036
190	11/20/2017	13:19:22	0.034
191	11/20/2017	13:20:22	0.033
192	11/20/2017	13:21:22	0.037
193	11/20/2017	13:22:22	0.036

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
194	11/20/2017	13:23:22	0.038
195	11/20/2017	13:24:22	0.034
196	11/20/2017	13:25:22	0.033
197	11/20/2017	13:26:22	0.035
198	11/20/2017	13:27:22	0.035
199	11/20/2017	13:28:22	0.035
200	11/20/2017	13:29:22	0.035
201	11/20/2017	13:30:22	0.033
202	11/20/2017	13:31:22	0.034
203	11/20/2017	13:32:22	0.036
204	11/20/2017	13:33:22	0.035
205	11/20/2017	13:34:22	0.032
206	11/20/2017	13:35:22	0.034
207	11/20/2017	13:36:22	0.036
208	11/20/2017	13:37:22	0.037
209	11/20/2017	13:38:22	0.036
210	11/20/2017	13:39:22	0.034
211	11/20/2017	13:40:22	0.037
212	11/20/2017	13:41:22	0.032
213	11/20/2017	13:42:22	0.033
214	11/20/2017	13:43:22	0.035
215	11/20/2017	13:44:22	0.035
216	11/20/2017	13:45:22	0.042
217	11/20/2017	13:46:22	0.038
218	11/20/2017	13:47:22	0.033
219	11/20/2017	13:48:22	0.035
220	11/20/2017	13:49:22	0.032
221	11/20/2017	13:50:22	0.037
222	11/20/2017	13:51:22	0.033
223	11/20/2017	13:52:22	0.029
224	11/20/2017	13:53:22	0.033
225	11/20/2017	13:54:22	0.039
226	11/20/2017	13:55:22	0.034
227	11/20/2017	13:56:22	0.035
228	11/20/2017	13:57:22	0.042
229	11/20/2017	13:58:22	0.035
230	11/20/2017	13:59:22	0.037
231	11/20/2017	14:00:22	0.035
232	11/20/2017	14:01:22	0.041
233	11/20/2017	14:02:22	0.033
234	11/20/2017	14:03:22	0.042
235	11/20/2017	14:04:22	0.034
236	11/20/2017	14:05:22	0.034
237	11/20/2017	14:06:22	0.038
238	11/20/2017	14:07:22	0.045
239	11/20/2017	14:08:22	0.042
240	11/20/2017	14:09:22	0.037
241	11/20/2017	14:10:22	0.042
242	11/20/2017	14:11:22	0.037
243	11/20/2017	14:12:22	0.036
244	11/20/2017	14:13:22	0.036
245	11/20/2017	14:14:22	0.035
246	11/20/2017	14:15:22	0.035
247	11/20/2017	14:16:22	0.050
248	11/20/2017	14:17:22	0.039

Test Data			
Data Point	**Date**	**Time**	**AEROSOL mg/m^3**
249	11/20/2017	14:18:22	0.037
250	11/20/2017	14:19:22	0.037
251	11/20/2017	14:20:22	0.034
252	11/20/2017	14:21:22	0.041
253	11/20/2017	14:22:22	0.036
254	11/20/2017	14:23:22	0.038
255	11/20/2017	14:24:22	0.036
256	11/20/2017	14:25:22	0.039
257	11/20/2017	14:26:22	0.036
258	11/20/2017	14:27:22	0.036
259	11/20/2017	14:28:22	0.039
260	11/20/2017	14:29:22	0.032
261	11/20/2017	14:30:22	0.032
262	11/20/2017	14:31:22	0.036
263	11/20/2017	14:32:22	0.041
264	11/20/2017	14:33:22	0.038
265	11/20/2017	14:34:22	0.034
266	11/20/2017	14:35:22	0.036
267	11/20/2017	14:36:22	0.035

Upwind Volatiles
10/10/2017

PRS_EXPORT_FA02412_upwind_TEST1_20171010.txt

==
17/10/10 09:05
****
Summary

Unit Name	MiniRAE 3000
Unit SN	592-915296
Unit Firmware Ver	V1.20B
Running Mode	Hygiene Mode
Measure Type	Avg; Max; Real
Datalog Mode	Continuous
Datalog Type	Auto
Diagnostic Mode	No
Stop Reason	Power Down
Site ID	12345678
User ID	12345678
Begin	2017/10/10 09:05:10
End	2017/10/10 16:21:33
Sample Period(s)	60
Number of Records	436
Sensor	VOC(ppm)
Span	100.000
Span H	N/A
Low Alarm	50.000
High Alarm	100.000
Over Alarm	15000.000
STEL Alarm	25.000
TWA Alarm	10.000
Measurement Gas	Isobutylene
Calibration Time	2017/10/06 15:53
Peak	115.296
Min	0.000
Average	0.269

****
Datalog

Index	Date/Time	VOC(ppm)(Avg)	VOC(ppm)(Max)	VOC(ppm)(Real)
001	2017/10/10 09:06:10	0.000	0.000	0.000
002	2017/10/10 09:07:10	0.000	0.000	0.000
003	2017/10/10 09:08:10	0.000	0.000	0.000
004	2017/10/10 09:09:10	0.000	0.000	0.000
005	2017/10/10 09:10:10	0.000	0.000	0.000
006	2017/10/10 09:11:10	0.000	0.000	0.000
007	2017/10/10 09:12:10	0.000	0.000	0.000
008	2017/10/10 09:13:10	0.000	0.000	0.000
009	2017/10/10 09:14:10	0.000	0.000	0.000
010	2017/10/10 09:15:10	0.000	0.000	0.000
011	2017/10/10 09:16:10	0.000	0.000	0.000
012	2017/10/10 09:17:10	0.000	0.000	0.000
013	2017/10/10 09:18:10	0.000	0.000	0.000
014	2017/10/10 09:19:10	0.000	0.000	0.000
015	2017/10/10 09:20:10	0.000	0.000	0.000
016	2017/10/10 09:21:10	0.000	0.000	0.000
017	2017/10/10 09:22:10	0.000	0.000	0.000
018	2017/10/10 09:23:10	0.000	0.000	0.000
019	2017/10/10 09:24:10	0.000	0.000	0.000
020	2017/10/10 09:25:10	0.000	0.000	0.000
021	2017/10/10 09:26:10	0.000	0.000	0.000
022	2017/10/10 09:27:10	0.000	0.000	0.000

023	2017/10/10 09:28:10	0.000	0.000	0.000
024	2017/10/10 09:29:10	0.000	0.000	0.000
025	2017/10/10 09:30:10	0.000	0.000	0.000
026	2017/10/10 09:31:10	0.000	0.000	0.000
027	2017/10/10 09:32:10	0.000	0.000	0.000
028	2017/10/10 09:33:10	0.000	0.000	0.000
029	2017/10/10 09:34:10	0.000	0.000	0.000
030	2017/10/10 09:35:10	0.000	0.000	0.000
031	2017/10/10 09:36:10	0.000	0.000	0.000
032	2017/10/10 09:37:10	0.000	0.000	0.000
033	2017/10/10 09:38:10	0.000	0.000	0.000
034	2017/10/10 09:39:10	0.000	0.000	0.000
035	2017/10/10 09:40:10	0.000	0.000	0.000
036	2017/10/10 09:41:10	0.000	0.000	0.000
037	2017/10/10 09:42:10	0.000	0.000	0.000
038	2017/10/10 09:43:10	0.000	0.000	0.000
039	2017/10/10 09:44:10	0.000	0.000	0.000
040	2017/10/10 09:45:10	0.000	0.000	0.000
041	2017/10/10 09:46:10	0.000	0.000	0.000
042	2017/10/10 09:47:10	0.000	0.000	0.000
043	2017/10/10 09:48:10	0.000	0.000	0.000
044	2017/10/10 09:49:10	0.000	0.000	0.000
045	2017/10/10 09:50:10	0.000	0.000	0.000
046	2017/10/10 09:51:10	25.148	133.968	115.296
047	2017/10/10 09:52:10	12.434	114.941	0.000
048	2017/10/10 09:53:10	0.000	0.000	0.000
049	2017/10/10 09:54:10	0.000	0.000	0.000
050	2017/10/10 09:55:10	0.000	0.000	0.000
051	2017/10/10 09:56:10	0.000	0.000	0.000
052	2017/10/10 09:57:10	0.000	0.000	0.000
053	2017/10/10 09:58:10	0.000	0.000	0.000
054	2017/10/10 09:59:10	0.000	0.000	0.000
055	2017/10/10 10:00:10	0.000	0.000	0.000
056	2017/10/10 10:01:10	0.000	0.000	0.000
057	2017/10/10 10:02:10	0.000	0.000	0.000
058	2017/10/10 10:03:10	0.000	0.000	0.000
059	2017/10/10 10:04:10	0.000	0.000	0.000
060	2017/10/10 10:05:10	0.000	0.000	0.000
061	2017/10/10 10:06:10	0.000	0.000	0.000
062	2017/10/10 10:07:10	0.000	0.000	0.000
063	2017/10/10 10:08:10	0.000	0.000	0.000
064	2017/10/10 10:09:10	0.000	0.000	0.000
065	2017/10/10 10:10:10	0.000	0.000	0.000
066	2017/10/10 10:11:10	0.000	0.000	0.000
067	2017/10/10 10:12:10	0.000	0.000	0.000
068	2017/10/10 10:13:10	0.000	0.000	0.000
069	2017/10/10 10:14:10	0.000	0.000	0.000
070	2017/10/10 10:15:10	0.000	0.000	0.000
071	2017/10/10 10:16:10	0.000	0.000	0.000
072	2017/10/10 10:17:10	0.000	0.000	0.000
073	2017/10/10 10:18:10	0.000	0.000	0.000
074	2017/10/10 10:19:10	0.000	0.000	0.000
075	2017/10/10 10:20:10	0.000	0.000	0.000
076	2017/10/10 10:21:10	0.000	0.000	0.000
077	2017/10/10 10:22:10	0.000	0.000	0.000
078	2017/10/10 10:23:10	0.000	0.000	0.000
079	2017/10/10 10:24:10	0.000	0.000	0.000
080	2017/10/10 10:25:10	0.000	0.000	0.000
081	2017/10/10 10:26:10	0.000	0.000	0.000
082	2017/10/10 10:27:10	0.000	0.000	0.000
083	2017/10/10 10:28:10	0.000	0.000	0.000
084	2017/10/10 10:29:10	0.000	0.000	0.000
085	2017/10/10 10:30:10	0.000	0.000	0.000

086	2017/10/10 10:31:10	0.000	0.000	0.000
087	2017/10/10 10:32:10	0.000	0.000	0.000
088	2017/10/10 10:33:10	0.000	0.000	0.000
089	2017/10/10 10:34:10	0.010	0.087	0.000
090	2017/10/10 10:35:10	0.000	0.000	0.000
091	2017/10/10 10:36:10	0.000	0.000	0.000
092	2017/10/10 10:37:10	0.000	0.000	0.000
093	2017/10/10 10:38:10	0.000	0.000	0.000
094	2017/10/10 10:39:10	0.000	0.000	0.000
095	2017/10/10 10:40:10	0.000	0.000	0.000
096	2017/10/10 10:41:10	0.000	0.000	0.000
097	2017/10/10 10:42:10	0.000	0.000	0.000
098	2017/10/10 10:43:10	0.000	0.000	0.000
099	2017/10/10 10:44:10	0.000	0.000	0.000
100	2017/10/10 10:45:10	0.000	0.000	0.000
101	2017/10/10 10:46:10	0.000	0.000	0.000
102	2017/10/10 10:47:10	0.000	0.000	0.000
103	2017/10/10 10:48:10	0.000	0.000	0.000
104	2017/10/10 10:49:10	0.000	0.000	0.000
105	2017/10/10 10:50:10	0.000	0.000	0.000
106	2017/10/10 10:51:10	0.000	0.000	0.000
107	2017/10/10 10:52:10	0.000	0.000	0.000
108	2017/10/10 10:53:10	0.000	0.000	0.000
109	2017/10/10 10:54:10	0.000	0.000	0.000
110	2017/10/10 10:55:10	0.000	0.000	0.000
111	2017/10/10 10:56:10	0.000	0.000	0.000
112	2017/10/10 10:57:10	0.000	0.000	0.000
113	2017/10/10 10:58:10	0.000	0.000	0.000
114	2017/10/10 10:59:10	0.000	0.018	0.018
115	2017/10/10 11:00:10	0.001	0.024	0.000
116	2017/10/10 11:01:10	0.000	0.000	0.000
117	2017/10/10 11:02:10	0.000	0.000	0.000
118	2017/10/10 11:03:10	0.000	0.000	0.000
119	2017/10/10 11:04:10	0.000	0.000	0.000
120	2017/10/10 11:05:10	0.000	0.000	0.000
121	2017/10/10 11:06:10	0.000	0.000	0.000
122	2017/10/10 11:07:10	0.000	0.000	0.000
123	2017/10/10 11:08:10	0.000	0.000	0.000
124	2017/10/10 11:09:10	0.000	0.000	0.000
125	2017/10/10 11:10:10	0.000	0.000	0.000
126	2017/10/10 11:11:10	0.000	0.000	0.000
127	2017/10/10 11:12:10	0.000	0.000	0.000
128	2017/10/10 11:13:10	0.000	0.000	0.000
129	2017/10/10 11:14:10	0.000	0.000	0.000
130	2017/10/10 11:15:10	0.000	0.000	0.000
131	2017/10/10 11:16:10	0.000	0.000	0.000
132	2017/10/10 11:17:10	0.000	0.000	0.000
133	2017/10/10 11:18:10	0.002	0.025	0.004
134	2017/10/10 11:19:10	0.009	0.092	0.092
135	2017/10/10 11:20:10	0.019	0.102	0.000
136	2017/10/10 11:21:10	0.000	0.000	0.000
137	2017/10/10 11:22:10	0.000	0.000	0.000
138	2017/10/10 11:23:10	0.000	0.000	0.000
139	2017/10/10 11:24:10	0.000	0.000	0.000
140	2017/10/10 11:25:10	0.000	0.004	0.004
141	2017/10/10 11:26:10	0.000	0.004	0.000
142	2017/10/10 11:27:10	0.000	0.000	0.000
143	2017/10/10 11:28:10	0.000	0.000	0.000
144	2017/10/10 11:29:10	0.000	0.000	0.000
145	2017/10/10 11:30:10	0.000	0.000	0.000
146	2017/10/10 11:31:10	0.000	0.000	0.000
147	2017/10/10 11:32:10	0.000	0.000	0.000
148	2017/10/10 11:33:10	0.000	0.003	0.000

149	2017/10/10 11:34:10	0.000	0.003	0.000
150	2017/10/10 11:35:10	0.001	0.013	0.009
151	2017/10/10 11:36:10	0.020	0.037	0.023
152	2017/10/10 11:37:10	0.003	0.021	0.006
153	2017/10/10 11:38:10	0.002	0.010	0.003
154	2017/10/10 11:39:10	0.000	0.007	0.000
155	2017/10/10 11:40:10	0.000	0.000	0.000
156	2017/10/10 11:41:10	0.000	0.000	0.000
157	2017/10/10 11:42:10	0.000	0.001	0.000
158	2017/10/10 11:43:10	0.001	0.004	0.003
159	2017/10/10 11:44:10	0.004	0.012	0.000
160	2017/10/10 11:45:10	0.000	0.003	0.003
161	2017/10/10 11:46:10	0.001	0.013	0.000
162	2017/10/10 11:47:10	0.000	0.000	0.000
163	2017/10/10 11:48:10	0.002	0.014	0.000
164	2017/10/10 11:49:10	0.000	0.001	0.000
165	2017/10/10 11:50:10	0.000	0.012	0.000
166	2017/10/10 11:51:10	0.000	0.000	0.000
167	2017/10/10 11:52:10	0.000	0.000	0.000
168	2017/10/10 11:53:10	0.000	0.000	0.000
169	2017/10/10 11:54:10	0.000	0.000	0.000
170	2017/10/10 11:55:10	0.000	0.000	0.000
171	2017/10/10 11:56:10	0.000	0.000	0.000
172	2017/10/10 11:57:10	0.000	0.000	0.000
173	2017/10/10 11:58:10	0.000	0.000	0.000
174	2017/10/10 11:59:10	0.000	0.000	0.000
175	2017/10/10 12:00:10	0.000	0.002	0.000
176	2017/10/10 12:01:10	0.001	0.013	0.001
177	2017/10/10 12:02:10	0.006	0.022	0.006
178	2017/10/10 12:03:10	0.003	0.012	0.000
179	2017/10/10 12:04:10	0.005	0.016	0.011
180	2017/10/10 12:05:10	0.004	0.015	0.001
181	2017/10/10 12:06:10	0.005	0.019	0.002
182	2017/10/10 12:07:10	0.004	0.010	0.004
183	2017/10/10 12:08:10	0.012	0.064	0.064
184	2017/10/10 12:09:10	0.034	0.130	0.000
185	2017/10/10 12:10:10	0.001	0.005	0.001
186	2017/10/10 12:11:10	0.009	0.016	0.015
187	2017/10/10 12:12:10	0.021	0.042	0.012
188	2017/10/10 12:13:10	0.010	0.018	0.008
189	2017/10/10 12:14:10	0.015	0.074	0.003
190	2017/10/10 12:15:10	0.001	0.005	0.001
191	2017/10/10 12:16:10	0.001	0.006	0.000
192	2017/10/10 12:17:10	0.000	0.004	0.002
193	2017/10/10 12:18:10	0.001	0.004	0.001
194	2017/10/10 12:19:10	0.002	0.008	0.008
195	2017/10/10 12:20:10	0.007	0.013	0.007
196	2017/10/10 12:21:10	0.005	0.010	0.001
197	2017/10/10 12:22:10	0.003	0.009	0.006
198	2017/10/10 12:23:10	0.007	0.015	0.007
199	2017/10/10 12:24:10	0.013	0.021	0.020
200	2017/10/10 12:25:10	0.016	0.026	0.003
201	2017/10/10 12:26:10	0.015	0.024	0.020
202	2017/10/10 12:27:10	0.018	0.025	0.016
203	2017/10/10 12:28:10	0.015	0.022	0.015
204	2017/10/10 12:29:10	0.022	0.032	0.028
205	2017/10/10 12:30:10	0.029	0.036	0.033
206	2017/10/10 12:31:10	0.033	0.040	0.040
207	2017/10/10 12:32:10	0.039	0.053	0.053
208	2017/10/10 12:33:10	0.029	0.056	0.019
209	2017/10/10 12:34:10	0.025	0.031	0.021
210	2017/10/10 12:35:10	0.029	0.036	0.033
211	2017/10/10 12:36:10	0.028	0.032	0.028

212	2017/10/10 12:37:10	0.025	0.029	0.021
213	2017/10/10 12:38:10	0.024	0.029	0.024
214	2017/10/10 12:39:10	0.030	0.038	0.030
215	2017/10/10 12:40:10	0.026	0.035	0.016
216	2017/10/10 12:41:10	0.016	0.023	0.012
217	2017/10/10 12:42:10	0.013	0.038	0.002
218	2017/10/10 12:43:10	0.000	0.003	0.000
219	2017/10/10 12:44:10	0.000	0.001	0.000
220	2017/10/10 12:45:10	0.000	0.000	0.000
221	2017/10/10 12:46:10	0.000	0.000	0.000
222	2017/10/10 12:47:10	0.000	0.000	0.000
223	2017/10/10 12:48:10	0.000	0.000	0.000
224	2017/10/10 12:49:10	0.000	0.000	0.000
225	2017/10/10 12:50:10	0.000	0.000	0.000
226	2017/10/10 12:51:10	0.000	0.000	0.000
227	2017/10/10 12:52:10	0.000	0.000	0.000
228	2017/10/10 12:53:10	0.000	0.000	0.000
229	2017/10/10 12:54:10	0.000	0.003	0.000
230	2017/10/10 12:55:10	0.000	0.000	0.000
231	2017/10/10 12:56:10	0.000	0.000	0.000
232	2017/10/10 12:57:10	0.000	0.000	0.000
233	2017/10/10 12:58:10	0.000	0.000	0.000
234	2017/10/10 12:59:10	0.000	0.000	0.000
235	2017/10/10 13:00:10	0.000	0.000	0.000
236	2017/10/10 13:01:10	0.000	0.000	0.000
237	2017/10/10 13:02:10	0.000	0.000	0.000
238	2017/10/10 13:03:10	0.000	0.000	0.000
239	2017/10/10 13:04:10	0.000	0.000	0.000
240	2017/10/10 13:05:10	0.000	0.000	0.000
241	2017/10/10 13:06:10	0.000	0.000	0.000
242	2017/10/10 13:07:10	0.000	0.000	0.000
243	2017/10/10 13:08:10	0.000	0.000	0.000
244	2017/10/10 13:09:10	0.000	0.000	0.000
245	2017/10/10 13:10:10	0.000	0.000	0.000
246	2017/10/10 13:11:10	0.000	0.000	0.000
247	2017/10/10 13:12:10	0.000	0.000	0.000
248	2017/10/10 13:13:10	0.000	0.000	0.000
249	2017/10/10 13:14:10	0.000	0.000	0.000
250	2017/10/10 13:15:10	0.000	0.000	0.000
251	2017/10/10 13:16:10	0.000	0.000	0.000
252	2017/10/10 13:17:10	0.000	0.000	0.000
253	2017/10/10 13:18:10	0.000	0.000	0.000
254	2017/10/10 13:19:10	0.000	0.000	0.000
255	2017/10/10 13:20:10	0.000	0.000	0.000
256	2017/10/10 13:21:10	0.001	0.037	0.037
257	2017/10/10 13:22:10	0.005	0.048	0.000
258	2017/10/10 13:23:10	0.003	0.032	0.000
259	2017/10/10 13:24:10	0.000	0.000	0.000
260	2017/10/10 13:25:10	0.000	0.000	0.000
261	2017/10/10 13:26:10	0.000	0.000	0.000
262	2017/10/10 13:27:10	0.000	0.000	0.000
263	2017/10/10 13:28:10	0.000	0.000	0.000
264	2017/10/10 13:29:10	0.000	0.000	0.000
265	2017/10/10 13:30:10	0.000	0.000	0.000
266	2017/10/10 13:31:10	0.000	0.000	0.000
267	2017/10/10 13:32:10	0.000	0.000	0.000
268	2017/10/10 13:33:10	0.000	0.000	0.000
269	2017/10/10 13:34:10	0.000	0.000	0.000
270	2017/10/10 13:35:10	0.000	0.000	0.000
271	2017/10/10 13:36:10	0.000	0.000	0.000
272	2017/10/10 13:37:10	0.000	0.000	0.000
273	2017/10/10 13:38:10	0.000	0.000	0.000
274	2017/10/10 13:39:10	0.000	0.000	0.000

275	2017/10/10 13:40:10	0.000	0.000	0.000
276	2017/10/10 13:41:10	0.000	0.000	0.000
277	2017/10/10 13:42:10	0.000	0.000	0.000
278	2017/10/10 13:43:10	0.000	0.000	0.000
279	2017/10/10 13:44:10	0.000	0.000	0.000
280	2017/10/10 13:45:10	0.000	0.000	0.000
281	2017/10/10 13:46:10	0.000	0.000	0.000
282	2017/10/10 13:47:10	0.000	0.000	0.000
283	2017/10/10 13:48:10	0.000	0.000	0.000
284	2017/10/10 13:49:10	0.000	0.000	0.000
285	2017/10/10 13:50:10	0.000	0.002	0.000
286	2017/10/10 13:51:10	0.000	0.000	0.000
287	2017/10/10 13:52:10	0.000	0.000	0.000
288	2017/10/10 13:53:10	0.000	0.000	0.000
289	2017/10/10 13:54:10	0.000	0.000	0.000
290	2017/10/10 13:55:10	0.000	0.000	0.000
291	2017/10/10 13:56:10	0.000	0.000	0.000
292	2017/10/10 13:57:10	0.000	0.000	0.000
293	2017/10/10 13:58:10	0.000	0.000	0.000
294	2017/10/10 13:59:10	0.000	0.000	0.000
295	2017/10/10 14:00:10	0.000	0.000	0.000
296	2017/10/10 14:01:10	0.005	0.040	0.000
297	2017/10/10 14:02:10	0.000	0.000	0.000
298	2017/10/10 14:03:10	0.000	0.000	0.000
299	2017/10/10 14:04:10	0.000	0.000	0.000
300	2017/10/10 14:05:10	0.000	0.000	0.000
301	2017/10/10 14:06:10	0.000	0.000	0.000
302	2017/10/10 14:07:10	0.000	0.000	0.000
303	2017/10/10 14:08:10	0.000	0.000	0.000
304	2017/10/10 14:09:10	0.000	0.000	0.000
305	2017/10/10 14:10:10	0.000	0.000	0.000
306	2017/10/10 14:11:10	0.000	0.000	0.000
307	2017/10/10 14:12:10	0.000	0.000	0.000
308	2017/10/10 14:13:10	0.000	0.000	0.000
309	2017/10/10 14:14:10	0.000	0.000	0.000
310	2017/10/10 14:15:10	0.000	0.000	0.000
311	2017/10/10 14:16:10	0.000	0.000	0.000
312	2017/10/10 14:17:10	0.000	0.000	0.000
313	2017/10/10 14:18:10	0.000	0.000	0.000
314	2017/10/10 14:19:10	0.000	0.000	0.000
315	2017/10/10 14:20:10	0.000	0.000	0.000
316	2017/10/10 14:21:10	0.000	0.000	0.000
317	2017/10/10 14:22:10	0.000	0.000	0.000
318	2017/10/10 14:23:10	0.000	0.000	0.000
319	2017/10/10 14:24:10	0.000	0.000	0.000
320	2017/10/10 14:25:10	0.000	0.000	0.000
321	2017/10/10 14:26:10	0.000	0.000	0.000
322	2017/10/10 14:27:10	0.000	0.000	0.000
323	2017/10/10 14:28:10	0.000	0.000	0.000
324	2017/10/10 14:29:10	0.000	0.000	0.000
325	2017/10/10 14:30:10	0.010	0.082	0.000
326	2017/10/10 14:31:10	0.000	0.002	0.002
327	2017/10/10 14:32:10	0.013	0.045	0.000
328	2017/10/10 14:33:10	0.000	0.000	0.000
329	2017/10/10 14:34:10	0.000	0.000	0.000
330	2017/10/10 14:35:10	0.000	0.001	0.000
331	2017/10/10 14:36:10	0.000	0.000	0.000
332	2017/10/10 14:37:10	0.000	0.000	0.000
333	2017/10/10 14:38:10	0.043	0.175	0.088
334	2017/10/10 14:39:10	0.006	0.075	0.000
335	2017/10/10 14:40:10	0.002	0.021	0.014
336	2017/10/10 14:41:10	0.001	0.016	0.000
337	2017/10/10 14:42:10	0.003	0.018	0.004

338	2017/10/10 14:43:10	0.001	0.020	0.000
339	2017/10/10 14:44:10	0.000	0.000	0.000
340	2017/10/10 14:45:10	0.000	0.000	0.000
341	2017/10/10 14:46:10	0.008	0.042	0.041
342	2017/10/10 14:47:10	0.014	0.050	0.022
343	2017/10/10 14:48:10	0.004	0.027	0.000
344	2017/10/10 14:49:10	0.002	0.021	0.011
345	2017/10/10 14:50:10	0.017	0.065	0.017
346	2017/10/10 14:51:10	0.007	0.034	0.005
347	2017/10/10 14:52:10	0.003	0.010	0.000
348	2017/10/10 14:53:10	0.000	0.001	0.000
349	2017/10/10 14:54:10	0.000	0.000	0.000
350	2017/10/10 14:55:10	0.000	0.002	0.002
351	2017/10/10 14:56:10	0.013	0.045	0.000
352	2017/10/10 14:57:10	0.000	0.000	0.000
353	2017/10/10 14:58:10	0.001	0.006	0.000
354	2017/10/10 14:59:10	0.000	0.002	0.000
355	2017/10/10 15:00:10	0.000	0.000	0.000
356	2017/10/10 15:01:10	0.004	0.040	0.000
357	2017/10/10 15:02:10	0.002	0.035	0.000
358	2017/10/10 15:03:10	0.002	0.012	0.000
359	2017/10/10 15:04:10	0.000	0.005	0.000
360	2017/10/10 15:05:10	0.002	0.014	0.000
361	2017/10/10 15:06:10	0.000	0.006	0.000
362	2017/10/10 15:07:10	0.000	0.000	0.000
363	2017/10/10 15:08:10	0.000	0.000	0.000
364	2017/10/10 15:09:10	0.000	0.004	0.000
365	2017/10/10 15:10:10	0.000	0.001	0.000
366	2017/10/10 15:11:10	0.000	0.001	0.000
367	2017/10/10 15:12:10	0.000	0.000	0.000
368	2017/10/10 15:13:10	0.000	0.008	0.008
369	2017/10/10 15:14:10	0.007	0.020	0.000
370	2017/10/10 15:15:10	0.000	0.001	0.000
371	2017/10/10 15:16:10	0.003	0.020	0.001
372	2017/10/10 15:17:10	0.000	0.000	0.000
373	2017/10/10 15:18:10	0.002	0.010	0.000
374	2017/10/10 15:19:10	0.006	0.025	0.013
375	2017/10/10 15:20:10	0.020	0.102	0.102
376	2017/10/10 15:21:10	0.018	0.075	0.015
377	2017/10/10 15:22:10	0.018	0.025	0.017
378	2017/10/10 15:23:10	0.013	0.020	0.009
379	2017/10/10 15:24:10	0.079	0.191	0.051
380	2017/10/10 15:25:10	0.049	0.110	0.025
381	2017/10/10 15:26:10	0.055	0.162	0.018
382	2017/10/10 15:27:10	0.021	0.034	0.015
383	2017/10/10 15:28:10	0.017	0.033	0.016
384	2017/10/10 15:29:10	0.014	0.023	0.014
385	2017/10/10 15:30:10	0.005	0.011	0.000
386	2017/10/10 15:31:10	0.002	0.011	0.003
387	2017/10/10 15:32:10	0.004	0.014	0.001
388	2017/10/10 15:33:10	0.010	0.023	0.012
389	2017/10/10 15:34:10	0.031	0.113	0.037
390	2017/10/10 15:35:10	0.019	0.047	0.031
391	2017/10/10 15:36:10	0.021	0.034	0.018
392	2017/10/10 15:37:10	0.012	0.021	0.021
393	2017/10/10 15:38:10	0.014	0.023	0.014
394	2017/10/10 15:39:10	0.035	0.064	0.049
395	2017/10/10 15:40:10	0.036	0.062	0.016
396	2017/10/10 15:41:10	0.023	0.049	0.010
397	2017/10/10 15:42:10	0.012	0.021	0.009
398	2017/10/10 15:43:10	0.027	0.056	0.010
399	2017/10/10 15:44:10	0.018	0.036	0.008
400	2017/10/10 15:45:10	0.001	0.014	0.000

401	2017/10/10 15:46:10	0.021	0.086	0.000
402	2017/10/10 15:47:10	0.002	0.021	0.000
403	2017/10/10 15:48:10	0.011	0.073	0.000
404	2017/10/10 15:49:10	0.013	0.110	0.032
405	2017/10/10 15:50:10	0.007	0.068	0.001
406	2017/10/10 15:51:10	0.000	0.001	0.000
407	2017/10/10 15:52:10	0.002	0.027	0.000
408	2017/10/10 15:53:10	0.000	0.000	0.000
409	2017/10/10 15:54:10	0.008	0.071	0.001
410	2017/10/10 15:55:10	0.003	0.037	0.036
411	2017/10/10 15:56:10	0.002	0.050	0.000
412	2017/10/10 15:57:10	0.001	0.012	0.012
413	2017/10/10 15:58:10	0.002	0.013	0.000
414	2017/10/10 15:59:10	0.020	0.216	0.000
415	2017/10/10 16:00:10	0.014	0.127	0.004
416	2017/10/10 16:01:10	0.000	0.000	0.000
417	2017/10/10 16:02:10	0.009	0.055	0.000
418	2017/10/10 16:03:10	0.001	0.017	0.000
419	2017/10/10 16:04:10	0.018	0.178	0.000
420	2017/10/10 16:05:10	0.004	0.032	0.000
421	2017/10/10 16:06:10	0.016	0.067	0.000
422	2017/10/10 16:07:10	0.006	0.044	0.000
423	2017/10/10 16:08:10	0.031	0.121	0.008
424	2017/10/10 16:09:10	0.002	0.024	0.000
425	2017/10/10 16:10:10	0.007	0.144	0.144
426	2017/10/10 16:11:10	0.006	0.127	0.000
427	2017/10/10 16:12:10	0.038	0.193	0.000
428	2017/10/10 16:13:10	0.001	0.022	0.000
429	2017/10/10 16:14:10	0.000	0.000	0.000
430	2017/10/10 16:15:10	0.012	0.087	0.001
431	2017/10/10 16:16:10	0.000	0.001	0.000
432	2017/10/10 16:17:10	0.000	0.000	0.000
433	2017/10/10 16:18:10	0.000	0.000	0.000
434	2017/10/10 16:19:10	0.000	0.000	0.000
435	2017/10/10 16:20:10	0.000	0.000	0.000
436	2017/10/10 16:21:10	0.000	0.000	0.000
Peak		25.148	133.968	115.296
Min		0.000	0.000	0.000
Average		0.090	0.585	0.269

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TWA/STEL

Index	Date/Time	VOC(ppm)(TWA)	VOC(ppm)(STEL)
001	2017/10/10 09:06:10	0.000	---
002	2017/10/10 09:07:10	0.000	---
003	2017/10/10 09:08:10	0.000	---
004	2017/10/10 09:09:10	0.000	---
005	2017/10/10 09:10:10	0.000	---
006	2017/10/10 09:11:10	0.000	---
007	2017/10/10 09:12:10	0.000	---
008	2017/10/10 09:13:10	0.000	---
009	2017/10/10 09:14:10	0.000	---
010	2017/10/10 09:15:10	0.000	---
011	2017/10/10 09:16:10	0.000	---
012	2017/10/10 09:17:10	0.000	---
013	2017/10/10 09:18:10	0.000	---
014	2017/10/10 09:19:10	0.000	---
015	2017/10/10 09:20:10	0.000	0.000
016	2017/10/10 09:21:10	0.000	0.000
017	2017/10/10 09:22:10	0.000	0.000
018	2017/10/10 09:23:10	0.000	0.000
019	2017/10/10 09:24:10	0.000	0.000
020	2017/10/10 09:25:10	0.000	0.000

021	2017/10/10	09:26:10	0.000	0.000
022	2017/10/10	09:27:10	0.000	0.000
023	2017/10/10	09:28:10	0.000	0.000
024	2017/10/10	09:29:10	0.000	0.000
025	2017/10/10	09:30:10	0.000	0.000
026	2017/10/10	09:31:10	0.000	0.000
027	2017/10/10	09:32:10	0.000	0.000
028	2017/10/10	09:33:10	0.000	0.000
029	2017/10/10	09:34:10	0.000	0.000
030	2017/10/10	09:35:10	0.000	0.000
031	2017/10/10	09:36:10	0.000	0.000
032	2017/10/10	09:37:10	0.000	0.000
033	2017/10/10	09:38:10	0.000	0.000
034	2017/10/10	09:39:10	0.000	0.000
035	2017/10/10	09:40:10	0.000	0.000
036	2017/10/10	09:41:10	0.000	0.000
037	2017/10/10	09:42:10	0.000	0.000
038	2017/10/10	09:43:10	0.000	0.000
039	2017/10/10	09:44:10	0.000	0.000
040	2017/10/10	09:45:10	0.000	0.000
041	2017/10/10	09:46:10	0.000	0.000
042	2017/10/10	09:47:10	0.000	0.000
043	2017/10/10	09:48:10	0.000	0.000
044	2017/10/10	09:49:10	0.000	0.000
045	2017/10/10	09:50:10	0.000	0.000
046	2017/10/10	09:51:10	0.240	7.686
047	2017/10/10	09:52:10	0.240	7.686
048	2017/10/10	09:53:10	0.240	7.686
049	2017/10/10	09:54:10	0.240	7.686
050	2017/10/10	09:55:10	0.240	7.686
051	2017/10/10	09:56:10	0.240	7.686
052	2017/10/10	09:57:10	0.240	7.686
053	2017/10/10	09:58:10	0.240	7.686
054	2017/10/10	09:59:10	0.240	7.686
055	2017/10/10	10:00:10	0.240	7.686
056	2017/10/10	10:01:10	0.240	7.686
057	2017/10/10	10:02:10	0.240	7.686
058	2017/10/10	10:03:10	0.240	7.686
059	2017/10/10	10:04:10	0.240	7.686
060	2017/10/10	10:05:10	0.240	7.686
061	2017/10/10	10:06:10	0.240	0.000
062	2017/10/10	10:07:10	0.240	0.000
063	2017/10/10	10:08:10	0.240	0.000
064	2017/10/10	10:09:10	0.240	0.000
065	2017/10/10	10:10:10	0.240	0.000
066	2017/10/10	10:11:10	0.240	0.000
067	2017/10/10	10:12:10	0.240	0.000
068	2017/10/10	10:13:10	0.240	0.000
069	2017/10/10	10:14:10	0.240	0.000
070	2017/10/10	10:15:10	0.240	0.000
071	2017/10/10	10:16:10	0.240	0.000
072	2017/10/10	10:17:10	0.240	0.000
073	2017/10/10	10:18:10	0.240	0.000
074	2017/10/10	10:19:10	0.240	0.000
075	2017/10/10	10:20:10	0.240	0.000
076	2017/10/10	10:21:10	0.240	0.000
077	2017/10/10	10:22:10	0.240	0.000
078	2017/10/10	10:23:10	0.240	0.000
079	2017/10/10	10:24:10	0.240	0.000
080	2017/10/10	10:25:10	0.240	0.000
081	2017/10/10	10:26:10	0.240	0.000
082	2017/10/10	10:27:10	0.240	0.000
083	2017/10/10	10:28:10	0.240	0.000

084	2017/10/10 10:29:10	0.240	0.000
085	2017/10/10 10:30:10	0.240	0.000
086	2017/10/10 10:31:10	0.240	0.000
087	2017/10/10 10:32:10	0.240	0.000
088	2017/10/10 10:33:10	0.240	0.000
089	2017/10/10 10:34:10	0.240	0.000
090	2017/10/10 10:35:10	0.240	0.000
091	2017/10/10 10:36:10	0.240	0.000
092	2017/10/10 10:37:10	0.240	0.000
093	2017/10/10 10:38:10	0.240	0.000
094	2017/10/10 10:39:10	0.240	0.000
095	2017/10/10 10:40:10	0.240	0.000
096	2017/10/10 10:41:10	0.240	0.000
097	2017/10/10 10:42:10	0.240	0.000
098	2017/10/10 10:43:10	0.240	0.000
099	2017/10/10 10:44:10	0.240	0.000
100	2017/10/10 10:45:10	0.240	0.000
101	2017/10/10 10:46:10	0.240	0.000
102	2017/10/10 10:47:10	0.240	0.000
103	2017/10/10 10:48:10	0.240	0.000
104	2017/10/10 10:49:10	0.240	0.000
105	2017/10/10 10:50:10	0.240	0.000
106	2017/10/10 10:51:10	0.240	0.000
107	2017/10/10 10:52:10	0.240	0.000
108	2017/10/10 10:53:10	0.240	0.000
109	2017/10/10 10:54:10	0.240	0.000
110	2017/10/10 10:55:10	0.240	0.000
111	2017/10/10 10:56:10	0.240	0.000
112	2017/10/10 10:57:10	0.240	0.000
113	2017/10/10 10:58:10	0.240	0.000
114	2017/10/10 10:59:10	0.240	0.001
115	2017/10/10 11:00:10	0.240	0.001
116	2017/10/10 11:01:10	0.240	0.001
117	2017/10/10 11:02:10	0.240	0.001
118	2017/10/10 11:03:10	0.240	0.001
119	2017/10/10 11:04:10	0.240	0.001
120	2017/10/10 11:05:10	0.240	0.001
121	2017/10/10 11:06:10	0.240	0.001
122	2017/10/10 11:07:10	0.240	0.001
123	2017/10/10 11:08:10	0.240	0.001
124	2017/10/10 11:09:10	0.240	0.001
125	2017/10/10 11:10:10	0.240	0.001
126	2017/10/10 11:11:10	0.240	0.001
127	2017/10/10 11:12:10	0.240	0.001
128	2017/10/10 11:13:10	0.240	0.001
129	2017/10/10 11:14:10	0.240	0.000
130	2017/10/10 11:15:10	0.240	0.000
131	2017/10/10 11:16:10	0.240	0.000
132	2017/10/10 11:17:10	0.240	0.000
133	2017/10/10 11:18:10	0.240	0.000
134	2017/10/10 11:19:10	0.240	0.006
135	2017/10/10 11:20:10	0.240	0.006
136	2017/10/10 11:21:10	0.240	0.006
137	2017/10/10 11:22:10	0.240	0.006
138	2017/10/10 11:23:10	0.240	0.006
139	2017/10/10 11:24:10	0.240	0.006
140	2017/10/10 11:25:10	0.240	0.007
141	2017/10/10 11:26:10	0.240	0.007
142	2017/10/10 11:27:10	0.240	0.007
143	2017/10/10 11:28:10	0.240	0.007
144	2017/10/10 11:29:10	0.240	0.007
145	2017/10/10 11:30:10	0.240	0.007
146	2017/10/10 11:31:10	0.240	0.007

147	2017/10/10 11:32:10	0.240	0.007
148	2017/10/10 11:33:10	0.240	0.006
149	2017/10/10 11:34:10	0.240	0.000
150	2017/10/10 11:35:10	0.240	0.001
151	2017/10/10 11:36:10	0.241	0.002
152	2017/10/10 11:37:10	0.241	0.003
153	2017/10/10 11:38:10	0.241	0.003
154	2017/10/10 11:39:10	0.241	0.003
155	2017/10/10 11:40:10	0.241	0.003
156	2017/10/10 11:41:10	0.241	0.003
157	2017/10/10 11:42:10	0.241	0.003
158	2017/10/10 11:43:10	0.241	0.003
159	2017/10/10 11:44:10	0.241	0.003
160	2017/10/10 11:45:10	0.241	0.003
161	2017/10/10 11:46:10	0.241	0.003
162	2017/10/10 11:47:10	0.241	0.003
163	2017/10/10 11:48:10	0.241	0.003
164	2017/10/10 11:49:10	0.241	0.003
165	2017/10/10 11:50:10	0.241	0.003
166	2017/10/10 11:51:10	0.241	0.001
167	2017/10/10 11:52:10	0.241	0.001
168	2017/10/10 11:53:10	0.241	0.000
169	2017/10/10 11:54:10	0.241	0.000
170	2017/10/10 11:55:10	0.241	0.000
171	2017/10/10 11:56:10	0.241	0.000
172	2017/10/10 11:57:10	0.241	0.000
173	2017/10/10 11:58:10	0.241	0.000
174	2017/10/10 11:59:10	0.241	0.000
175	2017/10/10 12:00:10	0.241	0.000
176	2017/10/10 12:01:10	0.241	0.000
177	2017/10/10 12:02:10	0.241	0.000
178	2017/10/10 12:03:10	0.241	0.000
179	2017/10/10 12:04:10	0.241	0.001
180	2017/10/10 12:05:10	0.241	0.001
181	2017/10/10 12:06:10	0.241	0.001
182	2017/10/10 12:07:10	0.241	0.002
183	2017/10/10 12:08:10	0.241	0.006
184	2017/10/10 12:09:10	0.241	0.006
185	2017/10/10 12:10:10	0.241	0.006
186	2017/10/10 12:11:10	0.241	0.007
187	2017/10/10 12:12:10	0.241	0.008
188	2017/10/10 12:13:10	0.241	0.008
189	2017/10/10 12:14:10	0.241	0.009
190	2017/10/10 12:15:10	0.241	0.009
191	2017/10/10 12:16:10	0.241	0.009
192	2017/10/10 12:17:10	0.241	0.008
193	2017/10/10 12:18:10	0.241	0.008
194	2017/10/10 12:19:10	0.241	0.008
195	2017/10/10 12:20:10	0.241	0.009
196	2017/10/10 12:21:10	0.241	0.008
197	2017/10/10 12:22:10	0.241	0.009
198	2017/10/10 12:23:10	0.241	0.005
199	2017/10/10 12:24:10	0.241	0.006
200	2017/10/10 12:25:10	0.241	0.006
201	2017/10/10 12:26:10	0.241	0.007
202	2017/10/10 12:27:10	0.241	0.007
203	2017/10/10 12:28:10	0.241	0.007
204	2017/10/10 12:29:10	0.241	0.009
205	2017/10/10 12:30:10	0.241	0.011
206	2017/10/10 12:31:10	0.241	0.014
207	2017/10/10 12:32:10	0.241	0.017
208	2017/10/10 12:33:10	0.241	0.018
209	2017/10/10 12:34:10	0.241	0.019

210	2017/10/10 12:35:10	0.242	0.021
211	2017/10/10 12:36:10	0.242	0.023
212	2017/10/10 12:37:10	0.242	0.024
213	2017/10/10 12:38:10	0.242	0.025
214	2017/10/10 12:39:10	0.242	0.026
215	2017/10/10 12:40:10	0.242	0.026
216	2017/10/10 12:41:10	0.242	0.026
217	2017/10/10 12:42:10	0.242	0.025
218	2017/10/10 12:43:10	0.242	0.024
219	2017/10/10 12:44:10	0.242	0.022
220	2017/10/10 12:45:10	0.242	0.020
221	2017/10/10 12:46:10	0.242	0.017
222	2017/10/10 12:47:10	0.242	0.014
223	2017/10/10 12:48:10	0.242	0.012
224	2017/10/10 12:49:10	0.242	0.011
225	2017/10/10 12:50:10	0.242	0.009
226	2017/10/10 12:51:10	0.242	0.007
227	2017/10/10 12:52:10	0.242	0.006
228	2017/10/10 12:53:10	0.242	0.004
229	2017/10/10 12:54:10	0.242	0.002
230	2017/10/10 12:55:10	0.242	0.001
231	2017/10/10 12:56:10	0.242	0.000
232	2017/10/10 12:57:10	0.242	0.000
233	2017/10/10 12:58:10	0.242	0.000
234	2017/10/10 12:59:10	0.242	0.000
235	2017/10/10 13:00:10	0.242	0.000
236	2017/10/10 13:01:10	0.242	0.000
237	2017/10/10 13:02:10	0.242	0.000
238	2017/10/10 13:03:10	0.242	0.000
239	2017/10/10 13:04:10	0.242	0.000
240	2017/10/10 13:05:10	0.242	0.000
241	2017/10/10 13:06:10	0.242	0.000
242	2017/10/10 13:07:10	0.242	0.000
243	2017/10/10 13:08:10	0.242	0.000
244	2017/10/10 13:09:10	0.242	0.000
245	2017/10/10 13:10:10	0.242	0.000
246	2017/10/10 13:11:10	0.242	0.000
247	2017/10/10 13:12:10	0.242	0.000
248	2017/10/10 13:13:10	0.242	0.000
249	2017/10/10 13:14:10	0.242	0.000
250	2017/10/10 13:15:10	0.242	0.000
251	2017/10/10 13:16:10	0.242	0.000
252	2017/10/10 13:17:10	0.242	0.000
253	2017/10/10 13:18:10	0.242	0.000
254	2017/10/10 13:19:10	0.242	0.000
255	2017/10/10 13:20:10	0.242	0.000
256	2017/10/10 13:21:10	0.242	0.002
257	2017/10/10 13:22:10	0.242	0.002
258	2017/10/10 13:23:10	0.242	0.002
259	2017/10/10 13:24:10	0.242	0.002
260	2017/10/10 13:25:10	0.242	0.002
261	2017/10/10 13:26:10	0.242	0.002
262	2017/10/10 13:27:10	0.242	0.002
263	2017/10/10 13:28:10	0.242	0.002
264	2017/10/10 13:29:10	0.242	0.002
265	2017/10/10 13:30:10	0.242	0.002
266	2017/10/10 13:31:10	0.242	0.002
267	2017/10/10 13:32:10	0.242	0.002
268	2017/10/10 13:33:10	0.242	0.002
269	2017/10/10 13:34:10	0.242	0.002
270	2017/10/10 13:35:10	0.242	0.002
271	2017/10/10 13:36:10	0.242	0.000
272	2017/10/10 13:37:10	0.242	0.000

273	2017/10/10 13:38:10	0.242	0.000
274	2017/10/10 13:39:10	0.242	0.000
275	2017/10/10 13:40:10	0.242	0.000
276	2017/10/10 13:41:10	0.242	0.000
277	2017/10/10 13:42:10	0.242	0.000
278	2017/10/10 13:43:10	0.242	0.000
279	2017/10/10 13:44:10	0.242	0.000
280	2017/10/10 13:45:10	0.242	0.000
281	2017/10/10 13:46:10	0.242	0.000
282	2017/10/10 13:47:10	0.242	0.000
283	2017/10/10 13:48:10	0.242	0.000
284	2017/10/10 13:49:10	0.242	0.000
285	2017/10/10 13:50:10	0.242	0.000
286	2017/10/10 13:51:10	0.242	0.000
287	2017/10/10 13:52:10	0.242	0.000
288	2017/10/10 13:53:10	0.242	0.000
289	2017/10/10 13:54:10	0.242	0.000
290	2017/10/10 13:55:10	0.242	0.000
291	2017/10/10 13:56:10	0.242	0.000
292	2017/10/10 13:57:10	0.242	0.000
293	2017/10/10 13:58:10	0.242	0.000
294	2017/10/10 13:59:10	0.242	0.000
295	2017/10/10 14:00:10	0.242	0.000
296	2017/10/10 14:01:10	0.242	0.000
297	2017/10/10 14:02:10	0.242	0.000
298	2017/10/10 14:03:10	0.242	0.000
299	2017/10/10 14:04:10	0.242	0.000
300	2017/10/10 14:05:10	0.242	0.000
301	2017/10/10 14:06:10	0.242	0.000
302	2017/10/10 14:07:10	0.242	0.000
303	2017/10/10 14:08:10	0.242	0.000
304	2017/10/10 14:09:10	0.242	0.000
305	2017/10/10 14:10:10	0.242	0.000
306	2017/10/10 14:11:10	0.242	0.000
307	2017/10/10 14:12:10	0.242	0.000
308	2017/10/10 14:13:10	0.242	0.000
309	2017/10/10 14:14:10	0.242	0.000
310	2017/10/10 14:15:10	0.242	0.000
311	2017/10/10 14:16:10	0.242	0.000
312	2017/10/10 14:17:10	0.242	0.000
313	2017/10/10 14:18:10	0.242	0.000
314	2017/10/10 14:19:10	0.242	0.000
315	2017/10/10 14:20:10	0.242	0.000
316	2017/10/10 14:21:10	0.242	0.000
317	2017/10/10 14:22:10	0.242	0.000
318	2017/10/10 14:23:10	0.242	0.000
319	2017/10/10 14:24:10	0.242	0.000
320	2017/10/10 14:25:10	0.242	0.000
321	2017/10/10 14:26:10	0.242	0.000
322	2017/10/10 14:27:10	0.242	0.000
323	2017/10/10 14:28:10	0.242	0.000
324	2017/10/10 14:29:10	0.242	0.000
325	2017/10/10 14:30:10	0.242	0.000
326	2017/10/10 14:31:10	0.242	0.000
327	2017/10/10 14:32:10	0.242	0.000
328	2017/10/10 14:33:10	0.242	0.000
329	2017/10/10 14:34:10	0.242	0.000
330	2017/10/10 14:35:10	0.242	0.000
331	2017/10/10 14:36:10	0.242	0.000
332	2017/10/10 14:37:10	0.242	0.000
333	2017/10/10 14:38:10	0.242	0.006
334	2017/10/10 14:39:10	0.242	0.006
335	2017/10/10 14:40:10	0.242	0.007

336	2017/10/10 14:41:10	0.242	0.007
337	2017/10/10 14:42:10	0.242	0.007
338	2017/10/10 14:43:10	0.242	0.007
339	2017/10/10 14:44:10	0.242	0.007
340	2017/10/10 14:45:10	0.242	0.007
341	2017/10/10 14:46:10	0.242	0.010
342	2017/10/10 14:47:10	0.242	0.011
343	2017/10/10 14:48:10	0.242	0.011
344	2017/10/10 14:49:10	0.242	0.012
345	2017/10/10 14:50:10	0.242	0.013
346	2017/10/10 14:51:10	0.242	0.013
347	2017/10/10 14:52:10	0.242	0.013
348	2017/10/10 14:53:10	0.242	0.008
349	2017/10/10 14:54:10	0.242	0.008
350	2017/10/10 14:55:10	0.242	0.007
351	2017/10/10 14:56:10	0.242	0.007
352	2017/10/10 14:57:10	0.242	0.007
353	2017/10/10 14:58:10	0.242	0.007
354	2017/10/10 14:59:10	0.242	0.007
355	2017/10/10 15:00:10	0.242	0.007
356	2017/10/10 15:01:10	0.242	0.004
357	2017/10/10 15:02:10	0.242	0.002
358	2017/10/10 15:03:10	0.242	0.002
359	2017/10/10 15:04:10	0.242	0.002
360	2017/10/10 15:05:10	0.242	0.000
361	2017/10/10 15:06:10	0.242	0.000
362	2017/10/10 15:07:10	0.242	0.000
363	2017/10/10 15:08:10	0.242	0.000
364	2017/10/10 15:09:10	0.242	0.000
365	2017/10/10 15:10:10	0.242	0.000
366	2017/10/10 15:11:10	0.242	0.000
367	2017/10/10 15:12:10	0.242	0.000
368	2017/10/10 15:13:10	0.242	0.001
369	2017/10/10 15:14:10	0.242	0.001
370	2017/10/10 15:15:10	0.242	0.001
371	2017/10/10 15:16:10	0.242	0.001
372	2017/10/10 15:17:10	0.242	0.001
373	2017/10/10 15:18:10	0.242	0.001
374	2017/10/10 15:19:10	0.242	0.001
375	2017/10/10 15:20:10	0.243	0.008
376	2017/10/10 15:21:10	0.243	0.009
377	2017/10/10 15:22:10	0.243	0.010
378	2017/10/10 15:23:10	0.243	0.011
379	2017/10/10 15:24:10	0.243	0.014
380	2017/10/10 15:25:10	0.243	0.016
381	2017/10/10 15:26:10	0.243	0.017
382	2017/10/10 15:27:10	0.243	0.018
383	2017/10/10 15:28:10	0.243	0.019
384	2017/10/10 15:29:10	0.243	0.020
385	2017/10/10 15:30:10	0.243	0.020
386	2017/10/10 15:31:10	0.243	0.020
387	2017/10/10 15:32:10	0.243	0.020
388	2017/10/10 15:33:10	0.243	0.021
389	2017/10/10 15:34:10	0.243	0.022
390	2017/10/10 15:35:10	0.243	0.018
391	2017/10/10 15:36:10	0.243	0.018
392	2017/10/10 15:37:10	0.243	0.018
393	2017/10/10 15:38:10	0.243	0.018
394	2017/10/10 15:39:10	0.243	0.018
395	2017/10/10 15:40:10	0.243	0.018
396	2017/10/10 15:41:10	0.243	0.017
397	2017/10/10 15:42:10	0.243	0.017
398	2017/10/10 15:43:10	0.243	0.016

399	2017/10/10 15:44:10	0.243	0.016
400	2017/10/10 15:45:10	0.243	0.016
401	2017/10/10 15:46:10	0.243	0.016
402	2017/10/10 15:47:10	0.243	0.016
403	2017/10/10 15:48:10	0.243	0.015
404	2017/10/10 15:49:10	0.243	0.015
405	2017/10/10 15:50:10	0.243	0.013
406	2017/10/10 15:51:10	0.243	0.011
407	2017/10/10 15:52:10	0.243	0.010
408	2017/10/10 15:53:10	0.243	0.009
409	2017/10/10 15:54:10	0.243	0.006
410	2017/10/10 15:55:10	0.244	0.007
411	2017/10/10 15:56:10	0.244	0.006
412	2017/10/10 15:57:10	0.244	0.007
413	2017/10/10 15:58:10	0.244	0.006
414	2017/10/10 15:59:10	0.244	0.005
415	2017/10/10 16:00:10	0.244	0.006
416	2017/10/10 16:01:10	0.244	0.006
417	2017/10/10 16:02:10	0.244	0.006
418	2017/10/10 16:03:10	0.244	0.006
419	2017/10/10 16:04:10	0.244	0.004
420	2017/10/10 16:05:10	0.244	0.004
421	2017/10/10 16:06:10	0.244	0.004
422	2017/10/10 16:07:10	0.244	0.004
423	2017/10/10 16:08:10	0.244	0.004
424	2017/10/10 16:09:10	0.244	0.004
425	2017/10/10 16:10:10	0.244	0.011
426	2017/10/10 16:11:10	0.244	0.011
427	2017/10/10 16:12:10	0.244	0.010
428	2017/10/10 16:13:10	0.244	0.010
429	2017/10/10 16:14:10	0.244	0.010
430	2017/10/10 16:15:10	0.244	0.010
431	2017/10/10 16:16:10	0.244	0.010
432	2017/10/10 16:17:10	0.244	0.010
433	2017/10/10 16:18:10	0.244	0.010
434	2017/10/10 16:19:10	0.244	0.010
435	2017/10/10 16:20:10	0.244	0.010
436	2017/10/10 16:21:10	0.244	0.010

Downwind Volatiles
10/10/2017

PRS_EXPORT_FA00518_carrying_TEST1_20171010.txt

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17/10/10 15:42
****
Summary

Unit Name	MiniRAE 3000
Unit SN	592-910676
Unit Firmware Ver	V1.20A

Running Mode	Hygiene Mode
Measure Type	Avg; Max; Real
Datalog Mode	Continuous
Datalog Type	Auto
Diagnostic Mode	No
Stop Reason	Power Down

Site ID	12345678
User ID	12345678

Begin	2017/10/10 15:42:40
End	2017/10/10 16:38:50
Sample Period(s)	60
Number of Records	56

Sensor	VOC(ppm)
Span	100.000
Span H	N/A
Low Alarm	50.000
High Alarm	100.000
Over Alarm	15000.000
STEL Alarm	25.000
TWA Alarm	10.000
Measurement Gas	Isobutylene
Calibration Time	2017/10/06 16:09
Peak	0.052
Min	0.000
Average	0.006

****
Datalog

Index	Date/Time	VOC(ppm)(Avg)	VOC(ppm)(Max)	VOC(ppm)(Real)
001	2017/10/10 15:43:40	0.000	0.000	0.000
002	2017/10/10 15:44:40	0.004	0.035	0.000
003	2017/10/10 15:45:40	0.005	0.018	0.005
004	2017/10/10 15:46:40	0.038	0.076	0.020
005	2017/10/10 15:47:40	0.010	0.044	0.044
006	2017/10/10 15:48:40	0.026	0.042	0.010
007	2017/10/10 15:49:40	0.011	0.018	0.016
008	2017/10/10 15:50:40	0.014	0.024	0.024
009	2017/10/10 15:51:40	0.028	0.051	0.029
010	2017/10/10 15:52:40	0.034	0.053	0.052
011	2017/10/10 15:53:40	0.022	0.050	0.012
012	2017/10/10 15:54:40	0.021	0.032	0.011
013	2017/10/10 15:55:40	0.009	0.021	0.000
014	2017/10/10 15:56:40	0.011	0.034	0.000
015	2017/10/10 15:57:40	0.000	0.000	0.000
016	2017/10/10 15:58:40	0.000	0.006	0.000
017	2017/10/10 15:59:40	0.000	0.000	0.000
018	2017/10/10 16:00:40	0.000	0.000	0.000
019	2017/10/10 16:01:40	0.000	0.000	0.000
020	2017/10/10 16:02:40	0.000	0.000	0.000
021	2017/10/10 16:03:40	0.000	0.000	0.000
022	2017/10/10 16:04:40	0.000	0.000	0.000

023	2017/10/10 16:05:40	0.000	0.000	0.000
024	2017/10/10 16:06:40	0.016	0.112	0.000
025	2017/10/10 16:07:40	0.010	0.081	0.008
026	2017/10/10 16:08:40	0.000	0.007	0.000
027	2017/10/10 16:09:40	0.000	0.003	0.000
028	2017/10/10 16:10:40	0.000	0.001	0.000
029	2017/10/10 16:11:40	0.000	0.000	0.000
030	2017/10/10 16:12:40	0.000	0.000	0.000
031	2017/10/10 16:13:40	0.007	0.052	0.000
032	2017/10/10 16:14:40	0.000	0.005	0.000
033	2017/10/10 16:15:40	0.000	0.000	0.000
034	2017/10/10 16:16:40	0.000	0.002	0.000
035	2017/10/10 16:17:40	0.000	0.001	0.000
036	2017/10/10 16:18:40	0.000	0.000	0.000
037	2017/10/10 16:19:40	0.000	0.005	0.000
038	2017/10/10 16:20:40	0.003	0.026	0.000
039	2017/10/10 16:21:40	0.039	0.103	0.001
040	2017/10/10 16:22:40	0.000	0.004	0.000
041	2017/10/10 16:23:40	0.002	0.008	0.004
042	2017/10/10 16:24:40	0.070	0.233	0.022
043	2017/10/10 16:25:40	0.017	0.068	0.005
044	2017/10/10 16:26:40	0.004	0.008	0.004
045	2017/10/10 16:27:40	0.000	0.004	0.000
046	2017/10/10 16:28:40	0.002	0.017	0.000
047	2017/10/10 16:29:40	0.000	0.003	0.000
048	2017/10/10 16:30:40	0.001	0.006	0.000
049	2017/10/10 16:31:40	0.000	0.006	0.004
050	2017/10/10 16:32:40	0.002	0.008	0.000
051	2017/10/10 16:33:40	0.000	0.000	0.000
052	2017/10/10 16:34:40	0.009	0.021	0.006
053	2017/10/10 16:35:40	0.005	0.007	0.006
054	2017/10/10 16:36:40	0.016	0.044	0.038
055	2017/10/10 16:37:40	0.013	0.031	0.017
056	2017/10/10 16:38:40	0.027	0.224	0.012
Peak	0.070	0.233	0.052	
Min	0.000	0.000	0.000	
Average	0.009	0.028	0.006	

****

TWA/STEL

Index	Date/Time	VOC(ppm)(TWA)	VOC(ppm)(STEL)
001	2017/10/10 15:43:40	0.000	---
002	2017/10/10 15:44:40	0.000	---
003	2017/10/10 15:45:40	0.000	---
004	2017/10/10 15:46:40	0.000	---
005	2017/10/10 15:47:40	0.000	---
006	2017/10/10 15:48:40	0.000	---
007	2017/10/10 15:49:40	0.000	---
008	2017/10/10 15:50:40	0.000	---
009	2017/10/10 15:51:40	0.000	---
010	2017/10/10 15:52:40	0.000	---
011	2017/10/10 15:53:40	0.000	---
012	2017/10/10 15:54:40	0.000	---
013	2017/10/10 15:55:40	0.000	---
014	2017/10/10 15:56:40	0.000	---
015	2017/10/10 15:57:40	0.000	0.015
016	2017/10/10 15:58:40	0.000	0.015
017	2017/10/10 15:59:40	0.000	0.015
018	2017/10/10 16:00:40	0.000	0.015
019	2017/10/10 16:01:40	0.000	0.013
020	2017/10/10 16:02:40	0.000	0.010
021	2017/10/10 16:03:40	0.000	0.010
022	2017/10/10 16:04:40	0.000	0.009

023	2017/10/10 16:05:40	0.000	0.007
024	2017/10/10 16:06:40	0.000	0.005
025	2017/10/10 16:07:40	0.000	0.002
026	2017/10/10 16:08:40	0.000	0.001
027	2017/10/10 16:09:40	0.000	0.001
028	2017/10/10 16:10:40	0.000	0.001
029	2017/10/10 16:11:40	0.000	0.001
030	2017/10/10 16:12:40	0.000	0.001
031	2017/10/10 16:13:40	0.000	0.001
032	2017/10/10 16:14:40	0.000	0.001
033	2017/10/10 16:15:40	0.000	0.001
034	2017/10/10 16:16:40	0.000	0.001
035	2017/10/10 16:17:40	0.000	0.001
036	2017/10/10 16:18:40	0.000	0.001
037	2017/10/10 16:19:40	0.000	0.001
038	2017/10/10 16:20:40	0.000	0.001
039	2017/10/10 16:21:40	0.000	0.001
040	2017/10/10 16:22:40	0.000	0.000
041	2017/10/10 16:23:40	0.000	0.000
042	2017/10/10 16:24:40	0.001	0.002
043	2017/10/10 16:25:40	0.001	0.002
044	2017/10/10 16:26:40	0.001	0.002
045	2017/10/10 16:27:40	0.001	0.002
046	2017/10/10 16:28:40	0.001	0.002
047	2017/10/10 16:29:40	0.001	0.002
048	2017/10/10 16:30:40	0.001	0.002
049	2017/10/10 16:31:40	0.001	0.003
050	2017/10/10 16:32:40	0.001	0.003
051	2017/10/10 16:33:40	0.001	0.003
052	2017/10/10 16:34:40	0.001	0.003
053	2017/10/10 16:35:40	0.001	0.003
054	2017/10/10 16:36:40	0.001	0.006
055	2017/10/10 16:37:40	0.001	0.007
056	2017/10/10 16:38:40	0.001	0.008

Upwind Volatiles
11/20/2017

```
PRS_EXPORT_20171120_FA00570_upwind.txt
============================================================
17/11/20 09:33
************************************************************
Summary
------------------------------------------------------------
Unit Name              MiniRAE 3000
Unit SN                592-909023
Unit Firmware Ver      V1.10C
------------------------------------------------------------
Running Mode           Hygiene Mode
Measure Type           Avg; Max; Real
Datalog Mode           Continuous
Datalog Type           Auto
Diagnostic Mode        No
Stop Reason            Power Down
------------------------------------------------------------
Site ID                12345678
User ID                12345678
------------------------------------------------------------
Begin                  2017/11/20 09:33:29
End                    2017/11/20 09:35:27
Sample Period(s)       60
Number of Records      1
------------------------------------------------------------
Sensor                 VOC(ppm)
Span                   100.000
Span H                 N/A
Low Alarm              50.000
High Alarm             100.000
Over Alarm             15000.000
STEL Alarm             25.000
TWA Alarm              10.000
Measurement Gas        Isobutylene
Calibration Time       2017/11/20 09:33
Peak                   0.260
Min                    0.260
Average                0.260

************************************************************
Datalog
Index   Date/Time       VOC(ppm)(Avg)   VOC(ppm)(Max)   VOC(ppm)(Real)
001     2017/11/20 09:34:29     0.529   1.618   0.260
Peak            0.529   1.618   0.260
Min             0.529   1.618   0.260
Average         0.529   1.618   0.260

************************************************************
TWA/STEL
Index   Date/Time       VOC(ppm)(TWA)   VOC(ppm)(STEL)
001     2017/11/20 09:34:29     0.001   ---

===================================================
17/11/20 10:29
************************************************************
Summary
------------------------------------------------------------
Unit Name              MiniRAE 3000
Unit SN                592-909023
Unit Firmware Ver      V1.10C
------------------------------------------------------------
Running Mode           Hygiene Mode
Measure Type           Avg; Max; Real
Datalog Mode           Continuous
```

Datalog Type	Auto
Diagnostic Mode	No
Stop Reason	Pause in Menu Mode

Site ID	12345678
User ID	12345678

Begin	2017/11/20 10:29:36
End	2017/11/20 10:46:25
Sample Period(s)	60
Number of Records	16

Sensor	VOC(ppm)
Span	100.000
Span H	N/A
Low Alarm	50.000
High Alarm	100.000
Over Alarm	15000.000
STEL Alarm	25.000
TWA Alarm	10.000
Measurement Gas	Isobutylene
Calibration Time	2017/11/20 09:33
Peak	0.010
Min	0.000
Average	0.001

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Datalog

Index	Date/Time	VOC(ppm)(Avg)	VOC(ppm)(Max)	VOC(ppm)(Real)
001	2017/11/20 10:30:36	0.019	0.114	0.000
002	2017/11/20 10:31:36	0.000	0.000	0.000
003	2017/11/20 10:32:36	0.000	0.000	0.000
004	2017/11/20 10:33:36	0.000	0.000	0.000
005	2017/11/20 10:34:36	0.000	0.000	0.000
006	2017/11/20 10:35:36	0.000	0.000	0.000
007	2017/11/20 10:36:36	0.000	0.000	0.000
008	2017/11/20 10:37:36	0.000	0.000	0.000
009	2017/11/20 10:38:36	0.000	0.000	0.000
010	2017/11/20 10:39:36	0.000	0.000	0.000
011	2017/11/20 10:40:36	0.000	0.000	0.000
012	2017/11/20 10:41:36	0.000	0.000	0.000
013	2017/11/20 10:42:36	0.000	0.000	0.000
014	2017/11/20 10:43:36	0.000	0.010	0.010
015	2017/11/20 10:44:36	0.000	0.008	0.000
016	2017/11/20 10:45:36	0.000	0.000	0.000
Peak	0.019	0.114	0.010	
Min	0.000	0.000	0.000	
Average	0.001	0.008	0.001	

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TWA/STEL

Index	Date/Time	VOC(ppm)(TWA)	VOC(ppm)(STEL)
001	2017/11/20 10:30:36	0.000	---
002	2017/11/20 10:31:36	0.000	---
003	2017/11/20 10:32:36	0.000	---
004	2017/11/20 10:33:36	0.000	---
005	2017/11/20 10:34:36	0.000	---
006	2017/11/20 10:35:36	0.000	---
007	2017/11/20 10:36:36	0.000	---
008	2017/11/20 10:37:36	0.000	---
009	2017/11/20 10:38:36	0.000	---
010	2017/11/20 10:39:36	0.000	---
011	2017/11/20 10:40:36	0.000	---

012	2017/11/20 10:41:36	0.000	---
013	2017/11/20 10:42:36	0.000	---
014	2017/11/20 10:43:36	0.000	---
015	2017/11/20 10:44:36	0.000	0.001
016	2017/11/20 10:45:36	0.000	0.001

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17/11/20 10:46
****
Summary

Unit Name	MiniRAE 3000
Unit SN	592-909023
Unit Firmware Ver	V1.10C
Running Mode	Hygiene Mode
Measure Type	Avg; Max; Real
Datalog Mode	Continuous
Datalog Type	Auto
Diagnostic Mode	No
Stop Reason	Power Down
Site ID	12345678
User ID	12345678
Begin	2017/11/20 10:46:48
End	2017/11/20 14:55:55
Sample Period(s)	60
Number of Records	249
Sensor	VOC(ppm)
Span	100.000
Span H	N/A
Low Alarm	50.000
High Alarm	100.000
Over Alarm	15000.000
STEL Alarm	25.000
TWA Alarm	10.000
Measurement Gas	Isobutylene
Calibration Time	2017/11/20 09:33
Peak	0.317
Min	0.000
Average	0.088

****
Datalog

Index	Date/Time	VOC(ppm)(Avg)	VOC(ppm)(Max)	VOC(ppm)(Real)
001	2017/11/20 10:47:48	0.000	0.000	0.000
002	2017/11/20 10:48:48	0.001	0.016	0.003
003	2017/11/20 10:49:48	0.000	0.005	0.000
004	2017/11/20 10:50:48	0.006	0.026	0.000
005	2017/11/20 10:51:48	0.010	0.027	0.012
006	2017/11/20 10:52:48	0.010	0.035	0.000
007	2017/11/20 10:53:48	0.000	0.000	0.000
008	2017/11/20 10:54:48	0.003	0.007	0.005
009	2017/11/20 10:55:48	0.004	0.014	0.003
010	2017/11/20 10:56:48	0.007	0.000	0.000
011	2017/11/20 10:57:48	0.000	0.000	0.000
012	2017/11/20 10:58:48	0.001	0.014	0.000
013	2017/11/20 10:59:48	0.000	0.002	0.002
014	2017/11/20 11:00:48	0.001	0.016	0.003
015	2017/11/20 11:01:48	0.000	0.005	0.000
016	2017/11/20 11:02:48	0.006	0.026	0.000

017	2017/11/20	11:03:48	0.010	0.027	0.012
018	2017/11/20	11:04:48	0.010	0.035	0.000
019	2017/11/20	11:05:48	0.000	0.000	0.000
020	2017/11/20	11:06:48	0.003	0.007	0.005
021	2017/11/20	11:07:48	0.004	0.014	0.003
022	2017/11/20	11:08:48	0.007	0.018	0.016
023	2017/11/20	11:09:48	0.014	0.023	0.011
024	2017/11/20	11:10:48	0.010	0.017	0.009
025	2017/11/20	11:11:48	0.010	0.013	0.012
026	2017/11/20	11:12:48	0.012	0.019	0.019
027	2017/11/20	11:13:48	0.018	0.031	0.031
028	2017/11/20	11:14:48	0.027	0.037	0.022
029	2017/11/20	11:15:48	0.024	0.026	0.026
030	2017/11/20	11:16:48	0.023	0.026	0.019
031	2017/11/20	11:17:48	0.024	0.029	0.029
032	2017/11/20	11:18:48	0.033	0.058	0.025
033	2017/11/20	11:19:48	0.032	0.042	0.034
034	2017/11/20	11:20:48	0.032	0.037	0.034
035	2017/11/20	11:21:48	0.034	0.047	0.031
036	2017/11/20	11:22:48	0.034	0.039	0.032
037	2017/11/20	11:23:48	0.038	0.046	0.042
038	2017/11/20	11:24:48	0.038	0.042	0.038
039	2017/11/20	11:25:48	0.045	0.052	0.046
040	2017/11/20	11:26:48	0.052	0.072	0.058
041	2017/11/20	11:27:48	0.056	0.075	0.050
042	2017/11/20	11:28:48	0.053	0.063	0.053
043	2017/11/20	11:29:48	0.068	0.124	0.059
044	2017/11/20	11:30:48	0.060	0.092	0.060
045	2017/11/20	11:31:48	0.061	0.081	0.050
046	2017/11/20	11:32:48	0.059	0.086	0.051
047	2017/11/20	11:33:48	0.049	0.052	0.050
048	2017/11/20	11:34:48	0.051	0.065	0.047
049	2017/11/20	11:35:48	0.055	0.068	0.066
050	2017/11/20	11:36:48	0.060	0.075	0.062
051	2017/11/20	11:37:48	0.062	0.079	0.056
052	2017/11/20	11:38:48	0.055	0.060	0.053
053	2017/11/20	11:39:48	0.070	0.117	0.059
054	2017/11/20	11:40:48	0.061	0.070	0.065
055	2017/11/20	11:41:48	0.056	0.064	0.057
056	2017/11/20	11:42:48	0.060	0.067	0.067
057	2017/11/20	11:43:48	0.067	0.096	0.061
058	2017/11/20	11:44:48	0.061	0.072	0.066
059	2017/11/20	11:45:48	0.064	0.071	0.059
060	2017/11/20	11:46:48	0.065	0.095	0.072
061	2017/11/20	11:47:48	0.075	0.101	0.065
062	2017/11/20	11:48:48	0.063	0.069	0.062
063	2017/11/20	11:49:48	0.065	0.083	0.065
064	2017/11/20	11:50:48	0.065	0.075	0.063
065	2017/11/20	11:51:48	0.065	0.079	0.067
066	2017/11/20	11:52:48	0.063	0.067	0.063
067	2017/11/20	11:53:48	0.072	0.082	0.076
068	2017/11/20	11:54:48	0.081	0.113	0.074
069	2017/11/20	11:55:48	0.071	0.076	0.071
070	2017/11/20	11:56:48	0.071	0.080	0.077
071	2017/11/20	11:57:48	0.082	0.102	0.073
072	2017/11/20	11:58:48	0.070	0.075	0.069
073	2017/11/20	11:59:48	0.069	0.072	0.072
074	2017/11/20	12:00:48	0.074	0.091	0.090
075	2017/11/20	12:01:48	0.075	0.090	0.075
076	2017/11/20	12:02:48	0.069	0.074	0.069
077	2017/11/20	12:03:48	0.072	0.083	0.075
078	2017/11/20	12:04:48	0.075	0.082	0.075
079	2017/11/20	12:05:48	0.078	0.084	0.075

080	2017/11/20 12:06:48	0.075	0.078	0.075
081	2017/11/20 12:07:48	0.076	0.080	0.079
082	2017/11/20 12:08:48	0.079	0.082	0.082
083	2017/11/20 12:09:48	0.079	0.086	0.076
084	2017/11/20 12:10:48	0.076	0.083	0.078
085	2017/11/20 12:11:48	0.083	0.104	0.079
086	2017/11/20 12:12:48	0.076	0.080	0.076
087	2017/11/20 12:13:48	0.078	0.083	0.077
088	2017/11/20 12:14:48	0.086	0.104	0.082
089	2017/11/20 12:15:48	0.079	0.089	0.088
090	2017/11/20 12:16:48	0.078	0.095	0.077
091	2017/11/20 12:17:48	0.078	0.084	0.083
092	2017/11/20 12:18:48	0.086	0.104	0.099
093	2017/11/20 12:19:48	0.112	0.147	0.093
094	2017/11/20 12:20:48	0.083	0.095	0.079
095	2017/11/20 12:21:48	0.082	0.087	0.085
096	2017/11/20 12:22:48	0.100	0.158	0.082
097	2017/11/20 12:23:48	0.082	0.087	0.081
098	2017/11/20 12:24:48	0.083	0.088	0.087
099	2017/11/20 12:25:48	0.139	0.201	0.131
100	2017/11/20 12:26:48	0.111	0.146	0.114
101	2017/11/20 12:27:48	0.099	0.113	0.087
102	2017/11/20 12:28:48	0.085	0.090	0.083
103	2017/11/20 12:29:48	0.084	0.093	0.085
104	2017/11/20 12:30:48	0.090	0.129	0.129
105	2017/11/20 12:31:48	0.099	0.125	0.089
106	2017/11/20 12:32:48	0.094	0.119	0.117
107	2017/11/20 12:33:48	0.094	0.116	0.089
108	2017/11/20 12:34:48	0.087	0.091	0.088
109	2017/11/20 12:35:48	0.087	0.094	0.091
110	2017/11/20 12:36:48	0.091	0.101	0.089
111	2017/11/20 12:37:48	0.098	0.119	0.119
112	2017/11/20 12:38:48	0.097	0.129	0.090
113	2017/11/20 12:39:48	0.087	0.092	0.092
114	2017/11/20 12:40:48	0.094	0.098	0.097
115	2017/11/20 12:41:48	0.096	0.117	0.108
116	2017/11/20 12:42:48	0.115	0.146	0.108
117	2017/11/20 12:43:48	0.100	0.107	0.102
118	2017/11/20 12:44:48	0.100	0.105	0.095
119	2017/11/20 12:45:48	0.100	0.132	0.103
120	2017/11/20 12:46:48	0.114	0.143	0.114
121	2017/11/20 12:47:48	0.121	0.146	0.120
122	2017/11/20 12:48:48	0.114	0.132	0.098
123	2017/11/20 12:49:48	0.094	0.099	0.096
124	2017/11/20 12:50:48	0.097	0.101	0.097
125	2017/11/20 12:51:48	0.099	0.103	0.099
126	2017/11/20 12:52:48	0.101	0.105	0.101
127	2017/11/20 12:53:48	0.101	0.105	0.104
128	2017/11/20 12:54:48	0.099	0.105	0.104
129	2017/11/20 12:55:48	0.109	0.120	0.119
130	2017/11/20 12:56:48	0.122	0.161	0.102
131	2017/11/20 12:57:48	0.097	0.103	0.094
132	2017/11/20 12:58:48	0.092	0.103	0.103
133	2017/11/20 12:59:48	0.128	0.185	0.111
134	2017/11/20 13:00:48	0.103	0.127	0.097
135	2017/11/20 13:01:48	0.096	0.103	0.093
136	2017/11/20 13:02:48	0.095	0.104	0.098
137	2017/11/20 13:03:48	0.099	0.110	0.096
138	2017/11/20 13:04:48	0.094	0.096	0.094
139	2017/11/20 13:05:48	0.099	0.108	0.106
140	2017/11/20 13:06:48	0.111	0.132	0.114
141	2017/11/20 13:07:48	0.116	0.133	0.109
142	2017/11/20 13:08:48	0.108	0.118	0.112

143	2017/11/20 13:09:48	0.105	0.119	0.106
144	2017/11/20 13:10:48	0.099	0.105	0.098
145	2017/11/20 13:11:48	0.097	0.100	0.095
146	2017/11/20 13:12:48	0.096	0.100	0.097
147	2017/11/20 13:13:48	0.100	0.107	0.103
148	2017/11/20 13:14:48	0.099	0.102	0.100
149	2017/11/20 13:15:48	0.104	0.117	0.109
150	2017/11/20 13:16:48	0.105	0.122	0.101
151	2017/11/20 13:17:48	0.100	0.107	0.097
152	2017/11/20 13:18:48	0.104	0.124	0.114
153	2017/11/20 13:19:48	0.105	0.114	0.105
154	2017/11/20 13:20:48	0.102	0.106	0.104
155	2017/11/20 13:21:48	0.104	0.112	0.111
156	2017/11/20 13:22:48	0.112	0.142	0.117
157	2017/11/20 13:23:48	0.106	0.115	0.108
158	2017/11/20 13:24:48	0.113	0.127	0.104
159	2017/11/20 13:25:48	0.101	0.104	0.100
160	2017/11/20 13:26:48	0.103	0.107	0.107
161	2017/11/20 13:27:48	0.106	0.108	0.106
162	2017/11/20 13:28:48	0.109	0.119	0.104
163	2017/11/20 13:29:48	0.103	0.107	0.106
164	2017/11/20 13:30:48	0.104	0.111	0.108
165	2017/11/20 13:31:48	0.107	0.118	0.118
166	2017/11/20 13:32:48	0.111	0.123	0.105
167	2017/11/20 13:33:48	0.106	0.115	0.101
168	2017/11/20 13:34:48	0.105	0.110	0.109
169	2017/11/20 13:35:48	0.105	0.116	0.104
170	2017/11/20 13:36:48	0.105	0.108	0.105
171	2017/11/20 13:37:48	0.110	0.118	0.118
172	2017/11/20 13:38:48	0.115	0.128	0.114
173	2017/11/20 13:39:48	0.108	0.116	0.105
174	2017/11/20 13:40:48	0.105	0.109	0.109
175	2017/11/20 13:41:48	0.109	0.140	0.117
176	2017/11/20 13:42:48	0.110	0.121	0.105
177	2017/11/20 13:43:48	0.107	0.110	0.106
178	2017/11/20 13:44:48	0.104	0.107	0.104
179	2017/11/20 13:45:48	0.103	0.106	0.102
180	2017/11/20 13:46:48	0.108	0.112	0.109
181	2017/11/20 13:47:48	0.116	0.137	0.120
182	2017/11/20 13:48:48	0.121	0.164	0.122
183	2017/11/20 13:49:48	0.179	0.547	0.120
184	2017/11/20 13:50:48	0.212	0.351	0.317
185	2017/11/20 13:51:48	0.159	0.280	0.129
186	2017/11/20 13:52:48	0.128	0.201	0.117
187	2017/11/20 13:53:48	0.106	0.114	0.104
188	2017/11/20 13:54:48	0.108	0.128	0.120
189	2017/11/20 13:55:48	0.140	0.201	0.136
190	2017/11/20 13:56:48	0.117	0.132	0.110
191	2017/11/20 13:57:48	0.123	0.156	0.156
192	2017/11/20 13:58:48	0.124	0.165	0.116
193	2017/11/20 13:59:48	0.114	0.149	0.149
194	2017/11/20 14:00:48	0.111	0.141	0.107
195	2017/11/20 14:01:48	0.113	0.127	0.114
196	2017/11/20 14:02:48	0.112	0.127	0.118
197	2017/11/20 14:03:48	0.126	0.200	0.111
198	2017/11/20 14:04:48	0.112	0.116	0.112
199	2017/11/20 14:05:48	0.116	0.132	0.114
200	2017/11/20 14:06:48	0.112	0.115	0.111
201	2017/11/20 14:07:48	0.117	0.125	0.121
202	2017/11/20 14:08:48	0.112	0.121	0.113
203	2017/11/20 14:09:48	0.119	0.135	0.126
204	2017/11/20 14:10:48	0.124	0.154	0.119
205	2017/11/20 14:11:48	0.113	0.137	0.110

206	2017/11/20 14:12:48	0.117	0.134	0.121
207	2017/11/20 14:13:48	0.130	0.184	0.122
208	2017/11/20 14:14:48	0.118	0.125	0.112
209	2017/11/20 14:15:48	0.121	0.140	0.112
210	2017/11/20 14:16:48	0.129	0.175	0.125
211	2017/11/20 14:17:48	0.130	0.145	0.137
212	2017/11/20 14:18:48	0.132	0.150	0.121
213	2017/11/20 14:19:48	0.131	0.183	0.177
214	2017/11/20 14:20:48	0.135	0.177	0.130
215	2017/11/20 14:21:48	0.121	0.132	0.117
216	2017/11/20 14:22:48	0.123	0.133	0.125
217	2017/11/20 14:23:48	0.117	0.124	0.119
218	2017/11/20 14:24:48	0.121	0.138	0.120
219	2017/11/20 14:25:48	0.124	0.139	0.119
220	2017/11/20 14:26:48	0.122	0.140	0.131
221	2017/11/20 14:27:48	0.127	0.133	0.124
222	2017/11/20 14:28:48	0.122	0.131	0.123
223	2017/11/20 14:29:48	0.128	0.170	0.124
224	2017/11/20 14:30:48	0.120	0.128	0.118
225	2017/11/20 14:31:48	0.121	0.130	0.120
226	2017/11/20 14:32:48	0.119	0.123	0.122
227	2017/11/20 14:33:48	0.123	0.143	0.118
228	2017/11/20 14:34:48	0.117	0.120	0.119
229	2017/11/20 14:35:48	0.119	0.122	0.122
230	2017/11/20 14:36:48	0.121	0.128	0.120
231	2017/11/20 14:37:48	0.123	0.136	0.127
232	2017/11/20 14:38:48	0.122	0.128	0.120
233	2017/11/20 14:39:48	0.120	0.123	0.119
234	2017/11/20 14:40:48	0.122	0.125	0.122
235	2017/11/20 14:41:48	0.122	0.124	0.122
236	2017/11/20 14:42:48	0.130	0.142	0.126
237	2017/11/20 14:43:48	0.129	0.178	0.130
238	2017/11/20 14:44:48	0.130	0.144	0.126
239	2017/11/20 14:45:48	0.124	0.128	0.121
240	2017/11/20 14:46:48	0.126	0.132	0.126
241	2017/11/20 14:47:48	0.130	0.138	0.127
242	2017/11/20 14:48:48	0.126	0.131	0.125
243	2017/11/20 14:49:48	0.126	0.128	0.128
244	2017/11/20 14:50:48	0.128	0.133	0.133
245	2017/11/20 14:51:48	0.136	0.143	0.136
246	2017/11/20 14:52:48	0.136	0.141	0.133
247	2017/11/20 14:53:48	0.136	0.139	0.138
248	2017/11/20 14:54:48	0.136	0.141	0.138
249	2017/11/20 14:55:48	0.138	0.141	0.141

Peak	0.212	0.547	0.317
Min	0.000	0.000	0.000
Average	0.088	0.104	0.088

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TWA/STEL

Index	Date/Time	VOC(ppm)(TWA)	VOC(ppm)(STEL)
001	2017/11/20 10:47:48	0.000	---
002	2017/11/20 10:48:48	0.000	---
003	2017/11/20 10:49:48	0.000	---
004	2017/11/20 10:50:48	0.000	---
005	2017/11/20 10:51:48	0.000	---
006	2017/11/20 10:52:48	0.000	---
007	2017/11/20 10:53:48	0.000	---
008	2017/11/20 10:54:48	0.000	---
009	2017/11/20 10:55:48	0.000	---
010	2017/11/20 10:56:48	0.000	---
011	2017/11/20 10:57:48	0.000	---
012	2017/11/20 10:58:48	0.000	---

013	2017/11/20	10:59:48	0.000	---
014	2017/11/20	11:00:48	0.000	---
015	2017/11/20	11:01:48	0.000	0.002
016	2017/11/20	11:02:48	0.000	0.002
017	2017/11/20	11:03:48	0.000	0.002
018	2017/11/20	11:04:48	0.000	0.002
019	2017/11/20	11:05:48	0.000	0.002
020	2017/11/20	11:06:48	0.000	0.002
021	2017/11/20	11:07:48	0.000	0.002
022	2017/11/20	11:08:48	0.000	0.003
023	2017/11/20	11:09:48	0.000	0.004
024	2017/11/20	11:10:48	0.000	0.004
025	2017/11/20	11:11:48	0.000	0.005
026	2017/11/20	11:12:48	0.000	0.006
027	2017/11/20	11:13:48	0.000	0.008
028	2017/11/20	11:14:48	0.000	0.010
029	2017/11/20	11:15:48	0.000	0.011
030	2017/11/20	11:16:48	0.000	0.012
031	2017/11/20	11:17:48	0.001	0.014
032	2017/11/20	11:18:48	0.001	0.015
033	2017/11/20	11:19:48	0.001	0.017
034	2017/11/20	11:20:48	0.001	0.020
035	2017/11/20	11:21:48	0.001	0.021
036	2017/11/20	11:22:48	0.001	0.023
037	2017/11/20	11:23:48	0.001	0.025
038	2017/11/20	11:24:48	0.001	0.027
039	2017/11/20	11:25:48	0.001	0.029
040	2017/11/20	11:26:48	0.001	0.032
041	2017/11/20	11:27:48	0.001	0.034
042	2017/11/20	11:28:48	0.001	0.036
043	2017/11/20	11:29:48	0.002	0.038
044	2017/11/20	11:30:48	0.002	0.041
045	2017/11/20	11:31:48	0.002	0.043
046	2017/11/20	11:32:48	0.002	0.044
047	2017/11/20	11:33:48	0.002	0.046
048	2017/11/20	11:34:48	0.002	0.047
049	2017/11/20	11:35:48	0.002	0.049
050	2017/11/20	11:36:48	0.002	0.051
051	2017/11/20	11:37:48	0.002	0.053
052	2017/11/20	11:38:48	0.003	0.053
053	2017/11/20	11:39:48	0.003	0.055
054	2017/11/20	11:40:48	0.003	0.056
055	2017/11/20	11:41:48	0.003	0.056
056	2017/11/20	11:42:48	0.003	0.057
057	2017/11/20	11:43:48	0.003	0.058
058	2017/11/20	11:44:48	0.003	0.058
059	2017/11/20	11:45:48	0.003	0.058
060	2017/11/20	11:46:48	0.004	0.059
061	2017/11/20	11:47:48	0.004	0.060
062	2017/11/20	11:48:48	0.004	0.061
063	2017/11/20	11:49:48	0.004	0.062
064	2017/11/20	11:50:48	0.004	0.062
065	2017/11/20	11:51:48	0.004	0.062
066	2017/11/20	11:52:48	0.004	0.063
067	2017/11/20	11:53:48	0.005	0.064
068	2017/11/20	11:54:48	0.005	0.065
069	2017/11/20	11:55:48	0.005	0.066
070	2017/11/20	11:56:48	0.005	0.067
071	2017/11/20	11:57:48	0.005	0.068
072	2017/11/20	11:58:48	0.005	0.068
073	2017/11/20	11:59:48	0.006	0.069
074	2017/11/20	12:00:48	0.006	0.071
075	2017/11/20	12:01:48	0.006	0.071

076	2017/11/20 12:02:48	0.006	0.071
077	2017/11/20 12:03:48	0.006	0.072
078	2017/11/20 12:04:48	0.006	0.073
079	2017/11/20 12:05:48	0.006	0.073
080	2017/11/20 12:06:48	0.007	0.074
081	2017/11/20 12:07:48	0.007	0.075
082	2017/11/20 12:08:48	0.007	0.075
083	2017/11/20 12:09:48	0.007	0.076
084	2017/11/20 12:10:48	0.007	0.076
085	2017/11/20 12:11:48	0.007	0.076
086	2017/11/20 12:12:48	0.008	0.076
087	2017/11/20 12:13:48	0.008	0.077
088	2017/11/20 12:14:48	0.008	0.078
089	2017/11/20 12:15:48	0.008	0.077
090	2017/11/20 12:16:48	0.008	0.078
091	2017/11/20 12:17:48	0.008	0.078
092	2017/11/20 12:18:48	0.009	0.080
093	2017/11/20 12:19:48	0.009	0.081
094	2017/11/20 12:20:48	0.009	0.082
095	2017/11/20 12:21:48	0.009	0.082
096	2017/11/20 12:22:48	0.009	0.082
097	2017/11/20 12:23:48	0.010	0.082
098	2017/11/20 12:24:48	0.010	0.083
099	2017/11/20 12:25:48	0.010	0.087
100	2017/11/20 12:26:48	0.010	0.089
101	2017/11/20 12:27:48	0.010	0.090
102	2017/11/20 12:28:48	0.011	0.090
103	2017/11/20 12:29:48	0.011	0.090
104	2017/11/20 12:30:48	0.011	0.093
105	2017/11/20 12:31:48	0.011	0.094
106	2017/11/20 12:32:48	0.011	0.096
107	2017/11/20 12:33:48	0.012	0.095
108	2017/11/20 12:34:48	0.012	0.095
109	2017/11/20 12:35:48	0.012	0.096
110	2017/11/20 12:36:48	0.012	0.096
111	2017/11/20 12:37:48	0.012	0.099
112	2017/11/20 12:38:48	0.013	0.099
113	2017/11/20 12:39:48	0.013	0.100
114	2017/11/20 12:40:48	0.013	0.097
115	2017/11/20 12:41:48	0.013	0.097
116	2017/11/20 12:42:48	0.013	0.098
117	2017/11/20 12:43:48	0.014	0.100
118	2017/11/20 12:44:48	0.014	0.100
119	2017/11/20 12:45:48	0.014	0.098
120	2017/11/20 12:46:48	0.014	0.100
121	2017/11/20 12:47:48	0.015	0.100
122	2017/11/20 12:48:48	0.015	0.101
123	2017/11/20 12:49:48	0.015	0.101
124	2017/11/20 12:50:48	0.015	0.102
125	2017/11/20 12:51:48	0.015	0.103
126	2017/11/20 12:52:48	0.016	0.101
127	2017/11/20 12:53:48	0.016	0.102
128	2017/11/20 12:54:48	0.016	0.103
129	2017/11/20 12:55:48	0.016	0.105
130	2017/11/20 12:56:48	0.016	0.104
131	2017/11/20 12:57:48	0.017	0.103
132	2017/11/20 12:58:48	0.017	0.103
133	2017/11/20 12:59:48	0.017	0.104
134	2017/11/20 13:00:48	0.017	0.104
135	2017/11/20 13:01:48	0.018	0.103
136	2017/11/20 13:02:48	0.018	0.101
137	2017/11/20 13:03:48	0.018	0.101
138	2017/11/20 13:04:48	0.018	0.101

139	2017/11/20 13:05:48	0.018	0.101
140	2017/11/20 13:06:48	0.019	0.102
141	2017/11/20 13:07:48	0.019	0.103
142	2017/11/20 13:08:48	0.019	0.103
143	2017/11/20 13:09:48	0.019	0.104
144	2017/11/20 13:10:48	0.019	0.102
145	2017/11/20 13:11:48	0.020	0.102
146	2017/11/20 13:12:48	0.020	0.102
147	2017/11/20 13:13:48	0.020	0.102
148	2017/11/20 13:14:48	0.020	0.101
149	2017/11/20 13:15:48	0.021	0.102
150	2017/11/20 13:16:48	0.021	0.103
151	2017/11/20 13:17:48	0.021	0.102
152	2017/11/20 13:18:48	0.021	0.104
153	2017/11/20 13:19:48	0.021	0.104
154	2017/11/20 13:20:48	0.022	0.104
155	2017/11/20 13:21:48	0.022	0.104
156	2017/11/20 13:22:48	0.022	0.105
157	2017/11/20 13:23:48	0.022	0.104
158	2017/11/20 13:24:48	0.023	0.104
159	2017/11/20 13:25:48	0.023	0.104
160	2017/11/20 13:26:48	0.023	0.105
161	2017/11/20 13:27:48	0.023	0.106
162	2017/11/20 13:28:48	0.023	0.106
163	2017/11/20 13:29:48	0.024	0.106
164	2017/11/20 13:30:48	0.024	0.106
165	2017/11/20 13:31:48	0.024	0.107
166	2017/11/20 13:32:48	0.024	0.108
167	2017/11/20 13:33:48	0.025	0.107
168	2017/11/20 13:34:48	0.025	0.107
169	2017/11/20 13:35:48	0.025	0.107
170	2017/11/20 13:36:48	0.025	0.107
171	2017/11/20 13:37:48	0.025	0.107
172	2017/11/20 13:38:48	0.026	0.107
173	2017/11/20 13:39:48	0.026	0.107
174	2017/11/20 13:40:48	0.026	0.108
175	2017/11/20 13:41:48	0.026	0.109
176	2017/11/20 13:42:48	0.027	0.109
177	2017/11/20 13:43:48	0.027	0.109
178	2017/11/20 13:44:48	0.027	0.109
179	2017/11/20 13:45:48	0.027	0.108
180	2017/11/20 13:46:48	0.027	0.108
181	2017/11/20 13:47:48	0.028	0.109
182	2017/11/20 13:48:48	0.028	0.110
183	2017/11/20 13:49:48	0.028	0.111
184	2017/11/20 13:50:48	0.029	0.125
185	2017/11/20 13:51:48	0.029	0.126
186	2017/11/20 13:52:48	0.029	0.126
187	2017/11/20 13:53:48	0.030	0.126
188	2017/11/20 13:54:48	0.030	0.127
189	2017/11/20 13:55:48	0.030	0.129
190	2017/11/20 13:56:48	0.030	0.128
191	2017/11/20 13:57:48	0.031	0.131
192	2017/11/20 13:58:48	0.031	0.132
193	2017/11/20 13:59:48	0.031	0.135
194	2017/11/20 14:00:48	0.031	0.135
195	2017/11/20 14:01:48	0.032	0.136
196	2017/11/20 14:02:48	0.032	0.136
197	2017/11/20 14:03:48	0.032	0.135
198	2017/11/20 14:04:48	0.032	0.134
199	2017/11/20 14:05:48	0.033	0.121
200	2017/11/20 14:06:48	0.033	0.120
201	2017/11/20 14:07:48	0.033	0.120

202	2017/11/20	14:08:48	0.033	0.121
203	2017/11/20	14:09:48	0.034	0.121
204	2017/11/20	14:10:48	0.034	0.120
205	2017/11/20	14:11:48	0.034	0.120
206	2017/11/20	14:12:48	0.034	0.117
207	2017/11/20	14:13:48	0.035	0.118
208	2017/11/20	14:14:48	0.035	0.115
209	2017/11/20	14:15:48	0.035	0.116
210	2017/11/20	14:16:48	0.035	0.116
211	2017/11/20	14:17:48	0.036	0.118
212	2017/11/20	14:18:48	0.036	0.118
213	2017/11/20	14:19:48	0.036	0.123
214	2017/11/20	14:20:48	0.037	0.124
215	2017/11/20	14:21:48	0.037	0.124
216	2017/11/20	14:22:48	0.037	0.124
217	2017/11/20	14:23:48	0.037	0.125
218	2017/11/20	14:24:48	0.038	0.124
219	2017/11/20	14:25:48	0.038	0.124
220	2017/11/20	14:26:48	0.038	0.126
221	2017/11/20	14:27:48	0.038	0.126
222	2017/11/20	14:28:48	0.039	0.126
223	2017/11/20	14:29:48	0.039	0.127
224	2017/11/20	14:30:48	0.039	0.127
225	2017/11/20	14:31:48	0.039	0.127
226	2017/11/20	14:32:48	0.040	0.126
227	2017/11/20	14:33:48	0.040	0.126
228	2017/11/20	14:34:48	0.040	0.122
229	2017/11/20	14:35:48	0.040	0.121
230	2017/11/20	14:36:48	0.041	0.122
231	2017/11/20	14:37:48	0.041	0.122
232	2017/11/20	14:38:48	0.041	0.122
233	2017/11/20	14:39:48	0.041	0.122
234	2017/11/20	14:40:48	0.042	0.122
235	2017/11/20	14:41:48	0.042	0.121
236	2017/11/20	14:42:48	0.042	0.121
237	2017/11/20	14:43:48	0.042	0.122
238	2017/11/20	14:44:48	0.043	0.122
239	2017/11/20	14:45:48	0.043	0.122
240	2017/11/20	14:46:48	0.043	0.123
241	2017/11/20	14:47:48	0.043	0.123
242	2017/11/20	14:48:48	0.044	0.123
243	2017/11/20	14:49:48	0.044	0.124
244	2017/11/20	14:50:48	0.044	0.125
245	2017/11/20	14:51:48	0.044	0.126
246	2017/11/20	14:52:48	0.045	0.126
247	2017/11/20	14:53:48	0.045	0.127
248	2017/11/20	14:54:48	0.045	0.129
249	2017/11/20	14:55:48	0.046	0.130

Downwind Volatiles
11/20/2017

PRS_EXPORT_20171120_FA00517_downwind.txt

```
============================================================
17/11/20 10:13
************************************************************
Summary
------------------------------------------------------------
Unit Name             MiniRAE 3000
Unit SN               592-909130
Unit Firmware Ver     V1.10C
------------------------------------------------------------
Running Mode          Hygiene Mode
Measure Type          Avg; Max; Real
Datalog Mode          Continuous
Datalog Type          Auto
Diagnostic Mode       No
Stop Reason           Power Down
------------------------------------------------------------
Site ID               12345678
User ID               12345678
------------------------------------------------------------
Begin                 2017/11/20 10:13:15
End                   2017/11/20 14:42:28
Sample Period(s)      60
Number of Records     269
------------------------------------------------------------
Sensor                VOC(ppm)
Span                  100.000
Span H                N/A
Low Alarm             50.000
High Alarm            100.000
Over Alarm            15000.000
STEL Alarm            25.000
TWA Alarm             10.000
Measurement Gas       Isobutylene
Calibration Time      2017/11/20 09:20
Peak                  0.052
Min                   0.000
Average               0.001

************************************************************
Datalog
Index   Date/Time          VOC(ppm)(Avg)   VOC(ppm)(Max)   VOC(ppm)(Real)
001     2017/11/20 10:14:15     0.011   0.057   0.000
002     2017/11/20 10:15:15     0.000   0.000   0.000
003     2017/11/20 10:16:15     0.000   0.000   0.000
004     2017/11/20 10:17:15     0.000   0.000   0.000
005     2017/11/20 10:18:15     0.000   0.000   0.000
006     2017/11/20 10:19:15     0.000   0.000   0.000
007     2017/11/20 10:20:15     0.000   0.000   0.000
008     2017/11/20 10:21:15     0.000   0.000   0.000
009     2017/11/20 10:22:15     0.000   0.000   0.000
010     2017/11/20 10:23:15     0.005   0.041   0.000
011     2017/11/20 10:24:15     0.000   0.005   0.000
012     2017/11/20 10:25:15     0.000   0.006   0.000
013     2017/11/20 10:26:15     0.001   0.022   0.000
014     2017/11/20 10:27:15     0.002   0.013   0.000
015     2017/11/20 10:28:15     0.000   0.006   0.000
016     2017/11/20 10:29:15     0.001   0.015   0.000
017     2017/11/20 10:30:15     0.000   0.000   0.000
018     2017/11/20 10:31:15     0.000   0.000   0.000
019     2017/11/20 10:32:15     0.000   0.000   0.000
020     2017/11/20 10:33:15     0.000   0.000   0.000
021     2017/11/20 10:34:15     0.000   0.000   0.000
022     2017/11/20 10:35:15     0.000   0.003   0.000
```

023	2017/11/20 10:36:15	0.001	0.020	0.001
024	2017/11/20 10:37:15	0.000	0.001	0.000
025	2017/11/20 10:38:15	0.000	0.000	0.000
026	2017/11/20 10:39:15	0.000	0.000	0.000
027	2017/11/20 10:40:15	0.000	0.000	0.000
028	2017/11/20 10:41:15	0.000	0.000	0.000
029	2017/11/20 10:42:15	0.000	0.000	0.000
030	2017/11/20 10:43:15	0.000	0.000	0.000
031	2017/11/20 10:44:15	0.000	0.000	0.000
032	2017/11/20 10:45:15	0.000	0.000	0.000
033	2017/11/20 10:46:15	0.000	0.000	0.000
034	2017/11/20 10:47:15	0.000	0.000	0.000
035	2017/11/20 10:48:15	0.000	0.000	0.000
036	2017/11/20 10:49:15	0.000	0.000	0.000
037	2017/11/20 10:50:15	0.000	0.000	0.000
038	2017/11/20 10:51:15	0.000	0.000	0.000
039	2017/11/20 10:52:15	0.000	0.000	0.000
040	2017/11/20 10:53:15	0.000	0.000	0.000
041	2017/11/20 10:54:15	0.000	0.000	0.000
042	2017/11/20 10:55:15	0.000	0.000	0.000
043	2017/11/20 10:56:15	0.000	0.000	0.000
044	2017/11/20 10:57:15	0.000	0.000	0.000
045	2017/11/20 10:58:15	0.000	0.000	0.000
046	2017/11/20 10:59:15	0.000	0.000	0.000
047	2017/11/20 11:00:15	0.000	0.000	0.000
048	2017/11/20 11:01:15	0.000	0.000	0.000
049	2017/11/20 11:02:15	0.000	0.000	0.000
050	2017/11/20 11:03:15	0.000	0.000	0.000
051	2017/11/20 11:04:15	0.000	0.000	0.000
052	2017/11/20 11:05:15	0.000	0.000	0.000
053	2017/11/20 11:06:15	0.000	0.000	0.000
054	2017/11/20 11:07:15	0.000	0.000	0.000
055	2017/11/20 11:08:15	0.000	0.000	0.000
056	2017/11/20 11:09:15	0.000	0.000	0.000
057	2017/11/20 11:10:15	0.000	0.000	0.000
058	2017/11/20 11:11:15	0.000	0.000	0.000
059	2017/11/20 11:12:15	0.000	0.000	0.000
060	2017/11/20 11:13:15	0.000	0.000	0.000
061	2017/11/20 11:14:15	0.000	0.000	0.000
062	2017/11/20 11:15:15	0.000	0.000	0.000
063	2017/11/20 11:16:15	0.000	0.000	0.000
064	2017/11/20 11:17:15	0.000	0.000	0.000
065	2017/11/20 11:18:15	0.000	0.000	0.000
066	2017/11/20 11:19:15	0.000	0.000	0.000
067	2017/11/20 11:20:15	0.000	0.000	0.000
068	2017/11/20 11:21:15	0.000	0.000	0.000
069	2017/11/20 11:22:15	0.000	0.000	0.000
070	2017/11/20 11:23:15	0.000	0.000	0.000
071	2017/11/20 11:24:15	0.000	0.000	0.000
072	2017/11/20 11:25:15	0.000	0.000	0.000
073	2017/11/20 11:26:15	0.000	0.000	0.000
074	2017/11/20 11:27:15	0.000	0.000	0.000
075	2017/11/20 11:28:15	0.000	0.000	0.000
076	2017/11/20 11:29:15	0.000	0.000	0.000
077	2017/11/20 11:30:15	0.000	0.000	0.000
078	2017/11/20 11:31:15	0.000	0.000	0.000
079	2017/11/20 11:32:15	0.000	0.000	0.000
080	2017/11/20 11:33:15	0.000	0.000	0.000
081	2017/11/20 11:34:15	0.000	0.000	0.000
082	2017/11/20 11:35:15	0.000	0.000	0.000
083	2017/11/20 11:36:15	0.000	0.000	0.000
084	2017/11/20 11:37:15	0.000	0.000	0.000
085	2017/11/20 11:38:15	0.000	0.000	0.000

086	2017/11/20 11:39:15	0.000	0.000	0.000
087	2017/11/20 11:40:15	0.000	0.000	0.000
088	2017/11/20 11:41:15	0.000	0.000	0.000
089	2017/11/20 11:42:15	0.000	0.000	0.000
090	2017/11/20 11:43:15	0.000	0.000	0.000
091	2017/11/20 11:44:15	0.002	0.036	0.000
092	2017/11/20 11:45:15	0.000	0.000	0.000
093	2017/11/20 11:46:15	0.000	0.000	0.000
094	2017/11/20 11:47:15	0.000	0.000	0.000
095	2017/11/20 11:48:15	0.000	0.000	0.000
096	2017/11/20 11:49:15	0.000	0.000	0.000
097	2017/11/20 11:50:15	0.000	0.000	0.000
098	2017/11/20 11:51:15	0.000	0.000	0.000
099	2017/11/20 11:52:15	0.000	0.000	0.000
100	2017/11/20 11:53:15	0.000	0.000	0.000
101	2017/11/20 11:54:15	0.000	0.001	0.000
102	2017/11/20 11:55:15	0.000	0.000	0.000
103	2017/11/20 11:56:15	0.000	0.000	0.000
104	2017/11/20 11:57:15	0.000	0.000	0.000
105	2017/11/20 11:58:15	0.000	0.000	0.000
106	2017/11/20 11:59:15	0.000	0.000	0.000
107	2017/11/20 12:00:15	0.000	0.000	0.000
108	2017/11/20 12:01:15	0.000	0.000	0.000
109	2017/11/20 12:02:15	0.000	0.000	0.000
110	2017/11/20 12:03:15	0.000	0.000	0.000
111	2017/11/20 12:04:15	0.000	0.000	0.000
112	2017/11/20 12:05:15	0.000	0.000	0.000
113	2017/11/20 12:06:15	0.000	0.000	0.000
114	2017/11/20 12:07:15	0.000	0.007	0.003
115	2017/11/20 12:08:15	0.000	0.003	0.000
116	2017/11/20 12:09:15	0.000	0.000	0.000
117	2017/11/20 12:10:15	0.000	0.000	0.000
118	2017/11/20 12:11:15	0.000	0.007	0.000
119	2017/11/20 12:12:15	0.000	0.000	0.000
120	2017/11/20 12:13:15	0.000	0.000	0.000
121	2017/11/20 12:14:15	0.009	0.029	0.002
122	2017/11/20 12:15:15	0.005	0.029	0.001
123	2017/11/20 12:16:15	0.001	0.015	0.000
124	2017/11/20 12:17:15	0.000	0.000	0.000
125	2017/11/20 12:18:15	0.000	0.001	0.000
126	2017/11/20 12:19:15	0.002	0.012	0.003
127	2017/11/20 12:20:15	0.006	0.029	0.000
128	2017/11/20 12:21:15	0.005	0.014	0.009
129	2017/11/20 12:22:15	0.000	0.008	0.000
130	2017/11/20 12:23:15	0.000	0.000	0.000
131	2017/11/20 12:24:15	0.003	0.027	0.000
132	2017/11/20 12:25:15	0.000	0.000	0.000
133	2017/11/20 12:26:15	0.004	0.019	0.019
134	2017/11/20 12:27:15	0.003	0.022	0.000
135	2017/11/20 12:28:15	0.021	0.101	0.010
136	2017/11/20 12:29:15	0.024	0.138	0.052
137	2017/11/20 12:30:15	0.003	0.035	0.035
138	2017/11/20 12:31:15	0.018	0.054	0.006
139	2017/11/20 12:32:15	0.001	0.008	0.002
140	2017/11/20 12:33:15	0.006	0.033	0.000
141	2017/11/20 12:34:15	0.010	0.026	0.012
142	2017/11/20 12:35:15	0.023	0.099	0.048
143	2017/11/20 12:36:15	0.018	0.054	0.012
144	2017/11/20 12:37:15	0.001	0.012	0.000
145	2017/11/20 12:38:15	0.000	0.001	0.001
146	2017/11/20 12:39:15	0.002	0.016	0.008
147	2017/11/20 12:40:15	0.005	0.016	0.000
148	2017/11/20 12:41:15	0.001	0.018	0.000

149	2017/11/20 12:42:15	0.000	0.002	0.000
150	2017/11/20 12:43:15	0.000	0.003	0.000
151	2017/11/20 12:44:15	0.008	0.033	0.006
152	2017/11/20 12:45:15	0.010	0.051	0.011
153	2017/11/20 12:46:15	0.000	0.006	0.000
154	2017/11/20 12:47:15	0.000	0.000	0.000
155	2017/11/20 12:48:15	0.001	0.009	0.000
156	2017/11/20 12:49:15	0.000	0.003	0.000
157	2017/11/20 12:50:15	0.000	0.000	0.000
158	2017/11/20 12:51:15	0.000	0.003	0.000
159	2017/11/20 12:52:15	0.000	0.001	0.000
160	2017/11/20 12:53:15	0.000	0.000	0.000
161	2017/11/20 12:54:15	0.000	0.000	0.000
162	2017/11/20 12:55:15	0.000	0.000	0.000
163	2017/11/20 12:56:15	0.000	0.000	0.000
164	2017/11/20 12:57:15	0.000	0.000	0.000
165	2017/11/20 12:58:15	0.000	0.001	0.000
166	2017/11/20 12:59:15	0.000	0.000	0.000
167	2017/11/20 13:00:15	0.000	0.000	0.000
168	2017/11/20 13:01:15	0.000	0.000	0.000
169	2017/11/20 13:02:15	0.000	0.000	0.000
170	2017/11/20 13:03:15	0.000	0.000	0.000
171	2017/11/20 13:04:15	0.000	0.000	0.000
172	2017/11/20 13:05:15	0.000	0.000	0.000
173	2017/11/20 13:06:15	0.000	0.000	0.000
174	2017/11/20 13:07:15	0.000	0.000	0.000
175	2017/11/20 13:08:15	0.000	0.000	0.000
176	2017/11/20 13:09:15	0.000	0.000	0.000
177	2017/11/20 13:10:15	0.000	0.001	0.001
178	2017/11/20 13:11:15	0.000	0.000	0.000
179	2017/11/20 13:12:15	0.000	0.000	0.000
180	2017/11/20 13:13:15	0.000	0.002	0.000
181	2017/11/20 13:14:15	0.000	0.000	0.000
182	2017/11/20 13:15:15	0.000	0.000	0.000
183	2017/11/20 13:16:15	0.000	0.000	0.000
184	2017/11/20 13:17:15	0.000	0.000	0.000
185	2017/11/20 13:18:15	0.000	0.000	0.000
186	2017/11/20 13:19:15	0.000	0.000	0.000
187	2017/11/20 13:20:15	0.000	0.000	0.000
188	2017/11/20 13:21:15	0.000	0.000	0.000
189	2017/11/20 13:22:15	0.000	0.000	0.000
190	2017/11/20 13:23:15	0.000	0.000	0.000
191	2017/11/20 13:24:15	0.000	0.000	0.000
192	2017/11/20 13:25:15	0.000	0.000	0.000
193	2017/11/20 13:26:15	0.000	0.002	0.000
194	2017/11/20 13:27:15	0.000	0.000	0.000
195	2017/11/20 13:28:15	0.000	0.005	0.000
196	2017/11/20 13:29:15	0.000	0.000	0.000
197	2017/11/20 13:30:15	0.000	0.000	0.000
198	2017/11/20 13:31:15	0.000	0.000	0.000
199	2017/11/20 13:32:15	0.000	0.000	0.000
200	2017/11/20 13:33:15	0.000	0.000	0.000
201	2017/11/20 13:34:15	0.000	0.000	0.000
202	2017/11/20 13:35:15	0.000	0.000	0.000
203	2017/11/20 13:36:15	0.000	0.003	0.001
204	2017/11/20 13:37:15	0.000	0.001	0.000
205	2017/11/20 13:38:15	0.000	0.000	0.000
206	2017/11/20 13:39:15	0.000	0.000	0.000
207	2017/11/20 13:40:15	0.000	0.005	0.000
208	2017/11/20 13:41:15	0.000	0.000	0.000
209	2017/11/20 13:42:15	0.000	0.000	0.000
210	2017/11/20 13:43:15	0.000	0.000	0.000
211	2017/11/20 13:44:15	0.000	0.001	0.000

212	2017/11/20 13:45:15	0.000	0.001	0.000
213	2017/11/20 13:46:15	0.000	0.000	0.000
214	2017/11/20 13:47:15	0.000	0.002	0.000
215	2017/11/20 13:48:15	0.000	0.001	0.000
216	2017/11/20 13:49:15	0.000	0.000	0.000
217	2017/11/20 13:50:15	0.000	0.000	0.000
218	2017/11/20 13:51:15	0.000	0.000	0.000
219	2017/11/20 13:52:15	0.003	0.016	0.000
220	2017/11/20 13:53:15	0.000	0.002	0.000
221	2017/11/20 13:54:15	0.000	0.001	0.001
222	2017/11/20 13:55:15	0.001	0.008	0.000
223	2017/11/20 13:56:15	0.000	0.000	0.000
224	2017/11/20 13:57:15	0.000	0.000	0.000
225	2017/11/20 13:58:15	0.000	0.000	0.000
226	2017/11/20 13:59:15	0.000	0.000	0.000
227	2017/11/20 14:00:15	0.000	0.000	0.000
228	2017/11/20 14:01:15	0.000	0.000	0.000
229	2017/11/20 14:02:15	0.000	0.000	0.000
230	2017/11/20 14:03:15	0.000	0.003	0.000
231	2017/11/20 14:04:15	0.000	0.000	0.000
232	2017/11/20 14:05:15	0.000	0.000	0.000
233	2017/11/20 14:06:15	0.000	0.000	0.000
234	2017/11/20 14:07:15	0.000	0.003	0.000
235	2017/11/20 14:08:15	0.000	0.000	0.000
236	2017/11/20 14:09:15	0.000	0.000	0.000
237	2017/11/20 14:10:15	0.000	0.000	0.000
238	2017/11/20 14:11:15	0.000	0.000	0.000
239	2017/11/20 14:12:15	0.000	0.000	0.000
240	2017/11/20 14:13:15	0.000	0.001	0.000
241	2017/11/20 14:14:15	0.001	0.016	0.000
242	2017/11/20 14:15:15	0.000	0.012	0.000
243	2017/11/20 14:16:15	0.000	0.001	0.000
244	2017/11/20 14:17:15	0.000	0.000	0.000
245	2017/11/20 14:18:15	0.001	0.026	0.026
246	2017/11/20 14:19:15	0.002	0.036	0.000
247	2017/11/20 14:20:15	0.000	0.000	0.000
248	2017/11/20 14:21:15	0.009	0.058	0.001
249	2017/11/20 14:22:15	0.002	0.031	0.000
250	2017/11/20 14:23:15	0.000	0.000	0.000
251	2017/11/20 14:24:15	0.000	0.005	0.000
252	2017/11/20 14:25:15	0.000	0.000	0.000
253	2017/11/20 14:26:15	0.000	0.001	0.000
254	2017/11/20 14:27:15	0.000	0.003	0.000
255	2017/11/20 14:28:15	0.000	0.009	0.000
256	2017/11/20 14:29:15	0.000	0.000	0.000
257	2017/11/20 14:30:15	0.001	0.015	0.000
258	2017/11/20 14:31:15	0.000	0.010	0.000
259	2017/11/20 14:32:15	0.000	0.000	0.000
260	2017/11/20 14:33:15	0.000	0.000	0.000
261	2017/11/20 14:34:15	0.000	0.000	0.000
262	2017/11/20 14:35:15	0.000	0.000	0.000
263	2017/11/20 14:36:15	0.000	0.000	0.000
264	2017/11/20 14:37:15	0.000	0.000	0.000
265	2017/11/20 14:38:15	0.003	0.052	0.000
266	2017/11/20 14:39:15	0.000	0.000	0.000
267	2017/11/20 14:40:15	0.000	0.000	0.000
268	2017/11/20 14:41:15	0.000	0.000	0.000
269	2017/11/20 14:42:15	0.000	0.003	0.003

Peak	0.024	0.138	0.052
Min	0.000	0.000	0.000
Average	0.001	0.006	0.001

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TWA/STEL

Index	Date/Time	VOC(ppm)(TWA)	VOC(ppm)(STEL)
001	2017/11/20 10:14:15	0.000	---
002	2017/11/20 10:15:15	0.000	---
003	2017/11/20 10:16:15	0.000	---
004	2017/11/20 10:17:15	0.000	---
005	2017/11/20 10:18:15	0.000	---
006	2017/11/20 10:19:15	0.000	---
007	2017/11/20 10:20:15	0.000	---
008	2017/11/20 10:21:15	0.000	---
009	2017/11/20 10:22:15	0.000	---
010	2017/11/20 10:23:15	0.000	---
011	2017/11/20 10:24:15	0.000	---
012	2017/11/20 10:25:15	0.000	---
013	2017/11/20 10:26:15	0.000	---
014	2017/11/20 10:27:15	0.000	---
015	2017/11/20 10:28:15	0.000	0.000
016	2017/11/20 10:29:15	0.000	0.000
017	2017/11/20 10:30:15	0.000	0.000
018	2017/11/20 10:31:15	0.000	0.000
019	2017/11/20 10:32:15	0.000	0.000
020	2017/11/20 10:33:15	0.000	0.000
021	2017/11/20 10:34:15	0.000	0.000
022	2017/11/20 10:35:15	0.000	0.000
023	2017/11/20 10:36:15	0.000	0.000
024	2017/11/20 10:37:15	0.000	0.000
025	2017/11/20 10:38:15	0.000	0.000
026	2017/11/20 10:39:15	0.000	0.000
027	2017/11/20 10:40:15	0.000	0.000
028	2017/11/20 10:41:15	0.000	0.000
029	2017/11/20 10:42:15	0.000	0.000
030	2017/11/20 10:43:15	0.000	0.000
031	2017/11/20 10:44:15	0.000	0.000
032	2017/11/20 10:45:15	0.000	0.000
033	2017/11/20 10:46:15	0.000	0.000
034	2017/11/20 10:47:15	0.000	0.000
035	2017/11/20 10:48:15	0.000	0.000
036	2017/11/20 10:49:15	0.000	0.000
037	2017/11/20 10:50:15	0.000	0.000
038	2017/11/20 10:51:15	0.000	0.000
039	2017/11/20 10:52:15	0.000	0.000
040	2017/11/20 10:53:15	0.000	0.000
041	2017/11/20 10:54:15	0.000	0.000
042	2017/11/20 10:55:15	0.000	0.000
043	2017/11/20 10:56:15	0.000	0.000
044	2017/11/20 10:57:15	0.000	0.000
045	2017/11/20 10:58:15	0.000	0.000
046	2017/11/20 10:59:15	0.000	0.000
047	2017/11/20 11:00:15	0.000	0.000
048	2017/11/20 11:01:15	0.000	0.000
049	2017/11/20 11:02:15	0.000	0.000
050	2017/11/20 11:03:15	0.000	0.000
051	2017/11/20 11:04:15	0.000	0.000
052	2017/11/20 11:05:15	0.000	0.000
053	2017/11/20 11:06:15	0.000	0.000
054	2017/11/20 11:07:15	0.000	0.000
055	2017/11/20 11:08:15	0.000	0.000
056	2017/11/20 11:09:15	0.000	0.000
057	2017/11/20 11:10:15	0.000	0.000
058	2017/11/20 11:11:15	0.000	0.000
059	2017/11/20 11:12:15	0.000	0.000
060	2017/11/20 11:13:15	0.000	0.000
061	2017/11/20 11:14:15	0.000	0.000

062	2017/11/20 11:15:15	0.000	0.000
063	2017/11/20 11:16:15	0.000	0.000
064	2017/11/20 11:17:15	0.000	0.000
065	2017/11/20 11:18:15	0.000	0.000
066	2017/11/20 11:19:15	0.000	0.000
067	2017/11/20 11:20:15	0.000	0.000
068	2017/11/20 11:21:15	0.000	0.000
069	2017/11/20 11:22:15	0.000	0.000
070	2017/11/20 11:23:15	0.000	0.000
071	2017/11/20 11:24:15	0.000	0.000
072	2017/11/20 11:25:15	0.000	0.000
073	2017/11/20 11:26:15	0.000	0.000
074	2017/11/20 11:27:15	0.000	0.000
075	2017/11/20 11:28:15	0.000	0.000
076	2017/11/20 11:29:15	0.000	0.000
077	2017/11/20 11:30:15	0.000	0.000
078	2017/11/20 11:31:15	0.000	0.000
079	2017/11/20 11:32:15	0.000	0.000
080	2017/11/20 11:33:15	0.000	0.000
081	2017/11/20 11:34:15	0.000	0.000
082	2017/11/20 11:35:15	0.000	0.000
083	2017/11/20 11:36:15	0.000	0.000
084	2017/11/20 11:37:15	0.000	0.000
085	2017/11/20 11:38:15	0.000	0.000
086	2017/11/20 11:39:15	0.000	0.000
087	2017/11/20 11:40:15	0.000	0.000
088	2017/11/20 11:41:15	0.000	0.000
089	2017/11/20 11:42:15	0.000	0.000
090	2017/11/20 11:43:15	0.000	0.000
091	2017/11/20 11:44:15	0.000	0.000
092	2017/11/20 11:45:15	0.000	0.000
093	2017/11/20 11:46:15	0.000	0.000
094	2017/11/20 11:47:15	0.000	0.000
095	2017/11/20 11:48:15	0.000	0.000
096	2017/11/20 11:49:15	0.000	0.000
097	2017/11/20 11:50:15	0.000	0.000
098	2017/11/20 11:51:15	0.000	0.000
099	2017/11/20 11:52:15	0.000	0.000
100	2017/11/20 11:53:15	0.000	0.000
101	2017/11/20 11:54:15	0.000	0.000
102	2017/11/20 11:55:15	0.000	0.000
103	2017/11/20 11:56:15	0.000	0.000
104	2017/11/20 11:57:15	0.000	0.000
105	2017/11/20 11:58:15	0.000	0.000
106	2017/11/20 11:59:15	0.000	0.000
107	2017/11/20 12:00:15	0.000	0.000
108	2017/11/20 12:01:15	0.000	0.000
109	2017/11/20 12:02:15	0.000	0.000
110	2017/11/20 12:03:15	0.000	0.000
111	2017/11/20 12:04:15	0.000	0.000
112	2017/11/20 12:05:15	0.000	0.000
113	2017/11/20 12:06:15	0.000	0.000
114	2017/11/20 12:07:15	0.000	0.000
115	2017/11/20 12:08:15	0.000	0.000
116	2017/11/20 12:09:15	0.000	0.000
117	2017/11/20 12:10:15	0.000	0.000
118	2017/11/20 12:11:15	0.000	0.000
119	2017/11/20 12:12:15	0.000	0.000
120	2017/11/20 12:13:15	0.000	0.000
121	2017/11/20 12:14:15	0.000	0.000
122	2017/11/20 12:15:15	0.000	0.000
123	2017/11/20 12:16:15	0.000	0.000
124	2017/11/20 12:17:15	0.000	0.000

125	2017/11/20 12:18:15	0.000	0.000
126	2017/11/20 12:19:15	0.000	0.001
127	2017/11/20 12:20:15	0.000	0.001
128	2017/11/20 12:21:15	0.000	0.001
129	2017/11/20 12:22:15	0.000	0.001
130	2017/11/20 12:23:15	0.000	0.001
131	2017/11/20 12:24:15	0.000	0.001
132	2017/11/20 12:25:15	0.000	0.001
133	2017/11/20 12:26:15	0.000	0.002
134	2017/11/20 12:27:15	0.000	0.002
135	2017/11/20 12:28:15	0.000	0.003
136	2017/11/20 12:29:15	0.000	0.006
137	2017/11/20 12:30:15	0.000	0.009
138	2017/11/20 12:31:15	0.000	0.009
139	2017/11/20 12:32:15	0.000	0.009
140	2017/11/20 12:33:15	0.000	0.009
141	2017/11/20 12:34:15	0.000	0.010
142	2017/11/20 12:35:15	0.000	0.013
143	2017/11/20 12:36:15	0.000	0.013
144	2017/11/20 12:37:15	0.000	0.013
145	2017/11/20 12:38:15	0.000	0.013
146	2017/11/20 12:39:15	0.000	0.014
147	2017/11/20 12:40:15	0.000	0.014
148	2017/11/20 12:41:15	0.000	0.012
149	2017/11/20 12:42:15	0.000	0.012
150	2017/11/20 12:43:15	0.000	0.012
151	2017/11/20 12:44:15	0.000	0.009
152	2017/11/20 12:45:15	0.001	0.007
153	2017/11/20 12:46:15	0.001	0.007
154	2017/11/20 12:47:15	0.001	0.007
155	2017/11/20 12:48:15	0.001	0.007
156	2017/11/20 12:49:15	0.001	0.006
157	2017/11/20 12:50:15	0.001	0.003
158	2017/11/20 12:51:15	0.001	0.002
159	2017/11/20 12:52:15	0.001	0.002
160	2017/11/20 12:53:15	0.001	0.002
161	2017/11/20 12:54:15	0.001	0.001
162	2017/11/20 12:55:15	0.001	0.001
163	2017/11/20 12:56:15	0.001	0.001
164	2017/11/20 12:57:15	0.001	0.001
165	2017/11/20 12:58:15	0.001	0.001
166	2017/11/20 12:59:15	0.001	0.001
167	2017/11/20 13:00:15	0.001	0.000
168	2017/11/20 13:01:15	0.001	0.000
169	2017/11/20 13:02:15	0.001	0.000
170	2017/11/20 13:03:15	0.001	0.000
171	2017/11/20 13:04:15	0.001	0.000
172	2017/11/20 13:05:15	0.001	0.000
173	2017/11/20 13:06:15	0.001	0.000
174	2017/11/20 13:07:15	0.001	0.000
175	2017/11/20 13:08:15	0.001	0.000
176	2017/11/20 13:09:15	0.001	0.000
177	2017/11/20 13:10:15	0.001	0.000
178	2017/11/20 13:11:15	0.001	0.000
179	2017/11/20 13:12:15	0.001	0.000
180	2017/11/20 13:13:15	0.001	0.000
181	2017/11/20 13:14:15	0.001	0.000
182	2017/11/20 13:15:15	0.001	0.000
183	2017/11/20 13:16:15	0.001	0.000
184	2017/11/20 13:17:15	0.001	0.000
185	2017/11/20 13:18:15	0.001	0.000
186	2017/11/20 13:19:15	0.001	0.000
187	2017/11/20 13:20:15	0.001	0.000

188	2017/11/20 13:21:15	0.001	0.000
189	2017/11/20 13:22:15	0.001	0.000
190	2017/11/20 13:23:15	0.001	0.000
191	2017/11/20 13:24:15	0.001	0.000
192	2017/11/20 13:25:15	0.001	0.000
193	2017/11/20 13:26:15	0.001	0.000
194	2017/11/20 13:27:15	0.001	0.000
195	2017/11/20 13:28:15	0.001	0.000
196	2017/11/20 13:29:15	0.001	0.000
197	2017/11/20 13:30:15	0.001	0.000
198	2017/11/20 13:31:15	0.001	0.000
199	2017/11/20 13:32:15	0.001	0.000
200	2017/11/20 13:33:15	0.001	0.000
201	2017/11/20 13:34:15	0.001	0.000
202	2017/11/20 13:35:15	0.001	0.000
203	2017/11/20 13:36:15	0.001	0.000
204	2017/11/20 13:37:15	0.001	0.000
205	2017/11/20 13:38:15	0.001	0.000
206	2017/11/20 13:39:15	0.001	0.000
207	2017/11/20 13:40:15	0.001	0.000
208	2017/11/20 13:41:15	0.001	0.000
209	2017/11/20 13:42:15	0.001	0.000
210	2017/11/20 13:43:15	0.001	0.000
211	2017/11/20 13:44:15	0.001	0.000
212	2017/11/20 13:45:15	0.001	0.000
213	2017/11/20 13:46:15	0.001	0.000
214	2017/11/20 13:47:15	0.001	0.000
215	2017/11/20 13:48:15	0.001	0.000
216	2017/11/20 13:49:15	0.001	0.000
217	2017/11/20 13:50:15	0.001	0.000
218	2017/11/20 13:51:15	0.001	0.000
219	2017/11/20 13:52:15	0.001	0.000
220	2017/11/20 13:53:15	0.001	0.000
221	2017/11/20 13:54:15	0.001	0.000
222	2017/11/20 13:55:15	0.001	0.000
223	2017/11/20 13:56:15	0.001	0.000
224	2017/11/20 13:57:15	0.001	0.000
225	2017/11/20 13:58:15	0.001	0.000
226	2017/11/20 13:59:15	0.001	0.000
227	2017/11/20 14:00:15	0.001	0.000
228	2017/11/20 14:01:15	0.001	0.000
229	2017/11/20 14:02:15	0.001	0.000
230	2017/11/20 14:03:15	0.001	0.000
231	2017/11/20 14:04:15	0.001	0.000
232	2017/11/20 14:05:15	0.001	0.000
233	2017/11/20 14:06:15	0.001	0.000
234	2017/11/20 14:07:15	0.001	0.000
235	2017/11/20 14:08:15	0.001	0.000
236	2017/11/20 14:09:15	0.001	0.000
237	2017/11/20 14:10:15	0.001	0.000
238	2017/11/20 14:11:15	0.001	0.000
239	2017/11/20 14:12:15	0.001	0.000
240	2017/11/20 14:13:15	0.001	0.000
241	2017/11/20 14:14:15	0.001	0.000
242	2017/11/20 14:15:15	0.001	0.000
243	2017/11/20 14:16:15	0.001	0.000
244	2017/11/20 14:17:15	0.001	0.000
245	2017/11/20 14:18:15	0.001	0.002
246	2017/11/20 14:19:15	0.001	0.002
247	2017/11/20 14:20:15	0.001	0.002
248	2017/11/20 14:21:15	0.001	0.002
249	2017/11/20 14:22:15	0.001	0.002
250	2017/11/20 14:23:15	0.001	0.002

251	2017/11/20 14:24:15	0.001	0.002
252	2017/11/20 14:25:15	0.001	0.002
253	2017/11/20 14:26:15	0.001	0.002
254	2017/11/20 14:27:15	0.001	0.002
255	2017/11/20 14:28:15	0.001	0.002
256	2017/11/20 14:29:15	0.001	0.002
257	2017/11/20 14:30:15	0.001	0.002
258	2017/11/20 14:31:15	0.001	0.002
259	2017/11/20 14:32:15	0.001	0.002
260	2017/11/20 14:33:15	0.001	0.000
261	2017/11/20 14:34:15	0.001	0.000
262	2017/11/20 14:35:15	0.001	0.000
263	2017/11/20 14:36:15	0.001	0.000
264	2017/11/20 14:37:15	0.001	0.000
265	2017/11/20 14:38:15	0.001	0.000
266	2017/11/20 14:39:15	0.001	0.000
267	2017/11/20 14:40:15	0.001	0.000
268	2017/11/20 14:41:15	0.001	0.000
269	2017/11/20 14:42:15	0.001	0.000

Appendix G - WASTE DISPOSAL DOCUMENTATION

RTLB 23

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

5. Generator's Name and Mailing Address: Germanow - Simon Corp, 408 ST. Paul ST, Rochester NY 14605

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: Riccelli — U.S. EPA ID Number

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

8. Designated Facility Name and Site Address: High Acres landFill, 425 Perinton Parkway, Fairport NY 14450 — U.S. EPA ID Number

Facility's Phone:

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1. Non-Hazardous Soil	1	DT	22	T	Est.
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

Profile # 118451NY

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: John Doe — Signature — Month 11 Day 20 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rob Sharp Driver — Signature — Month 11 Day 20 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: J. Mutchal — Signature: J. Mutchal — Month 11 Day 20 Year 17

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

WASTE MANAGEMENT

Rt 23

High Acres LF
425 Perinton Pkwy
Fairport, NY, 14450
Ph: (585) 223-6132

Original
Ticket# 1198054

Customer Name TRECENVIRONMENTAL-11845INY TR
Ticket Date 11/20/2017
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 11845INY (NON HAZARDOUS SOIL)
Generator 190-GERMANOWSIMONCOMPANIES GERMANOW-SIMON COMPANIES

Carrier RIC RICELLI TRUCKING
Vehicle# RT23
Volume
Container
Driver
Check#
Billing # 0007297
Gen EPA ID NOT REQUIRED
Grid CELL 11

	Time	Scale	Operator	Inbound		
In	11/20/2017 10:13	A_Scale_1	MM #260133		Gross	66760 lb
Out	11/20/2017 10:50	B_Scale_2	PT #603957		Tare	37120 lb
					Net	29640 lb
					Tons	14.82

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Pet-RGC-	100	14.82	Tons				MON

RT23

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

5. Generator's Name and Mailing Address: Germanow - Simon Corp, 408 St Paul St, Rochester NY 14603

Generator's Site Address (if different than mailing address):

Generator's Phone:

6. Transporter 1 Company Name: Riccelli — U.S. EPA ID Number:

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

8. Designated Facility Name and Site Address: High Acre landfill, 425 Perinton parkway, Fairport NY 14450 — U.S. EPA ID Number:

Facility's Phone:

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1. NON-Hazardous Soil	1	DT	22	T	Est.
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information: Profile # 118451NY

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: John Dolce — Signature: [signature] — Month 11 Day 20 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert SHARP Driver — Signature: [signature] — Month 11 Day 20 Year 17

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: J-Mitchell — Signature: J-Mitchell — Month 11 Day 20 Year 17

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

WASTE MANAGEMENT

RT23

High Acres LF
425 Perinton Pkwy
Fairport, NY, 14450
Ph: (585) 223-6132

Original
Ticket# 1188136

Customer Name	TREC ENVIRONMENTAL-11845INY TR	Carrier	RIC RICELLI TRUCKING
Ticket Date	11/20/2017	Vehicle#	RT23
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0007297
State Waste Code		Gen EPA ID	NOT REQUIRED
Manifest	NA	Grid	CELL 11
Destination			
PO			
Profile	11845INY (NON HAZARDOUS SOIL)		
Generator	190-GERMANOWSIMONCOMPANIES GERMANOW-SIMON COMPANIES		

Volume

	Time	Scale	Operator	Inbound		
In	11/20/2017 12:13	A_Scale_1	JF #600676		Gross	75800 lb
Out	11/20/2017 12:39	A_Scale_2	PT #603957		Tare	37780 lb
					Net	38020 lb
					Tons	19.01

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Pet-RGC-	100	19.01	Tons				MON

RT23

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone 585-594-5545

4. Waste Tracking Number

5. Generator's Name and Mailing Address Germanow – 408 ST Paul ST Roch NY
~~Cumberland Farms Inc.~~
~~100 Crossing Blvd.~~
~~Framingham, MA 01702~~

Generator's Site Address (if different than mailing address)
~~1665 St. Paul St~~
~~Rochester, NY 14612~~

Generator's Ph[redacted]

6. Transporter 1 Company Name [redacted] Riccelli

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
Waste Management High Acres Landfill
425 Perinton Parkway
Fairport, NY 14450

U.S. EPA ID Number

Facility's Phone: 585-223-6132

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1Non Haz Soil	1	DT	22	T	Est
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

Profile # [redacted] 118417NY

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: STV PM Agent for name

Signature

Month 11 Day 20 Year 19

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert SHARP Driver

Signature

Month 11 Day 20 Year 17

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: M Maloney

Signature

Month 11 Day 20 Year 17

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

RT23

High Acres LF
425 Perinton Pkwy
Fairport, NY, 14450
Ph: (585) 223-6132

Original
Ticket# 1188188

Customer Name TRECENVIRONMENTAL-118451NY TR
Ticket Date 11/20/2017
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest NA
Destination
PO
Profile 118451NY (NON HAZARDOUS SOIL)
Generator 190-GERMANOSIMONCOMPANIES GERMANO-SIMON COMPANIES

Carrier RIC RICELLI TRUCKING
Vehicle# RT23
Volume
Container
Driver
Check#
Billing # 0007297
Gen EPA ID NOT REQUIRED
Grid CELL 11

	Time	Scale	Operator	Inbound		
					Gross	56540 lb
In	11/20/2017 14:08	A_Scale_1	MM #260133		Tare	37560 lb
Out	11/20/2017 15:20	B_Scale_2	PT #603957		Net	18980 lb
					Tons	9.49

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Cont Soil Pet-RGC-	100	9.49	Tons				MON